NEW Clarion

SAM 1066 Newsletter

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The Society of Antique Modellers Chapter 1066

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Contents

Editorial

First job is to correct an error in Peter Tomlinson's obit in the September issue. **Terry** King, one of Peter's flying buddies was incorrectly identified as Alan King, editors memory fade.

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How time flies: It does not seem that long ago that our membership secretary Dr. Martin Pike's son Rory was being carried around Middle Wallop like an Indian papoose in a back pack and now Rory is writing articles for the 'New Clarion'. Makes one feel very old.

Our Secretary is in the process of moving to North Wales. He may be losing face to face contact with committee members but on the plus side he should be able to continue flying at our membership secretary's Indoor meetings at the sports hall in the Brailsford Centre at Bangor.

The outdoor flying season is drawing to a close and I regret that I have been unable to attend and report on meetings here in the Midlands due to a combination of domestic problems and advancing years. I hope some of you competitors will find time to write some short reports on future events supported by a few photographs. They could stop me nail biting as I wait for content.

OK enough griping, what have we this month in a somewhat shorter issue than usual:

- Jim Paton starts us off with a delayed report on his doings at the Southern Gala. He had prop fold problems which spoilt is chances but he made 2nd place.
- Pylonius had his usual pop at some features of our sport, this time TV, Wind tunnels and Licensing authorities.
- I have dug up part 4 of my old Clarion articles from 2001 on the Rugby MESAS, this time recollections of some of the members.
- Engine analysis this issue is the original Eifflaender PAW Special. This engine was the forerunner of a range of superb engines from .5 up to 10cc. There are none better.
- There is a detailed report on the results of the Indoor Nationals. There is a small dedicated band of F1D fliers with support from other fliers in the various classes that still makes the championships viable.
- News review from 1948 touches on World records, club exhibitions, modelling in Germany and cost of providing copies of magazine pictures for members.
- Gordon Warburton has collected some stories of interesting model recoveries.
- Heard at the Hangar Doors from 1957 is somewhat photographically inclined, together with comment on letters received in response to Capt Milani's views on Concours de'Elegance which were not well received.
- Nick Peppiatt continues with more info on CO2 motors.
- The Northrop YB/XB35 is the aircraft of the month.
- Rory Pike reports on another trip to Old warden.
- We have lost another of our number with the death of John Minshull.
- The issue winds up with Roy Tillers old magazine reports, a few bits and bobs culminating in our Secretary's report from far up north in Wales, including the usual three model plans from our archives.

Editor

Southern Gala Extra - Jim Paton

Reading Gavin & Alan's coupe reports of the Southern Gala in the last issue has inspired me to give you a belated account of my experience on my day on Salisbury Plain.

I arrived early and at a leisurely pace got ready for combined rubber. I flew one of my 50g open rubber models. Part of it was inherited from the late Ted Tyson. Namely the nose block and prop unit.

Keeping an eye on streamers I launched in a lull. With 14 strands wound to about 700 turns I got a long motor run and being in good air dt'd at a good height for an easy max.

Meanwhile Chris Redrup, the only other competitor in this class, also easily maxed, having the benefit of managing a huge number of turns on his Tan 11 rubber.

My second flight was cause to complain to Ted. Of no avail. Again with the same motor installed I got a few more turns on and chose good air to get to a dizzy height.
Immediately after prop fold it turned into an ever tighter turn to land at 2 minutes 19 seconds.
In retrospect, I might just have maxed if I had dt'd it.
On inspection the prop had fouled on the safety pin style spring on the prop shaft. Something I had previously thought could happen, but never had.

Chris then proceeded to max his second flight.

Taking a similar risk on the third flight I found good air and with a long motor run was rewarded with an easy max.

On the plus side I wasn't going to have to hang around for an end of day fly-off.

Chris on the other hand started flying electric, thereby postponing his third flight.

By this time I was rather tired and retired home.

Chris informed me that evening that he had maxed out.

I reported to the wife that I came second at the Southern Gala, an event that used to be second only to the Nationals.
Unlike other competitors I didn't find the day too breezy.

Moreover, everyone I speak to complains of a poor summer. Flying with Andrew Longhurst and Richard Fryer at port meadow in Oxford once a week I have had a good summer's flying.
So I think it's been a good summer.
Hot in June and variable since but very good for the garden flowers.

Jim picking up a bottle at an earlier Meeting on the plain

On the wet days I have been upgrading older models.

Jim Paton

Extracted from Model Aircraft October 1954

Topical Twists

View-point

Now and again the great public unbends from its lofty disdain to show some condescending sign of favour towards us wretched model fliers. At once there is great jubilation and exceeding joy in our midst. Even the most wildly distorted Press reference, rendered in the familiar "toy aeroplane" brand of journalism, is enough to send us all into a mad frenzy of self-congratulation, whilst the ecstasy that follows the tersest broadcast plug knows no bounds. Indeed, it has been known for modellers, who for long years have kept the dark secret of their abnormality from the neighbours, to walk abroad with their models shamelessly exposed to the derision of all and sundry.

What abandonment of joy is likely to follow the fabulous gesture of a television feature is too frightening to contemplate. Already there is the most optimistic speculation: Has "What's My Line" a possible rival in "Mind My Lines"? Will the testiness of the keyed up R/C type eclipse even the great Gilbert Harding in the sphere of professional grumpiness?; and will the plunging neckline give way to the plunging thrustline?

Possibly, at first, our hectic style of model entertainment will prove much too wildly exciting for a public accustomed only to the more gentle preoccupations of parlour games, Test cricket and ballet for beginners. The shock of seeing Aunt Fanny being chased round the front parlour by a snarling combat job might well give Granny an acute attack of the vapours.

The real benefit of televiewing, of course, will be enjoyed by the average club member. On those rare occasions when he can summon up sufficient energy to watch some model flying, he will no longer suffer the bind of that tiresome journey to the flying field. This, in turn, will bring a measure of relief to those harassed few survivors of the pre-television era who are much too busy building models ever to watch television, and always too broke ever to afford one.

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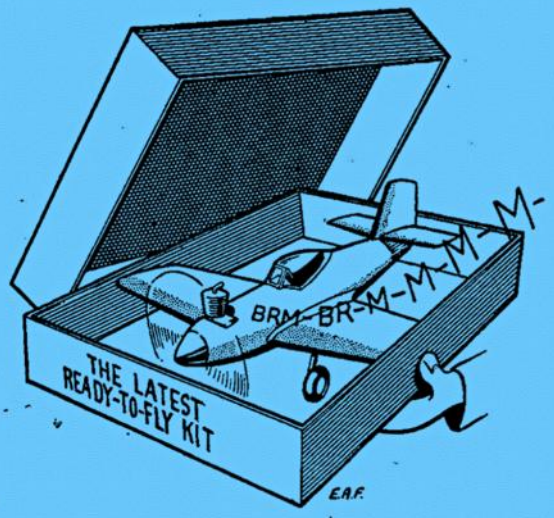
Draught-proof

When you consider the endless gales of wind we experience in these turbulent isles, it seems incredible that anyone would seek to reproduce the model mangling stuff artificially. But every so often some breezy types rig up a draughty tube in order to shake us flying field types out of the complacent idea that there isn't an iota to choose between one airfoil section and another. The result is usually a mass of frilly formulae and galloping graphs, which, when analysed, reveal a slight bias in favour of the Juboslovovitch xy (5-0) over the archaic R.A.F. 32; supposing, of course, that our models were full size aircraft.



Even so, you can't help feeling a pang of sympathy for the well-meaning backroom boys. While they were engrossed in ruffling the backs of woolly coated airfoils with horizontal downdraughts, and snagging their long hair in the slide rule cursors, the only significant advance in model aerodynamics was achieved by some obscure foreign gentleman, who earned undying fame by accidently building in the most glorious wing warp in modelling history.

In my own modest way I have been working on the same line of research for years, but without quite the same degree of success. Notable botch-ups, such as square nose-radius airfoils, reflexed tailplanes, multi-warp wings, cranked fuselages and S fins, have all yielded much the same rate of disintegration when tested in that open air wind tunnel, which we call the British Isles.

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Too much licence

For several years past hordes of unlicensed, click-clacking radio modellers have violated the ether in an abandoned orgy of untriplicated freedom, and masses of off-tune radio pulses have been discharged into outer space with not so much as a carbon copy to record their bleeping journeys.

This singular excess of liberty in an age of rigid, bureaucratic control must be regarded in the light of a minor miracle, and can only be attributed to apathy of the most criminal nature in one of the citadels of petty officialdom. But now, appalled by the enormity of this incredible oversight, the authorities are frantically assembling the regiments of staff, compiling and printing the skyscraper piles of ambiguous, triplicated forms, and preparing the cavernous vaults for the reception of the essential records.

Fortunately, the average modeller can regard all this belated activity with detached amusement, for the novelty of radio control has virtually worn off. The crash-happy amateur has long since departed the wreck-bestrewn radio field, and there now remains but a handful of electronic experts, busily scheming out multi-channel systems of such complexity to make a model do everything but fly.

Still, it does seem rather hard on these few survivors of the Great Radio Era, to bear the full brunt of this official reaction. After all, they don't fly their lugubrious, radio missiles just for the fun of the thing: they merely act in the capacity of public demonstrators for their respective radio firms. So, perhaps, in future we can feel less grudging about all those contest prizes which a grateful model society concedes to them as a token reward for their valued exhibitions.

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Newest craze is to fit models with compasses in order to steer them into wind. Now, this seems a quite splendid idea, since my models always seem to lack any sense of compass direction. Immediately after being launched into a strong east wind you will invariably hear the comment: "Well, that's another one gone west."

Pylonius

Clarion Past - John Andrews

Extract from old hardback Clarion July 2001

John Andrews and THE RUGBY MODEL ENGINEERING SOCIETY AERONAUTICAL SECTION Part 4

Here we are again, if your still reading , thanks for sticking with me.

The Rugby club finally got on the map, as I said in the last issue, when John Bickerstaffe made the power team for the 1958 World Championships.

The 1958 Team Arthur Collinson, Ken Glynn, Vic Jays and John Bickerstaffe.

I believe that this was the first time that the team was selected by the combined results of two trials. If memory serves me correctly prior to this there had been a system of area competitions and the leaders in these took part in what was known as the final 100. This competition was between the leading 100 fliers from the area eliminators and the winners of this single event were the team.

Just to put my own performances into perspective, I never made it to any of these finals in Power or Wakefield due to a combination of lack of ability, dodgy timekeepers, broken engines and cricket.

I dabbled with power trying to duplicate the Bickerstaffe/Accrington designs falling fowl of engine cut-outs that didn't. This was before the valve tube strangler was discovered and I was trying to make sliding piston type cut-outs but never achieved good enough fits. JB made some interesting devices, a small perspex tank moulded around a spoon with an integral cut-out comprising of a tee section of brass tube, one end in the tank, one end to the engine and the other had a fat dart point slammed into it by the spring lever of the Elmic Airdraulic Timer. This stopped the engine OK but the snag was re-setting as more than a little brute force was required to extract the dart from the tube seal.

My most famous cut-out failure was one Sunday afternoon, I was flying a power job I had trimmed more by luck than judgement. In fact on a previous trimming session the model and engine had survived parting company halfway up a climb with the Elfin hitting the runway and the model doing an excellent falling leaf demonstration.

There I go again, I even digress from my digressions. Cut-out failure, the model climbed, after one minute it disappeared into cloud, one and a half minutes the engine noise faded away, gone. I didn't chase but carried on flying other models. Packing up at tea time I mounted my bicycle with Fluorescent Tube Model Box over the shoulder and headed home. Now Lawford Aerodrome was about 5 miles away from Rugby and as I entered the outskirts of the town a man shouted across the road "Are you the lad that lives with Mrs.Montgomery", (I was brought up by an aunt). "Yes" I replied. He then said "Your aeroplane landed on my allotment this afternoon, its in the front room at No.46". It turned out that he was our milkman, talk about luck.

Back to Bickerstaffe and the 1958 World Champs, I was not there but I have recently spoken to John (he'll admit his memory is worse than mine) and he would rather forget about it but this is as he recalls it. His first flight max'd OK then on his second flight he hit the downer of all downers (I expect the importance of the occasion made it seem worse) and he finished up with about 1.1/2 minutes. Being last man he flew late in the third round and had another max. but the model was lost in corn and the attempted retrieve left little time for the next round. JB fired up his reserve model and piled in on launch, an emergency repair was made with mainly selotape tape and the like but to no avail, the round ended before he could restart the motor. He had had no time to check trim so it would probably have been a disaster any way. He has no further recollection of the event, He probably retired.

Lets try someone else, I think I mentioned Roger Dowdeswell last month, he was the son of an Agricultural Engineer and eventually took over his fathers business manufacturing reversible ploughs for tractors and crawlers.(If any of you are into ploughs you should remember the hideous lime green paint that characterised the Dowdeswell ploughs). He finished up with his own airstrip and aircraft and we used the strip for a while flying radio control. Roger had the rough hands and thick fingers of a working engineer but the models he built were exquisite. I think I mentioned he followed Ted Evans designs and the adjustable thrustline plates in hollow noseblocks with the Evans feathering props were a delight to handle. Roger believed in rubber and plenty of it, his building skills meant he always had more rubber weight than airframe but still kept his Wakefields down to the eight ounce limit. Using the old black rubber of those days the take-off power burst of those sixteen strand motors was awesome. The one thing I recall of Roger was his ability, on relatively calm trimming evenings, to chase the model across the drome and get inside the circle of the descending model and catch it by the wing tip to save the vulnerable feathering prop from harm.

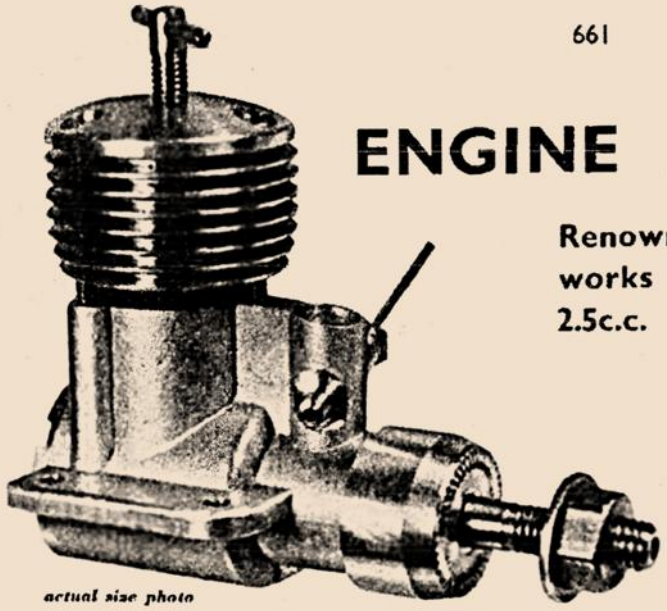
Bill Eales was the other Wakefield flier I mentioned, his models were his own designs, boxy but functional and well trimmed good performers. Bill took me under his wing when I first joined the club and having seen me with a rubber model I had designed flying with a single bladed freewheel prop which was half a broken Warring Wakefield prop gifted to me by the club secretary, (you should have seen the prop I originally used, one of those twisted saw-cut blanks with precious little shaping and even less sanding) Bill decided to give me a prop carving lesson. I went to his house and we marked out his block and rough carved the first half, then sure enough he carved the second side wrong hand. "Well" commented Bill "I believe in fate, I'll use a single blader". I think that the model was the one Bill is holding back row left in the photo with the first article, one of his more elegant designs.

Bill had one other innovation and I still don't understand how he made it work. He built his Wakefield and A2 wings in two pieces with ply inner end plates and he joined them together with nothing other than selotape. The wings were secured on the models with the normal criss-cross rubber bands. There appeared to be no keying at all, so how he kept his trim still defeats me but at least when he disassembled the wings he was able to remove the tape from the top suface and fold them in half for packing..

I am beginning to like this authoring, nothing's going to stop me now, Part 5 next time.

John Andrews

AERO MODELLER



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ENGINE ANALYSIS number 42

Renowned Macclesfield engine repair works produce a high-performance 2.5c.c. Diesel—the EIFFLAENDER

P.A.W. SPECIAL

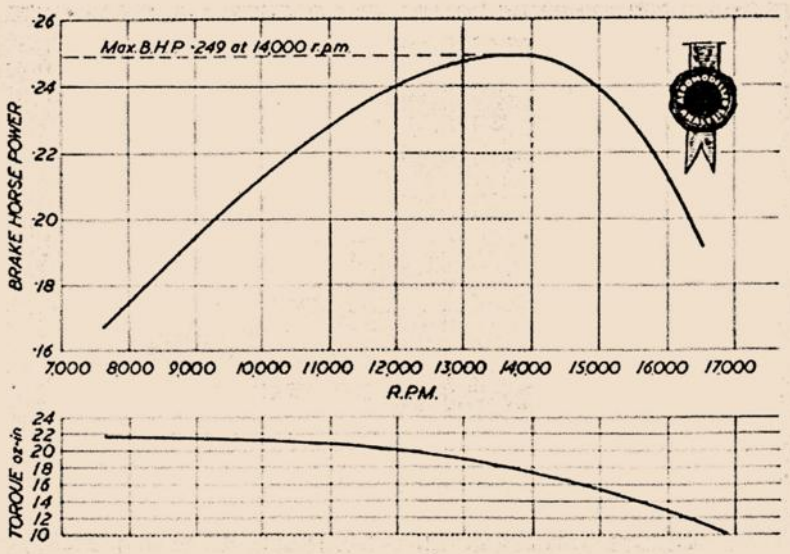
reviewed by R. H. Warring

WHEN A MAN WHO has dealt with engine repairs, re-boring and servicing for a decade—and remained a power enthusiast all through—turns to the production of an engine, you can expect to find a lot of "know how" built into it. This, in fact, characterised the PAW "Special" which is, in effect, a custom built unit receiving rather more man-hours and individual attention than a normal production engine produced in greater numbers. For this, naturally enough, you have to pay, the PAW "Special" selling at some £2 more than its mass production contemporary. In return we can confidently say you get a very good engine right in the top class for 2·5 c.c. diesels and one which, because of its rugged construction, should outlast many a model.

About the only unusual feature of the design is the employment of a single ball race for the rear main bearing, coupled with a cast iron bush in the crankcase for the front bearing. This is a very logical arrangement, using a reasonable length of shaft (which the PAW Special has), but needs careful attention to accuracy of fit if trouble at the front end is to be avoided. There is often a tendency, for example, for the shaft to "rock" if the main ball race is a little free and consequently the front end to bind. Such a possible failing appears quite absent on the "Special" and, in fact, Eifflaender goes to considerable pains to ream and lap the cast iron bush and lap the face for the ball bearing to achieve optimum running fits.

The crankcase unit is a substantial gravity die casting made from a typical simplified pattern (*i.e.*, none of the undercuts and embellishments commonly employed on pressure die-cast shapes). The cylinder (liner) is of steel, with $\frac{1}{16}$ in. walls fitting snugly into the crankcase to locate against a narrow flange, this lower section of the crankcase being turned out to fit. It is encased by the turned dural jacket and the complete cylinder unit held down by three 6 B.A. screws engaging in drilled and tapped holes in the crankcase unit.

Since the porting is symmetrical, the cylinder can be assembled in any position although the logical (and obvious design) position is with the pillars between the exhaust ports opposite the screws. This gives three alternative positions for re-assembly, should the engine be dismantled. On the basis that once an engine is run-in the cylinder position should not be disturbed

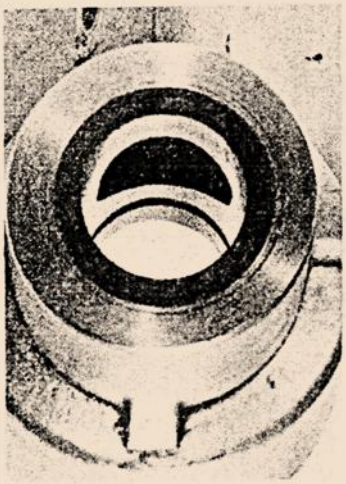


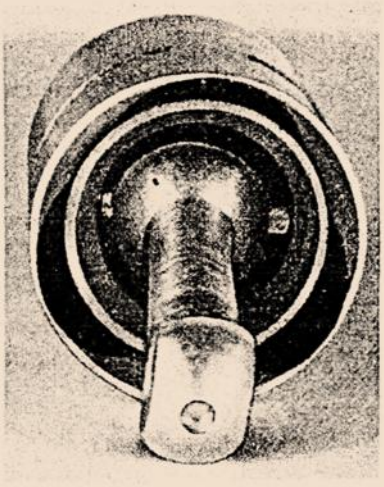
SPECIFICATION

Displacement: 2·456 c.c. (·1498 cu. in.)
Bore: ·597 in.
Stroke: ·535 in.
Bore stroke ratio: 1 : 1·09
Bare weight: 4¾ ounces
Max. B.H.P.: ·249 at 14,000 r.p.m.
Max. torque: 22 oz-in. at 7,000 r.p.m.
Power output: ·101 B.H.P. per c.c.
Power rating: ·051 B.H.P. per ounce

Mterial Specification:
Crankcase: gravity die-casting in light alloy
Cylinder (liner): Silver steel, ground and lapped
Piston: Brico cast iron, ground and lapped
Contra piston: Brico cast iron, ground and lapped
Crankshaft: high tensile steel
Connecting rod: Hiduminium RR.56
Bearings: rear, Ransom and Marles ¼ in. ball race front, press-fitted Brico cast iron sleeve
Cylinder jacket: turned dural
Back cover: turned dural
Propeller driver: turned dural

Manufacturers:
Progress Aero Works,
Chester Road, Macclesfield
Retail price £6 10s. (including p/t.)





No puzzle pictures—these views show the main design features of the "Special", the large asymetric induction port in the thick main bearing and the vast transfer port area at the cylinder base, with lightened piston skirt, oil hole in big end, and substantial "little" end

(circumferentially) it is a wise precaution to mark the cylinder before taking it out, so that it can be put back the same way round as before.

Whilst the exhaust porting of the "Special" is quite conventional—three milled slots in the cylinder wall, giving some 200 degrees effective opening—the three transfer passages are unusual in that they are wide and almost circular in form, but of relatively shallow depth. These are located staggered to the exhaust slots with their peaks (opening points) extending just above the bottom level of the exhaust. In effective width they are appreciably wider than the solid area between the exhaust ports (circumferentially). Presumably cut by a form of end mill, forming the transfer passages would appear quite a tricky operation.

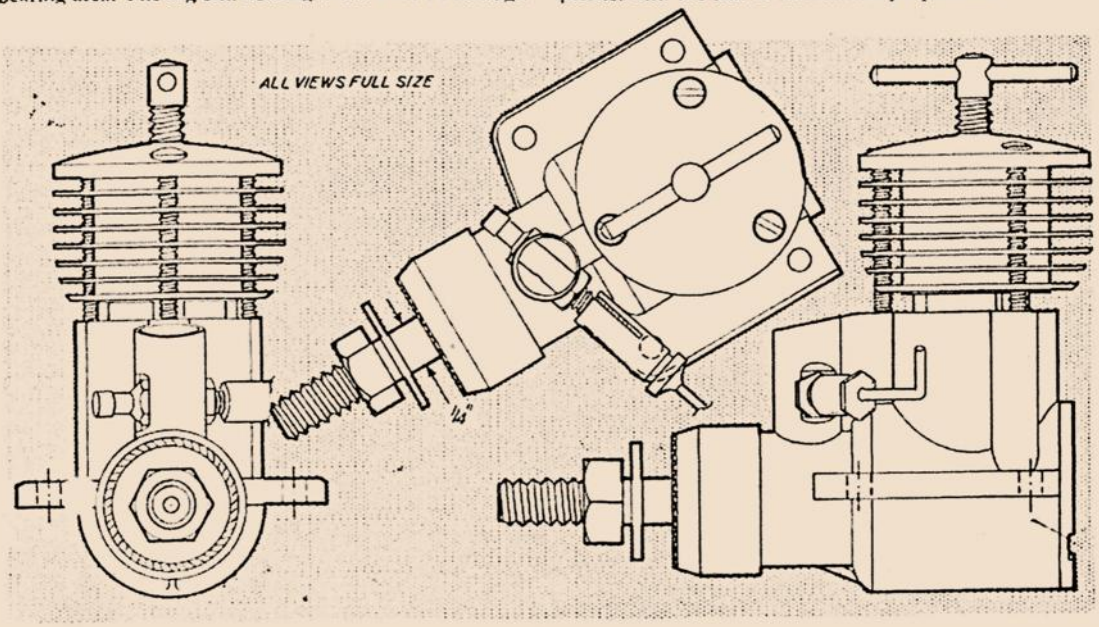
Both the piston and contra piston are of Brico cast iron lapped to fit the silver steel cylinder (liner). Fit of the contra-piston was just right on the test engine easy to move and "come back" for adjustment, yet positively locking at all speeds with the engine hot or cold. Piston fit in the cylinder was also excellent.

The piston is relatively shallow in depth, quite light and has a conical top. The silver steel gudgeon pin is press fitted, the turned Hduminium RR.56 connecting rod having a ball shaped upper end and generous bearing area. The big end bearing is fed with oil through a hole drilled in the con. rod, both big and little end fits being excellent and retaining this fit after several hours running time. Gudgeon pin diameter is 5/32 in. and crank pin diameter 13/64 in.

The crankshaft is of high tensile steel, $\frac{3}{8}$ in. diameter stepped down to a $\frac{1}{4}$ B.S.F. threaded length for the propeller nut. The web is 5/32 in. thick, angled towards the top to give a counter-balance effect, and the web diameter relatively small (13/16 in.). The crankpin is turned integral and partially drilled through. The crankshaft has a 7/64 in. hole drilled down its length slightly past the intake port, which is elongated in form 7/16 in. long and 3/16 in. wide. The corresponding hole in the bearing sleeve is appreciably wider and slightly offset against the direction of rotation to provide longer and better induction timing, taking full advantage of the thick bearing and long shaft port. The cast iron bearing sleeve itself is of substantial thickness (1/16 in.) as is the surrounding wall of the casting (3/32 in.).

The intake is a simple "straight up" tube, narrowing slightly internally to a throat. The top of the intake is barely angled off, the whole backed up by a really solid section which takes one of the cylinder hold-down screws. The spraybar unit is of brass, angled back to the left (which is a preferred position for side-mounted motors on control-liners).

The propeller driver is turned from dural, bushed with a split collet to grip on the plain part of the $\frac{1}{4}$ in. diameter shaft length. Unlike the usual washer form for the driver, it is cup shaped so that it extends over, and covers, the front of the crankcase bearing—looking rather like a ball race housing but, of course, rotating with the shaft. The threaded length of shaft protruding is of sensible length to take a wide range of propeller pitches and the nut of substantial proportions.



Indoor Nationals - Tony Hebb

Final results from last weekend's Indoor Duration Nationals at Daventry.
Outside was beautiful weather and inside conditions were just about as good as they can get.
As is normal we did not have a massive attendance but those we had were enthusiastic and we managed to just about break even which has to be good.
I shall try and re book for next year around the same time.

No-Cal										
Place	Name	BMFA Number	Model	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Chant Tim	111998	Cassutt	02:26	00:04	02:13	00:00	00:00	00:00	04:39
2	Goodwin David	194118	Hinkle 100	01:22	01:50	01:50	00:00	00:00	00:00	03:40
3	Sellwood Roy	53324	Luton Minor	01:35	01:01	00:00	00:00	00:00	00:00	02:36
4	Pearce Ian	176661	Beachcraft	00:49	00:52	00:00	00:00	00:00	00:00	01:41

35cm									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Evans Meredith	111999	04:52	06:17	06:15	06:18	00:00	00:00	12:35
2	Pearce Ian	176661	06:13	05:33	00:00	00:00	00:00	00:00	11:46
3	Thompson Peter	23053	04:46	04:50	00:00	00:00	00:00	00:00	09:36

Catapult												
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Flight time 7	Flight time 8	Flight time 9	Sum of best Three Flights
1	Benns Mark	72513	33.90	34.00	33.81	0.00	0.00	0.00	0.00	0.00	0.00	101.71
2	Hebb Tony	35650	18.20	22.47	20.27	24.65	33.35	32.07	27.78	33.19	5.88	98.61
3	Goodwin David	194118	28.00	27.00	27.90	31.00	27.20	28.12	29.02	29.00	29.39	89.41
4	Goodwin Thomas	194117	24.00	24.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00	70.00
5	Staartjes Hans	185400	16.76	16.63	17.25	19.68	14.88	19.78	20.28	0.00	0.00	59.74

F1D									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Hebb Tony	35650	11:38	11:27	11:57	04:26	11:22	00:00	23:35
2	Benns Mark	72513	11:20	10:57	11:03	10:38	11:29	11:11	22:49
3	Staartjes Hans	185400	10:43	10:31	10:55	11:21	10:38	11:08	22:29

F1L									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Pearce Ian	176661	06:55	06:58	07:59	07:39	00:00	00:00	15:38
2	Hebb Tony	35650	05:32	07:23	07:18	00:00	00:00	00:00	14:41
3	Goodwin Thomas	194117	05:55	04:07	05:39	00:00	00:00	00:00	11:34
4	Funnell Rob	55579	02:58	03:34	04:39	00:00	00:00	00:00	08:13

F1N												
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Flight time 7	Flight time 8	Flight time 9	Sum of best Three Flights
1	Benns Mark	72513	38.00	35.00	37.00	39.00	39.00	39.40	37.20	18.00	46.60	125.00
2	Goodwin Thomas	194117	27.00	27.00	27.00	26.00	27.00	0.00	0.00	0.00	0.00	81.00
3	Goodwin David	194118	22.00	24.00	25.00	25.11	24.00	0.00	0.00	0.00	0.00	74.11
4	Chant Tim	111998	6.00	6.00	7.00	9.90	12.30	9.50	13.40	13.50	11.30	39.20

F1M									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Evans Meredith	111999	06:01	05:54					11:55
2	Bailey Bob	2479	05:07	05:16	04:40	05:35	05:46	05:29	11:21
3	Chant Tim	111998	03:02						03:02

G.C									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Goodwin Thomas	194117	04:03	04:55	05:05	05:19	05:20	05:26	10:46
2	Goodwin David	194118	05:16	05:10	00:00	00:00	00:00	00:00	10:26
3	Pearce Ian	176661	04:02	04:08	00:00	00:00	00:00	00:00	08:10

F1R									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Hebb Tony	35650	13:14	12:44	00:00	00:00	00:00	00:00	25:58
2	Benns Mark	72513	09:29	08:50	01:43	04:39	00:24	00:00	18:19
3	Evans Meredith	111999	02:18	08:38	02:25	08:46	00:00	00:00	17:24
4	Goodwin Thomas	194117	06:56	02:27	05:45	00:00	00:00	00:00	12:41

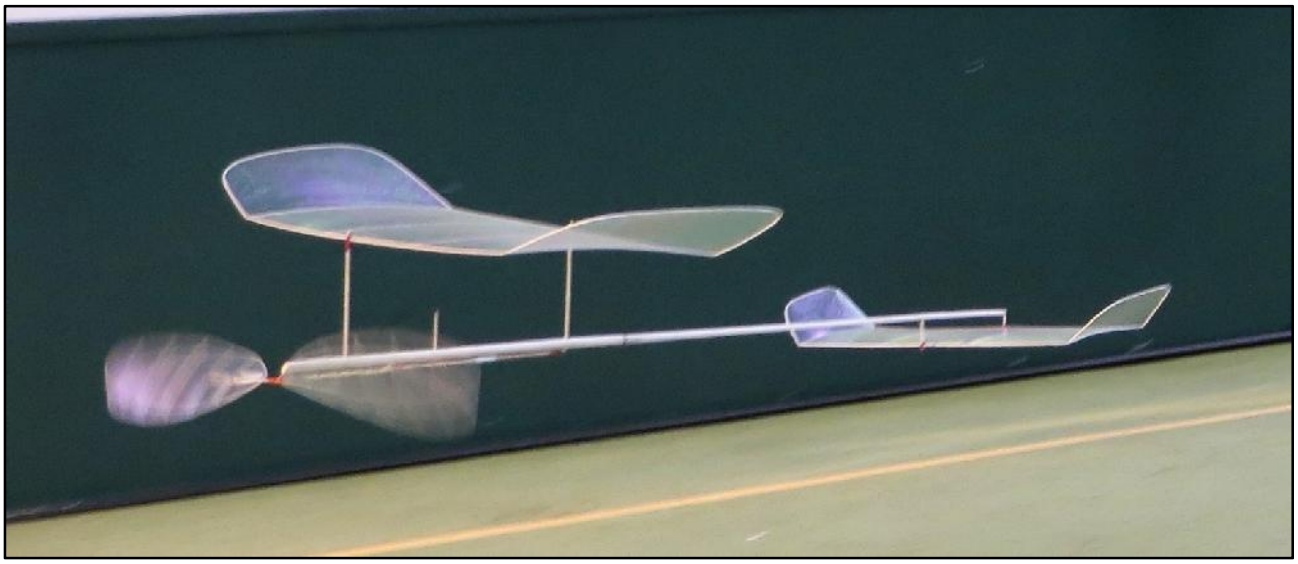
LRS									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Goodwin David	194118	06:07	05:37	05:48	00:00	00:00	00:00	11:55
2	Goodwin Thomas	194117	05:15	05:08	05:35	05:16	00:00	00:00	10:51
3	Funnell Rob	55579	04:44	05:05	04:58	00:00	00:00	00:00	10:03
4	Hebb Tony	35650	03:54	05:08	04:49	00:00	00:00	00:00	09:57
5	Sellwood Roy	53324	04:13	04:03	04:23	04:22	04:19	00:00	08:45
6	Roberts Dylan	212430	01:36	03:43	03:36	03:40	00:00	00:00	07:23

L. Eagle									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Evans Meredith	111999	03:25	01:44	03:24	00:00	00:00	00:00	06:49
2	Chant Tim	111998	03:12	03:21	03:03	00:00	02:39	00:41	06:33
3	Goodwin David	194118	02:33	02:43	02:04	02:40	02:50	03:01	05:51

LPP									
Place	Name	BMFA Number	Flight time 1	Flight time 2	Flight time 3	Flight time 4	Flight time 5	Flight time 6	Sum of best Two Flights
1	Chant Tim	111998	05:41	06:54	07:00	02:03	07:38	00:00	14:38
2	Goodwin David	194118	06:17	05:33	06:24	06:34	06:26	06:49	13:23
3	Roberts Dylan	212430	05:54	06:38	06:02	02:31	06:27	03:25	13:05
4	Bailey Bob	2479	05:37	06:18	06:16	00:00	00:00	00:00	12:34
5	Sellwood Roy	53324	05:04	05:38	05:31	05:47	00:00	00:00	11:25
6	Goodwin Thomas	194117	06:11	04:52	00:00	00:00	00:00	00:00	11:03
7	Thompson Peter	23053	05:19	05:40	04:56	05:17	00:00	00:00	10:59
8	Pearce Ian	176661	05:34	05:08	00:00	00:00	00:00	00:00	10:42
9	Hebb Tony	35650	04:53	01:36	05:28	00:00	00:00	00:00	10:21

Overall Championship

Place	Name	BMFA Number	No Cal	35cm	Catapult	F1D	F1L	F1N	F1M	GC	F1R	LRS	L.E.	LPP	POINTS
1	Goodwin David	194118	3		3			2		2		7	1	10	28
2	Goodwin Thomas	194117			2		2	3		4	1	5		5	22
3	Hebb Tony	35650			4	4	3				5	3		2	21
3	Chant Tim	111998	5					1	1				2	12	21
5	Benns Mark	72513			6	2		5			3				16
6	Evans Meredith	111999		4					4		2		4		14
7	Pearce Ian	176661	1	2			5			1				3	12
8	Sellwood Roy	53324	2									2		6	10
9	Bailey Bob	2479							2					7	9
9	Roberts Dylan	212430										1		8	9
11	Funnell Rob	55579					1					4		1	6
12	Thompson Peter	23053		1										4	5
13	Staartjes Hans	185400			1	1									2



Tony Hebb

NEWS Review

World's Records

We have just received from the F.A.I. a new list of World's Records for Model Aircraft, and we are immediately struck by the enormous preponderance of records achieved by members of the U.S.S.R.

The article which we were able to offer our readers in an earlier issue of this journal gave the clue to this, in as much as the sport of model flying in Russia is organised on a national scale officially, and every facility is laid on at their national contests to enable outstanding performances to be recorded, even to military aircraft standing by to follow the models.

While this is all very admirable, it is raising the breaking of world's records to a level which is beyond the scope of the sport, and is rapidly confining record breaking to such extensive organising as to obliterate the sporting element completely, and limiting it to Government supported national efforts.

We feel sure that all aeromodellers deplore this development, which can have no other effect than to render record breaking an expensive and futile operation.

Club Exhibitions

We are glad to note that a number of clubs have staged successful exhibitions in their respective localities with excellent results. If well organised, such exhibitions will assist the clubs financially and provide many new members.

Exhibitions are one of the best methods of letting people in your district know of your activities, and they attract considerable attention. All clubs are advised to consider this aspect of publicity carefully, and make a serious attempt to organise an exhibition, however modest.

If you do not consider yourselves capable of filling a hall, one of your local shops, if properly approached, will in all probability give you window space for a week in which you can display some of your models, and exhibit a show card giving details of your club.

Models in Germany

News has filtered through that a certain amount of aero-modelling activity is taking place in the German Zones administered by the Western Powers, who are permitting it on the grounds that it is a sporting occupation.

Activities started, appropriately, at Gottingen, and the German aeromodellers have been forming themselves into groups which now number 38 in the British Zone and 10 in the American Zone.

The group in Wurttemberg-Baden is one of the most active, and it has already held two contests. An active group also exists in Stuttgart. Most of the model groups are to be found in the zones from Kassel to Hamburg and the Ruhr, also round Frankfurt, but nothing is known of any activities in the French Zone. Of the position in the Russian Zone nothing is known.

One of the religious groups now established in Germany is also interesting itself in model aircraft and is attempting the organisation of model aeroplane activities in the Western Zones.

We understand that no official permission or direction has been issued in connection with model making activities to the German bodies interested, and there does not appear to be any provision at all for the control of model aircraft clubs. It is quite definite, however, that experiments with jet propulsion models and guided models is forbidden, and in the American Zone a licence is necessary for the flying of engine-driven models.

Klus Schmidtberg, one of the more active pre-war German aeromodellers, is apparently still taking interest in model matters, and he complains that the material position is very difficult, particularly with regard to motors, cellulose glues and dopes. We can well appreciate this in view of our own difficulties regarding materials.

It is of interest to note that the Gottingen group are trying to organise a national body for model aviation in Germany and that they have contacted the F.A.I. on the matter.

Some idea of the present enthusiasm may be gathered from the fact that at a sailplane contest held at Schwabisch-Hall last April, 40 machines were entered, and several hundred spectators attended some travelling considerable distances. The best flight of the day was 12 min. 11 sec.; not a bad performance under the prevailing conditions.

"Model Aircraft" Photographs

In the past we have been pleased to supply free of charge prints of photographs of aeromodellers and their models which have appeared in MODEL AIRCRAFT. The demand for these has now increased to such an extent that we regret that this service can no longer be continued. We are prepared, however, to supply for 2s. 0d., post free, a half-plate enlargement of any photograph taken by our photographers.

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One of Our Aircraft is Missing - Gordon Warburton

One Morley club event is an Ajax mass launch. The rules are simple – one pound in the kitty and the last man down scoops the takings. A couple of years back, in August, I flew in this event. My model is comparatively staid, and rarely manages above 45 seconds.

On the word "GO" the model got away nicely, and without the usual (height robbing) power stall. A patch of strong lift whisked the model away, out of sight at some 5 minutes plus. No D/T set (deliberately) but bug present and working prior to launch. For some reason there was no signal whilst the model was airborne. The Soothsayers and Doom Mongers present diagnosed a tired battery, or even worse a loose battery connection. Various landmarks made the line of the model easy to establish.

It was clear that the model had left the field and I crossed the boundary road approached the industrial enterprise opposite, which fortunately was open. The man on the gate was a solid Yorkshire Man, and was none too pleased to receive me. I sensed a touch of "*Nar then told Lad, what's thar bisniss 'ere?*" (Being an expatriate Brummie, I am sensitive to these situations!). To be fair, I do not imagine he expected to be confronted, on a sunny Sunday afternoon, by some bearded old fool festooned with binoculars, and clutching an unwieldy aerial. I explained that I was searching for an errant model aeroplane that might well be on his premises, and that I would be more than grateful to be allowed access. The gentleman's attitude softened and said I was welcome to search for the model, but was on no account to enter any of the buildings.

The enterprise is a compost manufactory. There are a number of open sided sheds and any amount of heaps of partially rotted compost, fifteen feet in height. In addition to these obstacles, the area is, for no apparent reason, punctuated by random laurel hedges of a similar height. Beyond this is a field of maize. Not the ideal terrain for model recovery. I attempted to climb one of the compost heaps, to establish if there was a signal, but the material was so friable that this was not possible. Eventually, about one third of a mile from the road, I picked up a weak signal. At this point Colin Foster had phoned me and asked if he should come down. (Colin is Morley's "Model Finder General" and has a 100% track record in these matters). Once hearing I had a signal, Colin came down to join me, having been admitted by the gatekeeper. After a couple of phone calls Colin and I met up (He had already had to fend off an encounter with a gamekeeper, and was able to explain that he was not after the pheasants!). By this time I had a strong signal, and it was clear that the model was in the maize. After a few preliminary checks with the" Yagi", Colin bravely plunged into the maize whilst I stood on the side-lines issuing encouraging remarks. In short order, Colin emerged with the unscathed Ajax.

On the way out, our now friendly gatekeeper was pleased by our success. Colin gave him a short exposition on rubber powered models, thermals, bugs and recovery systems.

I am indebted to Colin for his help. Without him I doubt I would have recovered the model on my own.

Guy Coulson

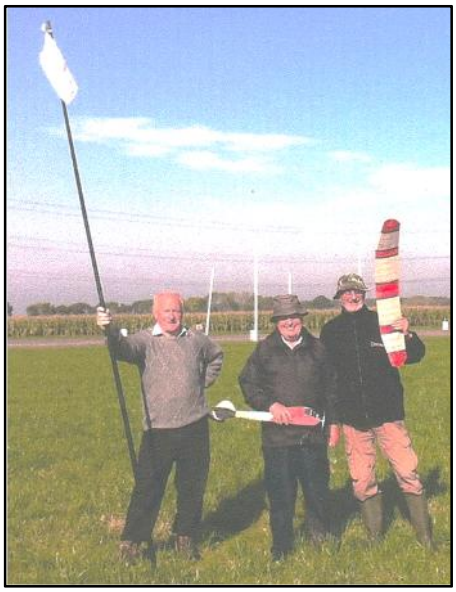
The A Maizing Retrieval

It was late Summer at our flying site and the farmer who owns the land, which was an old RAF bomber field, had installed an electricity generating machine which burned maize. Not exactly free flight friendly but nowadays you have to make the best of it.

One of our flyers launched his power model with a clockwork DT that inevitably triggered right over the maize which stood about 8 foot tall.

He abandoned any possibility in finding it as there was no tracker on it; however, I was standing by a post and got a good line on its position by spotting a bush in the distance.

We decided to return the following day with various bits of equipment and a white flag tied to a roaching pole; Gordon Warburton had brought his two-way radio. Colin Foster, carrying the pole, Steve Fielding and myself then entered the maize and walked in a line down the rows. Gordon was standing by the post relayed to us when the white flag, sticking above the maize, had passed the bush that lined up the model's position.
We then moved over and retraced our steps. After three moves over we located the model and emerged from the crop with it.
At the next Club meeting we presented the wayward model back to its surprised owner.
The photograph shows the triumphant retrieval team – Colin Foster, Joe Northrop & Stephen Fielding.



Joe Northrop.

Disturbing the Pond Life Retrieval.

The site that Morley club use for flying is a dis-used airfield, plenty of trees around and a pond. A farmer owns it and through the year there are various crops, mostly maize, so the area we have to fly in can be quite limiting at times; he does allow us to fly there though.
At the second area event, I was flying my E36 at our club site and had two good maxes. The third flight was also looking like a max and my timekeeper and I watched it down at a good few seconds over two minutes.
We saw it descend below some poplar trees, I felt confident it was on the ground.
I set off on my trusty electric bike and, when I got to where I thought it was, I got a good signal but found it difficult to get a direction.
I probably spent about 10 minutes wandering around when suddenly the signal from the Pim Ruyter beacon started pulsing very fast, I wondered if it was getting wet. I looked into the pond and saw the model floating on the water up against the island in the middle, the first model in that pond for over 15 years. I telephoned to the others asking if anyone fancied a boat ride.
Along came Nick Botham with wife Sue, Nick had plenty of experience while manning the Life Boat at Whitby so seemed happy to oblige.
Nick & Sue managed to get a small fibreglass hull launched and Nick set off paddling while Sue, camera at the ready, and I, lifebelt in hand, followed along the edge of the pond. After about 100 meters paddling, Nick recovered the model and brought it to the edge.
The photo shows Nick holding out the model for me to take, saying "Gordon, I think your wing has got a bit of washout".
Nick has now abandoned the maritime life and helps Whitby's Botham Family produce special lemon buns (and other goodies).

Gordon Warburton

Heard at the Hangar Doors - Aeromodeller January 1957

Heard at the Hangar Doors

Photo Talk

WHAT GOES UP—must come down, might well be the theme behind the two magnificent examples of air to air photography reproduced above. Taken by Russell Adams, Chief Photographer of the Hawker Siddeley Group, who is responsible for most of the Gloster Aircraft Company's publicity photo's, they serve to illustrate the manoeuvrability of the Javelin all-weather fighter.

We had the pleasure of listening to a talk given by Russell Adams to members of the London Society of "Air Britain", and after learning that he has to suffer forces of four and five times gravity during each formation loop, supporting a 7 lb. home-built camera, changing plates at the top when hanging on the straps, and "greying out" on the pull out at the bottom—we consider that he deserves extra credit for his fine efforts.

Incidentally, we feel that a large number of aeromodellers, particularly flying and solid scale enthusiasts, would appreciate these monthly "Air Britain" meetings on the first Wednesday of each month at Caxton Hall, Westminster. Those living outside the London area will be interested in membership through local groups. Some half-dozen publications, notably the bi-monthly 24-page news digest, a fine photo-sales service, with one of the most comprehensive range of negatives in the country, a lending library and Aeronautical records section, are but part of the services available to members. Write to the Hon. Gen. Secretary, 318 Barking Road, East Ham, London, E.6, for details.

Modelling Film

Frank Gardner, whose production "Easy to Fly" has been seen by thousands of aeromodellers throughout the world, has made another fine commentary on our hobby. Titled "Model Makers", Frank's latest three-reeler, which runs for 15-20 minutes, is now on M.G.M. distribution and has already had its premier at the Empire, Leicester Square (there was another, rather longer film on at the same time to support it) and it will be shown on private (as distinct from A.B.C. and J. Arthur Rank) circuits within the next few weeks.

The aeromodelling side is ably illustrated by the inimitable Ray Malmstrom, who includes parachute dropping in his party piece, while a number of non-flying devices, which are right out of this world, have been contributed by our own Peter Holland in the form of Space Travel models, all of which have been featured in turn by our companion magazine, MODEL MAKER. If you spot the title among the supporting films at your cinema, we advise a special effort to go and see it.

Obituaries

1956 has been a bad year for the modelling fraternity, for as we go to press, we regret to learn of the death, on November 27th, of one of the best-known model traders in Great Britain, Mr. Harry York of the famous 171 New Kent Road establishment.

Harry, who commenced business in radio supplies, began to develop the model aircraft side of the business way back in 1928, and his shop rapidly became the Mecca for aeromodellers from all over the world. You could always rely on meeting the top names at some time or other at "171", and many are the hours we have spent discussing high and low topics in the back shop. Harry, who was 54, was made a Fellow of the S.M.A.E. before the war in recognition of his work for the movement, and in particular his sterling efforts as P.R.O. for the Society, a post he held for many years.

Invalided out of the R.A.F. following a serious accident whilst servicing a big bomber, he had suffered from poor health for a number of years, as a result of which he abandoned his official duties whilst at the same time retaining a vital interest in all matters concerning the hobby. His passing will create a loss that will be felt wherever aeromodelling is discussed.

Another good friend in the trade who has passed on, is Mr. P. S. Fisher of Colchester, who founded his model accessories business in 1945 at Station Yard, Twickenham. Mr. Fisher was 53 years of age, and served from 1940-1945 in the R.A.P.C.,

seeing service as a Field Cashier. His daughter, Mrs. G. Southam, will continue running the business at Twickenham, and his wife and son will carry on at Colchester.

Rad(let)ical Comments

Numerous letters have been received following the publication of Captain Milani's comments in the December issue, concerning the Concours d'Elegance event at the All Britain Rally. The following view has been received from the organising officials and clarifies one or two points raised by Captain Milani.

Dear Sir,

"The letter from Captain Milani in your December, 1956 issue, coming as it does from one of our foremost scale modellers, is deserving of serious attention. Unfortunately, however, the writer's arguments are based on false premises, and the conclusions he draws are consequently misleading.

The Concours d'Elegance contest at Radlett, as in other spheres, is to decide the best model on the basis of construction and finish. Flying qualities by definition, should not influence the result of such a contest, but the organisers felt that the nature of the meeting made it essential that all models entered should be capable of flight, and not be merely 'exhibition' models. A minimum flight time, to be officially recorded on the day (before or after the judging), was felt to be a logical qualification. Other contests at other meetings omit flying altogether or judge also on flying ability, but the latter are not strictly Concours d'Elegance.

Since the contest is to find the best-looking or best-constructed models on the field, we believe it to be illogical to refuse entry to any model on the sole grounds that it has been entered or placed in previous years. Would Captain Milani also apply this reasoning to duration contests? It is noteworthy that the winner of the Scale section and of the cup for the outstanding model (beating both the four-engined models—each of which has previously won the trophy—and Captain Milani's own entry) was the Avro Tutor, entered for the first time by Flying Officer Norman.

It appears, therefore, that to one modeller at least the inclusion of previous winners proved to be no handicap. Would he have had as much satisfaction in winning had his model not been judged in comparison with these formidable competitors? The time taken by the distinguished judges of this contest (they include the Chief Test Pilots of two of our greatest aircraft manufacturers) in arriving at their decision is proof of the seriousness with which they regard their task.

With regard to Captain Milani's final point, you are of course, already aware (since you possess a copy of the Official List of Results) that the Spitfire model referred to does not appear in the list of prizewinners. It was in fact, disqualified because it failed to fly for the minimum time previously referred to. It was *provisionally* classified fifth, subject to a satisfactory flight, and this may have confused Captain Milani, whose own model gained a well-deserved fourth place.

Contestants at future All Britain Rallies, can rest assured that the "minimum flight" rule in the Concours d'Elegance will, as in the past, be rigidly enforced. Whilst we cannot agree that previous winners should be disbarred from competing again, Captain Milani's other suggestions (*e.g.*, for examination of models after flight) will certainly be most carefully considered."

St. Albans. K. J. A. BROOKES.

REPORT ON THE F.A.I. MEETING

NOVEMBER, 1956

PRESENT:

France, Switzerland, Holland, Czechoslovakia, Germany, Great Britain, Italy, Spain, Yugoslavia and Belgium

THE MAIN ITEM on the Agenda was the question of grouping the four World Championships as proposed by a number of countries, since this naturally affected the establishment of the calendar for 1957.

It was finally decided to adopt a compromise between the two points of view by grouping the four Championships into twos, and holding each group in alternate years. This was facilitated by the fact that Czechoslovakia had applied for permission to exercise their option for running the Glider and Speed Championships for 1957, and Sweden had withdrawn from their option to run the Wakefield Rubber event for 1957. Thus for 1957 there will be only one World Championship meeting, and this will be held in Czechoslovakia, when the Glider and Speed events will be held. There will be no Power or Rubber events for 1957, but these have been offered to Great Britain for 1958.

This does not prevent the running of regional international events for the dormant categories in each year and has the effect of greatly reducing the yearly travel costs for every nation, and the organising costs for the host nation.

The Glider and Speed Championships have been fixed for August 15th-21st, 1957. Other events fixed on the calendar are:—

Fifth International Hydro Model Contest	Monaco	May 4th/5th
Criterium of Europe	Belgium	June 14th/15th
Alpen Cup, Power and Glider	Austria	July 2nd
Flying Wing International Contest	England	Date to be announced
Fifth International Radio Control Contest	Belgium	Sept. 6th/9th

In the case of the Flying Wing Contest, it was agreed to apply the A/2 formula with a loading of 12 grams dm^2.

It was generally agreed that costs to visiting teams should be kept to a minimum.

Concerning the controversial question of Power model specifications, it was decided that the best proposal was the formula submitted by Switzerland, as it enabled a wider variety of engines to be used (up to 2·5 c.c.), deals with every eventuality, and produces a model of reasonable size. This will be referred to all National Clubs for postal vote with a view to its adoption in 1958.

The proposed formula is:—

For each 1 c.c. of cubic capacity	300 grams minimum	
Maximum permissible cylinder capacity	2·5 c.c.	total area
Minimum wing loading per dm^2	20 grams	
Maximum wing loading per dm^2	50 grams	

On the question of hand launching, there was an overwhelming vote in favour of its general adoption, with the exception of radio controlled models, which must be started from the ground. This will come into operation on January 1st, 1957.

Weight of the rubber motor for Wakefield models is reduced to 50 grams.

It was agreed that in the case of radio controlled contests, the aggregate of two flights be taken for classification.

The question of landing was referred back to the Radio Sub-Committee for further investigation and consideration.

National Air Clubs are to be asked to send in their views on this subject immediately.

For team racing, it was decided to limit the number of competitors in the circle to three, for reasons of safety.

It was decided to refer the question of tightening up the formula for team racing models for possible introduction in 1958. The proposed amendments are to increase the wing area to 12 dm^2 minimum; to restrict the maximum weight to 700 grams; to increase the fuselage to 100 x 50 mm. This will be referred to the Clubs.

No satisfactory conclusion was reached regarding the question of whipping.

On the question of records, it was decided that when a model is built by a team, the record shall be held by all members of the team jointly.

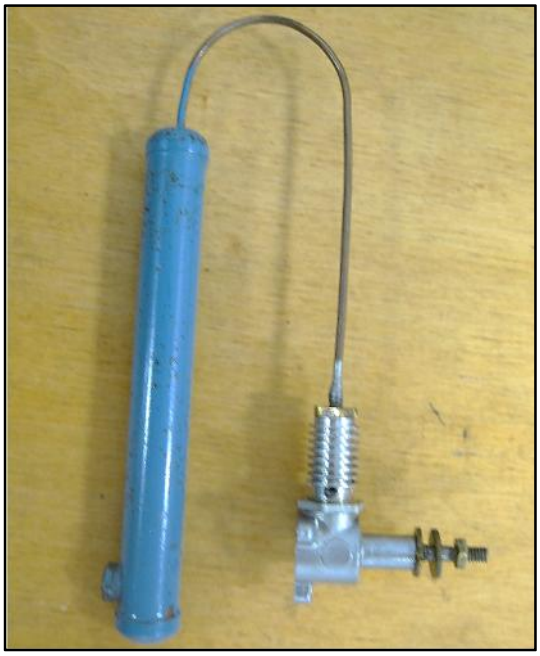
The helicopter definition was amplified to include "A helicopter must be capable of safe descent by autorotation".

It was agreed to modify the manoeuvres for aerobatic contests by eliminating the less useful figures, and adding the "double wing-over". The "climb" and "dive" manoeuvres have, therefore, been eliminated, and the "double wing-over" added, with a scoring co-efficient of eight, for application in 1957. It was also agreed to use the aggregate of two flights for classification purposes.

Indoor Isn't For Everyone 69 - Nick Peppiatt

Yet more on the early Brown CO_2 motors

1948 Brown Campus A-100, fitted with replacement tank Original, now corroded, tank below.



1949 Brown Campus Bee

At the meeting of the Trinity Indoor Flyers in August, I was able to take a closer look at the two original Brown CO_2 motors that Gerard Moore had acquired (see last month's IIFE). Along with the boxes, the original instruction sheets had survived, and Gerard kindly scanned them for me. These answer one of the questions that had been puzzling me, which was how the tanks in these early motors were charged.

The following is an extract from the Campus Bee instructions: -

'The first step toward running the engine is to properly load the carbon dioxide cartridge holder. To do this back off the thumb screws at the base of the holder. Insert the cartridge so that its bottom, or rounded end, rests on the screw. Center the top of the cartridge with the cap of the holder and turn the thumb screw up snuggly. Hold the cartridge in contact with the casting at all times. Be certain that it is always pressed as far into the holder as possible. It is not necessary to exert great pressure; a snug fit will prove satisfactory. The minimum turning of the thumb screw required to release the CO_2 may be determined before inserting the filler tube in the tank valve. This is done by snugging up on the thumb screw and when it is expected that the cartridge has been pierced, backing off slightly. If a hiss of CO_2 escapes from the filler tube, the thumb screw had been turned in sufficiently. Allow only a slight escape of gas then tighten the thumb screw. Repeat the above test until you secure the release of carbon dioxide. This simple test will familiarize you with the operation of the cartridge holder: You are now ready to load the fuel tank of the engine.

Original Brown holder for CO_2 capsule with screw-in tank connector for late 1940s Campus motors. Replica tank filler valve, made by Gerard Moore alongside.

!970s holder for CO_2 capsule, with ball valve, for Brown '005' and later motors. Remote tank filler valve below

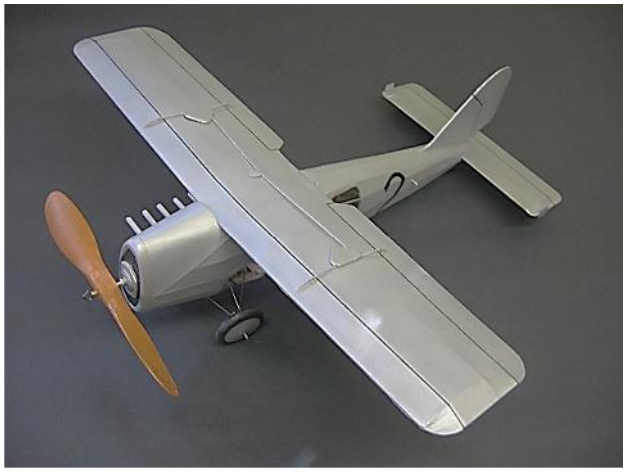
To load the tank, screw the filler tube of the cartridge holder into the tank valve. Again, only a snug fit is required. The tank, of course, must be well mounted. Now back off the cartridge holder thumb screw ½ turn. After approximately three seconds, tighten the thumb screw. Remove the cartridge holder. A long or short engine run may be obtained by the proper filling technique. If the cartridge holder is held with the filler tube pointing directly down on charging the tank, a long engine run will be had. Pointing the tube up on filling will provide a shorter run. The engine may now be started by hitting the propeller with your finger. Note that this engine may be operated in both directions.

When using the cartridge holder, wrap one hand around cartridge and holder.'

Clearly, there had been instances of pierced cartridges escaping their holder! Also, it makes you realise what a useful and important innovation the remote filler valve was.
This, of course, is separate from the tank, and has a nozzle that depresses a ball valve in the loader, allowing the gas to flow into the tank.
This was introduced with the Brown '005' around 1970.
The instruction sheets for both these early motors are similar, both recommending propellers of four inch diameter, ok, perhaps, for the A-100, but rather small for the Bee. As can be seen above, the instructions for the Bee reference gas or liquid charging, which is not the case for those for the earlier A-100.
To retain the gas in the tank, there is a ball retained between the filler valve in the tank and the tank wall.
As can be seen from the photo of the Campus A-100 above, Gerard has made a new tank to replace the corroded original, and also a special screw-in adaptor, so that it can be filled from a SodaStream bottle.
The motor now runs quite sweetly, as shown in the last video Gerard has posted on: -

https://photos.app.goo.gl/g2NWdJieubnvcsVB8

Dayton-Wright RB-1 Racer




Completed Dayton-Wright RB-1 Racer

A recent rare calm evening gave me the opportunity to test fly the Peanut Scale Dayton-Wright Racer, which was completed from the Jetco kit of Henry Struck's design that was in the late Lindsey Smith's collection (see IIFE 61 (NC February 2023) and IIFE 66 (NC July 2023)).

The model was fitted with a four strand motor of 0.075" Supersport, weighing 2.4g and about 12.5" long. As this was flying as an outdoor model and might, possibly, have a glide phase, the motor was pre-tensioned with 30 turns on each loop.

On 200 turns the model got away from a hand launch nicely, turning gently to the right. The turns were gradually increased up to 600, with the model climbing away, still in a gentle right turn until the power ran out.

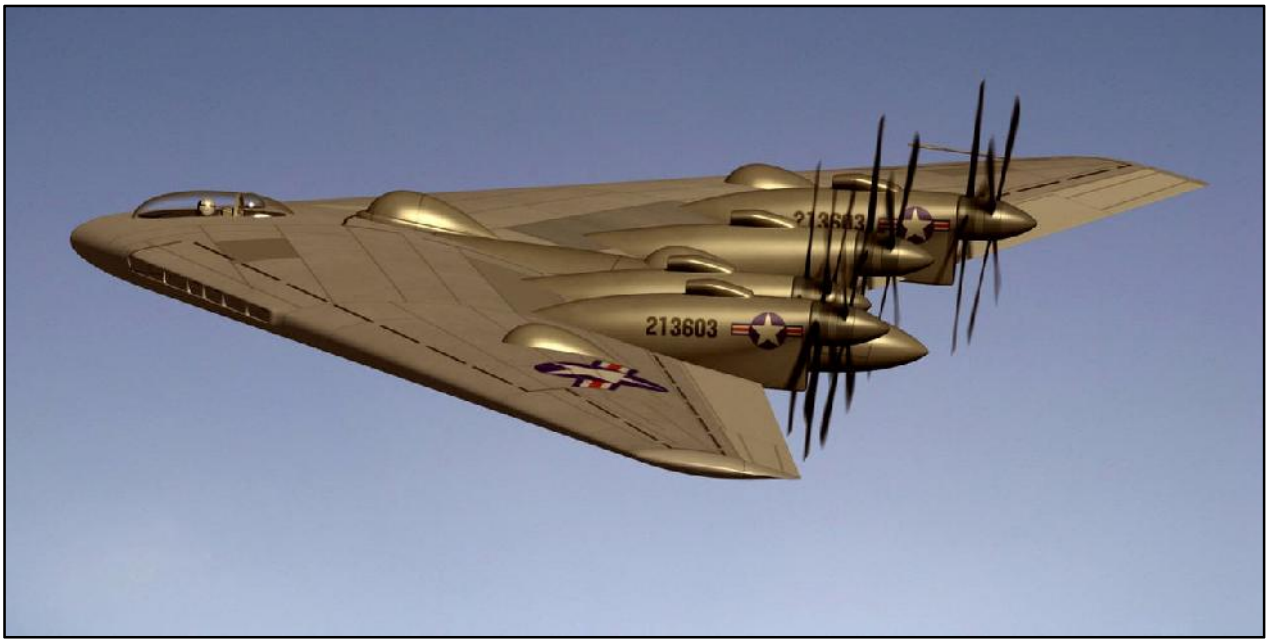
The glide from that point became spiral to the right, probably because of the effects of the relatively large free-wheeling propeller. The flight time was only about 20s, but it looked a picture in the air, when under power.

The evening was a little humid, causing the covering on the flying surfaces to go slack, but this did not appear to affect the flying performance. I flew the aircraft with the undercarriage retracted. I need to resolve the problem of the spiral dive, possibly by adding a judicious amount of left rudder, and, maybe, if necessary, compensating for this with a little right thrust, before increasing the number of turns.
But first, I will carry out some further glide tests using a dummy nose weight in place of the propeller assembly to confirm that the free-wheeling propeller is the cause of the tightening turn.
However, these test flights did inspire me to add the missing details, such as the exhaust pipes, from 1/8" od aluminium tube, and the dummy control linkages on the top surface of the wing, from 0.12mm thick plasticard and thin polystyrene rod, as shown in the photos above.

I have tried to construct the model to represent the machine as entered in the 1920 Gordon Bennett race, and have added the square finlets to the ends of the stabiliser, again made from thin plasticard.
The aircraft as displayed in the Henry Ford Museum of American Innovation does not have these fitted.

Nick Peppiatt

The Northrop YB/XB-35, - Wikipedia



Northrop designation **N-9** or **NS-9**, were experimental heavy bomber aircraft developed by the Northrop Corporation for the United States Army Air Forces during and shortly after World War II. The airplane used the radical and potentially very efficient flying wing design, in which the tail section and fuselage are eliminated and all payload is carried in a thick wing. Only prototypes and pre-production aircraft were built, although interest remained strong enough to warrant further development of the design as a jet bomber, under the designation YB-49.

Design and development

The B-35 was the brainchild of Jack Northrop, who made the flying wing the focus of his work during the 1930s. In 1941 before the USA entered World War II, Northrop and Consolidated Vultee Corporation had been commissioned to develop a large wing-only, long-range bomber designated XB-35 and XB-36. Northrop advocated a "flying wing" as a means of reducing parasitic drag and eliminating structural weight not directly responsible for producing lift. Consolidated Vultee proposed a more conventional design with fuselage and tail, which was much larger and heavier. In theory, the B-35 could carry a greater payload faster, farther, and cheaper than a conventional bomber. In December 1941, the Army Air Forces awarded prototype contracts to both Northrop and Consolidated Vultee for a bomber that could carry 4,500 kg (10,000 lb) of bombs to a round-trip mission of 16,000 km (10,000 mi).

YB-35 / XB-35

YB-35 prototype

Role	Strategic bomber
Manufacturer	Northrop
Designer	Jack Northrop
First flight	25 June 1946
Status	Cancelled in 1949
Primary user	United States Air Force
Variants	Northrop YB-49

Requested performance was a maximum speed of 720 km/h (450 mph), cruise speed of 443 km/h (275 mph), and service ceiling of 14,000 m (45,000 ft). This aircraft would be able to bomb Nazi-occupied Europe in the event that Britain fell (this was similar to Nazi Germany's own *Amerikabomber* program design competition through the RLM, itself initiated in the spring of 1942). The original April 1941 USAAC proposal was first submitted to Boeing and Consolidated Aircraft Company and led to the production of the Convair B-36.
In May, one month before the USAAF was created, the contract was also extended to include Northrop, inviting it to submit a design along the lines it was already exploring.
Since the new aircraft would require a significant amount of engineering work in untested waters, the first order placed was actually for two prototypes of the XB-35, and included Northrop's plan to also build two all-wood one-third scale flying models to measure performance and stability; these were dubbed the Northrop N-9M (M standing for model). This aircraft would be used to gather flight test data on the Flying Wing design. Jack Northrop also hired part-time the leading aeronautical designer of the day Theodore von Kármán, to evaluate and who approved of Northrop's initial design, and to start building the tooling for building the prototypes ... as explained in detail in the book "Goodbye Beautiful Wing" by Terrence O'Neill. The N9Ms would also be used as a flight trainer, to familiarize pilots with the radical, all-wing concept.
Early in 1942, design work on the XB-35 itself began in earnest. Unlike conventional aircraft, truly "tailless" flying wings cannot use a rudder for lateral control as it was absent, so a set of clamshell-like, double split flaps (so-called flaperon, a portmanteau of flap and aileron) on the trailing edge of the wingtips were used. When aileron control was input, they were deflected up or down as a single unit, just like an aileron. When rudder input was made, the two surfaces on one side opened, top and bottom, creating drag, and yawing the aircraft. By applying input to both rudder pedals, both sets of surfaces were deployed creating drag so that the airspeed or the glide angle could be manipulated.

Variants

XB-35
On 22 November 1941, the United States Army Air Forces (USAAF, or AAF) signed the development contract for an XB-35; the contract included an option for a second aircraft, which was exercised on 2 January 1942. The first was to be delivered in November 1943, the second in April of the next year.

Detailed engineering began in early 1942. A fuselage-like crew cabin was to be embedded inside the wing; it included a tail cone protruding from the trailing edge. This tail cone would contain the remote sighting stations for the bomber's gunners and a cluster of rear-firing machine guns in the production aircraft. In the midsection of the cabin, there were folding bunks for off-duty crew on long missions. The aircraft's bomb load was to be carried in six smaller bomb bays, three in each wing section, fitted with roll-away doors; this original design precluded the carrying of large bombs, and the early atomic bombs, without bomb bay redesign and modifications. Production aircraft would have defensive armament of twenty 0.5 in (12.7 mm) machine guns or 20 mm cannon, carried in six turrets, two turrets along the aircraft's center line, four above and below the outer wings, and four in the "stinger" tail cone. The B-35 would take advantage of a new aluminum alloy devised by Alcoa; it was considerably stronger than any alloy used previously.

In June 1946, the XB-35 made its first flight, a 45-minute trip from Hawthorne, California, to Muroc Dry Lake, without incident. The XB-35's engines and propellers were AAF property and had not been tested for engine-propeller compatibility by either Pratt & Whitney, Hamilton Standard, or by the AAF which bought them at Wright Field without testing them or assuring reliability, and then shipped them to Northrop. Microfilmed records of reports and correspondence of the XB-35 program relate that after three or four flights, power plant and propeller vibrations increased, and the very efficient contra-rotating propellers began failing with frustrating frequency. Meetings were called by Northrop, of the AAF, Pratt & Whitney and Hamilton Standard where no one would take responsibility for correcting the AAF's engines and propellers. In addition, the AAF failed to supply the AC electrical alternator, insisting on Northrop using an onboard auxiliary power unit (APU) unit driven by an automotive engine which limited the high-altitude, high-speed XB-35 to test flights below 15,000 ft (4,600 m). The AAF also refused to allow Northrop proposed modification of the bomb bays to carry the standard Mk. 3 atomic bomb, while at the same time declaring the AF would not buy the bomber unless it could carry the A-bomb. Northrop reluctantly agreed to try a single-rotation propeller, which slightly increased takeoff distance and a reduced rate-of-climb and maximum speed.

YB-35 Flying Wing showing its quartet of pusher contra-rotating propellers. The option was later discarded due to severe vibration in flight and later changed to the traditional single propeller configuration.

Problems with the quartet of contra-rotating propellers' shafts comprising each aircraft's drive-line system continued until finally Jack Northrop himself grounded the XB-35s until the government fixed their propulsion system. Concurrently, the AAF ordered Northrop to convert two of the YB-35 airframes to YB-49s, essentially substituting eight jet engines for four reciprocating engines. As a result, the airframe promptly flew to more than 40,000 ft (12,000 m) and topped 520 mph (840 km/h) in flight tests, verifying the XB-35 air frame's aerodynamics, but at the price of range. The prop-version had a design range capable of reaching targets 4,000 mi (6,400 km) away, but the jet-engine version's range was cut nearly in half. The new version disqualified it for the Air Force's top-priority mission as a strategic bomber, which at that time meant striking at the USSR's industrial and military complexes in the Ural Mountains. The Air Force, itself involved in a confusion of rank and job changes, eventually cancelled the XB-35 project, while continuing testing the B-35 airframe as the YB-49, even ordering 30 of the jet-powered bombers after the first YB-49 crashed. The first and second XB-35s were scrapped on 23 and 19 August 1949, respectively.

YB-35

On 30 September 1943, 13 pre-production YB-35s were ordered by the Army Air Force. The first one did not fly until 15 May 1948. While some Air Force generals felt the piston engines made the B-35 obsolete, it remained superior in overall performance and range to its competitor, the Convair B-36, and General Hoyt Vandenberg wrote that only the B-35 and the B-36 had adequate range for the Air Force's primary mission, and nothing comparable would be available until the mid-1950s. Only the first YB-35 was ever flown. Multiple flight testing demonstrated that it was airworthy; it was then parked and ignored for more than a year until being scrapped on 20 July 1949. The unfinished YB-35 #2, was scrapped almost a month later, on 19 August 1949. The other 11 of 13 YB-35 aircraft ordered underwent conversion to other power plants.

Wikipedia

Odds & Ends - Editor

Here is an email from Peter Thompson re his recent visit to the Indoor Nationals:

Hello John.

We visited & competed this year at the BMFA Indoor Duration Nationals.

I only have a 14 second video to share with you, I was so engrossed I forgot to take any more images. I will make this available to you at Sneyd next weekend.

It was a wonderful event, ideal outside conditions, warm & dry weather which meant the indoor the hall was optimised for the occasion.

Our initiation into the competition scene was friendly with lots of help + roach poles available from the other competitors.

We had such an intense & enjoyable 3 days that we are already keen to repeat next year with upgraded machinery, gleaned from R&D and help from those around us.

The arranged social occasion and meal on the Saturday evening was highly appreciated & gave us a relaxed opportunity to meet & interact with many of the flyers outside of the flying.

I hope this short report is of use. *Peter Thompson*

Free: to a good home.

One Ajax airframe, with noseblock but minus a prop and undercart, tail feathers covered but need re-covering.

Contact Martin Dilly on tel: 0208 7775533 or e-mail: martindilly20@gmail.com

Also **ROACH POLES FOR SALE:**

I have two roach poles now surplus to requirements:

One 21 feet long and the other 22 feet.

Either is ideal for getting your Mylar streamer up to a decent height, nudging indoor models away from nasties or for separating models from trees. **£10** each.

Probably best to collect in person. I'll be at the Croydon Coupe Europa on Area 8 on Oct. 8th or at the BMFA AGM and dinner on Nov. 18th at Solihull.

Contact Martin Dilly on tel: 0208 7775533 or e-mail: martindilly20@gmail.com

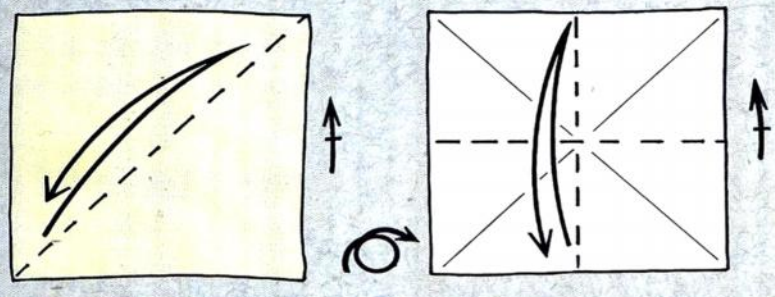
Editor

Paper Airplane: Helicopter - Nick Robinson

HELICOPTER

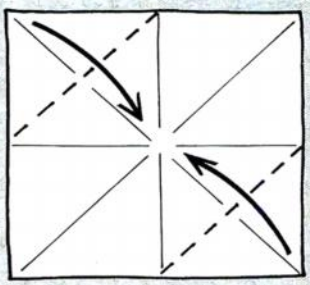
NICK ROBINSON

There is a well-known "twirling" toy made from a strip of paper with one end cut down the middle and the two flaps bent outwards. The bent wings cause the Helicopter to spin round as it falls. This is a folded version of the same principle. Many folders have produced designs similar to this one, which is based on a traditional design for a sail-boat independently created by Makoto Yamaguchi. Choose a paper that is fairly thin, but not too floppy. Start with a square, coloured side up.

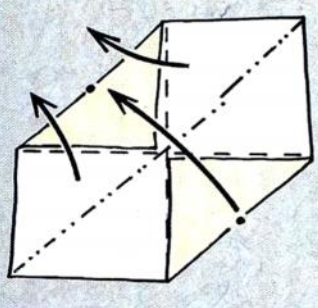


1 Crease both diagonals and turn over.

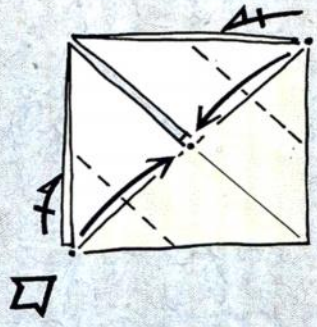
2 Fold in half both ways.



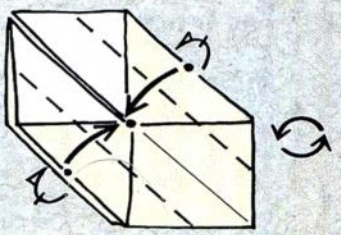
3 Fold two opposite corners to the centre.



4 Using the creases shown, collapse the paper.

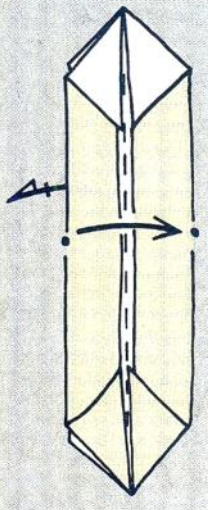


5 Fold both outside corners (upper layer only) to the centre.

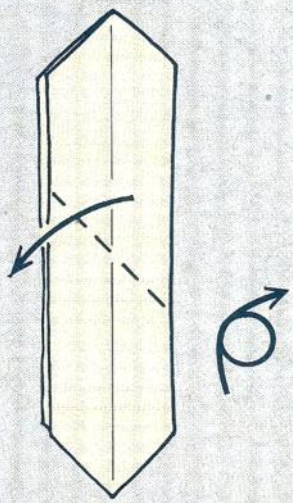


6 Narrow the flaps by folding to the centre again. Repeat steps 5 to 6 on the other side. Turn the paper round slightly.

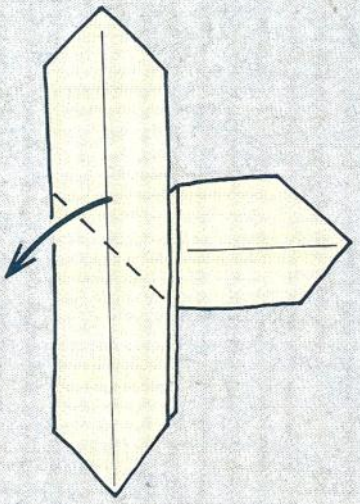
HELICOPTER



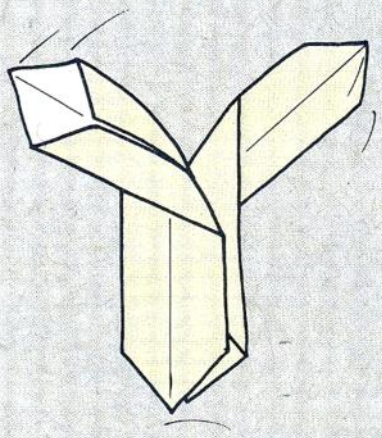
7 Fold the upper left-hand flap in half to the right. Repeat the fold underneath. This move is known in America as a "minor miracle".



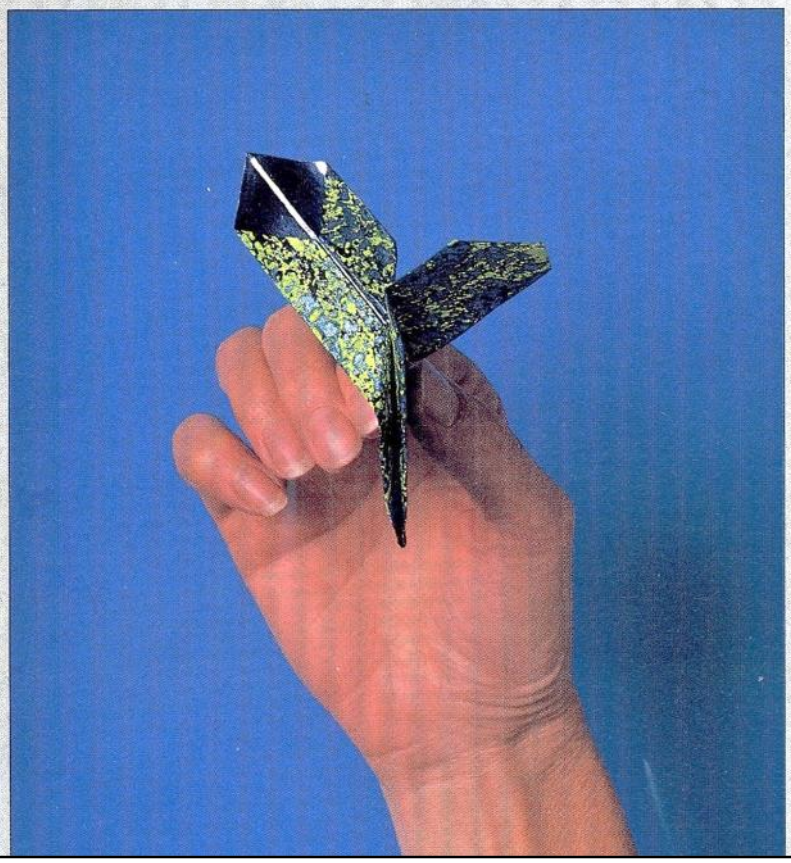
8 Swing the top layer down and to the left at 45 degrees. Make sure the crease passes through the centre (where the hidden layer inside lies). There are quite a few layers so press firmly. Turn over.



9 Repeat step 8 on this side.



10 The finished Helicopter.



FLYING HINTS

The amount of spin caused by the wings depends on the angle that you bend them to. This in turn depends on the flexibility of the paper used. Launch the Helicopter either by throwing it high in the air or by dropping it from as high up as possible.

Another Trip to Old Warden - Rory Pike

This is a review of the September Old Warden Model air event in Bedfordshire.

As we drove up to the airfield we could see that this event was a lot more populous than the rather underwhelming Model Air event last July.
The wind on the Saturday was around 7mph so flying was perfectly possible. The first thing we did however was look over all the multitude of trade stands that were selling all manner of models and hardware.

I had made myself a rule for this event of 'no models' which I thankfully kept to. The first thing that I bought were some 6 back issues of RCM&E for £3. We had come with a different friend than we usually do this time and he had never been to see the Shuttleworth collection so we decided to have a look around.
One thing I noticed they seemed to be missing their Westland Lysander, I can only assume that it must have temporarily moved to another airfield.
After our look around the fascinating collection we decided that was time to do some flying.
With our model boxes and bags we went onto the airfield. Our friend Jo, who we had brought along, hadn't had much experience with free flight modelling so was given, temporarily, a Senator to use which he flew very well.

By far the most entertaining flight of the event was when Jo released his model and it was flying downwind with great gusto towards the control line area, we feared it would get eaten up by a control line model so I clicked the D/T button. It descended and landed perfectly on the dividing tape!
As we finished our days flying and started to pack up I managed to grab some good deals on a motor and 2 ESCs at the trade stands.
The Sunday gave us slightly higher winds at probably 9mph gusting 12 so flying was a little more challenging. We decided to enter the Rubber Bowden with our slightly against the rules models with only 1 wheel and not much of a canopy.

Martin

Jo, with another model

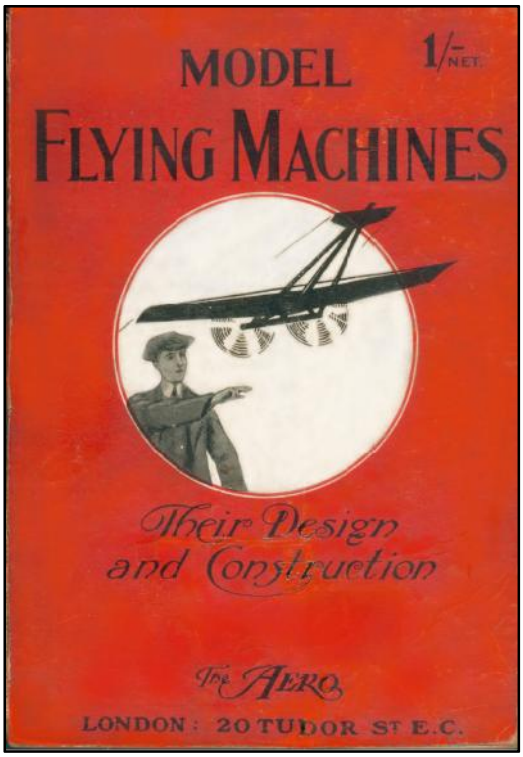
Accurate D/T'ing of Jo's flight

Ian Leaver survived, model not so much

The target was 30 seconds and on one of Martin's flights he managed to hit Ian Leaver (chairman of SAM 35) with his Senator, thankfully no harm done. Jo managed to get a flight with only a 3 second difference but this was quickly surpassed by the other competitors.
After the competition we decided to go back to the cafe for a bite to eat, all of a sudden a quick downpour managed to soak all the stock that was on display but the event was as good as over by then so it didn't matter much. Overall a very enjoyable weekend at Old Warden and I am looking forward to the May event.

Rory Pike

Report No.152 Our earliest books.



Next we look at "Model Flying Machines Their Design and Construction" by W. G. Aston, published by Iliffe & Sons Limited, 20 Turner Street, E. C. London. Price 1/- or by post for only 2p more. The book is not dated but is believed to have been published in 1910. In the introduction the author refers to the use of models to prove the worth of various designs for the hulls of ships at far lower cost than building full size examples and suggests that this principal could equally apply to flying machines. The following quote shows that the author also appreciated the building of flying models for pleasure, "A model flying machine, especially the homemade article, is capable of providing the greatest delight and pleasure to its constructor and spectators of its flights. The writer knows of few sensations which can compare with that which he feels upon seeing one of his models flying away in the distance."

There follows an essential couple of pages headed "Nomenclature" giving the reader at least some idea of the meaning of such terms as Aerofoil, Aspect ratio, Biplane, Ornithopter, Pitch, Propeller, Tractor etc.

Chapter One covers General Principles and their Application. Aerofoils and all that stuff.

Chapter Two is headed "Power". This advises that, due to the considerable weight of the smallest available steam or internal combustion engines, the only practical power options for model aircraft are twisted rubber, compressed air and clockwork.

Sketches show the rubber power, propeller and hook arrangement for a simple stick type model and some more complicated arrangements.

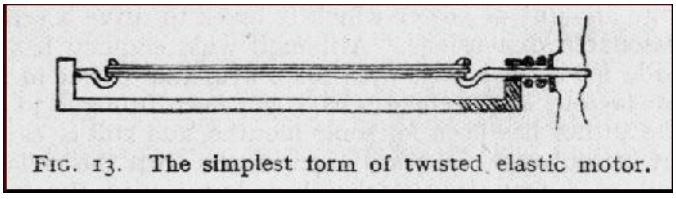


FIG. 13. The simplest form of twisted elastic motor.

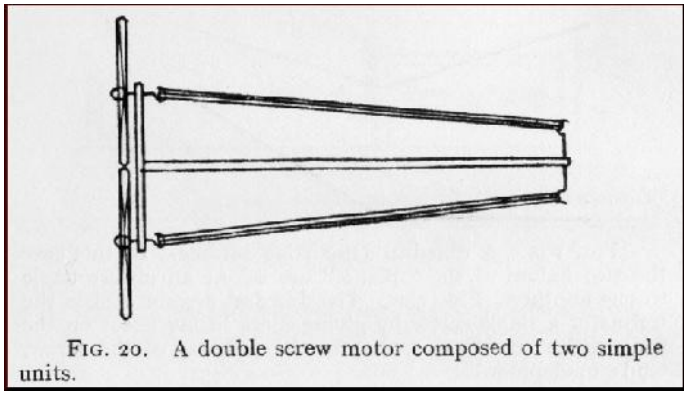


FIG. 20. A double screw motor composed of two simple units.

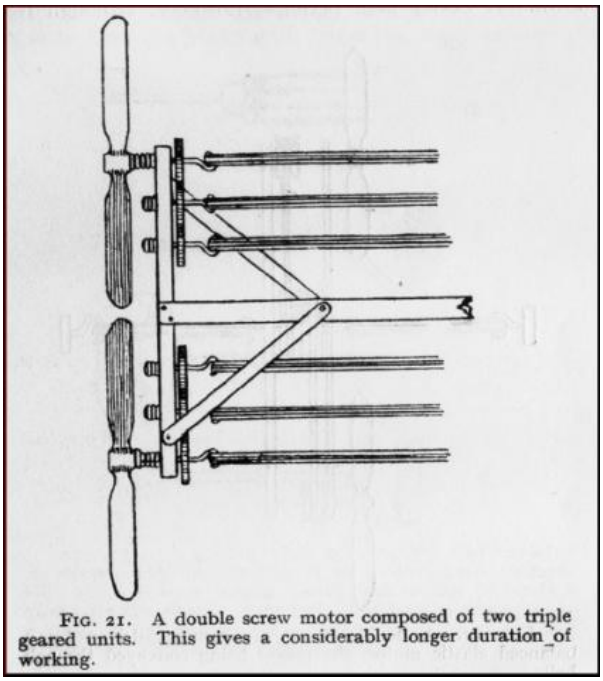


FIG. 21. A double screw motor composed of two triple geared units. This gives a considerably longer duration of working.

Chapter Three is titled "Supporting surfaces" This describes the construction methods to be employed before the arrival on the scene of balsa wood and the associated cement.

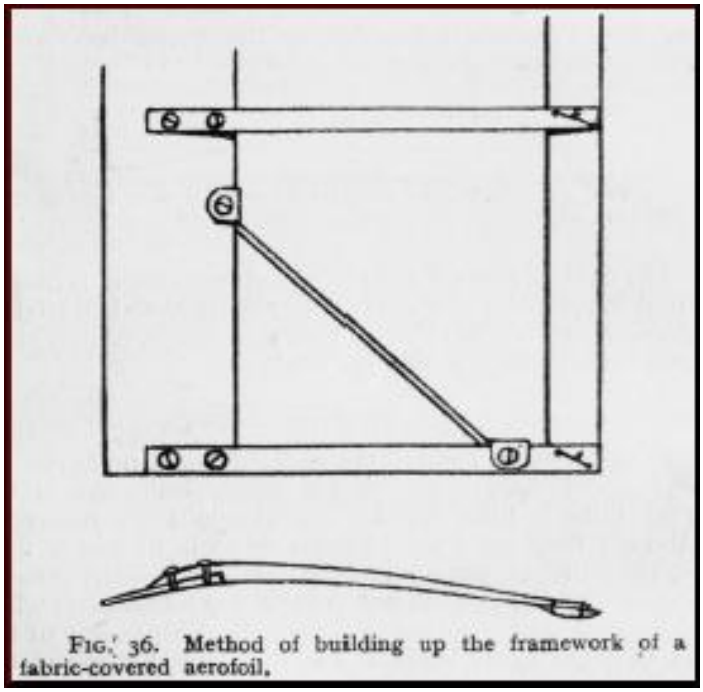


FIG. 36. Method of building up the framework of a fabric-covered aerofoil.

"The front and back spars are formed of American white wood planed to the wedge-shape indicated in the section. The ribs are sewn to the rear spar with brass wire, the ends of which are twisted together, cut off short and hammered down flat. All joints should be glued. Further security is gained by driving and countersinking a small screw through each rib and the spar at their mutually thickest part. "

In respect of covering, the author recommends "aero cloth" marketed by pneumatic tyre manufacturers. This consists of fine grade cotton fabric rubberised on one side, or other-wise water-proofed. "Jap or other silk may be used, but it is difficult to work on account of its extreme flimsiness."

Chapter four is devoted to "Screws". The author emphasises the importance of propeller design with particular mention of helical pitch. Sketches are included of propellers carved from solid wood and a couple of alternatives.

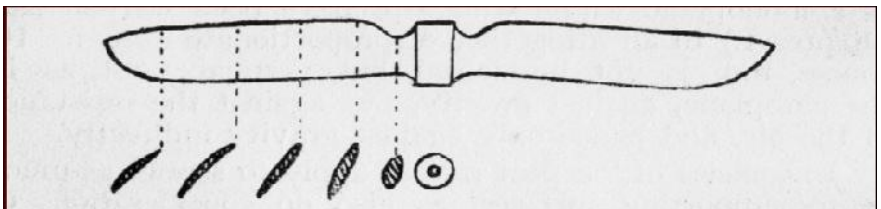


FIG. 45. Projection of one blade or a helical screw showing sections corresponding to different points along the blade.

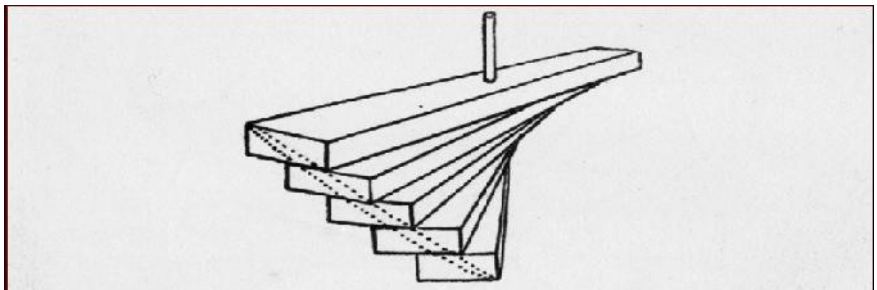


FIG. 51. The strips of wood glued together in position. A section of the screw blade is shown in the dotted lines, and indicates how the waste wood is to be cut away.

FIG. 60. The framework of a fabric screw.

Over this skeleton screw the fabric bags are now stretched, and the result is, if the fabric be elastic and extensible, a very nearly true helix. This form of screw, though somewhat crude, is capable of giving excellent results, and is, furthermore, practically unbreakable.

Chapter five refers to "Tails and Elevators"

These are to be made of thin sheet wood to a shape as suggested in Fig.61 with shape A being recommended.

"The method of fixing employed with tails and elevators is exactly similar to that of attaching the main supporting surfaces. They are screwed or otherwise secured to suitably shaped bolsters, which, in turn, are lashed with elastic to the required point of the frame."

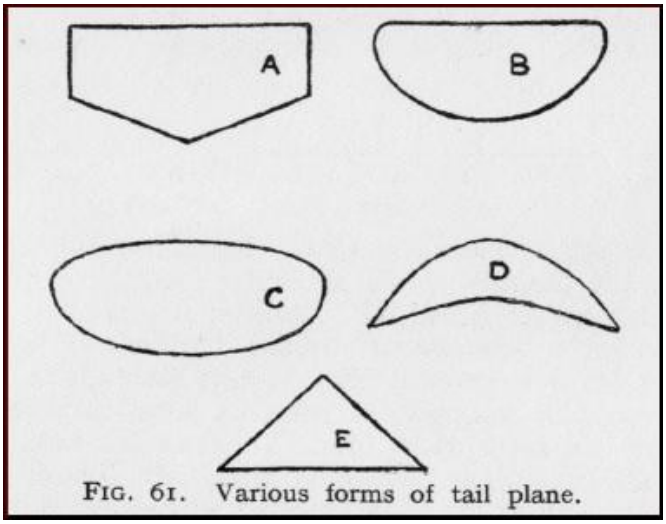


FIG. 61. Various forms of tail plane.

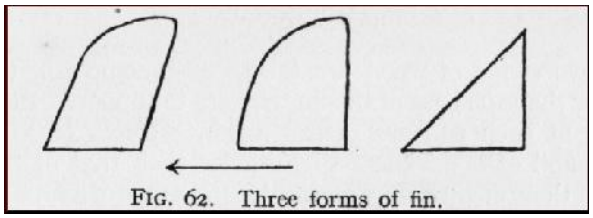


FIG. 62. Three forms of fin.

Chapter six gives information on "Fins" which may be made from thin sheet wood, sheet aluminium or a suitably covered wire frame.

Thin wood of one of the shapes shown in fig. 62, with nicely smoothed and chamfered edges, makes the best fin, but has the disadvantage that it cannot be, as aluminium can be, simply twisted to the required angle.

Thin aluminium may accordingly be used for this purpose, its mode of mounting on the frame of the machine being the same as that which is used for the wooden fin, which is as follows:


FIG. 63. Adapter for fin.

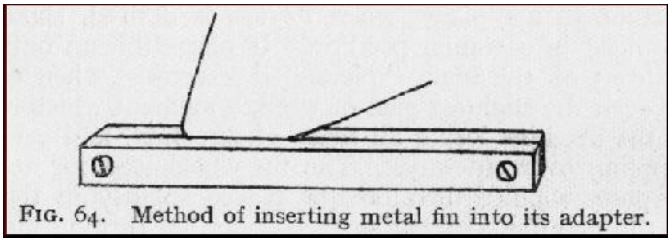


FIG. 64. Method of inserting metal fin into its adapter.

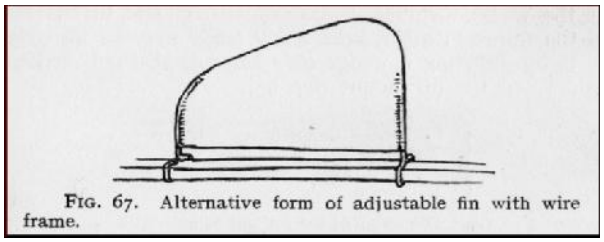


FIG. 67. Alternative form of adjustable fin with wire frame.

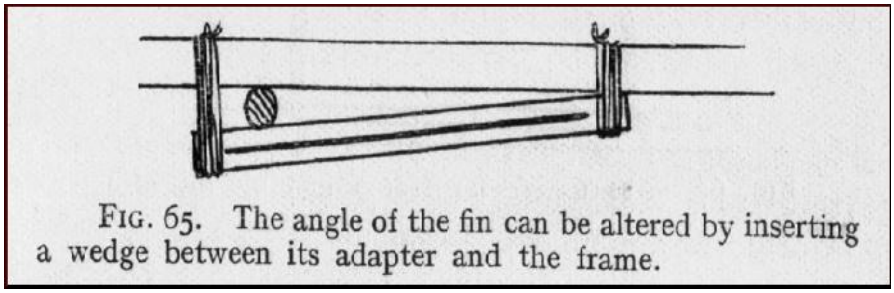


FIG. 65. The angle of the fin can be altered by inserting a wedge between its adapter and the frame.

Chapter seven "Designs" gives 3 view drawings for 10 designs from simple to quite extraordinarily complex, but all this must wait until next month.

Roy Tiller, tel 01202 511309, email: roytiller@ntlworld.com

Roy Tiller

INTRODUCTION

THE 1949 PICTURE

THE contest season has been marked throughout by the greatly improved organisation that has made the principal meetings more enjoyable both from the contestants' and the spectators' viewpoint. It has been so often the heart cry of one and all that a little more managing would make for better meetings that we cannot but single out contest directors, whoever they may have been, for the year's brightest bouquet. There still remains, however, that unmanageable body—the aeromodellers themselves—who have yet to be persuaded to take their flights to suit the general convenience of the meeting, and not hide away until the last moment in the hopes of bigger and better thermals, and then come in a body at the very end. We suppose they will always be like that just so long as they fly for the fun of the thing, and heaven forbid that they should ever wish to fly for any other reason!

Herald of the sunniest summer for very many years was the Easter Control Line Meeting on the Kent County Cricket ground at Dover—first all control line meeting staged on such ambitious lines. As an example of what can be done when local authorities and model club work together it is classic, while the quality of the stunt and speed flying gave a foretaste of the nationally improved standards. We only regret that the experimental pylons were of a nature unacceptable to the S.M.A.E. Council and thus prevented three records claimed at the meeting from being passed. Nevertheless, we applaud the firmness of purpose of those concerned in rejecting them for rules made must be kept or their whole purpose is lost.

In spite of some misgivings on the venue the Whitsun Nationals held at Fairlop proved the most successful ever with a second day crowd estimated at 15,000. Large camping contingents and much of the "donkey work" were handled successfully by the local club, who also persuaded the Mayor of Ilford to open proceedings formally—another excellent example of civic interest in the aeromodelling movement. The meeting was distinguished as the scene of Britain's first Radio Control Contest, which attracted forty-two entries, and provided some indication of the future before this new and fascinating branch of the hobby. The Gold Trophy, for Aerobatic Control Line, demonstrated the strides that have been made since its inception last year at Sywell; while the revised methods of point allocation and judging produced a worthy winner.

Speed control line fans still have their grouse, however, that no National status event is provided for them, although numerically they are probably stronger than the stunters.

But these events were really but curtain raisers for the most successful Wakefield Contest of all time, when, on July 31st, nineteen nations assembled at the College of Aeronautics, Cranfield, as guests of the S.M.A.E. No finer venue more worthy of the world-wide renown of the contests could have been chosen, as all those present were quick to declare, and a special word of appreciation is due to the Senate of the College and its Principal, Mr. E. F. Relf, for their farsighted action in making the airfield, and what is more, the exceptional college accommodation and catering, available to the world's aeromodellers. Only the weather failed to live up to the high quality of everything else provided, but, in spite of this, a truly classic contest was finally won by the lone representative from Finland—Aarne Ellila—closely followed by Sadorin of Italy and Fletcher of U.S.A. Early British promise could achieve no higher placing than ninth, in the shape of Eric Smith of Leighton Buzzard, making his first International appearance in the contest.

Progress during the year has been steady if not sensational. Radio control is beginning to attract a big following, though the very cost of the necessary apparatus will always prevent it from vieing with, say, free flight power, in popularity. But as prices come down—and increased sales and competition in the trade world will inevitably bring this about—then more and more will be attracted to it. Already in the British Isles we are leaping ahead of other less fortunate countries where operation is restricted to holders of P.O. transmitting licences. Let us hope that its growth will not get out of hand and so lead to the re-imposition of any such limitations. The answer is, of course, in the hands of the flyers themselves!

The trade has kept pace with the expanding hobby, and made successful efforts to cope with a steadily more critical buying public. Engine manufacturers have succeeded so well in their work that the possession of one or more American engines is no longer necessary for contest success in virtually every branch of the hobby. New engines have been evolved to meet the special needs of control line flyers; a number of new 10 c.c. engines have made their appearance, and show considerable promise when early teething troubles have been eliminated. In the kit market it has become increasingly evident that the casual bundling of balsa and a plan is no longer sufficient to secure sales. Selective wood sorting, adequate accessories, well printed sheet, comprehensive plans and instructions, and, above all, a model really worth building have paid ample dividends to those manufacturers producing them.

We would pass on to the body of this our second *Aeromodeller Annual* with a word of thanks to those who bought our first, and so encouraged us to make this a regular event; to those who have written criticising our earlier effort and guiding us in future productions; to those who just praised it and so emboldened us to further effort; and finally to those many foreign correspondents who have provided material, and the many foreign journals who have extended us the freedom of their columns to pick the best of the year's aeromodelling throughout the world.

Aeromodeller Departed: John Minshull - Tony Shepherd

John Minshull.

It is sad to have to inform you of the passing of John Minshull who died on 14th September aged 89. This follows a short period in hospital following the development of a brain tumour but at least his final days were pain-free and he had the chance to say his farewells to family members.

His son was my boss at work and one day, when I questioned Mark as to whether John was any relation of his then the link became apparent and next time I was at Middle Wallop I made sure that I introduced myself to him. He was a very sociable chap and always happy to have a chat about his long life in model flying and life in general.

John was a member of the Brighton & District MAC and I understand that he served much of his "apprenticeship" in our hobby under the watchful eyes of the Boxall twins. One early reference I found to John was for a contest where 5 members flew Boxall "Fittleworth Flyers", John coming second behind Fred. Most of John's flying was with rubber but there is at least one power design in his collection of finely built models.

Later on John became a regular flyer at Middle Wallop and Beaulieu which were both very convenient for him as he lived in Kings Somborne, just outside Stockbridge. He was also very involved in sailing.

Family commitments meant that in recent years he had other priorities and so the flying stopped but he still kept in touch with what was going on. The last time I saw him was at the funeral of Pauline Hook along with quite a few members of our fraternity.

We send our condolences to his wife, son and daughter.

His funeral will be held at the Test Valley Crematorium on 25th October at 2pm.

R.I.P

Tony Shepherd

Secretary's Notes for October - Roger Newman

First & foremost – I'm moving from the South Coast to North Wales at the end of October. I have some 60 years' worth of Aeromodeller mags – from 1942 to 2001 plus several copies from earlier years. There are also quite a lot of Model Aircraft mags including a a few complete years & several not so. If anyone would like them – absolutely no charge – please get in touch urgently as they must go. If not wanted, they will go in the skip. Only condition is that whoever has them has to collect or to arrange for shipment.

I can be contacted by email rogerknewman@yahoo.com,
by landline 02392 550809 (but not always there) or mobile 07817 704456.
Note that I live in Lee on the Solent on the South Coast till end of October

Most of the remainder of my modelling stuff has gone to the forthcoming BMFA Auction at the end of October. It seems there aren't many flat sites where I am going, thus this spells the end of active modelling for me after some 70 odd years of a very enjoyable hobby & meeting with a whole host of great people.

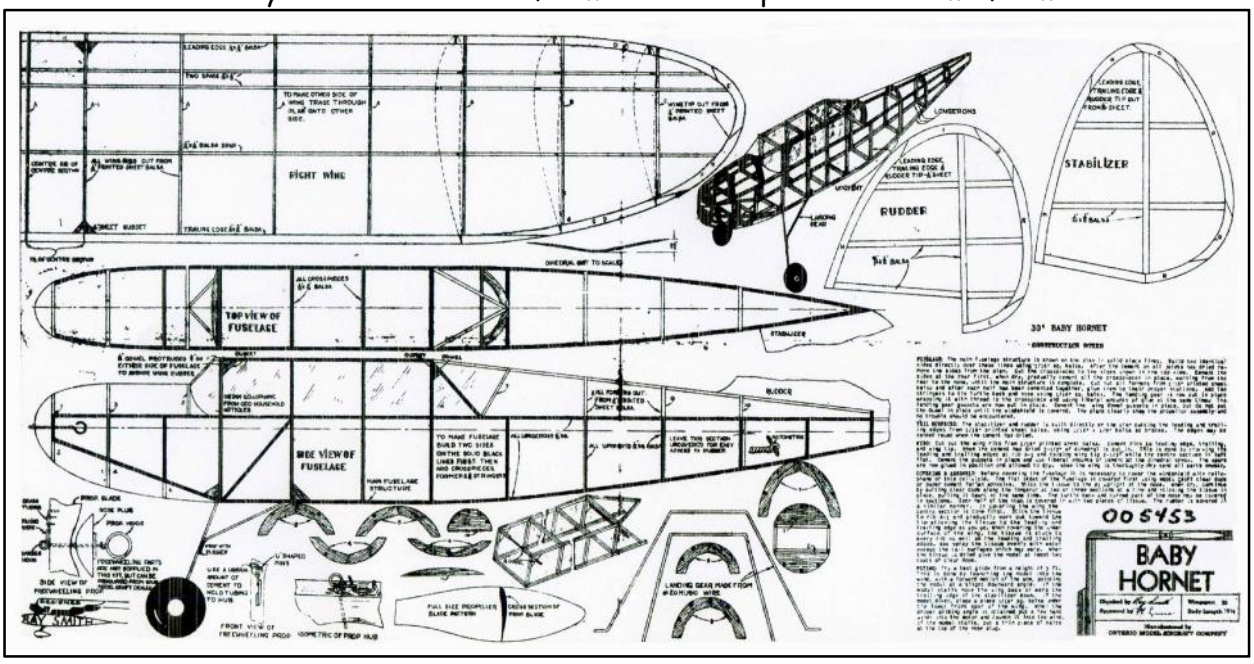
As most of you will know, I also hold the SAM1066 plan library in pdf format files. Again if anyone would like a complete set, I can put them on a memory stick – all I need is your memory stick. Get in touch by email & I'll advise which address to send the stick as I'm consistently on the move at present trying to sort out houses & stuff.

That leads nicely into the next subject – the post of Secretary of SAM1066. Since Covid this has not been the most arduous of tasks – a few comps on Salisbury Plain – this year in particular where poor weather has combined with my absence to result in others stepping into the breach – particularly David Cox who has combined competitive flying with logging results for which I am exceedingly grateful. So here is notice that we really shall need a new Secretary following our AGM to try & breathe a little life in the activities of SAM 1066 in 2024.

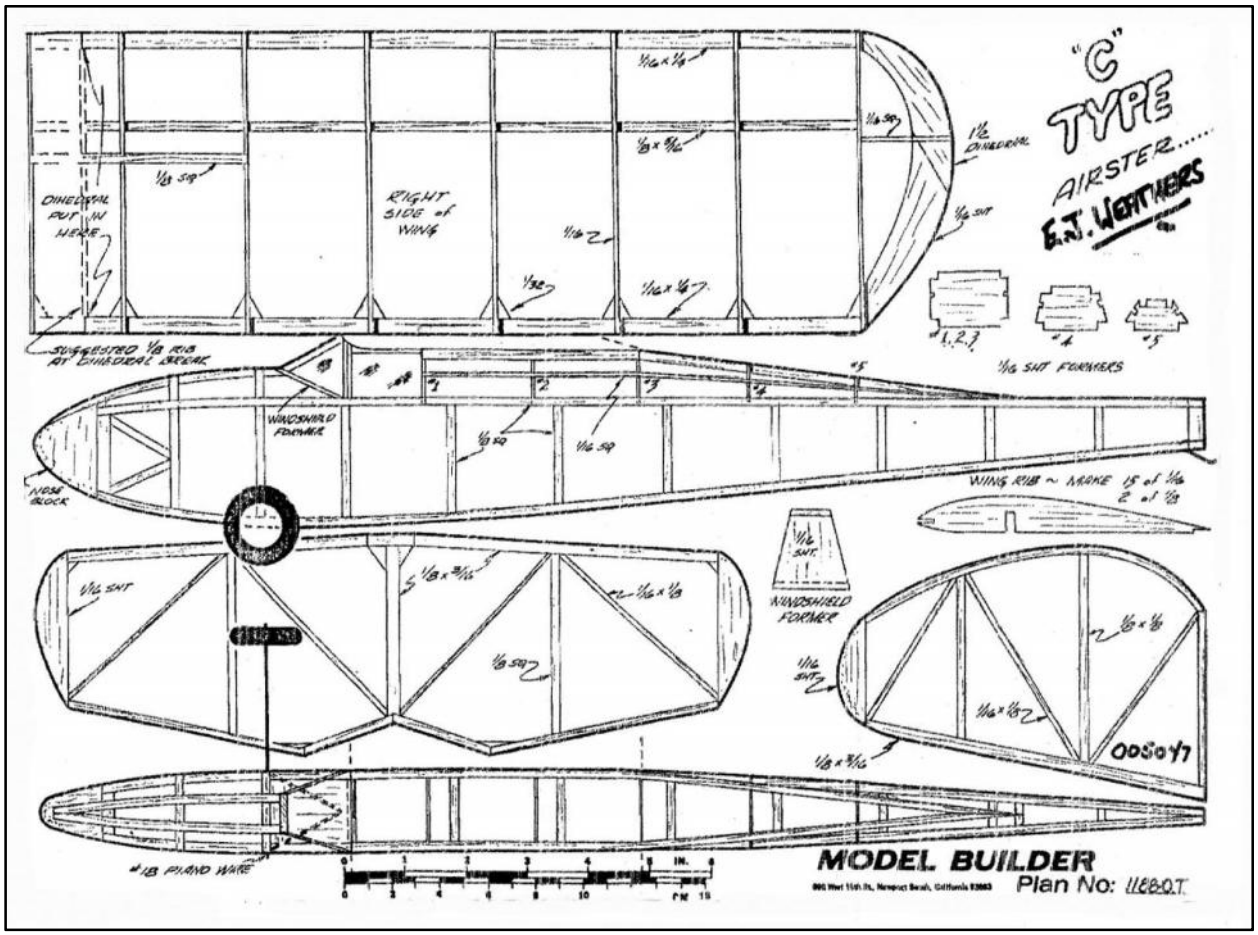
The Boyes Westland Lysander has found a good home with a promise of completion & flying, so that's welcome news. It will be delivered sometime in November – just ready for Christmas!

Plans for the month

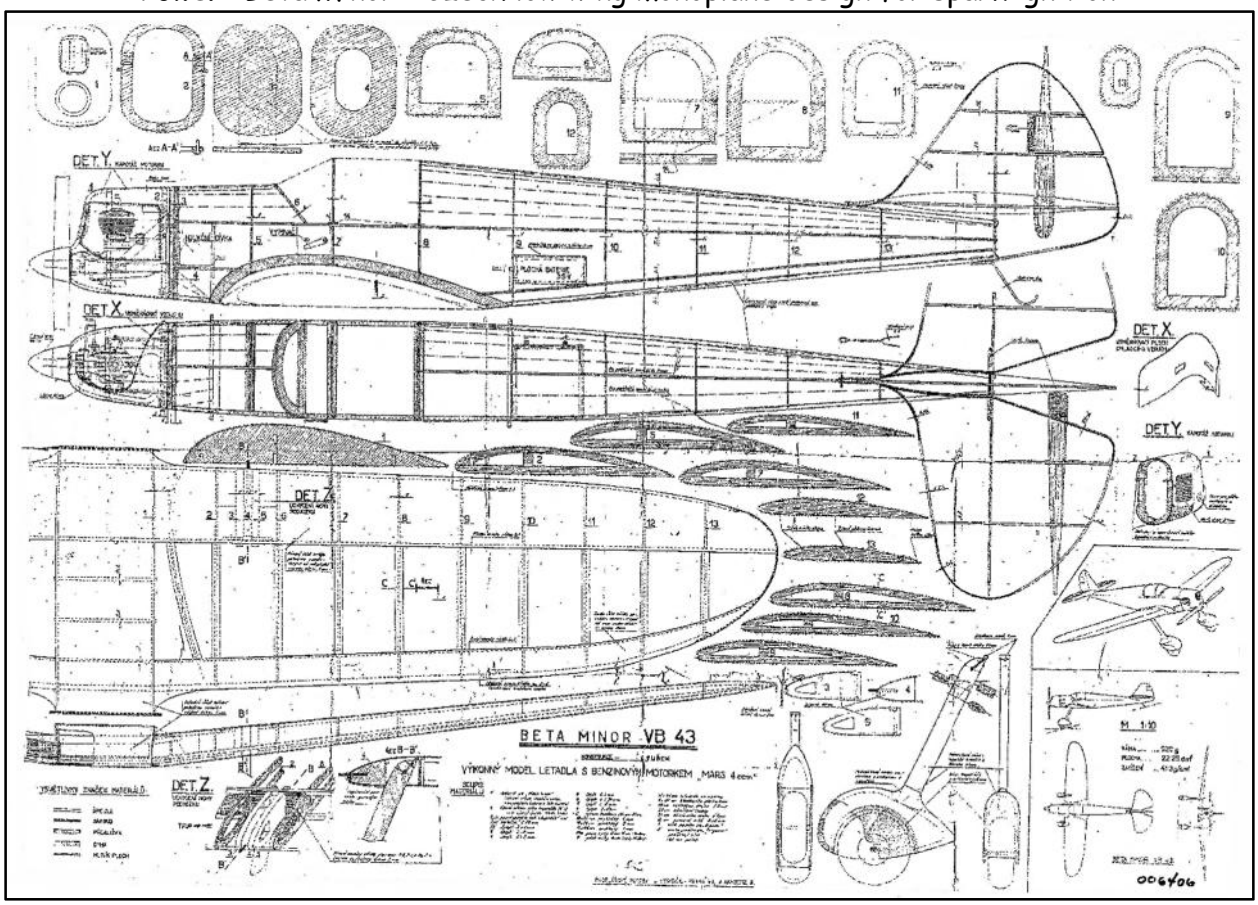
Rubber: Baby Hornet – another from across the pond – this time from Canada



Glider: "C" Type Airster – Model Builder plan from USA



Power: Beta Minor – Czech low wing monoplane design for spark ignition



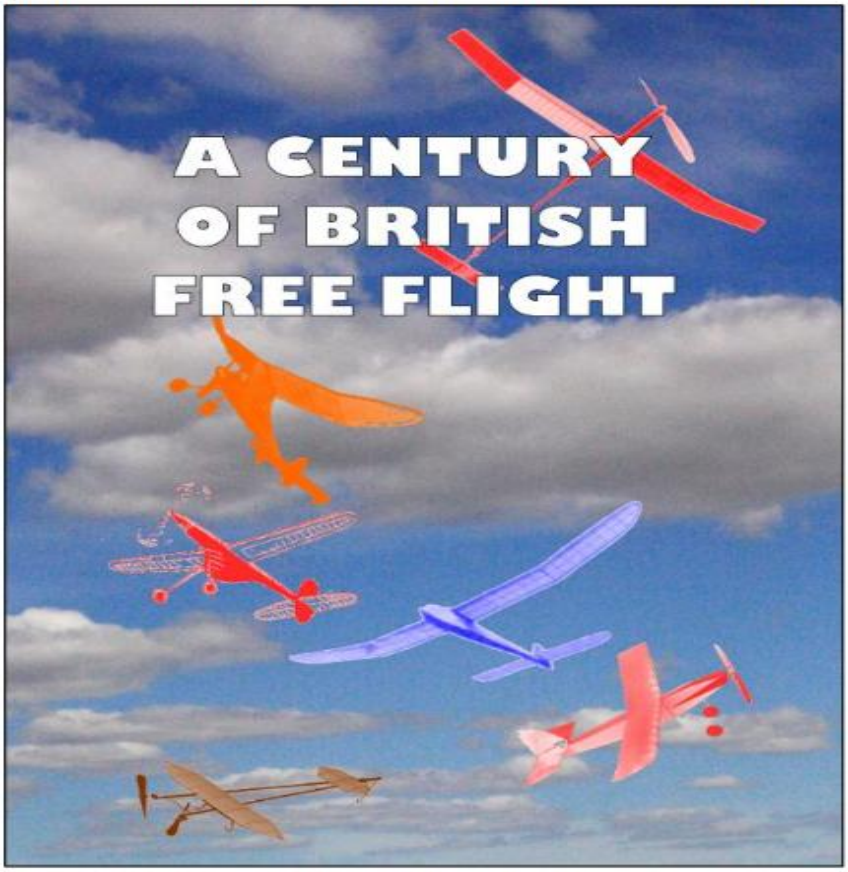
Roger Newman

A CENTURY OF BRITISH FREE FLIGHT

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

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

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



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

Permits for Salisbury Plain & North Luffenham

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

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

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

Southern Coupe League

Programme for 2023

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

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

Croydon Coupe Europa
& SAM 1066
8th October
Salisbury Plain Area 8

Start 10.00 am

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

SAM1066 Events: -
Combined Vintage/Classic Glider; Mini Vintage

Contact Ray Elliott - tel: 07513 649734
Email: ray.elliott8@btinternet.com

La Ninth^{ieme} 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: stuartdarmonf1a@yahoo.com tel: 01858 882057

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 stuartdarmonf1a@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.

Indoor Model Flying Bangor, North Wales

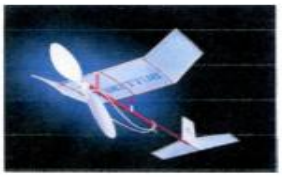
September to May - see dates below

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



Flitehook Indoor Free Flight

West Totton Community Centre SO40 8WU

2023 Winter Dates:

20th Sept; 18th Oct; 15th Nov;

12.00 noon - 4.00 pm
BMFA Membership mandatory
£8 per session
Spectators & Juniors are free of charge
Easy access; Cafe; Toilets; Parking
Flitehook Sales Table

Any queries
email rogerknewman@ yahoo.com or phone 02392 550809
Supported by Southern Area BMFA

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

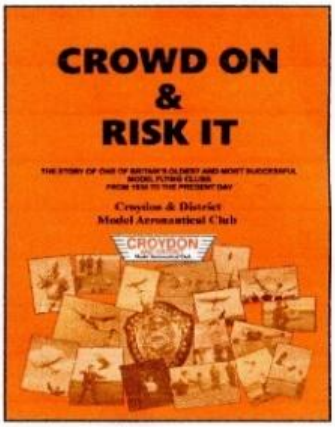
Place your order by telephone, by e-mail, CASH, DIRECT TO FREE FLIGHT SUPPLIES BANK ACCOUNT, CREDIT/DEBIT CARD, MORE!
WESTERN UNION, PAYPAL

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

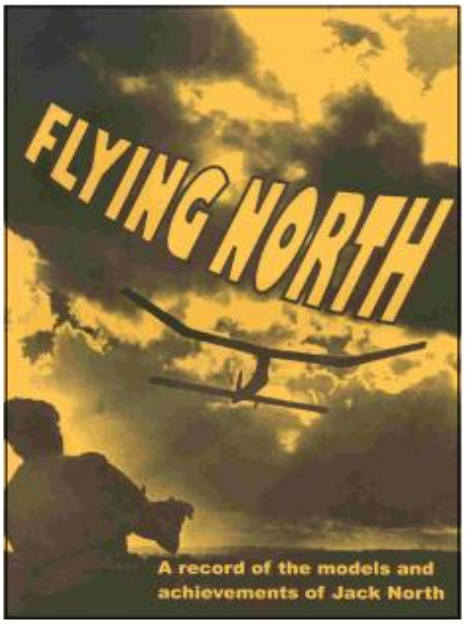
The following appeared on the Hip Pocket Aeronautics Builders' Forum. Nine different tissues were tested, doped and un-doped.

"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"

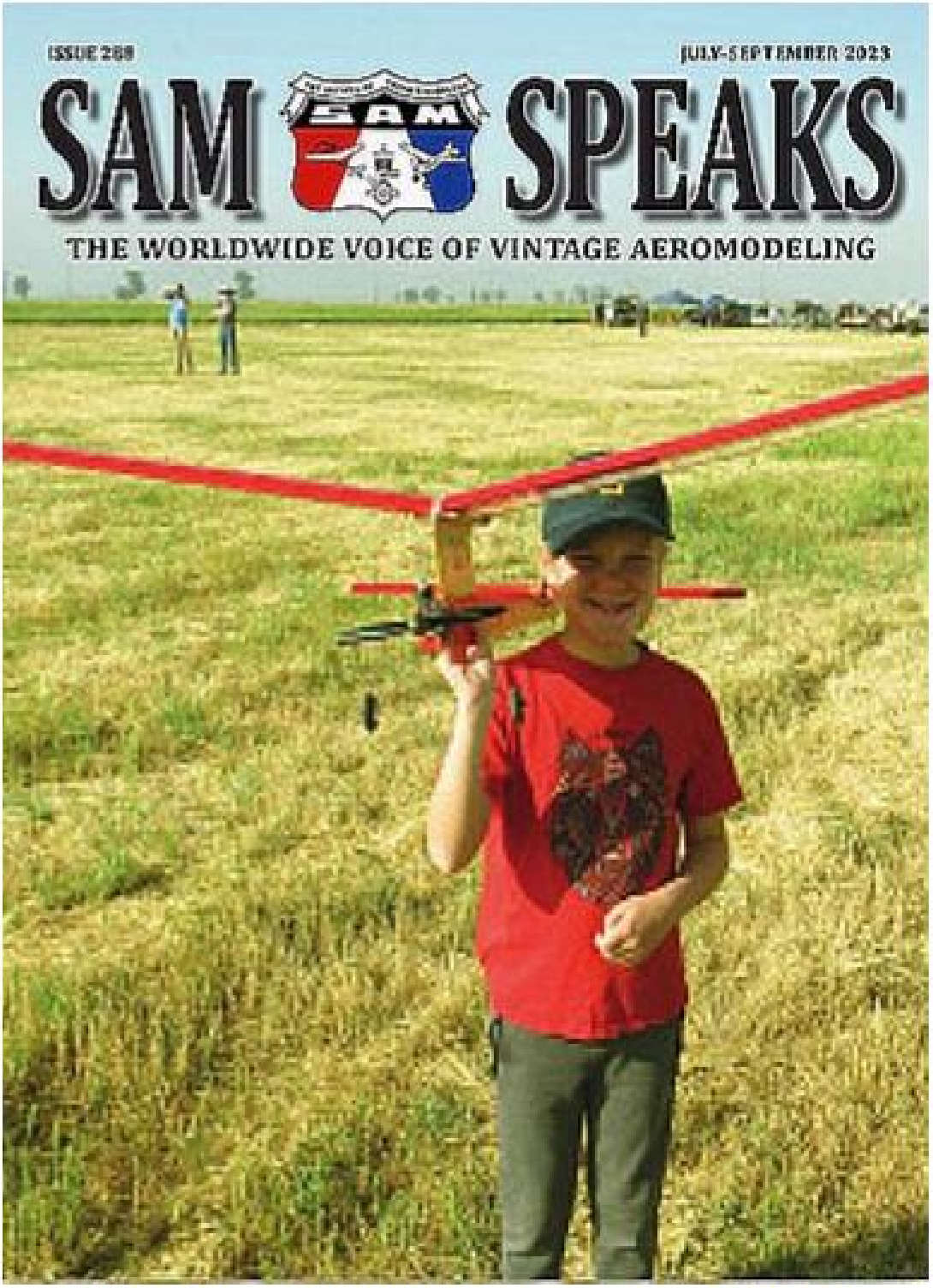
Price £22.00 in the UK, £26 airmail to Europe and £32 elsewhere.
Contact Martin Dilly on +44 (0)208-7775533 or e-mail martindilly20@gmail.com

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 Tor A Lady Flyer - Sue Johnson
F3 Res • Rc For The Aging Free Flighter – Andy Sephton
From Wichita To Robin Iii – Mike Fantham
Further Thoutghs On Carbon-Skinned Wings Tor F1a - Stuart Darmon
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, **WestWickham,** Kent BR4 OQW
Or by phone: +44(0)2087775533 Or e-mail: martindiHy20@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 26th	Sunday	BMFA 1st Area Competitions
March 12th	Sunday	BMFA 2nd Area Competitions
March 26th	Sunday	BMFA 3rd Area Competitions
April 7th	Good Friday	Northern Gala, Barkston
April 10th	Easter Monday	Croydon Wakefield Day + **SAM1066,** Salisbury Plain
April 16th	Sunday	Le Petit Classique de Brum, N Luffenham
April 29th	Saturday	London Gala, Salisbury Plain
April 30th	Sunday	London Gala, Salisbury Plain
May 7th	Sunday	Crookham Gala, Salisbury Plain
May 27th	Saturday	**FF Nationals,** Salisbury Plain
May 28th	Sunday	**FF Nationals,** Salisbury Plain
June 4th	Sunday	**FF Nationals, Mini,** N Luffenham
June18th	Sunday	BMFA 4th Area Competitions
July 9th	Sunday	BMFA 5th Area Competitions
July 23rd	Sunday	**SAM1066** Cagnarata Day, Salisbury Plain
July 29th	Saturday	East Anglian Gala, Sculthorpe
July 30th	Sunday	East Anglian Gala, Sculthorpe
August 13th	Sunday	Southern Area BMFA FF Gala, RAF Odiham
August 20th	Sunday	Southern Gala, Salisbury Plain
September 2nd	Saturday	Stonehenge Cup, Salisbury Plain
September 3rd	Sunday	Equinox Cup, Salisbury Plain
September 17th	Sunday	BMFA 6th Area Competitions
October 1st	Sunday	BMFA 7th Area Competitions
October 8th	Sunday	Croydon Coupe Day + **SAM1066** Salisbury Plain
October 15th	Sunday	BMFA 8th Area Competitions
October 28th	Saturday	Midland Gala, Venue, Barkston
November 5th or 12th	Sunday	Buckminster Gala, BMFA Centre

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

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

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

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

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Are You Getting Yours? - Membership Secretary

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