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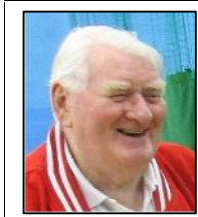
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Editorial

Hi guys, season getting underway. Personal circumstances currently prevent me from spectating anywhere at the moment. I missed Luffenham and Ill not be at any Salisbury Plain events but Barkston for area comps is a possibility.

Doing reasonably well for content at the moment but do not forget to write something when season is in full swing. Fingers crossed for some decent weather.

Please report with pics on your indoor events, members really appreciate the details.

OK what is in this issue:

-] First up reports by Martin Pike and Dave Whitehouse on February's successful indoor event in the Manchester Velodrome. Dave Whitehouse was extremely pleased with success of the meeting and intends to repeat the exercise next year. He praised the Velodrome staff for their accommodating attitude in setting up the ventilation system.
-] Martin Pike's picture parade from the above event. Together with an event report by Mike Smith.
-] Pylonius has a few words re Silecers, then comment on last season's low contest entries blaming a switch to scale research and winding up with a dig at Pay-Load comps from the rubber model point of view.
-] Roger Newman passes comment on the Nordec 10cc motor, a monster in its day.
-] News Review from 1949 Model Aircraft highlights the forthcoming Wakefield Contest at Cranfield UK. There is a large piece on banning of flying in Parks by many Councils, blaming the advent of availability of model engines and inexperience of many modellers who take up power flying as their first venture into the hobby.
-] Nick Peppiatt reports on 'BMFA South Midlands Area Indoor Extravaganza 2024' with his usual crop of pictures.
-] I've reproduced a report by Tony Bird on the 'SAM Euro Championships 1995' taken from the 1995 September issue of the old paper-back Clarion.
-] The 1954 Heard at the Hangar Doors informs that the World Championships for full size gliders is to be held in the UK. There is info on various model meetings and some FAI surprizes from their recent meeting. Finishes with news that the new engine testing dynamometer is about ready to go.
-] Roger Newman has penned a detailed review on the developing EVTOL boom, emphasising that it his personal take on the subject.
-] Gavin Manion reports on the Coupe de Brum event at Luffenham.
-] Our archivist Roy Tiller continues his look into the 'Eagle' books with one article and a query supplement.
-] There is an all balsa flying wings article by Bill Dean from Model Aircraft 1946. Our retired secretary Roger Newman fancies one as his next project.
-] We then have our new secretary Ray Elliott jotting down his thoughts in 'Secretary's Notes for April.
-] Finally Roger Newman provides archive plans for three more models:
 'Forward' a low wing glider from the Aeromodeller September 1952'
 'Max Master' - a quite early Swedish power model for 1/2 A comps - uses Cox Baby Bee.
 'Silver Eagle III' - a 1950 Wakefield from New Zealand.

Editor

**The BMFA North West Gala
Saturday 10th February at the Manchester Velodrome**

Martin Pike:

Three of us went from North Wales to participate in this event - Allan Patrick, Rory Pike and myself.

It was the first time we had been to this venue. It is a large area within the velodrome track. Nets separate the flying area from the track. It is little strange to see cyclists whizzing past the flying area, but the nets are much gentler model-catchers than the usual brick walls.

By arrangement, the ventilation fans were turned down to give reduced turbulence.

I entered the Modeller's Den Peanut Trophy with my Luton Minor. It is a pretty model and looks as if it should fly with no problems - not so. It is destined to hang, in shame, from my office ceiling. Despite a number of attempts, I cannot get it to fly more than a circuit. There were a number of far more successful entries. It was a good opportunity to meet other modellers and see what they had done. For me, this is the most important part of travelling to other venues.

I did make a reasonable entry in the flying only event, using my Auster J4. This is showing some promise, with slow, wide (sometimes too wide) circuits. The landings need some work.

Aside from the scale events, there were also duration competitions. Both coexisted with no problems as far as I saw. My son, Rory, used one of our editor's Legal Eagles to enter a competition. He came second, but a fair way behind the leader. The Eagle had developed a rakish wing warp after a few years in the editor's garage, but it was still far more willing to fly than my Luton Minor.

Overall a good venue and a well-organised meeting. I hope to go again in March.

Martin Pike

Dave Whitehouse:

Thank you all for attending the BMFA NW Gala on Saturday and making it such a successful event.

I have to admit that I was very worried prior to the event about possible bad air conditions being caused by the new air-conditioning system.

However, the Velodrome staff really helped and managed to find a setting that gave us good conditions all day.

They have also mentioned that this can also be done for our Fun-fly meetings as well.

I think running the event with no specific timetable worked really well and allowed everyone to make the best of their day.

I have attached the results sheet.

Unfortunately there was a small error in the overall championship table and Peter Woodhouse actually came second, so Peter, I owe you the certificate.

Providing I can get the bookings for next year, I will plan a similar Gala.

Dave Whitehouse

Pussycat		Flight Times								Place	Points
Name	1	2	3	4	5	6	7	8			
Martyn Kinder	1.06	1.07	1.06						1	2	
Ian Lever	0.51	0.57	1.01						2	1	

Pussycat Precision		Flight Times (target time 38 Sec.)						Place	Points
Name	1	2	3						
Ian Lever	36						1	3	
Martyn Kinder	34.4	29.30	31.10				2	2	
Phil Morrell	22.40						3	1	

Scale Events

Pistachio		Model Type	Scale Points	Flight Scores				Place	Points
Name	1			2	3	4			
Tim Horne	Waco SRE	28	23				1	2	
Dave Whitehouse	DH37	19.5					2	1	

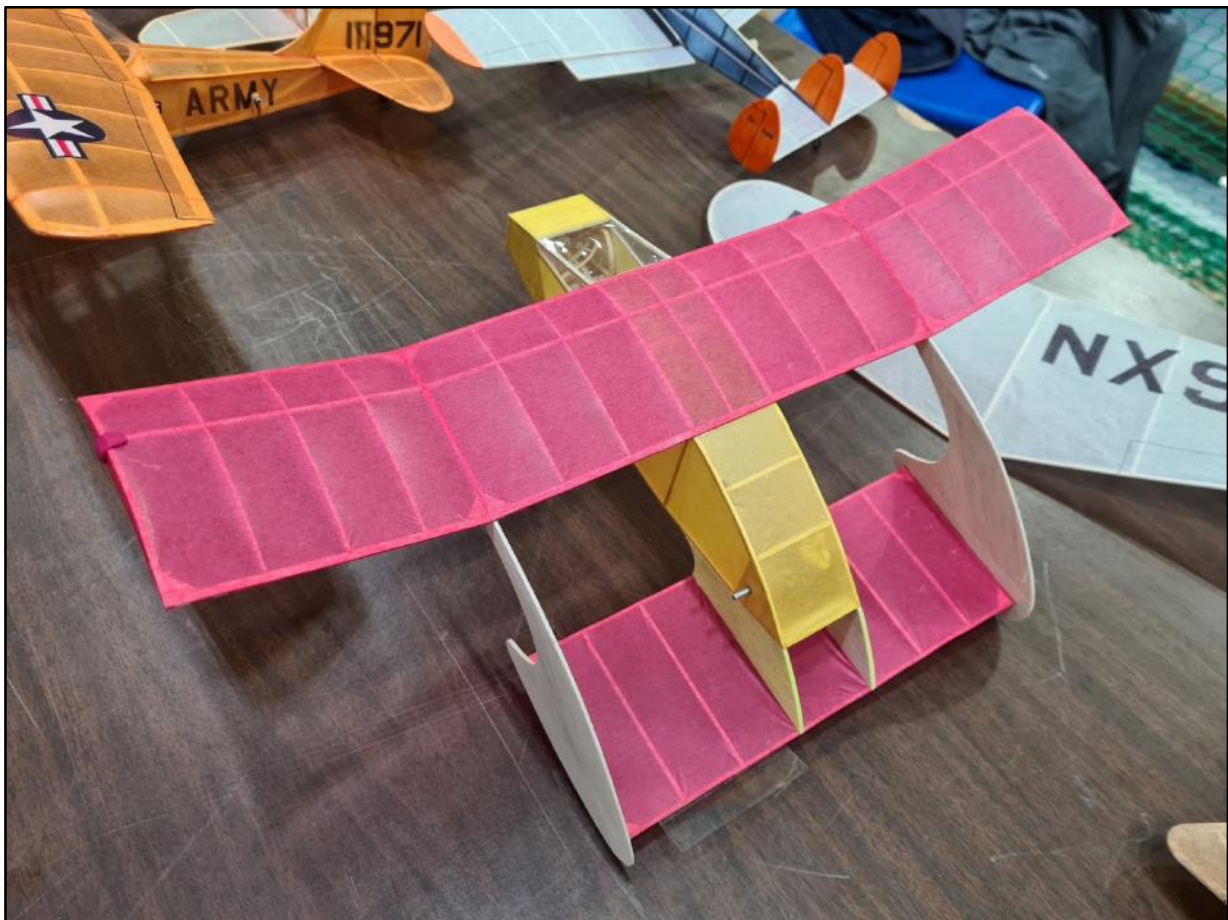
Peanut		Model Type	Scale Points	Flight Scores					Place	Points
Name	1			2	3	4	5			
M. Stuart	Kingfisher	46.5	55	41	45	49		1	5	
D. Horsefield	Luton Minor	27	60	60	60			2	4	
Pete Woodhouse	J3 Cub	23	53	52		44	49	3	3	
Tim Horne	Parnall Elf	37	31	30				4	2	
Martin Pike	Luton Minor	31						5	1	

Open Scale		Model Type	Flight Scores				Highest Score	Place
Name	1		2	3	4			
Peter Fardell	Bleriot IX	1815.0					1	
Peter Woodhouse	Nesmith Cougar	1700.0					2	
Peter Fardell	Auster Agricola	1685.0				Double Entry		
Dave Whitehouse	Fairy Junior	1570.0					3	
Dave Whitehouse	Stinson 125	1480.0				Double Entry		
D. Crompton	Birddog	1410.0					4	
Martin Pike	Auster J4	1390.0					5	
Phil Morrell	Auster Arrow	1115.0					6	
Tim Horne	Heret Monoplane	1110.0					7	
M. Stuart	DH5							

Dave Whitehouse



General view of the excellent venue. Spacious with soft 'catching' nets. The roof girders are less forgiving.



I did see this fly...but I am not sure what it is or who built it.



Heret monoplane??



Ralph Sparrow's J4. This was flown by proxy as I understand Ralph is unwell.



A little pussycat - Ian Lever's I suspect



Open/flying scale winner Peter Fardell. Maybe mid-wing models are worth a try.....

Martin Pike

Mike Smith:

N.W. Gala at the Manchester Velodrome.

The invitation for the STC to attend and run scale competitions was well received as it gave scale modellers another venue not used for some time. It was also an opportunity for those modellers wanting to compete at the Indoor Nats a chance to trim and fettle their creations. The Peanut Trophy was found in a loft and given a good clean and scrub up to be presented after many a year's gap to the winner of the Peanut competition. A Pistachio contest was also run. These are scary delicate little things to handle when static judging, me being an outdoor modeller.

A request was received from the organiser, Dave Whitehouse, for an open scale flying only contest. The STC does not have an official Indoor scale FO contest so, after a lot of toing and froing, a new class was put together, based on the two indoor open contests, for the event. On the day this worked very well and will be considered for inclusion in the STC Rule book for 2025 for informal events and club scale competitions.

As an aside the Velodrome venue was very interesting with the flying in the centre netted off area with elite athletes thundering around the impossibly steep banking at break neck speeds. I've seen it on the tele' but the reality of seeing it up close was an eye opener. Respect. The tandems were particularly impressive. The 10 hour round trip was well worthwhile for this Southerner

A brief resume of the winners.

Peanut winner, Mike Stuart, Vought Kingfisher

Pistachio winner, Tim Horne, Waco SRE

Open Flying Only winner, Pete Fardell Bleriot XI (Pete would have come third as well with his "old faithful" Auster Agricola but multiple entries can only have one podium place)

Full report is expected to appear in aeromodeller.

Hopefully this event will be a regular on the calendar.

Mike Smith

TOPICAL TWISTS

by pylonius

Extract from Model Aircraft April 1955

Topical Twists

A Sound Idea

Rebellious moans from a noise-battered populace have been soothed down by the promise of a new silencing gadget for helicopters. Road-drill workers, who complain that they are unable to hear themselves work, and peace loving owners of two stroke motor cycles, will, no doubt, be pleased to withdraw their protests at this airborne competition. A similar invention would seem desirable in the model world, into which the muffled cries of the afflicted citizen have so far failed to penetrate the dense sound barrier of the unhibited diesel in full throated roar. This would suitably replace that other silencing system, which, for some obscure reason, has never appealed to the din-happy diesel operator. I refer, of course, to the council bye-law.

The idea of developing a model engine silencer has often been broached in the past, but such a wet blanket suggestion has not been too kindly received by the engine fiend. To him the sweetest music in the world is his pet diesel whining and screaming at full ear drum pranging blast; a pleasure he will not readily forgo, even if it does mean being booted off most of the world's "fliable" territory.

Even to us conditioned modelling types there comes a time when the insistent racket of a blurping engine begins to fray the ends of our case-hardened nerves. I mean on some idyllic summer afternoon, when the slumbrous air is charged with nothing more potent than a few drowsy looking Wakefields and the odd, heavy eyed glider. All the club bods are draped around in various attitudes of recumbent bliss, and all is at peace in a dreamy, silent paradise. It is just a time as this that that gruesome pest, the airfield engine tester, selects for his diabolical machinations, and soon the quiet peace of the afternoon is shattered into a thousand ear-splitting fragments, amid the groans and threats of suffering humanity. It is only then that the mind turns inventively towards some form of effective silencer, in the fervent hope that the solution is close at hand—half a brick.

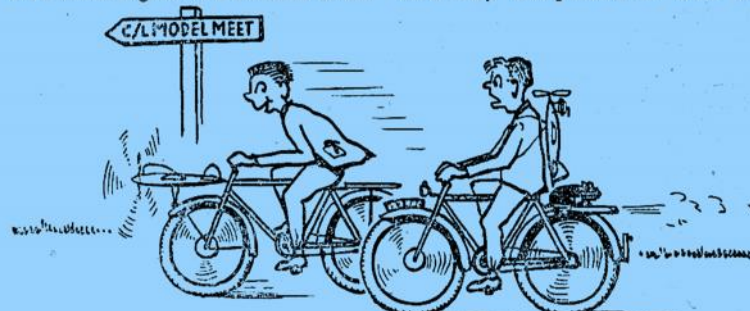
Spellbound

The contest arenas, we are informed, were rather sparsely populated last season. A statement we can well believe, since, in some cases, entries were so few that the waiting period for timekeepers was reduced to something less than an hour. This improved state of affairs was particularly beneficial to the same few

who win almost all the contests, as it enabled them to cram in more flights during the course of the day, thus to snaffle those extra few pots, which they had long coveted, but which the time factor had previously kept beyond their eager grasp.

Apparently, the reason for the sharp decline in cross-country activities is not due so much to the less strenuous distraction of televising as to the widespread interest which the scale department now commands. An interest which gives rise to a certain amount of puzzlement, as we few lonely souls who inhabit the deserted flying fields are so curious to know just how the scale devotee occupies his hobby, or should we say hobby-horse, hours.

The answer, now revealed, is that he is too concerned with the lofty issues of scale fineness to give much attention to the



puerile pursuits of building and flying. Historical research into the variant spelling forms of the name, Richthofen, for example, is more rewarding to the elevated mind than hacking up a sheet of balsa or fruitlessly studying tiresome aerodynamics. And certainly to hazard one's own solution to the old problem of what makes a Maltese Cross gives a decided superiority over those morons who merely watch the same sort of thing on television.

Wot a Life!

One contributor to this journal seems to favour the idea of the model writer introducing himself by way of a potted life history; giving details of his lapse from normality and just a hint or two of the model skeletons in the family cupboard. So, for those of you who have written to the Society for the Care of the Feeble Minded for background information, I present a brief resume of my own inglorious career, starting with an account of my early struggles (getting

out of that family cupboard, for instance).

"Took up hobby in childhood, when aeromodelling was in infancy . . . model output typical of any average junior . . . built first job in late teens . . . model acclaimed as exemplifying true miracle of flight—by actually flying. Followed this success by losing numerous jobs—mainly through flying paper aeroplanes in office hours. War . . . expressed strong preference for R.A.F. . . distinguished army career . . . invalidated out with potato peeler's cramp . . . friends feared would never build again . . . general disappointment at appearance of first post-war model . . . hailed as obvious five minute Wakefield—actually took longer to build. Fly mainly for fun . . . would rather be taken seriously. For further information see bottom of contest lists."

Time Machine

The idea of putting the rubber model on the gold watch standard has been gaining currency for some time, but, up to now, the realists of the PAA-Load movement have been rather nonplussed over the seemingly impossible task of finding seating accommodation for the dummy passenger. All the other archaic features, small prop, cabin, fixed undercart and bloated fuzz, have been duly incorporated in order to

demonstrate the marked inferiority of the pre-war machine. There only remained the knotty problem of securing for the cabin occupant a peaceful co-existence with a threshing rubber motor.

The notion of putting a round hole in a square peg was discarded as impractical and a bow-legged appendage to the formal cubism of the Trog torso was thought to be artistically undesirable. This left only the ruthless alternative of disembodiment of the creature, leaving just the head and shoulders to provide a sort of dummy, dummy passenger.

Probably a better solution would have been to mount our square headed mascot horizontally on an A Frame pusher, for it seems that the only thing about the PAA-Load business that moves with the times is the gold watch.

Pylonius

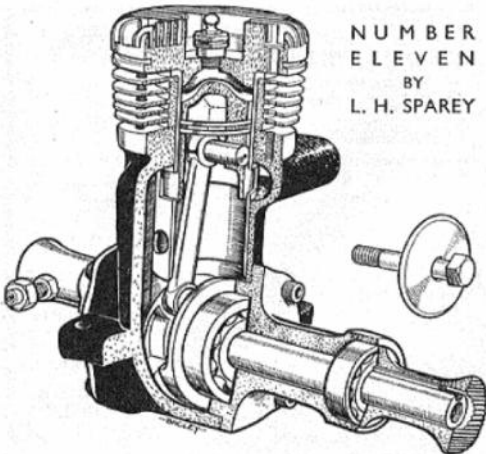

Does anyone remember the Nordec 10cc glow motor - when I was a junior member of the Wolverton & District MAC in the early '50s, a respected Senior Member brought an example to one of the regular club meetings, complete with prop, test bench & all the rest of paraphernalia to start it - which he did & it frightened us all to death, particularly as the test bench was busy working its way across the floor with the motor in full song. The noise, the exhaust fumes & the aroma in the confined space of the local Scout Hut were indescribable and in retrospect must have alarmed local residents but they were good days!

Our editor informed me that his friend the late John Bickerstaffe procured one in the early days and, not yet being aware of engines at the time, he clamped the Nordec to the shelf over the fireplace in his digs, not expecting any results. To his surprise the motor started and ran, horrendous noise and oil splatters all over the wallpaper. I suspect he had to find new digs.

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AEROMODELLER March, 1949

NUMBER
ELEVEN
BY
L. H. SPAREY

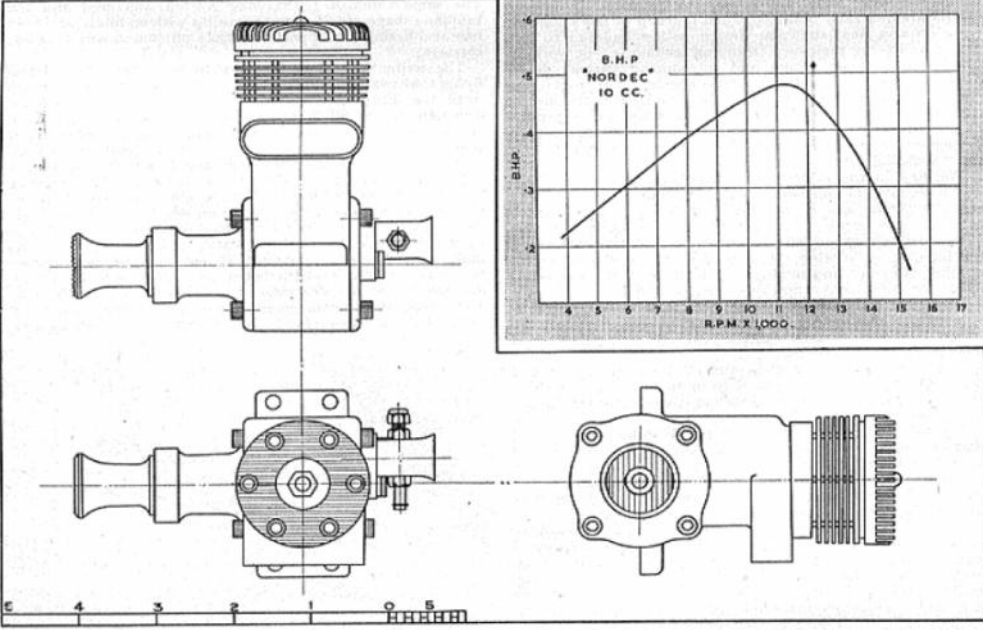
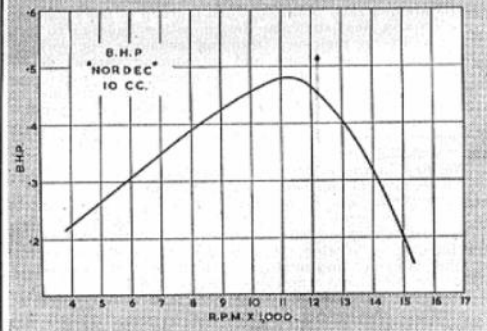
**THE NORDEC
R.G. 10. RACING
ENGINE**

ALTHOUGH I have several glowplug versions of standard engines awaiting tests, this month's report deals with the first test to be published in these columns of a glowplug engine. The Nordec 10 c.c. engine is the largest yet handled, and the tests were carried out with considerable interest.

As it was anticipated that the Nordec engine would deliver considerably greater power than has yet been handled, the Torque Reaction Balance used for the tests was considerably strengthened, and certain parts re-designed to withstand anticipated strains. It will be appreciated that considerable stress is imposed on any engine mount when a large engine such as this is running "flat-out".

TEST

Engine: Nordec, 10 c.c. Glowplug ignition.
Fuel: "Rev" fuel, as supplied by engine makers.
Starting: Although, for convenience, pulley and cord starting was generally used in the tests, the engine was experimentally started several times by hand. Starting under all conditions was exceptionally easy, and once the carburettor control was mastered the engine never once failed to respond. As no tank is supplied by the makers, a gravity feed tank was used, as the position of the carburettor seemed to indicate that this method of feed would be most suitable.
Running: The Nordec was one of the most pleasant engines

RPM x 1000	B.H.P.
4	2.2
6	3.5
8	4.5
10	5.2
12	5.5
14	4.8
16	2.5

NEWS Review

The Wakefield Cup

Preparations for this event are in full swing and as we go to press it is almost certain that the contest will be held at Cranfield, the home of the College of Aeronautics, where the desired combination of accommodation and flying field exists.

There is still much preparation work to be carried out and the important question of finance to be dealt with. The Society will be in need of many helpers at this event to act as marshals, stewards, timekeepers, etc., if it is to be run successfully and all those who will be able to help are asked to send in their names to the Secretary of the S.M.A.E. without delay indicating in which capacity they can operate.

Timekeepers with irreproachable eyesight will, in particular be required, and if the previous practice of allotting two timekeepers to each team is again followed this will entail at least twenty fully qualified persons being in attendance during the period of the contest since the S.M.A.E. has already received notification from the ten national aero clubs that they are proposing to send teams to compete.

Don't forget the date. July 31st, or the fact that the Bowden Trophy International contest and an International Power Duration contest will be held on the following day, August 1st.

Record Claims

The S.M.A.E. has decided to adopt a modified method of ratifying record claims in order to ensure that any irregularities in connection with such claims can come to light and be dealt with before actual ratification takes place.

In future the Council will review the claim and provisionally accept it if the evidence before it is satisfactory. The record will then be held in suspense for two months before final acceptance. This will give the Council time to publicise the record claim and anyone who has any objections to raise concerning the claim, to lodge a protest before the record is admitted to the Society's records.

It is hoped that this will enable controversial matters to be aired before the record is homologated and inscribed in the Society's records.

Permission to Fly

Much publicity has been given in the daily press of late to the question of the flying of models in public parks and the ban which has been placed on such flying by certain local authorities.

As we have already pointed out, much of this trouble arises from the development of successful miniature internal combustion engines in this country since the war and their production on a quantity basis.

This has led to many newcomers to the movement embarking on a power driven model as a first effort and, in their lack of experience, many have been led to fly their models in places, or under conditions, which are far from favourable or suitable.

There have always been, and we suppose that there always will be, a certain number of people who are thoughtless, irresponsible, foolish or pig-headed, and who consider only their own point of view. It was to safeguard such persons from the results of any rash acts which they might commit without realisation of what they might lead to that the S.M.A.E. went to the trouble of formulating a set of simple rules for the safe flying of power-driven model aircraft, compliance of which would keep the model flyer free from trouble.

Outstanding amongst these simple rules is one which states that "no model shall be flown on any public ground without first obtaining the permission of the controlling authority." It is failure to observe this elementary precaution which has led to trouble in the majority of cases and to the placing of an embargo on model flying.

We have encountered quite a number of model flyers of late who are under the impression that because an open space is "public" that they are entitled to do as they like on it. Actually public open spaces are provided so that the public may "take air and exercise" upon them and anything outside these amenities immediately becomes the concern of the local authority.

Moral! Never fly on *any* ground without first obtaining the permission of the owners or controlling authority and—stick to the S.M.A.E. rules, particularly to that relating to the time of motor run whether flying with control-line or not.

Much of the present antagonism against model flying arises from excessively long engine runs with control-line machines.

Above all remember to exercise the safety regulations laid down by the S.M.A.E. Even a minor accident has adverse effects on the movement which takes months of hard work and propaganda to counteract.

From Mr. F. A. Vincent of the Portsmouth District M.A.C. we have received a copy of a circular letter which is being distributed through local model shops to those who are not members of a club or who are not insured against Third Party risks. The letter points out the dangers involved in indiscriminate flying and explains how insurance cover may be obtained. This club is to be congratulated on its foresight.

BMFA South Midlands Area Indoor Extravaganza 2024

Following on from the two previous successful meetings (see reports IIFE 52, in NC May 2022 and IIFE 63, in NC April 2023), this event again took place in the large sports hall at Wycombe Leisure Centre on Sunday, 25th February. This is a twelve badminton court hall, dimensions being 60 m x 33 m x 9 m high, which is approximately three times the area of the one at the Trinity Sports Centre. This venue is also remarkably free from turbulence and drift. The only slight downside is the ceiling, which contains a number of horizontal flat panels, which can entrap models. Around a dozen, mainly RC models were ensnared by the end of the meeting. Again, three twenty minute slots were held in each hour, for scale and slow-flying RC models, shockies and free-flight. RC helicopter flying also took place at one end of the hall during the fixed wing RC slots. The meeting was ably marshalled by the ever dynamic High Wycombe DMAC chairman, Brian Seymour.

Again, I was disappointed by the numbers of free-flight modellers in attendance, but on the other hand there was plenty of unobstructed space in the hall for flying in those slots.



Dave Prior's Airmark Cassutt



and his Peanut Curtiss P40 No-Cal



Monz Lyons' Short Sunderland



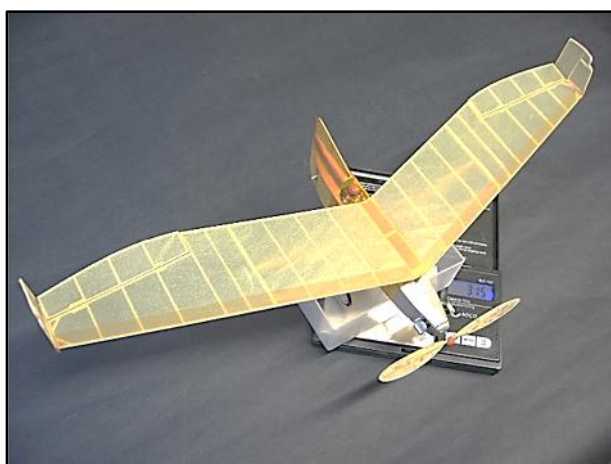
and his Fokker D.VII in Finnish markings

Dave Prior was trying out two beautifully finished models. His Peanut Cassutt looks impressive, but, unfortunately, is rather heavy at 25 g. His No-Cal P40 is covered in Asuka tissue, pre-shrunk many times on a frame. The paint finish is airbrushed Tamiya acrylic. Monz Lyons' Fokker D.VII (I think from a Herr kit) was flying extremely well and she also was test gliding the part finished Short Sunderland.

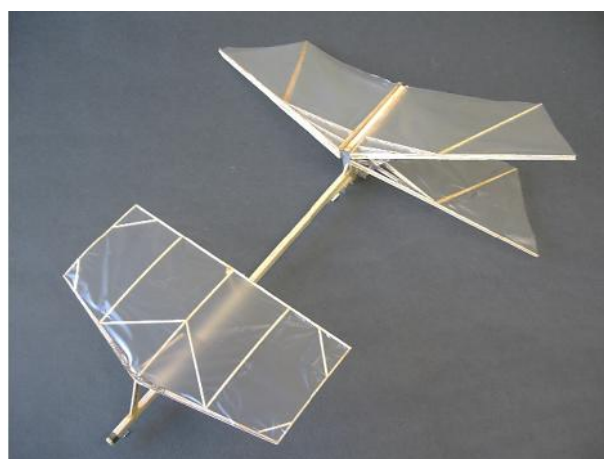
This is 54" wingspan and currently weighs 100 g. The intended power is four Micro-Aces motors. As usual, Leigh Richardson was also in attendance with his collection of foamies and other small models.

I took along, and flew, four RC models, the Micro-Tyro, Fly Baby Biplane and Piper Super Cruiser, as last year, and an Ares Fokker D.VII RTF. This last item was amongst Lindsey Smith's effects, on its own with no tx, accessories or other information. I have now managed to acquire a suitable transmitter, an Ares one, with a Hitec Red label on it. The model flies quite well, but is rather fragile. It is attractively finished in the flying serpent markings of the aircraft of one Lieutenant Hugo Schäfer.

In the free-flight slots, I flew the Sablatnig SF-4 and Ganagobie, again as last year, and also my Flutterby ornithopter and Lippisch Storch Pistachio. (Incidentally, I learnt the other evening that the late saxophonist Pee Wee Ellis, who was musical director for James Brown, Van Morrison and Ginger Baker, amongst others, wrote a composition 'Pistachio'. Nice music to fly such a model to!)



Lippisch Storch Pistachio of 15" wingspan



Flutterby canard ornithopter

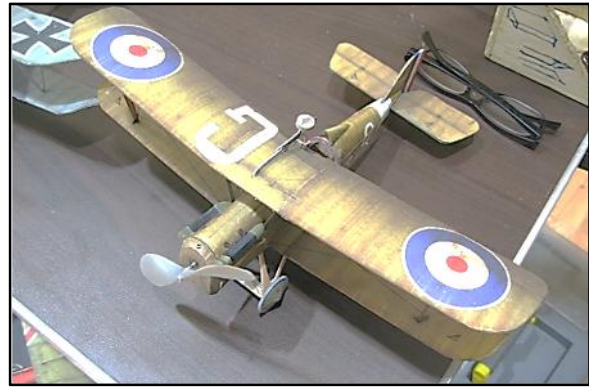
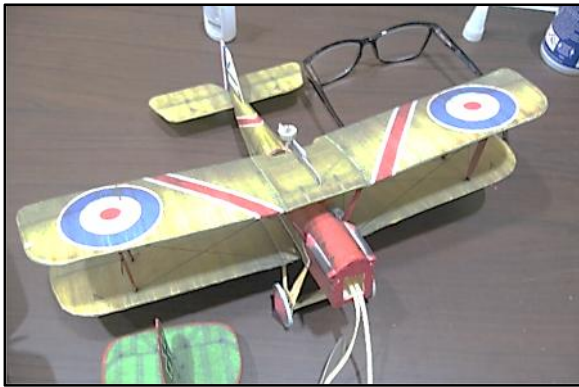
My Lippisch Storch Pistachio (six inch fuselage length) was based on the Siegfried Glöckner plans published in Bill Hannan's *Stick & Tissue International* Volume 3. I had not flown this for some years and was taking the opportunity to try out a new motor of Super Sport rubber. The model had previously been flown using Tan II.

I came across the 10" wingspan rubber-powered Flutterby in an article on ornithopter kits by David Ridgeway, published in the August 2000 issue of *Model Flyer* magazine. The kit was produced by a cottage industry operation called Frontroom Flyables, which was run by Karl Brown in Vancouver, Canada. As far as I am aware, the kit for this fine flying four winged canard ornithopter has been out of production for a long time. My example weighs 2.5 g. The covering provided in the kit appears to be thin polythene sheet. I originally attached it using thinned Evo-stik to the old formulation. This is no longer available because of entirely reasonable chemical safety reasons, but UHU POR appears to be a good substitute. Not surprisingly, the covering for the flapping wings tends to work itself loose from time to time. It's surprising how quickly six hours can go when you're having fun. Again, I was too busy preparing and flying to take very many photographs. Many thanks are due to the BMFA South Midland Area and the members of the High Wycombe DMAC for organising and running this meeting.

Lee Bates' Flying Scale Models

Lee attended the SEBMFA meeting at the Triangle, Burgess Hill in January with some of his fleet of indoor flying scale models. These are produced in a special way by attaching pre-printed tissue to 2mm thick polystyrene wall foam.

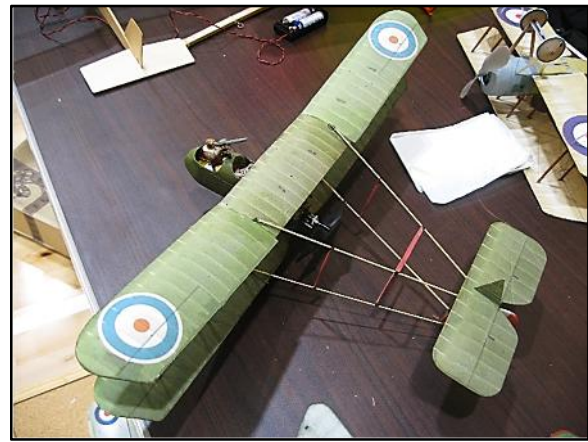
The method is described in his article published in the April 2000 edition of *AeroModeller*, along with some lovely artwork for an Albatros D.V and a Siemens-Schukert DIII. No doubt, he has improved his techniques since this article was published, as he now uses a version of Photoshop to create the patterns.



A pair of S.E.5a's



Albatros D.V



Electric powered F.E.2b



Hawker Fury



Gloster Gladiator

The result is some very light and realistic models, as can be seen in the accompanying photographs. Apart from the F.E.2b, they are of Peanut size. The weight of the Fury is 12.8g and the Gladiator 17g, both including rubber. Lee also produced some of the early artwork for Fiddlers Green paper models. Enjoy his artistry!

Indoor Scale Nationals 2024

The 2024 BMFA Scale Free Flight Indoor Nationals will take place on Sunday April 21st. The venue is again Wolverhampton University Sports Hall (which is actually in Walsall). The Scale RC Indoor Nationals is being run at the same venue on the day before - Saturday 20th. More details are on the BMFA Scale Technical Committee events page:

[Events Calendar | BMFA Scale Technical Committee](#)

Nick Peppiatt

Extract from the old paperback Clarion September 1995

The Third European SAM Champs

Middle Wallop

18th - 20th August

Friday

Tony Bird

The Cornish contingent headed up the A303 to middle England, where David Baker had conjured up some blistering weather (in the 90's each day) for the event. Those cooling sea breezes were left behind in the west.

Picket's Piece camp site was once again our base. Thursday evening saw John and Eileen Ralph, Ron and Caroline Marking and Frances and myself busily making camp. After some dinner it was off to the bar for some Fullers 'London Pride', while John R. practised his vocal techniques for the coming weekend.

Jim Benson and John Watson arrived on Friday morning and they set up camp before joining the rest of us at the airfield. If you have not been to Middle Wallop (Shame on you, Ed.) it is a large mown lawn 1 mile by 1.5 mile with the odd landing light or marked runway scattered about. Due to the heat the ground was baked solid and most unforgiving to any model dared to argue with it.

The main competition for us today was lightweight rubber. The max was set at 2m 30s (all events) and with a goodly breeze down the length of the field it kept you just within the boundary. The main problem of picking the air was hampered by the launch site being in the turbulence behind a small wood. Ron was away with his much repaired Buckeridge which flew with erratic enthusiasm and proved difficult to trim out as the heat of the sun twisted the flying surfaces in all sorts of directions eventually having the fateful argument with the ground. John W. in between applying his sun block, who at the end of the day was doing a jolly good impression of the Phantom Of The Opera, was having some good flights with his Senator. But his second max landed out of bounds amongst the hangars and with no reserve model allowed that was that. John R with his tried and tested Scram had a fly away OOS on his second max so that was that also. Now he could concentrate on his Pre 4oz. Wake entry. My Pinnocchio which usually is very reliable dropped two flights in that damn turbulence so that was definitely that.

John Cooke arrived during the day and produced as if by magic from the back of his car a large, quickly erected awning, which provided much needed shade, and became the club focal point for the weekend. Jack and Jane Reid strolled in, from the far end of the line of cars, for a chat while Jim with his new Spanish sun tan went hurling chuckies in the English sun.

The next arrival was Fireman Fred with his tender's cab full of models retrieved from various places and John W's Senator was amongst them, so some hasty repairs and then off for that third flight. John R. was doing well with his Fienberg in the Pre 4oz, dropping just one flight. This was good enough for 3rd place, well done. John W's Senator maxed with ease on his last flight so he was in the fly off. By now the heat was telling on us all and thoughts drifted to the cool swimming pool back at the camp site - water, water!

Lightweight fly off time, so we all trundled down to the launch area, away from the trees this time. To get into the fly off was a great achievement as many of the big names

had fallen by the wayside. John W stood sniffing the air while hand cranking on those last extra turns, as you do. He launched just after Laurie Barr but found no real lift despite our willing the plane to gain some height and stay up. Well, he came fifth, a great effort as this was his first ever fly off. Well done that man.

The speed with which we all packed up our toys was quite remarkable after such an exhausting day but the cool, cool water of the pool was calling loudly. So back to the camp site for a most refreshing swim. That's better.

Late in the evening, through the dark could be heard some scuffling and grunting. Down by the hedge was the beast of Dartmoor. On investigation it was Aubrey Hares, who having just arrived was trying to pitch his tent in the dark. The gathering grows, so now for tomorrow.

Saturday

John Watson

Saturday dawned bright, hot and sunny - just for a changel! This time we had the answer. John C raised his sun canopy in the centre of the Cornwall encampment so that shade was available all day - thanks John.

It was Half Pounder day so Ron prepared his Korda, Tony his Red Rumpus and John Ralph his Vanstead. All flew in the competition but all dropped one flight. Ron's hopes were shattered along with his prop on the take off board after good flights but a hasty repair and another try only resulted in a wrecked front end. My Gypsy flew for the first time but having felt the power of fourteen strands on 450 turns I chickened out of trying any competition flights.

The pond was also in use by some small boys with clockwork boats but fortunately they stood aside to let the big boys play with their elastic powered planes. I had remarked how odd it was that I had not seen Tony's Achilles when he produced it but now complete with a pair of Schneider Trophy style floats. Attempts at ROW were disappointing, the model failing to unstick. An interesting phenomenon presented itself during these attempts. It appears that water will easily pass through doped tissue into the model but then it categorically refuses to come out and remains trapped within the structure. We agreed that the obvious solution would be to dope the tissue on the INSIDE!! not the outside.

During the day I helped Aubrey with his OD flying wing glider, very baffling, I think I'll stick to the usual arrangement for my models. In the late afternoon I flew my Scram and almost had another adventure when it DT'd just outside the wired, out of bounds compound (bomb dump?).

The day finished with most of the gang, including Trevithick, visiting a pub down the road from the camp site which was run by a lady whose home is in Cornwall. Here we ate and drank well before returning to retire and dream of Sunday and Quarter Pounders!

Sunday

John Ralph

The anticipation of yet another blazing hot day delayed the convoy of CVA from Pickets Piece while we waited to retrieve our overnight frozen ice packs from the camp shop at 9am (Sunday is lie in day!!) Thus the field was already buzzing with flies when we arrived and the lines of cars were growing visibly by the minute. Thankfully the

light to moderate wind was still generally straight down the field from control by the wood so there was no need to move this time.

First priority in view of the said weather was to erect various forms of shade; pride of place for such was undoubtedly taken by John Cooke's splendid Gazebo which eclipsed everything else so I soon pinched a bit of its shade to display my electric Kestrel (Cheeky Devil).

In the contest line CVA was fielding a good crop of '4 ounce' with Ron Aubrey and Jim trying their hands at power glider and chuckie respectively. Both Tony Bird and yours truly soon chalked up maxes with our Duplexes and also flying one of these splendid machines John Watson was busy trimming. Meanwhile though Ron's Baby Burd was misbehaving badly - after an earlier minor bump its trim had changed enough to cause a nasty pile in resulting in drastic damage - pity.

By mid-day most of us were feeling the heat as were our rubber motors. That's my excuse anyway for winding two turns on the Tomy timer instead of three, resulting in a 1m 55s second flight. I guess the full wind motor burst just before had un-nerved me a bit! So there was to be no repeat of last year's 4oz fly off me. As is often the way after such dropped flights the final one was a cracker taking nearly 7 minutes to ground after a 'normal' 2m 30s DT. Each time I cycled (Yes folks, a bike!) down field for a retrieval it was nice to get a friendly wave from Jane and Jack Reid quietly enjoying the day. Jack's large new Speed 400 electric model almost escaped, apparently after sticking in a strong thermal way after it DT'd.

In spite of many heroic heaves Jim's times for his chuckie were somewhat below his best but by all accounts Aubrey was grateful for his help through the day with his Hyperion A2. This team effort finally produced the magic three maxes, so one of our lads had made it. As the day ticked quickly away (there never seems enough time for seeing and doing everything) towards Mass Launch time (4.15pm) CVA members were pleased to hear that Tony and Francis had also clocked up 3 maxes in 4oz Wake so we would have two of our lot to root for at fly off time. Before that however your scribe had an appointment to do battle with some old (literally) pals from the Glevum (Gloucester) Club of yesteryear in a chuckie contest. This is now an annual excuse to get as many ex-members together as possible to fly for the 'Glevum Trophy' - this had been lost for many years only surfacing last year when I visited that well known vintage C/L flyer and ex-Glevum member Frank Smart. This year's model, again designed by "Joe" Roles, was appropriately a Gloster Meteor. Best flights from the six man field were put up by my old friend Keith Hickman (now into model boats), so he was presented with the trophy just in time for the gang to proceed with their chuckies to join the other fliers in the Mass Launch. As 4.15 approached the area in front of control grew thick with people clutching their chosen model ready for the off. It was clearly going to be another major happening. With a minute to go the countdown started and although nearly drowned out by the noise of Mills, PAW's, Albons, ED's etc. on the shout of "GO" we all cast our models aloft. A few seconds later the sky seemed full of models of every description. Some like our Meteor chuckies were soon down while some as usual had set long or no DT's and their models were still to be seen minutes later way up and way

down wind. Of these high climbers I noted a canard glider and a diminutive helicopter as well as several Wakefields and large power models - such is launch fever! It was nice to John Woodward from St Ives joining in this year with his Achilles having missed the chance last year through taking a short afternoon snooze!

After the excitement of the Mass Launch had subsided it was quickly into the 4oz Fly Off with our lad Tony, like me last year, waiting in the queue to launch behind contest guru David Davitt - he is a very experienced contest flyer and usually plays a waiting game on these occasions. This was no exception; with only a few minutes left he launched, quickly followed by three others including Tony. A murmur of comment from the watching throng had followed the release of David's Duplex and although I hadn't noticed through the viewfinder of my video camera, it transpired that a U/C leg had unfortunately (for David) dropped off very publicly after take off. Thus while watching the models claw their way skywards many of us were already discounting the high climbing Duplex because of the "No bits to drop off", rule but that would be for the 'management' to decide. Meanwhile, Tony's model was clearly not fully in the lift as with the others it drifted SE over the cars. His naturally conservative winding of the model for the flight after a motor burst during preparation did not help either and he was left somewhat below most of the others. However it was a very steady, sure flight, nothing had dropped off, and he was awarded a well deserved third place. John Godden was second and that wily bird Spencer Willis who hadn't waited for anyone was the clear winner. I, like most people missed Aubrey's fly off such is the inevitable spread out nature of glider flying but I envy him the pleasure he must have had in participating in a contest and reaching the fly off when launching from a 100m line.

Leaving just a few fliers on the field squeezing in a last flight or two most of the rest made their way to control for the usual bumper Prize Presentation by David Baker, Bob Copland and others. With three tables creaking under the weight of the spoils David proceeded to crown yet another memorable weekend in his usual witty and friendly manner until the tables were bare.

CVA is a growing presence at this wonderful annual meeting and in spite of the heat and a few damaged or lost models I know we all enjoyed ourselves immensely. Roll on next time (Hear hear! Ed.) we from the far SW meet up at MW with our many friends from other parts.

In anticipation that this CVA newsletter may appear in Clarion may I on behalf of the association add our thanks to the many others that David and his team surely receive from all over the world for yet another splendid meeting.

Tony Bird

AERO
MODELLER

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Follow this modeller with the outsize in scale models through the ever open Hangar Doors, and catch up on all the latest gen on modelling and modelers the world over.



Another World Championship Here

England is host this year for another F.A.I. World Championship, but this time it is for the full-size glider boys. 37 single-seaters and 10 two-seaters have so far been entered by 20 nations, and the event takes place from July 20th to August 4th at the Derbyshire and Lancashire G.C. site near Great Hucklow, Derbyshire. The British team, victorious at the last Championships (Madrid, 1952) are hoping to fly one "Sky" and a two-seater K.1. (the Hugh Kendall "Crabpot") flown solo, in the single-seat class, and a T.42 in the two-seater category. The K.1 and T.42 by the way, are new designs and have yet to go through flight tests—sounds just like a model contest!

Contest News

Definite gen. on the big Northern S.M.A.E. meeting over August Bank Holiday is that it will be at Croft Airport (R.A.F. Neasham), six miles from Darlington. The 'drome should suit most, since it is roughly 190 miles from Glasgow, 220 from Belfast, and 250 from London. Surrounding country is excellent for recovery. As the date approaches, the box below (which will be found in Club News in future) will hold all up-to-the-minute gen.

Talking of Waterbeach reminds us that G/C A. H. Donaldson, popular Stationmaster there, has recently been appointed S.S.O. at 2 Group H.Q.,

BRITISH NATIONALS

Where—At R.A.F. Station, Waterbeach, about 7 miles N.E. of Cambridge.

When—Whitsun week-end, June 5th, 6th, and 7th; official opening at 12 noon on the Saturday.

How—By train or bus from Cambridge, details later.

Who—S.M.A.E. matters—G. Foden, 27 Highfield Road, Chelmsford, Essex.
Administration—M. D. Gates, 90 Whitehill Road, Cambridge.
Accommodation—R. O. Emmony, 33 Newmarket Road, Cambridge.
Contest matters—P. Firman, 37 Earl Street, Cambridge.
Programmes, etc.—M. B. Reynolds, 18 Milford Street, Cambridge.
Publicity—P. J. Hoskison, 4 Hale Street, Cambridge.

Make sure you write to the right person, and please enclose a S.A.E.

Watch this box for further gen.

2nd T.A.F., which is permanently in Germany. Modellers who attended last year's Nationals will remember him with gratitude, for it was his interest and enthusiasm that contributed so largely to the tremendous success of that meeting.

We are, however, fortunate in that another model-conscious C.O., G/C B. A. Chacksfield, has been posted in to take over Waterbeach, and it is encouraging to hear that this officer welcomes the idea of the 1954 Nationals being held at this splendid site.

F.A.I. Surprises for 1954

As the outcome of a Conference held at Frankfurt last November, the international body has called off all restrictions relative to fuselage cross-sections, and the field is free from hereon. Gliders had tended that way for some time (a la Oscar Czepa's "Toothpick"), and many power jobs virtually made the engine pod cope with such requirements. With the Wakefield model, the necessity to have the rubber motor fully enclosed will probably answer the purpose of retaining anything other than the "stickiest" look about our favourite type of machine, so designers have one less factor to worry about, and processors will be only too glad to cut out at least one item for mensuration.

Motor run in power contests is now reduced to 15 sec., with British contests held on a 3-flight, 4 min. maximum basis, but international events to a 5-flight, 3 min. max. requirement. (The British rules were fixed following a postal ballot which resulted in an overwhelming vote for a return to 3-flight contests, and in view of the comparative ease with which many modellers are reaching 3 min. with the 1954 "handicaps," the 4 min. maximum should prevent unwieldy numbers for a fly-off.)

Glider towline is reduced to 50 metres (164 ft.) though the 100 metre line may still be used for Merit Certificate attempts.

Tabled for discussion, and in the hopes that practical experience will be gained, are the following proposals for international class Team Racing:

April, 1954

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AERO
MODELLER

Maximum engine capacity	...	2.5 c.c.
Maximum tank capacity	...	10 c.c.
Minimum total area	...	8 sq. decimetres
Line length	...	13.27 m.
Course	...	120 laps equal 10 kms.

Many views will obviously be put forward to the F.A.I. before such regulations are made absolute.

Reader Service

The bulk of our large daily correspondence with readers is concerned with technical queries, advice for beginners and selection of A.P.S. plans. Occasionally we have the odd pat-on-the-back and sometimes the odd brickbat. But a recent reader service, undertaken on behalf of a Polish aeromodeller, had a remarkable result, in that it renewed an acquaintance after fourteen years of separation.

The letter arrived written in Polish, with it was a covering note—"Would we please find Mr. Wojda, the builder of the magnificent 'Spitfire' and P.Z.L. 37 scale control line models, and wartime fighter pilot?" Mr. Wojda's models have each been the subject of special "AEROMODELLER" features and so we had no difficulty in passing on the Polish letter. As it turned out, the writer was the very man who had taught Mr. Wojda how to fly in 1936. For the past fourteen years they had lost contact with one another, and, thanks to an Australian, who sent his copies of "AEROMODELLER" to Poland, the reader was able to use our address for forwarding his enquiry.

Which just goes to show how the A/M gets around—from Britain to Australia and back to Poland, is more than 20,000 miles in transit.

"Unrestricted"

The use of the word 'Unrestricted' in connection with insurance requirements has led to a certain amount of confusion, and definitely to a misunderstanding on the part of some readers. It should be clearly understood therefore that the term as applied to S.M.A.E. or other insurances merely indicates that cover is provided on any flying ground, and not—repeat NOT—an indication that individuals can fly their models indiscriminately or without due care for the comfort of others.

Formerly the S.M.A.E. policy was restricted to use on "recognised flying grounds," though this qualification was never properly explained or understood. Under the new policy, members are adequately covered at any venue, and the policy has been further amplified to include all the requirements of the various Ministries and local authorities relative to the proper indemnity of such groups.

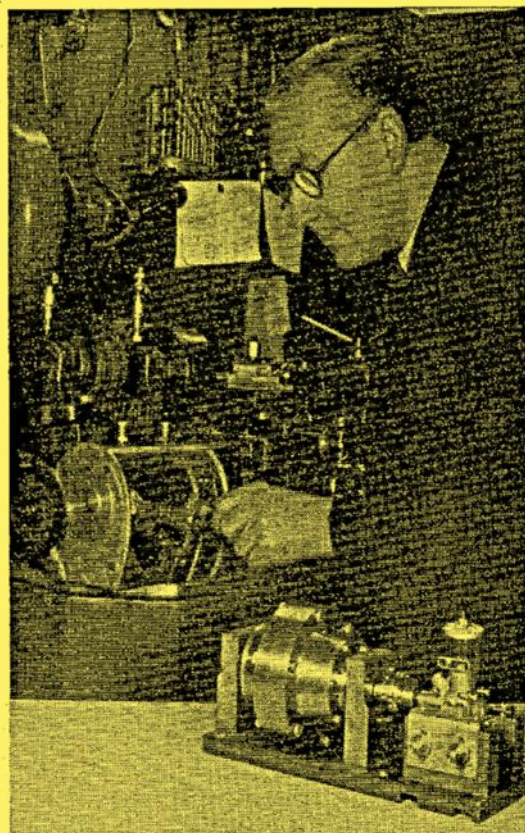
Membership of the S.M.A.E. is going ahead by leaps and bounds, and we refer any reader who has not yet joined the National body to pay particular attention to the announcement and membership form on page 214.

Big News in Engine Testing

Readers anxiously enquiring as to absence of popular "Engine Analysis" with its test figures and

power curves, at the moment temporarily replaced by "Engine Review," will be pleased to know that new test equipment we have had under preparation for several months is nearing completion. We have conducted considerable research into ways and means of obtaining accurate torque readings other than by the method used to date, which utilises a balance arm. Readers will remember that in our last issue. Ron Warring detailed this method of testing, which, although comparative, cannot be 100 per cent. accurate with the smaller motor.

Consultation with the country's leading experts on test equipment, disclosed the fact that equipment capable of dealing *accurately* with small engines was as yet unheard of, and it was obvious that we would have to pioneer if the project was to go ahead. Fortunately, we were willingly given experienced advice by these experts, with the result that the "AEROMODELLER" Eddy Current Dynamometer" is nearing completion. Ron Warring, our test expert, enlisted the aid of a skilled engineer, Mr. E. G. Hook, for the actual construction of the equipment, which has been made to the extremely fine limits necessary for precision testing of the kind envisaged. Providing no unexpected snags arise, we hope to conduct the first tests with this rig very shortly, for publication in our next issue, and will be giving at the same time, a full description of the dynamometer. Just to whet your appetites meantime, we show Mr. Hook with the partially completed equipment in the foreground



Well - maybe the title is a little extreme but it is indicative of a new and rather strange world of EVTOL airborne flying vehicles. In this (and hopefully) a few successive notes the intention is to explore what is the motivation behind this evolutionary form of air transport, driven by a variety of different forces.



Volocopter EVTOL multirotor

These notes are my personal observations written by & large from the basis of readily published information - certainly not from an insider knowledge of an evolving sector of the aviation industry. but more from a detached & curiosity perspective. Any errors or anomalies are solely due to me.

Historically VTOL or vertical take-off air vehicles are characterised by helicopters, which have been around for many years as an established sector of the aviation industry.

There are other forms of full size VTOL "proper" aircraft - the Harrier being one such successful example. Others include the French Coleoptere - not so successful and more recently the Boeing Osprey which has a somewhat chequered history with the US Marines.



Coleoptere from the 1950's



Boeing Osprey in service

EVTOL craft are somewhat different in their existing evolution. From an aeromodelling perspective, we perhaps could see them as larger drones, both as toys & commercial craft & largely brought home to us through regulations quite recently imposed by the CAA. The BMFA have taken drones on board - whether that is a good thing relative to our hobby is a separate

topic of discussion & another matter. However drones are here to stay & have undoubtedly grown from the toy & hobby market into very sophisticated & technically advanced air vehicles, which indeed provide a platform for some successful commercial services. On a downside, they have also become a very cheap integral military weapon capable of wreaking havoc for a very low cost. They have, of course, already impacted our modelling activities through concerns over operation & safety & thus we now are subjected to yet more regulation, restrictions & costs.



Drones have given rise to publicity based experiments that may well work within specific circumstances, but not as a real world solution to real world mass market requirements & needs - for example the widely conveyed concept of swift drone deliveries by Amazon & others to one & all at any time to anywhere, without mentioning disadvantages & limitations e.g. regulatory issues, small payload, - currently typically 5lb, range, line of sight operation, weather etc. Just look at the average supermarket trolley & imagine the contents of these taking to the skies! Amazon are planning further trials in the UK, Italy & USA in 2024.

Nevertheless a variety of economic forecasts have been published indicating massive growth in revenue from an emerging drone business marketplace - but economic pundits have been wrong in the past.

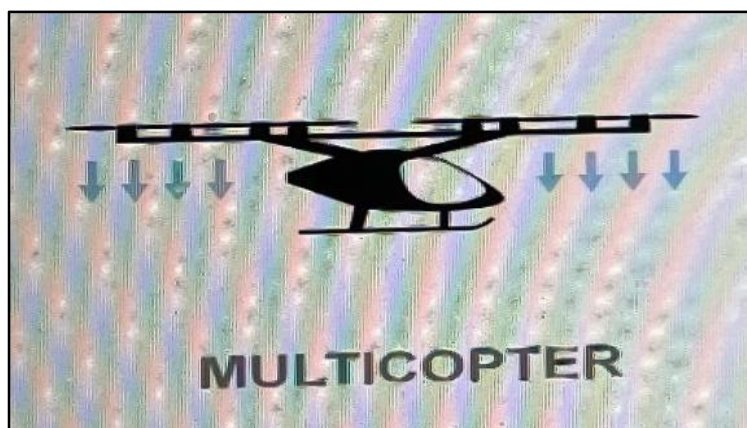
EVTOL air vehicles have evolved through a rather different motivation that has parallels with autonomous road vehicles in that potentially lucrative commercial opportunities are seen to have arisen for swift transportation of (a few) people in a so called "air taxi". Hence a very large amount of venture capital funds have been pumped into many start-up companies all beavering away to develop these EVTOL vehicles. Very few will likely succeed & survive. In the context of the perceived business opportunity, they are loosely defined as being a capable means of quickly of carrying up to 4 or 5 people rapidly over a fairly short distance, either inclusive of pilot (piloted) or without a pilot (autonomous) to avoid road traffic congestion & problems. The apparent marketing message is that they are capable of vertical flight for take-off & landing, with transition to/from horizontal flight - from anywhere to anywhere *provided facilities exist to support them*. In my mind, the economic viability of such a proposition is exceeding dubious. In the real world the concept is currently totally impractical for a host of reasons, not the least of which is the safe regulation of airspace. Clearly the existing state of technology limits the attributes & capabilities of EVTOL implementation & operation; for example there are severe limitations on duration, range, battery power, lack of infrastructure, questions on safe usage, costs of acquisition & operation, not to mention the complexities of technology involved in their design & manufacture. Not a lot different to the state of autonomous road vehicles as both have similar regulatory, infrastructure & safety issues prior to mass adoption by the general public for high volume usage. With time no doubt these issues may be addressed & overcome but not for the foreseeable future. However the EVTOL scenario has the added burden of a third dimension - being that of flight in currently unrestricted & unmanaged airspace, hence the concerns of the CAA, FAA et al including model aircraft enthusiasts.

Some of these topics can be explored in later notes. For now, consideration is given to an overview of a few of the more advanced craft that are in development in the EVTOL world, in terms of technology, capability & timescales. None are yet beyond the development stage, very few have flown as demonstrators & certainly - with a single exception in China, none are near to achieving flight operational certification. No commercial services exist, at best prototypes have been shown by several companies & very few have achieved a great deal of air time. In service dates of 2024/ 2025 have been quoted, but in reality this will depend on many variables - not the least of which are the regulatory issues.

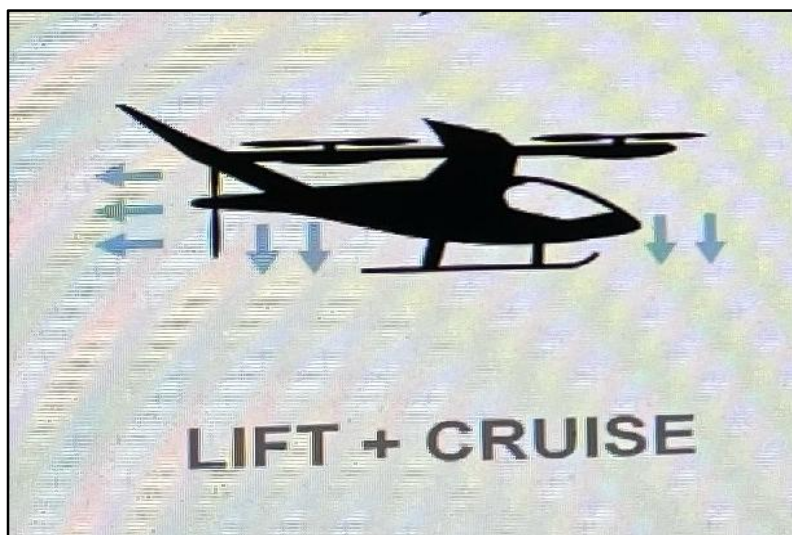
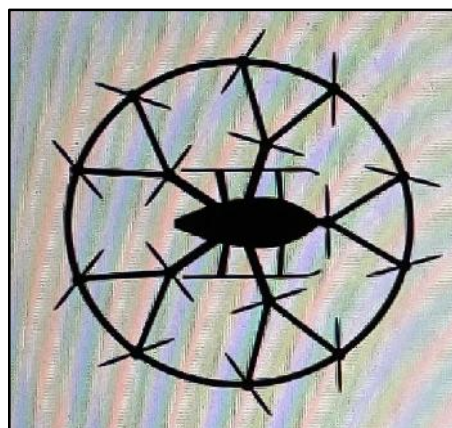
However, there are known to be over 900 Companies listed as being involved with the EVTOL market for air vehicles, so those Companies noted below represent a mere microcosm of the current state of play in the industry. Many of the 900 are doomed to technical and/or financial failure over the next few years but this does not appear to be reflected in venture capital investment strategy.

At present the main players, not surprisingly, are located in the USA, China & the EU with only one in the UK having a markedly visible presence. Such Companies include those pictured below in this note, who appear to be reasonably well advanced in their development program. They all have yet to negotiate certification & regulation issues - many of which have still to be defined, published, discussed & agreed, covering all aspects of operation. Certainly the CAA, FAA & EU are all engaged on a very difficult task, with drafts flying off the keyboard.

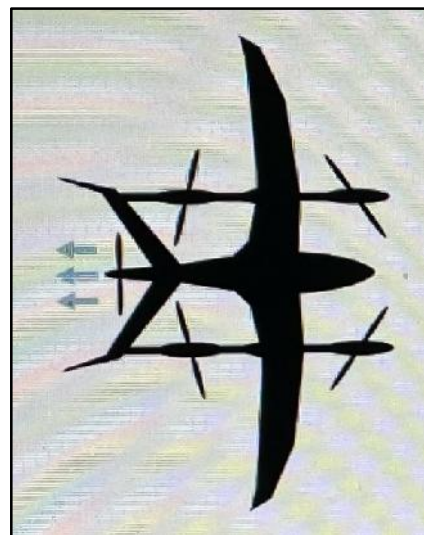
Briefly how do they operate? There are variations on the EVTOL theme - in summary here are the most common variations currently in development: multi-copter, lift & cruise & vectored thrust

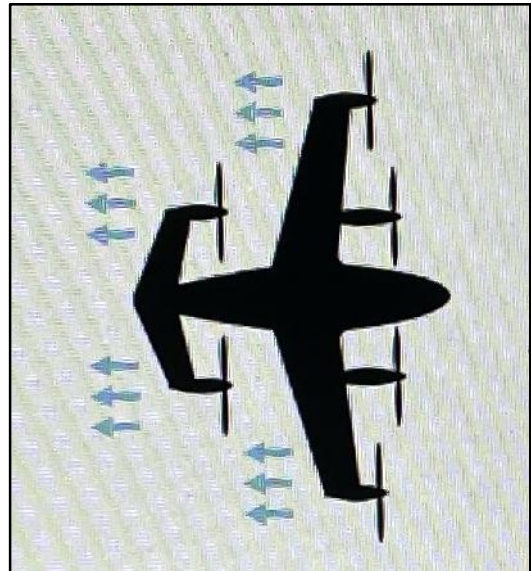


MultiCopter



Lift & Cruise





Vectored Thrust

The multicopter looks basically like a large drone & appears less in favour than the other alternatives. Vectored thrust appears as the most complex due to motor transitions between horizontal & vertical thrust - e.g. Boeing Osprey in a full size aircraft. The majority are electric powered, hence initial limitations in performance due to power consumption & limited battery capacity, albeit hybrids are now appearing, using hydrogen cells as a fuel source to complement battery power

Here are a few of the emerging main players in the field, in no particular order of capability.



Planned FAA certification late 2024

Planned entry into service: 2025

Air Taxi - 4 passengers plus pilot

Propulsion - electric Payload approx. 1000lb

Optimised for circa 20 mile back to back trips Planned recharge time of 10 mins

Has made hover flights, yet to make transition to horizontal flight.

Not yet in volume production Backed by Stellantis (Fiat/Chrysler & PSA)

Planned entry to service 2024/2025

Passenger and Cargo versions

4/5 passengers

plus pilot as air taxi

Propulsion - electric

Payload approx 1000lb

Range quoted as 250 miles

Delivery made to US DoD Air Force
for evaluation & trials

Not yet in volume production



Lift & Cruise Beta Technologies Alia-250 - USA



Multicopter/Lift & Cruise - Ehang 216 - China

Claimed fully autonomous operation

Air taxi - 2 passengers/payload approx 260Kg - Range 9 -16 miles

Flight time approx 25 min - 8 motors/16 props - Propulsion - electric

Granted CAAC approval for initial passenger operation in 2018

Norwegian CAA has issued permit for test & certification flights in 2020

Entry into service 2023



Lift & Cruise - EVE Air Mobility - Brazil

Design under development

First flight planned 2024 - Planned entry into service : 2026

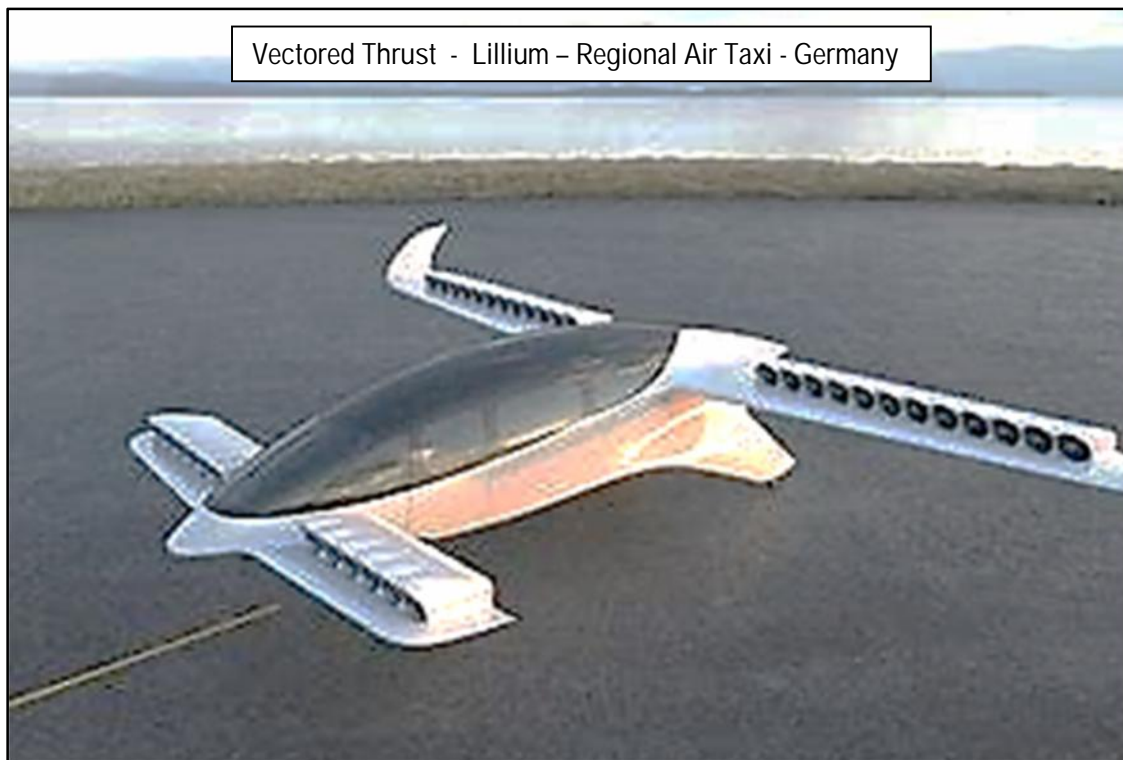
Subsidiary of Embraer

Air taxi - 4 passengers plus pilot at entry into service

6 passengers in autonomous mode - Propulsion - electric - 60 mile range



Entry to service planned for 2025 - 30K miles flown by prototypes
 Certification process in progress - Air taxi - 4 passengers plus pilot
 Range up to 150 miles - Payload 1000lb - Propulsion - electric - Backed by Toyota



Multiple ducted fans (36)
 Propulsion - electric - Canard configuration
 Prototype stage build - Entry into service targeted 2026
 Initial range planned as minimum 200km
 Regional air mobility targets 40 - 200km range
 Cruise speed planned approx up to 300km/hr - Aimed at local & regional traffic
 Alternative passenger or cargo configurations - plus pilot
 FAA & EU Certification being pursued



Lift & Thrust - Wisk Aero Generation 6

Wisk Aero Generation 6 - USA
 12 props: 6 tilt & 6 fixed vtol
 Fully autonomous (no onboard pilot)
 Four passengers
 Typical range: 90 miles
 Typical max payload 900 Kg
 Cruise speed approx 140mph
 Sub scale prototype built, ground & flight tested
 Target for Gen 6 first flight is 2024
 Advanced air mobility taxi service
 Boeing subsidiary Company

There are many others - the list is almost endless.

Considering the potential products shown above, all are interesting but three feature strongly for different reasons.

Joby because they appear to be the most well-funded company & they have a stated business plan of becoming a dominant air taxi service provider, not just an EVTOL product supplier - a somewhat bold ambition;

Lillium have adopted a very different technological approach through the use of multiple ducted fans, all apparently individually controllable for lift or thrust & adopting a broader regional target for operation;

Wisk Aero probably the most ambitious of all in that their target is fully autonomous operation from "day 1" i.e. no pilot aboard & "day 1" currently being forecast as 2030.

As a subsidiary of the Boeing Aircraft Co, they would seem to have a longer & broader term vision than the majority of their competitors.

Wisk Aero have recently published a most interesting document entitled

"Concept of Operations for Un-crewed Urban Air Mobility"
 available on the web via;

[Concept-of-Operations-for-Uncrewed-Urban-Air-Mobility-v2.0.pdf \(wisk.aero\)](#)

it is well worth a read for anyone interested in this
 new & evolving branch of the aviation sector.

More (hopefully) in the next month or two.

Roger Newman

**La 9thieme Grande Coupe de Birmingham,
flown at MOD North Luffenham, 24th Feb 2024.**

Gentle readers will know that family circumstances prevented me from running this 9th rendition of the Birmingham Coupe last December. So this is the 2023 contest flown nearly 3 months later than planned. The 10th (2024) contest will hopefully be flown in December this year and thus we will all be back on schedule. Watch the modelling press for details.

Late it may have been but the wait was surely worth it as Saturday 24th February was an absolute cracker. The wind was barely more than 5mph all day, the sun shone most of the time and it was never really cold. Fliers responded by turning out in what in these days passes for droves. This year's entry of 16 for F1G has only been bettered in 2016 for this incarnation of the Aeromodeller Trophy event. Of course, long ago when dinosaurs ruled the earth entries of 50+ were common but sadly such days are behind us now.

The supporting event for pre 1970 Coupe saw for the first time a predominance of "Classic Coupes" which is those not old enough (pre '58) to be Vintage. It was a classic coupe which eventually won this event though not by much as can be seen in the results.

A unique (so far) feature of the Birmingham Coupe is that for these last several years fliers have the opportunity to "Double Up" their F1G and pre'70 flights if they follow rules regarding when they fly and to what max. This is to ensure that the integrity of the F1G event is not compromised whilst allowing fliers to score in both events without having to make 8 flights. Two fliers took advantage of this and managed to sweep the board in both events. It must be said that this had much more to do with their thermal picking ability than any advantage that doubling gives.

The results showed that in F1G the top three fliers were a cut above the rest with but 14s between them. Peter Woodhouse flew with some real hi-tech machinery, actually not as he flew a Le Jump bis and a Davitt DIG150. He was fortunate (or wise enough) to only double the first two flights before lunch with his vintage Jump bis before switching to the DIG150 to complete a fine string of maxes for the only full house of the day. In terms of model sophistication second placer Colin Foster went even better and used his classic 1964 Baron Night which doubled flights with one small drop gave him the win in the pre1970 class. In third was Steve Philpott who was proud to fly the ex-John O'Donnell coupe given to him by June O'D on condition that he flew it in competition. Steve's two small drops he attributed to rubber/winding problems with a model which he'd only flown once before the day.

Everyone else dropped by too much too often in particular Andrew Morehouse and Bill Dennis whose triple maxes were accompanied by bad drops. Truly flying F1G is a case of "give me five thermals".

In pre'70 coupe Messrs Woodhouse and Foster again topped the results this time with Colin in first, Peter took the Vintage Plate trophy for the best placed Vintage model and thus the Morley pair completed a clean sweep. Scale doyen Andrew Hewitt overcame a badly dropped first flight with a final two maxes to give him third place with his Skydiver classic and subsequently emailed me to say how much he'd enjoyed his day. As well as Andy there were several fliers new to this event, I hope they felt welcome and that they will return next year and to other coupe events in the calendar.

The uninitiated somehow believe that this is my event but that is not so. Thanks are due as ever to Kris Best our calm and wise CD and to her and Stu Darmon for the nibbles at the control desk. These changed throughout the day from croissants at breakfast through sausages at lunch to teatime snacks. She also carried off the early and completely unexpected shift of control needed to accommodate the late arrival of the parascender club with firm good humour.

Stu gives moral support and guidance throughout the run-up to the day, all I have to do is send out the emails.

It was a pleasure to welcome Colin Sharman the new editor of Aeromodeller Magazine who unhesitatingly stepped up to present F1G prizes most especially the lovely Aeromodeller Trophy to winner Peter Woodhouse. Colin was with us for most of the day and as well as chatting and generally spreading bonhomie he managed to get some trimming in with his F1H glider. Not a moment was wasted...

That's it until December, I can't guarantee such good weather but I do hope that all who came this time will come again and maybe next time "bring a friend". I know that for some it's an early start and a long drive but your attendance matters and is much appreciated.

Results

Contest - F1G									
Entrant	R1	R2	R3	R4	R5	Flyoff	Total	Position	Doubled?
PETER WOODHOUSE	120	120	120	120	120		600	1	Y
COLIN FOSTER	120	120	109	120	120		589	2	Y
STEVE PHILPOTT	120	120	115	111	120		586	3	
IVAN TAYLOR	120	97	120	107	120		564	4	
GAVIN MANION	80	110	115	120	116		541	5	
BERT WHITEHEAD	115	120	98	74	114		521	6	
ANDREW MOREHOUSE	120	75	120	73	120		508	7	
BILL DENNIS	120	61	58	120	120		479	8	
MICHAEL MARSHALL	120	98	98	79	83		478	9	
STU DARMON	88	81	105	81	114		469	10	
ANDREW HEWITT	85	85	76	65	86		397	11	
LAWRENCE DRENNAN	81	89	80	79	0		329	12	
GORDON WARBURTON	86	116	0	0	0		202	13	
ROY VAUGHN	120	0	0	0	0		120	14	
RAY ELLIOTT	51	0	0	0	0		51	16	
PETER CARTER	DNF						0		
GARY PECK	DNF						0		

Contest - Pre 1970 Coupe D'hiver									
Entrant	R1	R2	R3	Flyoff	Total	Posn	Model	Class	Doubled?
COLIN FOSTER	120	120	109		349	1	Baron Knight	Classic	Y
PETER WOODHOUSE	120	120	106		346	2*	Le Jump bis	Vintage	Y
ANDREW HEWITT	79	120	120		319	3	SkyDhiver	Classic	
BILL DENNIS	120	61	75		256	4	Garner Knight	Classic	
GARY PECK	79	76	76		231	5	Dwarf Dip	Classic	
CHRIS REDRUP	111	93	0		204	6	Etienvre	Vintage	
STEVE PHILPOTT	DNF								
LAWRENCE DRENNAN	DNF								

* Peter Woodhouse top placed Vintage Coupe



Photo shows Peter Woodhouse and Colin Foster, who together won both events, in a relaxed moment behind the cars. Meanwhile Gordon Warburton looks bemusedly at a tailplane...

Gavin Manion


Photo courtesy of
Colin Sharman

Report No.158 Eagle book of.....

As promised last month, below are the previously missing plans from "Eagle Annual No. 4", "The Eagle Book of Hobbies" and "The Eagle Book of Make it Yourself". Thank you to all who have contributed and helped to complete the library's collection of aeromodelling in Eagle publications.

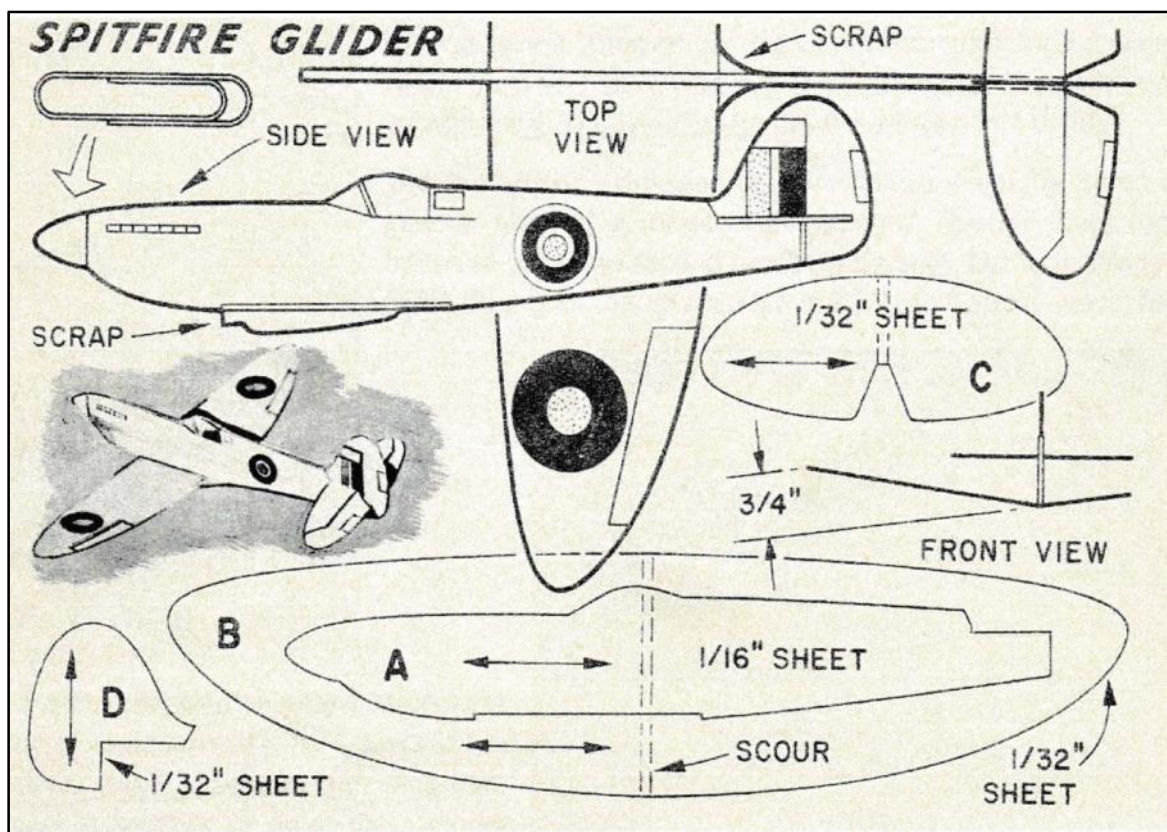
"Eagle Annual No. 4" has two articles by Bill Dean with a total of four plans for flying models.

MAKING MODEL GLIDERS

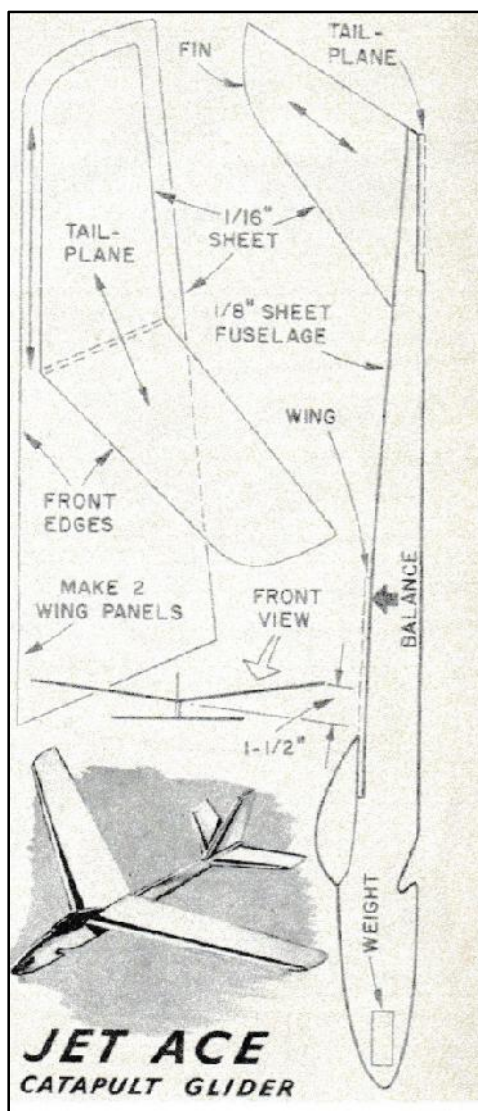
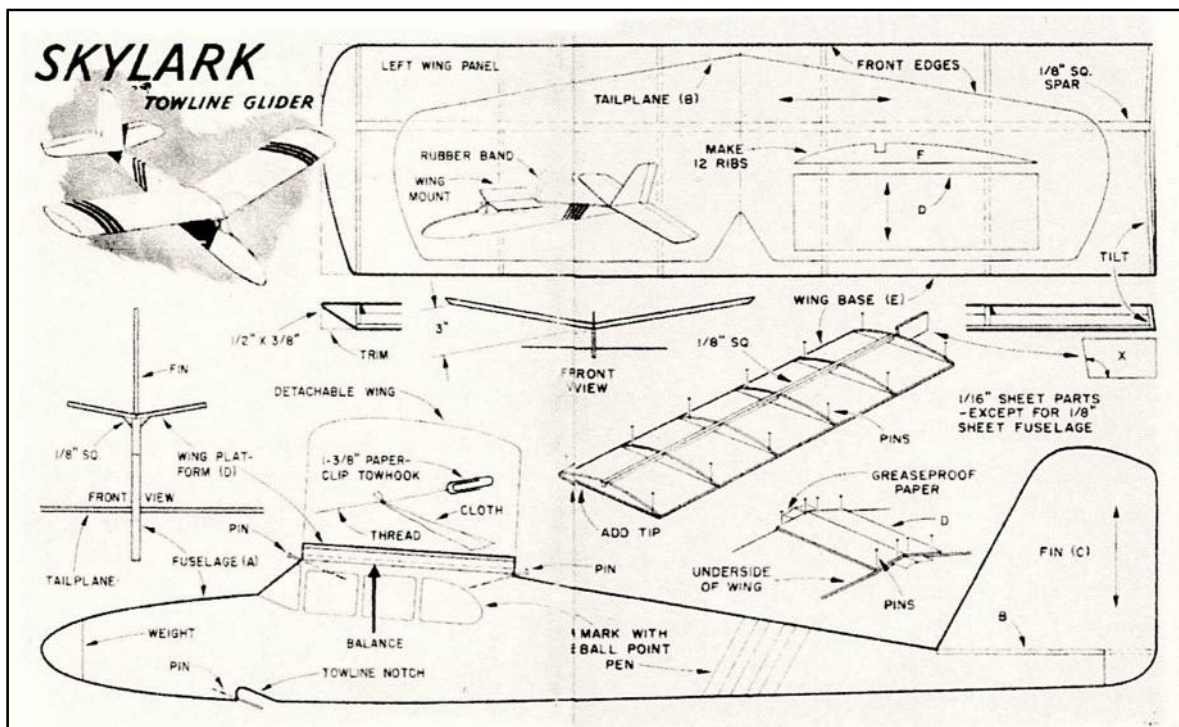


Including full-size plans for three exciting models

WRITTEN AND ILLUSTRATED BY BILL DEAN

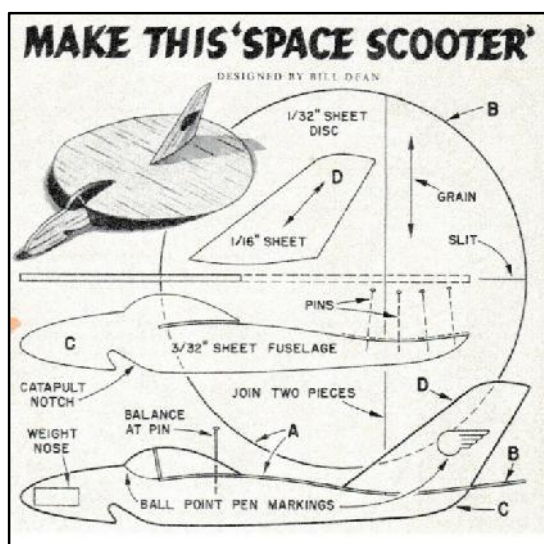


The 6" wing span **Spitfire** is built from all sheet balsa. The trimming instructions advising adding nose weight to cure a stall, bending up the tailplane trailing edge to cure a dive and correcting a tight turn by bending up the leading edge of the wing on the Inside of the turn.



The **Skylark** is a 22" wingspan towline glider of mainly sheet balsa construction but with the upper surface of the wing being covered with lightweight Modelspan tissue. Having built the model and dealt with hand launch trimming, it is time for the tow line. "Now get a friend to hold the model while you place the paper clip in the towing notch and unwind the towline. When you are ready to start towing, give a "thumbs up" signal and start running up wind. Your friend must keep pace with you and release the model with the nose pointing slightly upward as he feels the wings begin to lift."

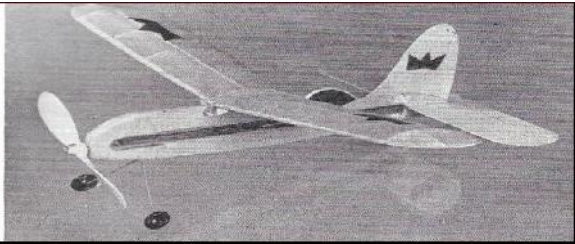
The **Jet Ace** 10" wingspan catapult launch glider "is based on the general lines of a modern jet aircraft." This all sheet model is intended to be the second model to be built but, as in this report, it is the third plan that the reader of Bill Dean's article would find.



In a quite separate chapter in the same issue of Eagle Annual is Bill Dean's **Space Scooter**. This 5" diameter, or wingspan, saucer is another all sheet balsa model and is designed for catapult launching. "After a little practice you should be able to make the model loop or fly in a circle."

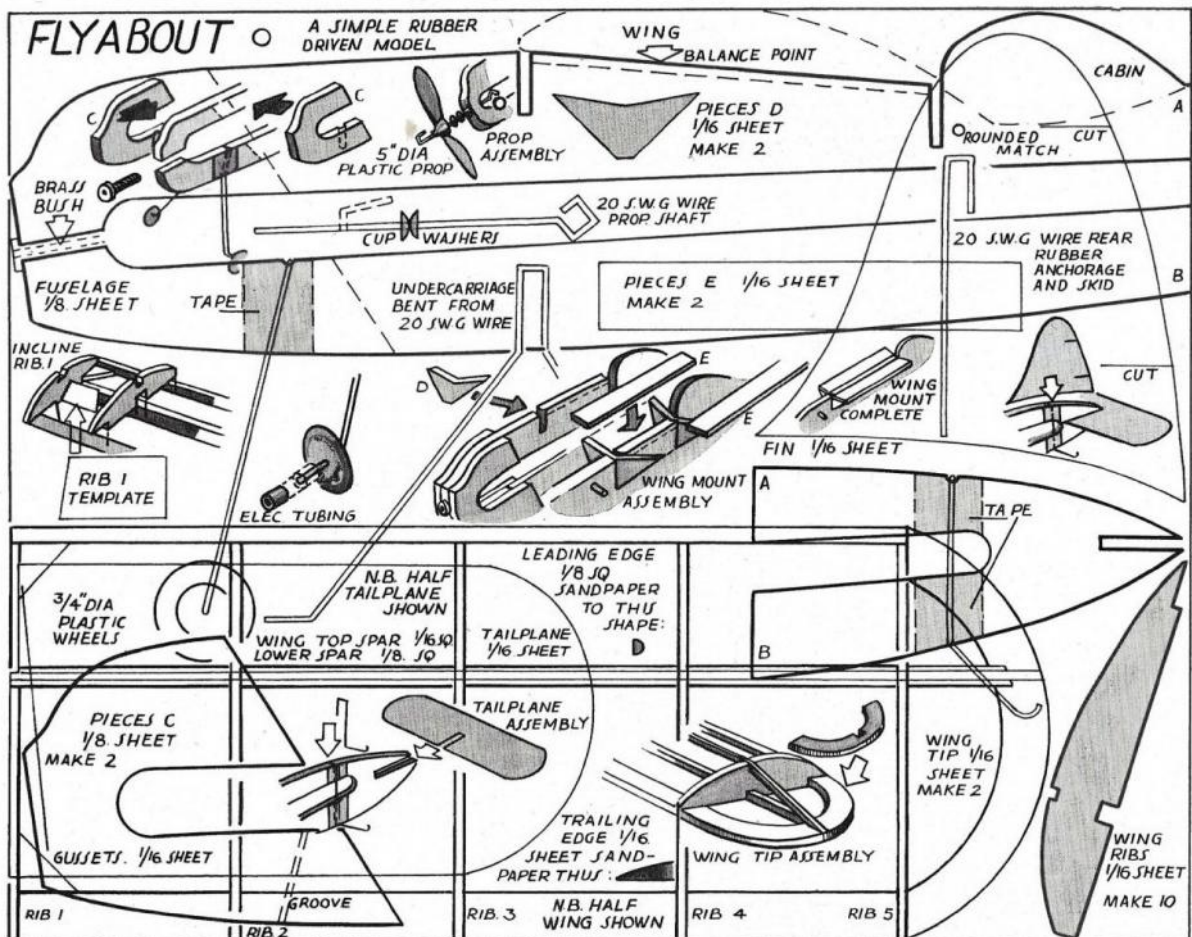
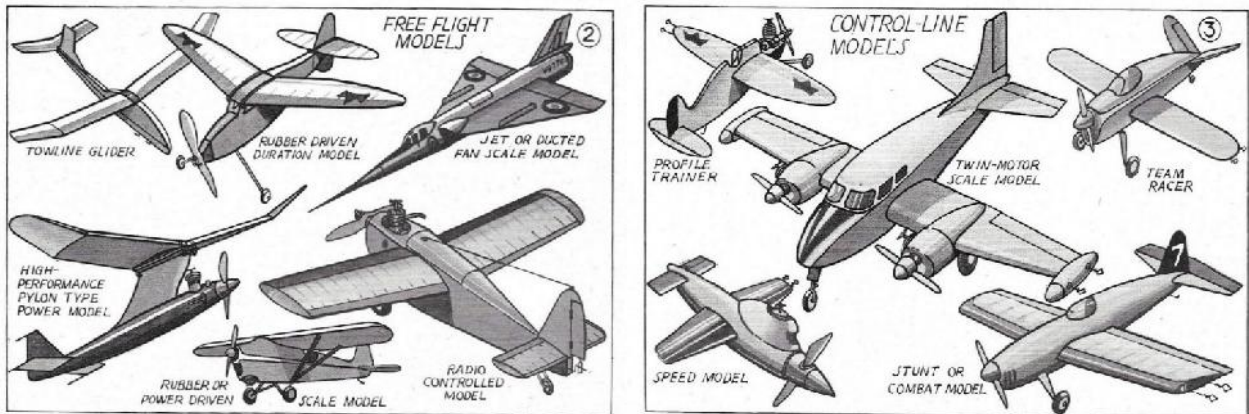
Model Planes for Everyone

BY RAY MALMSTRÖM

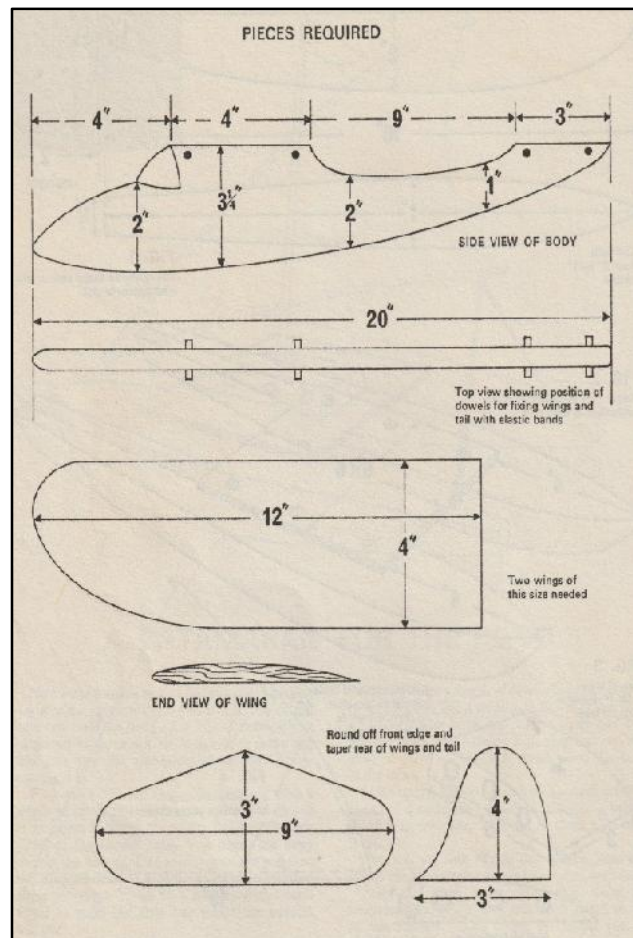


The Eagle Book of Hobbies has just one article on aeromodelling:
Ray Malmstrom's "Model Planes for Everyone."

This has a general description of the various types of free flight models, (strangely including a radio-controlled model) and control line models. The article has just one plan, that being for the **Flyabout**, a 21" wingspan rubber powered model. The plan is in Ray's usual style and is accompanied by full trimming instructions, including mention of the obligatory "long grass"



The "Eagle Book of Make it Yourself" was published in 1970 with no mention of the editor's name. Similarly there is no author's name given for the two page article titled "Watch Your Glider Soar."



The lack of attribution is probably just as well! This is surely the worst, least helpful, article and plan that has been seen in our look at "Eagle" books.

The "PIECES REQUIRED" drawing is at various scales and the dimensions fail to include the thickness of materials. The only clue in the instructions is "quarter-inch dowel".

By scaling the drawing it would seem that the sheet balsa required is 4" X 1/2" for the fuselage, and 4" X 3/8" for the wings.

No clues are given for thickness of tailplane and fin.

No mention is made of dihedral, or of glueing the fin to the tailplane, although the sketch of the finished model gives the builder some indication.

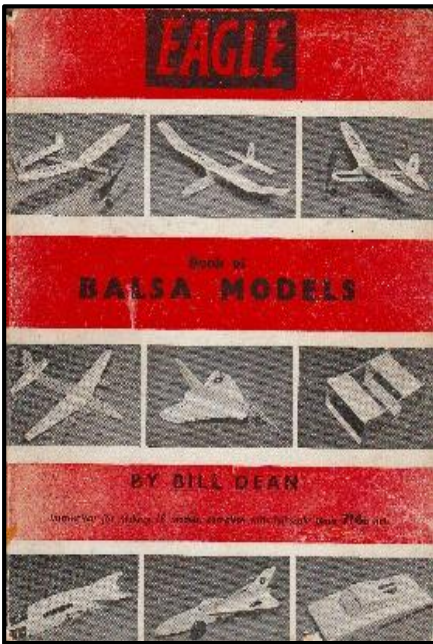
The big problems are the lack of any advice on how the wings should be held level on the fuselage, how the tailplane and fin should be maintained in alignment and the lack of advice to add nose weight to balance the model before attempting the first flight.

Hopefully, any young lad taking this book to his local model shop and asking to buy the required balsa would receive a reply along the lines of:

"Don't bother with all that Lad, here is a KeilKraft Polaris kit for only 4/10p that you will find much better".

That is the end of our look at "Eagle". It is sad that the final item was such a low point, but raise your spirits by revisiting Bill Dean's and Ray Malmstrom's contributions on the previous pages.

Report No.158 Eagle Supplement



What was the date of publication of the first edition of the "Eagle Book of Balsa Models by Bill Dean"? The book itself carries no indication of the publication date.

The second edition, titled "Bill Dean's Book of Balsa Models" states that it was published in 1970 and is copyright Bill Dean 1970.

The third edition, titled "The Solarbo Book of Balsa Flying Models" states that it was published in 1990 and is copyright 1990 Bill Dean

Published 1970 by ARCO PUBLISHING COMPANY, INC.
219 Park Avenue South, New York, N.Y. 10003
Copyright © Bill Dean, 1970
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This is the first U.S. edition, revised and updated, of
The Eagle Book of Balsa Models originally published in
Great Britain, © Bill Dean, 1959.

© BILL DEAN 1990

Third edition, revised and updated
published in Great Britain in 1990 by
Outline Press (Book Publishers) Limited
115J Cleveland Street
London W1P 5PN

First edition — The Eagle Book of Balsa Models
© BILL DEAN 1959

Second edition — Bill Dean's Book of Balsa Models
© BILL DEAN 1970

Both the second and third editions indicate that the first edition was copyright Bill Dean 1959, which I had taken to also be the publication date, but perhaps that is not the case.

Nick Peppiatt emailed:-

"I'm wondering whether the 1959 date given for the original edition of the Eagle Book of Balsa Models is correct. I seem to remember having a copy when I was in primary school, which would put it before 1959. Unfortunately, the original edition is undated. Amazon "Eagle" book of balsa models: Amazon.co.uk: Bill Dean: Books has the publication date as 1st January 1954, which is possible as the Supermarine Swift broke the world speed record in 1953. Bill Dean's Jetex Swift and Skyray, which are profile models similar to the smaller gliders were also published in RAF Flying Review in 1954. The Jetex.org website has the publication date for the Vulture plan from the book as 1957 Jetex.org: Plans - Jetex 50 (Fixed Wing Aircraft) . Can you, or anyone else, shed any further light on this?"

Looking again at edition one shows that it was published by Hulton Press Ltd founded in 1937 and sold to Odhams in 1959 so that does not help. It was printed by John Gardner who changed their name to Gardner Mawdsley at date unknown. I emailed Gardner Mawdsley for assistance on this but no reply to date.

As it stands the date remains in doubt so, Dear Reader, do you have a copy of the book that might carry the inscription "Happy Christmas from Auntie Flighty 195?" or perhaps has a pasted on note awarding the book for "Good Attendance 195?"

Do have a look at the Amazon website that Nick mentioned, it has a book ID number which did not work for me but perhaps it will work for you.

Any information leading to a definite date of publication would be much appreciated.

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

Roy Tiller

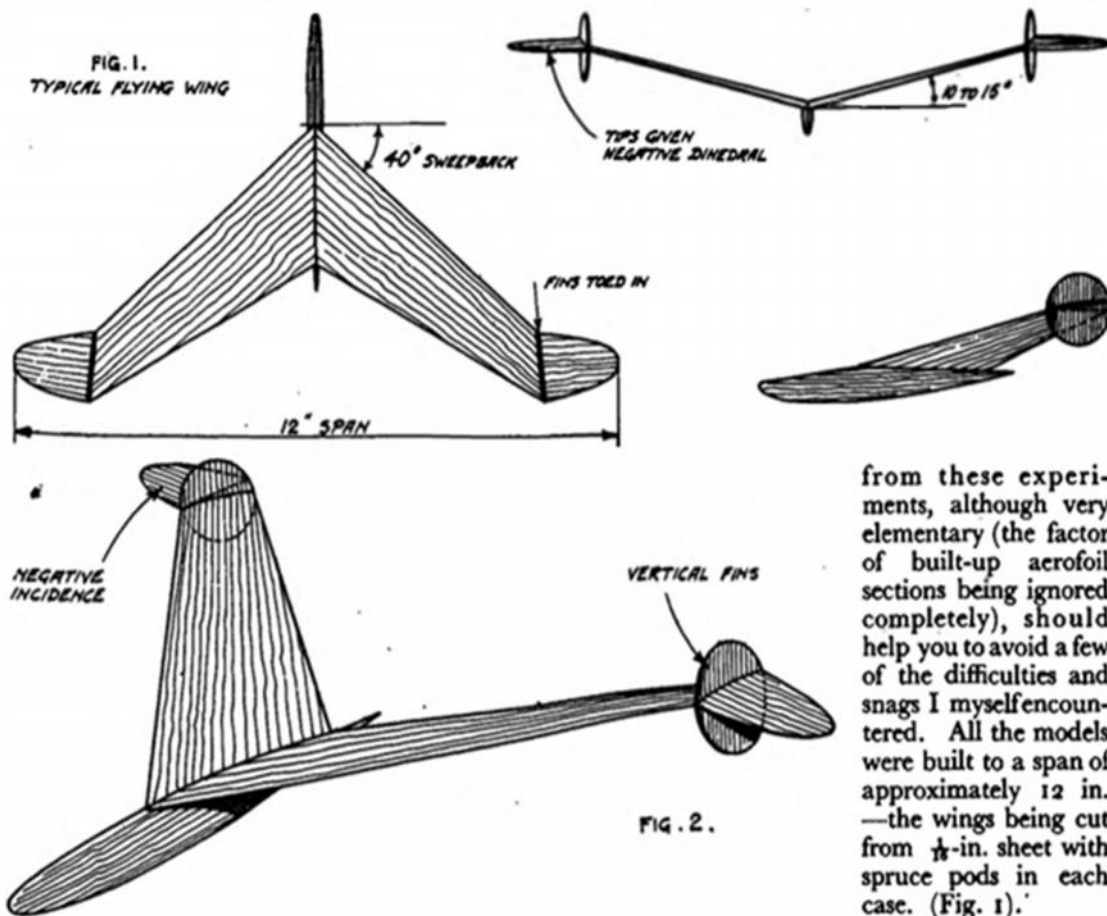
FLYING WING GLIDERS

By W.A. DEAN

IN full size design circles nowadays there is much talk of the "Flying Wing," which has come to be regarded as the ultimate peak of aerodynamic economy. But apart from the Northrop machine and the M.E.163, very

little seems to have been done with the pure Flying Wing. The Miles X and the new American McDonnell XP-67 both approach the Wing design inasmuch that the wings are thickened up where they meet the fuselage—but they still rely on the normal type of tail assembly for longitudinal stability. No doubt the slow progress in real aircraft Wing design is partly responsible for the present lack of interest amongst modellers. Apart from a few successful German glider designs of 1936-38, which appeared in Frank Zaio's 1938 Year Book, there seems to be very little data to go on, for anyone contemplating the construction of a Wing-type of model.

Faced with these drawbacks and yet determined to make an attempt at a fairly large Flying Wing glider, I decided to experiment with solid chuck gliders until I had collected some practical data on which to base a big job. After a week of building various types of "Wings" and incidentally getting through several sheets of valuable balsa—I began to get results comparable with the conventional wing and tail solid gliders. The data I picked up



from these experiments, although very elementary (the factor of built-up aerofoil sections being ignored completely), should help you to avoid a few of the difficulties and snags I myself encountered. All the models were built to a span of approximately 12 in.—the wings being cut from $\frac{1}{8}$ -in. sheet with spruce pods in each case. (Fig. 1).

February 1946

MODEL AIRCRAFT

Somehow I had the idea that dihedral would have to be pretty sharp—but this did not prove to be the case. Actually very little is needed, it being far better to depend on the pendulum stability provided by a fairly heavy pod. Ten to fifteen degrees proved ample on these 12-in. models. That is about 1 in. and $1\frac{1}{2}$ in. respectively, under each tip, about two-thirds of that normally employed on solid gliders. Any increase in dihedral was found to make the models extremely sensitive with tendencies to hunt from side to side.

For longitudinal stability, it is necessary to have the tips set at a different angle to the wing root, as they have to supply the correcting forces normally taken care of by the tailplane. This can either be steamed in to give washout at the tips, or trimmers may be cemented on at a negative angle of attack. This angle should be at least 4 deg., otherwise the stall recovery is very slow.

Directional Stability

For directional stability, we find that very little fin area is needed. This is partly due to the effect of sweepback and partly to the fact that there is little side area or keel surface forward of the C.G. to balance out. It follows, of course, that fin area is proportional to the sweepback. Keep the sweepback to 30-40 deg. (on the L.E.) and very little fin area will be needed. Setting the fins vertically and the tips at right angles to them improves the directional stability a lot. (Fig. 1.)

When trimmed correctly, wings should balance at about 20-25 per cent. forward of the root T.E. (Fig. 3). The ideal place for rudders is at the tips at approximately four-fifths of the span out. It is then easy to set the tip at a negative angle of attack as mentioned, simply by cutting it off and then cementing it back to the fin at the required angle. (Fig. 4.) The rudders need never be bigger than those shown in the sketches—in fact, they could probably be eliminated altogether, but it is hardly worth the trouble of the sensitive trimming which would result. Lastly, don't attempt to achieve directional stability by fitting a very large central rudder to overcome the short moment arm. This will make the model spirally unstable, the fin acting as a tailplane and pushing the nose round and down as soon as the model is banked. In the solids I built, even with the fins at the tips, the areas were placed above and below the horizontal surfaces to prevent any tendency to spin.

Wing taper is a matter of choice—I used a 3-in. root chord tapering to 2 in. at the tip in

most cases. This helps to keep the tips light, which is again a good thing from the spiral stability point of view. Always aim to have the wings tapering in thickness towards the tips. If you use, say, $\frac{1}{8}$ -in. sheet, get the wings down to $\frac{1}{32}$ in. at the tip or a tendency for wing dropping at low speeds will be noticeable.

Pod length should be nearly twice the root wing chord. If made of hardwood, no more ballast is usually needed.

Flying these solid Wings is much simpler than the normal type of chuck glider. However you throw them they always seem to fly. Stall recovery is remarkable. Dropped from 6 feet, they get out of the dive before they reach the ground. For towline or catapult the hook should be placed one-third of the chord back.

Trimming is not critical. Good flights usually result even if the model is trimmed in a stalling condition—recovery being good, with little loss of height. Trim into a left turn and launch with a right bank to achieve a roll off the top. Duration varies from 20-30 seconds, from hand-launches in still air—as good as any tailplane type.

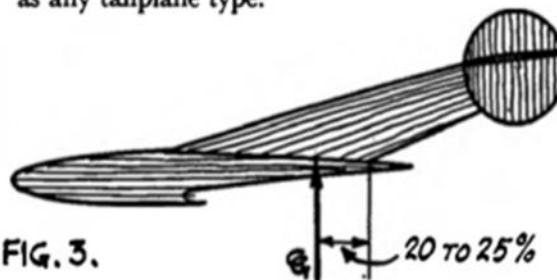
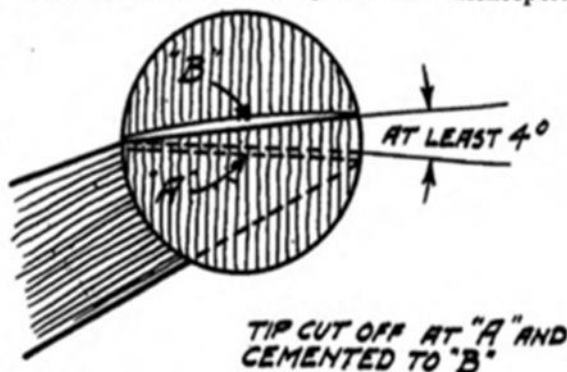


FIG. 3.

These tailless models show promise of being ideal for slope soaring—they always try to turn and keep into wind. In quite windy weather my models often finished quite a long way up wind from the launching point. That is a good tendency in competition work—so many good flights being spoiled by the models drifting away down wind and out of sight of the timekeeper.



TIP CUT OFF AT "A" AND CEMENTED TO "B"

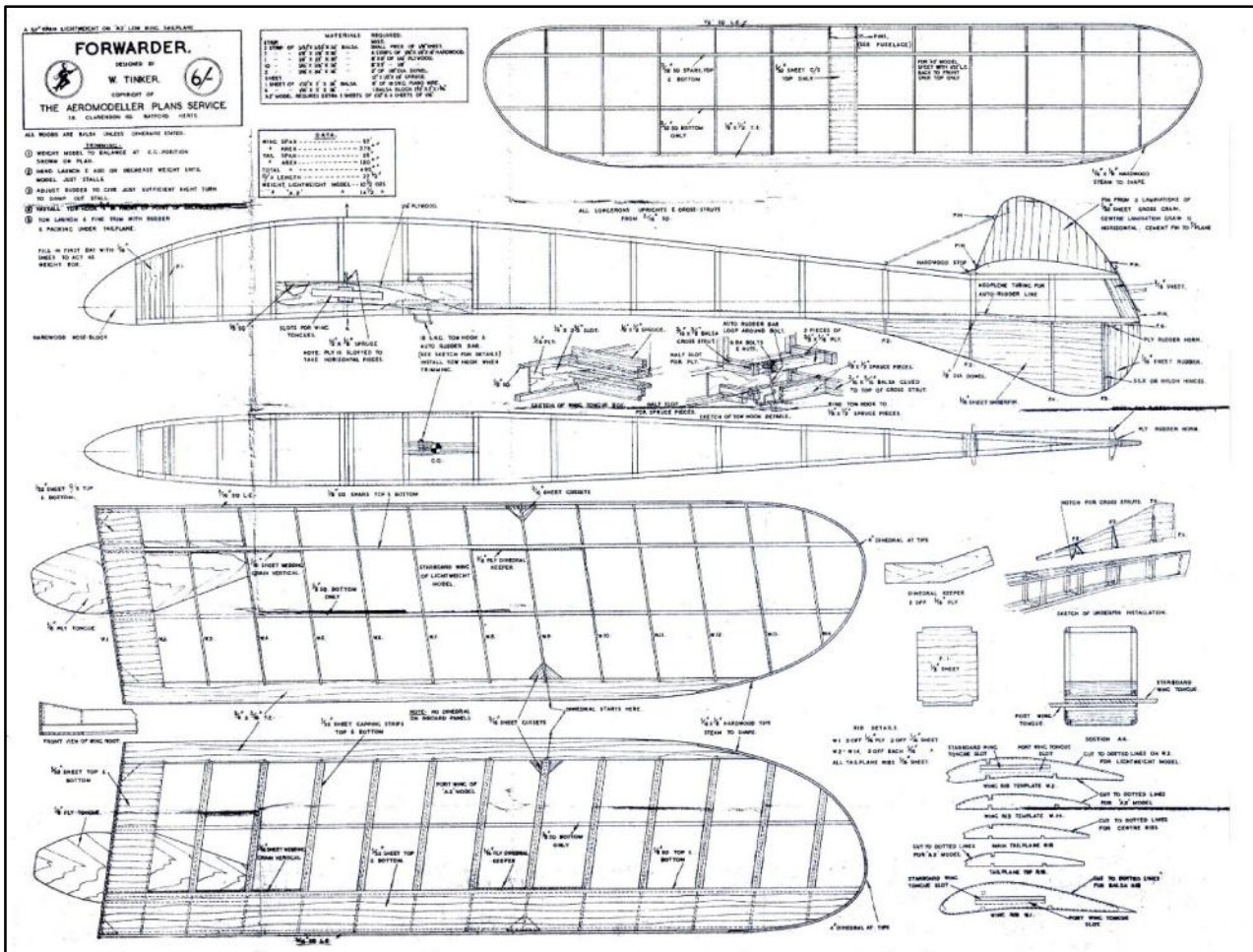
FIG. 4.

As regular users of Salisbury Plain will be aware there have been difficulties with access to the site due to extremely muddy and slippery conditions caused by extensive rainfall. However, thanks to the efforts of Chris Redrup and Dave Cox remedial measures have been put in place to the main access track. Thanks to Chris and Dave's efforts we were able to fly in the first Area meeting although getting up the slope was difficult for some (no problem for a 4x4). Conditions since then have improved somewhat so at the time of writing with just over a week to the Croydon Wakefield/ SAM1066 contest we should be OK for that event providing there isn't much heavy rain in the meantime.

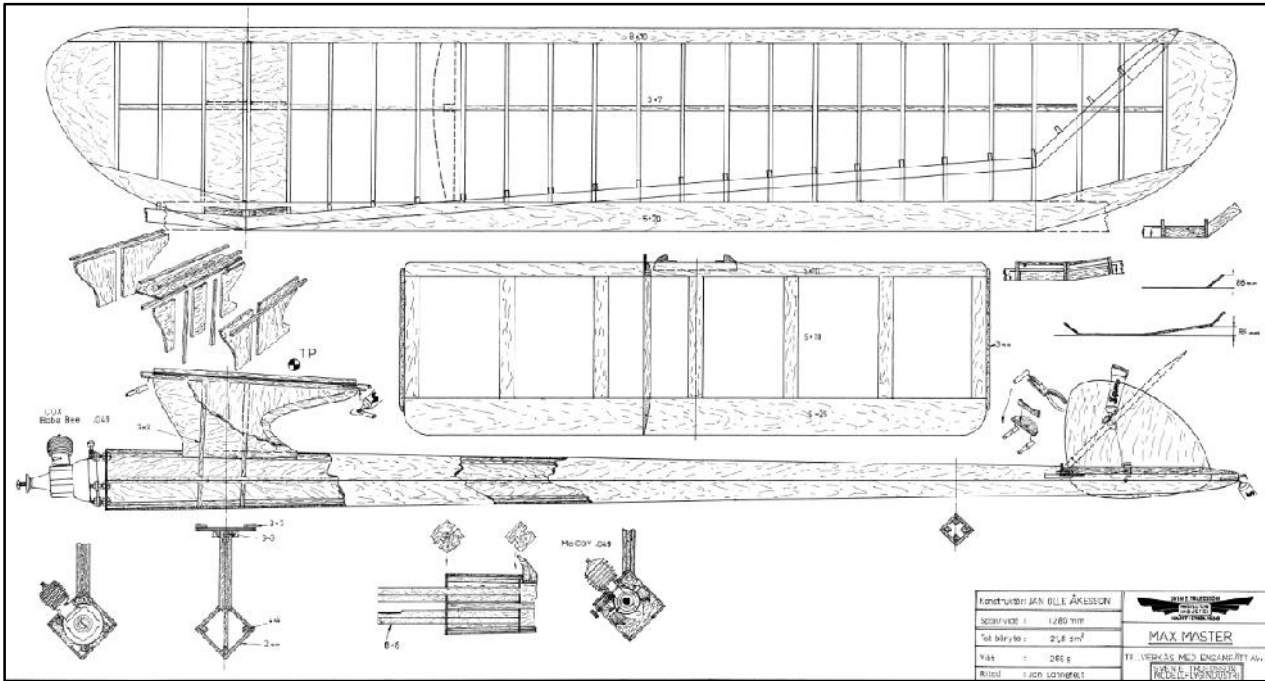
Peter Carter has had very positive discussions with the powers that be regarding a contest at Odiham. He is currently waiting to hear from them with possible dates. Watch this space.

Ray Elliott

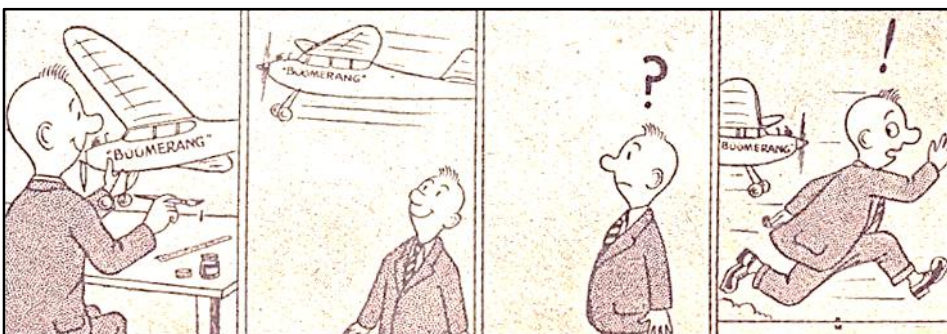
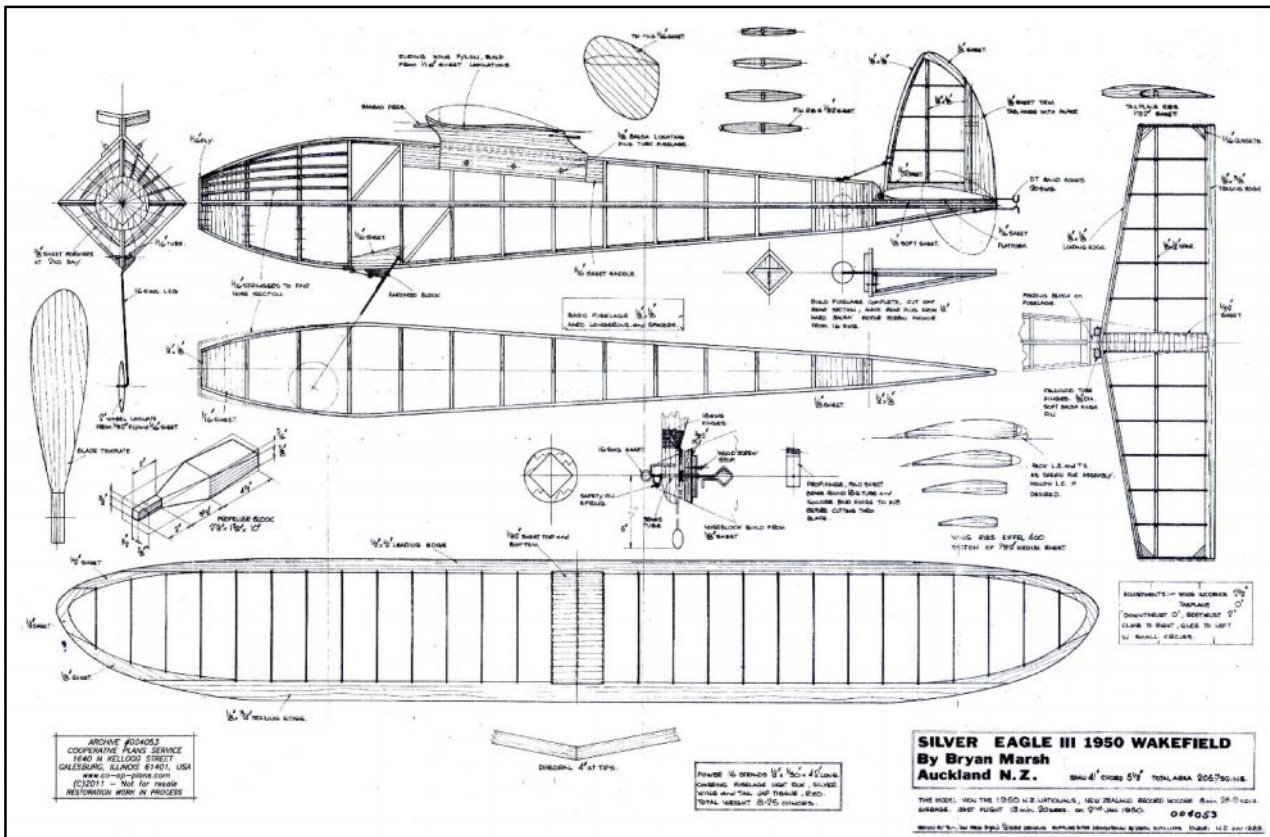
Glider: Forwarder - 1952 A2 from Sept Aeromodeller. Low wing design, never caught on!



Power: Max Master - quite early Swedish design for 1/2 A comps - uses Cox Baby Bee



Rubber: 1950 Wakefield from New Zealand - Silver Eagle III



Events and Notices

THE BMFA 2024
SCALE INDOOR NATIONALS

Weekend Extravaganza!



RC RADIO CONTROL
 SATURDAY 20TH APRIL

FREE FLIGHT
 SUNDAY 21ST APRIL

FF




SEE SOME OF THE FINEST FLYING SCALE MODELS IN ACTION

Everyone is welcome to enter or spectate
 - come along and be inspired!

For more details contact Mike Stuart - mstuart@geogmail.com



Wolverhampton University, Walsall Sports Centre W51 3TA

Free Flight Nationals 2024 – Official Notice

Venue

All three days to be at Salisbury Area 8

Facilities

There will be no camping or other facilities except for the provision of toilets.

Awards

- Certificates and medals for all events will be awarded.

Details

- There is no pre-entry requirement. Entry will be on the day. The fee will be a simple £10.00 per day charge. This fee would allow the entrant to fly in as many events/classes as they desire on the day. There is no exemption for season ticket holders.
- A payment of £25.00 will cover all three days entries.
- Number of flights and maxes to be decided on the day. There will be no rounds for FAI.

Free Flight Open FAI classes and mini classes – Salisbury Area 8

Saturday 25 th May Start 10:00 – 18:00	Sunday 26 th May Start 10:00 – 18:00	Monday 27 th May Start 10:00 –18:00
Combined Glider	F1A Glider	F1H glider
Combined Rubber	F1B Rubber	F1G rubber
Combined Power	F1C Power	F1J Power
Combined Electric	F1Q Electric	BMFA 1/2A Power
Classic Rubber/Power	Vintage Rubber/Power	E36 Electric
Women's Cup	Slow Open Power	P30 Rubber
Catapult Glider	Classic Glider	E30 Electric
Frog Junior (J)		Mini Vintage
Tailless		CO2 Duration
Vintage Glider		Catapult Glider
		Hand Lunched Glider

Provisional Southern Coupe League Calendar 2024

The calendar this year is a little different to normal with the delayed Coupe de Birmingham within calendar year, dates of some host events shuffled round, only one Coupe event in the Areas rather than the usual two and Coupe (F1G) absorbed into the new "Combined Mini" class at the London Gala. Combined Mini should be won by an F1J so League points will be awarded in accordance with the scores of Coupe entrants in isolation. Scoring will remain as now with nine league points for first place on the day then six down to one point for the following places with five highest score to count toward final placings. The League trophy will be presented at Coupe Europa. Here's hoping for better weather.

Round	Competition	Date	Location	Notes
1	Coupe de Brum	24 or 25 February	N.Luffenham	Ask organiser for notification of selected date
2	London Gala	14 April	Salisbury Plain	Coupe scores in Combined Mini to count
3	2 nd Area	28 April	Area venues	
4	Nationals	27 May	Salisbury Plain	
5	Crookham Gala	23 June t.b.c.	Salisbury Plain	
6	Southern Gala	18 August	Salisbury Plain	
7	Coupe Europa	13 October	Salisbury Plain	

Croydon / SAM 1066 Contests 2024

1st April (Easter Monday); Croydon Wakefield Day / SAM1066

Salisbury Plain Area 8. Start 10.00

Croydon Classes:

F1B (in rounds), 4oz and 8oz Wakefield (combined),
Marcus Lightweights, P30

SAM1066 Classes:

Mini Vintage to BMFA rules,
Vintage / Classic Glider (combined)
Vintage / Classic Power (combined) to SAM1066 rules.

Contact; Ray Elliott tel 07513 549734, email ray.elliott8@btinternet.com

13th October: Croydon Coupe Europa / SAM1066

Salisbury Plain Area 8. Start 10.00

Croydon Classes:

F1G (in rounds), Vintage Coupe

SAM1066 Classes:

Mini Vintage to BMFA rules,
Vintage / Classic Glider (combined) Vintage / Classic Power (combined)
to SAM1066 rules.

Contact; Ray Elliott tel 07513 649734, email ray.elliott8@btinternet.com

CROOKHAM GALA 2024

This year the Crookham Gala will be held on either the

22nd or the 23rd of June

on Area 8, Salisbury Plain.

An announcement will be made 48 hours in advance to confirm which day, based on the weather forecast. There will be the usual mix of classes, offering something for everyone plus trophies and prizes galore.

CLASSES:

Modern and Vintage Coupe combined

(3 flights only. Prize for best vintage score.)

Combined Glider (prize for best Classic A1)

Combined Power (including George Fuller Trophy for best placed Dixielander)

Mini Vintage & E36

Comps start 10.00am. Finish 17.00pm.

If you intend coming, please let me have your email address so that I can contact you 48 hours before the event to confirm the day.

Chris Redrup 07544 533509. chrisredrup@yahoo.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.

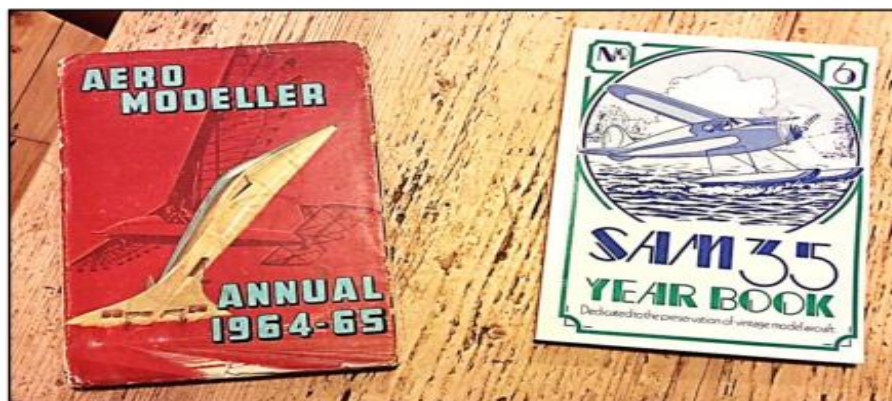
It is hoped that on competition days organisers will place their entrance marker flags in whichever entry to Area 8 is appropriate to the location of the day's launch point.



Aeromodeller Annuals and SAM35 Yearbooks

Over recent years we have received numerous publications from the estates of deceased members and from those who have retired from the hobby. As a result of this we are now holding a collection of about 30 SAM35 Yearbooks covering the whole series from 1-16 and in excess of 20 Aeromodeller Annuals covering the period 1954-75. These must go so if any of you want one, or a few, or all of them then please let me know. Sending one edition will probably cost about £3 by the time I've bought a Jiffy bag but if you want more then obviously the cost will depend on how many. A donation of a couple of quid per copy would be great which would go to the Naomi House Charity who we have supported in the past.

Please contact me on chair@sam1066.org if you want any of them, letting me know which ones you want and I'll see if they are available.



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.

London Area Indoor Meeting

Sunday 21st April

at

Sports Centre, Bromley Campus,
Rookery Lane, Bromley BR2 8HE
51.387069°N 0.035389°E

1100am till 1500pm.

Slots for free-flight and RC flying,
+ low-key events for Hangar Rat & 12" Catapult Glider.

Hall is 70 ft x 120 ft with a 30 ft ceiling.

Access is from the lower car park
via door marked Life Centre.

£8 for flyers (£4 for under 18s) and £2 for spectators.

Cash only please. Open to all BMFA members.

Contact Martin Dilly (martindilly20@gmail.com)

or call 02087775533 for more details.

Bloxwich Indoor Flyers

Free Flight & lightweight RC
Sneyd Community School
Vernon Way, Sneyd Lane,
Bloxwich, WS3 2PA

Saturdays 12 noon until 4pm

Flyers - £8 Spectators £2

2024 dates

3rd Feb - 2nd Mar - 4th May

Contact:-
 Peter Thompson: peter.thompson7408@gmail.com

Indoor Model Flying **Bangor, North Wales**

at the

Brailsford Centre LL57 2EH

2024 Dates:

14 Jan - 1700-1900:

04 Feb - 1600-1800

10 Mar - 1600-1800

07 Apl - 1700-2000

05 May - 1700-2000

Free-Flight Models & Lightweight R/C
Beginners Encouraged

Contact: Martin Pike, 07831 141418

Email: martin.pike.xray@btinternet.com

TWIFF

(Totton West Indoor Free Flyers)

Please bring all your toys (Free flight only)

Wednesdays, from 12:00-16:00

Admission for flyers £10.00

Free for spectators and helpers

2023

20th September - 18th October

15th November - 20th December

2024

10th January - 21st February - 20th March

17th April - 15th May

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

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

The centre has a café with hot drinks and meals.

Location

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

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

Contact: Ken Brown:

email - brown53hh@gmail.com

Tel: 07913814492 or 0238057866



Waltham Chase Aeromodellers

INDOOR F/F MEETINGS

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

2023:	September:	21st.
	October:	5th., 19th.
	November:	2nd., 16th., 30th.
	December:	14th.
2024:	January:	4th., 18th.
	February:	1st., 15th., 29th.
	March:	14th., 28th.
	April:	11th., 25th.
	May:	9th., 23rd.
	June:	6th., 20th.

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

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

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

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

For further details please contact:

Alan Wallington, "Wrenbeck", Bull Lane, Waltham Chase, Southampton, Hants.
(Tel. 01489 895157)

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

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

E30/RDT/BMK/E20 Batteries

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

FREE FLIGHT SUPPLIES

MICHAEL J. WOODHOUSE
12 MARSTON LANE, EATON, NORWICH
NORFOLK, NR4 6LZ, U.K.

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

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

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

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

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

ORDERS and PAYMENT

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

WESTERN UNION, PAYPAL

AVAILABLE

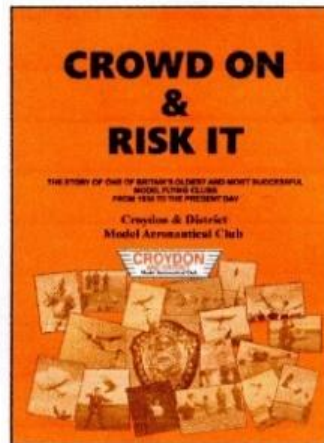
LIGHTWEIGHT COVERING MATERIALS - HI-TECH MATERIALS - FIXINGS - RUBBER - RUBBER MODEL PROPELLERS - TIMERS - KP AERO MODELS - TOOLS - PLANS - KITS - "HOW TO DO IT" PUBLICATIONS - BOOKS.

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

CROWD ON & RISK IT

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

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



Just £8 by PayPal or cheque.

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

DILLY JAP IS BACK -AGAIN

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

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

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

INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

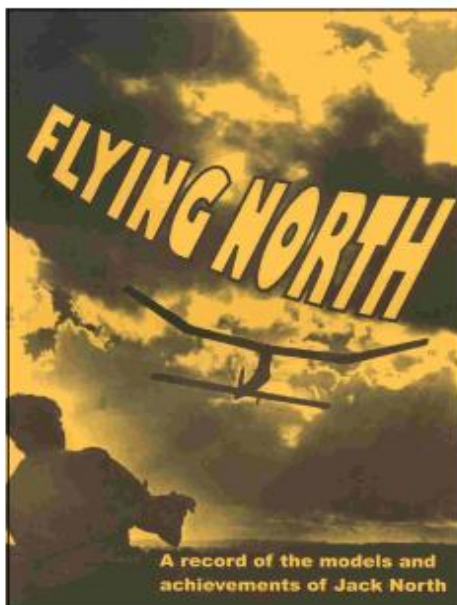
The following appeared on the Hip Pocket Aeronautics Builders' Forum. Nine different tissues were tested, doped and un-doped.

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

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

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

THIRD RE-PRINT JUST ARRIVED



FLYING NORTH

A goldmine for vintage and nostalgia model flyers -

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

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

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

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

READERS' FEEDBACK

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

"I hope it becomes a classic."

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

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

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

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

"The best aeromodelling book since the Zaic Yearbooks"

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

FREE FLIGHT FORUM REPORT 2021

Indoor Duration - A Challenge To Conventional Design • Tony Hebb
Coupe In A Box - Gavin Manion
Building Other People's Mistakes - Stuart Damon
The Models Of Ray Monks - Simon Dixon
Simulated 3d Flight Dynamics - An Approach To Gain Insight For
Trimming And Aircraft Development - Peter Martin
Building During Lock-Down - Phil Ball
Tame Your F1b And Related Thoughts - Mike Woodhouse
What Next For A Lady Flyer - Sue Johnson
F3 Res • Rc For The Aging Free 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).



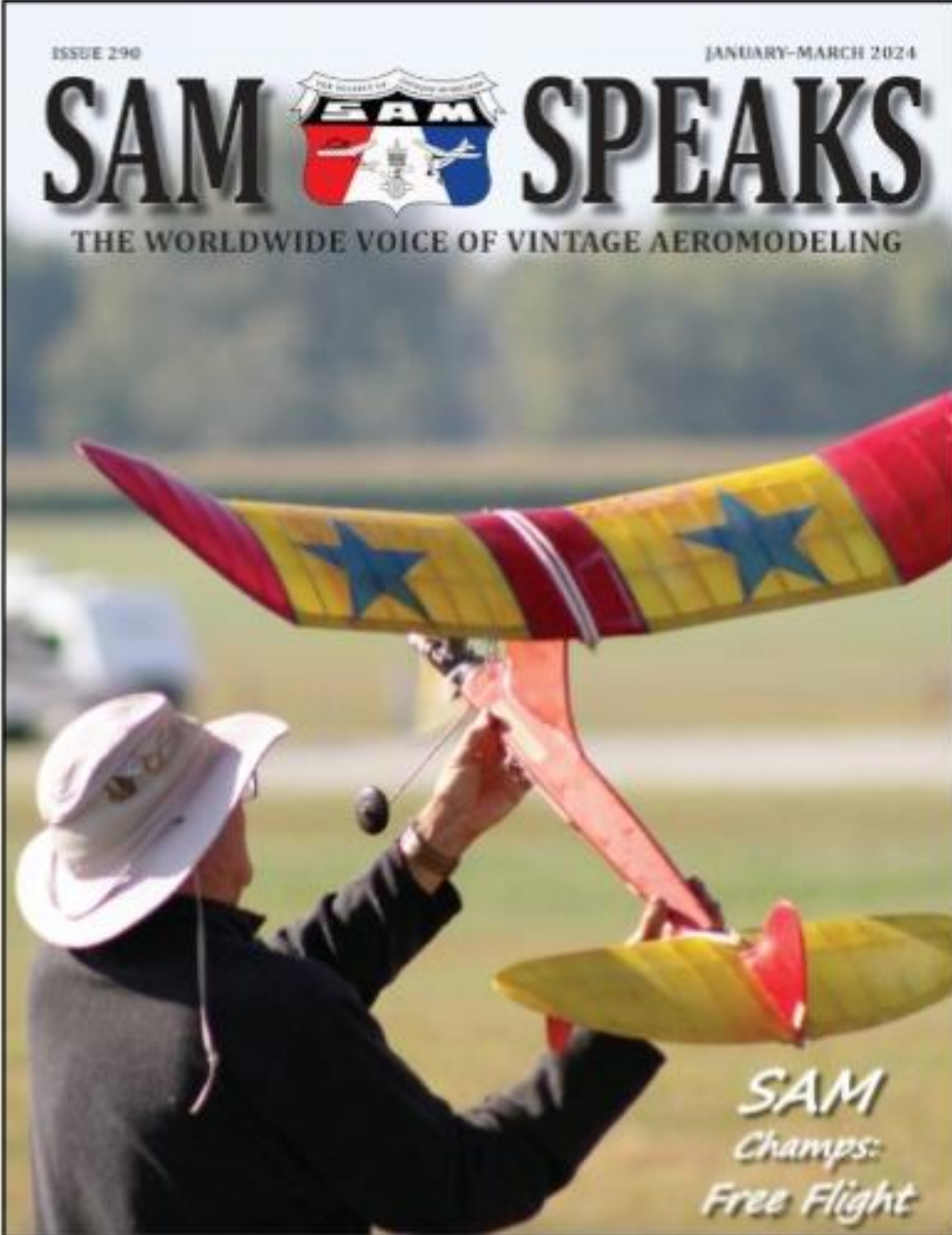
Copies are available from: Martin Dilly, 20, Links Road, **West Wickham**, Kent BR4 0QW
Or by phone: +44(0)2087775533 Or e-mail: martindilly20@gmail.com

ISSUE 290

JANUARY-MARCH 2024

SAM SPEAKS

THE WORLDWIDE VOICE OF VINTAGE AEROMODELING



*SAM
Champs:
Free Flight*

The cover of the magazine features a photograph of a man wearing a white bucket hat and a dark jacket, seen from the side as he works on a vintage aeromodel. The model is a biplane with a yellow fuselage and red wings, decorated with blue stars. The background is a blurred outdoor setting, likely a field or airfield. The magazine title 'SAM SPEAKS' is prominently displayed at the top in a large, bold, serif font, with a logo in the center that includes the letters 'SAM' and a shield with a model airplane. Below the title is the subtitle 'THE WORLDWIDE VOICE OF VINTAGE AEROMODELING'. The issue information 'ISSUE 290' and the date 'JANUARY-MARCH 2024' are located in the top left and right corners, respectively. In the bottom right corner of the image, the text 'SAM Champs: Free Flight' is written in a stylized, italicized font.

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 16 th or March 17 th March 29 th	Sunday Saturday Sunday Good Friday	BMFA 1st Area Le Petit Class'Q de Brum, Luffenham 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 June 22 nd or June 23 rd	Sunday Saturday Sunday	BMFA 4 th Area Crookham Gala, Salisbury Plain
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	Saturday Sunday Sunday	East Anglian Gala, Sculthorpe East Anglian Gala, Sculthorpe Southern Gala, Salisbury Plain
September 1 st September 14 th September 15 th	Sunday Saturday Sunday	BMFA 7 th Area Stonehenge Cup, Salisbury Plain Equinox Cup, Salisbury Plain
October 6 th October 13 th October 19 th	Sunday Sunday Saturday	BMFA 8th Area Croydon Coupe Europa + SAM1066 - SP Midland Gala, Venue, Barkston
November 5 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**

Your editor

John Andrews