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Merry Christmas



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Editorial

Hi, Merry Christmas to one and all.

My dire internet warning of the possibility of a thin New Clarion for the Xmas issue and appeal for copy bore fruit and we do have a reasonably large issue to finish off 2024. Thanks for rallying round.

That's another year gone, not one of the best for free-fighting as I understand it but there were one or two events blessed with good conditions I believe. Better luck next year.

What have we got in this bumper issue?

-] We kick off with John Taylors 'Ladybird' also suffering with Dutch Rolling.
-] Pylonius has a few words to say about the landed gentry who park their posh cars somewhat indiscriminately and get pranged by careless model flying.
-] I dig out my report on my Nationals participation in 2003.
-] Paul Lovejoy answered my call with a piece on a couple of low-wingers.
-] The News Review from 1949 tells of praise from the foreign press on the organisation of the international meeting. It also reports on Home Office guidance to local councils for bye-laws on model flying in local parks.
-] The Wycombe MAC indoor meeting is the subject of Nick Peppiatt's article, this is his 82nd report and I thank him for his tenacity in knocking something out for us every month.
-] Roger Newman poses a picture Quiz.
-] I have consulted Wikipedia and come up with details of the Antonov An-2 Biplane.
-] Roy Tiller, early this month, again digs into our archives.
-] The 3rd Petit Classique De Brum is reported in detail by Gavin Manion.
-] Aeromodeller Annual 54/55 talks of technology overload with modellers lagging behind.
-] Roy Vaughn builds a nostalgic team racer, not too sure he will ever fly it. I would be flat on my back before the first lap was over.
-] Engine test from December 1966 is the WEBRA Sport glo.
-] There is an extract from December Aeromodeller 1944, a McGillicuddy adventure.
-] Peter Hall's obituary charts his artistic and aeromodelling life, we have Roy Vaughn and Ray Elliott to thank for it.
-] Heard at the Hangar Doors from Dec 54 talks of FAI Records and also talks of torque.
-] Paul Lovejoy reports on the Wickham indoor meeting together with a few atmospheric pictures of attendees.
-] Roger Newman writes from North Wales looking at the BMFA as is and their future intensions to survive as membership falls. A quick update on the e-vtol scene as companies founder. Finishes with a quick change of interest in the shape of a railway locomotive.
-] Our Secretary's offering is mainly concerned with competition format for the future as competition entries dwindle. He sees the Cagnarata format becoming the norm for contests and backs his thoughts up with a few facts.
-] We wind up with Rogers Plans for the Month:
 -] **Power:** The Nomad - pod & boom model from 1941. At 78" span, we'll never see the likes of these again.
 -] **Rubber:** Nel - neat little design from 1940
 -] **Glider:** Outdoor Pusher Glider, another small canard chuckie from Zaic Handbook.

Well that's all folks, have a good Christmas and we will hope for a good 2025.

Editor

Here is a picture of me with my Ladybird Special



I don't like Dutch Rolls.

This model is the 42in span Ladybird Special by HJ Pridmore in the AM annual 1950. It was powered by an ED Bee and developed from his 34in rubber powered model designed in 1948.

I built my model about 3 years ago for electric power and Radio guidance with controls on rudder, elevator and motor speed. Power is a small brushless motor driving a 9x4 prop.

Battery is a 2cell 1300 Mah lipo. Covering is Airspan which resists fading in bright sunshine. Weight ready to fly is 1 ½ pounds

A few weeks ago on a calm day I flew and realized that its instability was just on the verge of Dutch Rolling. This condition had also shown up on my very old Tomboy and I had cured the problem with an extra 3/4in wide strip of balsa to the fin LE.

Back home I made an extra central fin for the Ladybird and "hey presto" it flies steady as a rock.

What a coincidence that on the other side of the world Barrie Russell was having the same problem with his Gas Buggy.

Ladybird by John Taylor. Bournemouth.



*John Taylor
Bournemouth MAC*

TOPICAL TWISTS

by pylonius

MODEL AIRCRAFT

DECEMBER 1955

Topical Twists

*Though, gentle Reader, I may unbena
And best of seasonal wishes send,
Your ribald reply will come e'en faster
Than that which met the workhouse master,
Yet may your dimmer airfield antic,
And your club reporting frantic,
Enrich this column, all bolonius,
As a New Year Gift to old Pylonius.*

Gently with the Gentry

Modellers with a particular bent for pranging Bentleys, and even less noble breeds of horseless carriage, are asked to resist the wild temptation of flinging their fragile craft against the solid, metal flanks of the parked flivver. Apparently, the car bashing sport has reached such orgiastic proportions that the Bentley owner has serious misgivings about continuing to enhance the flying field scene with the presence of his dignified carriage.

Honoured by this glittering mid-field ornamentation, at least the scruffy boys should have the decency to keep their vicious toy aeroplanes under control or fly them in some other part of the field. If only they had the good sense to take their toys over to the far corner everyone would be happy. Probably the scruffy boys would enjoy the added delight of a spot of tree climbing.

Seemingly, the Bentley bending situation reached something of a crisis at the recent All Britain Car Owners' Festival, where certain stubborn model flying types had the audacity to protest at being pushed downwind by the parking demands of the car-borne gentry. This childish rebelliousness can only be regarded as showing a lack of proper respect to elders and betters, and we can only hope that this infantile petulance is not carried to a point where the scruffy boys refuse to demonstrate their toys for the edification of the windscreen sheltered elite. Such a situation would be disastrous. Without the odd Bentley on the flying field life would become a very grim prospect for the average club member. What would he find to talk about?

A Grim-sby Outlook

Our friend, Eric Fearnley, seems to think that he has at last succeeded in unmasking me. I might warn him, though, that in the past many have vainly tried to unmask me—only to find it is my natural face.

Perhaps one day I shall visit Grimsby—who knows what vicissitudes life has in store for us? If I do, I shall most certainly call in upon the Toy Maker in Chief, and also upon the Toy Shop Proprietor, whom, it is alleged, awaits my coming with a handy piece of 4 in. x 3 in. hardish balsa. Well, to whom else but a functional prop. carver could he dispose of such stock? I would be only too willing to receive such a useful gift.

All-in Flying

The vast crowds at the All Everything Rally at Radlett indicated a welcome revival in model flying interest. It was, perhaps, a blessing that this didn't coincide with a revival in model flying as already launching space was strictly limited to v.t.o. A situation which in no way deterred the C/L demonstrators, who scythed out their circular patterns amid cries of anguish from the stampeding crowds. And, speaking of cries of anguish, the authorities have at last taken action on the incessant appeals to mind the lines by throwing up a high wire fence along the railway.

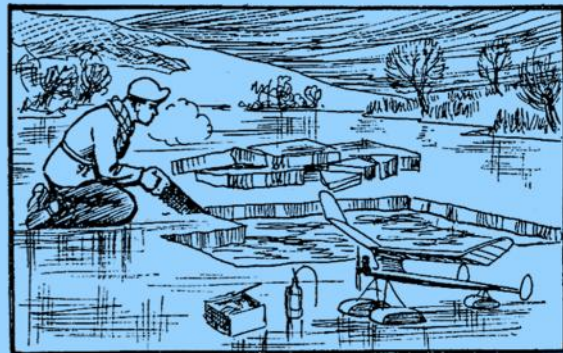
With so many odd and unusual craft cluttering the air, the

freak specialist found competition somewhat stiff. Though few ducted fans appeared among the risible (but hardly risible) brainchilds, the larger species of delta, or infernal triangle, had quite a field-day, putting even the most nimble footed spectator on his mettle.

Not that you can blame the exhibitionist type for giving the crowd such a hot time. Boggled at with awe and wonder by the yokels on the local common, the super model is carried triumphantly to Radlett for its national debut, but only to meet with the cool indifference of the freak glutted populace. It was chilling to hear his bitter, ironical laughter as the crowds dived for safety.

We were impressed with the sinking speed tests carried out in the seaplane tank. The test models sported a weird array of appendages, optimistically referred to as floats. One buoyant character even had ping pong balls dangling on his tailplane—but the aquatic antics of the model suggested that the remainder of the table tennis outfit might have come in useful—particularly the net.

Detracting from the dignity of the prize giving ceremony—possibly the longest on record—was the shuddering impact of the toys-for-boys title of "Cement Squeezers" emblazoned across the manly chests of the St. Albans dignitaries. Apart from anything else, there is the danger, in these days of monopoly scares, it might be misconstrued by airfield constructors. We can only hope that those few civil servants in our midst bring their influence to bear—in which case we can look forward to a future change to the St. Albans Acetate Adhesive Capsule Compressors.



Half a Moment

Even the long-fuselage experts have now abandoned their elongated nightmares in favour of the more compact and conventional design, and find that the shorter model stays up longer, if you see what I mean.

This seems to suggest that all this lengthy fuselage controversy has been just a lot of fuzz about nothing.

Pass the Sugar

One club, I note, refers to itself as multilateral. Now, although I don't know what this means, at least it's nice to know we have a few civil servants in our midst.

I am asked to state that, in spite of its name, the newly formed Sandiacre Club has no connection with Chobham Common. London clubs, we hope, will be the first to offer their congratulations.

We read of a power model described as a "threat at any contest." Where's that tin hat?

Pylonius

Extract from old paperback Clarion August 2003

John Andrews - BMFA Nationals 2003 – etc.

My regular readers may recall that I made a block entry in the 2002 BMFA Nationals and laid the blame at Peter Martin's door. By the way, Peter's associates are amused by the fact that I seem to blame him for many of my activities; surely, that is what mates are for.

Well, I did it again; block entered the 2003 BMFA Nationals that is, not blaming Pete. This mistake was all mine own.

I took stock of my models, I am not a prolific builder by any stretch of imagination, and neither do I build anything that could be described as vaguely near exhibition standard, to boot I had made only the STOMPER in the winter building programme (building programme, that's a laugh). Second thoughts, I have the framework of an ACHILLES ready for covering, I have been messing about with that on and off all winter. The wife is off with the car this afternoon, so I think I will go up to the workshop and stick a little tissue later on.

Drifted off course again did I not, back to the model stock. I have three open rubber models; (36-3) the little three-footer in the photo, (O-2) the model that I flew in last years Nationals and my new one (O-3), slimmer, lighter but not yet flown in anger. My new STOMPER-2 would do for Open Power & SLOP and the HEP-CAT for Vintage & Mini-vintage. My Gipsy was still in bits from Wallop, so no Wakefield for me and my LULU had been sucked up into the wide blue yonder at Wallop last year, so no glider. It had been the LULU's first competition flight, Peter had launched it and was timing, he saw the D/T tail go up but the lift was just too good for a lightweight like the LULU and it just kept on going up. I don't think I can blame Pete for that one though.

First day was the open events and I arrived to the howling gale that was to be the 2003 Nationals. I set the estate car into wind and as Open Rubber is my number one interest, began to assemble O-2 in the shelter of the back of the car. I did not intend to risk my lighter model O-3 in the high wind. (I was saving it for the fly-off Ha! Ha!).

With the wind being so strong, I fitted a 20 strands x 3/16-rubber motor rather than the 14 strands x 1/4. It punches through ground turbulence better with the bigger motor (that sounds like I know what I'm doing, Oh Boy! the power of the written word). Unusually for me, I had actually prepared for this year, I had de-stranded all my motors, lubricated and re-stranded. There are five nails stuck in the doorframe over the workshop door where I looped the motors to equalise the strand lengths for re-stranding (I don't think Rachel the wife has seen them yet but I bet she'll be interested when she reads this).

Back to the contest, I had set up my big winding stooge in the lee of a fishing umbrella, with four guys to take the strain (that's ropes not blokes, it's not that big) and two to keep it upright (still looks like I know what I'm doing). Now comes the big letdown. I pick up O-2 from the back of the car and moves around the umbrella towards the winding jig. I was now out in the in the open.

Bang! all of a sudden I have myself a two piece wing. I said it was windy. That was the end of O-2's interest in the day's proceedings. I quickly hid the bits of O-2 back in the box and set about assembling 36-3 to continue my onslaught on Open Rubber (still saving O-3 for the fly-off Ha! Ha! again).



Author with 36-3 in the winding stooge

I went over to Control, booked in and picked up my Flight Card. Peter Spalding was doing the honours, we had a quick chat and in the process, he warned me about the turbulence caused by the trees and cars around the peri-track. Peter suggested that I launch over by the main runway, bear that in mind, I didn't.

I thought I had better have a quick test flight, so I put on half turns and walked out about halfway to the runway. There was virtually no other activity and as a result a photographer appeared as if by magic to record the moment. Fame again thinks I, with my new hat and name blazoned across the front I was bound to make all the magazines. (Must have been a duff photographer).

Being a test flight 36-3 ignored the turbulence (what does Peter know thinks I) and 36-3 zoomed sedately up to a reasonable height, prop folds, glides OK, D/T pops, floats down, flips over and awaits recovery. Job done.

The maximum had been set at an easy (says who) 2 minutes, so I wind 36-3 up for my first competition flight with a conservative 850 turns. With my mate John Nicholson on the watch I walk out towards the runway but not as far as on the test flight. Big mistake. I make a good job of the launch and 36-3 goes straight up through the ground turbulence on the initial burst then settles down to climb. Now Peter Spalding's warning kicks in, before 36-3 reaches the runway she starts bucketing about all over the place and the climb cruise is ruined. However, when the prop finally folded, she still looked plenty high enough for 2 minutes. Wrong.

36-3 starts to glide very brick like, two circles and half the altitude had evaporated, now we were back down in the ground turbulence and this is halfway across the aerodrome. Two quick stalls and wallop, down to earth in something like 1-40 or so, memory dims when recalling disasters. Looking on the bright side, it saved O-3 from a windy fly-off (does it look like I know what I doing now? Do not think so, fly-off Ho! Ho! Ho!).

I recovered 36-3, one prop blade broken, one split and the wire hub somewhat out of shape. I decide I'm going to put in three flights if it kills me. Good old cyno, prop blades back in one piece and hub straightened. Wind up again and move out to the runway (clever Eh!, it takes time but I get the message in the end), good launch again, text book flight, D/T pops well up, simple max still on the airfield (any fool can do it second time).

When I got back from control, Ron Draper, the 1956 World Power Champion, had parked his camper van close by and I popped over for a chat. Knowing Ron, from the best part of 50 years ago (frightening aint it), I decided to give him a demo of my current prowess, as I was much less expert in those days of yore (difficult for regular fans to imagine I know).

I wound up 36-3 again and made a total pigs ear of the launch by not being straight. 36-3 whips round downwind, shooting off for 40 yards or so Quail high at unbelievable velocity before starting the climb. Face was saved however as 36-3 eventually managed to get up quite high in good air and maxed again (I imagine Ron thought 'just like the old days').

That was the end of my competitive efforts at Nats 2003; I gave it best and switched to spectator mode for the next two days.

Day two was even windier but as the wife Rachel and one grandson, 7-year old Jamie, were with me, we were in genuine picnic mode. The weather was quite good if you ignored the wind.

Highlight of the day was the Bowden Contest; we watched the activities from the opposite side of the runway with Ray Allbon and Peter Martin for company. It saddened the heart to see so many crashes as the competitors, brave enough to attempt to compete, struggled with the elements. It certainly was not a good advert for aero modelling, although I imagine there were not too many members of Joe Public watching. My grandson Jamie however, thought it was great as he manipulated my stopwatch as an unofficial timekeeper. He kept calling out the times, three seconds, five seconds etc and was highly delighted when someone flew away for a minute or more. It was just as well that we were on the opposite side of the runway, as his happy chortlings would not have pleased the contestants I'm sure.

We discovered that there were polystyrene indoor models in the hanger for kids use, we had a dabble and I resolved to bring some of my own the next day.

Day three I was on my own, I wandered about for a bit and then took some indoor models I had brought into the hanger and had quite a good time flying my Poly-rat and a couple of other styrene models. After a while, some little lads started kicking a football about and sure enough it finished in the corner with my

models, it put a few creases in some of the styrene and snapped a tail-boom. The damage was not serious and I soon had it all fixed. While I was busy surveying the damage, a poor little downcast 6 or 7 year-old appeared at my elbow and set about trying to tell me he was sorry for causing the trouble. He had obviously been ordered over by some adult, but I managed to assure the lad that no serious damage had been done and the models would soon be all up in the roof again.

There were quite a few lads taking advantage of the other models that had been left for them to play with and I finished up as permanent winder-upper as they came to me, one after the other, asking for 300 turns or 500 turns. They had discovered that I had a counter on my winder. This took through lunch break.

In the afternoon, I wandered the flight line to see whom I could put the jinx on. First victim was Dave Greaves; I spotted him winding a coupe and watched with interest as he launched and some mechanical failure in the auto-trim devices brought a premature termination of the flight. "At least it was less than 20 seconds," say I, thinking of the first attempt rule. "I've got a no flight" Dave ruefully remarked, adding "That was the second attempt". I made my excuses and wandered on looking for another victim.

I spotted John O'Donnell with his lightweight shiny coupe waiting for good air. I watched and waited for him to launch, when he did he got the wrong side of the wind, which had veered and his model staggered off straight up the line of parked cars, struggling for altitude in the turbulent air and dropping out of sight behind some caravan further up the flight line. I don't think he would have maxed with that one.

Victim number three was Noel Parry, one of our regular attendees at David's Friday meetings at the hanger. I spotted Noel with a group of the Biggles club members flying A1 or F1 whatever. I wandered over and discovered that Noel was sitting pretty with 4 maxes already in the bag. He was getting ready for his last flight and was waiting for some good air to fill in his full house and make the fly-off. He hadn't reckoned with my presence and when he eventually launched somewhat indifferently, he got duff air and was down far too soon.

Although Noel slipped down to 7th. place the event proved to be a Biggles benefit as other members of the club filled the first three places.

Not my best nationals ever, but I was there.

John Andrews.

extract from paperback Clarion August 2003

It all began with a call from Steve on my way home. He'd just bought "some models" from a retiring modeller (who turned out to be Mick Blundell), and could he store them in my garage while he figured out where to keep them in his house? 8 large boxes of models later, it was clear he had acquired a substantial fleet of well-constructed rubber and power classics, including several that were new to both of us.

In due course, Steve resolved his storage issue and offered me two models in return for my provision of temporary accommodation. One was lovely rubber-powered Cygnet biplane which may yet feature in a future article. When given the choice of power models, I opted for the 38" span low wing monoplane with curious slots in each wing. This turned out to be Andy Brough's 1992 Miss Charlotte design, complete apart from engine.



Gordon Rae's Cygnet, a 1945 design for rubber.

Not actually relevant to this article but nonetheless a lovely design, beautifully crafted by Mick Blundell.

So far, my attempts at low wingers have been limited to rubber powered scale. Results have been mixed as they say, but fond memories of my Earl Stahl Spitfire and MiG- 3 have taught me that it is possible to trim these subjects to fly consistently and well. But then, that's Earl Stahl for you. The time had come to try one with a small diesel up front.

With plans available on Outerzone, the accompanying article by Andy describes a design for the Old Warden Mayfly Trophy, intended to fly in quite tight circles both under power and in the glide, and using wing slots to enhance stability. This sounded ideal for my preferred flying site, however the choice of power plant was a concern. I've never really got on with Merlins, although many people (including Mick Blundell) clearly do. Yet the bearers were set too narrow for a Mills, so I dug out my dusty Merlin, installed and tested it with a separate free flight tank and all seemed fine.

Test glides showed a lovely floating flight which responded well to rudder trim, so I aimed for a maiden powered flight at the Southern Area Free Flight Gala held at RAF Odiham in August.



Miss Charlotte, designed by Andy Brough. Plans and article available on Outerzone. Note wing slots. Photo shows the original fuel tank arrangement, which was probably asking too much of the Merlin. Really needs a cockpit with a screen (as originally designed) or canopy as a finishing touch.

In retrospect, it was fortunate that I was completely incapable of starting the engine at Odiham that day, since the breezy conditions would almost certainly have spelled disaster. The consensus was that my set up was asking too much of the Merlin's carburation with a long fuel line, so Miss Charlotte went back in the box and I reverted to flying Tomboys for the rest of the day.

Once home a bit of rummaging meant that I could swap in a decent Super Merlin coupled tank, which meant swapping the backplate, which meant replacing the backplate gasket. One of these (I suspect the last) did the trick, and I now had a reliable engine.

My subsequent flying experiences have produced a conundrum on which I would welcome advice from those assembled here. Initially, hand launching with low or medium revs produced a promising short upwind leg, followed by a quick spiral in to left or right according to trim. I subsequently increased right thrust and this initially seemed to have solved the issue, with the model climbing to left under power, then opening out the left turn in the glide. However, over subsequent sessions I saw some excellent flights mixed in with persistent episodes of spiralling in, and finally a flight which puzzled all observers with a tight left turn switching to tight right while still under power. So I'm a bit stumped: CG is exactly where it should be, but perhaps the instability suggests pushing it a little further forward? Or do I need to be brave, simply increase the power and trim to suit? Would a slightly smaller prop help by reducing torque? In the meantime, I'm getting quite good at repairing the wing centre section leading edge.

Anyway, having acquired one low-winger I decided to build another myself. I picked up a lovely kit of Vic Smeed's Lola, produced by the Old School Model Aircraft Factory. This was Vic's last design and the kit was lovingly produced, with excellent laser cut sheet and exactly the right amount of top quality strip. (There is a super account of the design and prototype process, available online as a Sticks and Tissue special written by Derek Foxwell, who produced

the plans). I know better than to mess around with Vic Smeed's design principles, but I did extend a couple of fuselage formers to full height in order to stiffen the section over the wing, also laminating rather than planking the forward fuselage.



'Lola' by Vic Smeed, featuring Pilot Officer Ray Davies. Photo shows the Irvine Mills as initially installed, before I realised that a nylon 8 x 4 prop weighs almost exactly the same as the difference between an Irvine and an original Mills (13 grams in case you're wondering).

In passing, it is well known that Vic preferred to give his designs names with female associations, although some choices (Courtesan, Popsie, Soubrette) were a bit questionable. However I can't help noticing that his most famous design and his last design both have names which some might think hint at a certain gender fluidity. Anyway, with the Lola I decided to run with the connection to the famous Kinks song. My dwindling stock of Esaki led me towards a mid-blue / orange colour scheme that I'm sure I remember seeing on a Mark 1 Escort RS 2000, complete with go faster pin stripe. Additionally, Ray Davies himself occupies the left hand seat. This is to commemorate his dash back across the Atlantic in the middle of the Kinks' 1970 US tour just to overdub the word "coca" with the word "cherry", thus preventing the BBC from banning the song due to a commercial reference. Not that there was anything else about the song that might trouble broadcasters, of course.

Back to aeromodelling. Balance and glide were soon sorted with a couple of tailplane trailing edge shims, once I replaced the initial Irvine with a slightly lighter original Mills. Lola then slotted into a gloriously predictable flight pattern, with all that lovely dihedral ($3\frac{1}{4}$ " on each side) no doubt contributing to a stable left - left pattern. It really was that straightforward. I keep the power well down as there's no obvious way of fitting a d/t, and this one could really go if I let it. Of course, it is perfectly possible that by the time this is published my late autumn flying sessions may have caused me to eat my words, but for the time being I'm content with my first forays into low winged IC free flight.

So, festive greetings and hot mince pies to all. I'm sure there will be at least a little time over the holidays for us all to indulge in our vocation on the building board, if not at the flying field. And all suggestions for improving Miss Charlotte's flight profile will be gratefully received.

Paul Lovejoy

NEWS Review

Wakefield Reactions

Copies of many foreign journals containing reports of the Wakefield Cup Contest at Cranfield have reached us and they are all unanimous in their praise of the manner in which the contest was conducted and in particular the high quality of the accommodation which the S.M.A.E. was able to extend to them, thanks to the kind co-operation of everyone at the College of Aeronautics.

They nearly all comment on the wonderful spirit of friendship which existed between all the competitors whatever their nationality and in their reports the expression that "Model aviation knows no frontiers" becomes almost stereotyped.

This universal friendship is indeed the real reason for the popularity of the Wakefield Cup and so long as it continues the Wakefield Cup will remain the premier international trophy and grow in popularity from year to year.

It seems fairly certain that the 1950 contest will be held in Finland before August, since the Finnish Aero Club is trying to arrange the contest close to the proposed Swedish International Gliding Meeting so that visiting teams can take part in both events.

Wakefield exponents should therefore get busy with their machines without delay.

The Parks Situation

At the time of going to press we learn that the S.M.A.E. have reached agreement with the Ministry of Civil Aviation and the Home Office on the subject of the control of the flying of model aircraft in public parks and open spaces administered by local authorities, and that the terms of the proposed by-laws are fair and reasonable if properly applied by the local bodies responsible.

Of special interest to aero-modellers is the fact that the Home Office has expressed a desire for the local authorities to work in co-operation with their

local model aircraft clubs in establishing the degree of control which it is necessary to apply to render flying safe and free from annoyance.

The efforts of the S.M.A.E. to bring about a reasonable condition are therefore showing signs of bearing fruit to the advantage of aero-modellers in general and we again urge all clubs to get into touch with their local authorities and establish a sound and friendly footing in readiness for the possible future application of the alternative by-laws approved by the Home Office.

At the moment agreement to the proposed form of the by-laws has not been concluded between the Home Office and the "local-body" associations, but it is hoped that this will be achieved in due course without any appreciable departure from their present draft form.

The S.M.A.E. will not delay in letting all clubs have full details of the by-laws as soon as complete agreement has been reached between all the parties interested.

International Glider Classes

The possibility of participation in the Swedish International Glider contest brings into prominence the Glider Classifications employed by the Scandinavian Model Aircraft Union comprising Norway, Sweden and Denmark.

A proposal has been advanced by this Union that their glider classifications should be adopted as a world standard by the F.A.I. with their intermediate class, known as the "Nordic" A/2, as the standard for international contests. This class covers gliders of medium size capable of easy transportation and there is much to be said for its adoption since it produces a model which is capable of transportation in a moderate size model box, an important matter in these days of difficult travel.

The specification is as follows:

Total mainplane and tail area: 495 to 525 sq. in.

Minimum weight: 14½ oz.

It is a point which should be given consideration by the S.M.A.E. without delay, if it can spare the time from its many commitments.

Correspondent Wanted

We have received a request from a French aero-modeller for assistance in contacting British modellers who would be prepared to correspond with him and to exchange not only experience but English motors and glow-plugs for French motors and construction kits.

If there are any of our readers interested will they communicate direct with M. J. Budynkiewick, 113, rue du Chevaleret, Paris, XIII⁰, France?



The Compliments of the Season to all our Readers



Indoor flying meetings 2nd and 3rd November

There were several indoor flying opportunities over this weekend. On the Saturday evening I attended the two hour session for indoor RC aircraft at Wycombe Leisure Centre organised by the High Wycombe DMAC. The hall is large and can contain twelve badminton courts. On this occasion, a large inflatable play area was set up at one end, so that only two-thirds of the hall was available for flying, but this still gives more than adequate space. Each half hour was divided into three slots for different model types, i.e. scale and sports models, shock flyers and helicopters. The slots were busy, with approximately the same number of fliers in each. When the whole hall is available, rotary wing machines are flown at the end occupied by the inflatable, and the fixed wing aircraft alternate in slots of fifteen minutes each. The sessions are always capably managed by the Wycombe maestro, Brian Seymour.

Planes constructed from balsa are fairly rare at these meetings, the most common in the scale and sport slot are aircraft constructed from foam plastic, such as the Microaces kits, particularly the Scrappee and its variants.



Fly Baby Bipe of 14.5" wingspan
Stevens Aeromodel kit.



Peanut Bug (13" wingspan) from Bob Selmen
from Designs kit.

I did fly two three-channel models constructed from balsa wood. The Peanut Bug was built from a Bob Selman Designs (BSD) kit that was available about 10 y ago. It uses a ParkZone Mini Vapor RC brick and is powered by a 6 mm dia coreless motor driving a 65mm dia Plantraco Tri-Turbofan propeller through a gearbox, which uses K&P gears. The gearbox frame is constructed from parts laser cut from a Delrin sheet, which enables a radial mount. One of Ron Marking's 75mAh lipos provides a good power source. The wing of mine is covered with Esaki tissue over 5 micron Mylar, so that I can fly it early on calm mornings outside, when it is likely to be damp and the tissue would otherwise go slack. The flying weight is 22g. The Bug is a reduced size version of Bill Winter's Lightning Bug, which was originally published in the July 1961 edition of Model Airplane News. BSD also offered some other kits of Peanut sized models of models, including Bob Coon's Guided Mite, the Sterling Mambo and the Midwest Esquire.

The Fly Baby Bipe is from a Stevens Aeromodel kit produced in Colorado, www.stevensaero.com. This nice series of laser cut balsa kits was imported by Micron Radio Control, but they now specialise in RC components for model rail and land vehicles. The Bi-Baby is controlled by a ParkZone Vapor brick and is powered by a P-51 motor, gearbox and 130x70 mm propeller. It is covered in Solarfilm Lite - the wings are single surface. The flying weight is 39g. I usually use a 160mAh 1S lipo. I also flew a Micro-Tyro, constructed from Depron, built from the plans by Arnaldo Correia, published in the September 2017 edition of AeroModeller.

These two hour RC model meetings are held regularly throughout the winter months. Please see the club website [HWDMAC - Come fly with us](#). for details and dates. For the opportunity to fly free-flight in this fine hall, the BMFA South Midland Area Indoor Flying Extravaganza will be held on Sunday, February 9th, 2025. This is two weeks before the SEBMFA Indoor Free Flight meeting in the Triangle Centre, Burgess Hill, on the 23rd.

On the Sunday I ventured over to a new venue for me, the London Area Indoor Meeting held at the London South-East Colleges Bromley Campus Sports Centre, which was run by Martin Dilly. This hall is about one third of the area of that at Wycombe Leisure Centre, but of similar height, being 120 ft x 70 ft x 30 ft high. This is slightly larger than the sports hall used by the Trinity Indoor Flyers.

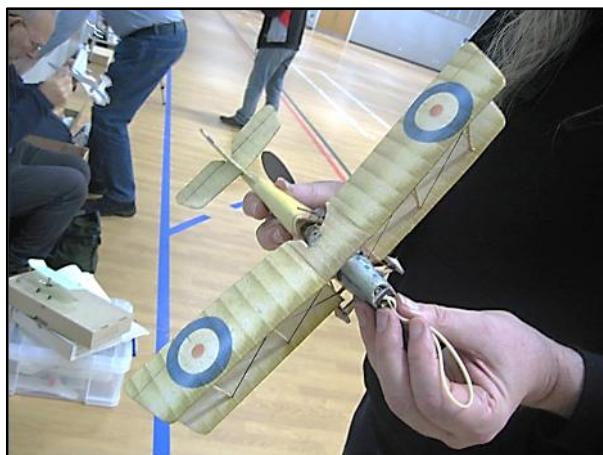


Entrance to the Bromley Campus Sports Centre (LSEC).



View of the sports hall. One of Lee Bates models is flying in this photo, but it is extremely hard to spot.

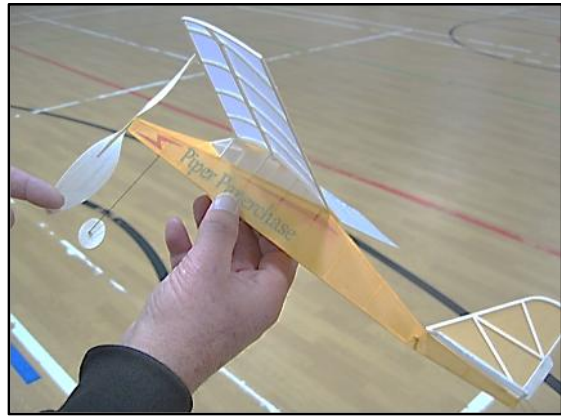
I don't know why, but this meeting attracted very few attendees. It had been well advertised on the BMFA events page and in the New Clarion. The hall is more than acceptable, as can be seen from the photograph, and had minimal draughts. At the starting time of 11am Martin and I were the only people there and I had carried out several flights before other flyers arrived. Eventually about seven other flyers turned up and a mixture of free flight and RC flying took place. Because of the low numbers there was no need for slots with different model classes.



Two of Lee Bates' printed tissue on foam creations, a Martinsyde Elephant, left, and Albert Ball's Nieuport 17, right.

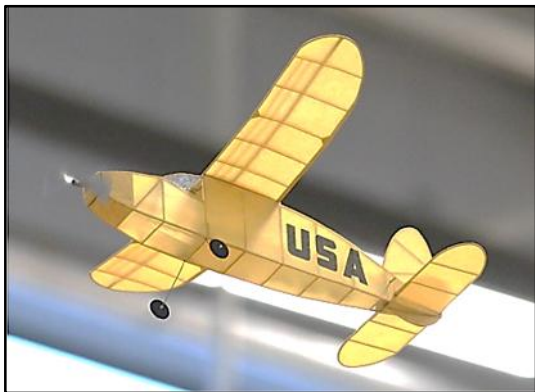
Lee Bates brought along a number of his beautiful printed tissue and foam creations. I have described some of these previously in IIFE 75 (NC April 2024).

As well as his Bristol Freighter, Terry Adams flew two models that won their classes at this year's Indoor Free Flight Nationals. These were his fine flying catapult launched glider and a Legal Eagle based on Carl Hedley's Piper Paperchase design that was published in issue 170 of the Hangar Pilot newsletter in 1995. This weighs 4.3g. The CLG wing has flaps carved and sanded from blue foam attached to the balsa wing.



Terry Adams about to launch his CLG, left, and his Piper Paperchase Legal Eagle, right.
The launch angle of the CLG is critical.

On the free flight front, I flew my Ganagobie Peanut, which I'm still struggling to get much more than a 30s flight from, and a Sorta Korda Bostonian, which is a very consistent flier. This design by Bill Baker was published in the January 1986 edition of Model Builder.



Sorta Korda (Andy Blackburn photo)



Peanut scale Ganagobie

On the RC side, I would consider the planes that I flew the previous evening at High Wycombe either somewhat large and/or somewhat fast for a hall of this size. I took along a TY Model Black Flyer V2, which I have christened 'Turkey Gnat'. This kit of carbon fibre rod and other plastic parts was sourced from Banggood for about £45 with the Rx and servos. I was not enamoured by the transparent covering supplied and replaced this with unshrunk Solite attached with a sealing iron at low heat using Cover Grip adhesive applied to the carbon fibre frame. This model made a number of long sorties and was ideally suited to a hall of this size. The 7mm coreless motor driving a 100x70mm propeller through a gearbox gives more than adequate power. The flying weight of this 300mm wingspan biplane with a 160mAh lipo is 22.5g. Also, ideally suited to the hall was Chris Locke's neat, but unnamed, three channel Depron biplane with a profile fuselage.



'Turkey Gnat'



Chris Locke's Depron biplane

Finally, a note on indoor etiquette as I did have a chat with a chap who arrived and parked himself in the middle of the long wall of the hall. The very sensible stated policy for the Trinity indoor meetings is: - 'when you arrive, please try and fill-in the corners and short edges of the hall first so as to leave the largest possible unobstructed area for flying.'

Thanks are due to Martin Dilly for organising the meeting at this nice venue, which gave the chance for those few of us there to fly a wide variety of models.

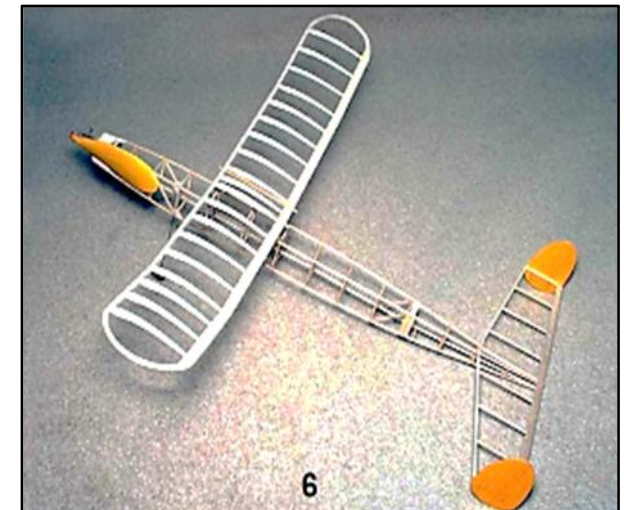
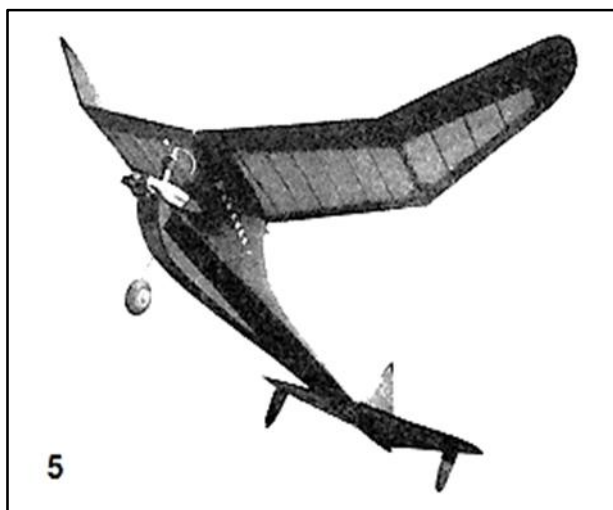
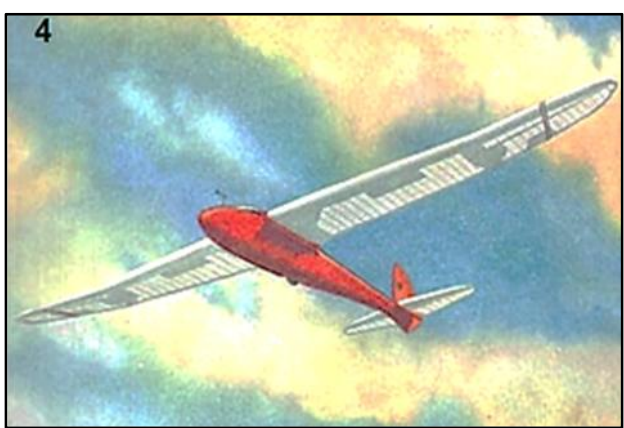
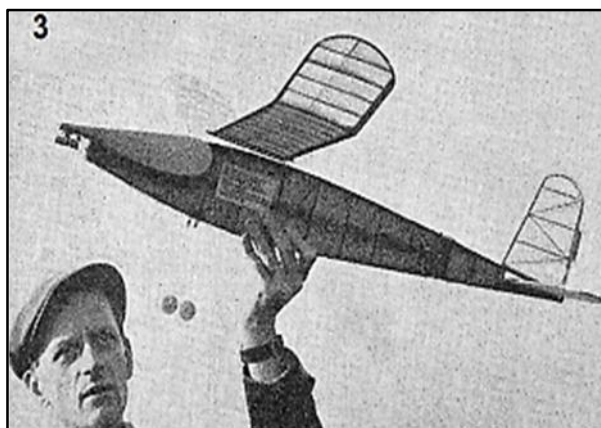
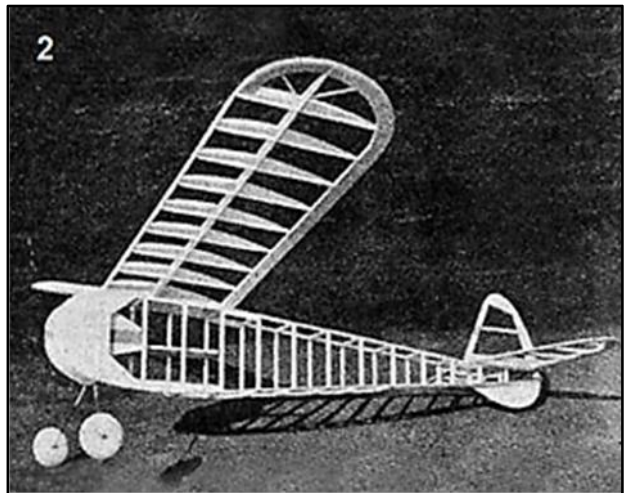
Nick Peppiatt

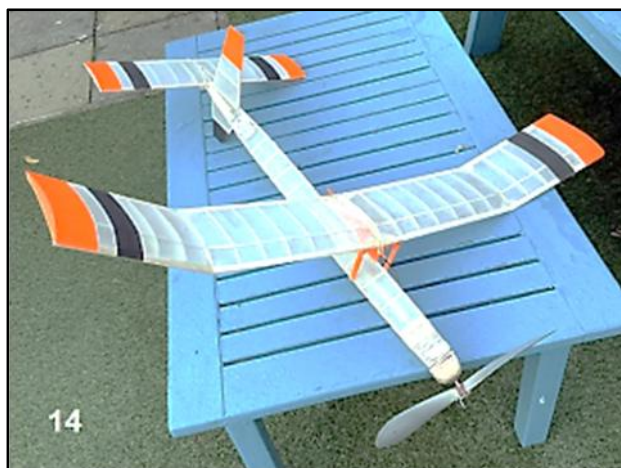
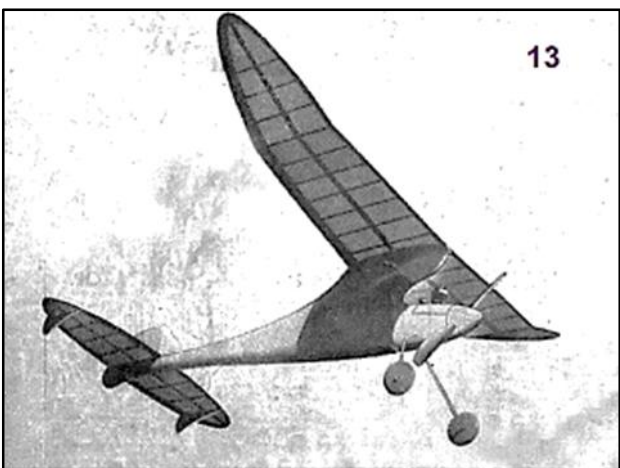
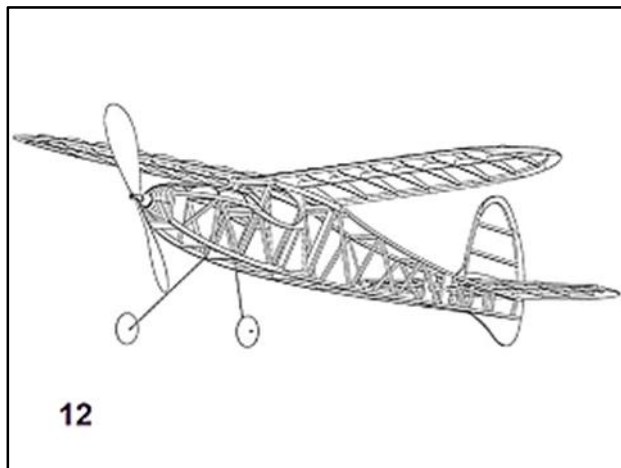
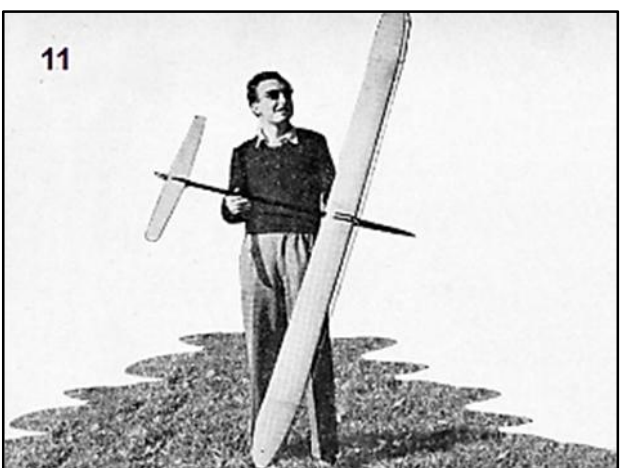
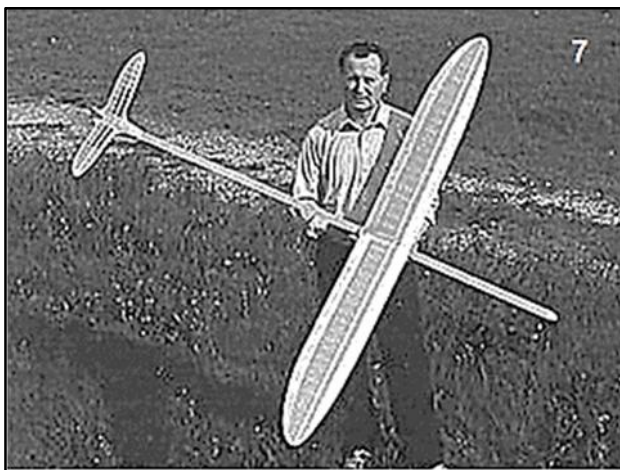
Xmas Quiz

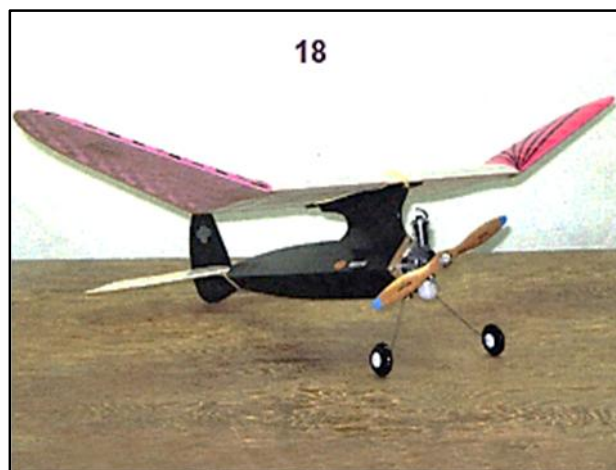
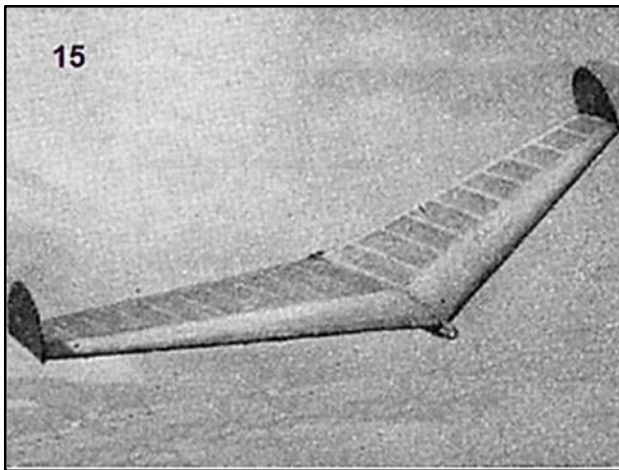
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Roger Newman

See how many of these models you can name

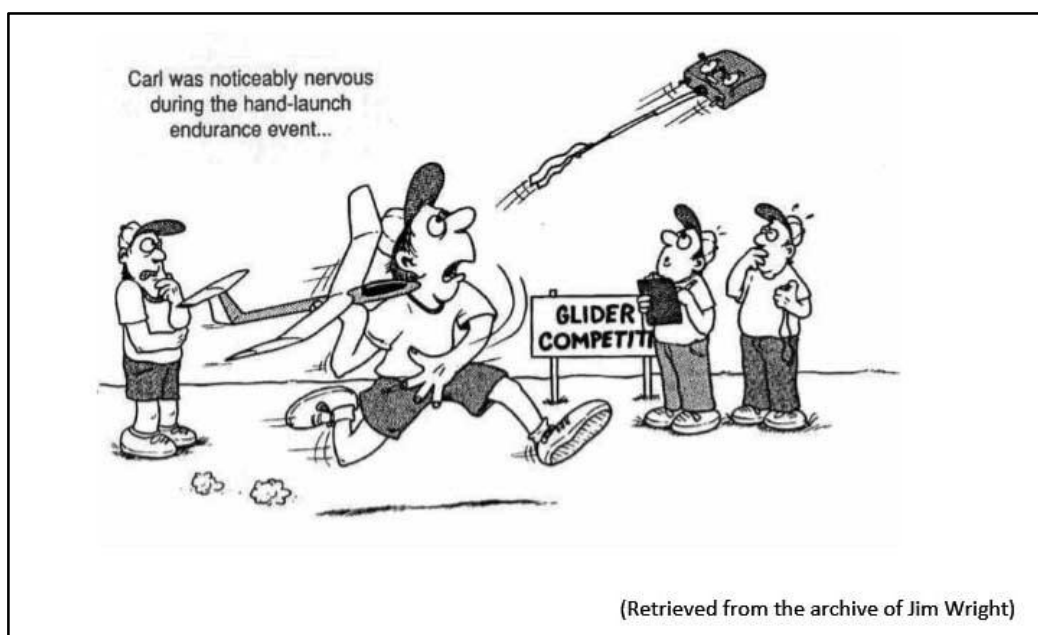






Answers on Last Page

Ratings: 15 ~ 18 correct - expert - 😊
 11 ~ 14 correct - pretty good - 😊
 6 ~ 10 correct - could do better - 😞
 0 ~ 5 correct - ??? - try harder - 💣



The Antonov An-2 (USAF/DoD reporting name Type 22, NATO reporting name Colt, is a Soviet mass-produced single engine biplane utility/agricultural aircraft manufactured by the Antonov Design Bureau beginning in 1947.

Its durability, high lifting power, and ability to take off and land from poor runways have given it a long service life. The An-2 was produced up to 2001 and remains in service with military and civilian operators around the world.

The An-2 was designed as a utility aircraft for use in forestry and agriculture, but the basic airframe is highly adaptable and numerous variants of the type have been developed; these include hopper-equipped versions for crop-dusting, scientific versions for atmospheric sampling, water-bombers for fighting forest-fires, flying ambulances, float-equipped seaplane versions and lightly armed combat versions for dropping paratroops.

The most common version is the An-2T 12-seater passenger aircraft. All versions (other than the An-3 and the An-2-100) are powered by a 750 kW (1,010 hp) nine-cylinder Shvetsov ASh-62 radial engine, which was developed from the Wright R-1820. The An-2 typically consumes 2.5 L/min (0.66 US gal/min; 0.55 imp gal/min).

Design and development

Origins

The Antonov An-2 was designed to meet a 1940s Soviet Ministry of Forestry requirement for a replacement for the much lighter, largely wooden-airframed Polikarpov Po-2, which was used in large numbers in both agricultural and utility roles. Antonov designed a large single bay biplane of all-metal construction, with an enclosed cockpit and a cabin with seats for twelve passengers. The first prototype, designated SKh-1 and powered by a Shvetsov ASh-21 radial engine, flew on 31 August 1947. The second prototype was fitted with a more powerful Shvetsov ASh-62 engine, which allowed the aircraft's payload to be significantly increased from 1,300 to 2,140 kg (2,870 to 4,720 lb), and in this form it was ordered into production.

An-2	
	
An-2 formerly used by the Soviet Union	
General information	
Type	Agricultural, utility aircraft and military transport aircraft
Manufacturer	Antonov
Designer	Oleg Antonov
Status	In limited service
Primary users	Soviet Union (historical) North Korea China Cuba
Number built	18,000+ ^[1]
History	
Manufactured	1947–2001
First flight	31 August 1947 ^[2]
Variants	Antonov An-3



On the static display of "Oldtimer Fliegertreffen" Hahnweide 2011

Initial Soviet production was at State Factory 473 in Kiev, Ukrainian SSR, where the bulk of up to 5,000 units had been produced by 1960. Later Soviet production (after 1965, of model An-2M especially) was at State Factory 464 at Dolgoprudniy, Russian SFSR. After 1960, most An-2s were constructed at Poland's WSK factory in Mielec; it is believed that over 13,000 aircraft were built in Poland before principal manufacturing activity ended during 1991.

Up until 2001, limited production was undertaken using remaining stocks of components, spares and maintenance coverage, such as a small batch of four aircraft that were produced for Vietnam. China also builds the An-2 under licence as the Shijiazhuang Y-5. It has been occasionally and erroneously reported that there was East German production of the An-2; while An-2s often underwent extensive refurbishment in East German facilities, no new aircraft were constructed there.

The An-2 is commonly used as a light utility transport, parachute drop aircraft, agricultural work and other tasks suited to a large slow biplane. Its slow flight and good short field performance make it suited for short, unimproved fields, and some specialized variants have also been built for cold weather and other extreme environments. The Guinness Book of World Records states that the 45-year production run for the An-2 was for a time the longest ever for any aircraft and challenged the well over two decades-long run of the much lighter, late-1920s origin Polikarpov Po-2 biplane it was intended to replace. The An-2's record was exceeded by the four-turboprop, 1954-origin, Lockheed C-130 Hercules military transport.

Further development

During the early 1980s, Antonov experimented with a development of the An-2 powered by a modern turboprop engine. The unit used was a 1,080-kilowatt (1,450 hp) Glushenkov engine. Aircraft fitted with this engine had a longer, more streamlined nose to accommodate it. It received the designation of Antonov An-3.

During 2013, Antonov announced that it had successfully flown for the first time a new version of the An-2, dubbed the An-2-100, which was fitted with a three-blade reversible propeller and a 1,100-kilowatt (1,500 shp) Motor Sich MS-14 turboprop running on kerosene rather than Avgas, which is no longer produced in CIS countries. That same year, the company stated that it had received orders for upgrading "hundreds" of the An-2 planes still in operation in Azerbaijan, Cuba and Russia to the An-2-100 upgrade version.

The Siberian Research Institute of Aviation (SIBNIA) has test flown a highly modified An-2 with carbon fibre winglet-like braces and carbon fibre wing structures. It was equipped with a five-bladed turboprop engine, most probably the Honeywell TPE331 already installed on a modernized version of the An-2 that entered service in 2014. According to Russian aviation company Sukhoi, this aircraft was built to demonstrate the aerodynamic and structural changes that were planned for an eventual An-2 replacement announced on 10 June 2015. The autoclave-cured carbonfibre composite materials – including wing panels, spars and ribs – were produced by the Novosibirsk Aviation Plant. Sukhoi says the design change improved the speed of the An-2 by 50%, and testing also has shown the minimum flying speed of the aircraft is "close to zero".

Design

The An-2 can take off and land on unsurfaced airstrips.

The Antonov An-2 is a mass-produced single-engine biplane that has been commonly used as a utility and agricultural aircraft. It is deliberately furnished with a minimum of complex systems. The crucial wing leading edge slats that give the aircraft its slow flight ability are fully automatic, being held closed by the airflow over the wings. Once the airspeed drops below 64 km/h (40 mph), the slats will extend because they are on elastic rubber springs. Under typical conditions, the take-off is complete within 170 m (560 ft) while the landing run requires 215 m (705 ft); these figures will vary dependent upon various factors, such as the aircraft's take-off/landing weight, the external air temperature, surface roughness, and headwind.

The An-2 is equipped with various design features which make it suitable for operation in remote areas with unsurfaced airstrips. It is fitted with a pneumatic brake system (similar to those used on heavy road vehicles) to stop on short runways, along with an airline attached to the compressor, so the pressure in the tires and shock absorbers can be adjusted without the need for installing specialised equipment. The batteries, while sizable, are relatively easy to remove, so the aircraft does not need a ground power unit to supply power for starting the engine. Likewise, there is no need for an external fuel pump to refuel the aircraft as it is provided with an inbuilt on-board pump, which allows the tanks to be filled from simple fuel drums.

According to the operating handbook, the An-2 has no stall speed. A note from the pilot's handbook reads: "If the engine quits in instrument conditions or at night, the pilot should pull the control column full aft and keep the wings level. The leading-edge slats will snap out at about 64 km/h (40 mph) and when the airplane slows to a forward speed of about 40 km/h (25 mph), the airplane will sink at about a parachute descent rate until the aircraft hits the ground."

As such, pilots of the An-2 have stated that they are capable of flying the aircraft in full control at 48 km/h (30 mph) (as a contrast, a Cessna four-seater light aircraft has a stall speed of around 80 km/h (50 mph)). This slow stall speed makes it possible for the aircraft to fly backwards relative to the ground: if the aircraft is pointed into a headwind of roughly 56 km/h (35 mph), it will travel backwards at 8 km/h (5 mph) whilst under full control.

The An-2's ability, looks and flying characteristics, and its status as one of the world's biggest single-engined production biplanes, mean that demand for the An-2 is increasing in Western Europe and the United States, where they are prized by collectors of classic aircraft, making it an increasingly common sight at air-shows. Many western countries prohibit the use of the An-2 commercially because the aircraft has not been certified by the relevant national aviation authorities. These restrictions vary by country, but all prevent the An-2 being used for any 'for profit' purpose, with the exception of the United States, where An-2s imported since 1993 are limited to experimental certification, but PZL-built An-2s are exempt from this restriction due to a bilateral agreement with Poland.

Operational history

Military service

The An-2 was adopted in bulk by both the Soviet Air Force and other Eastern Bloc military forces. It was first used in a military context during the Korean War of the early 1950s.

The Vietnam People's Air Force (VPAF) was another prolific user of the AN-2; during the Vietnam War, the service occasionally used the type as an attack aircraft. During the 1960s, a single An-2 that was attempting to engage South Vietnamese naval units was shot down by a United States Air Force McDonnell Douglas F-4 Phantom II fighter, under the control of an Air Intercept Controller on the USS Long Beach.

On 12 January 1968, a clandestine TACAN site (call sign: Lima Site 85/Phou Pha Ti) installed by the United States Air Force in Northern Laos for directing USAF warplanes flying from Thailand to Vietnam was attacked by three North Vietnamese An-2s. A pair of An-2s fired on the outpost using a mixture of machine guns and rockets while a third An-2 orbited overhead to survey the assault.

An Air America Bell UH-1B, XW-PHF that had been resupplying the site gave chase to the two attacking aircraft. Using an AK-47, the American crew (Ted Moore Captain, Glen Wood Kicker) succeeded in shooting down one of the An-2s while the second aircraft was forced down by combined ground and air fire, eventually crashing into a mountain. The surviving Antonov returned to its home base, Gia Lam, near Hanoi.

During the Croatian War of Independence in 1991, a number of aged An-2 biplanes previously used for crop-spraying were converted by the Croatian Air Force to drop makeshift barrel bombs. They were also used to conduct supply missions to the town of Vukovar and other besieged parts of Croatia.

The chief advantage for the An-2 was that they could take off and land in small or improvised airstrips. They were also frequently used to drop supplies by parachute on isolated garrisons. At least one AN-2 was shot down on 2 December 1991 over Vinkovci, eastern Slavonia, by a Serbian surface to air missile (SAM) emplacement which purportedly launched a salvo of SA-6s at the aircraft.

Reportedly, North Korea has operated a number of the AN-2s. The Korean People's Army Special Operation Force is known to use the An-2 to facilitate the infiltration of paratroopers. It has been speculated that in wartime, these aircraft could possibly be used to deliver troops behind enemy lines for sabotage operations.

During the 2020 Nagorno-Karabakh war Azerbaijan Forces operated unmanned AN-2 for surveillance and bombing of Armenian defences, however the type of the drone was unknown as of October 2020. Armenian forces revealed footage of the alleged shoot-down of an Azerbaijani An-2, according to video evidence at least 11 An-2 have been destroyed, with 10 confirmed as shot down and one crashing after take-off.

On March 2, 2022, Russian An-2s were observed being stationed at Seshcha Air Base, Bryansk Oblast. As the base is situated close to the border with Ukraine, it was speculated that the aircraft are to be used as part of the 2022 Russian invasion of Ukraine.

Civil aviation

Over the years, dozens of nations and companies alike have employed the An-2 in civil roles. The type was heavily used throughout the Soviet Union and the Eastern Bloc nations; in particular, Russian airline Aeroflot has operated a large number of the An-2s. During the Soviet era, the An-2 was used as a short-range airliner in Estonia, performing regular flights between the towns of Kuressaare and Kärdla, which reside on separate islands, Saaremaa and Hiiumaa.

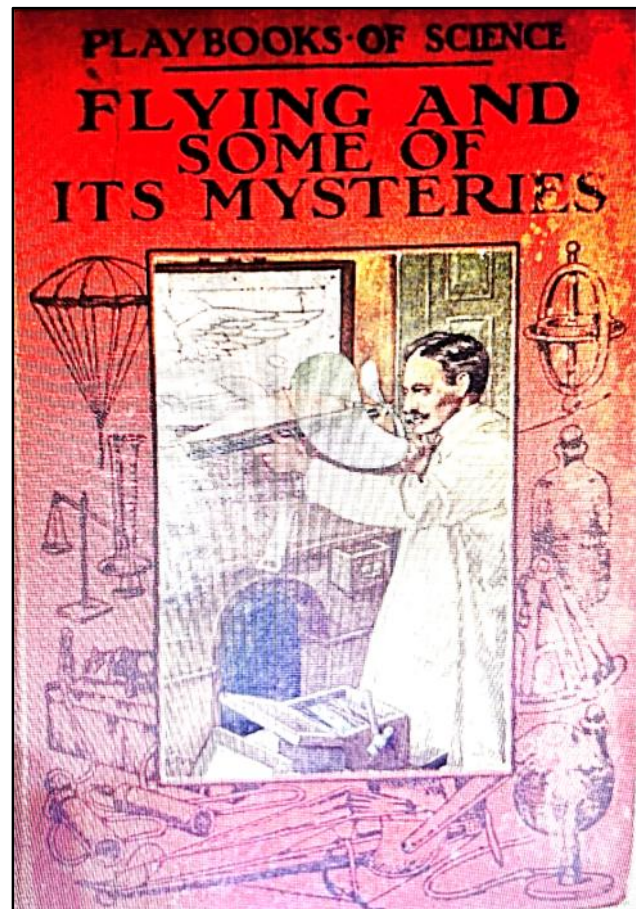
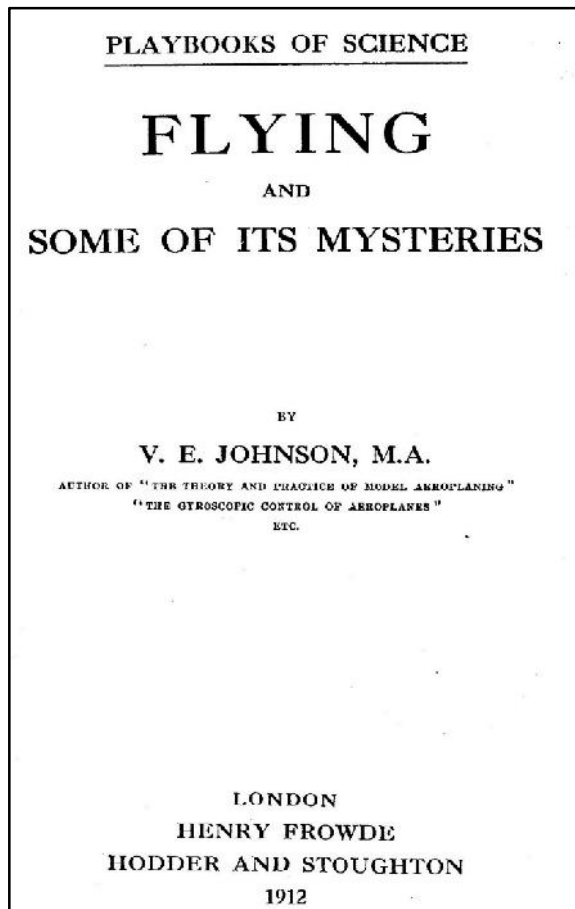
Since the collapse of the Soviet Union and the various communist states of Eastern Europe, most airlines in these regions have been withdrawing their An-2s from service. This is due to some of these aircraft being over 40 years old, as well as a result of the decline in the production of avgas to fuel the type. Private operators are typically still using the An-2s, as their stability, capacity and slow-flying ability has made them relatively popular for some functions, such as for skydiving.

Whilst their relatively high noise levels, increasing maintenance costs, high fuel consumption and unsophisticated nature (the pre-flight checks alone take between 30 and 40 minutes) has rendered them obsolete for the majority of commercial routes in Europe, the large number of aircraft available means that unit prices are especially low in comparison to contemporaries (being available from as little as US\$30,000 for a serviceable example). The price factor has made them highly attractive for continued use in the developing world, where their ability to carry large loads into short airstrips makes them assets to airlines on a budget. Many ex-Aeroflot An-2s have since found work with regional operators across Africa, Central and South America, Cuba and southeast Asia.

As of 2015, there were thousands of An-2s remaining in operation around the world, including over 1,500 in Russia, 294 in Kazakhstan and 54 in Ukraine.

In September of 2024, Vladimir Putin ordered the single-engine UZGA LMS-901 Baikal aircraft into serial production as the An-2's intended replacement. However, certification of that aircraft's Klimov VK-800SM engine is not expected until 2025, with engine deliveries not starting until 2026.

Report No.166 Our earliest books.



Last month we completed the look at "The Theory and Practice of Model Aeroplaning" by V. E. Johnson. Just one year later, in 1912, Mr. Johnson was in print again contributing to the "Playbooks of Science" series with his "Flying and Some of Its Mysteries" book.

Above, on the right, is the front cover of the book as downloaded from the web, whilst on the left is the frontispiece, one of just eight photocopied pages that we have from this book. These photocopied pages almost certainly came from the bulk of material received from David Baker's collection. The most interesting parts of these pages are the drawings seen below.

"The Best Position for Twin Propellers"

"The best position for two propellers is one in front of the machine (a tractor screw) and one behind (a propeller), combined with a single plane in the middle (as in the well-known Burge-Webb models). The practical difficulty is the smashing of the front propeller when the model, as often happens, lands more or less on its nose. In very light models, whose total weight does not exceed an ounce or so, some of the most successful long flights have been obtained with such an arrangement. It is especially suitable for a very light model, since only the single stick is necessary to carry the two sets of rubber strands, one just above the stick and one below."

"Having either built or purchased our model, the next thing is to try its capabilities in actual flight. To the uninitiated it may appear that all we have to do is to wind up the motor and throw the machine into the air. Such is by no means the case. The successful launching of a model aeroplane is quite an art in itself and requires considerable skill and practice."

"We will first of all consider the General Principles of Model Launching"

"Every model requires to be launched into the air at a velocity equal to that at which it flies, neither more nor less. If the velocity be less, the model has to "pick up" its necessary flight speed in time to prevent its falling and hitting the ground with the tip of its propeller or rear-skid."

"If the velocity be in excess, the machine becomes at once unstable, and has to "settle down" before assuming its normal flight speed. Generally speaking, it is better to over-throw a model than under-throw it."

"Some swift-flying models, such as Clarke's Flyers (see Fig. 78), can scarcely be overthrown."

"Other very light slow-flying models require to be just "pushed off" or even just released."

"The next point is that the model must be launched on an even keel, i.e. leaning neither to one side nor the other, or it will tend to travel to that side.

In the case of a heavy or swift flying model, always launch it against the wind."

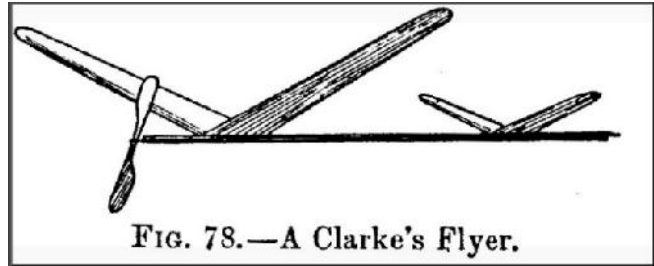
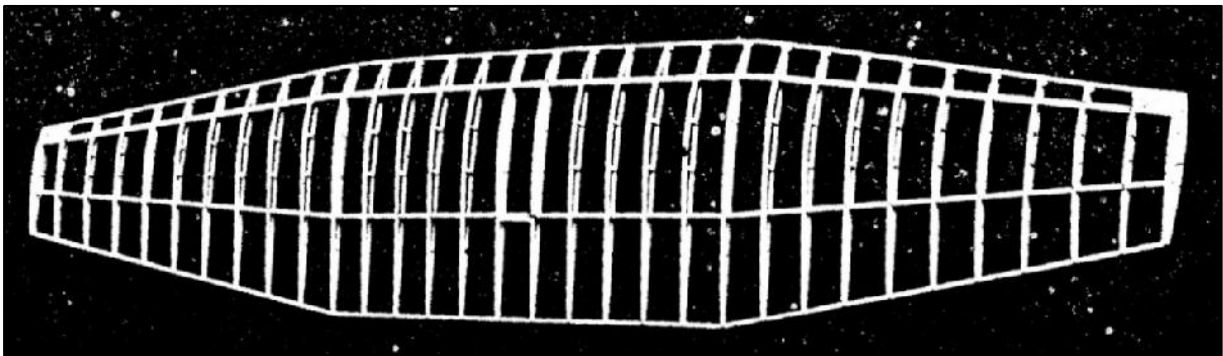
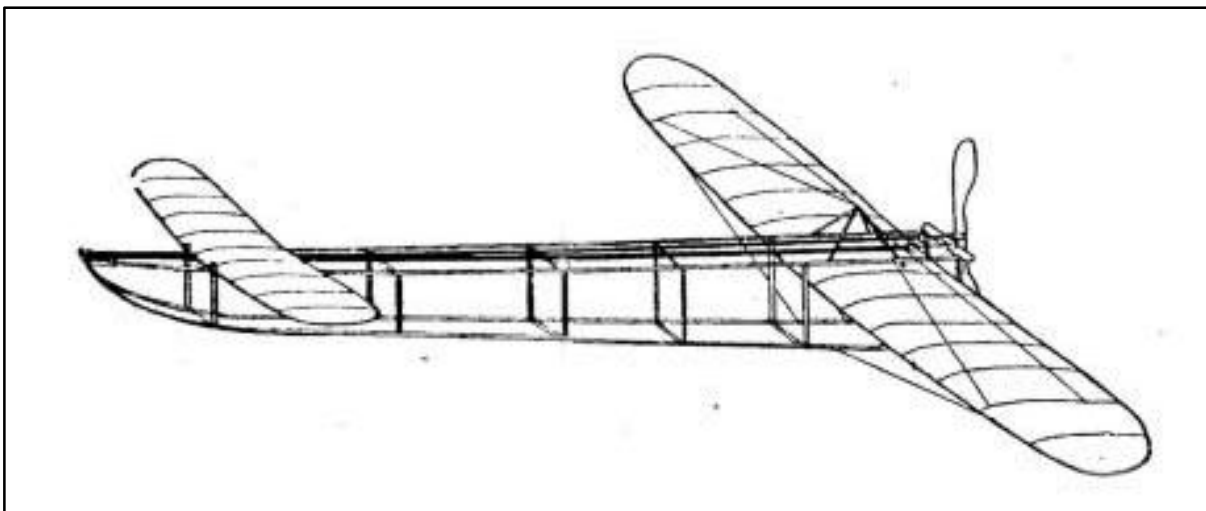


FIG. 78.—A Clarke's Flyer.



"A light feather-weight model can be launched with the wind, especially when a long flight is desired. It must be thrown hard in this case for the following reason. Supposing the flying velocity of the model to be 15 miles an hour and the wind's velocity the same; then if flown against the wind it would evidently just hover in the air if held aloft with propeller running and then "released." When flying with the wind, its speed, relative to the earth, must be 30 miles an hour. This gives its launching velocity. Do not point the nose of the machine up."

Above, Mr. T. W. Clarke's built up wing and below his built up fabric covered model.



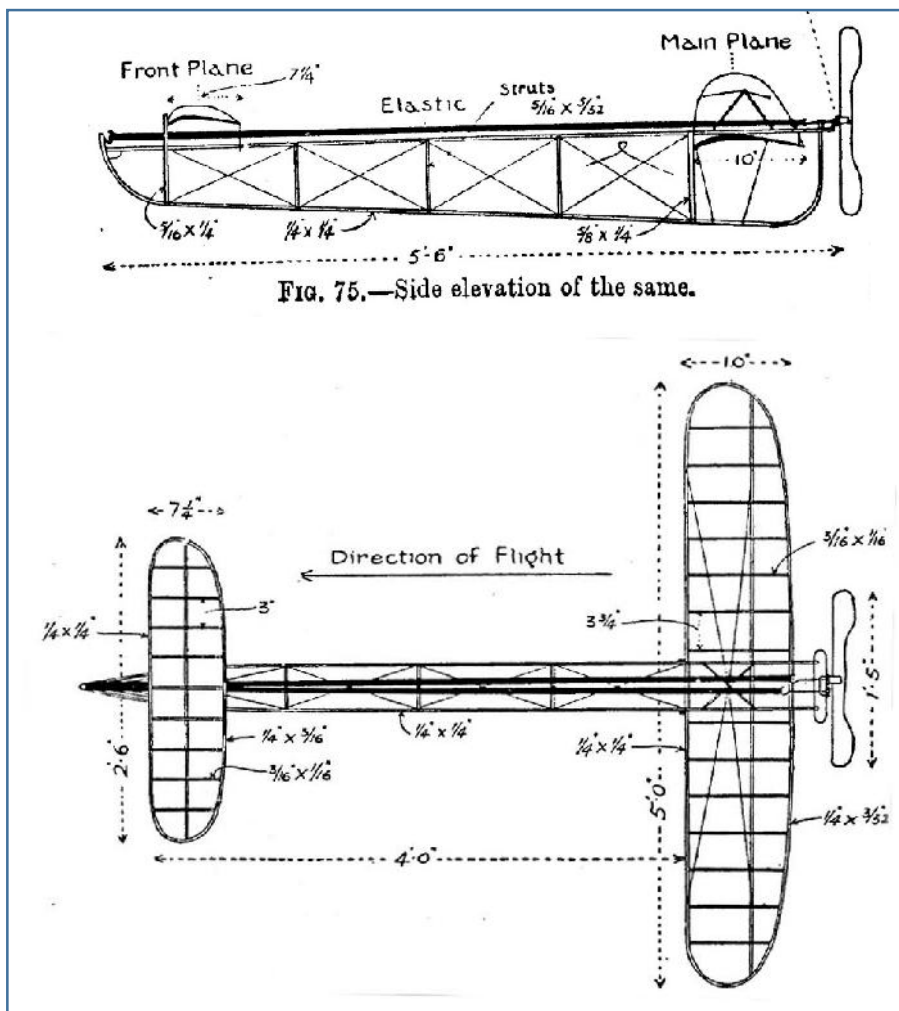


FIG. 75.—Side elevation of the same.

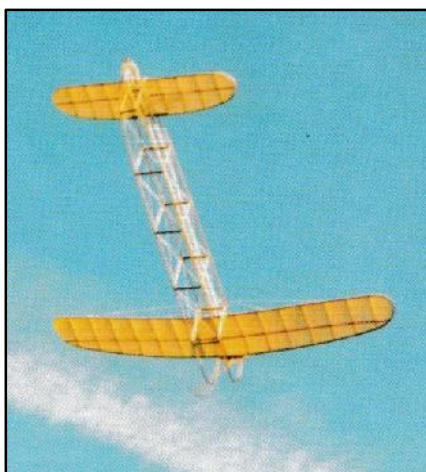
There were no words to be found in our eight pages on building or flying Mr T. W. Clarke's fabric-covered model, however, if you are thinking of building one have a look at *Aeromodeller*

November 2002 where you will find an article on Mark

Croome's very successful experience with building and flying this model, see the following brief extract.

"One memorable day mine caught a BIG thermal and was a tiny pale speck in the sky after 90 seconds power run. Fortunately the prop acted as a brake and slowed it up so the canard stalled and it came down in a steep stally descent. I was lucky."

See the colour photos on the right and above.



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

Roy Tiller

26th October, MOD North Luffenham.

After two failed attempts we finally managed to hold the 3rd Birmingham Classic on a near perfect late October day. Since the contest date is flexed over a chosen weekend, I ask that interested (or even vaguely curious) fliers register their email addresses with me on gavin.manion84@gmail.com ahead if time. Then on the preceding Thursday evening I send out confirmation of which day we will fly.

We had a cracker, the wind-speed was never more than 5mph and the generally dull conditions and low cloud ceiling kept all the other users of the airfield away so we had it to ourselves. Luffenham's central location always brings in fliers from a wide geographical area. This time we had no visitors from the London area but Oxfordshire, the East and West Midlands and most especially our friends from Yorkshire were all represented in a well-attended meeting with 23 entries.

The results table is attached below. The calm weather, range of events and the unique "enter two models, keep the best score" feature that we've had in all these events meant that many people were able to spend all day flying with Messrs Woodhouse, Dixon and Foster being particularly busy. A number of people took the opportunity to fly a bit of scale and sport which included some very unconventional models. There always seemed to be a model in the air and the atmosphere was, at times, like an old-fashioned Gala.

A very welcome feature of these "Birmingham Brand" events is the running buffet at control most generously provided by Kris Best and Stu Darmon. Despite being much less than well over the preceding weeks they put on a variety of snacks which morphed as the day progressed from morning pastries to a lunchtime buffet followed at teatime biscuits and cake. Neither was well enough to feature in the flying to any real extent but their contribution to the ambiance of the day was most welcome.

The original idea of the Classic was to showcase Classic A1 and Pre 1970 Coupe but again this year these two classes had much the lowest entry numbers. Not to worry as E36+1/2A and Classic Glider attracted good numbers (for these days) with ever reliable Mini Vintage not far behind.

The **E36+1/2A** flyoff showed once again Pete Watson's mastery of E36 flying as he beat the chasing 1/2A models of team mates Pete Woodhouse and Colin Foster by a minute and a half. Mike Cook was a little off the pace and poor Bob Garner couldn't get his TD049 started, blaming lack of nitro in the cooling air. Mike Chapman missed his place in the flyoff by just 7 seconds and this group of six were well ahead of the rest of the field

Mini Vintage showed just how potent Le Timide (Woodhouse) and the near identical Lost Leader (Ball) are off their allotted 20s engine run. Trish Dennis took a popular third place with a fine flight from her Gollywock but Colin Foster failed to get his model away for more than a token flight. Brian Lavis flying his Scram, missed his spot in the flyoff with a tiny 3 second drop. If he was annoyed then he didn't show it.

Classic Glider produced an excellent win for Paul (Paddy) McMahon returning after what he says is a 12year layoff. He flew his fabulously odd-ball Snoek (look it up and wonder...) to the only full house closely followed by Dixon and Foster flying the much more sensible Spinne and Martan respectively. The 50 metre line length made for difficult maxing in the dull calm conditions of the day and these three took 7 of the 9 two minute maxes recorded which is a measure of their dominance.

If Classic Glider was hard then **Classic A1** was even more so, Colin Foster won with his Jetstream followed by Hatchetman wielding Gary Law and Simon Dixon.

Pre-1970 Coupe was quite handsomely won by Ivan Taylor with his Roulin '69, Bill Dennis flew both types of Knight but got his second place with the Baron variety. A busy Simon Dixon took third with the top Vintage Coupe, his Fuit 3. Chris Brainsford and Gary Law flew Etienvres Both Chris and Gary are newcomers to this event, Gary having a particularly good day with his second place in Classic A1. It would be good to see them and all of the less familiar faces again next year at this and the mainstream BMFA events, they will be most welcome.

The prize giving was held as the afternoon drifted into an increasingly cool dusk with wine, handshakes, hugs and a little banter. A nice end to a nice day.

I really enjoy CDing this event, the friendliest people come and they are very kind in their comments.

Once again, if you flew or nearly flew, please let me know what you think we can do to improve the event and increase participation.

Gavin Manion

Results

Classic A1						
Entrant	R1	R2	R3	F/O	Total	Place
Colin Foster	88	120	120		328	1
Gary Law	77	103	120		300	2
Simon Dixon	63	74	70		207	3
Stu Darmon	45	56	50		151	4
Mike Edwards	DNF					5

E36 + 1/2a Combined						
Entrant	R1	R2	R3	F/O	Total	Place
Peter Watson	120	120	120	229	589	1
Pete Woodhouse*	120	120	120	139	499	2
Colin Foster*	120	120	120	135	495	3
Mike Cook	120	120	120	116	476	4
Bob Garner*	120	120	120	0	360	5
Mike Chapman	116	113	120		349	6
Ken Faux*	93	112	45		250	7
Gerry Williamson	72	68	77		217	8
Gordon Warburton	49	71	109		229	9
*Flew 1/2a						

Classic Glider						
Entrant	R1	R2	R3		Total	Place
Paul McMahon	120	120	120		360	1
Simon Dixon	120	108	120		348	2
Colin Foster	120	100	120		340	3
Mike Edwards	120	103	75		298	4
Pete Arkley	120	104	66		290	5
Peter Gibbons	44	120	74		238	6
Mike Chapman	71	77	80		228	7
Stu Darmon	dnf				0	8

Pre 1970 Coupe D'hiver						
Entrant	R1	R2	R3		Total	Place
Ivan Taylor	120	112	107		339	1
Bill Dennis	100	79	111		290	2
Simon Dixon	109	82	92		283	3
Chris Brainsford	113	10	74		197	4
Gary Law	36	68	65		169	5

Mini Vintage						
Entrant	R1	R2	R3	F/O	Total	Place
Pete WOODHOUSE	120	120	120	261	621	1
Phil BALL	120	120	120	209	569	2
Trish DENNIS	120	120	120	144	504	3
Colin FOSTER	120	120	120	4	364	4
Brian LAVIS	120	120	117		357	5
Ken FAUX	120	114			234	6
Paul McMAHON	104	59	56		219	7
Stu DARMON	120				120	8
Dave RYALLS	dnf				0	9

Picture Parade:



Trish Dennis seemed a little surprised with her 3rd place in Mini Vintage



Gary Law (L) and Chris Brainsford were new to the Birmingham Classic



Paul (Paddy) McMahon with his remarkable Snoek, the only Classic Glider to max out



Brian Lavis and his Scram, Missed Fly-off by 3 secs



Peter Watson E36 + 1/2A fly-off beating the pack by 90 seconds



Peter Woodhouse Le Timide.



Ivan Taylor winner of pre 1970 coupe

Photo credits to Geoff Smith with many thanks:

AEROMODELLER ANNUAL

5

INTRODUCTION

A Year of Technical Progress

THROUGHOUT the world aeromodelling continues to advance at such a pace that technical achievement tends to outstrip the ability of builders and fliers to make full use of all that is within their grasp. For that reason, coupled perhaps with an exceptionally wet summer which may have had adverse effects in this country at least, 1954 must be regarded as a year of sitting back and taking stock. Development that has taken place has leaned towards the unorthodox, with increasing interest in such layouts as the helicopter—sometimes in rather weird and wonderful forms!—the ornithopter, and a revival of activity amongst microfilm specialists, thanks to opportunities of indoor flying unequalled anywhere in the world.

With an American venue for both the International Power event and the Wakefield, European participation was disappointing. Lack of finance prevented anything more than a proxy representation from British teams, earlier hopes of sponsorship falling through at the last moment. Even proxy entries, however, failed to materialise from the French and Belgian teams who have supported these events so keenly in the past. We would deplore this lack of support, particularly as contingents from the United States, Canada, and even distant Argentine have competed in Europe. The brightest spot of this ill-supported meeting is in the victory of Alan King of Australia who takes the Wakefield Trophy "down under" for the first time in its long history. We can safely say that nothing short of a British victory for our own team could please us as much as this Aussie win, coming after years of proxy entry from a "personal appearance" of the winner, participating thanks to an all-nation whip round by his compatriots.

The Swedish Cup World Glider event took place in Denmark with active British participation, and resulted in a German victory. Our entries were somewhat far down the list, but it is echoing a general opinion to voice our disquiet at the present trend of A/2 development, where the abolition of a fuselage cross-section rule is producing monstrous stick models that compare with design in the middle twenties, save only for progress in airfoil research.

It is encouraging therefore to look at the progress taking place in radio control, which is moving steadily forward to a pre-eminent place on the truly scientific side of the hobby. British enthusiasts have realised the need to re-learn the flying side of the hobby, in order that they can make full use of the vast possibilities of reed control. The fine control shown by the German winners at Brussels this year convinced all who saw them of the vital necessity of many hours of actual flying practice. We have equipment that is in demand all over the world, but not a single flyer who has been able to devote enough time to learn how to fly with it at its theoretical peak performance!

Control line flying is entering a new phase. Team racing has established itself not only as a spectacle, but also as the medium by which so many of the more exuberant spirits can best express themselves. Entries amount to as many as a hundred teams at the main events, and while one or two individuals and clubs are to the forefront, no outstanding "expert group" has arisen to dampen the enthusiasm of the average enthusiast, a fate which befell stunt control line

flying within a year or two of achieving popularity. A sturdy offshoot which owes something to both team racing and stunt flying is to be found in combat flying. This branch of control line appeals particularly to the individualist, who might not be at his best as a member of a team, or, again might not be able to find two suitable team mates to complete a team.

Manufacturers have continued during 1953 to provide their customers with the goods they really want. The standard of model kit production continues to improve and a number of semi-pre-fabricated models are coming on the market, where wood cutting reflects improved methods of machining that should encourage the newcomer to more ambitious beginnings. Engines have now reached what must be the peak of perfection on the British market, so that it can honestly be said there are no bad engines, the choice depending solely on fitness for purpose, in all groups from beginners' engines to specialist types for radio control, team racing, speed or free flight in sports or competition classes. A notable newcomer was the world's smallest production engine, the Allbon Bambi at .15 c.c., which has made available for the first time a really tractable example in this sub-miniature size. Jetex have devoted the past twelve months to consolidating their position at home and abroad with improved marketing methods, and the development of their "tailored" kits of scale jet aircraft.

A comparison of contest entries during the years that AEROMODELLER ANNUAL has been appearing reveals a somewhat alarming fall in numbers. Whereas in 1948 and 1949 figures of around four hundred were not too many to expect for a popular decentralised event, today it is almost unknown for half as many to record their times, whilst figures of under one hundred are becoming normal. At a time when aeromodelling as a hobby is booming this would seem to be a contradictory trend. We know, statistically, that there are more keen aeromodellers in this country today than, say, five years ago, but the drift is away from competition flying towards sports flying, scale models, radio control and indeed all those branches of the sport that demand smaller and less elaborate flying fields. That we feel is the crux of the matter. At one time every club, whatever its size, boasted a flying field of its own, but today with a reduction in the number of open spaces available to aeromodellers such luxury is far from being the case. Many clubs can only meet at a central venue arranged by their area, so that those jolly days flying in the local park seem to be gone for ever, and with them a degree of the local spirit of camaraderie that made club life so enjoyable. We would urge every club therefore that still enjoys its own flying ground to guard it zealously, look upon it as a treasure that cannot be replaced.

The S.M.A.E. has been quick to detect this new tempo amongst aeromodellers, and is catering for the non-contest flying enthusiast as never before. By the end of the year the number of flyers who have taken up associate membership combined with third party insurance may well be equalling if not exceeding the total strength of membership through clubs. We welcome this extension of activity by the governing body, who may now really claim in all truth to be representing the whole body of aeromodelling rather than a cross-section only, which has been the contention of their detractors for so many years.

Finally, we would close on the usual note of our annual prologue, with the hope that you like the fare provided. We would thank our readers for their many practical suggestions, our contributors for their articles, and the model press of the world for much of the material that goes to make up AEROMODELLER ANNUAL 1954-55.

Once upon a time I was a control line flyer. My role was mainly as pitman in various team race classes. Inevitably this led to an interest in engines which eventually grew into a desire to build them from scratch. Over the years I have acquired a modest workshop sufficient for the task and since retiring I have built four, three entirely from scratch, one based on a casting set. I wrote about the latter in the *Clarion* a few years ago.

Many engine builders make them to put in a display case. My policy is to use them for their intended purpose. So far three have flown. The ML Midge went into an Airflow Mite which flew fine, but the engine is really too heavy and powerful for the airframe. It's now in a John Barker Gigi. The motor built from castings, the Westbury Atom Minor Mark III, is in a full size Playboy Senior. The third motor is a Nalon Viper. This was designed by Norman Long, the guy behind the Yulon glow motors, to address the performance diesel market opened up by the Oliver Tiger and ED Racer in the mid-50s. That went into an old Class A vintage team racer, Gordon Yeldham's Voodoo. I managed to fly this with Chris Redrup's help, at Buckminster a couple of years ago. Anticipating dizziness after years of layoff I fitted a shutoff, but this failed and I had to stay upright until the fuel ran out whereupon, predictably, I collapsed in a heap. The motor performed well which is what mattered.

The Viper has conventional cylinder porting which limits its power compared to more modern designs. I fancied building something with greater performance potential, specifically with Schnuerle porting. Thus was born what I call (with great originality) the Schnuerle Viper. The layout is similar to the Nalon Viper with ballrace shaft, rear induction and compression ignition. The design was tarted-up with drum induction instead of a disk valve and the contrapiston in the cylinder head rather than the liner.

Like each of the other motors it took the best part of two elapsed years to build, with bouts of activity when free flight competition activities allowed. The motor first ran earlier this year, followed by a period of tweaking to the point where it is significantly more powerful than the original Viper. The question then was to decide on a suitable model to fly it in. Although both Vipers are 2.5cc, the new one turned out to be embarrassingly heavy, too heavy for another Voodoo! Then I had a brainwave. Many years ago I had built a wing and tail intended for a Class B vintage team racer. There were still around and in good condition. The extra wing area would be ideal to support the extra weight. Thus was born the *Greenfly*.

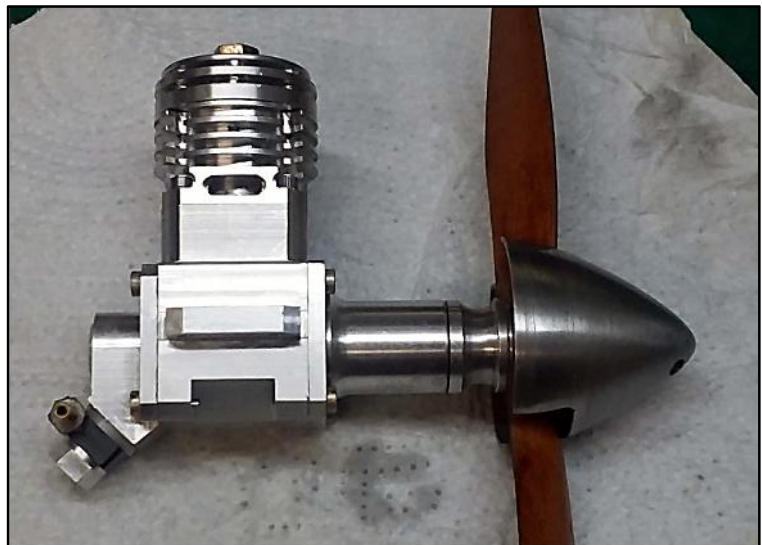


The *Greenfly* was designed by Cyril West, a notable team race competitor (and general all-round aeromodeller) and chairman of the Godalming club of which I was a member. His first team race successes were as pilot to Skipper Rowe using their Red Lightning. I suspect that was Cyril's first team race design. *Greenfly* was Cyril's second model for the 1952 season. Its successor, the V-tailed *Bluebottle*, won the Nationals in 1953. Even at that early stage the *Greenfly* had adopted the layout that persists to this day in team race models, namely bearers mounted directly to the wing, inverted motor, the tank mounted high in the fuselage, removable top cowl.



Construction shown on the plan had the fuselage - save for the engine bearers - built out of hollowed balsa block. I didn't fancy that. The tail on the end of a fairly long moment arm would be vulnerable if the block was suitably light to ensure a correct CG, and also, carving the correct tail incidence would be a pain. Therefore I used the conventional method whereby the bearers are extended with spruce longerons to form a crutch with sheet and/or blocks top and bottom.

Although the model would likely never fly more than once, or if I was lucky, a couple of times, I couldn't stop myself building it as if it was actually going to be raced. The motor was mounted to the bearers with studs, the pushrod is carbon, the tank has a multi-function fill/feed/shut-off valve which I had lying around, etc. The whole setup ended up looking pretty professional I think! The crowning glory is the spinner. This was given to me by Cyril himself back in the '60s and may have come off one of his original models.



The competition influence extended to choice of colour scheme. Ideally the whole thing would be painted green but I couldn't bear the thought of all that extra weight so the wing and tail were left plain. The paint was Tamyca enamel, which seems to be the same stuff as Humbrol, it took an age to dry. The *Greenfly* name was produced in the form of a waterslide transfer. This worked out well though a higher colour density would be better. Maybe over-printing would help?

At the time of writing the model is ready to go, all that's needed is access to a suitable flying site that will enable ROG.

Roy Vaughn

Peter Chinn's

ENGINE TEST

WEBRA Sport-Glo 1.7

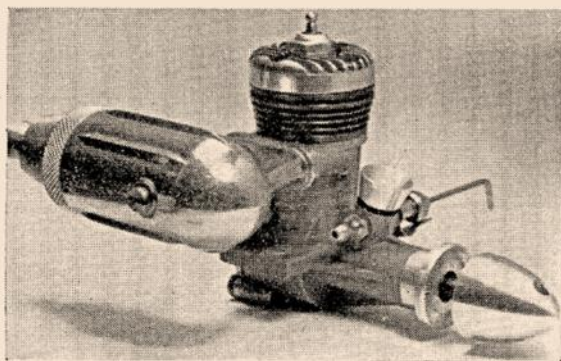
A FEW of our readers may remember the West German Webra Sport-Glo 1.7 as a slightly out-of-the-rut, small glowplug engine, that appeared in the mid 'fifties.

The new Sport-Glo, introduced in the spring of this year, is, however, in no way connected, despite its name, with the earlier model. Admittedly, it is a shaft-valve glowplug engine of similar displacement but is an entirely fresh design, better made and of substantially higher performance.

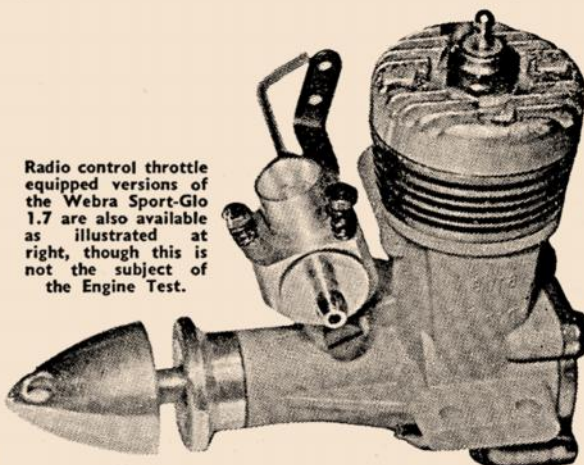
Manufactured by the firm of Fein und Modell Technik, now owned by Martin Eberth, the Sport-Glo was designed by Guenther Bodemann, under whose direction it is made at Fein und Modell Technik's West Berlin factory. In appearance, the engine bears an obvious family resemblance to the Webra Glo-Star 3.4 cc. engine. Construction is also similar, the main difference being that the Sport-Glo employs a bushed main bearing, in place of the twin ball-bearings of the larger model.

At just under 1.7 cc., the Glo-Star is a trifle bigger in swept volume than engines in the popular 1.5 group or the American .099 class. Being outside these two classes, however, is of little account since neither constitutes a significant contest category at the present time. The Sport-Glo is, in fact, most likely to appeal to the "sport" modeller or for small R/C models, especially as a throttle type carburettor is available if required. The manufacturers also make a neatly-fitting silencer, especially designed for the Sport-Glo.

Among the many improvements that the 1966 Sport-Glo has to offer, in comparison with its earlier namesake, are a stronger and better finished crankcase with the crankshaft running in a bronze bushing, instead of directly in the crankcase material, a counterbalanced crankshaft, with larger diameter journal and bigger porting, and a lighter piston with a stronger gudgeon-pin. Instead of a reverse-flow scavenged type cylinder with internal flute type transfer passages and diametrically opposed ports exhausting into a collector chamber with single outlet, the 1966 Glo-Star uses conventional loop scavenged porting. The new engine is nearly an ounce heavier than the old model, but this is more than compensated by increased power output and stronger construction.



Radio control throttle equipped versions of the Webra Sport-Glo 1.7 are also available as illustrated at right, though this is not the subject of the Engine Test.



Construction

The main casting comprises crankcase and front housing in pressure diecast aluminium alloy. It terminates just above the level of the cylinder ports, the cylinder itself being machined in one piece complete with cooling fins. The crankcase includes a cast-in phosphor-bronze main bearing bush, substantial beam mounting lugs, a large exhaust duct, a short, inclined intake boss and ample webbing around the front end. A machined aluminium venturi insert, with rubber sealing ring, plugs into the intake boss and is retained by a plated spraybar type needle-valve assembly. The exhaust duct is strengthened by a centre post, drilled and tapped for mounting the optional silencer.

The cylinder has orthodox transfer and exhaust ports of similar area, positioned to give transfer opening 55 degrees each side of bottom-dead-centre and exhaust timing of 65 degrees each side of B.D.C. A graphited asbestos gasket makes the joint between the cylinder base flange and the top of the crankcase and a gasket of similar material is used to make the cylinder head joint. The cylinder head is of pressure diecast aluminium and includes a centrally located 1.5 volt Webra No. 2 glowplug. Two screws secure the head to the cylinder and two more, longer, screws pass through the cylinder fins, fore and aft, to tie the complete cylinder assembly to the crankcase.

The crankshaft has an 8 mm. dia. journal and a 3.5 mm. solid crankpin. Counterbalance is provided by cut-away web flanks each side of the crankpin. The shaft is case-hardened and is bored for a 5.5 mm. gas passage. The shaft o.d. is also very slightly relieved for a short distance between the front end of the journal and the valve port and there is a shallow oilway in the main bearing surface extending forward to this point. The valve port is rectangular and is timed to open at 48 deg. after BDC and to close, fairly late, at 55 deg. after TDC—according to measurement of our test engine. The intake boss is bored 6 mm. dia. into the main bearing. The venturi reduces this to 4.5 mm. bore at the fuel jet position, choke area being further reduced by the 2.5 mm. dia. spraybar.

The piston has a flat crown and a straight baffle and has a continuous gudgeon-pin band. The fully-floating gudgeon-pin is placed high in the piston and the piston skirt is relieved approximately .001 in. on diameter below the gudgeon-pin. The piston skirt is quite long and the top of the crankcase backplate is therefore cut away to provide the necessary clearance at the bottom of the stroke. A diecast connecting-rod is used.

Drive to the prop is effected via a strong machined aluminium driver which fits onto a taper machined on the crankshaft, beyond which the shaft is reduced to 5 mm. with metric thread for a solid machined aluminium spinner-nut. The propshaft is of ample length to accommodate all appropriate prop pitches.

The Sport-Glo is seen here with the maker's large volume silencer which can easily be taken apart for cleaning.

The Webra Sport-Glo silencer is of the non-baffled expansion chamber type, similar in general design to (but rather better looking than) the standard Enya silencer. It comprises a pressure diecast aluminium body section, with integral duct, into which a machined rear section, with short tailpipe, is screwed. A single long screw secures the complete unit to the Sport-Glo's exhaust duct. This is a method of attachment that has not proved very satisfactory on some larger engines, but appears to be quite adequate in the case of the Sport-Glo. For an engine of the Sport-Glo's size, this silencer is quite large and this, together with the lack of restriction in the movement of gasses from the exhaust port to the expansion chamber, results in very little loss of power.

SPECIFICATION

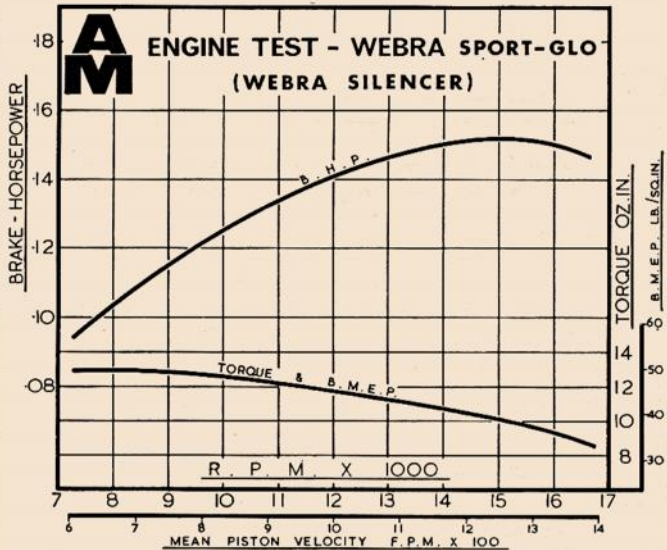
Type: Single cylinder, air-cooled, loop-scavenged two-stroke cycle, glowplug ignition. Shaft type rotary-valve induction
Bore: 13 mm. (0.5118 in.) **Stroke:** 12.7 mm (0.5000 in.)
Swept Volume: 1.686 cc. (0.1029 cu. in.)
Stroke/Bore Ratio: 0.977 : 1
Weight: 3.4 oz. (4.3 oz. with silencer)

General Structural Data

Pressure diecast aluminium alloy *crankcase/front housing* unit with cast-in phosphor-bronze main bearing and detachable *rear cover* secured with four hexagon head screws. Hardened, counterbalanced *crankshaft* with 8 mm. dia. journal, 5.5 mm. bore gas passage and 3.5 mm. solid crank-pin. Machined aluminium *prop driver* and *spinner nut*. Lapped cast-iron *piston* with flat crown and straight baffle. Pressure diecast aluminium alloy unbushed *connecting-rod*, coupled to piston with 3.5 mm. solid fully-floating *gudgeon-pin*. Machined steel *cylinder* with integral cooling fins. Pressure diecast aluminium alloy *cylinder-head*. Graphited asbestos *cylinder head* and base *gaskets*. Machine aluminium alloy carburettor *venturi insert* with rubber grommet and retained by plated brass *spraybar*. Beam mounting lugs.

TEST CONDITIONS

Running time prior to test: Approximately 1½ hours.
Fuel used: 5 per cent pure nitromethane, 25 per cent Duckhams Racing Castor-Oil, 70 per cent I.C.I. Methanol.
Glowplug used: Webra No. 2, 1.5. volt, 5 mm. reach.
Air temperature: 68 deg. F.
Barometer: 29.8 in. Hg.
Silencer Type: Webra Sport-Glo expansion chamber.

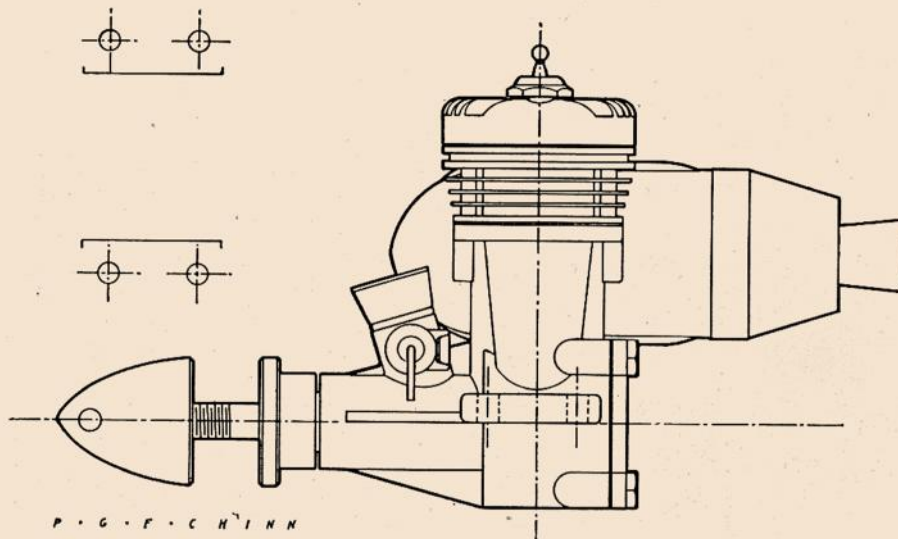


Performance

Two samples of the Sport-Glo were submitted for test by the factory in Germany. These were given a preliminary running-in period of thirty minutes each, followed by a short series of prop tests in order that the better of the two might be selected for further testing. Actually, there was little to choose between them as regards power, but the one selected proved to be about 1 per cent faster on an 8x4 prop, together with very slightly quicker starting.

This engine was therefore given a further half-hour of accumulated running time, followed by a series of prop/rpm checks on straight methanol/castor fuel with silencer fitted.

Figures obtained were as follows: 8,100 rpm. on 9x4 Top-Flite nylon, 9,800 on 8x5 Power-Prop wood, 9,900 on 8x4 Tornado nylon, 10,150 on 8x4 Top-Flite



**THIS
DRAWING
FULL
SIZE**

Extract from *Aeromodeller* December 1944

December, 1944 AEROMODELLER

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S O L O S O R T I E

BY
ROBERT JAMIESON

Excerpt from "Lost and found" column of
Auchengargle Advertiser :—

£10 REWARD

LOST.—Between Teuchle Toorie and Auchengargle on 23rd inst., the model sailplane "Terrestrial Norseman." The above sum will be paid for its recovery, or for any information leading thereto. Please communicate with: C. U. Tremble, The Graphs, Long Towline, Tiedin, Notts.

MR. TREMBLE had brought the famous glider north when he spent a short holiday at Teuchle Toorie. He had not intended flying it, but, on the very last day of his visit, the combination of a perfect evening and the importunities of the Teuchle Toorie clubmen had proved irresistible. It had soared off like a dream, and the enthusiasts had stood enthralled until it was realised that it showed no signs of returning to earth. Some three hours later a gang of frantic aeromods had to confess themselves beaten, and the owner was almost in tears. And no wonder; for he had to travel south next day, leaving his precious model in the wilds.

When McGillicuddy heard of the disaster he immediately announced an armistice between the glider expert and himself.

"Maybe Tremble and me don't always see eye to eye," he said. "But the lad's a clever craftsman, and in times of trial we aeromods must stick together."

On his own accord he went to the station to see Mr. Tremble depart for the south, and returned to the club looking grave and thoughtful. "A dreadful calamity,"

he said, sitting down in his favourite chair. "That poor lad's fair demented—and I don't wonder at it."

"Do you know what I did?" he went on, tilting his hat back and rubbing his nose with his finger. "I walked straight up and consoled him. Then I assured him that until his model was recovered all enmity between us would be forgotten, and that the Auchengargle Club would do all in its power to recover the model. The poor lad caught hold of my hand and sobbed like a child."

"Did he now?" said McSwindle with interest. "I'd like to have seen him."

The Maestro quelled him with a glance. "Have you no sympathy for human suffering?" he asked sternly, but the other members stopped the row from developing by insisting on the Maestro drawing up his plan of campaign.

McGillicuddy was insistent that our search for the missing model should be a combined affair, with all members co-operating; and that the reward (when and if we got it) should go to Club funds. Unfortunately the

Teuchle Toorie Club seemed to harbour the same idea, and when we approached them with our request to participate in the search, they were quite rude, even going so far as to suggest that the Maestro had already recovered the model, and was keeping it until the hue and cry had died down and/or the reward was increased.

The Maestro shook his head sadly when the reply was received. "My—but they are a suspicious crowd—it's things like this that start wars," he said. But we had no time for harbouring resentment, or planning a suitable comeback, if the model was to be recovered and the reward gained.

A large scale map of the district was procured; and the strength and direction of the wind on that particular night was ascertained, and the approximate launching point pin-pointed on the map. Drambuie was pressed into service and, bribed with sardines, was sent to reconnoitre. He patrolled from dawn to dusk, returning only to refuel. When the sardines were finished he seemed to consider his duty done, and promptly went off to sleep perched up in the rafters, belching at intervals. Drambuie was an individualist at all times and lacked the co-operative spirit.

About two days later a letter postmarked London arrived at the Club. It was from Mr. Tremble.

"So you old skinflint! You've got itchy fingers, snoop-ing around after the dough? Well, let 'em itch; I'd rather lose the job than have you get it. Guessed that's what you were after when you came smarming round at the station, trying to butter me up. Don't suppose I need worry—fat chance you've got of finding it—with so many intelligent men on the hunt. But I'll stick to my word—whoever finds it gets the cash—but any hanky-panky and I'll skin you alive and use your hide to cover my workbench.

Yours horribly,

C. U. Tremble."

"Aye, aye," said McSwindle, when the letter was read, "so he caught hold of your hand and sobbed like a child."

"We musn't be harsh," answered McGillicuddy. "Poor lad—the grief must have unhinged his mind—or else the Teuchle Toorie mob have got at him."

Despite the fact that Mr. Tremble hardly seemed to welcome our co-operation, the letter had a reassuring effect. A mind so far unhinged by grief as to sob in the arms of his worst enemy might quite well forget about the coveted reward, but now we had his written promise; and there was something reassuring in the thought of "Business as usual" between the Maestro and the bereaved glider expert. The search was resumed with renewed vigour.

We went through the neighbourhood with a fine-toothed comb. We climbed trees, trailed over moor and hill, peered down rabbit holes, turned over boulders and parted blades of grass. All to no avail, and after two days of futile searching our keenness began to wear off and the dark seed of suspicion began to sprout.

Instead of spreading out singly, and covering the ground thoroughly, the searchers began to trail about in a bunch, each one keeping a wary eye on his neighbour. Hitherto the Maestro had been the most energetic of the hunters, but now he too began to display less enthusiasm, and the more cynical openly stated that there might be something in the Teuchle Toorie boys' idea that the old twister already had the model and was just keeping it up his sleeve.

Then, just when the whole affair looked like fizzling out, I found the model, or more correctly, spotted it.

Passing along a cliff edge, on one of the lower shoulders of Ben McSplurge, I happened to look down on a birch wood which was part of a private estate, and there she was, one wing tip just showing through the trees.

The others were called up and binoculars focussed. Yes! There she was, apparently undamaged—but far out of our reach—for the ground where she lay was strictly private—so far as aeromodods were concerned. The owner was a very short tempered gentleman, and unfortunately there had been a slight misunderstanding over a broken cucumber frame some months before.

"I think, lads," said the Maestro, in a very thoughtful voice, "that we had better go back to the Club and have a conference."

It was galling to leave the ten pound reward lying where the Teuchle Toorie boys might spot it; but the owner's last words to us had been positively blood-curdling; his Alsatians were both swift and fierce, and his gamekeeper a man without the bowels of compassion, who never seemed to sleep. Our one consolation was that the other club were not aware of our unfortunate little contretemps with the landowner, and if they spotted the model, would probably charge in baldheaded. Well—if their garments were rent they needn't come to us for clothing coupons . . .

Back at the Club McGillicuddy sat twiddling his thumbs, whistling, and staring at the ceiling. At last he said slowly, "I'm thinking, lads, about the time I saw Tremble away—"

"Aye—and he sobbed like a child," McSwindle interrupted rudely. "But that's no helping to get the model."

"Well—so that's what you think?" snorted the Maestro. "What do you propose?"

"It's a dreadful risk," said McSwindle slowly, "and it's no as if the chap gets the reward for himself."

Murmurs of assent from the meeting.

"It's a risk I'm quite willing to take—" said the Maestro, and then he stopped—"but seeing the reward's to go to the Club we'd maybe better draw lots."

After some heated discussion, this was agreed to—and the Maestro was unlucky enough to draw the short straw. His lack of enthusiasm was puzzling, considering that he had volunteered only ten minutes before.

"It's an awful job for an auld man to tackle," he said, "—savage dogs and gamekeepers with shot guns—"

McGillicuddy's fears rather damped the spirit of the meeting, and feelings that had soared with the finding of the model now began to wilt. Returning the "Terrestrial Norseman" was going to be a tough proposition.

"And while we're jittering here," said McSwindle, "the Teuchle Toorie boys are likely walking in."

To minimise the danger—or at least to ensure that we should be warned in the event of it happening—Joe Small was despatched with instructions to lie low, keep his eyes on the model, and warn us immediately should the rival club pass that way. He departed with mixed feelings. Obviously relieved to be given such an easy task, but rather aggrieved to be missing the proceedings in the Club.

Silence followed his departure; no one knew what to do next. Obviously the Maestro's move. At last he broke the silence with:

"It's an awful like job for an auld man to tackle—"

He broke off and Snooky Munro glared at him.

"I know what's up with you—you're scared—you're yellow—"

The Maestro bridled. "A McGillicuddy never failed in his duty yet," he declared.

"Bet you any money you're scared," Munro persisted. McGillicuddy shook his head sadly. "I'm no betting—what use is money nowadays, with so little stuff in the shops?"

"O.K.," said Munro. "No money then; but I've got two sheets of sixteenth balsa here that says you're yellow—"

"And I've got two jars of dope and six sheets of tissue—" broke in McSwindle.

"Come now, lads—you don't have to bribe me to do my duty," the Maestro replied. But he accepted the wagers and covered them suitably. His lack of enthusiasm for the coming expedition spurred the members to further "dares and double dares," and it was soon obvious that if he was successful in recovering the model he would corner most of the material in the Club; no doubt the predominant thought was that the risk was worth taking when there was every possibility and hope of the Maestro's garments being rent and his flesh bruised. Wagers were still being made when Joe Small dashed in, blown and perspiring.

"The Teuchle Toorie mob have spotted it!" he gasped, "they're going in to-night—soon as it's dark."

The Maestro rose and struck a dramatic attitude: "It's a far, far better thing I do—" he quoted, then—"but it's an awful job for an auld man to tackle."

He insisted on setting out alone, pointing out that stealth and silence would be necessary, and that a crowd would prejudice his chances. "But you can wait for me at Dickman's Dyke," he said, "and help me to carry the 'plane back if I'm still alive."

With that he went off, still looking rather nervous. We gave him an hour's start before setting off for the rendezvous.

By this time it was dark. The clouds were so low that Ben McSplurge had his head in among them. As we walked along everyone speculated on how McGillicuddy would be getting on, and when a dog bayed in the distance, we all jumped.

Arriving at the appointed spot, we hung around for a bit, then, actuated by a common impulse, we began to

edge nearer the boundary wall of the estate. The minutes ticked by—and still all was silence. All eyes were strained into the darkness, and ears alert for the slightest sound. When Joe Small broke the tension by sneezing the whole party turned on him in fury.

Silence fell again and more time went by: then suddenly pandemonium broke loose in the wood. The silence was shattered by an angry baying of dogs, the hoarse shouts and cries of men, and the tearing and cracking of branches and undergrowth.

"They've got him, lads, they've got him!" McSwindle cried in anguish. "Volunteers for a rescue party—"

"You needn't bother," a voice broke in at our backs. We whirled round to find the Maestro standing, serene and unperturbed, with the "Terrestrial Norseman" slung gracefully over his shoulder.

"Come away, lads," he said calmly. "It's time we werna here."

As we moved off everyone crowded their congratulations on him. Then McSwindle asked: "What would be the cause of all the noise?"

"That'll be the Teuchle Toorie boys," McGillicuddy answered. "I doubt the keeper has caught them."



Peter Hall 1935-2024

Peter was born and brought up in Derbyshire, the son of a council roadman and a housewife. Following A levels, he spent 4 years at Sheffield College of Art, He was then awarded a place at the Royal College of Art but had to delay the start of the course until he had completed 2 years of national service. A near contemporary at the RCA was fellow aeromodeller Roger Wilkes. However, they did not know each other very well and only really became acquainted after Peter had retired and took up aeromodelling again, after dabbling in his

younger days. He described himself as a Guardian-reading leftie atheist.

After graduating from the RCA Peter had no desire to be a lone artist, much preferring the idea of teaching. He was offered a post at Guildford School of Art and remained there after it amalgamated with Farnham School of Art to become the West Surrey College of Art and Design. He had a wide variety of roles throughout his time there, retiring in 1996.

As well as teaching, Peter was a working artist. He was a talented sculptor and painter and made furniture and musical instruments including a cello..

When, following retirement, Peter took up aeromodelling again, he started by building a few radio models, but it wasn't long before he turned to free flight, primarily the rubber classes, in particular Coupe d'Hiver. His first models sporting underfins and other (for the class) features drew attention on Chobham Common. Around this time Peter became reacquainted with Roger Wilkes and they had many discussions about modern sculpture using various materials including those which could be used to produce lightweight structures for Coupe d'Hiver. They suggested their models could be considered "flying sculptures".

Peter continued to innovate and push the boundaries, in the search for higher performance, for his entire free flight career. His last model completed two or three years ago was a very high aspect ratio design (c. 17:1). It was designed after simulation work by Alan Brocklehurst, to challenge the published performance models which conflated higher AR with increased weight and reduced performance. By this time Peter was having difficulty with his sight and was caring for his wife on a full-time basis. The model made only one competition flight which was, typically, a max.

Peter won the Southern Coupe League eight times. He ran the League from the time that its chief instigator, Roger Wilkes, left for Cornwall, until the middle of this year, quitting only when his sight made computer use impossible. His major contribution was, of course, his humorous competition reports and, latterly, the "Couprofiles" featuring the biographies of well-known Coupe competitors.

As well as Coupe Peter flew in most other rubber classes including P30, open rubber, vintage and modern Wakefield, and Mini-Vintage with his Buckeridge. He was never less than highly competitive in all of them. He is much missed by his many friends on the flying field.

Roy Vaughn | Ray Elliott

AERO
MODELLER

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Heard at the Hangar Doors

Future for flying boats? John Cunningham and Peter Bugge, D. H. Comet test pilots deliberate on the merits of C. Percival's Seagull with St. Albans' club chairman, Jim Greening at the All-Britain Rally, Radlett

in itself providing a summary of the main features of the aeromodelling year. We are constantly endeavouring to make each year's volume better than the one before, and "AEROMODELLER ANNUAL," 1954-55, for the first time, provides readers with a real full colour painting for the dust-cover, repeated within as a frontispiece. That famous "AEROMODELLER" artist, C. Rupert Moore, A.R.C.A., was specially commissioned to provide this flashback to the "Battle of Britain," and has moreover contributed a most valuable article on post-war British camouflage.

Parnell Schoenky of Kirkwood, Missouri, another world-famous expert amongst the contributors, gives advice on helicopter models. Just van Hattum of Holland offers a splendid summary of A/2 Sailplane development in Europe: George Honnest-Redlich, E.D.'s electronic expert, provides factual information on radio control actuators: Ron Moulton gives the results of a most exhaustive series of timer tests—"gen" that must prove invaluable to every contest flyer.

On the plans side we have again combed the aeromodelling literature of the world and contacted our overseas correspondents, to provide the most interesting selection of record, novel, curious and interesting designs that have been flown in France, Japan, Poland, Czechoslovakia, U.S.A., Italy, Germany, and Gt. Britain, including several specially produced for the Annual.

Talk About Torque

A significant fact arising from the new scale of horsepower figures published by ourselves is that to date we have yet to receive one single valid rebuttal of the new standard and that every engine manufacturer of our personal acquaintance has verbally confirmed acceptance of our power curves. Attempts by one author have been made to camouflage a justification for sticking to the old exaggerated scale with flowery terms on B.M.E.P. B.H.P./Litre and talk of variance in production engines; but not with any shred of evidence as to how the high torque figures are obtained to provide this information. It is also significant that this same author has taken it upon himself in *Model Airplane News* to quote us as having said that all horsepower figures on the old scale have been overly-optimistic to the tune of 100 per cent., and carries on to extract our inference that 10 c.c. Doolings and McCoys are up to 200 per cent. exaggerated. That this is grossly untrue is perhaps evidence of magnification effect on the part of said scribe's typewriter—we have never made such a foolish statement and have

The (New) Record Look

Just to hand is the new list of International Records issued by the F.A.I. from Paris, and we welcome the streamlining of a system that had developed into a hunt for freak categories in order to establish a "record."

The four World Record categories are retained, denoting the highest figures in all categories for duration, distance, height, and speed, but the general classifications have been telescoped into a total of 30 recognised record classes. Duration, Distance, Height and Speed classes are recognised for aircraft (including hydroplanes) in both rubber-driven and engine powered versions, the same for Helicopters, and further for radio-controlled models. All categories with the exception of Speed are included for Gliders, both general and radio-controlled, and the usual four control-line speed categories are retained.

Of the current list, only 21 records have been ratified, and of these Russia holds 6 (also the four World Records), Hungary 7, and the U.S.A., Great Britain, Germany, New Zealand, Italy and Czechoslovakia one each. (Detailed listings will appear in our next issue.)

Aeromodeller Annual 1954-55

With its seventh appearance "AEROMODELLER ANNUAL" begins to take on the character of an institution. Many experienced aeromodellers are lucky enough to possess the complete set of volumes covering the progress of the hobby since 1948, but the newcomer can quite happily begin his collection with this volume, for each is complete

always maintained that with increasing capacity, volumetric efficiency increases, so that differences between old and new scales will diminish as capacity rises. Leading with his chin, this champion of wordage before veracity, believes that "The magazine in question (*AEROMODELLER*) will, as time goes on achieve specific output figures more near to the accepted (*old scale*) standards." Strangely enough, we too feel the same way—we hardly expect engine design and power output to stagnate.

Record Roundup

Since facilities were granted for the use of the balloon sheds at Cardington, indoor flying records have taken a severe bashing at each meeting, and times have risen to amazing levels. With many enthusiasts now consistently knocking up near-twenty-minute flights, at the last meeting for 1954 held on October 10, Phil Read of Birmingham, set the current record for Hand-Launched Stick models of 23 min. 58 sec.

On the 7th October, H. L. O'Heffernan established a new Radio Control Duration Record with his Mills powered "Sky Sedan" by remaining aloft for 2 hrs. 31 min. 20 sec. The flight was made at Thurlstone, South Devon, under good conditions, and the model was landed with the motor still running within 94 yards of the take-off point. The reason for this was fast approaching darkness which forced O'Heffernan to bring the flight to a premature conclusion. Subject to ratification, this establishes a new World Record, and we congratulate a very persistent flier on a very stout effort. Readers may remember that O'Heffernan attempted the Channel crossing prior to the successful crossing by the E.D. Team, suffering a most unusual setback, when seagulls attacked the model and forced it into the sea.

Technical details of the model, which is a modified "Skyskooter," are as follows: Engine, Mills 1.3 c.c. Mk. II; Fuel, Mercury No. 3; Feed was by gravity from tank in fuselage; Receiver, home-made, based on the "*AEROMODELLER*" No. 1; Relay, E.C.C. 5A; Batteries, H/T Mallory Mercury 54 volt; L/T and Actuator, Venner Accumulators; Control was by proportionate rudder with variable mark-space pulsing. Actuator was a Mighty Midget motor. Transmitter was a 3-valve crystal-controlled unit of his own design, with power supplied by a 12-volt car battery via a vibrator pack.

We imagine that there are at least three stiff necks in the Salcombe Club as a result of this successful attempt (pity the poor timekeepers!) and look forward to repercussions from the Nottingham district in the not too distant future?

L.S.A.R.A. Conference

With an attendance record book reading like one that might be found at the portals of Air Ministry, the collection of boffinry that listened and questioned the eight papers read at the first

Model Aeronautical Conference, probably represented the first official acceptance of aeromodelling as being of *direct* value to the aircraft industry. The meeting had been called at rather short notice so that N. K. Walker, B.Sc., the Director of Research, could attend before departing for a three-year period of duty in the U.S.A.; and enabled him to summarise the L.S.A.R.A. work in opening the conference.

First speaker was W. A. Crago, who gave many revealing facts on the value of dynamic models (reproducing the full-size in scale weight, loadings, balance, etc.) and showed films of a free running 70 m.p.h. model Hydroski fighter, roaring across a calm river surface at 4 a.m. under R/C. Free-flight R/C models have debatable value for research it seems, and the bulk of the Saro dynamic model work is conducted in a test tank with simulated catapult landings. Aircraft of the future are modelled to an amazing degree of accuracy and provide information that can decide the future of a design before construction is started.

Other talks on the L.S.A.R.A. radio-control experiments (see R/C notes), Low speed aerodynamics and Reynolds numbers (by R. W. W. Annenberg) were highly technical and found to be controversial by questioners. Dick Hirdes even brought along his copy of F. W. Schmitz's *Aerodynamik der Flugmodells* to point out his particular query. Tom Smith outlined in a practical way, his progress through countless "hot" designs to Fried Fritter and Oliver Twister and P. R. Payne recalled L.S.A.R.A. developments on behalf of Jetex, notably the creation of the Jetmaster and Augmenter tubes.

The talk which held most interest for ourselves, was that due to be given by P. G. F. Chinn, on Model Engine tests, who was not present. In his place, N. K. Walker spoke of the difficulties in testing by the Torque beam, and acknowledged Warrings findings that slipstream can provide an error to the magnitude of 40 per cent. in some cases. We felt rather sorry that Mr. Chinn had not arrived to give his talk in person, and with heads filled with technical terms, the like of which some of us had never heard before, we left confident in the fact that modellers in industry are doing trojan work for we who enjoy it as a hobby.

More Models In Research

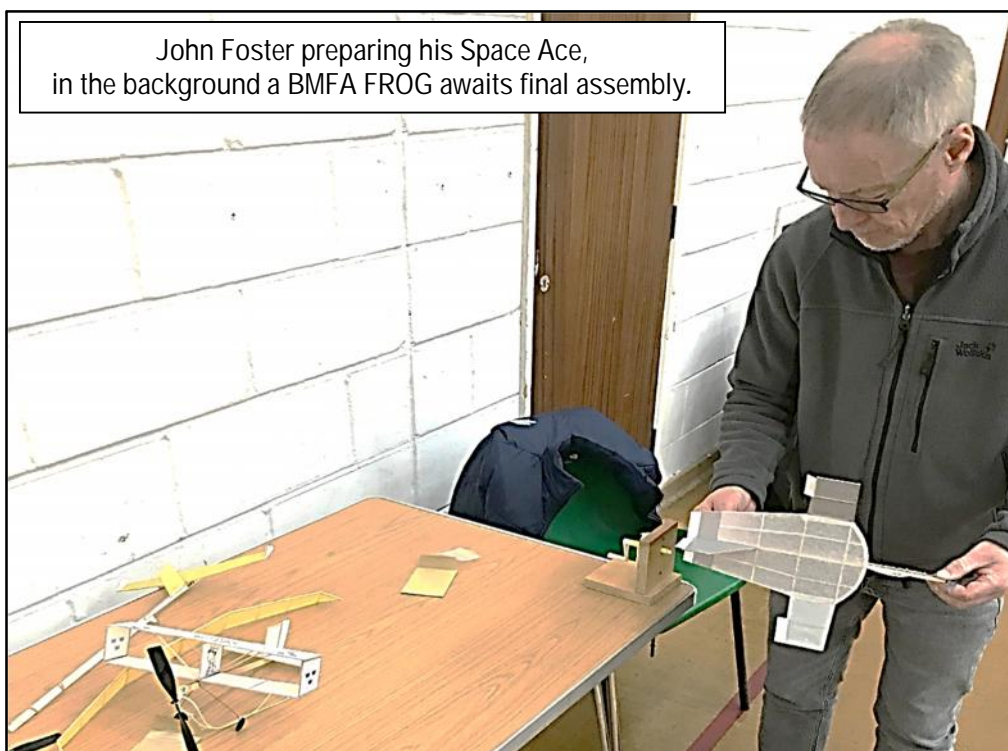
The recent nation-wide publicity given to the Comet investigation has perhaps done more than any other occurrence to bring home the value of models to the general public. Sir Arnold Hall, Farnborough "boffin" in charge of the highly technical research into the disastrous crashes, disclosed that no less than 100 models had been built for the purpose of investigating wreck patterns, etc., the test flights being carried out in one of the Cardington balloon sheds with remarkable results. The use of models for demonstration has been common practice for years, but the large scale employment of miniature replicas as in this instance is surely unique.

Wickham Indoor Free Flight Session Thursday 14 November

Waltham Chase Aeromodellers run fortnightly indoor free flight sessions on a Thursday evening from September to June. Open to all and efficiently organised by secretary Alan Wallington, these provide a useful midweek complement to the equally - excellent Sunday afternoon sessions at nearby Totton (from which I am currently absent, due to a surfeit of other interests).

Wickham Community Centre is a compact but perfectly flyable venue and currently tends towards general sport flying, although we do see some serious scale and duration action from time to time. The mid-November session saw 7 flyers plus observer Dave West, who normally flies but who had suffered a nasty scalpel cut while building a radio model (there's a lesson there somewhere).

Chris White, Barry Grubb and John Passmore are currently setting the standards with their Gyminie Crickets, Hangar Rats and foam Serenes, with several one minute plus flights. A local oddity is that Hangar Rats currently tend to be flown in retracted undercarriage mode, no-one really knows why.



John Foster has got his Ray Malmstrom Space Ace dialled in to produce a very reliable flight pattern. John also brought along a foam biplane of unknown origin, bearing Swedish markings (see photo). This is now also flying well, and John would appreciate any information as to its identity. The upper wing bears the legend Tre Kronor (which, as any fule kno, is Swedish for Three Crowns)

Dave Etherton announced his arrival in the usual manner, with an impeccable flight by another foamie of uncertain origin. This sports a boxy fuselage and zero dihedral, much like the Lacey M10, and flies just as well. Also performing consistently well was his Prairie Bird, which I believe Dave originally built to gain access to the Cardington airship hangar.



Dave Etherton taking a break from vintage and classic glider. Any ideas on the identity of the foamie in the foreground?

Steve Sedgall has been experimenting with no-cals, and his F4U Corsair is settling down into a nice performer. Also being trimmed was a rather smart red Polen Special, which is a new one on me. When Steve got bored with those, he trotted out his pea green Observer Embryo, another nice performer.



Steve Sedgall on coffee break while pondering prop pitches.

My main contribution was to trim a quarter size Telco-powered Rambler. After several powered descents followed by trips to the rafters, I finally found the sweet spot on the throttle setting and it chugged round rather pleasingly. The motor is part of a stash kindly provided by Nick Peppiatt a couple of years ago. Following the Rambler, I can feel a half size CO2 Cardinal and Tomboy coming on.



My Rambler at the top, already sporting tissue damage but flying gamely nonetheless.

So all in all a most entertaining evening, with plenty of time for both flying and nattering. All are welcome at these events, please see your New Clarion for details. Special thanks are due to Alan Wallington for organising these events and also Dave West, who provides the biscuits and also very kindly gave me a Hangar Rat (as I haven't yet built one).

Paul Lovejoy

Notes from North Wales, November

- Roger Newman

Occasional Notes from North Wales

For those who have an inherent interest in the future of aeromodelling & the BMFA, you should have noted that the BMFA AGM was held in early November, followed by an electronic EGM in late November for the membership who bothered to log in, to vote on the proposed budget for fiscal 2024/25 & a recommended subscription increase of £2 to raise the annual subs for Senior Members to £49 for that year.

Prior to the AGM, the BMFA publishes several documents that summarise the previous accounting period & a proposed budget for the forthcoming year. These documents can be downloaded by members. How many of you did so, such that they could be read & digested in relative leisure? The documents are:

AGM Minutes 2023

Annual Report 2024

SMAE Accounts 2024

SMAE Accounts 2024 Supplementary Notes

Budget Notes 2025/2026

The AGM Minutes 2023 are merely a record of the prior AGM meeting discussions. The Annual Report generally makes for interesting reading in parts & should be thoroughly read, albeit one has to read between the lines on content. As a "for example" the following extract from the CEO report:

However, there are still some major challenges on the horizon driven by the requirement to incorporate unmanned aircraft operating beyond visual line of sight into the airspace. The security driven requirement for Remote Identification and the aviation safety driven requirement for Electronic Conspicuity remain unresolved. A lot of time and effort continues to be expended in our ongoing discussions with regulators to try and ensure that whatever they may have in the pipeline is sensible and proportionate (and/or exempted) for our activities.

One can only guess at the problems faced by David Phipps when he engages with the CAA & other like-minded bodies, whilst the big tech Companies apply pressure for their own commercial interests that inevitably conflict with aeromodelling desires. Will such requirements lead to the concept of enforced designated flying sites in the UK? If so, does this mean the death knell of free flight sport flying in local farmers fields for example? But who enforces the regulations? Note that our colleagues in the USA have largely been taken down this route already by the FAA.

There is a statement within the Annual Report from the FFTC that lacks clarity - it is:

The FFTC have given notice that in 2025 radio DT will be required on models over 250g. This is to ensure that the flight can be terminated if the model deviates from the planned CAA Flight Volume or unforeseen conditions change within the Flight Volume.

One assumes that this condition only applies to models flown in competitions. If not, it is surely another nail in the coffin of sport flying. Clarification is requested. Who will ensure that the rule is enforced - another CD role?

Another comment - on Membership:

As this report is being prepared, our membership is almost 900 members down on the same period last year which is disappointing. We have attracted over 2800 'British Drone Flyers' members and we continue to work on plans to attract more. We have also retained members of the Scottish Aeromodellers Association which came onboard with the BMFA for 2023 and with whom we are forging ever closer links.

We have been faced with a succession of issues over recent years, including regulatory changes, an ageing membership demographic, pandemics and the cost-of-living crisis all of which have compounded and contributed to the loss of members in recent years. We continue to explore strategies to reverse this trend, but it is a major challenge for all of us and we need the support of our clubs to help us in recruiting new members.

The continued reduction in membership negatively impacts finances & regrettably leads to an inevitable increase in annual subs for those Members who do renew. This year (as noted above) the proposal is to raise subs by another £2, taking them to £49 per annum. Pretty soon there will be a threshold of pain for an increasing number of members, potentially adding to the downward spiral. Note the forecast for 2026/2027 proposes a further £ increase to £52!

Three documents cover the financial state of the BMFA & make equally interesting but not necessarily fully understandable reading for those of us who are not trained accountants, again

they beg questions rather than providing answers. The Annual Report includes a (very brief) statement from the Financial Director.

It should be noted that the operating accounts for the current year are in surplus due to the sale of Chacksfield House (the proceeds of which are a one-time income) , otherwise there would have been an operating loss of some £95K. The EGM, called for late Nov, is in part to ratify the proposed increase in Membership fees. However, based on the figures presented & forecast trends I find it difficult to believe that break-even can be achieved within 2 years? But I'm not an Accountant. Here is the budget proposed for 2025/2026.

The budget for 2025/26 is based upon the projected level of membership taken from the recent trends. To achieve a reasonable surplus in 2025/26 a modest increase in fees is proposed.

Projections for the next two years (2026/27 and 2027/28) suggest, provided that any additional reduction of income from a further loss of members is offset by firm expense control and reasonable fee increases, a breakeven situation can be achieved. However, it must be appreciated that the projections are based upon a fluid situation.

Budget for the financial year 2025-2026

Considerations

- Expenditure has been cut back over last few years, further cuts would reduce service provided to members.
- Forecast is based 3% inflationary increase in expenditure each year.
- Membership continues to decline, but at a lower rate - current trend is 1000 per year.
- Proceeds from sale of Chacksfield house to be added to development reserve – not spent on cor activities.
- Need to recover losses incurred over the last two years – this budget allows us to do this in three years.
- However, the Board is conscious that things are tight for members so any increase must be kept a minimum.

			Current Year	Budget Year		
	2022/23 Actual	2023/24 Actual	2024/25 Budget	2025/26 Budget	2026/27 Forecast	
Income	1,538,723	1,529,713	1,621,431	1,690,428	1,726,228	
Expenditure	1,603,914	1,627,585	1,565,026	1,611,977	1,660,336	
Operating Surplus/(Deficit)	(65,191)	(97,872)	56,405	78,451	65,892	
Taxation	(1,558)	(3,953)				
Sale of Chacksfield House		218,107				
Surplus/(deficit)	(66,749)	116,282	56,405	78,451	65,892	
Senior Fee	40	42	47	49	52	
Members	Budget / Forecast	31,500	30,000	26,500	26,500	25,500
	Actual	29,609	28,568	27,361		

Therefore we are proposing a £2 increase for 2025, for Seniors and no change for other classes of membership.

Another comment: consider more numbers - both in attendance & remote who participated in last year's AGM - an exceedingly poor show. It is a sad reflection that the vast majority of the membership appears to have very little interest in the future of the BMFA. In that context, I am as guilty as the next person but it does add considerably to concerns for the future if this reflects the view of the membership.

A final comment on the Annual Report. It is most heartening to read the positives being achieved by the small group of Volunteers concerning progress in sorting out the BMFA Archives.

Brief update on the eVTOL world

2024 has not been a particularly good year for the eVTOL circus. A great amount of draft legislation & rules have been published. The FAA has recently released a document entitled: *"Integration of Powered-Lift: Pilot Certification & Operations: Miscellaneous Amendments related to Rotorcraft & Airplanes"*. It is a new *Special Federal Air Regulation (SFAR)* that includes 880 pages of regulatory underpinning for a new powered-lift category, namely eVTOL. The EU has followed suit in pursuit of harmony across borders, which in the long term has to be commendable.

Not very much detail has been released elsewhere regarding the state of the art in the advancement of eVTOL air vehicles - in this context it is apparent that previously published dates for entry into service will not be met & have been/are being revised to an extended timescale. An increasing amount of financial pain is being suffered by quite a few of the early pioneers plus the usual amount of "positive" PR continues to be regurgitated regarding order books, progress, markets etc - much without substance. To be fair, there has been a general acceptance in investment circles that the cold light of day brings a semblance of reality to an emerging sector of new technology. Focus seems to have switched to development of "vertiports" - at the last count there are stated to be over 1400 world wide at various stages of discussion/proposal/planning. Necessary infrastructure indeed but a true reflection of demand or merely a desire to jump on yet another band wagon?



AMSL Aero Vertiia - Does anyone remember the original Rolls Royce Flying Bedstead?



Natilus Horizon

Some consequences of the current scene is that Lillium (Germany) has entered into bankruptcy, that Volocopter (Germany) is urgently seeking injections of finance to avoid the same fate. Vertical Aerospace (UK) is seeking additional funding as it wrestles with taking its second prototype forward towards certification, which has recently been pushed out to 2028. It is noticeable that the hype around early certification has reduced significantly. There is an Australian entry into the fray, this one using hydrogen fuel cells as a power source.

Joby & Archer in the USA seem to be better placed as regards forward funding & both are closely associated with commercial deals involving major vehicle manufacturers. Joby with Toyota & Archer with Stellantis. However probably the only people making any money at present are the PR outfits & the conference circuits.

Back to the future on aviation stuff. Another recent announcement from a Californian start-up for a 200 seat inter-continental airliner of the future.

Continuing Vintage Lightweights: Another that I do not recall ever seeing at MW - The Collector by Ted Buxton. Anyone ever built & flown one - if so, how does it compare to the better known lightweights?

Jed Buxton's most successful lightweight The "COLLECTOR"

THIS design was used throughout the 1946 contest season with a degree of success, collecting, in open competitions, one first, two second and one third places as a landplane, and two first and one fourth places as a seaplane.

The Gamage Cup competition provided its longest flight, some 13 minutes on the second flight, which, incidentally, was also the last, due to the dethermaliser fuse expiring. The dethermaliser was of the parachute type, a chute of 7 in. diameter proving adequate.

After heavy rain, which did not stop until evening, this model, fitted with elementary floats, participated in the Short and Lady Shelley Cup contests. With tissue slackened due to the damp atmosphere, the "Collector" flew the best time for either competition to win the Short Trophy. Lack of time in the Lady Shelley Cup event prevented more than two flights, which were good enough, however, for fourth place.

Fuselage

This is of normal construction. By cutting away the upper longeron for 4 in. at the rear of the fuselage, a platform is provided for the stabiliser. While a two-legged under-carriage is shown in the plans, an un-wheeled single strut example was used on the original model, fulfilling all the functions of the more conservative type.

Wing

By packing up the leading and trailing edge sections to follow the upper contour of the wing section, only the bottom of the sections have to be trimmed. Leading and trailing edges are later cracked where shown to provide 1 in. dihedral at the centre section and 4½ in. at the tips.

Stabiliser and Fin

These items are of simple construction, the tissue covering of which should not be water-shrunk or doped. The fin is cemented on the fuselage ahead of the stabiliser and is equipped with a stiff paper trim tab for glide circle adjustment.

Floats

The three floats are built up from 3/32 in. sq. hard balsa with 3/32 in. x ¼ in. material where the attachment members are located. Three floats are required. Cover with tissue, shrink, apply a coat of dope and waterproof with a thick coat of banana oil.

To the front floats cement blocks of ¼ in. sq. hard rubber where shown, and into these push the wire undercarriage struts. Set the floats parallel to the datum.

The rear float is cemented to the rear of the fuselage via the ¼ in. x 7 in. balsa strut shown.



Prop Assembly

The blade should be carved from soft balsa to a thin section and furnished with ¼ in. undercamber. It should be doped to a high lustre. The ply faces on the blade may be given an application of graphite (pencil lead) to ensure folding is free. It has been noticed that during prolonged clicking of prop stops at the end of the motor run of some models, considerable height is lost. To obviate this, a weak spring should be used to ensure that it will only operate on the last few turns of the motor.

Covering

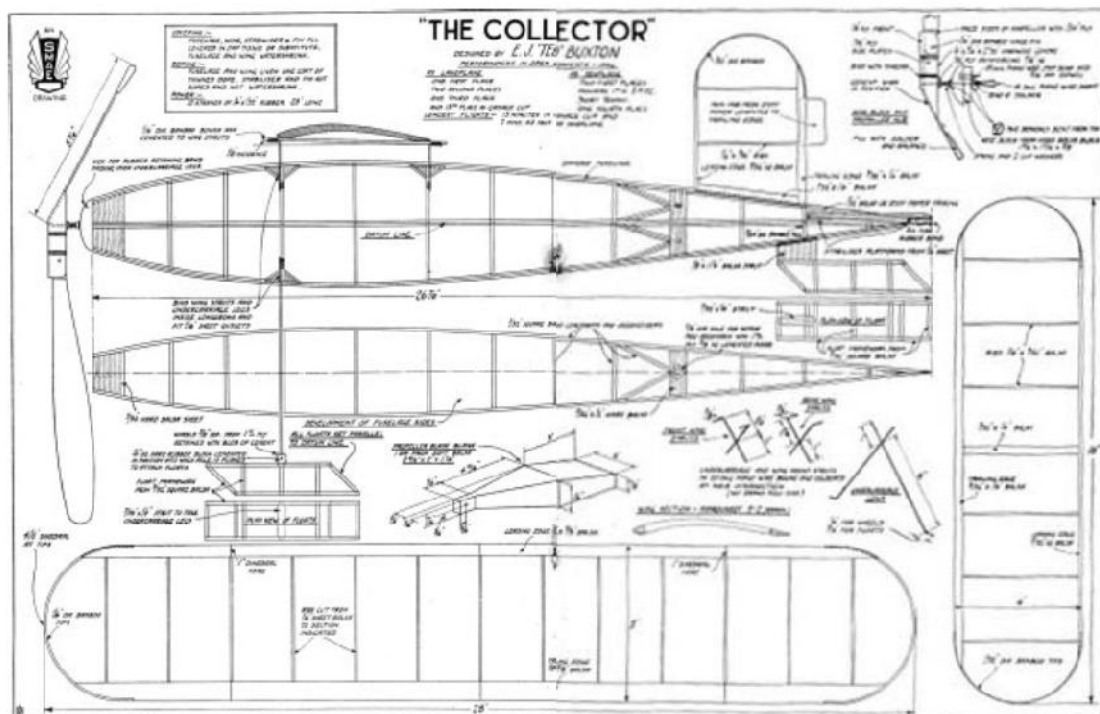
The original model was covered with coloured Jap tissue, but present day substitutes will do, however. A coat of thinned dope is given to the fuselage and wing, none to the stabiliser and fin.

Power

A motor consisting of 10 strands of ¼ in. x 1/32 in. black rubber turns the prop on this job and should take 800 turns. A motor of pre-war Pirelli (14 strands ¼ in. x 1/24 in.) took 900 turns and produced considerably more power than seems available from present-day rubber. An "S" hook is used to attach the motor to the prop shaft and is also used for winding purposes.

Flying

Only incidence used on this model was ¼ in. positive on the wing. After obtaining the flattest glide via fore and aft wing movement, power flight adjustment is accomplished with side and down thrust only. If the model you produce appears nose or tail heavy, this can be corrected by the discreet use of plasticine. In contests, where most people fly to win, crank on near maximum turns, place the model on the take-off board, let go and stand back; the device jumps straight off and so does the sea-



FULL SIZE WORKING DRAWINGS ARE OBTAINABLE FROM YOUR LOCAL DEALER, OR BY POST FROM THE MODEL AIRCRAFT PLANS DEPARTMENT, 22, GREAT QUEEN STREET, LONDON, W.C.2. AT 6s POST FREE.

The aforementioned (in last months NC) BMFA Auction was duly held at Buckminster & the results achieved should benefit BMFA funds as the majority of items mostly commanded very good prices. Inevitably the Oliver Tiger collection of original & look-a-likes all were at the forefront of demand.

There is a further follow-up auction at the same venue on 24th Nov (over by the time you read this!) with loads more engines & kits - another 470 items on the schedule. Bids are already being accepted, there is a Carter Special (2.5cc glow) for which 38 bids have been clocked so far - hitting £400! Where does all this stuff come from? There is patently a market for it all but does it ever end up in the air - I rather doubt it.

Can't resist deviating from script - have a restful & enjoyable Christmas & New Year.



Courtesy of the Great Western Railway website. Trains run from Cheltenham to Broadway.

Roger Newman

Secretary's Notes for Xmas

-

Ray Elliott

With the BMFA FFTC proposing to revamp the format of contests for 2025, essentially having more combined events and less individual classes, I thought it might be appropriate to provide a refresher on the Cagnarata contests that have been run under the auspices of SAM1066 since 2019. Contests of this format have been run in Italy since 2011, or maybe even earlier. I got to hear about them after Gavin Manion and Peter Tolhurst flew in the Coppa Fea in Turin and thought it might be worth trying one in the UK. After discussion with Roger Newman in his capacity as SAM1066 secretary and others it was decided to organise one and this was held at Middle Wallop in November 2019.

In Italy Cagnarata contests (or at least the one in Turin) are open to all classes of Free Flight model except F1C and F1E. We decided to restrict ours to the Mini Classes plus Open Vintage/Classic Glider. Cagnarata contests use k factors to adjust the actual scores to make them more equable vis-à-vis the variation in performance of the various classes. These factors are a function of the max for each class.

Class	K Factor	Max (secs)
E36 (motor run 8 secs)	1	120
Mini Vintage Power (motor run 10 secs)	1	120
F1G/Vintage Coupe	1	120
F1H/A1	1	120
Mini Vintage Rubber	1	120
Open Vintage/Classic Glider	1	120
Tailless	1	120
E30 (motor run 40 secs)	1	120
P30	4/3	90
CO ₂	4/3	90
E20 (NFFS Rules – motor run 20 secs)	4/3	90
Under 25in Vintage Rubber	3/2	80
Hi-Start Glider	3/2	80
CLG/HLG (modern)	2.5	48
CLG/HLG (classic/vintage)	3	40

	Name	Class	K Factor	Total actual	Total x K Factor	Fly Off actual	Fly Off x K Factor
1	P Hall	Mini Vintage R	1	360	360	142	142
2	D Cox	Vintage Glider	1	360	360	119	119
3	A Longhurst	Under 25 Rubber	3/2	240	360	78	117
4	M Stagg	F1G	1	355	355		
5	E Challis	Mini Vintage R	1	345	345		
6	A Longhurst	Mini Vintage R	1	338	338		
7	C Redrup	E 36	1	334	334		
8	N Peppiatt	Under 25 Rubber	3/2	222	333		
9	D Etherton	Vintage Glider	1	329	329		
10	J Thatcher	Mini Vintage R	1	327	327		
	M Ambrose	Mini Vintage R	1	327	327		
12	K Taylor	Vintage Glider	1	316	316		
13	R Taylor	Mini Vintage R	1	262	262		
14	A Brocklehurst	F1G	1	258	258		
15	D Thomson	F1G	1	230	230		
16	J Andrews	P 30	4/3	169	225		
17	A Longhurst	P30	4/3	164	219		
18	B Hobbs	F1G	1	185	185		
19	J Andrews	F1G	1	181	181		
20	C Redrup	P30	4/3	131	175		
21	K Taylor	Mini Vintage R	1	109	109		

The results of this contest are shown above. There were 21 entries with 3 flyers each entering 2 classes and 1 (Andrew Longhurst) entering 3 classes. This wasn't a bad turnout for a contest in November although the weather was good with a light wind. The winning model was a Mini Vintage Rubber, second a Vintage Glider and third an Under 25-inch Rubber. This variety of models would suggest that the k factors worked quite well.

The second contest was held in July 2021 at RAF Colerne. This contest was also blessed with good weather despite a dire forecast in the preceding days. This forecast could well have contributed to a lower attendance. As it turned out we had 18 entries with 2 reaching the fly-off. The winner was Chris Redrup flying an E36 with Jim Paton second flying a Mini Vintage Rubber. Third was Martin Stagg with an F1G. Again, no domination by any one class.

In July 2022 another comp was again held at Colerne but unfortunately this suffered from strong winds making flying very difficult and resulting in a low entry and few scores. For 2023

two Cagnarata comps were planned, one on Salisbury Plain and the other at Odiham. Unfortunately both had to be cancelled due to bad weather, with the Odiham event actually being cancelled twice! The contest this year at Odiham was planned to be a Cagnarata and, whilst it did take place, conditions were far from ideal with gusty winds making flying difficult. Consequently entries were low, but then, of course, they would have been low whatever the format.

Taking the situation overall I would say the vibe has been positive. Flyers like comps with a meaningful number of entries and the use of k factors goes some way to make for a level playing field.

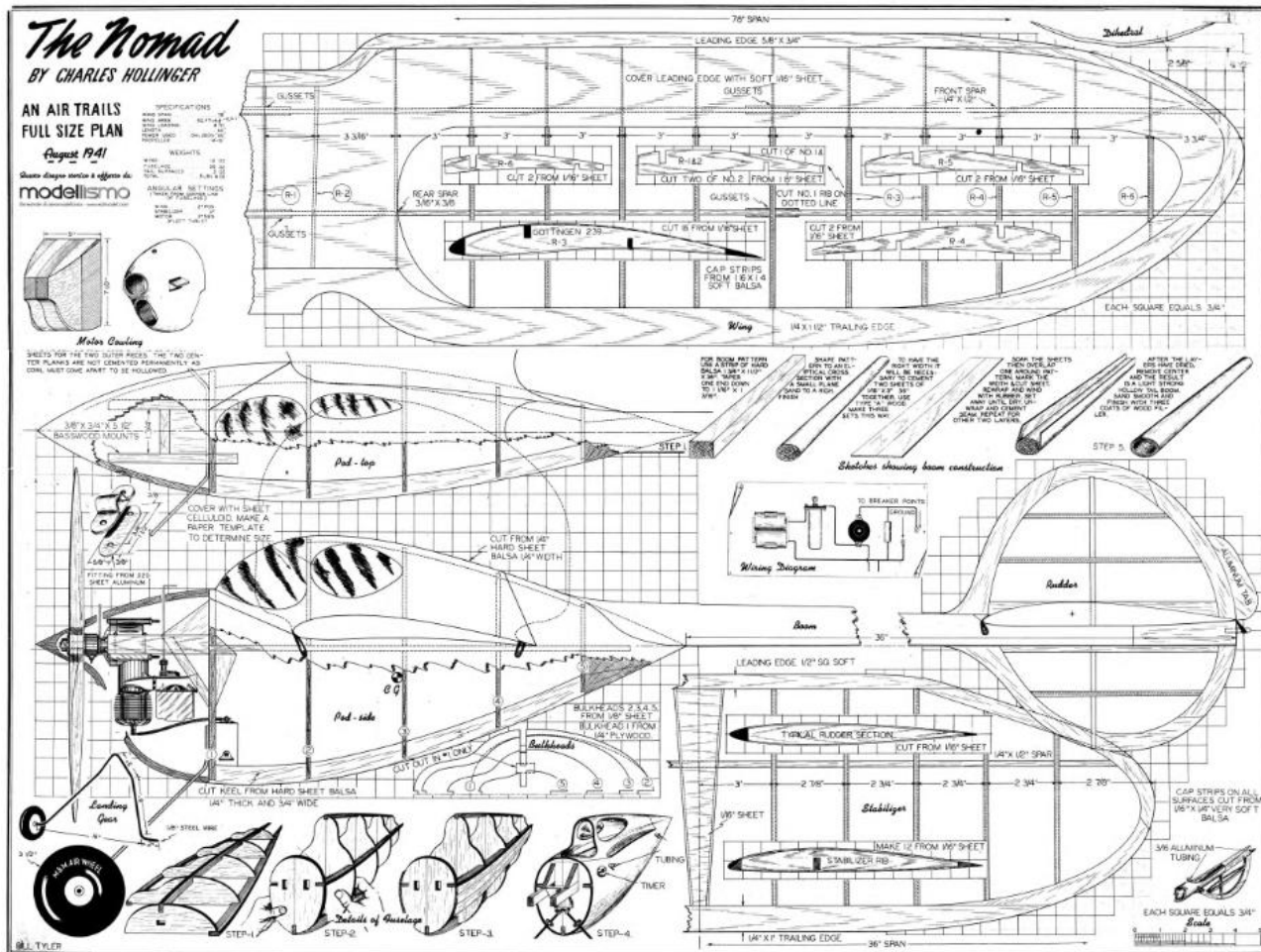
I'm pretty sure that SAM1066 will try to organise at least one Cagnarata comp in 2025 and, wearing my Croydon hat, I'm thinking of making Croydon Wakefield Day a Cagnarata Rubber Day. Entries for this comp have been falling for some time so hopefully we can have a decent competition rather than half a dozen classes with 2-3 entries (or less) in each.

Ray Elliott

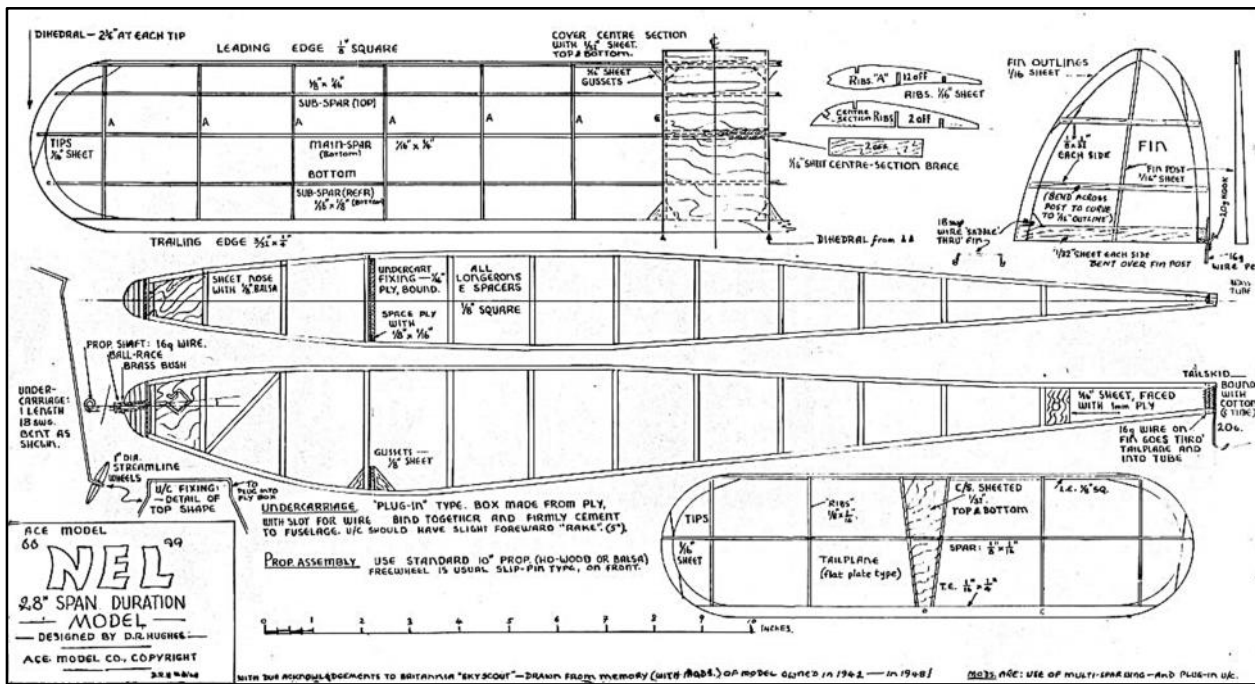
Plans for month

Roger Newman

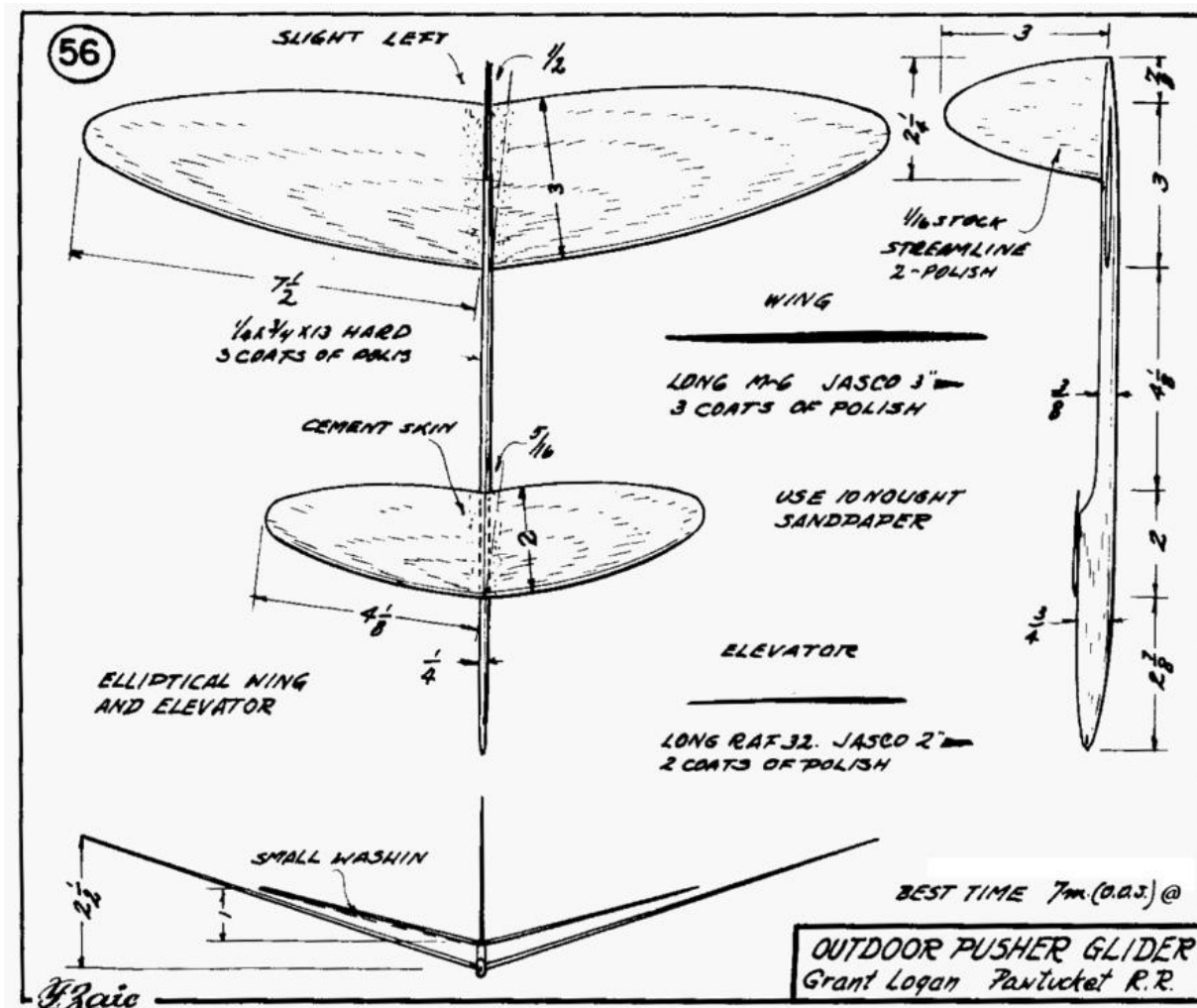
Power: The Nomad - pod & boom model from 1941. At 78" span, we'll never see the likes of these again.



Rubber: Nel - neat little design from 1940



Glider: Outdoor Pusher Glider - another small canard chuckie from Zaic Handbook



Events and Notices

I have three brand new reprints of classic aeromodelling books

They are:

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

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

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

All are "as new" condition

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

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

SUPERLIGHT CARBON E-20 AND HLG BOOMS

New stock just in.

First come, first served.

**Carbon rod blanks, ideal for E-20s
and hand or catapult-launched
gliders. Long enough for two booms.**

**97cms long, 4mm diameter tapering
to 1.5mm. 3.4 grams, but some wet-
and-dry action will lower this figure.**

**£8.00 each + postage from Martin
Dilly on +44 (0)208 7775533 or
martindilly20@gmail.com.**

Permits for Salisbury Plain & North Luffenham

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

The costs are:

£20 for Salisbury Plain - £35 for North Luffenham

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

Options for Flying on Salisbury Plain, Area 8

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

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

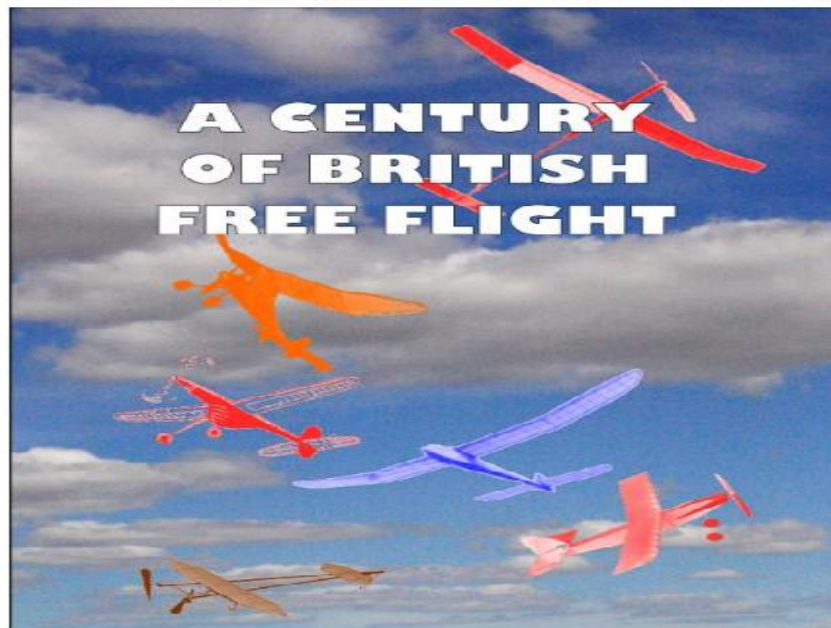


A CENTURY OF BRITISH FREE FLIGHT

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

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

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



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

La 10^{ème} Grande Coupe de Birmingham

A qualifying event
for the 2025 Southern Coupe League

Pending the approval of the FFTC and field availability this event will take place at MOD North Luffenham at 10.00 on

**Saturday 22nd February
Or Sunday 23rd February 2025**

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 events. Contacts below for details if unsure.

Both event 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 FFTC 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 20th Feb to confirm the chosen day. Will all potential fliers please email gavin.manion84@gmail.com ahead of time so that they are included in that confirmation email. Single registrations on behalf of a group of fliers would be very welcome.

For further information contact: -

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

Indoor Model Flying Bangor, North Wales

at the
Brailsford Centre LL57 2EH

Sundays 15-00 til 18-00

2024 Dates:

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

2025 Dates:

To May - dates to be decided

**Free-Flight Models & Lightweight R/C
Beginners Encouraged**

Contact: Martin Pike, 07831 141418

Email: martin.pike.xray@btinternet.com

Join us, flying models. No experience needed,

We have free flight models for people to try out.

Of course you are welcome to bring your own models.

**We fly: duration models; scale models; and fun-fly
such as Gyminnie Crickets and Hangar Rats.**

Radio models must be slow flyers to fly safely in the hall.

The hall is 25x22x10m, a good size for model flying

TWIFF**(Totton West Indoor Free Flyers)**

Please bring all your toys (Free flight only)

Sundays, from 12:00-16:00

Admission for flyers £15.00

Free for spectators and helpers

2024

15th September

20th October

17th November

15th December

2025

19th January

16th February

16th March

27th April

25th May

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

There is a Tesco Local nearby for coffee and snacks.

Location

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

Or, if you like, car park entrance at [///playroom.pump.dorm](http://playroom.pump.dorm)

Contact Ken Brown 02380578866 or 07913814492 brown53hh@gmail.com

Chasetown Indoors

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

**Flying 1pm til 4pm
Saturdays**

2024

28th Sept, - 19th Oct,

9th Nov, - 7th Dec,

2025

11th Jan, - 8th Feb,

8th Mar.

The parking is at the far end of the car park & the sports hall is the far end of the car park, the large building.

Costs are the same as previously, £8 for flyers & £2 for spectators, children free.

Can you bring your BMFA + contact details & write them down in the supplied book please. We need 15 flyers to break even, hopefully see you on Saturdays.

Contact: peter.thompson7406@gmail.com

**Waltham Chase Aeromodellers****INDOOR F/F MEETINGS**

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

2024:

Sep:19th., Oct:3rd., Oct:17th., Oct:31st.

Nov:14th., Nov:28th.

Dec:12th.

2025:

Jan:2nd., Jan:16th., Jan:30th.

Feb:13th., Feb:27th.,

Mar:13th., Mar:27th.

Apl:10th., Apl:24th.

May:8th., May:22nd.

Jun:5th., Jun:19th.

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

Admission will be £8 for fliers and £2 for junior fliers, and spectators accompanied junior spectators and parents of junior fliers admitted free.

Fliers will be required to show proof of insurance.

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

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

For further details please contact:

Alan Wallington, "Wrenbeck", Bull Lane,

Waltham Chase, Southampton, Hants.

(Tel. 01489 895157) (e-mail: indoor@wcaero.bmfa.club)

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

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

DILLY JAP IS BACK -AGAIN

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

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

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

INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

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

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

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

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

FREE FLIGHT SUPPLIES

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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

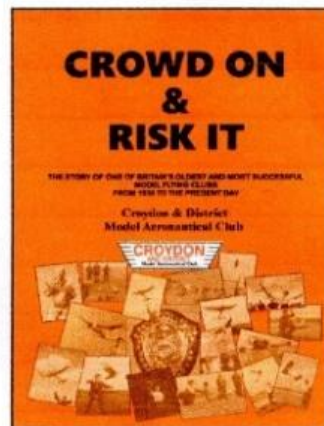
LIGHTWEIGHT COVERING MATERIALS - HI-TECH MATERIALS - FIXINGS - RUBBER - RUBBER MODEL PROPELLERS - TIMERS - KP AERO MODELS - TOOLS - PLANS - KITS - "HOW TO DO IT" PUBLICATIONS - BOOKS.

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 £10 by PayPal or cheque

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

FREE FLIGHT FORUM REPORT 2021

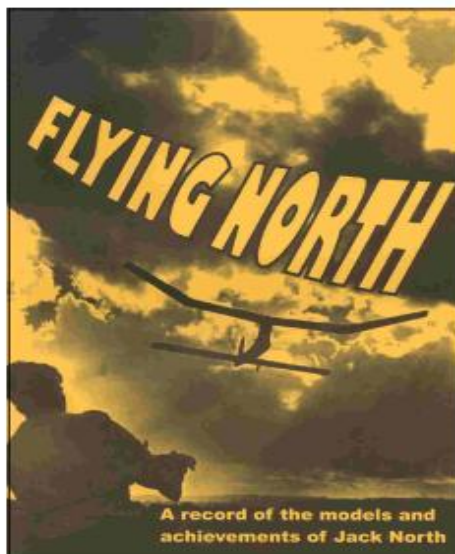
Indoor Duration - A Challenge To Conventional Design • Tony Hebb
 Coupe In A Box - Gavin Manion
 Building Other People's Mistakes - Stuart Damon
 The Models Of Ray Monks - Simon Dixon
 Simulated 3d Flight Dynamics - An Approach To Gain Insight For
 Trimming And Aircraft Development - Peter Martin
 Building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

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



Copies are available from: Martin Dilly, 20, Links Road, **West Wickham**, Kent BR4 0QW
 Or by phone: +44(0)2087775533 Or e-mail: martindilly20@gmail.com

THIRD RE-PRINT JUST ARRIVED



FLYING NORTH A goldmine for vintage and nostalgia model flyers -

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

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

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

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

READERS' FEEDBACK

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

"I hope it becomes a classic."

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

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

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

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

"The best aeromodelling book since the Zaic Yearbooks"

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



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

Provisional Events Calendar 2024

With competitions for Vintage and/or Classic models

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

February 24 th or February 25 th	Saturday Sunday	Coupe De Brum, Luffenham
March 10 th March 29 th	Sunday Good Friday	BMFA 1st Area Northern Gala, Barkston
April 1st April 13 th April 14 th April 28 th	Monday Saturday Sunday Sunday	Croydon Wakefield day + SAM1066 - SP London Gala, Salisbury Plain London Gala, Salisbury Plain BMFA 2nd Area
May 19 th May 25 th May 26 th May 27 th	Sunday Saturday Sunday Monday	BMFA 3 rd Area FF Nationals , Salisbury Plain FF Nationals , Salisbury Plain FF Nationals , Salisbury Plain
June 16 th	Sunday	BMFA 4 th Area
July 7 th July 21 st	Sunday Sunday	BMFA 5 th Area BMFA 6 th Area
August 3 rd August 4 th August 18 th August 18 th	Saturday Sunday Sunday Sunday	East Anglian Gala, Sculthorpe East Anglian Gala, Sculthorpe Southern Gala, Salisbury Plain Southern Area BMFA Gala, Odiham
September 1 st September 14 th September 15 th September 28 th or September 29 th	Sunday Saturday Sunday Saturday Sunday	BMFA 7 th Area Stonehenge Cup, Sculthorpe Equinox Cup, Sculthorpe Crookham Gala, Salisbury Plain
October 6 th October 13 th October 19 th October 26 th Or October 27 th	Sunday Sunday Saturday Saturday Sunday	BMFA 8th Area Croydon Coupe Europa + SAM1066 - SP Midland Gala, Venue, North Luffenham Petit Classique de Brum, North Luffenham
November 3 rd or November 17 th	Sunday Sunday	Buckminster Gala, BMFA Centre

Please check before travelling to any of these events.

Access to MOD property can be withdrawn at very short notice!

For up-to-date details of SAM 1066 events at Salisbury Plain check the Website

www.SAM1066.org

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

www.freeflightuk.org or www.BMFA.org

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

www.SAM35.org

Useful Websites

SAM 1066	-	www.sam1066.org
Mike Woodhouse	-	www.freeflightsupplies.co.uk
BMFA	-	www.bmfa.org
SAM 35	-	www.sam35.org
National Free Flight Society (USA)	-	www.freeflight.org
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

control/left click to go to sites

Are You Getting Yours?

- Membership Secretary

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

P.S.

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

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

Quiz Answers

- | | | | |
|------------------------------|----------------|----------------------|-------------------------------------|
| 1 - Aurikel | 2 - Simplex 40 | 3 - Upstairs Maid | 4 - Celestial Horseman |
| 5 - Banshee | 6 - Hep Cat | 7 - Toothpick | 8 - New Aeromodeller Cabin Duration |
| 9 - Dream Weaver | 10 - GB-3 | 11 - MP12 | 12 - Keil Kraft Eaglet |
| 13 - Keil Kraft Slicker Mite | | 14 - Teachers Pet | 15 - AV10 |
| 17 - Veron Fledgling | | 18 - Lanzo Baby Burd | 16 - Lanzo Swayback |

Your editor

John Andrews