NEW Clarion

SAM 1066 Newsletter

Society of Antique Modellers Chapter 1066

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Editorial

Right where are we? This issue has stretched to 61 pages for some reason, not that I'm complaining, I can handle more if you send it in.
The new BMFA Contest calendar with revised competition content is now underway, I do not understand the differences, but as I no longer am able to compete I have not kept up with the detail. If anyone has any comment I'm sure readers will be more than interested, please writ-up something.
Active flyers please take time out to take a few pictures and scribble a few lines on events for the membership to savour. May bring more contestants to the comps.
Peter Thompson will be running two more 'Chasetown' indoor meets, see add.

OK what's in this issue?

- First up a flash back to the 1980's with the Bournemouth gang on 'Cloud Tramp' day.
- In 1956 Pylonius has, amongst other topics, a bit of a dig at the probable thoughts of government on the Model Plane issue.
- I present another of my old Clarion articles from November 2003.
- Nick Peppiatt reports in detail on the SEBMFA 'Crawley' free-flight indoor meeting, 23rd February 2025.
- 1946 Model Aircraft News Review concerns itself with the new-fangled Diesel engine and comments on the SMAE Annual Dinnner and Prize Presentation.
- Engine test is the AM 10 R/C.
- We have lost another of our number in the death of Dave Clarkson.
- !955 Aeromodeller, in Heard at the Hangar Doors, tells of kerfuffle over combined world championships, GPO Radio Control licences and World Records for R/C models.
- A report and pics on what was to be the last 'Chasetown' indoor meeting. Organiser Peter Thompson has since procured further dates for the remainder of the year. See add.
- Wikipidia's info on the Sea Otter flying boat.
- Our archivist Roy Tiller is now up to 1931 in our vintage magazine stock with pictures and designs of the era.
- A bit more from our chairperson on his 'Jimp' restoration and a bit of electric.
- Another Nick Robinson paper airplane, I cannot get my head around the folding of these designs. Does anyone out there have any success with them?
- Martin Pike writes of his adventures with a couple of 'A' frame pushers ex Walsall's Tony Hall. These models fly much better than they are given credit for. They flew well in my hands as a win at Wallop proved.
- Roger Newman writes of things North Wales and offers his usual three plans for the month.
- There is a report on a patent from 1876 for a flying model plane. All correspondence is offered for your comment.
- We wind up with our secretary's monthly Notes focussing in the main on our SAM1066 combined event with the Croydon Club. The Croydon event being an all in Cagnarata comp whilst our comps will be, Combined Glider, Combined Rubber and mini-vintage Rubber/power.

Editor

Blast from the Past - John Taylor

Bournemouth Club members ready for mass launch of Cloud Tramps in the 1980"s

This pub is the local in East Boldre.
In 1910 a flying school was set up here. It only lasted for two years before closing. In 1914 the RFC took over the site which was on Bagshot Heath.
With the development of heavier planes in WW2 the old site at E Boldre could not be used as the ground was too boggy. In 1942 3 new runways were constructed across the road on Hatchet Moor using the brick rubble from bomb damaged Southampton. This site was completed in just 11 months, and was known as Beaulieu Airfield.
The airfield was used by the American Airforce and the R.A.F. and later by Coastal Command.
The R.A.F used Hatchet pond for dive bombing practice.
In 1950 the R.A.F moved out and in 1959 the site was returned to the Forestry Commission.
The runways and Peri-tracks were dug up and the area left to revert to heathland.
It is now covered in areas of dense gorse.
Model flying was tolerated by the Forestry Commission. Until Last year when free flight models were banned as being Not Appropriate "Electric only R/C" is permitted but with some restrictions.
After all the disturbance to the wild life in the past what harm can our small models cause?

Free Flight R I P

John Taylor

Extract from Model Aircraft April 1956

Topical Twists

Where We Came In . . .

A speaker at a recent model binge deplored the lack of government support given to the hobby.

Now what sort of support he envisages I just can't imagine, but, as a common or garden aeromodeller (preferring, of course, the common to the garden, as flying in the latter often evokes criticism from neighbours), all I ask of the Westminster boys is the import of the odd plank of balsa, and a bit of stiff legislation against the johnnies who try to boot us off the flying fields. I shudder to think of the disastrous consequences of any government intervention beyond these simple requirements.

Let us, however, suppose the worst, and, sometime in the future a question is raised in the House, asking what has happened to the model plane, which now appears to have become almost extinct (loud cheers), and what measures are being taken for its preservation under the Wild Life Act. The hon. member putting the question would probably be a farmer, who, since the extermination of the rabbit, has found the straying model a mild but welcome outlet for his twelve bore sportiveness.

The reply would most likely be published in the form of a White Paper; extracts from which might read as follows:

" Investigations into the model retail trade by officials of the National Scheme for Subsidised Model Flying revealed the incredible figure of 234,308.5 model fliers resident in the United Kingdom. In view of this the Minister felt constrained to exercise some form of control over the limited flying spaces available in the British Isles in order to relieve the congestion evident in these statistics. It was therefore decided to restrict such flying areas to exclusive use by accredited Subsidised Kit Builders. Though he regretted this unfortunate ban on private model flying, the Minister. . . .

. . . the total influx of Subsidised Kit Modellers into the aforementioned flying areas during the initial six month period was officially estimated at 0.5. This figure comprising a Master J. Bloggs. However, this total was later amended to the round figure of 0 when enquiries revealed that the glider model of the said Master J. Bloggs was a completely factorised commodity outside the scope of the subsidy benefits. . . .

. . . the findings proved that there was a definite case for private model flying. Consequently it was considered setting up a small experimental flying area on Chobham Common. . . .

The Pioneer Spirit

An eminent authority has recently drawn attention to the tremendous possibilities for making discoveries with the aid of models.

I can vouch for the truth of this from my own personal experience. For instance I have often made the discovery that the sinking speed into a concealed ditch is relative to the visual angle of the model to the horizon. Again, I have discovered the time taken for the c.g. to contact the datum line depends on the rate of slip, the latter factor being variable to the unhygienic habits of the bovine ruminant. This animal, incidentally, can be distinguished from its male counterpart by calculating the speed at which the modeller in front disappears through the nearest hedge. Investigations into the textile rending qualities of barbed wire can also be most revealing—sometimes to an embarrassing extreme.

The only discovery I never make is the lost model.

Comedy of Manners

I am mystified by certain cryptic references in Scottish Club News to " Dyspeptic Ayshire Individuals." This gag, like the individuals in question is frequently repeating, and, admirer though I am of pawky Scottish humour, I do wish they would put me (and, perhaps, the Dyspeptic Individuals) out of my misery by explaining the ingurgitatory reason for this outbreak of Ayrshire flatulance.

My conjecture is that the morbid condition resulted from an ill-digested Stag Supper. In which I can but stress the desirability of chewing each mouthful of antler at least 25 times. Again, a mid-field picnic of overripe haggis could cause the internal bagpipe system to come into violent and windy operation. But, perhaps, they merely made the common mistake of drinking diesel fuel in mistake for pop. If this be so, I beg their dyspeptic pardons, as I hope they too have been well mannered enough to do during their indisposition.

Off the Record

Whenever the International Records List crops up I see red—not one solitary British name in the lot. Plenty of 'vitches and 'ovs, but a complete and dismal absence of Browns, Jones or McTavishes. And to think that this country has been called the cradle of model flying (at least it's always referred to as kid's stuff here).

Casting about for some patriotic excuse, I notice that some of the records were established way back in the pre-D/t era, when only a select few intelligentsia knew what Km meant. Since that time this vital knowledge has spread to the moronic masses, but we, with true British reserve, steadfastly ignor it—not one linear inch will we yield to these fancy foreign measurements.

Even so, the chances of setting up a new record in this country are slimmer than an A/2 fuzz. Given a calm day (and who knows but this leap year will not bring one?) you would have to suffer a D/t failure at a time when two official timekeepers happened to be in attendance. Although, if the average contest flier was suddenly confronted with two timekeepers he would probably suffer heart failure instead. We must therefore

presume that timekeepers are in more plentiful supply on the other side of the Curtain, where perhaps the duty is optional to going down a salt mine. Also D/t failures must be more common in that part of the world, or perhaps for reasons of national prestige they are left off altogether.

Another factor against us is the way these models of inscrutable eastern design put up such colossal feats of endurance; clearly showing the superiority of the collectivised thermal over our own exploited form of disunified puff. So, altogether it would seem advisable for us to forget about such international honours and concentrate on our own quite formidable list of British Native Records. I, for one, will continue to submit my claims under the name of Gunga Dim.

I am asked by the Foresters Club to point out that the Ganston Streamer Slashers are not, as you may imagine, a group of carnival saboteurs, but a sapling offspring under the leafy patronage of the Foresters. Though youthfully addicted to Combat Flying, their ability to decorate each other with such gracious titles as 'Pit-Boot' and 'Jimpy,' suggests that they are backwood rather than backward boys.

Pylonius

John Andrews – Old Warden & North Luffenham

Captains Log: star-date August 10th.2003.

The wife Rachel, grandson Jamie, and I beamed down to Old Warden for the second day of the SAM35 Vintage Weekend.

It was a glorious day; we had travelled down via Cardington, the sheds looked impressive in the morning sunshine. Entering Old warden, I choked back the tears when I had the tenner plucked from my reluctant fingers at the gate, then onward into the field to park by the control-line activities.

True to form, Jamie's first port of call was the Café for sausage rolls and cold drinks, then up and down the Trade Stands passing time of day with my number one fan John Hook. I do now have a rival for John's affections however, in the shape of one John White who apparently has written a hilarious article in some northern newsletter. I'm still after a copy to see what the competition is like. (Small digression by worried Clarion scribe of Rugby)

The next step was to set up camp out on the field, we took chairs, two fishing umbrellas, and, of course, the model box. It was an extremely hot day with no wind to speak of, so we set up in the middle of the field. I hammered the poles of the two umbrellas vertically into the ground using them as sunshades rather than their normal use as windbreaks. I don't handle sunshine very well so I was lathered up with factor 60 sun block and wearing my somewhat battered white sun-hat. I didn't bother with the beach tent, which was just as well as things turned out later.

The effort of setting up camp had me melting in the sun, so the first activity was lack of activity. I had half an hour resting my backside in a chair watching the world go by and admiring the efforts of other modellers while I cooled down. One thing struck me, why is it that half the high-wing cabin sports jobs seem to fly round with the inside wing down? They look on the edge of spinning in to me. I suppose the modellers must regard wing warps as a building defect rather than a trimming aid. On reflection, I must admit that I have many 'trimming aids' in the models I build.

It was good sitting and watching the huge variety of models cavorting about the sky. The drift was so inconsistent, that in some instances models launched at the same time drifted off in different directions. Old Warden seems to shrink in size when you start your flights in the middle of the field. I saw models drift off over the road, others over the trade stands and some off towards the radio flight line.

Lethargy finally passed and I got out the winding jig and had a few flights with 36-3, the rubber job that was knocked about at the BMFA Nationals. I had refurbished (that's renovated, no, mended) the broken prop blades and usual tissue damage. It was soon back in trim.

Grandson Jamie then decided it was lunchtime and we were off to the Café to fill the water bottles, then back to camp via the car to pick up the cold box with the sandwiches.

We had ourselves a picnic well underway when Peter Tomlinson came walking down from the car park looking for somewhere to set up.

Peter set up alongside us, for want of a better place I suppose. He was airing his low-wing Earl Stahl Hurricane. The name being an unhappy coincidence as events transpired towards the end of the day.

After we finished our lunch, we set about having a few more flights. Peter's Hurricane was flying quite steadily and I rigged up 0-2 my larger open rubber model. 0-2 never seems to fly the same way two days running. One day it will be stalling then the next day it will be failing to climb. It took one or two attempts to get it on song again but eventually I managed to get it back in trim.

When recovering up by the radio end I noticed that a couple of horses in the paddock opposite seemed to have blindfolds over their eyes. I suppose it was to save the poor animals the embarrassment of having to watch my feeble attempts to re-trim 0-2.

Pictured alongside are Peter and I modelling sunhats fit only for the dustbin, what a pair of reprobates, if only the Devil were to cast his net, what a catch.

It was later in the afternoon when the fun? started. I put quite a few turns on 0-2, as a final check to ensure there was no power stall and the model D/T'd up by the horses. As I set off to retrieve, I noticed that a breeze had started to make its presence felt. I picked up the model and, as I turned towards base for the return journey, I became aware of the breeze stiffening. As I walked, the breeze became a wind still increasing in strength and I had to stop and re-adjust my grip on the model to protect the wing.

Looking up, as I began to continue my return, what do I see? A damn great fishing umbrella hurtling towards me, bowling end over end in the increasing wind. Now I'm the guy who played 7 aside rugby football for the Royal Corps of Signals under floodlights in the Hong Kong Football Stadium in 1955, I was certainly not letting a mere fishing umbrella get by me. I turned sideways to protect the model and prepared to 'stiff-arm' the brolley as it approached. I thought perhaps I might 'clothes-line' it and get a grip that way.

The umbrella was no fool, it rolled sideways and neatly sidestepping me it continued on it's merry way. On reflection, perhaps that indicates one of the reasons why 'The Signals' got knocked out in the quarter finals at the Hong Kong sevens back in 55.

On getting back to camp, I managed, with Peters, help to get the model back on the winding jig but the wind continued to rise. By now it was up to gale force, Peter and I set about trying to take the model apart. The wing cracked in the wind but we managed to get the model disassembled. Luckily, I had my heavy cardboard model box and had set it down end on to the wind. With the model, safely back in the box I looked around to take stock.

It was like a battlefield, there were wings, tails, fuselages etc blowing off down the field with modellers in hot pursuit. Many of the lightweight polystyrene boxes were also amongst the debris careering along downwind. I hear a bit of a squeal and I see Rachel fighting with one of our umbrellas, then everything became a bit of a blur memory wise. Grandson Jamie was off somewhere sitting on a guy's model box whilst the owner chased his bits and pieces. Someone else must have pulled down our other umbrella as I helped Rachel get hers down. Eventually we had our kit under control, umbrellas rolled, chairs folded all flat on the floor. We then scuttled about picking up other peoples bits and pieces. The damage that must have been done to numerous models does not bear thinking about. We gave it best about then and retired to the car ready for the off.

I was talking with Malcolm Jagger at Wallop later and he said that type of wind was called a Sirocco. I looked it up in my dictionary, which says it is a 'hot moist wind in south Europe, to me it was a bloody hurricane out of nowhere.

Right - Authors Open Rubber Model 0-2

The following weekend, 17th.August, I was at North Luffenham for the Timperley Gala. The wind was reasonably light but in the worst direction, straight across the narrow part towards the hangers. The organisers had to settle for a short maximum of two minutes. I had repaired 0-2 from the ravages of Old Warden and re-trimmed it the day before, so I was up for it.

I entered open rubber, put 0-2 together, had a check flight with a couple of hundred turns or so and all was well, or so it appeared. I wound up for the first flight with, I think, a conservative 750 turns or so, collared a volunteer timekeeper and launched. 0-2 kicked me in the teeth again, it zoomed up to about 50 feet then proceeded to fly in flat fast circles like a pylon racer. Very little height was

gained, cruise was useless then down it came well short of requirements. John Boy had blown it again. The conditions that day were extreme to my eyes, big lift and big sink, but I don't think conditions were my problem with that flight.

I stuffed 0-2 back in the box and since, I have decided to start trimming from square one. I looked at the wing warp and it was quite a lump, possibly crept in with the repair work, so I have re-set it at about half of what it was and 0-2 awaits re-trim.

I digress, back to Luffenham to continue the competition. I had my Hep-Cat with me, so back to control and enter vintage.

Right - Authors Hep-Cat

Same procedures as in open rubber, check flight OK, wind, find timekeeper and launch. Two textbook flights D/T just over 2 minutes and down just before the hangers. John Boy is on a roll, what can go wrong. I'll tell you later.

Digression first, on one flight I collared Hanger Meetings man Noel Parry for timing. I wound up and bang the motor broke. Whilst surveying the bobbin with the short ends of the broken motor hanging off the winder, I hear this buzzing rattle from the model. The motor had jammed in the front end of the blast tube that was now rotating at a furious pace in the fuselage unwinding the motor. I replaced the motor and wound up again. As I tried to set the Tomy DT, the output arm swiftly returned to zero, the bob weights had been knocked off by the rattling blast tube. There was no provision for fuse DT, so I engaged my prop stop (that was Noel) and panicked about looking for bits to fit. I had to use a snuffer tube, as there was waist high tinder dry grass in the DT area. I found a bobbin with a piece of tube through it, so I fitted the tube across the Tomy with cyno. Then I had to cyno some tape by the tube to prevent the fuse setting fire to the aircraft. All this, with Noel hanging on to the prop and the wound motor cooking away. I got it all together then nothing to light the fuse. Noels brain kicked in then "use the lighter in the car" says he. We were up and away, one of the textbook? flights I mentioned earlier.

Back to the comp, I had Noel on standby for the third and final flight. I tried to be a little more professional this time and waited, with the model wound, sniffing the air for lift. Noel pointed out a guy with a big Lanzo about 150 yards upwind so we waited for him to go. He launched, it looked OK but muggings got too excited and launched before the Lanzo got to us. Noel quietly said "I think you've gone too soon". He was right, I was in the sink in front of the lift and was up and down well under requirements. Dipped out yet again.

Back next time with my Wallop 2003.

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Extract from paperback 'Clarion' November 2003

John Andrews

Indoors isn't for Everyone No.86 - Nick Peppiatt

SEBMFA 'Crawley' free-flight indoor meeting, 23rd February 2025

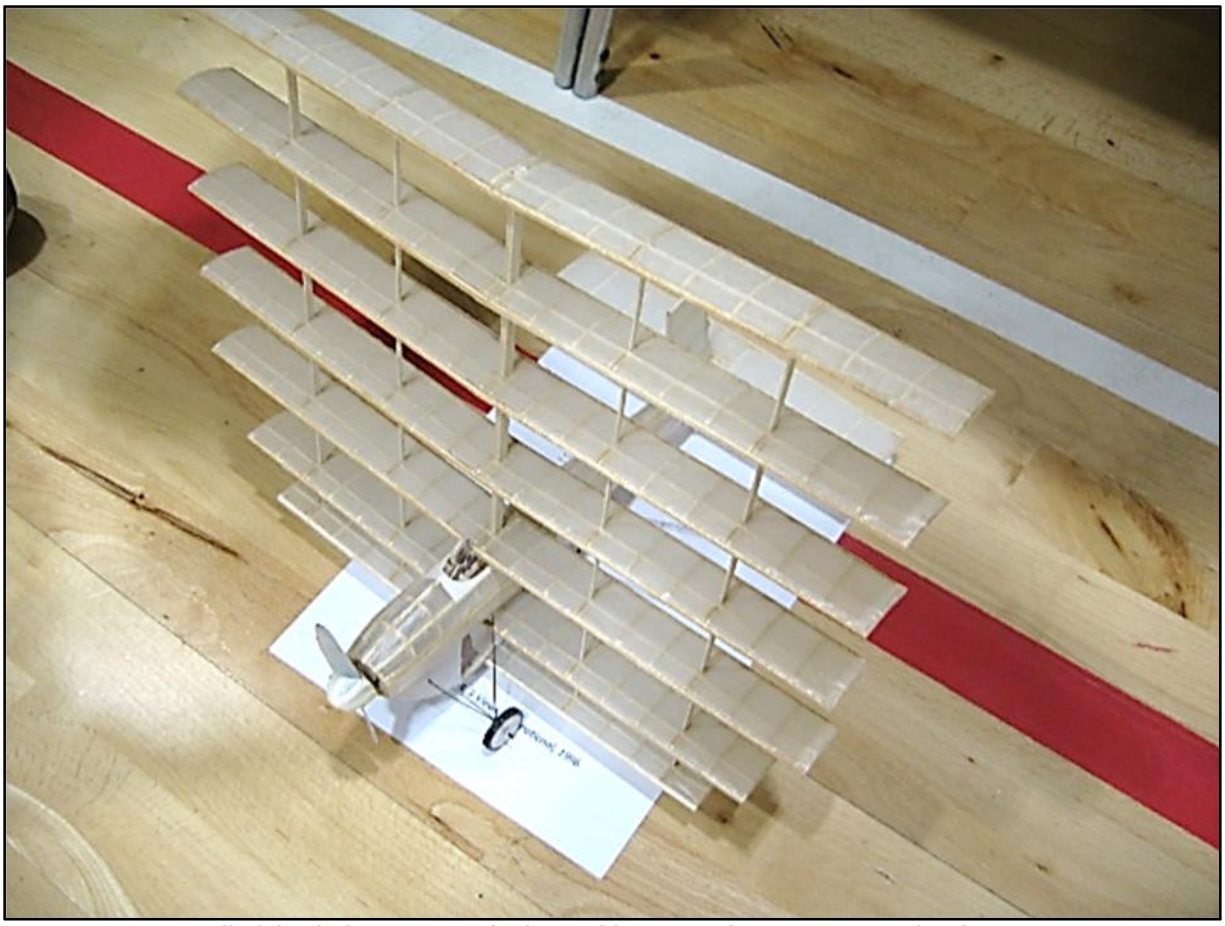
This month I have several indoor meetings I could report on, but I will concentrate on the second meeting at The Triangle, Burgess Hill, as it was entirely free-flight. A number of competitions were held, which were in the long established 'Crawley' format, interspersed with fun-fly slots. In fact, this was the 50th year of Crawley Indoor. This time we were strictly confined to one half of the large hall, with a flexible netting curtain separating us from the other activities taking place. However, unlike last year, the conditions were quite benign, with the ventilation being kept under control. Whether this was a result of the outside weather conditions, luck or some other factor is not clear to me, but the result was minimal drift and turbulence throughout the meeting and the times of the ultra-light duration classes were much more respectable. For a report of the first The Triangle meeting, please see IIFE 74, (NC March.2024)

Peanut Scale entries:-
front row, left to right, Mike Stuart's Vought Kingfisher, Nick Peppiatt's Tefft Contester,
Peter Brown's Cessna 165 Airmaster,
back row: -Alasdair Deas Waterman Mercury Gosling Racer, and Steve Haines' Nesmith Cougar.

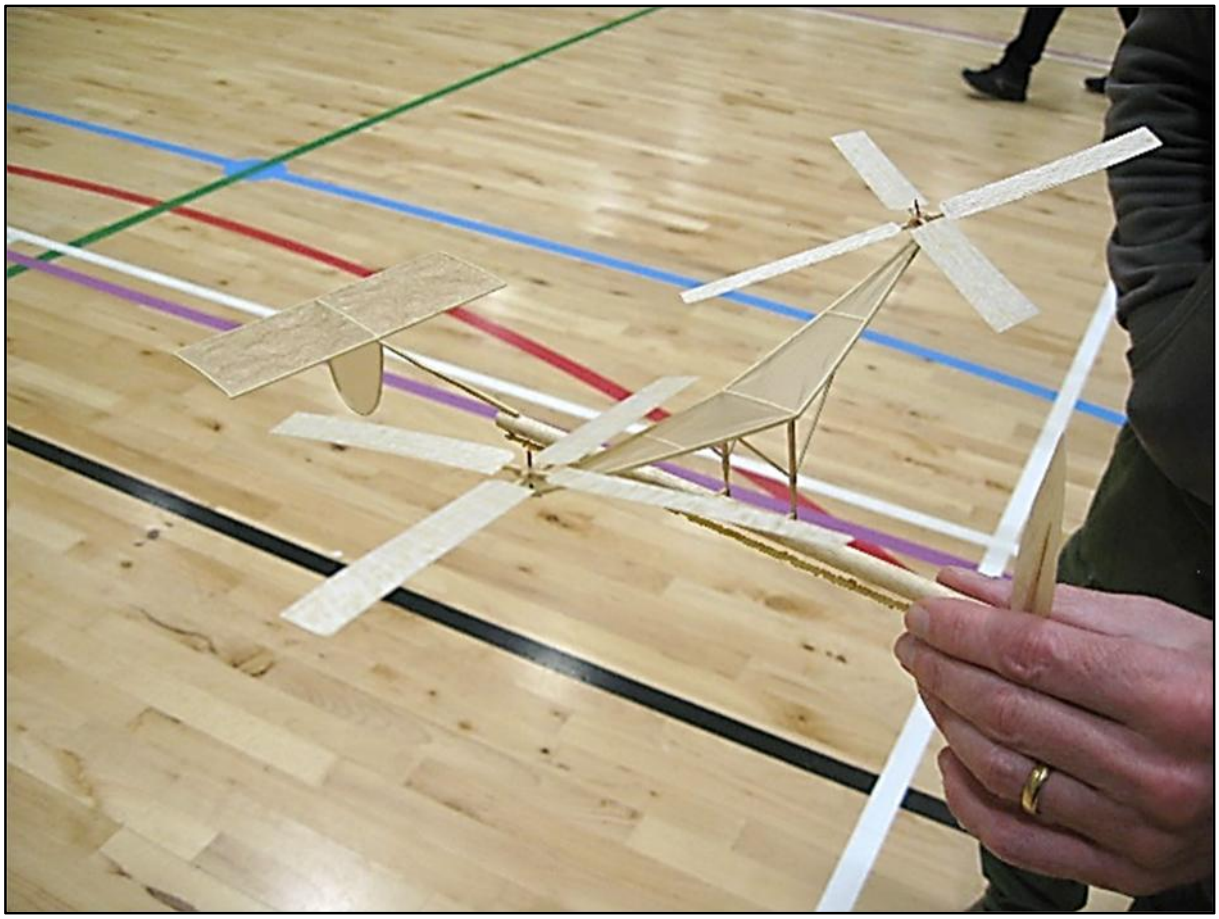
The number of entries in the competitions was encouraging.
One of the most outstanding flights of the meeting was that of Alisdair Clark's electric powered 1923 Cycleplane, with all of its seven wings. He deservedly won the Open Scale competition with this model.
Unfortunately, I did not get a photo of his Peanut Scale entry – the Gossamer Condor, another cycleplane, which was of a nine inch fuselage length. It is clearly a very fragile model as it was kept in a box, except when flown.
Alisdair's other speciality is autogyros and he also flew his twin rotor Twirly Flyer design, the plan of which was published in the February 2008 edition of Model Flyer. The model flies to the left with the motor torque and the inside rotor is set at a higher incidence than the outside and turns much faster, a remarkable sight.

Open Scale entries:
from left to right:- Alisdair Clark's 1923 Cycleplane, Peter Brown's Piper Cub, Nick Peppiatt's Sablatnig SF4, Mike Stuart's Auster B-4, Terry Adams' Bristol Freighter and Steve Haines' Currie Wot.

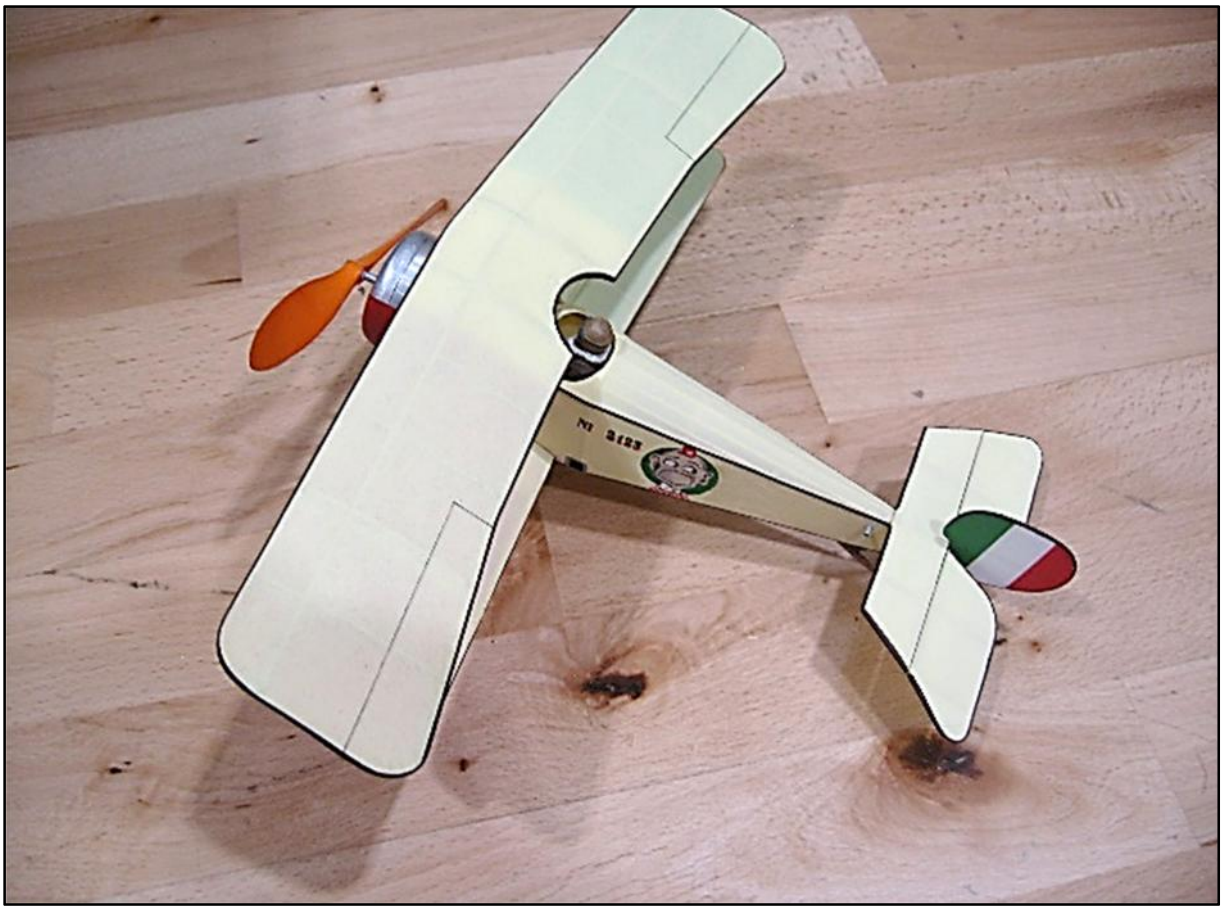
Mike Stuart's beautifully finished Vought Kingfisher Peanut – placed second.



Alisdair Clark's 1923 Cycleplane with seven wings – Open Scale winner



Alisdair Clark's Twirly Flyer. Plans were published in Model Flyer magazine.



Alasdair Deas fine Nieuport 11, from the Nowlen Aero kit
(see last month, IIFE 85, for more on Nowlen Aero).

These meetings always include mass launch events for the Hangar Rat and Ikara Butterfly. This year Ken Taylor was the HR champion.

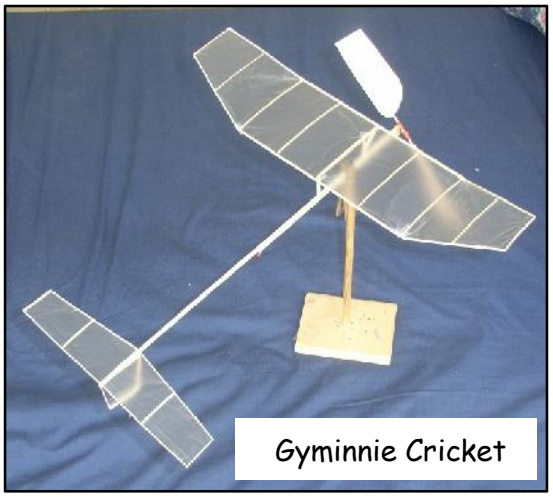
I was unable to launch on this occasion as my motor broke whilst winding. However, I did succeed in making a good flight, at last, with an Ikara Butterfly, coming second to the young maestro Tom Goodwin.

Once again thanks are due to the SEBMFA and the Crawley club for organising and running this indoor meeting. Next year's event has been booked for Sunday, 22nd February. Long may they continue.

Triangle Indoor 2025 Results

Open Scale (6 entries)			Flight	Static	Total
1	Alisdair Clark	1923 Cycleplane	18	47	75
2	Nick Peppiatt	Sablatnig SF4	17	36	53
3	Stephen Haines	Currie Wot	29	19	48

Peanut Scale (6 entries)			Best 2 flight (s)	Static	Total
1	Stephen Haines	Nesmith Cougar	121	42	163
2	Mike Stuart	Vought Kingfisher	87	50	137
9	Alisdair Clark	Gossamer Condor	69	41	110



Legal Eagle (9 entries)		Time (m:s)
1	Terry Adams	3:09 + 3:09 = 6:18
2	David Goodwin	2:55 + 2:49 = 5:44
3	Tom Goodwin	1:54 + 1:51 = 3:45

Gymminie Cricket (4 entries)		Time (m:s)
1	David Goodwin	4:17 + 4:06 = 8:23
2	Ray Davis	2:23 + 2:18 = 4:41
3	Chris Warmington	2:02 + 1:58 = 4:00

EZB (5 entries)		Time (m:s)
1	Robert Horton	6:48 + 6:24 = 13:12
2	Tom Goodwin	5:58 + 5:52 = 11:50
3	Rob Funnell	4:11 + 3:18 = 7:29

Living Room Stick (8 entries)		Time (m:s)
1	David Goodwin	6:08 + 5:54 = 11:52
2	Tom Goodwin	5:46 + 5:24 = 11:10
3	Nick Peppiatt	5:18 + 5:12 = 10:30

Hand Launch Glider (3 entries)		Time (s)
1	Tom Goodwin	25.3 + 24.9 = 50.2
2	David Goodwin	20.1 + 19.8 = 39.9
3	Alisdair Clark	10.1 + 9.5 = 19.6

Catapult Launch Glider (6 entries)		Time (s)
1	Terry Adams	31.9 + 29.8 = 61.7
2	Alex Cameron	29.0 + 28.2 = 57.2
3	David Goodwin	27.8 + 26.8 = 54.6

Nick Peppiatt

April 1946

NEWS Review

Cover Story

We note with pleasure the gradual return to peace-time pursuits of well-known figures in the aeromodelling world on their release from the services and war-time activities. Our cover picture, which was taken by your Editor at Fairey's Aerodrome, on the occasion of one of the major pre-war competitions, shows a group of model celebrities who have recently returned to the movement. The tense moment depicted in the photograph shows E. Chasteneuf putting the last turns on his Wakefield model, with Eddie Cosh, the late secretary of the S.M.A.E., looking on, watch in hand, whilst the figure on the left is that of the well-known French enthusiast, Father Amiard, of Flers, Normandy.

E. Chasteneuf has just rejoined the model aircraft trade: Eddie Cosh has joined the staff of the Aeromodeller, and Father Amiard, who has survived the German occupation, has just sent the S.M.A.E. an invitation to Flers to renew the pleasant pre-war associations which existed between the S.M.A.E. and French aeromodellers.

Auto-Ignition Engines

While the term "Compression-Ignition Engine" is a perfectly correct method of referring to the new engines, devoid of ignition equipment, which have been developed on the continent during the war period, it is long and does not come easily to the tongue.

The use of the term "Diesel" in connection with these engines is not strictly correct as they do not use the fuel injection cycle which is the basis of the engines devised by the late Dr. Diesel, although spontaneous or automatic ignition takes place, of course, immediately injection of the fuel is effected.

If one considers the actual sequence of operation of these new engines and their method of producing combustion of the charge one is led to the conclusion that they are in fact Automatic-Ignition Engines and this, it is suggested, exactly describes them and is a better nomenclature than either of those which have been used up to the present. We propose to refer to them by the abbreviation "Auto-Ignition Engine" in the pages of MODEL AIRCRAFT in future, as we are of the opinion that, all things considered, it is a better term to use when referring to this type of motor.

The S.M.A.E. Dinner and Prizegiving

The most successful dinner so far held by the S.M.A.E. took place on Saturday, February 16th, at the Lysbeth Hall, Soho Square, on the occasion of their annual prizegiving. Over 200 attended to hear some witty speeches by the speakers, including one from Sir Frederick Handley Page, who was the principal guest.

The dinner is fully reported elsewhere, but we would like to comment on the number of old enthusiasts present, some of whom had not attended an S.M.A.E. function since the outbreak of war, indicating that supporters of the Society who have been involved in the Services or essential war work are now finding their way back to a normal life in which the S.M.A.E. takes a place.

Another pleasing feature of the dinner was the large number of provincial club members who attended, showing that those outside the London Area are taking a more active interest in the parent body and the movement in general.

The Wakefield Cup

A passage in the speech made by Mr. F. J. Camm at the S.M.A.E. dinner, in his reply on behalf of the Press, recalled that the well-known pioneer of model aircraft, Mr. E. W. Twining, was the first winner of a Wakefield Cup.

While this is quite true, it must be made clear that he was referring to the original Silver-Gilt Cup donated to the old K. & M.A.A. by Sir Charles Wakefield, and *not* to the present International Wakefield Cup, which was donated to the S.M.A.E. at a much later date by Lord Wakefield, the first winner of which was H. Newall, on behalf of Great Britain.

The original Wakefield cup was withdrawn from competition on the absorption of the K. & M.A.A. by the S.M.A.E., and it has not been competed for since it was won by Leonard Slatter, now Air-Marshal Sir L. H. Slatter, K.B.E., C.B., D.S.C., D.F.C., just before the 1914-1918 war.

We hope this will dispel any confusion which may have been engendered in the minds of those who did not realise that two separate Wakefield Cups have been in existence.

Incidentally, whilst we are indulging in reminiscences, it is interesting to recall that E. W. Twining made a habit of being the first

winner of important trophies and that he was also the first winner of the popular Gamage Cup with the first of the high performance "A" frame models. This win was largely responsible for setting a fashion for this type of machine, which persisted for some years.

"The Model Engineer" Exhibition

The competitions for model aircraft which will be held in connection with the *Model Engineer* Exhibition have now been announced and are as follow :—

Section "A" (Seniors)

Class 18.—Wakefield Type Models.
Class 19.—Flying Scale Models.
Class 20.—Power Driven Models (excluding Rubber driven).
Class 21.—Sailplanes.
Class 22.—Solid Type Models (to any scale).
Class 23.—Original Flying Exhibits.
Class 24.—Rubber Driven Models (open).

Section "B" (Juniors) (16 years and under)

Class 25.—Wakefield Type Models.
Class 26.—Flying Scale Models.
Class 27.—Power Driven Models (excluding Rubber driven).
Class 28.—Sailplanes.
Class 29.—Solid Type Models (to any scale).
Class 30.—Original Flying Exhibits.
Class 31.—Rubber Driven Models (open).

Attractive prizes will be awarded in each class, and in addition a Championship Prize for the best overall exhibit irrespective of the classes in both the Senior and Junior sections.

Send for your entry forms and start on your models right away. Don't leave things to the last moment.

Houses or Aircraft

Stepping from our models, at one end of the scale, to the projected super air liner "The Brabazon," at the other end, we feel sure that all model aircraft enthusiasts will view with regret the proposal to abandon its construction as a result of the difficulties which have arisen regarding the building of a runway at Bristol of sufficient length to ensure its take-off without the demolishing of some 30 houses.

It seems shortsighted, even in these days of acute housing shortage, that a project of such national importance as the "Brabazon" should be sacrificed for the sake of a few houses which could be rebuilt elsewhere at much less cost than that already expended on experimental work in connection with this aircraft.

It is to be hoped that the broad view will prevail, and that this country will not be robbed of the good work which has been carried out on this machine already, and of the prestige which would follow its completion.

New S.M.A.E. Officials

As a result of the resignation of the S.M.A.E. officials belonging to the Northern Heights Club, will everyone please note that the Secretary of the S.M.A.E. is now Mr. L. M. Walker, of 16, Conifers Close, Kingston Road, Teddington, Middx., and the technical Secretary is Mr. G. W. W. Harris, of Lancaster House, 11, Windsor Road, Farnborough, Hants.

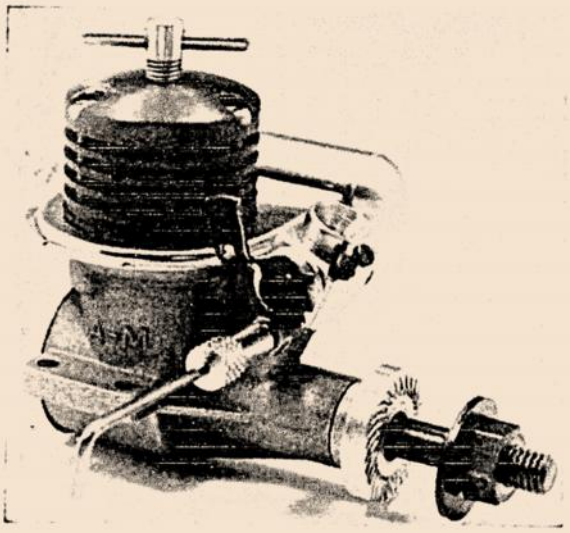
Airfields as Flying Grounds

Following an approach made to the Ministry of Civil Aviation by the S.M.A.E., there is a good prospect of obtaining the use of an Air Ministry aerodrome for the Society's major events this year. A number of possible aerodromes have been offered by the Ministry, and it is possible that some of these might be available for Area Rallies or Club Rallies. A list of the aerodromes concerned is given below, and if any club wishes to obtain the use of one of these will they get into touch with the Secretary of the S.M.A.E. immediately, so that the necessary steps can be taken with the Ministry.

R.A.F. Aerodrome	*Location*
Bardney ...	10 miles E. Lincoln.
Birch ...	5 miles S.W. Colchester.
Boulmer ...	29 miles N. Newcastle.
Brunton ...	21 miles S.E. Berwick.
Castle Camps ...	14 miles S.E. Cambridge.
Chedworth ...	12 miles E.S.E. Gloucester.
Cosford ...	8 miles W.N.W. Wolverhampton.
Davidstow Moor	24 miles N.W. Plymouth.
Eye	19 miles N. Ipswich.
Fowlmere ...	8 miles S. Cambridge.
Knettishall ...	24 miles N.N.W. Ipswich.
Raydon ...	6 miles S.W. Ipswich.
Steeple Morden	13 miles S.W. Cambridge.
Warboys ...	5½ miles N.N.E. Huntingdon.
Windrush ...	20 miles E.S.E. Gloucester.
Winfield ...	3½ miles W.S.W. Berwick.
Woodhall Spa	15 miles E.S.E. Lincoln.
Ipswich	

When applying to the S.M.A.E. for use of any of these airfields a list of the dates on which they will want to be used is essential.

Engine Test: A-M. 10 R/C - Aeromodeller April 1966



ENGINE TEST

by **Peter Chinn**

A-M. 10

A popular 1 c.c. diesel with radio control fittings

THE original Allen-Mercury 10 was introduced early in 1956 at a time when most 1 c.c. motors were of quite modest output and forthwith set a new standard of performance among 1 c.c. diesels. In general appearance and layout, the A.M.10 has not altered very much in the past ten years, but numerous modifications, mostly internal, have, in fact, been made to the engine during recent years. It is now available also in an "R/C" version, i.e. with the addition of a barrel type throttle valve above the spraybar, and in order to comply with current S.M.A.E. requirements, the manufacturer also offers a suitable silencer unit. It is with this version that our present report deals.

The silencer is a very neat piece of work and D. J. Allen Engineering Ltd.—who, of course, also make the highly successful Merco glowplug engines—are to be commended in tackling the problem so purposefully. The A.M.'s are not the easiest of engines for which to make an efficient muffler unit, but the A.M. silencer is simple to fit, light and compact and effectively muffles exhaust noise without excessive loss of performance.

Latest Modifications

The construction of the A.M.10, in general, is orthodox. The crankcase of the current 10 R/C is the same as that of all previous A.M.10's, except for having the air intake shortened to accommodate the throttle. The throttle consists of a barrel type valve in a machined body which is plugged into the shortened intake and held in place by the spraybar. Since this, in effect, sleeves down the intake bore, whereas the spraybar diameter remains the same, the choke area is considerably reduced. This, of course, will have the effect of improving fuel suction—a desirable condition for R/C—but at the expense of top end power. A 10 B.A. screw with locknut, in the top of the throttle body, engages a slot in the barrel, in the usual way, for the throttle stop. Unfortunately, on our test engine, the slot was wrongly positioned and would not provide both the full throttle stop position as well as a practical idling setting. The screw had to be almost totally withdrawn to allow the barrel to be rotated to a suitable low-speed setting and a separate means of establishing the full-throttle position (via the throttle push-rod) was therefore adopted.

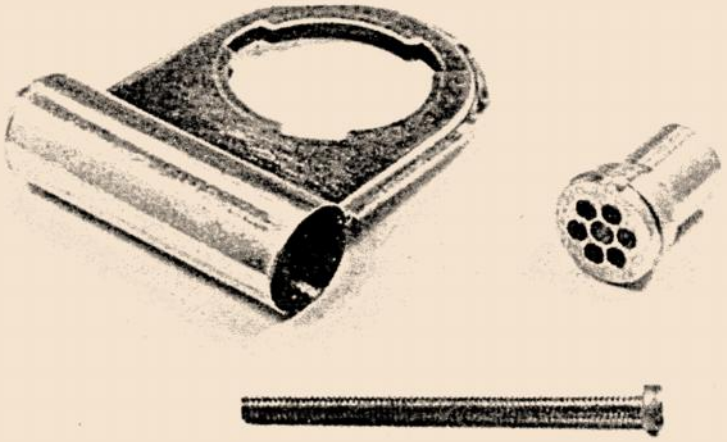
Several changes are evident in the crankshaft of the A.M. 10 since the original model was marketed. The gas passage through the shaft has been reduced from approximately 4.8 mm. to 4.2 mm. and the valve port is also smaller. The actual induction period, however, is not significantly reduced, since the intake aperture in the main bearing is slightly larger. The propshaft section of the shaft is 0.2 in. longer and the knurled section onto which the prop driver is pressed, is of larger diameter. The crankpin is slightly shorter and is drilled instead of solid.

One of the more distinctive features of the original A.M.10 was its very thick cylinder. On the current model an even heavier cylinder is used: it now has a wall thickness above the ports of 0.100 in. instead of 0.067 in. Cylinder porting has also been altered quite extensively. Exhaust and transfer ports are still of the radial slit type, three exhaust and three transfer, but both are rather smaller in area and the exhaust ports are appreciably higher in the bore and since the gudgeon-pin is placed a little higher in the piston, exhaust port timing now leads the transfer by a very large amount. The exhaust, in fact, remains open for no less than 172 degrees of crank angle —28 degrees longer than on the original A.M.10. This is just about the longest exhaust period we have encountered on any model aircraft engine to date.

The throttle and needle-valve controls may be installed on the left or right hand side of the engine. The silencer, too, may be mounted on either side. The silencer consists of a collector ring and a cylindrical expansion chamber cleverly formed from a single tinplate pressing. A machined dural nose piece plugs the front end of the expansion chamber and a nozzle of similar material, having six outlet holes, is inserted at the rear and retained by a long 6 B.A. screw. The silencer is easily fitted by removing the cylinder jacket, dropping the collector in position over the cylinder screw lugs and replacing the jacket so that the collector is clamped between the base of the jacket and the top of the crankcase. This does not in any way interfere with the manner in which the cylinder itself is retained.

Performance

Although the majority of our reports are based on the results of examinations and tests of engines submitted for



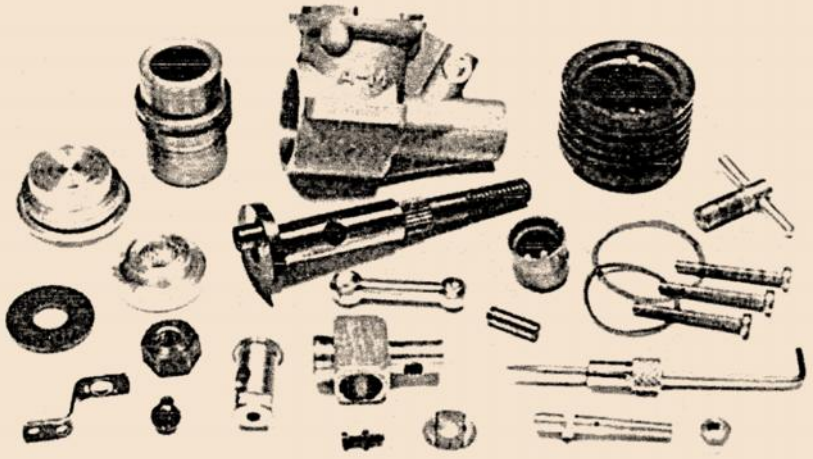
The manufacturer's silencer for the A.M.10 is light, efficient and easily fitted.

the purpose by manufacturers, our subject for this month's article was purchased in the normal way from a model shop. We mention this fact because, although instances of manufacturers trying to "pull a fast one" by sending us a specially prepared example, are rare nowadays, the chances of getting an extra good one from a model shop are, obviously, a good deal less.

We gave our A.M.10 R/C about two hours total operation in short runs, with and without silencer, before undertaking any tests. Although our old type A.M.10 would start at any time without priming the cylinder, the newer engine responded best to a small exhaust prime. This fact made starting more difficult with the silencer fitted as there is then no provision for port priming. Under these circumstances, we found it helpful to prime the intake and to then invert the engine to induce a rich charge into the cylinder. It was also helpful to so position the prop and throttle arm that one's "flicking finger" did not foul the latter. In an engine of this size, it is all too easy to accidentally swipe the throttle arm when flicking the prop in the usual "up and over" manner.

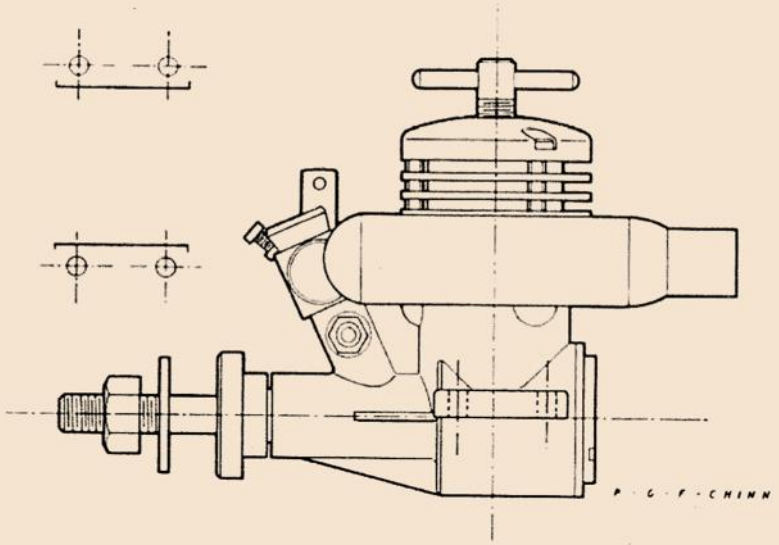
The A.M.10 R/C was not unduly sensitive to needle-valve adjustment and the split thimble type control held any setting firmly irrespective of speed. The compression lever was quite comfortable to operate and also held its setting at all speeds, exhibiting no tendency to run back at high r.p.m. as is sometimes the case with diesels. Nor did the contra piston tighten or stick in the bore when the engine was hot. The compression screw remained comfortable to operate hot or cold and the contra piston followed readjustments smoothly.

One does not expect small R C engines, diesels especially, to achieve such favourable throttle performance as the big glow "multi" engines. Throttle systems are invariably much simpler and therefore less flexible. In the case of diesels, an "under-compressed" condition results on resuming full-throttle after the cooling off that occurs during a protracted period of slow running and this may cause the engine to stop or to misfire continuously for the remainder of the flight. Bearing this in mind, the "idling" speeds obtained with the A.M.10 R/C were quite favourable, especially with the silencer fitted. On an 8x4 PAW prop and using the silencer, we managed to bring the engine down to 3400-3700 rpm (it tended to wander between these two readings) and although, on opening up again, the A.M.10 R/C misfired and took a long time to pick up to its maximum, it did not cut out. A safe idle of 4000 r.p.m. would, therefore, appear to be practical under these conditions. On smaller props, higher idling speeds are, of course, inevitable—e.g. 6000 r.p.m. on a 7x3 Top Flite. As a general rule, it seems safe to aim at an idling speed of about half the full throttle r.p.m. obtained on any particular prop. There is only one adjustment that can be made on the throttle, namely to set the barrel for the required opening at idling speed. There is no airbleed or low-speed mixture control of any kind. The beginner should therefore have no difficulty in arriving at the best available setting.



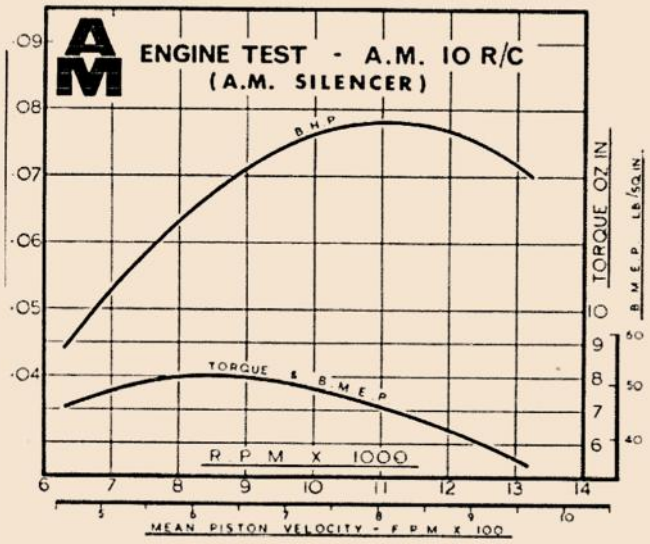
Examination of the parts of the current A.M.10 and a comparison with those of the original 1956 model, show numerous internal changes. These are detailed in the text.

FULL SIZE DRAWING



Without the silencer fitted we first checked out the A.M. 10 R/C on some typical props. Maximum r.p.m. obtained were as follows: 7500 r.p.m. on 8x5 Power-Prop, 8600 r.p.m. on 8x4 P.A.W., 8700 on 8x3½ Top-Flite, 9800 on 7x4 Tornado Nylon, 11,200 on 7x3 P.A.W. and 11,600 on 7x3 Top-Flite.

Torque tests were carried out with the silencer and indicated a maximum torque of just over 8 oz.in. at between 8000 and 9000 r.p.m. Maximum power fell just short of .08 b.h.p. at slightly over 11,000 r.p.m. This compares with 9.4 oz.in. at 10,000 r.p.m and nearly 0.12 b.h.p. at 14,000 r.p.m. for the original A.M.10 without throttle or silencer. Actually, the silencer accounts for a smaller power loss than one might expect. Most of the difference in power between the two engines appears to be due to the restricted intake of the R/C version, although the smaller shaft bore and revised cylinder porting may also be a factor.



Remembering that this is only a 1 c.c. engine, the performance with throttle and silencer fitted is, of course, very good. Like its predecessor, this latest A.M.10 is nicely made and of robust design. Owners may expect to obtain plenty of reliable service from these engines.

Power/Weight Ratio (as tested complete with silencer): 0.34 b.h.p./lb.

Specific Output (as tested complete with silencer): 78 b.h.p./litre.

SPECIFICATION

Type: Single-cylinder, air-cooled, reverse-flow scavenged two-stroke cycle compression-ignition with intake throttle Crankshaft type rotary-valve induction. Plain bearings.

Bore: 0.422 in. Stroke: 0.4375 in.
Swept Volume: 0.0612 cu.in. = 1.003 c.c.
Stroke/Bore Ratio: 1.037 : 1
Weight: 3.3 oz. (less silencer, less fuel tank)
3.7 oz. (with silencer, less fuel tank)

General Structural Data

Pressure diecast *crankcase* and unbushed main bearing unit in LAC.112A aluminium alloy. Case-hardened steel *crankshaft* with disc web, 0.312 in.dia. journal, 0.187 in.dia. crankpin and 0.165 in. bore gas passage. Case-hardened *cylinder liner*, flanged at exhaust belt and located by annular seating in crankcase. Machined aluminium alloy finned *cooling jacket* colour anodised green. Cylinder assembly secured to crankcase with three 7 B.A. screws. Lapped cast-iron *piston* with conical crown and fully-floating 0.125 in.dia. *gudgeon-pin*. Machined aluminium alloy *connecting-rod*. Machined aluminium alloy screw-in crankcase *rear cover*. Machined aluminium alloy *prop driver* pressed on to splines on crankshaft. Machined aluminium alloy *throttle-valve* and *body* retained by conventional spraybar type *needle-valve assembly*. Beam mounting lugs. Optional expansion-chamber type silencer unit.

TEST CONDITIONS

Running time prior to test: 2 hours
Fuel used- Keilkraft Diesel
Atmospheric Temperature: 54 deg. F
Barometer; 29.9 in. Hg.
Silencer Type; A.M. as recommended.

Aeromodeller Departed: Dave Clarkson - Lauren Morgan

We have lost yet another of our iconic modellers, Dave Clarkson passed away on 7th March 2025 aged 82. He will be sorely missed.

Daughter Lauren offers here an excerpt from his eulogy.

David Charles Clarkson was the middle of three brothers, born and educated in Liverpool. He attended University achieving a 2:2 in Chemical Engineering.

Both within his Chemical Engineering Career, notably at Costain, and within his Aeromodelling Career; he loved to travel far and wide.
He frequently travelled to Poland and Russia where he established his preference of Polish vodka over Russian. Although his drink of choice was red wine, with his enjoyment of Pinotage a firm favourite from his time spent living in South Africa.

He appreciated the history and culture, particularly whilst travelling to Eastern European destinations as well as further afield to Japan and China. He would bring back items such as kites, artwork and Aeroplane parts which he turned into an importing business.

Dad really did live for his planes and had such a respected wealth of knowledge and experience, writing numerous articles in publications such as Aeromodeller and contributing as part of committees and flying clubs.

His love was flying to which he often provided coverage and both directed and competed in Goodyear and Slow open power competitions.

He enjoyed great success with a list the length of your arm of medals and trophies spanning over 4 decades.

Dad was granted his Diploma in 1978 by the Federation Aeronautique Internationale and was further recognised by the Royal Aero Club in 2008 with a Bronze medal for outstanding achievement in Aviation as well as a certificate of Merit from the Society of Model Aeronautical Engineers for his meritorious endeavours.

Lauren Morgan

AERO MODELLER 178 April, 1955

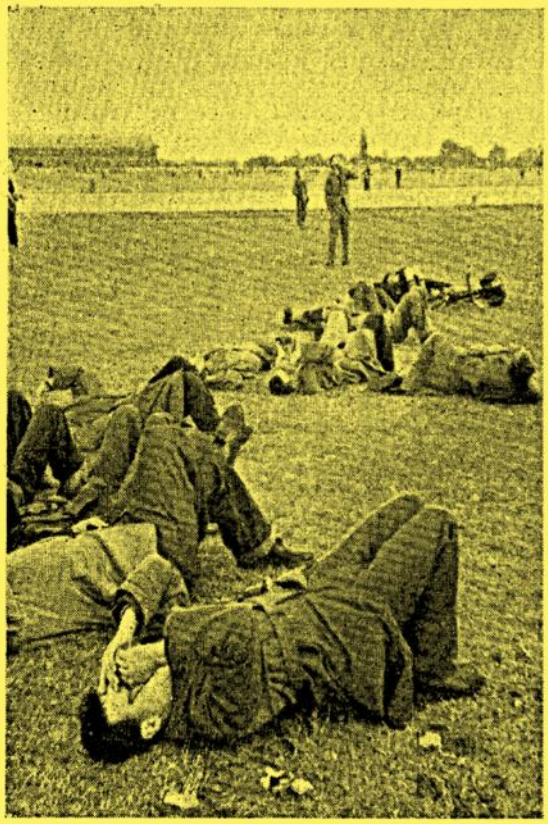
Heard at the Hangar Doors

Three-Fold World Championships

Further to our March Editorial, where we criticised the insistence of staging separate World Championships meetings, word has reached us from Hans Justus Meier of the German model committee (M.F.K.) which clears the air considerably.

Meier states that when he attended the F.A.I. meeting in Paris he was duty bound to put forward the application on behalf of Germany, his committee not being aware that the U.S.A. was to propose a combined meeting. Under the circumstances, he was unable to accept the American offer, but at a later meeting of the M.F.K. on January 2, the situation was reconsidered, and the Glider Championship will now definitely take place at the same period as the Wakefield and Power events.

All that remains is for the A.M.A. to clear top level arrangements with their Air Force officials, when more detailed information will be forthcoming regarding venue, etc. This first three-event Championships should be the biggest thing to hit aeromodelling and we look forward to a fine meeting with every confidence. To our German contemporaries we send congratulations on so swiftly adopting the American offer, and trust it will not be long before we see the full "Olympics" in operation.



Contest Chatter

The two Radio Control events ("AEROMODELLER" and Ripmax) scheduled for May 8 will be taken as eliminators to select a team to go to the International r/c meeting, Cologne, for the King of the Belgians Cup two weeks later on May 21. Hopefuls had better apply for passports before these eliminators!

Big changes in dates—at the end of the season—occasioned by the Farnborough Air Display. This shifts the P.A.A. Scottish Festival of Model Aviation one week back to September 17 and 18. This date is final! Special train with excursion fare starting at London and calling at eleven principal stations en route to Scotland, should make the trip an enjoyable jamboree for Sassenachs. Actual venue appears to be in doubt, but will be announced in good time.

This in turn means a change of date for the previously scheduled 1956 Elim. for Wakefield and the team glider to October 9 (Gutteridge and *Model Engineer*) and to October 16 for A/2 and Power Elims. (K. and M.A.A. and Halfax).

The All-Britain at Radlett is to be on September 25 and there are to be at least 19 events, with rule changes in Combat, Clipper Cargo and r/c. More than £100 cash, trophies and diplomas will, it is hoped, be distributed by Sir Frederick Handley Page to contest winners, principal events being as follows.:

Rubber/Glider/Power	... ...	6 prizes each Class
Seaplane Rubber/Power	... ...	4 " " "
Tailless Rubber/Glider/Power	...	3 " " "
Concours d'Elegance Scale/Non-Scale		4 " " "
Team Race A and B ...	... ...	4 " " "
Combat (S.M.A.E. Rules)	... ...	2 " " "
Clipper Cargo 1 c.c. ...	... ...	3 " " "
Radio-Control Single/Multi Channel		4 " " "
Spectator Event	... ...	numerous prizes.
Record Trials	... ...	prizes for record-breakers.

Biggest break with tradition in '55 will be the move of the Northern Heights Gala from Hawkers at Langley to the R.A.F. Station at Halton on June 26. One of the most picturesque situations in the country, Halton nestles under the shadow of the wooded Wendover slopes in the Chilterns and is a grass field of not too great proportions. Surrounding woods will doubtless call for short d/t's, but are no more hazardous than the hangars and factory buildings were at Langley. Restricted tarmac area means that the Team Races will be

What are they looking at? It could be Frank Bethwaite's latest radio model during its world record flight described on the opposite page. In point of fact they ARE watching a radio model, but one flying at last year's Nationals at Waterbeach. Reader, J. Jones, who sent "the bodies", says the model was flying at approximately 800 feet, hence the need to get down to it

replaced by Combat: though we see no reason why the Class A racers should not be given a chance on a single circle as has been arranged at this site by the S. Midland Area at past rallies.

Note: Queen's Cup this year is for A/2 Gliders.

New G.P.O. Licence Conditions

We have received a copy of the new G.P.O. Model Control Licence, which contains amendments to that previously issued. The most important changes concern the section headed "Non-Interference and Frequency Control Measurement". The original paragraph stipulating that each licence holder should provide equipment capable of verifying frequency between the specified limits has been omitted. Also the paragraph which stated that the frequency must be checked at the commencement of the first transmission period of the day.

They are replaced by Para. 2, Sect. 3, which reads: "The frequency of the sending apparatus shall be verified at such times, and by measuring equipment of such accuracy, as may be necessary to ensure that the emissions are within the authorised frequency bands."

Our interpretation of the above is that the G.P.O., realising that frequency checking equipment as originally specified would cost several hundred pounds, have left it to the good sense of radio control enthusiasts to see that no interference is caused.

We sincerely hope that good sense will prevail, and that every radio flier will ensure that his equipment is on frequency.

A Model Control Licence costs £1 for a period of five years, and full details of licence conditions may be had on application to Radio and Accommodation Department, Headquarters Building, G.P.O., London, E.C.1.

Looping Nebula

Modeller J. S. Ritchie of the Timaru M.A.C., New Zealand, was out testing his A.P.S. Nebula glider on January 23 and as there seemed to be some thermal activity, was using the pop-up tail dethermaliser. On the second flight of the day, the Nebula was down to 50 feet when the d/t popped and due to too small a tail angle, it developed a violent stall. This became a loop, and after a second and third loop the model appeared to be holding altitude, even climbing whilst still looping and eventually ascending to about 200 ft. After 185 counted loops in the space of five minutes, it landed safely and without damage only 200 yards from the launching point.

The flight has been certified by club officials and rates as an unofficial World free-flight looping record.

Off to the New World

Yet another of Britain's top-line modellers joined the ranks of Canadian clubsters this month, when Dave Sugden, *ex* Loughboro' and St. Albans, sailed for A. V. Roe (Canada), Ltd., at Toronto. Dave's "Making your own Engine" series will continue in our columns, culminating in June with a complete description of his latest (and hottest) 2.5 c.c. diesel, which can be made by any enthusiast with lathe facilities.

It would appear that most of our modellers who also happen to be kingpins on aerodynamics in the aircraft industry, gravitate ultimately to the Canadian factories—let's hope that Hawkers and English Electric will be able to hold on to Bob Copland and John O'Donnell, or our future in the Wakefield may be jeopardised in favour of the strong Anglo-Canadian group!

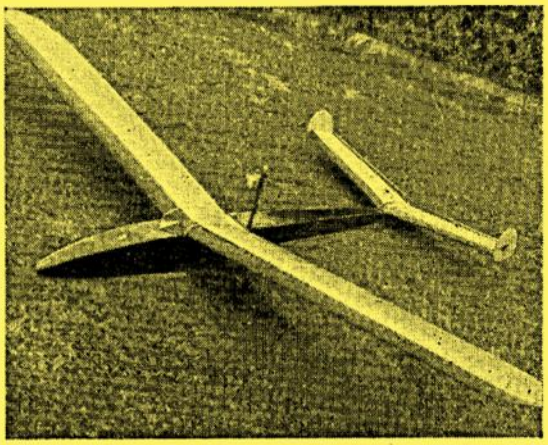
Radio Records Get Longer and Longer

Following publication of the H.M.V. Radio Outfit in our last issue, we hear from Frank Bethwaite that, using this equipment, he has made a powered flight of 3 hrs. 2 min. 6 sec.

The model, as shown in the photograph, is virtually a powered glider with a Mills 1.3 c.c. diesel pylon mounted behind the wing. Particulars of the flight, which took place at Rukuhia near Hamilton on January 30, are as follows:—The model R.O.G'd. at 5 p.m., when a 10-knot breeze prevailed, and was flown most of the time at between 12-1500 feet. Flying was easy with elevator trim control, and two neutrals on the twin rudders; one set for straight flight, and the other a lazy circle. Failing daylight made landing imperative just after 8 p.m. and the model was landed under power only 40 feet from the transmitter.

This magnificent effort does credit to Frank Bethwaite, who by now must have the stiffest neck in New Zealand. It also reflects the qualities of the H.M.V. Outfit, which already holds the International Radio Control Glider Record, and now, subject to ratification by the F.A.I., will also be credited with the International Radio Control Power Duration Record.

In our last issue, when describing the equipment, we failed to give the resistance of the Relaytor windings, the figure being 3,000 ohms.



Chasetown Indoors - Editor

This last indoor season 2024/25, Peter Thompson was able to promote a series of indoor meetings in the Midlands at the Erasamus Darwin Academy, Pool road, Chasetown, Burntwood, WS73QW. Until this month I have had no reports of these meetings but Colin Shepherd has provided a few pictures from the final meeting on March 8th.
These meetings stem from the Sneyd meets set up by Alan Price in Bloxwich and Peter is to be applauded for his efforts in keeping indoors alive in the Midlands.

Derek Richards in the foreground
organiser Peter Thompson astern

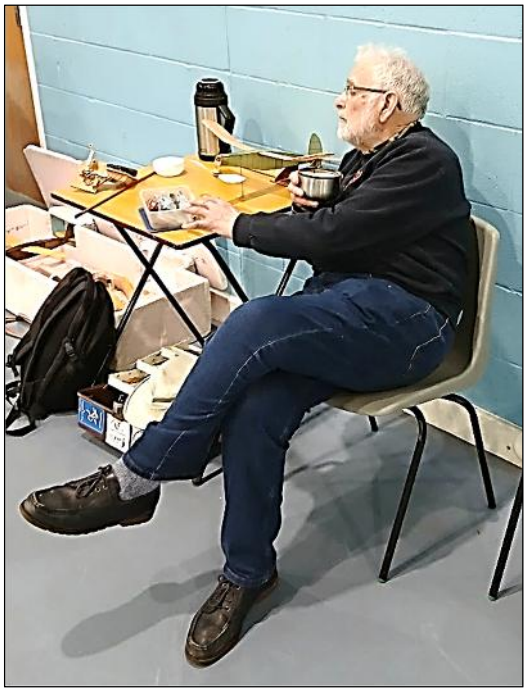
Here we have Alan Price, the long-time previous organiser of these events, preparing his mylar covered lightweight Gyminnie Cricket for a flight.

These lightweights will comfortably exceed four minute flights in normal sports halls. Certainly six minute flights have been made at Thorns.

Colin Shepherd tells me this new hall, found by Peter, is a little narrower than the old venue at Thorns but slightly higher with less ceiling furniture making hang-ups much less likely.

Graham Smith with his Newport Monoplane

Bob Rich and his Damoiselle



Mike Brown, first taking a break during an R/C Slot

Then up and away with his KK Elf

Looks to be a nice light venue, fingers crossed Peter can follow up for 2025/26 season.

Pictures Courtesy - Colin Shepherd

Editor

The Sea Otter - Wikipedia

The **Supermarine Sea Otter.**

An amphibious aircraft designed and built by the British aircraft manufacturer Supermarine. It was the final biplane flying boat to be designed by the company, and also the last biplane to enter service with both the Royal Navy, and the Royal Air Force.

The Sea Otter was developed as a refinement of the Supermarine Walrus. It was designed to be used for longer range operations, to perform dive bombing and to operate from a wider range of vessels than its predecessor. It was first known as the Stingray. The aircraft's development was protracted by Supermarine's commitments to the Walrus and the Spitfire programmes.

The Sea Otter first flew on 23 September 1938. A production order was issued in 1942. Upon its introduction during the latter years of the Second World War, the Sea Otter was primarily tasked with maritime patrol and air-sea rescue duties by both the RAF and the Royal Navy. After the war, the type was procured by the Royal Danish Air Force, Dutch Naval Aviation Service, and the Royal Australian Navy. Supermarine undertook the conversion of surplus Sea Otters to be used by civil operators.

Design and development Background

The origins of the Sea Otter can be traced back to the Supermarine Walrus. Even prior to the Walrus's maiden flight, the company's design team, headed by R. J. Mitchell, were working on an improved version of the aircraft that was powered by either Bristol Aquila and Bristol Perseus radial engines. In February 1936, Mitchell approached the Air Ministry's Director of Technical Development to determine desirable performance attributes in the tentative aircraft prior to the detailed design commencing. From these discussions, it was decided to pursue a dive bombing capability, an elevated loaded weight, longer range, and for it to be fitted with equipment for operating from both aircraft carriers and cruisers.

On 17 April 1936, following Supermarine's submission of technical details, including detailed drawings and costings, the Air Ministry issued instructions to proceed with a pair of prototypes. Progress on these two prototypes was slow, due to production commitments associated with both the Walrus and the Spitfire programmes. The most visible difference between the Walrus and the Sea Otter was in the mounting of the powerplant; while the Walrus had a rear-facing engine with a pusher propeller, the Sea Otter's engine faced forward with a tractor propeller. In general, the exterior of the Sea Otter was cleaner than that of the Walrus, particularly in its engine arrangement, having disposed of the offset engine alignment to counteract torque by handling this via the vertical stabiliser instead.

Into flight

The first prototype, *K8854T*, performed the type's maiden flight on 23 September 1938, piloted by Supermarine's chief test pilot George Pickering.] During the flight, it was quickly determined that the original two-blade wooden propeller was inadequate. It was later replaced by a three-blade counterpart produced by de Havilland, although this also failed to produce entirely satisfactory results. The propeller was changed again, this time to a four-bladed unit of which the pairs of blades were unusually set at an angle of 35° instead of the usual 90° so that the aircraft could be more easily moved within shipborne hangars and other enclosed areas.

After the prototype's third flight, the name Stingray was changed to Sea Otter. Pickering observed its performance during the flight was noticeably better, particularly during takeoff. Over following flights, minor defects were identified and promptly resolved. During February 1939, sea recovery trials were begun from HMS *Pegasus*, resulting in some deviations being made from the standard practices used for deploying the earlier Walrus. The British Admiralty requested some changes, including that the nose be reprofiled to reduce its tendency to spray water, as well as the installation of a three-blade Rotol constant speed propeller. Five months later, catapult trials were conducted involving HMS *Pegasus*. General seaworthiness trials started during September 1939. They took place at Southampton on account of a possible German attacks upon Felixstowe.

Into production

On 26 January 1940, following the visit of a high-level technical delegation to Supermarine, the Sea Otter was ordered into production. It was stipulated that the aircraft needed to land at a lower speed; this was achieved via alterations to the wings. Other requested alterations included the addition of a nose-mounted Vickers K machine gun and greater headroom on the flight deck. A contract for 190 Sea Otters was issued to Blackburn Aircraft later in 1940, but the contact with the company was cancelled the following year, as it was unable to accommodate the extra workload.

Accordingly, it wasn't until January 1942 that the Air Ministry placed a production order for the Sea Otter with Saunders-Roe, who had previously manufactured the Walrus as well. Due to cooling troubles found with the Perseus engine, the powerplant was changed for production aircraft to the Bristol Mercury XXX engine, which drove a three-bladed propeller. The first production Sea Otter, piloted by Jeffrey Quill, performed its first flight during January 1943. It was promptly transferred to RAF Worthy Down for its initial flight trials, and subsequently to Helensburgh for further water handling trials. Several minor alterations, including an elongated water rudder and a sting-type arrestor hook, occurred around this time.

Of the 592 aircraft that were at one point on order, only 292 Sea Otters were constructed. This was largely due to type's production run being disrupted by limited production capacity and by a sharp reduction in military demand following Victory in Europe Day and the end of the conflict.

During the postwar era, a large number of Sea Otters were converted for civilian use. The cabin was soundproofed and furnished with heating systems. In the cabin, seating for four passengers, a chemical toilet and a stowage area for baggage were provided. As they were intended for use as bush airplanes in remote areas, versatility was an important aspect; to allow cargo to be carried, the cabin floor was strengthened and fitted with lashing points, and the passenger seats made easily removable.

Operational history

During November 1944, the Sea Otter was introduced to operational service; by the time that the type was inducted by its fourth squadron, the Second World War had ended. The aircraft was primarily operated by both the RAF and the Royal Navy for both air-sea rescue and maritime patrol roles. While the aircraft primarily performed naval reconnaissance missions , it proved to be superior to its Walrus predecessor in the secondary role of retrieving aircrews from the sea. This role comprised a major portion of the Sea Otter's postwar activities into the 1950s.

On 19 July 1950, Lieutenant P. Cane performed the last operational sea rescue of a Sea Otter, taking off from HMS Triumph (R16). A F4U Corsair had been shot down by anti-aircraft fire, forcing the American pilot to ditch into rough seas. Cane's aircraft landed and the American pilot was rescued. Cane succeeded in returning the Sea Otter to HMS *Triumph*, and was later awarded the US Air Medal in recognition of his actions.

Wikipedia

Report No.170 Our earliest books.

This month we move on to 1931 and F. J. Camm's "Model Aeroplanes and Airships", published by Newnes as part of their "Home Mechanic" series.

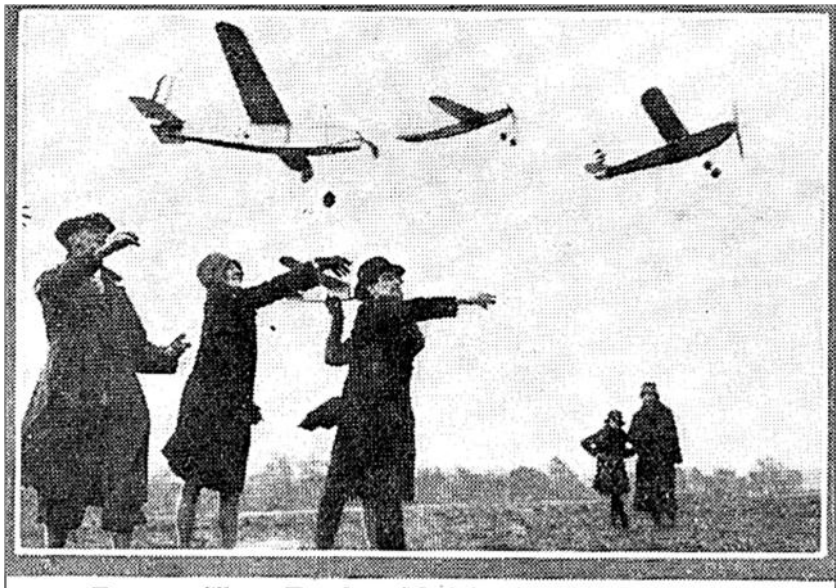
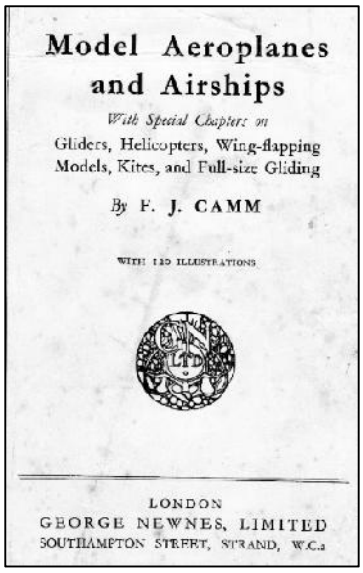


FIG. 2.—Three Fuselage Models after Launching in a Duration Contest.

THIS handbook is intended as a guide to the beginner in model aeronautics. Most of the matter published concerning model aeroplanes is too advanced easily to be comprehended by the novice, and in some cases the information given is inaccurate. The endeavour has been in this book to present in easily understood language the first principles of aviation, and to incorporate those principles in various forms of simple flying models. Every care has been expended in checking the information contained in these pages and in presenting matter only of an up-to-date character.


Model Aeroplanes and Airships

With Special Chapters on
Gliders, Helicopters, Wing-flapping Models, Kites, and Full-size Gliding

By F. J. CAMM

WITH 120 ILLUSTRATIONS

LONDON
GEORGE NEWNES, LIMITED
SOUTHAMPTON STREET, STRAND, W.C.2

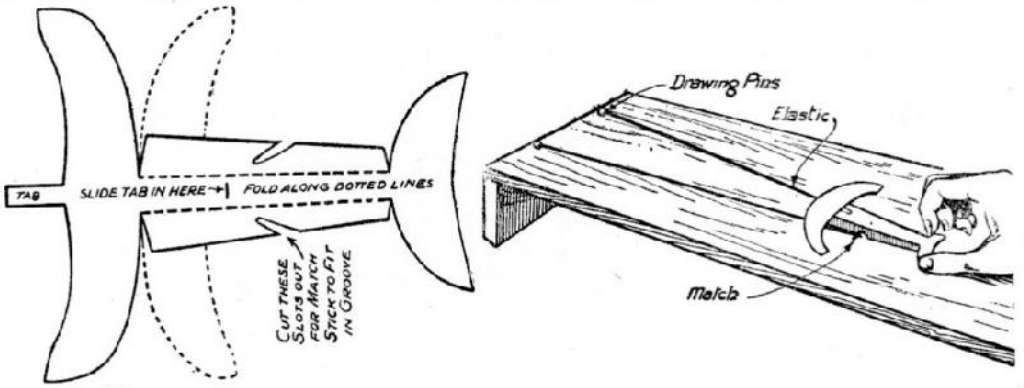


FIG. 102.—*Left*: How to make a Simple Catapult Glider, and *Right*: How it is Launched.

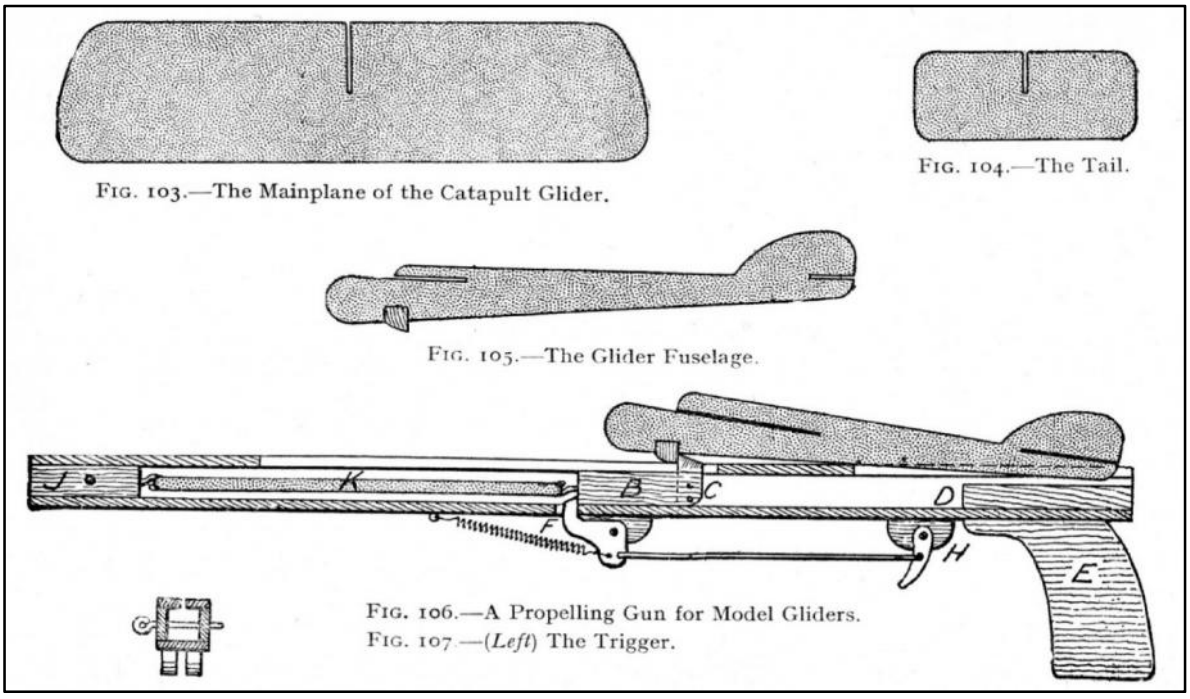


FIG. 103.—The Mainplane of the Catapult Glider.

FIG. 104.—The Tail.

FIG. 105.—The Glider Fuselage.

FIG. 106.—A Propelling Gun for Model Gliders.

FIG. 107.—(*Left*) The Trigger.

Below are some examples from the book of gliders and rubber powered stick and fuselage type models.

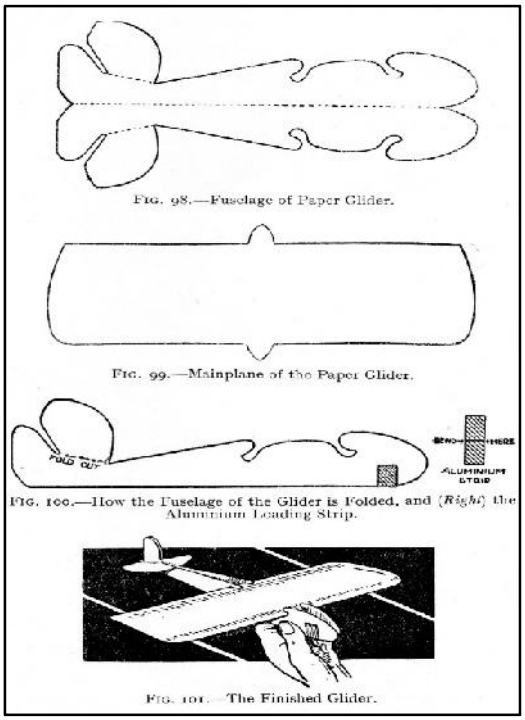


FIG. 98.—Fuselage of Paper Glider.

FIG. 99.—Mainplane of the Paper Glider.

FIG. 100.—How the Fuselage of the Glider is Folded, and (*Right*) the Aluminium Leading Strip.

FIG. 101.—The Finished Glider.

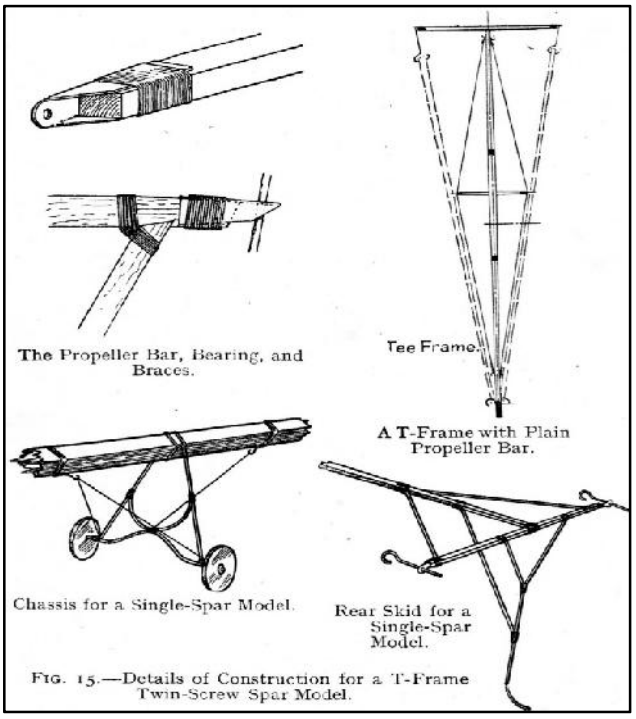


FIG. 15.—Details of Construction for a T-Frame Twin-Screw Spar Model.

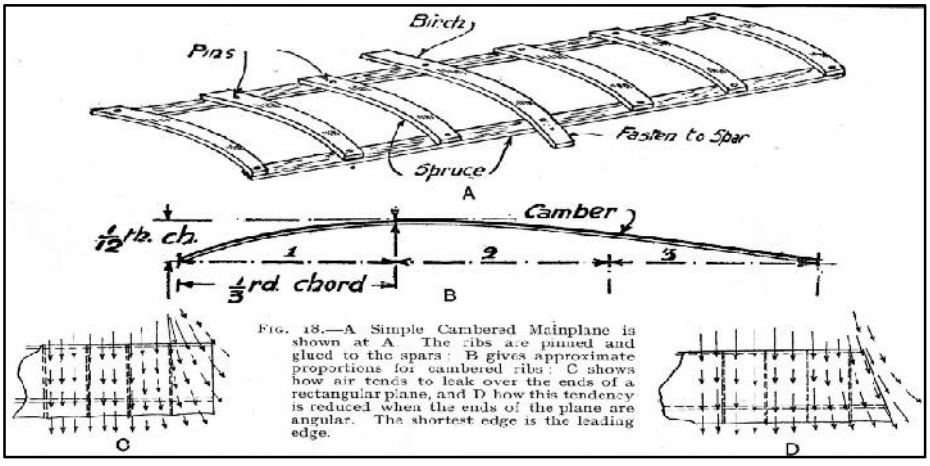


FIG. 18.—A Simple Cambered Mainplane is shown at A. The ribs are pinned and glued to the spars: B gives approximate proportions for cambered ribs: C shows how air tends to leak over the ends of a rectangular plane, and D how this tendency is reduced when the ends of the plane are angular. The shortest edge is the leading edge.

Simple Tractor Monoplane

A Simple Tractor Monoplane

As a simple machine the tractor monoplane here illustrated is capable of a 60 to 70 seconds' duration, covering approximately a quarter of a mile in this time, so that the speed is something in the neighbourhood of 15 m.p.h. Figs. 34, 35, and 36 are general arrangement drawings, giving a plan, side, and front elevation.

The Main-spar.—The main-spar is hollow, and is made from a channelled U section spar with a thin covering piece glued over the open side. This should be made the top of the spar. It should be noticed that the bottom of the spar tapers away from a point one-third its total length from the front; so that it is strongest where stress is greatest. A wooden outrigger with bracing wires is used to prevent lateral distortion of the spar, whilst a wire kingpost extends beneath the spar, the wires to which counteract the tendency of the skein when in tension to bend it; 35 S.W.G. piano wire bracing is used throughout

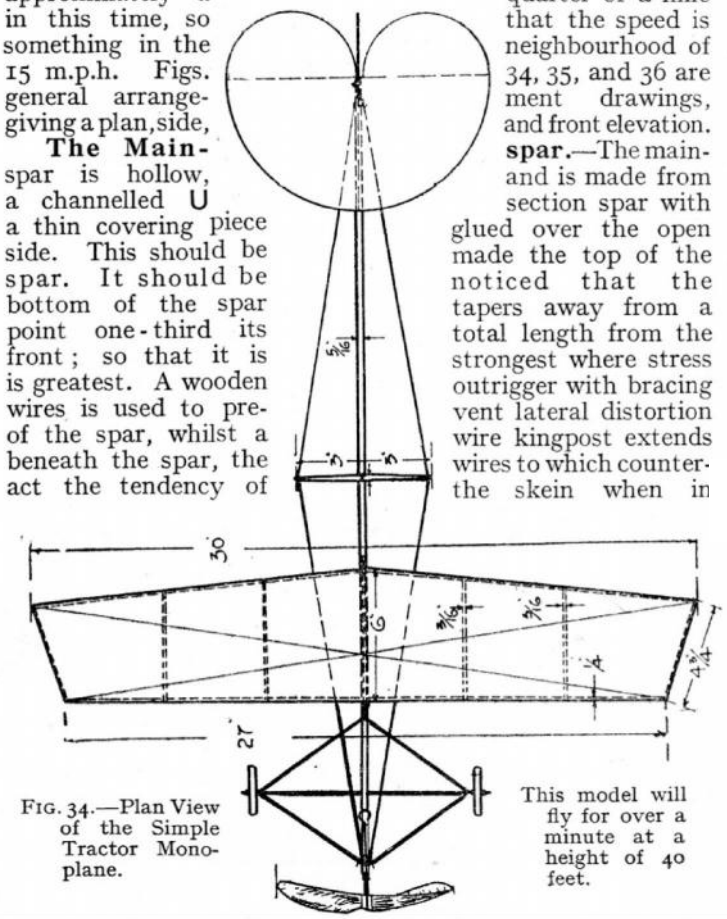


Fig. 34.—Plan View of the Simple Tractor Monoplane.

This model will fly for over a minute at a height of 40 feet.

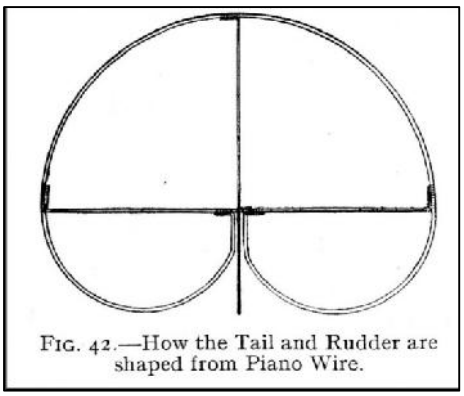


Fig. 42.—How the Tail and Rudder are shaped from Piano Wire.

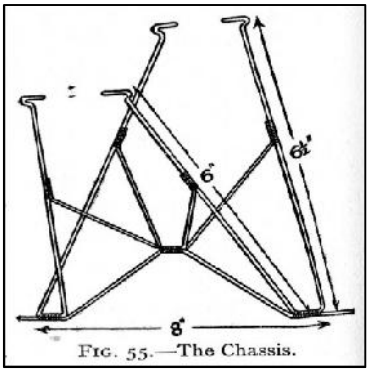


Fig. 55.—The Chassis.

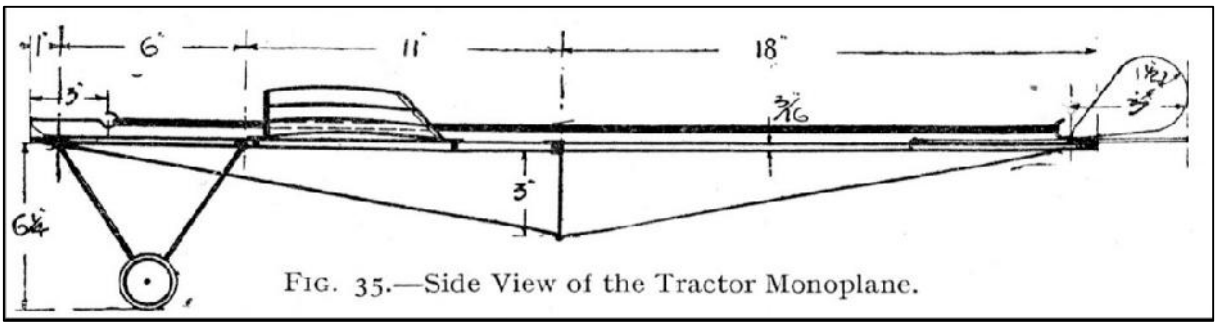


Fig. 35.—Side View of the Tractor Monoplane.

A Fuselage Monoplane

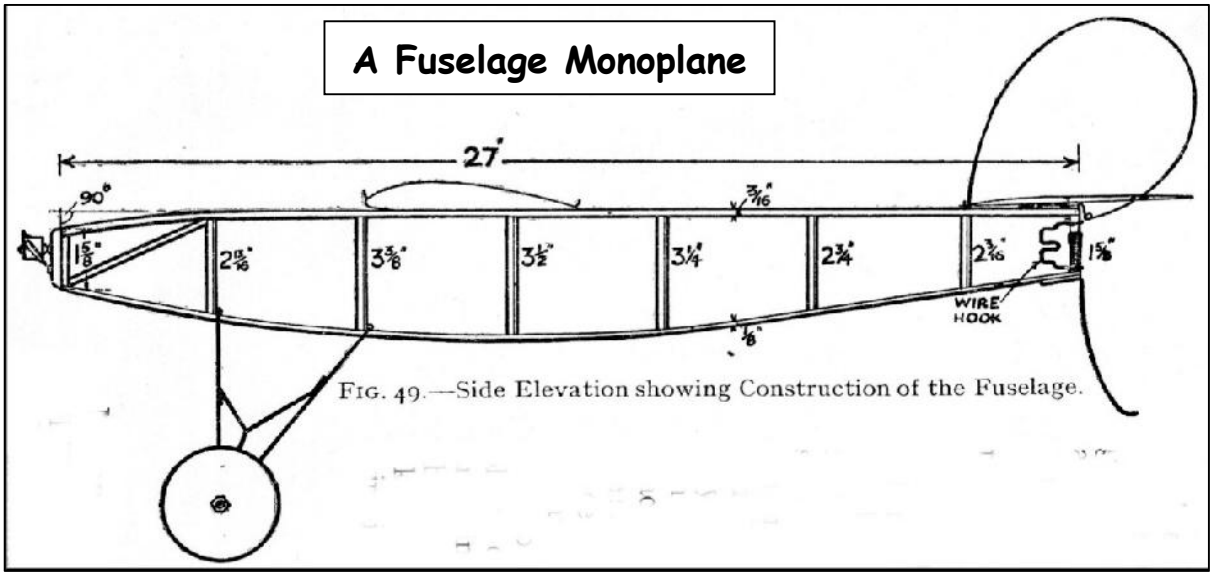


Fig. 49.—Side Elevation showing Construction of the Fuselage.

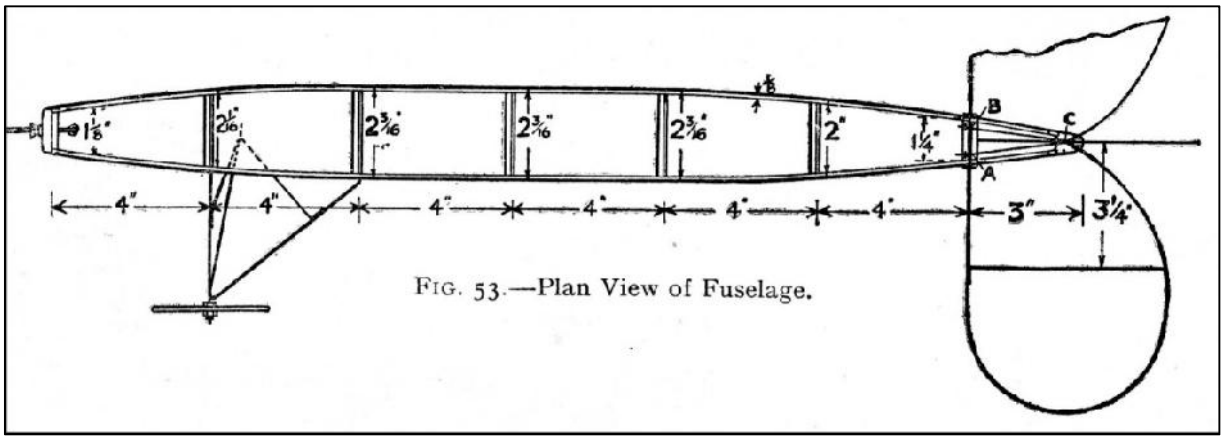


FIG. 53.—Plan View of Fuselage.

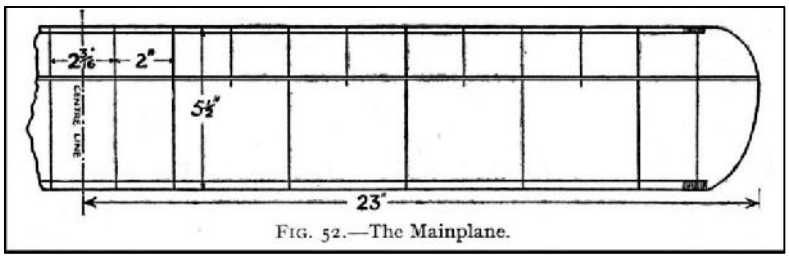


FIG. 52.—The Mainplane.

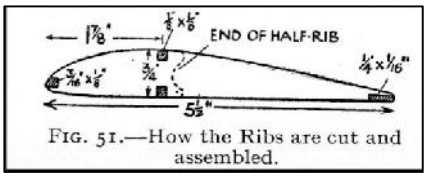


FIG. 51.—How the Ribs are cut and assembled.

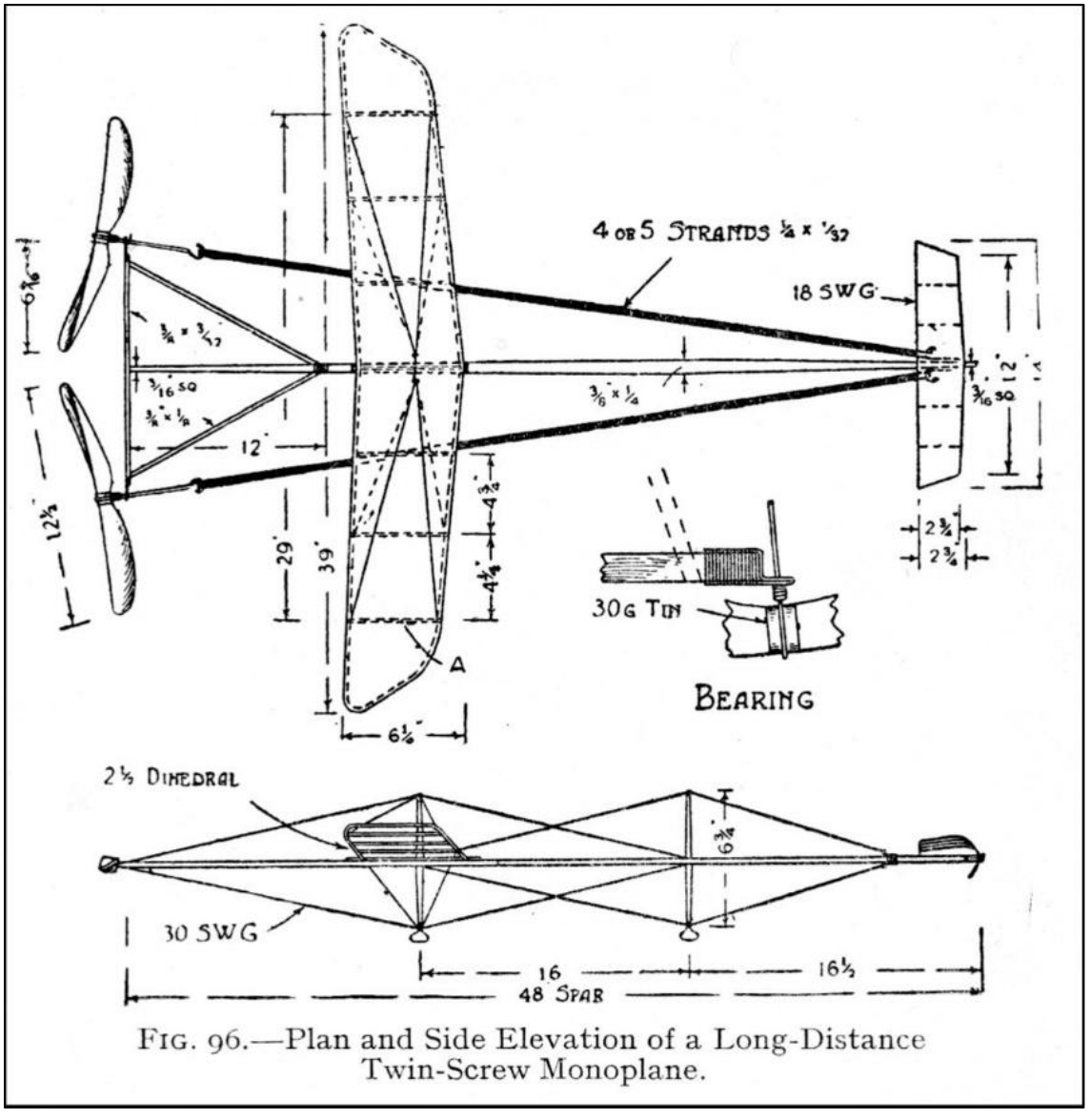


FIG. 96.—Plan and Side Elevation of a Long-Distance Twin-Screw Monoplane.

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

Roy Tiller

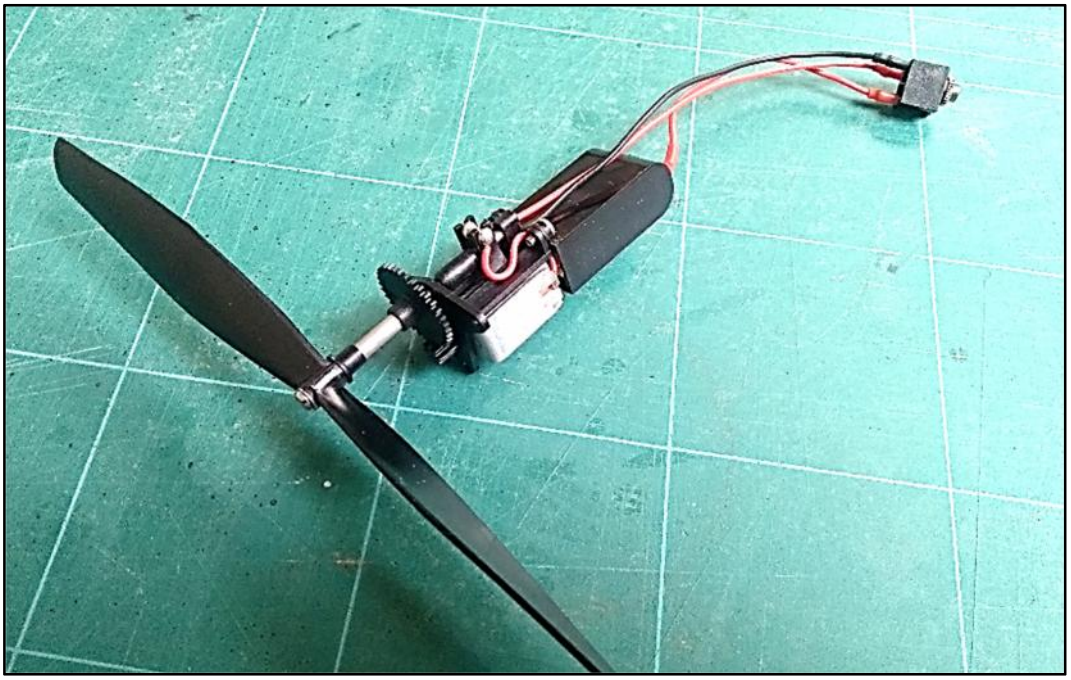
A Bit More for the Board - Tony Shepherd

I'm pleased to be able to start by telling you that in response to my request for assistance with selecting a suitable engine for my Jimp airframe, further correspondence has arrived from Mr David Cox of South London. It actually came in the form of a natter on Salisbury Plain at the 1st BMFA Area meeting, but be that as it may, the advice is to go for the AM35 so I will probably be heading in that direction but I have to say that the decision may not be quite that easy to make following recent events! Read on!

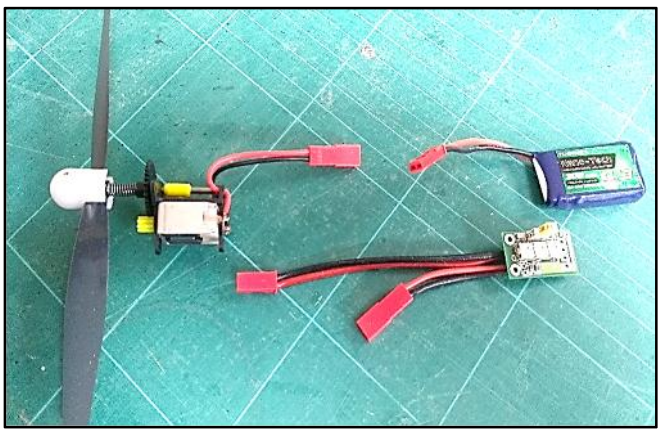
David arrived at the meeting with no less than four Jimps. He told us that they were all ready to fly having been thoroughly tested and trimmed out at Chobham over recent weeks. So No1 went up albeit a bit off trim - but worse than was to follow as the RDT failed to respond to continued button pressing and the model was heading for the hills with David moaning like Old Nick. It should be pointed out that he regards RDT as the Spawn of Satan and as far as he was concerned this was further evidence to support this view. Anyway the upshot was that the tailplane eventually flipped up and the model landed – later forensic examination suggested that it might have been an operator error situation! I didn't see quite what order the rest of the Jimps went up in but there seemed to be problems of varying degrees with all of them and everything was off trim. The result was that David got a couple of maxes in the new "Open" class but dropped his last flight and overall was rather miffed. I tell you this as I'm now wondering how much of his advice to take. Was the super performance he was getting early on in his "Jimp Phase" merely down to the fact that he was using an ultra high quality airframe that he'd been given by one of his fellow Crookhamites. I'll let you know if and perhaps how this all gets resolved in a future offering.

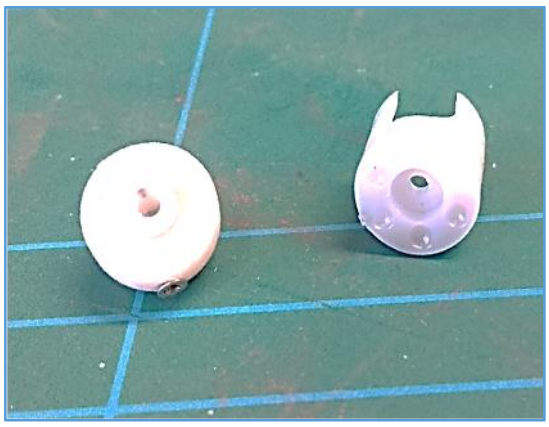
So in the meantime thoughts have returned to a model that I started just a few months ago and which is now well advanced in its build – it just needs finishing off really. In the report on the Odiham meeting in one of last year's NC's Nick Peppiatt mentioned that I'd been flying a Knight & Pridham KP01 powered Electric Cardinal. The article and free plan originally appeared back in the August 1996 Aeromodeller (if you haven't got it Outerzone will provide the details) and was my first attempt at electric flight. It has been used in fits and starts over the years but last year, after a bit of modern, Knight and Pridham timer electronics had been installed along with an RDT, it suddenly became my GoTo model and was the provider of many a happy flying session. This burst of enthusiasm made me realise that something new was required for another KP01!

For those of you that don't know its history, Derek Knight designed the KP01 way back in about 1985. It was a self-contained motor/gearbox/nicad system for models around the 28" span mark weighing up to 4oz. You simply fast-charged the battery from a 6V lead acid or 4 x D-type nicad pack, then removed the charging plug, flicked the prop forward and the inbuilt switch would start the motor spinning and you launched the model. Nicads are capable of being run down to empty so the amount of charge you put in governed the motor run time – charge them for 3 minutes for the maximum run with a shorter charge time for shorter runs. Brilliantly simple!



In time nicads were outlawed so Derek had to go over to Lipo cells and as these aren't as robust as nicads and an electronic motor run timer became necessary to go with them as full discharge is not an option with Lipos. However the motor/gearbox stayed the same. It is all provided, pre-wired, with everything on plugs and sockets. If anything the performance improved due to the battery holding it's charge for longer. Recently Derek has modified the prop fixing arrangement as he got fed up with making the front ends of the shafts and now uses a nylon hub held on with two small screws to fix the prop, also incorporating a slipping clutch in case of collisions. And it's in this form that you can still buy them so the KP01 has now been around for about 40 years – that's significantly longer than the production run of Mills 75 diesels!





As for a suitable model, Outerzone's Free Flight Sport Electric category has several suitable offerings,

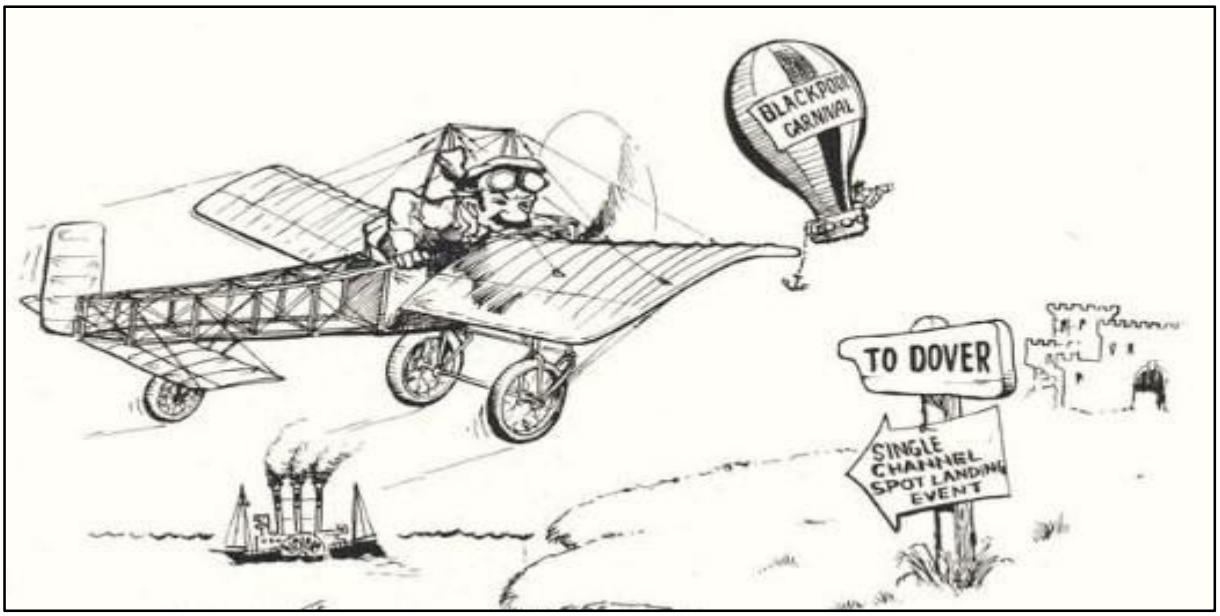
https://outerzone.co.uk/browse_plans/category/results.asp?Level=3&Cat1=FF&Cat2=Electric&Cat3=Sport

- some of which were even designed specifically for the KP01. I've actually selected a model originally designed for a Telco CO2 motor – the 26" span Mini-Helides. This is based on the original Helides 7 which was designed by RA Grasmeder and featured in an Aeromodeller from 1950. In more recent years it became popular as a Mini-Vintage competition power model after John Bailey won the class at the Free Flight Nats with his and even Thommo built one which he described in the September 2010 NC.

At the time of writing my Mini-Helides is constructed with all but the motor and its gubbins and the RDT left to go in but, in order to get the balance right, that will only happen once I've applied the tissue to the Mylar and that will only happen when the weather warms up enough for me to do the job in the garage! Hopefully I'll be able to tell you more about the finishing off next month and maybe even give a flight report!

KP01 electric units are available as complete plug-and-play sets or individual components and spares from Knight & Pridham http://kpaero.com/ and also from Mike Woodhouse at Free Flight Supplies https://www.freeflightsupplies.net/index.php/products/electric-items

Tony Shepherd



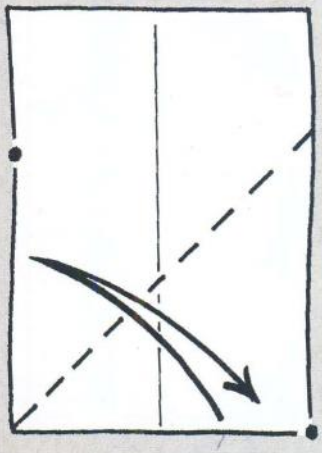
Paper Airplane: Moth - Nick Robinson

MOTH

NICK ROBINSON

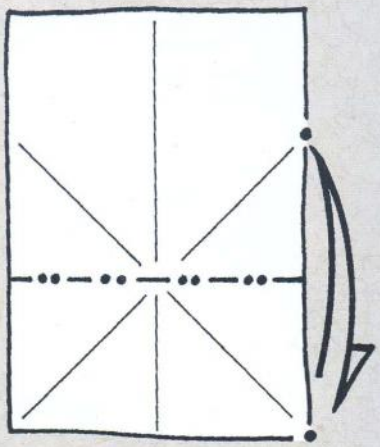
Starting with the classic folding sequence for the Hawk Dart, Snub-nosed Delta and others, the Moth has two antennae which can be shaped for extra realism.

This design can be made from almost any shaped rectangle. Start with the coloured side down, fold in half width-wise and open.

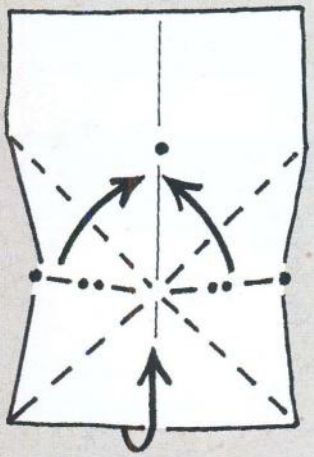


1 Fold the nearest short edge to the left hand edge, crease firmly and return.

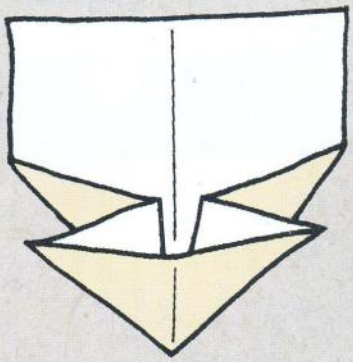
2 Repeat to the right-hand side.



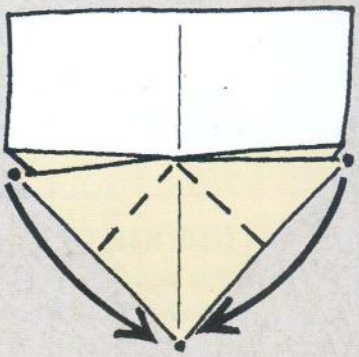
3 Add a mountain crease which passes through the intersection of the valley creases. (It is easiest to turn over and make a valley.)



4 Press in the centre of the creases. The sides of the mountain crease should "pop" upwards. Using the creases you have made, swing the three lower dotted points towards the upper one.

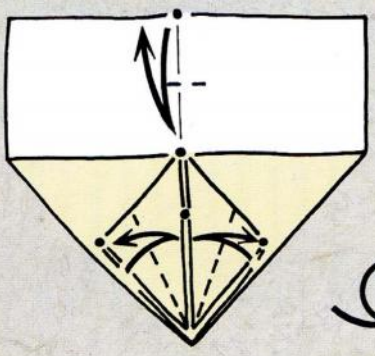


5 This is the half-way stage.

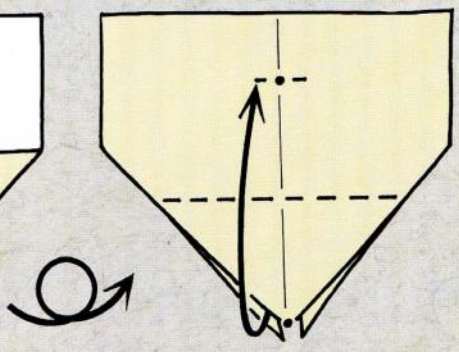


6 Fold the loose point on either side down to the lower corner.

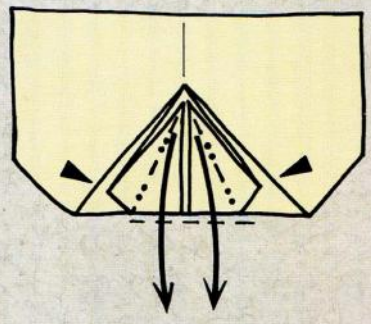
MOTH



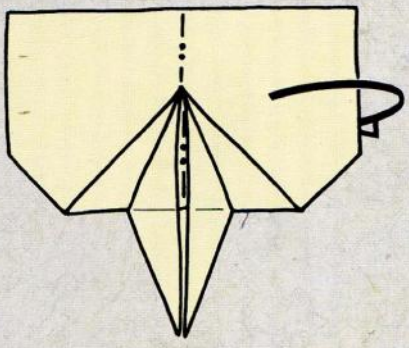
7 Mark the half-way point of the upper single layer. Fold the lower edges of the small square to the vertical centre, crease and return. Turn the paper over.



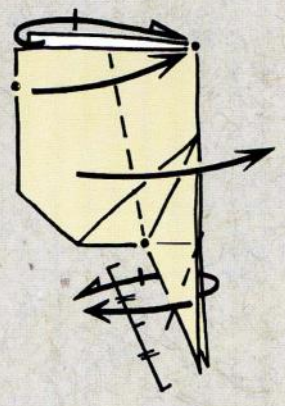
8 Take the lower corner (all layers) to meet the location point made in the last step.



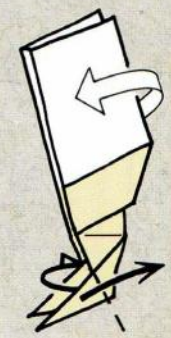
9 Using established creases, swing the two inside corners down, pressing gently on either side until they flatten into a diamond shape.



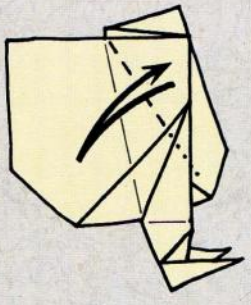
10 Mountain in half from right to left.



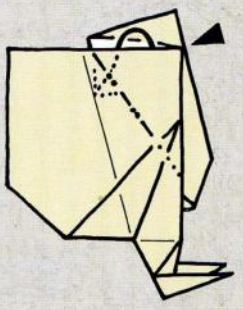
11 Fold the lower points over (check the next diagram) to form the antennae. Valley fold both wings out; the crease starts at the lower inside corner, the left-hand edge just touches the right-hand upper corner.



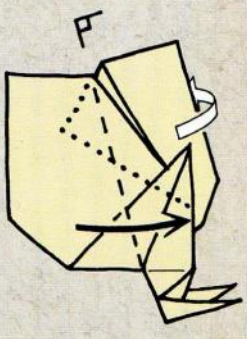
12 This is the result; open out the upper wing, then fold the antennae to point the opposite way.



13 Make a pre-crease as shown; the upper end meets the wing crease, the lower end is as far as the paper will comfortably go.



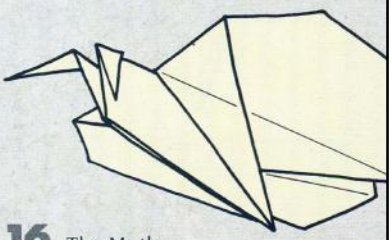
14 Inside reverse along the crease you have just made.



15 Adjust both wings to right-angles and rotate the paper to a horizontal position.

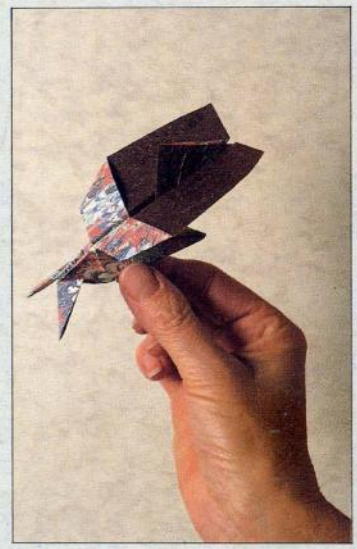
TOP VIEW

VIEW FROM BELOW



16 The Moth.

LAUNCHING POSITION



FLYING HINTS

Because of the antennae, this design is very sensitive to the speed of launching. Hold it in front of you and push gently forward. Too fast and the Moth will stall. Alter the antennae for different effects; having them at different angles will make the Moth rotate in flight.

Back to Square One - Martin Pike

'A' frame twin pushers over Wales

I'm generally a scale model builder and flyer, but I find it hard to resist flying things just for fun.

Our editor John Andrews has given up flying models (what a lightweight….he is only 91!) and kindly gave me some of his models. Amongst these were two A frame pusher models, built by Walsall's Tony Hall, which John acquired when Tony passed away. I don't think I ever met Tony.

A frame pushers were very popular from around 1911 to the 1930s when single tractors took over. They appear unusual, but the counter-rotating props eliminate torque problems and they are said to be both longitudinally and spirally stable. The props act as rudders, I am told.

I am not sure what the models were called or where the plans are. The larger model with the exposed motors is very similar to George De La Mater's model described in Air Trails December 1941.

The two models were in good condition, needing only a few tissue patches to the flying surfaces and wire hooks for the motors. Rubber choice (thanks to John's records and memory) was:

2off (4x 1/4" x fuselage length), that is 16"/14" for the smaller model and

2off (6x 3/16" x fuselage length), that is 18"/16" for the larger one. I braided all the strands of the larger motors with 20 turns, to keep them together. The wire motor restraints may prevent it sagging, but they frequently catch up part of the motor on winding.

My main issue was working out how to wind and launch the things single-handedly. Having miss-wound the rubber a few times (counter rotating pusher props….confusing) I marked the winding ends with "clockwise" and "counter clockwise" to reduce mistakes.

My stooge consisted of two skewers driven into the grass to retain the prop end, with a further two tent pegs through the prop hooks. The clutches have a habit of disengaging before winding, and need to be checked. Holding the first wound motor whilst the second was wound required another pin for the smaller model.

The larger model is difficult to store, being wide and flat but also long, it does not fit in my normal model boxes. It does slide nicely onto my car's internal roof bars, once I've made a bag to protect it.

Conveniently, if you wind clockwise on one and counter-clockwise on the other using a mechanical counter, you come back to zero as you finish winding. After installing the wound rubber ends and checking the clutches are engaged, there comes the launch. I found it best to hold the rear spreader bar to stop the props with one hand and hold the fuselage at the balance point. An overhead launch with the props starting sight unseen is a bit odd, but they do have good longitudinal stability and are forgiving.

I only had a few flights on the day before the wind got up, they tended to circle right, not gaining much height on the conservative (300) turns. The incidence of the fore plane seems to be the main adjustment. The fore plane seat of the smaller model will need adjusting to get it to sit consistently.

Both models look and handle strangely in the air, but they have promise. I think I will adapt them to BMK band burner d/t's as they look like they could really fly off, and a long burning fuse is too close to the structure for my liking!

I will update you….

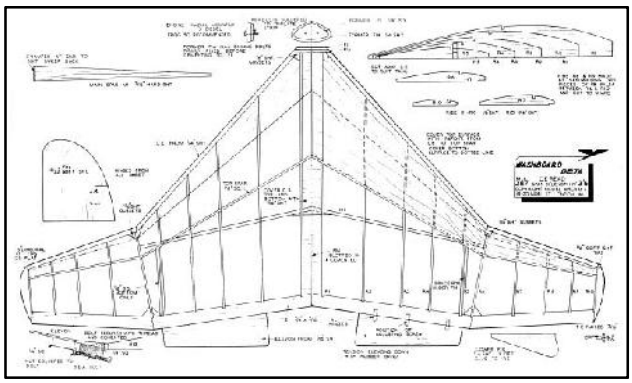
Martin Pike

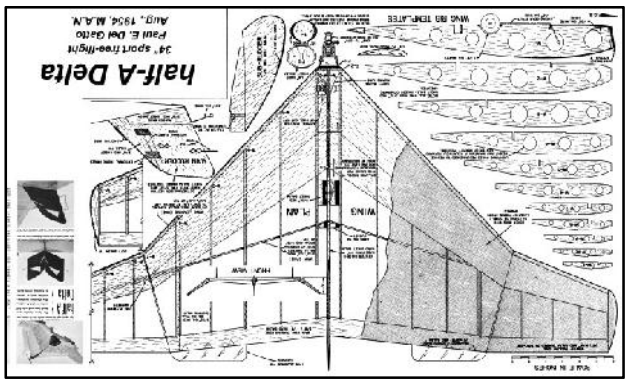
North Wales Report - Roger Newman

Occasional Notes from North Wales: March 2025

On things unorthodox.

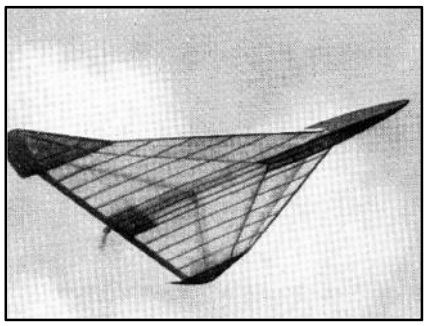
Last month's notes mentioned a power plan carried over. Whilst searching through for a choice for power plan of the month, a small delta had been unearthed, with the plan being published in the July 1957 Model Aircraft mag. As the designer was a local flyer known to the old Wolverton & District Model Club, to which I belonged as a humble junior, it seemed a nostalgic choice. However as the search process continued, it uncovered another small delta that bore more than a passing resemblance to the previous model. The latter was designed by Paul del Gatto & published in Model Airplane News (USA) in August 1954. Very strange? An A4 print of each of the two models then seemed to indicate (to me) that they were probably one & the same basic model with a few small changes. Both are depicted below. I leave readers to decide whether this is a coincidence or a degree of plagiarism? If a case of the latter, certainly not the first occasion that designs have crossed the Atlantic. Nevertheless, either version would be yet another good model to build for sport flying.



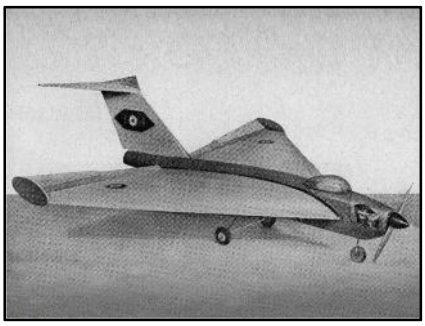


Regarding the subject of delta wing models, at least three others spring to mind: Delta 1 designed by John Lancaster published in November 1952 Aeromodeller & powered by a pusher Mills .75 that was incredibly stable in flight, as proven in latter years of flying at Middle Wallop when John built & flew his latest Delta 1. The other two were both designed by Squadron Leader Laurie Ellis – Vultan, published in the January 1954 Aeromodeller & the Javelan similarly published in the March 1955 Aeromodeller. The former being a name take-off of the AVRO Vulcan & the latter of the Gloster Javelin. Again, I remember seeing a Vultan at one of the 1950's rallies but at which I do not recall!

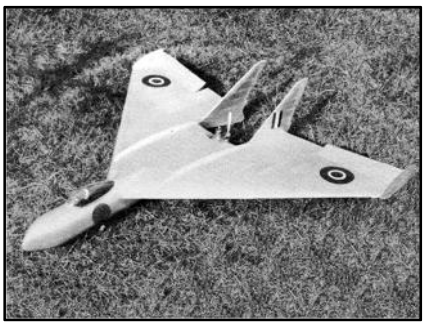
For the sake of posterity, they are all pictured below.



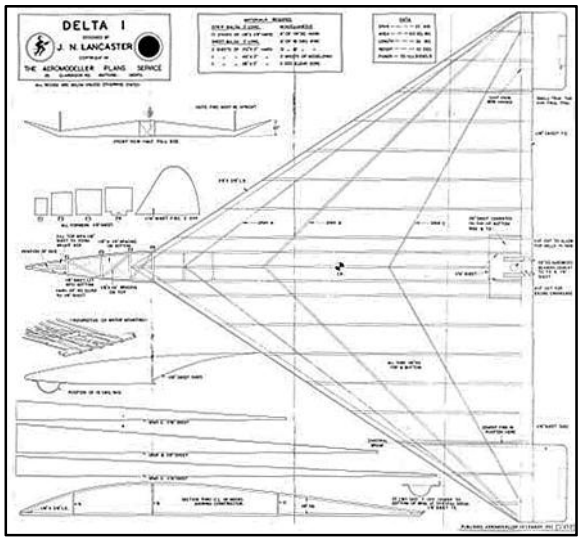
Delta 1

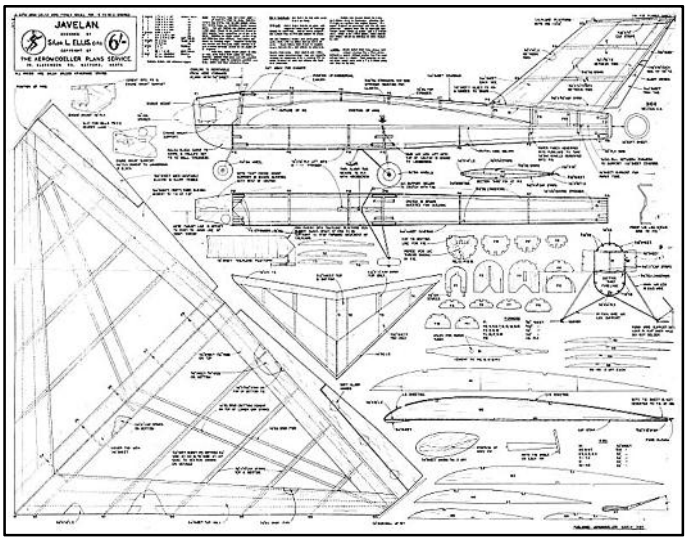


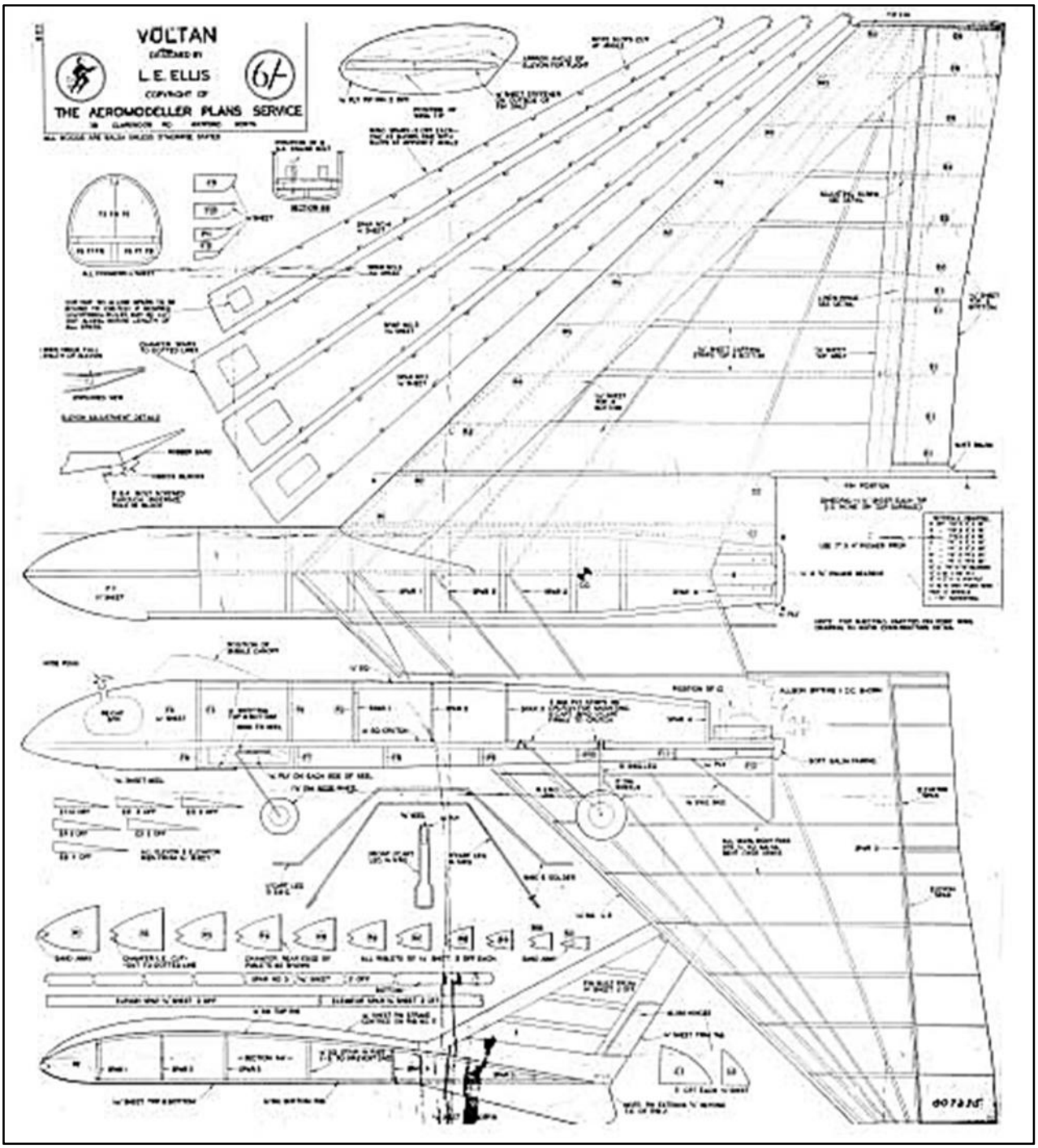
Javalan



Vultan


DELTA I
J. N. LANCASTER
THE AEROMODELLER PLANS SERVICE


JAVELAN
THE AEROMODELLER PLANS SERVICE


VOLTAN
L. E. ELLIS
THE AEROMODELLER PLANS SERVICE

Competition Rules

As our readers will have noted of late, there has been debate & discussions on competition rules & (lack of) entries. Both public & participating interest was probably much higher regarding the new fangled concept of model flight in 1910, not to mention the embryonic full size aviation scene. Competition flying was at an early stage – read the following thoughts on rules back in those days!

Note the last para – no Tan-2 in those days!

MODEL COMPETITIONS.

Sir,—In the correspondence columns of *The Aero* from time to time there have been letters from various people interested in aero model flying competitions asking for suggestions. The object of such meetings should be to encourage interest in aviation in the general public, and so it is necessary to avoid all waiting during events.

The first point to consider is the ground. In the direction of the prevailing wind, and quite clear of trees, etc., a space of from three to four hundred yards is necessary, about thirty yards wide at the starting end and one hundred yards or more at the far end, with the ground as flat as possible. From the starting point arcs of circles should be marked from side to side of the course with radii of about 100, 150, 200, 250, 300, 350, and 400 yards. At two points on each arc should be placed a boy scout (for preference) with a flag. As a model passes over the mark that he is watching, the nearest scout raises his flag. If a model flies out of the course, the distance from the starting point to the spot on the boundary line where it leaves is credited. Automatically, the best model is that which flies the greatest distance in a straight line as regards both direction and elevation.

The events should be numbered and run strictly in rotation. Each machine should be clearly numbered and the trials also run in rotation, the competitor being allowed a certain time after his number is called in which to start. If he is not ready he loses that turn altogether, except in particular cases at the discretion of the judges. A board should be erected at the starting point, and the number of the event plainly shown, and beneath it the number of the competitor that is flying, and at the termination of the event the winning numbers should be shown in their correct order. Cards should be provided giving a list and the conditions of the events with the names and numbers of the entrants.

As regards the events themselves, besides distance, prizes might be given for the longest time in the air, against the watch, the straightest flying against the wind, and the greatest total distance flown by one machine in competition during the programme.

While on the subject of competitions, I venture to suggest that some leading body, such as the Aero-Models Association, should institute and establish records, attempts at which might be made at the various club meetings. The setting up of healthy rivalry would certainly bring progress.

As regards rating for elastic-driven models, is there any necessity for it at all? Up to now the one ounce model flies pretty well as far as the one pound model. The amount of energy that can be stored in elastic is proportional to the weight. One cannot get more, but one can get a great deal less. There is probably one, and only one, ideal machine, giving the best compromise of power, weight, surface, and speed, that will fly the greatest possible distance. Too many of the useful men are stopping to play in the fields trying to screw another yard out of their one ounce models, instead of making machines that will fly straight or round a given curve, irrespective of the wind.

Coventry. DECIMAL SIX.

Cambered Wing Aerofoils

Modellers such as Martyn Pressnell & Martin Simons have published authoritative works on aerofoil sections for fellow modellers & I have often wondered about the origins of cambered aerofoil sections. Whilst yet again browsing, the following info was unearthed.

Horatio Phillips and Cambered Aerofoil Design

Horatio Phillips advanced the discipline of applied aerodynamics with his wind tunnel experiments in the early 1880s. These experiments quantitatively demonstrated George Cayley's theories relating to cambered aerofoils in that cambered aerofoils produce more lift than flat aerofoils. Phillips used the results of his experiments to build three flying machines that, although they had only limited success, applied his theory of lifting surfaces.

Phillips used the results obtained in his wind tunnel experiments to design a series of cambered aerofoils based on the shapes of birds' wings. He called these the "Phillips entry," or "blades for deflecting air." They had greater curvature on the top than on the bottom and were called "double-surface aerofoils." In 1884, he obtained a patent for eight of these aerofoil sections, which were of various widths and curvatures. The theory of lift that these wings demonstrated was based on the variation in camber between the upper and lower surfaces of the wing. If the curvature of the upper surface of a wing was greater than that of its under surface, according to this concept, the air would flow over the upper surface at a greater velocity and produce lower pressures than on the underside. Hence an upward force (lift) would be generated as the higher pressure under the surface sought to become equal with the lower-pressure air above the surface.

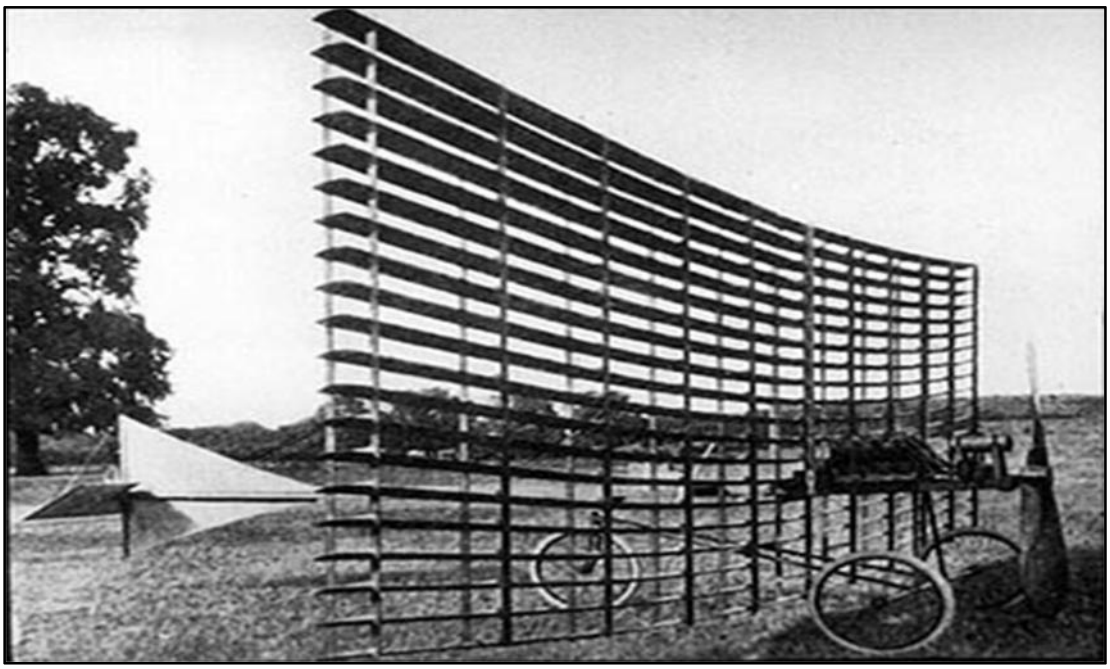
In 1891, Phillips filed a patent for another cambered wing section. In this patent, he described how the section reacted in the airstream. He stated that when the airstream moved over the curved upper surface of the aerofoil, the air pressure would decrease. Therefore, the lifting action of the aerofoil was due to a combination of the lower pressure exerted on the upper surface and the higher pressure exerted on the lower surface. By creating a double-surface aerofoil with less camber on the lower surface than on the upper surface, the air pressure would be higher underneath and lower on the upper surface. This would create more lift. He concluded that force would be greater above, in the form of negative pressure than below, which was applied in the form of positive pressure.

Phillips' designs demonstrated the first truly modern aerofoils. His findings were widely disseminated, and thereafter all serious flying-machine developers used cambered aerofoils.

Using the knowledge he had acquired, Phillips in 1893 produced a flying machine that resembled an open venetian blind on wheels. Sources differ in their description of the flying machine, but its wings consisted of 50 slats, between 19 feet and 22 feet long by 1.5 inches wide that were mounted two inches apart. The apparatus measured 9.5 feet high and rested on a long wooden frame 25 feet long. A coal-fired 6-horsepower engine turned a single twin-bladed pusher propeller at a rate of 400 revolutions per minute. The entire machine weighed between 350 and 385 pounds and rested on a tricycle undercarriage. It was tethered on a circular track with a 628-foot

circumference where it moved at some 40 miles per hour . The two back wheels, which supported most of the weight, rose from the track for a distance of 150 to 250 feet.
His 1904 multi-plane was another application of the theory of lifting surfaces. Again, the wings looked very much like the slats of a venetian blind. This apparatus had 20 lifting elements. It tail unit was in the shape of a cross and was supported by a three-wheeled undercarriage. The engine, built by Phillips himself, was a four-cylinder water-cooled in-line engine that produced 22 horsepower and powered a wooden tractor propeller. It was 13 feet 9 inches long, 10 feet high, weighed 600 pounds , and could move at 34 miles per hour. Its frame was made of spruce, ash, and steel tubing and was covered with a calico fabric.
The multi-plane was tried out at Streatham, England, and managed a short "hop" of about 50 feet (15 meters).
Phillips' final effort at flight came in 1907. This aircraft was a larger version of his 1893 plane. This machine had four venetian-blind-wings in tandem and was powered by a 22-horsepower engine that turned a tractor propeller. This plane flew some 500 feet. It was the first powered flight in England. Although he did not continue building planes, he had clearly demonstrated that flying machines should always have cambered wings.

Horatio Phillips patented his cambered-aerofoil shape in 1891. Hiram Maxim, another aviation inventor, published Horatio Phillips' wing in his publication titled "Natural. "



Phillips' 1904 multi-plane had 20 lifting elements. It flew about 50 feet.

However Mr Phillips didn't quite get everything absolutely spot-on – as per the following note published in the very first edition of “the Aero” - predecessor to “The Aeroplane” journal.

"AERIAL NAVIGATION.

"To the Editor of *The Aero*.

"Sir,—Thanks principally to the Brothers Wright and their splendid pioneer work, the Government has at last seriously taken up the subject of aeronautics.

"A committee of experts has been appointed, the mathematical side of the question being very strongly represented; but I have yet to learn that any one of the members has had any practical experience with flying machines. It is true that Mr. F. W. Lanchester took out a patent for flying machines in 1897, but whether he ever constructed a machine in accordance therewith I do not know: but one thing is quite certain, that if the sectional form of the wings were as shown in the specification that machine never raised itself from the ground.

"If rumour tell the truth, an elaborate series of experiments with a fan and whirling table are to be carried out at the National Physical Laboratory under the guidance of the above committee. The experiments will cost a good deal of money, but that is of little consequence compared with the time wasted, because, after all, the results obtained by the experiments cannot be far different from those obtained by me twenty-five years ago.

"The line taken by the experimenters will probably be as follows: Canvas or other fabric will be stretched upon frames and subjected to a current of air; but the inefficiency of this arrangement will soon become obvious, and it will be dropped. A rigid material will next be tested and better results obtained; then the width of the models in the direction of motion will be gradually reduced until they become quite narrow blades. Then, if the correct shape has been given to them, as patented by me in 1884, and the surfaces polished, the best possible results will be obtained.

"It goes against the grain to say anything against the work of the Brothers Wright and MM. Voisin, but the fact is that flying machines having any kind of fabric for supporting surfaces are impracticable. This statement may appear ridiculous now, but will very soon become apparent. Properly formed narrow blades of a rigid material will undoubtedly be used for sustaining the weight in the future flying machine. Similar blades used in the reaction steam turbine are revolutionising steam prime movers, and there is a close analogy between the reaction steam turbine and a practicable flying machine.

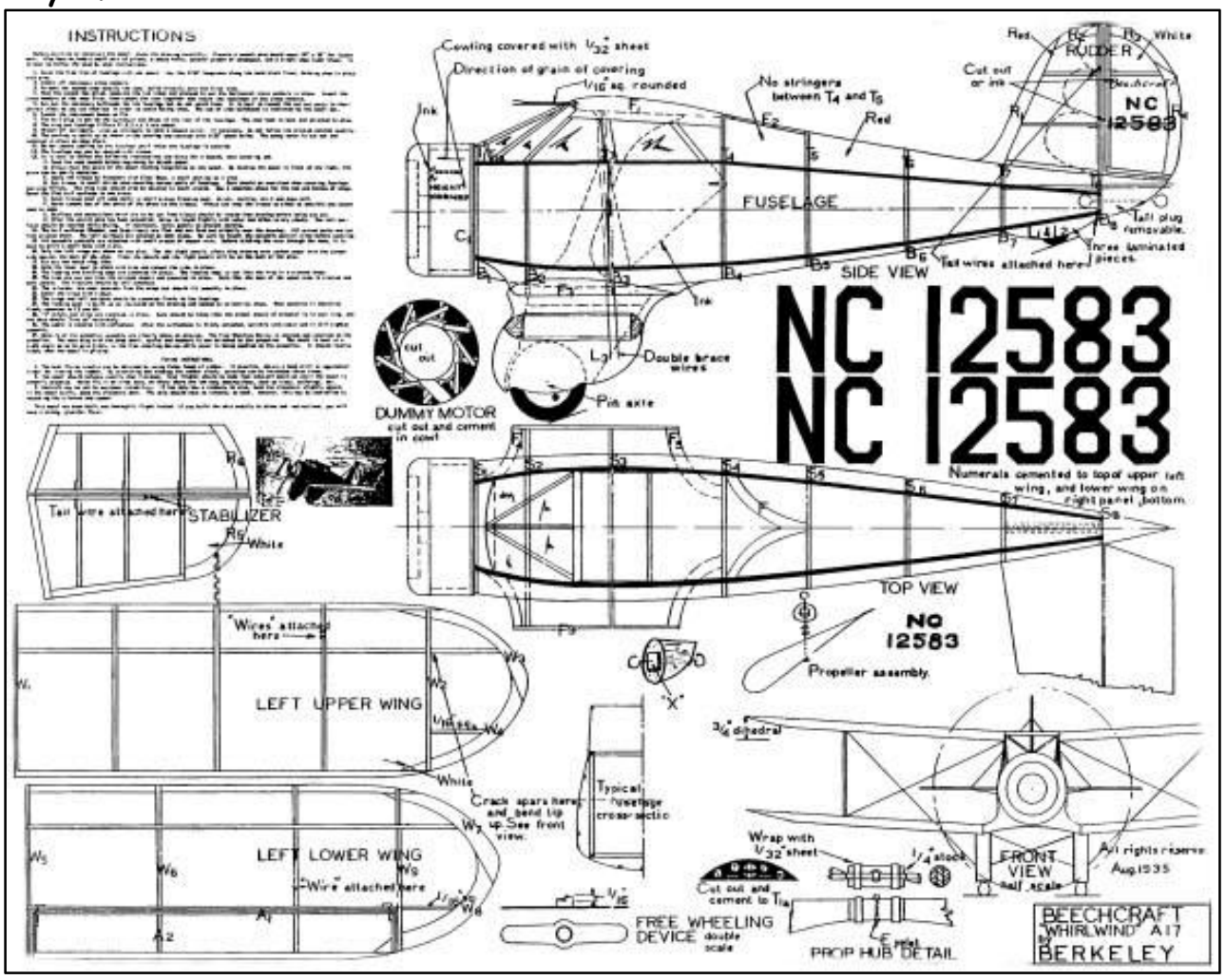
"Yours faithfully,

"West Barnham, Sussex." "HORATIO PHILLIPS.

Gibbs Guides & things electric

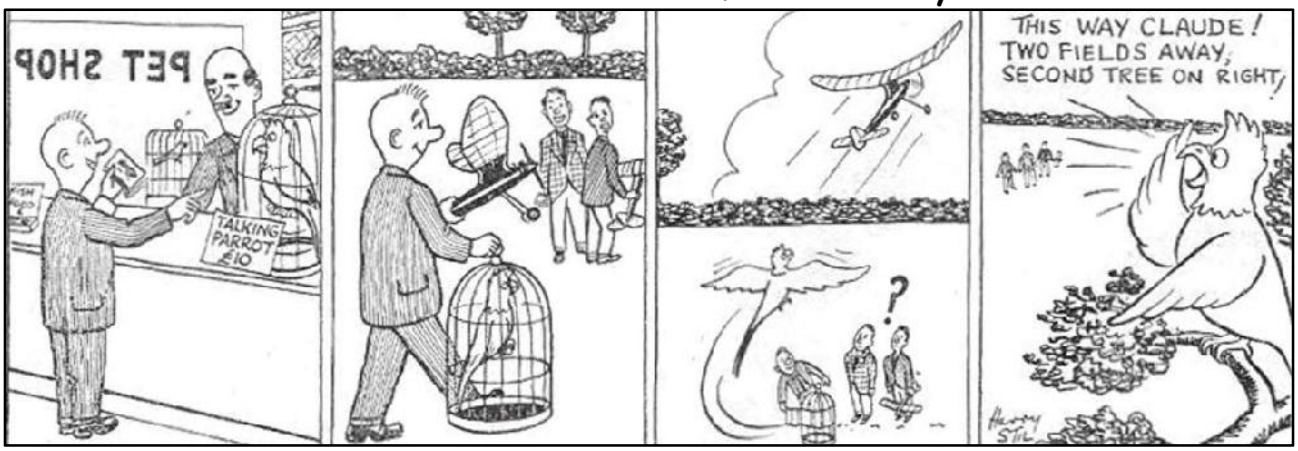
or a euphemism on slow progress on the building front. Plans have been received, albeit the Triangle turned out not to be to 100% scale but as it's last on the list, not a problem. The bits of electric stuff, mostly donated back to me by our Hon. Chairman & Hon. Librarian, have been evaluated to see what is missing (quite a lot) but again not a short term problem – yet, as airframe construction will be the order of the day, starting with the Simplex 40. However looking at the electric bits made me realise how much has been forgotten during the 5 + years that I've been inactive, inclusive of LiPo do's & don't s. A very recent conversation with John Taylor on that subject elicited very helpful information about Gibb's Guides, which John recommended as the easiest way of taking knowledge on-board relatively painlessly. So I visited the relevant website & purchased an e-book on LiPo's that has been extremely informative & dissipated a few of my concerns. . The website home page lists 9 guides with a promise of more to follow. Look at www.gibbsguides.com for information. Otherwise, still finding tools & building aids but with a goal of getting the Simplex wing under way shortly.

May-Welsh



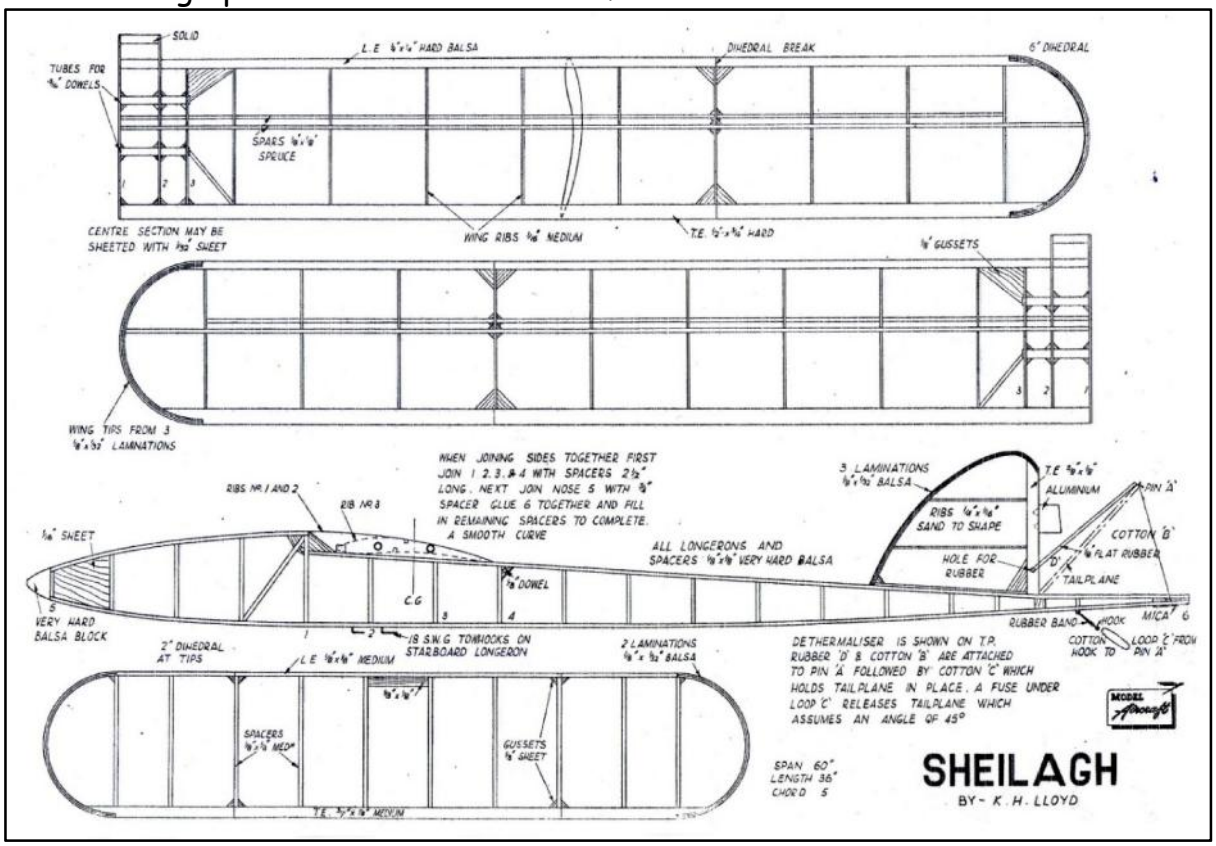
The sight of this pic below struck a chord in as much that our Membership Secretary is putting on a free flight scale event in North Wales in May (advertised in the NC). How about building a Beechcraft Staggerwing for the occasion – here is a sample plan for one version of a small free flight model – seeing this line-up should stimulate a bit of building enthusiasm? Email me for a pdf of a plan (rogerknewman@yahoo.com)

Model Location/Retrieval for the elderly?

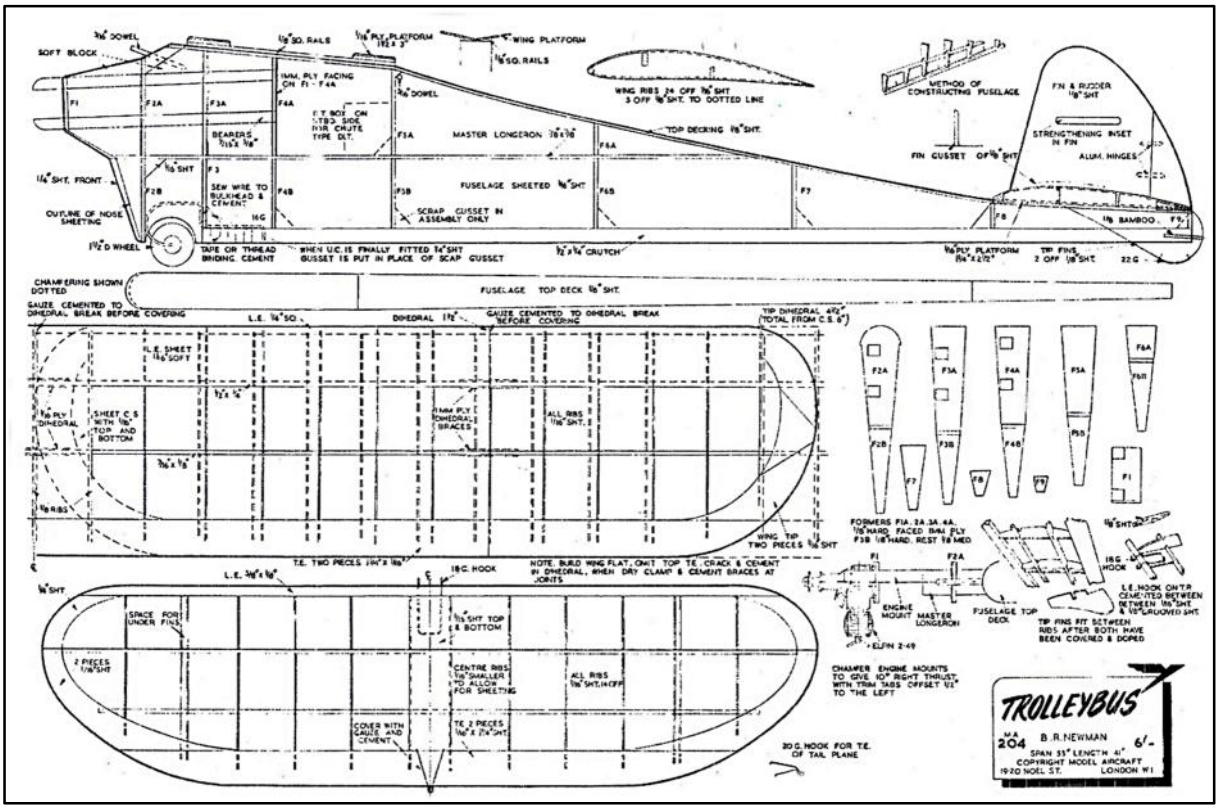


Plans for the month

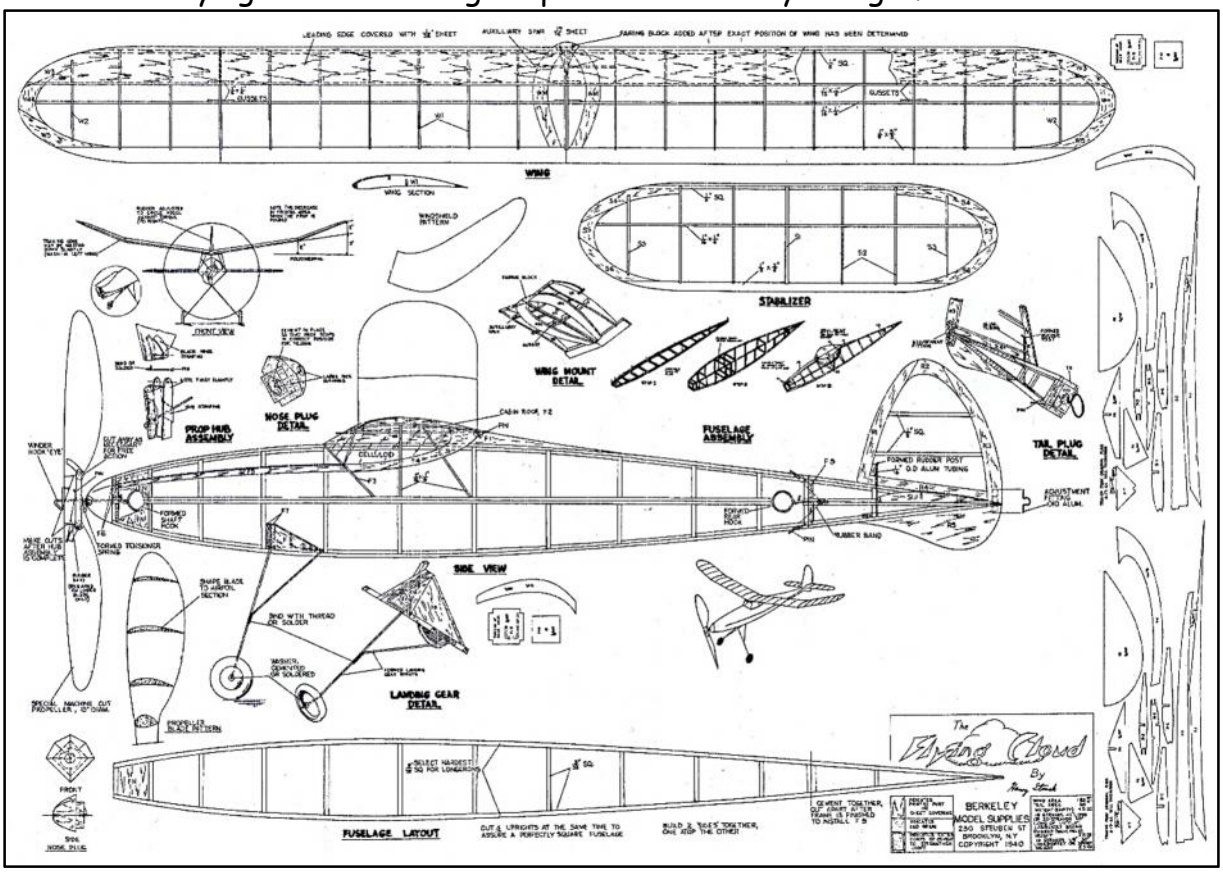
Glider: Sheilagh published in Model Aircraft Nov 1949



Power: Trolley Bus – another high thrust line model from the UK this time but a bit larger than the Wedgy or Triangle. Published in the February 1952 Model Aircraft mag. Has anyone ever built one?



Rubber: The Flying Cloud – an elegant pre-war Berkeley design from the USA



Roger Newman

Flying Toy Patent - Steve Kimminau

Editor: I received the following emails, any comment from anyone

Subject: Lewis Carroll and 'Bob the Bat' - Victorian Flying Toy

A.D. 1876, 28th JULY. N° 3036.

Toy.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by John Clayton Mewburn at the Office of the Commissioners of Patents on the 28th July 1876. A communication from abroad by La Société Dandrieux Gravier et Compagnie, of Paris, France.

JOHN CLAYTON MEWBURN, of 169, Fleet Street, in the City of London, Patent Agent and Consulting Engineer. "A NEW OR IMPROVED FLYING OR AËRIAL TOY."

This Invention consists of a new or improved toy which the inventors call "helicoptre." It is in the form of a bat, and is based on the principle of two screws, the rotation of which in contrary directions, produced by the twisting of a spring situated between them, raises the apparatus or toy into the air and maintains it there until the complete exhaustion of the torsion of the spring.

The toy consists of a frame or central portion formed of two longitudinal rods of reed the ends of which are embedded and fixed in two pieces of cork which keep them in the same relative position. Between the two rods is a spring formed of india-rubber threads stretched between two hooks which are fitted respectively to the upper and lower corks. The upper hook is rigidly fixed to its cork, and the lower hook passes through the lower cork, into and through a wooden sheath, and is fixed to a third piece of cork under the lower of the two corks before mentioned. For clearness of description, I will herein-after call the cork which is at the upper end of the rods, the first cork, the cork at the lower end of the rods the second cork; and the lowest cork to which the lower hook is fixed the third cork. The second and third corks are separated by the sheath above mentioned, the exterior of which is conical, and the conical part rests on a small plate of very thin metal embedded in the third cork. This plate is perforated for the passage of the hook. To opposite sides of the first cork are fixed two thin light rods of rattan, which with sheets of goldbeaters' skin connecting these rods with the longitudinal rods, form wings and constitute the principal screw of the toy. The second screw which serves as a rudder is made like the first, that is to say, of rods of rattan and goldbeaters' skin. This screw is fitted to the third cork, its two wings are movable and can turn or pivot on their point of attachment to the cork, in order to allow as with a rudder of giving any desired direction to the toy. The goldbeaters' skin portion of the wings may be of various forms, and either narrow or very wide. Their free edges may be straight or formed like the wings of a bat or otherwise.

To put the toy in action, the second cork is taken hold of by one hand, and the third cork is rotated with the other hand from left to right, around the lower hook

[*Price 2d.*]

Mewburn's Improved Flying or Aërial Toy.

which serves as the axis so as to twist the india-rubber threads of the spring. When the spring has been sufficiently twisted the toy is held in a slightly elevated position and released; it then shoots into the air like a bird, turns and flutters, and if in its travel it strikes against an obstacle, the ceiling for example, it retains its position vertically while seeking to avoid such obstacle. This result is easily understood seeing that the spring being strongly twisted will when the third cork is freed begin to untwist owing to the elasticity of the india-rubber, and will consequently cause the third cork to rotate rapidly in the contrary direction to that given to it while twisting; the wings of the screw fixed to this cork will receive the same rotation, but as the resistance of the air opposes this movement of the screw, the body of the toy will be drawn or impelled by the elasticity of the india-rubber, and will rotate in a reverse direction to that of the third cork, and the wings of the upper screw will follow this reverse movement. The india-rubber in untwisting will thus turn the two screws in opposite directions to each other, the result of this double rotation being a movement of the whole apparatus or toy in the direction of its axis.

The toy can be made in various forms especially as regards the screws, but for a good arrangement it is necessary to observe the following conditions:—

The wings of the upper screw should be larger than those of the lower one, their action on the air being thus more powerful. The total weight of the lower hook, second and third corks, thin metal plate, and the wings of the lower screw should be greater than that of the first cork, and the wings of the upper screw, in order that the centre of gravity may be below the middle of the body of the apparatus, so that it may always go in a vertical direction, the first cork being at the top. All the parts should be made of very light materials. The first cork should project above the top line of the wings to allow of their continuing to turn when the toy meets the ceiling or any obstacle which prevents it rising.

In some cases the screw with narrow wings is placed at the top, and that with broad wings at the bottom, the result being that the movements of the toy resemble those of a grasshopper. And the movements and evolutions may be otherwise varied by changing the direction in which the toy is let free or by modifying the form and curve of the wings and screws.

LONDON: Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE, Printers to the Queen's most Excellent Majesty. 1877.

Editor; emails here as received

Linda and I are members of the Lewis Carroll Society, wanting to replicate and fully understand the rubber powered 'Bob the Bat' model, which seems to be a derivative version of the Penaud "Helicoptere."

It is significant not only from its English history, but also because an American version was given to the Wright Brothers by their uncle, reputedly sparking their interest in controllable, as opposed to erratic, powered flight.
Is there an interest in the Society of Antique Modellers to research and recreate some of these models?
Kind regards,
Steve Kimminau, Secretary Lewis Carroll Society

On 19 Mar 2025, at 16:45, BRIAN RIDDLE <riddles192@btinternet.com> wrote:
Dear Steve,
In reply to your e-mail, further to the material that has previously been forwarded to Linda, please find attached the latest reference which the early aviation historian Simine Short has uncovered - a 'Toy' patent application (1876 No.3036). The fact that it is described as being "in the form of a bat" suggests that it may well be the flying toy which was featured in **Scientific American** Vol.36 (3) January 20 1877 page 38 and subsequently a few weeks later in the British publication **Design and Work** Vol.2 (10) February 10 1877 and **Cassell's Family Magazine** April 1877, however as the patent application has no accompanying illustrations it is difficult to confirm definitely, but it does contain an extended text as to how such a flying toy could work.

Interestingly the application was submitted by John Clayton Mewburn who was was one of the original co-founders of the patent law firm Mewburn Ellis which is still active in the field of intellectual property law, the company's web-site recording:-
"John Clayton Mewburn was a talented and enthusiastic young patent agent when he founded his intellectual property office in London in 1867"

Mr. Mewburn was presumably submitting the patent application on behalf of a French client.

Concerning the project of reconstructing a replica of the flying bat model, you refer to the SMAE however the Society of Model Aeronautical Engineers was incorporated some years ago back in 1987 in what is now the British Model Flying Association. As suggested to Linda I would suggest that you contact in the UK the Society of Antique Modellers
(e-mail:- secretary@sam1066.org) which is a community of aeromodellers which specialise in building replicas of pre-radio controlled flying models.

For your information, my interest in space and aviation history generally stems from the over 36 years I worked in the library of the Royal Aeronautical Society until my staff role of Chief Librarian was made redundant at end of October 2020. (see patent pdf above).

Steve Kimminau
Secretary Lewis Carrol Society

Secretary's Notes for April 2025 - Ray Elliott

Secretary's notes for April 2025

SAM 1066 together with the Croydon Club will be holding contests on Salisbury Plain on either the 14th or 15th June; the exact date will be decided on the Thursday prior to the event and will depend on the weather forecast.
The Croydon contest will be for rubber models and will be run to the Cagnarata format ie all in classes with K factors. The eligible classes with K factors and maxes are as follows.

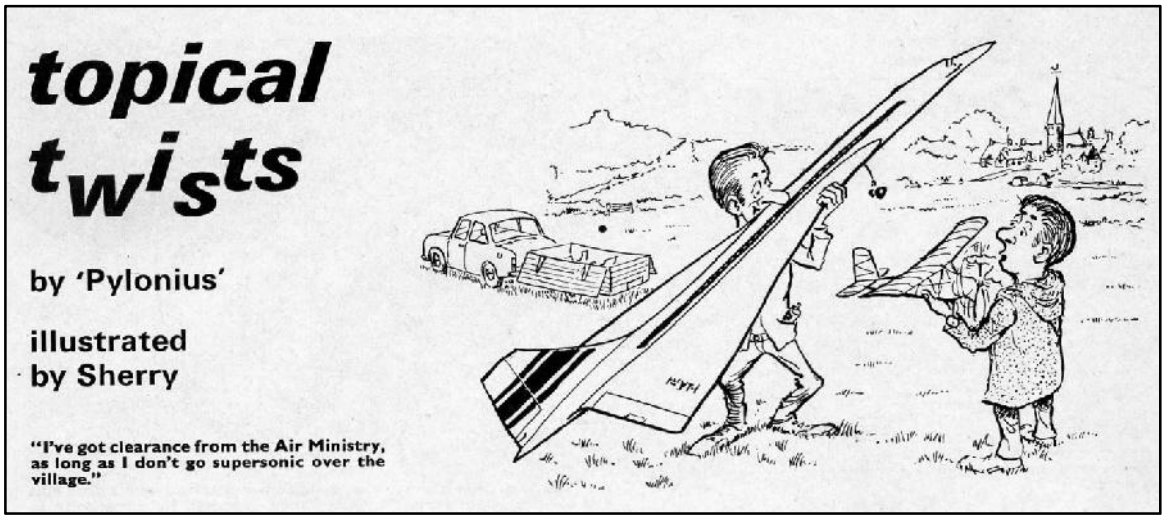
Class	K Factor	Max (secs)
F1B	1	150
4oz Wake	1	150
8oz Wake	1	150
Mini Vintage Rubber	5/4	120
F1G / Vintage Coupe	5/4	120
P30	5/3	90

There will be trophies awarded for the highest placed F1B, 4oz and 8oz Wakes, and the highest placed Norman Marcus design in Mini Vintage.
FIG scores will count towards the Southern Coupe League.
With regards to the SAM1066 contests these will be (provisionally)
Combined Vintage / Classic / A1Glider
Combined Vintage / Classic Power
Mini Vintage Glider/ Power
……
The first Area Meeting under the new Combined Format was held on the 9th March. Whilst it is very early days there are one or two indications of how things might pan out as the season progresses.

1. There was a strong entry of flyers flying electric models in both the Open and Mini groups 7 out of 19 in Open, 8 out of 18 in Mini). 4 of the top 6 in Open and 3 of the top 6 in Mini. Both classes were won with electric models. Total electric entries 16.
2. Only one F1G flown in Mini. The total number of rubber entries was 12.
3. Total glider entries 16
4. Total power entries 7

Food for thought.

Ray Elliott



Events and Notices

Fun Fly Indoor Duration event

Sunday 18th May

at Daventry Leisure Centre, Lodge Road
from 11:00 until 17:00,

entry expected to be £25 per person for all classes.

Whilst the event is for any indoor duration class there are expected to be in the region of 20 attendees so probably not a great place to fly F1D or F1R....

There may be an informal "Best time" comp for the lightweight classes but otherwise purely informal FF.

Any questions please contact Andy on 07860796914 or email at andybeere@yahoo.co.uk
asap as he would like to assess interest
prior to finalising booking and entry costs.

Southern Coupe League 2025

Provisional list of qualifying events as at 16/1/25

Now that the FFTC calendar for 2025 is settled the following events are (reasonably) confirmed and form the list of qualifying events for 2025.

1	Coupe de Brum	22nd or 23rd February	Luffenham	gavin.manion84@gmail.com
2	Crookham Gala	28th or 29th June	Salisbury	Contact Chris Redrup
3	BMFA Nationals	25th August	Sculthorpe	Assumed 3rd day (Check)
4	Oxford Duration	30th August 09.30–13.30	Portmeadow	Contact detailsTBA
5	Coupe Europa	4th or 5th October	Salisbury	Contact Ray Elliott
6	Birmingham Classic	TBA October	Luffenham	gavin.manion84@gmail.com
7	Buckminster Gala	TBA November	Buckminster	Contact Stu Darmon

The scoring system is as last year, 12 points for 1st place then 9 for 2nd down to 1 for 10th, all regardless of the number of entries.

According to Roy Vaughan who, with Peter Hall, ran the league for many years the rationale is
(a) it rewards people who turn out in inclement weather regardless and
(b) it may encourage more entries knowing that stacks of points are likely to be available to those who turn out.
Best 5 from 7 events to count, in the event of a tie at the end of the season then number of 1st, 2nd etc. places will be used to resolve.
Additional events may become available as the year progresses e.g. Ray Elliott's proposed "Cagnarata" event in June. This and any other "privateer" events which people may choose to hold will be notified as they become available.
I'm sorry it's such a shortened programme but it remains unclear how Coupe results can be extracted from the combined classes ("groups") which now make up the totality of the BMFA programme for the year other than the Nationals.
The SCL Programme for 2026 will be determined following input from interested parties as it's clear that there are other possibilities.

Gavin Manion

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:
£30 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.

Croydon "Cagnarata" Rubber Day

+ SAM 1066 Day

14th or 15th June 2025

Salisbury Plain Area 8. Start 10.00.

Croydon Contest– This will be an all-in contest, with scores adjusted using K factors, for the following classes: F1B, 4oz Wakefield, 8oz Wakefield, F1G / Vintage Coupe, Mini Vintage Rubber, P30.

SAM 1066 Contest – Combined Vintage / Classic / A1 Glider, Combined Vintage / Classic Power, Mini Vintage Glider / Power

The actual date of the contest is dependent on the weather forecast. The decision will be made on the Thursday beforehand.

For further information please see secretary's notes in the April issue of the New Clarion (www.sam1066.org) or contact Ray Elliott at

ray.elliott8@btinternet.com, tel 07513 649734.

SENATOR

75th. Anniversary

Cleemac & Peterbro'

Invite you to a SENATOR Fly-in & easy Comp day

Buckminster BMFA HQ

Monday August 18th

10am till 4-30pm

To celebrate the 75th Anniversary of this popular Albert Hatfield design which originated in Kit form in1950

Build, Buy, Beg, or otherwise legally acquire a SENATOR to join in this mainly Fun-Day and celebrate with many others.

There is no need to participate in the organised part of the day if so inclined.

Just bring your model along and fly it.

Just enjoy the atmosphere as we all appreciate this design that has given countless hours of pleasure to so many Aeromodellers and been one of the most successful Mini-Vintage competitors over the last three decades.

On behalf of Cleemac & Peterbro' we look forward to seeing lots of you there.

SUPERLIGHT CARBON E-20 AND HLG BOOMS

New stock just in.

First come, first served.

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

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

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

A CENTURY OF BRITISH FREE FLIGHT

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

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

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

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

May Welsh 10-12.5.2025

This is a new event that I am organising to promote free flight in North Wales, especially scale free flight. It will span three days, with both indoor and outdoor flying.

My aim is to give people another opportunity to meet and fly, we are lucky to have access to a number of spacious areas. There are also slope-soaring hills and a sizeable indoor hall. The plan is to fly both outdoors and indoors during the weekend and the Monday - for those able to stay. Social events and an aviation museum visit included.

More details on the www.SAM1066.org website

Please register with Martin on
members@sam1066.org

Indoor Model Flying
Bangor, North Wales
at the
Brailsford Centre LL57 2EH

Sundays 15-00 til 18-00

2024 Dates:

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

2025 Dates:

To May - dates to be decided

Free-Flight Models & Lightweight R/C
Beginners Encouraged

Contact: Martin Pike, 07831 141418
Email: martin.pike.xray@btinternet.com

Join us, flying models. No experience needed,
We have free flight models for people to try out.
Of course you are welcome to bring your own models.
We fly: duration models; scale models; and fun-fly such as Gyminnie Crickets and Hangar Rats.
Radio models must be slow flyers to fly safely in the hall.
The hall is 25x22x10m, a good size for model flying

TWIFF

(Totton West Indoor Free Flyers)

Please bring all your toys (Free flight only)

Sundays, from 12:00-16:00

Admission for flyers £15.00

Free for spectators and helpers

2024

15th September	20th October
17th November	15th December

2025

19th January	16th February
16th March	27th April

25th May

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

There is a Tesco Local nearby for coffee and snacks.

Location

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

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

Contact Ken Brown 02380578866 or 07913814492 brown53hh@gmail.com

Waltham Chase Aeromodellers

INDOOR F/F MEETINGS

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

2024:

Sep:19th., Oct:3rd., Oct:17th., Oct:31st.
Nov:14th., Nov:28th.
Dec:12th.

2025:

Jan:2nd., Jan:16th., Jan:30th.
Feb:13th., Feb;27th.,
Mar:13th., Mar:27th.
Apl:10th., Apl:24th.
May:8th.,
May:22nd. Cancelled
Jun:5th., Jun:19th.
Jul: 3rd.

All meetings will run from 7.00 p.m. to 9.30 p.m. The Main Hall at Wickham Community Centre is particularly suitable for indoor free flight models of all types, with a ceiling free of obstructions. Tables and chairs will be available in the hall, the organisers are always grateful for assistance with moving furniture. A hot drinks machine is available on site.
Admission will be £8 for fliers and £2 for junior fliers, and spectators accompanied junior spectators and parents of junior fliers admitted free.
Fliers will be required to show proof of insurance.
No R/C models may be flown at these events.
Waltham Chase Aeromodellers look forward to welcoming all indoor F/F fliers to these events.
For further details please contact:
Alan Wallington, "Wrenbeck", Bull Lane,
Waltham Chase, Southampton, Hants.
(Tel. 01489 895157) (e-mail: indoor@wcaero.bmfa.club)
or see our web site: https://wcaero.bmfa.club

Chasetown Indoors

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

Flying 1pm till 4pm
Saturdays

Additional dates for 2025

10th. May - 21st. Jun
19th. Jul - 9th. Aug

The parking is at the far end of the car park & the sports hall is the far end of the car park, the large building.
Costs are the same as previously, £8 for flyers & £2 for spectators, children free.
Can you bring your BMFA + contact details & write them down in the supplied book please.
We need 15 flyers to break even, hopefully see you on Saturdays.
Contact: peter.thompson7406@gmail.com

E30/RDT/BMK/E20 Batteries

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

DILLY JAP IS BACK –AGAIN

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

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

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

INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

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

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

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

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

FREE FLIGHT SUPPLIES

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.

FREE FLIGHT FORUM REPORT 2021

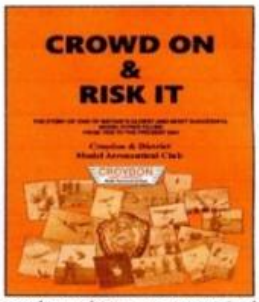
Indoor Duration - A Challenge To Conventional Design - Tony Hebb
Coupe In A Box - Gavin Manion
Building Other People's Mistakes - Stuart Damon
The Models Of Ray Monks - Simon Dixon
Simulated 3d Flight Dynamics - An Approach To Gain Insight For Trimming And Aircraft Development - Peter Martin
Building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

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

Copies are available from: Martin Dilly. 20, Links Road, **WestWickham,** Kent BR4 OQW
Or by phone: +44(0)2087775533 Or e-mail: martindHy20@gmail.com

CROWD ON & RISK IT

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

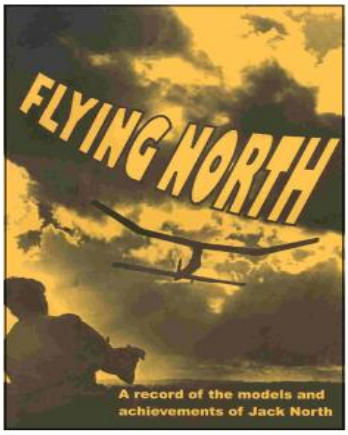


53 designs by Croydon members have been published in the model press and 24 of its members have represented Great Britain in World and European Championship teams. Several have gone on to notable careers in aerospace. Crowd On & Risk It covers all this and more.

Just £10 by PayPal or cheque

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

THIRD RE-PRINT JUST ARRIVED



FLYING NORTH

A goldmine for vintage and nostalgia model flyers -

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

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

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

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

READERS' FEEDBACK

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

"I hope it becomes a classic."

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

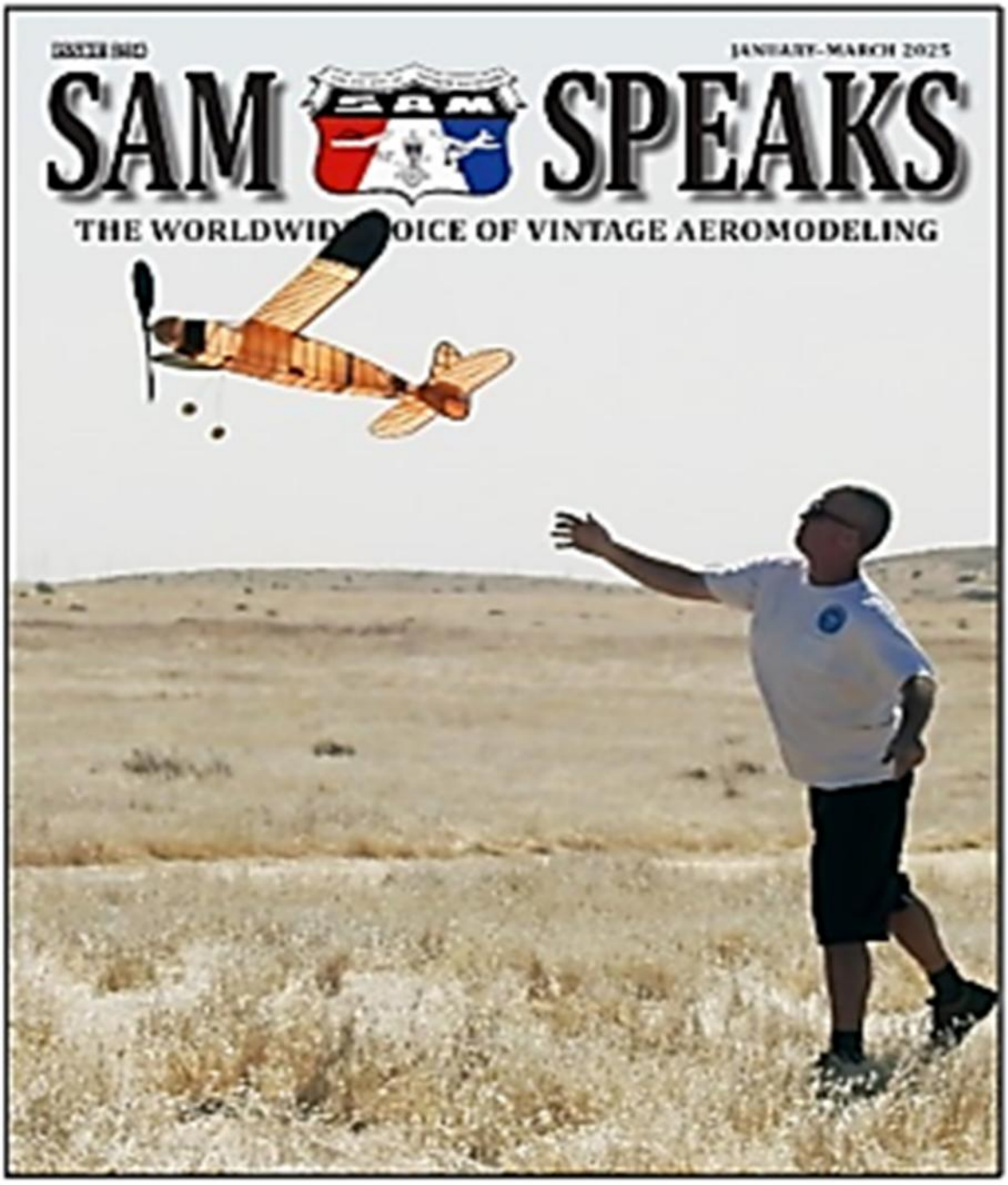
"... am immensely impressed. A splendid effort"

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

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

"The best aeromodelling book since the Zaic Yearbooks"

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



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

Provisional Events Calendar 2025

With competitions for Vintage and/or Classic models

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

February 22nd	Saturday	Coupe De Brum, Luffenham
or February 23rd	Sunday	
March 9th	Sunday	BMFA 1st Area
March 23rd	Sunday	BMFA 2nd Area
April 6th	Sunday	BMFA 3rd Area
April 18th	Friday	Northern Gala, Luffenham
or April 19th	Saturday	
May 4th	Sunday	BMFA 4th Area
May 24th	Saturday	London Gala, Salisbury Plain
or May 25th	Sunday	
June 1st	Sunday	BMFA 5th Area
June 14th	Saturday	Croydon, & 1066, Salisbury Plain
or June 15th	Sunday	
July 6th	Sunday	BMFA 6th Area
July 26th	Saturday	East Anglian Gala, Sculthorpe
& July 27th	Sunday	East Anglian Gala, Sculthorpe
August 9th	Saturday	Southern Gala, Salisbury Plain
or August 10th	Sunday	
August 23rd	Saturday	**FF Nationals,** Sculthorpe
August 24th	Sunday	**FF Nationals,** Sculthorpe
August 25th	Monday	**FF Nationals,** Sculthorpe
September 7th	Sunday	BMFA 7th Area
September 13th	Saturday	Stonehenge, Sculthorpe
& September 14th	Sunday	& Equinox cups
October 4th	Saturday	Croydon & 1066, Salisbury Plain
or Sunday 5th	Sunday	
October 12th	Sunday	BMFA 8th Area
October 25th	Saturday	Midland Gala, Luffenham
or October 26th	Sunday	

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.org
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