# NEW Clarion

## SAM 1066 Newsletter

Society of Antique Modellers Chapter 1066

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**Affiliated to** SAM 1066 Website: www.sam1066.org

**Club No. 2548**



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# Editorial

I received the following email in response to Martin Pikes model query last issue.
*Just a couple of observations from the January clarion*
*The fuselage needing identifying is a Gutteridge trophy winner by Norman Blacklock, not sure about the wings though.*
*Cats Whisker, I built one when the plan was featured in Flying Model Designer and Constructor, flew it at MW, however it wasn't consistent, too much hassle so I soon changed back to Senators and Victoria Parkers.*
*I built a comet Aeronca as well about the same time,* ***no DT!!*** *It's been rotting away somewhere northeast of MW since the early 90.s*
*Hope this helps.* *Mike Hollamby (ex Rubber Nekker of Clarion infamy!!)*

Well guys the 2025 competition season will soon be upon, us well upon you anyway, and please write a few comments about your activities, perhaps with a picture or two.

What is there for you lot to contemplate over in this issue?

- First up the CAA regulations summary issued by the BMFA.
- Some comments by Palhe Pierre concerning the picture published in Roger Newman's article last month.
- Articles were a bit slow coming in for this issue so once again I dug up one of my Articles published in the old 'Paper Back Clarion' in September 2003.
- Pylonius gives us his views on new slim models brought about by x section rules. He comments on a Jet engine and highlights the current trend for R/C flyers' pursuing distance records.
- Peter Watt follows up his last article with the Russian 'Thunderscreech', said to be the noisiest aircraft ever produced. Also a weird miniature prone piloted fighter.
- News Review from 1950 reports on the SAME area set-up and observes that organisation is getting slack. The RAFMA is mentioned as strengthening. In answer to criticism, the restructuring of the SAME annual dance and prize-giving, is proposed to give more time for dancing.
- Tony Shepherd advises us of yet another model build, not the he needs anymore. After contemplation it turned out be a refurb of a 'Jimp' he had on hand.
- Heard at the Hangar Doors from 1955 uses most of page 1 with detailed description of size modifications to PAAYLOAD Dummies, and details of the forthcoming Scottish Festival of Model Aviation. There are pictures of model aviation postage stamps.
- I dip into my picture files from 1915 to make up an article.
- Nick Peppiatt, report 84, writes on The Xmas Trinity Indoor meet with picture of a good collection of 'Elves'.
- I publish the conclusion of the Zeppelin articles.
- Roger Newman sends us his North Wales report.
- Roy Tiller digs again into our Archives, the fate of which is a topic for the AGM.
- Next up are Rogers Plans for the Month.
- A report on our Zoom AGM.
- Wrapping up with the 'Secretary's Notes for February 2025.
- There follows Events and Notices.

*Editor*

**Latest Model Flying Regulations** - BMFA

JULY 2023

# Quick Start Guide

to the regulations for model flying

100 Years of British Model Flying

bmfa.org

## THE LAW HAS CHANGED

- BMFA members are permitted to operate aircraft up to 25Kg under our 'Article 16 Authorisation' issued by the CAA. This defines different and more flexible operating requirements to those detailed within UK Regulation (EU) 2019/947 which apply to non-members. To benefit from our Authorisation, you must familiarise yourself with the requirements and be a cutrrent BMFA member.
- For full details, please see https://rcc.bmfa.uk/article-16.

## LINE OF SIGHT

- You must operate your aircraft within visual line of sight (VLOS).
- If flying using first person view, you must have a competent observer next to you who maintains VLOS with your aircraft. Special rules apply to FPV drone racing within a 'sterile area'.
- Free flight aircraft must not be deliberately flown beyond VLOS.

## HOW HIGH CAN I FLY?

- The height limit for all unmanned aircraft in UK Regulation (EU) 2019/947 is 400ft (120m) above the terrain.
- BMFA members are authorised to operate above 400ft with aircraft (excluding multi-rotors) which weigh less than 7.5 Kg.
- BMFA members are permitted to operate sailplanes over 7.5 Kg, (but not exceeding 14kg), up to 400ft above the pilot (rather than the terrain).
- Model aircraft weighing more than 7.5 Kg must not be flown higher than 400ft without permission from the BMFA.

## FLY SAFELY

You must not endanger the safety of any uninvolved person or any vessel, vehicle or structure not under your control when you fly your unmanned aircraft.

For aircraft under 7.5kg, do not fly within

- 30m of uninvolved people
- 30m horizontal distance from an assembly of people

The distance can be reduced to 15m for take-off and landing in some circumstances.

For aircraft over 7.5kg, do not fly within

- 30m of uninvolved people
- 50m horizontal distance from an assembly of people

Flying within 'built up areas' is only permitted subject to the conditions outlined in our guidance.

## MANNED AIRCRAFT

- You must do everything possible to avoid conflict with any manned aircraft.
- It is illegal to fly any unmanned aircraft (other than a control line aircraft) within in a Flight Restriction Zone (FRZ) around an airport/airfield without permission (see our guidance for details).
- To ensure that you are not operating within an FRZ or airspace subject to restrictions, please check the UAS Restrictions Map at https://nats-uk.ead-it.com/.
- Endangering the safety of a manned aircraft could result in a five-year prison sentence.

## REGISTERED & COMPETENT

- It is a legal requirement for most model flyers to register as an Operator with the CAA (if 18 or over) and have evidence of their competency (regardless of age).
- **You can register as an Operator through the BMFA and existing BMFA Achievements are accepted as evidence of competency.**
- Those without a recognised BMFA Achievement must pass the BMFA or CAA online test before they fly.
- A CAA Operator I.D. number must be displayed on (or be easily accessible within) the aircraft.

For details of the full requirements, please visit https://rcc.bmfa.uk/article-16

## YOU ARE RESPONSIBLE

- You are legally responsible for ensuring that your flights are conducted safely. It is essential that you are aware of the laws which apply.
- Our Authorisation covers flying for sport, recreation, education and demonstration. It excludes any flying for commercial purposes.
- For further details of Operator and Remote Pilot responsibilities, please refer to our full guidance.
- Failure to operate lawfully could result in criminal prosecution.

## MINIMUM AGE

- There is no minimum age for a remote pilot, but they must have evidence of competency if operating without the supervision of a competent remote pilot.
- Under 18's will need someone to act as their Operator and be registered with the CAA.


## AIRCRAFT LESS THAN 250G

- Unless the aircraft is fitted with a camera, there is no requirement to register as an Operator, but evidence of competency is still required to operate within our Authorisation.
- Alternatively, you may operate within the Open Category requirements - defined in CAP 722 - for aircraft of less than 250g.

## IF THINGS GO WRONG

The law requires the reporting of certain occurrences:

- Serious accidents and incidents to the AAIB
- Serious incidents and a range of other occurrences (including breaches of the terms of our Authorisation) to the CAA.
- The BMFA has made this process as easy as possible: https://reporting.bmfa.uk/

## ADDITIONAL BENEFITS

Our Authorisation also includes special arrangements for:

- Trial flights for non-members
- Visiting flyers/competitors from overseas
- Display flying
- Permitting flights above 400ft with aircraft weighing more than 7.5Kg

For further details, please see the full guidance.

## THE BMFA

The BMFA has been working hard for UK model aircraft and drone flyers since 1922. Our unbeatable membership benefits include:

- Insurance – a class leading package including £25 million liability cover and £35K personal accident cover.
- CAA Operator Registration - made easy as part of our membership process.
- The BMFA NEWS – 60+ glossy pages of everything happening in our sport, delivered to your door 4 times per year.
- Achievement Scheme – dedicated to raising flying standards and safety whilst making learning fun.
- Access to competition – membership provides access to local, national, and international model flying contests.
- Guidance – we publish an extensive range of guidance material to help members have fun, fly safely, and remain within the law.
- Assistance – our experienced staff are there to help, advise and support whenever required.
- Representation - we represent the model/drone flying community at the highest levels nationally and internationally.

*All this and much more for less than 12p a day!*

**www.bmfa.org**

100 Years of British Model Flying

For details of the full requirements, please visit https://rcc.bmfa.uk/article-16

## French Connection - Pailhe Pierre

*Text translated by Word from Pierre's email*

Excuse me for writing to you in French, my English is too bad for me to write...

You published (Clarion November) a photograph of a grandfather launching a model.

This photo is known in France, although it was taken in 1933.
I had written to R. Doineau about him, because there are two photos of the same scene, the same character, but different models.

The second photo was published in the "Encyclopedia Universalis" article "toy" (attachment, compare the two models).
I had asked Doisneau if he could enlighten me on these two photos, he replied that he did not remember, these photos having been taken "on the sly", at a time when he did not note his beginnings as a photographer.

I had written an article on this subject in the Bulletin of the Association of Lovers of Antique Models".

It is said, in France, that the character (with beret) is Denoès, a pre-war modeler, he was part of the French-team at the 1937 Wakefield and the lady would be his wife...
Kind regards.
Pailhe Pierre, 19 rue Boileau Pau, France; prrpailhe@wanadoo.fr

*Pailhe Pierre*

**Bricks on Strings** - John Andrews

*Extract from old paperback Clarion September 2003*

*John Andrews – Bricks on Strings Part 1 – etc.*

*I've just got back from a Saturday afternoon indoor meeting at the Alumwell School Sports Hall in Walsall. These meetings are put on by the Birmingham lads Pete Ashmore and Colin Shepherd and are well worth a visit. The venue is one of the best there is and there is plenty of floor space and altitude. The School is dead easy to get at, you just drop off the M1 at junction 10 and take the main road towards Walsall, then turn right at the second set of lights after about ¼ mile.*

*I seem to be writing an advert so I might as well do it properly.*

*ALUMWELL INDOOR DATES*
*Colin and Pete are negotiating the following dates*
*October 11th, November 8th, December 13th & January 10th.*
*These are Saturdays 1pm until 5pm, Free Flight Only.*

*Juniors get in free and I took my eight-year-old Grandson Jamie with me. It was quite hot and sticky in the hall but it was great for me, I just sat in my chair and Jamie wound up the Hanger Rats, I hooked up the motor and he performed the take-offs. He even caught some of them before they landed. He also did a few hand launches quite naturally, without throwing. In the end, I let him launch my old EZB.*

*Brian Roberts was there also and he persuaded Jamie to fly his BMFA Dart. It was the first time I had seen a dart fly properly; it must have been doing best part of a minute, very smooth and stable.*

*That must be my best digression yet, this article is intended to be my Control-line experiences and I've not mentioned C/L yet. Bricks on Strings as the dyed in the wool free flight fraternity irreverently called them.*

*I did a great deal of control-line flying, in the 1950's; the Rugby MESAS (that's Model Engineering Society Aeronautical Section) had the use of the St. Andrews Rugby Club football field on Sunday mornings. There were always a few of us performing every Sunday and we had a go at most types. I, together with my modelling friend and neighbour Ian Lomas, had a go at team racing; and we took an Elfin 2.49 powered racer to a sponsored event at Butlins Holiday Camp in Skegness. It was a good reliable model but I had only put a single elevator on the inboard half of the tailplane and this proved inadequate to keep the tail down on take-off as the event was run on the grass sports field. We had done our practice on tarmac on Lawford Aerodrome and never flew on the Rugby pitch. Although we had the fastest model, we took two or three attempts for each take-off and were well beaten in the end by an ED Racer powered model with 2" diameter wheels and a large tail plane.*

*Combat was another innovation in those days and we had our moments at that. We had plenty of crossed lines and the like before we became proficient. There was one occasion early on when Ian panicked when the lines crossed*

*and released the handle. Away went the whole shooting match going quite well with the model flying round the handle in a relatively stable manner and the model and lines covered quite a distance before gravity finally won.*

*We did become good enough to try a few competitions at a rally or two. The AM35 was the motor of our choice at the time, the PAW19D had not yet surfaced but a lot of the opposition were using Oliver Tigers. The AM35 was cheaper, lighter and served us well. The main drawback was the difficulty of hot restarts, these were always uncertain. You only had to look at an Oliver and away she went but the AM sometimes took a few flicks to get it restarted.*


Two of Authors Combat models of the period
(Pity I could not get my old SMAE No. back when I rejoined)

*Fuel at the time was homebrewed and the Oliver Brew, as it was known as, was 50% Paraffin – 30% Ether – 20% Caster Oil with an additional 2% Amyl Nitrite. Our gang used this mix on most of our engines: ED Racers, Frog 2.49's, Elfin's, Frog 1.49's and the like but when it came to the AM we found that 40% Paraffin & 40% Ether gave cooler running and better restarts.*

*Its quite amusing when you think back, we used to go into Boots and just buy it all. The Amyl Nitrite came in an 8 oz brown fluted glass bottle complete with a ground glass stopper, I've still got the bottle in the garage. The pharmacist in Boots would have apoplexy if you asked for it today. We used to get the Ether in the huge Winchester Bottle and Blue Paraffin was the choice, from the 'Esso Blee Duler' if you remember the ads.*

*Our Castor Oil was the real find, we had a cattle market at the end of our road and on the far side a chemists shop that specialised in farmers requirements, low and behold, gallon cans of lovely thick Castor for the treatment of cattle.*

*Speaking of finds, we got our dope, also in gallon cans, from the BTH Co.where Bickerstaffe and I worked. It was called cellulose cement and was used in some manufacturing process somewhere. It needed a lot of thinning but cost was minimal.*

*Eventually I got into C/L Aerobatics with semi-serious intent and competed in the Gold Trophy at the Nationals on quite a few occasions without notable success. The picture shows one of my models and one of Ian's. I flew the one in the foreground in the Gold using a borrowed Frog 3.49 cc BB. If memory is correct, although I competed for a few years, I never completed the required two schedules for the Gold Trophy in any year without incident. I can remember writing off one ED Racer powered model practicing before the event and I also recall having to land a Frog 500 powered model inverted after an engine premature flame out. The engine was mounted upright and the little brass knob on the top of the KLG Plug was well ground away by the runway when the model came to rest. The old Frog 500 was a good motor but the needle, as fitted, was too sensitive for us to get near to peak RPM and we also suffered from leaning out during the run.*

*Even my final attempt, when flying a good reliable PAW19D powered model, was not completely without error. The model had a tank that was marginal in capacity and on the second flight the engine cut during the cloverleaf at the end. I did finish up with the second best performance with a diesel-powered model but that is not as good as it might sound. There were only two of us using diesels; the other guy was Gig Eifflander, Mr. PAW.*

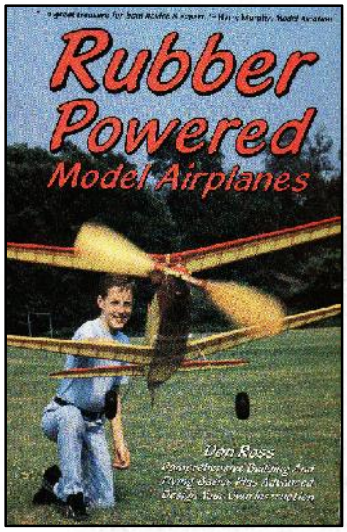

1950's Stunt Models, ED 2.46 Racer Powered

*I met the Australian Brian Horrocks at one rally somewhere; he was flying a large (for those days) stunt job powered by a Glo Chief 49. Brian had come over to commiserate with me as I had just written off my model attempting a wing-under through the tarmac when the up line broke. During the course of our conversation, it transpired that the Gold Trophy was his Mecca and he actually said that if he could win it he would give up flying. He went on to win the Gold that year but I cannot imagine an enthusiast like he was packing it in.*

*The club got invites to give demonstrations at Sports Days and Village Fetes and the like in those less safety conscious days. We used to give them the full works, starting with some team racing then Aerobatics and finally the Combat spectacle. We used to tell the organisers that we needed a 100ft circle to fly but this did not always materialise. On one occasion, we had to fly in the next field to get enough space. Once the engines started, over came all the kids followed by parents, this exodus was not good for the stalls at the fete so we had to ration our demo's.*

Author retires after Stunt demo at a Rugby Garden Fete in late 50's

*Now a complete change of subject to finish this epistle to the afflicted.*

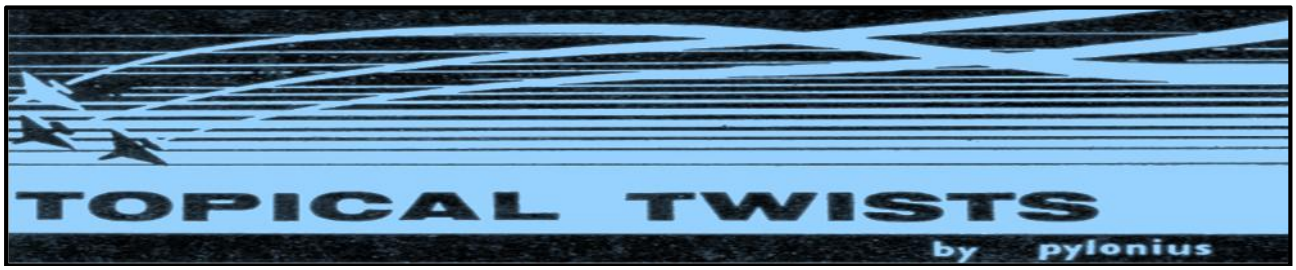



*David gave me a copy of the book pictured alongside to have a browse through. I found it to be quite interesting, It is a complete guide for the building and flying of rubber powered aircraft, from the beginner through to expert. It concentrates on the novices requirements in extensive detail and should enable a complete beginner to make significant progress in the hobby, even without an experienced flier on hand. I particularly like the way the book sets off, no extensive preamble about this that and the other, just a half page introduction then before your halfway down page one of chapter one "SO…lets go flying"*

*It then jumps straight in to building an all sheet beginners model which is the right way to go. Theres plenty for the more experienced, pitch tables etc.*

*The book is available from:* **SAMS, The Chapel, Roe Green, Sandon, Buntingford, Hertfordshire, SG9 0QJ.**

*John Andrews*




*Extract from Model Aircraft February 1956*



# Topical Twists

**Trade Winds**

Modellers have always shown a healthy respect towards the balsa scattering breezes. At one time it was quite the fashion to name the new breeze-doomed masterpiece after some colourful sort of wind: Zephyr, Sirroco, Mistral, * * * *, and so on. Nowadays, modellers have a more poetic turn of mind, and euphonic titles like Clot, Ker-rash, and Fizzlebug, are all the rage. But, still, its an ill wind that blows nobody good, and that same model mangling variety that sweeps across our dust-free island to cause such a chill draught in the region of the modeller's pocket, is affectionately referred to in the kit and counter business as the Trade Wind.

Residents in prosperous localities have been mystified by the appearance on Sunday mornings of large Havana cigars protruding from ornate casements. They might wish to learn that the ritual is a standard wind strength test carried out by wealthy manufacturers. If there is sufficient draught to snuff out the cigars they return to bed to conjure up roseate dreams of huge piles of wind-shattered kittery, and write out cheques for the new Rolls. If, on the other hand, the smoke rises in a sinister vertical, the champagne orders for breakfast will most likely be cancelled, and fourth footmen given their notice.

But I exaggerate. The recent trade bun fight turned out to be quite a modest affair, overshadowed by the imposition of further purchase tax on model gear, and the deep gloom of those wily manufacturers, who with a business eye on the housewifely chore of sweeping up balsa chippings, held large shares in broom companies. There were, indeed, no wild displays of opulence, and the only Rolls to be seen were of the buttered variety.

Report has it, too, that only one of the manufacturing tycoons can claim the distinction of being a yacht owner. And the fate of this proud vessel is uncertain, since it foundered, radio gear and all, on the reed banks of Clapham Pond.

**Waisted Hours**

Area Rule theorists are predicting that models of the future will have that Marilyn Monroe look. This is encouraging news, as it implies that some of the tedium will be taken out of design work. Models will be built direct off blue printed versions of your favourite pin up girl, based on a cross section formula of $BWH = 2Wh$, where $B = 38$, $W = 24$, $H = 36$, and $Wh =$ whistle.

Anticipating the future, I am already engaged on my "Luscious Lolly" project . . . C-c-crash, z-z-zing, b-blam, w-w-whoosh . . . As I was saying, my wife has just suggested I carry on with my Wakefield.

**Free Orbit**

When the model jet engine made its impressive debut it left all the other models standing—including its own. Hastily it was decided to put the snarling monster under restraint, so that now, the newsreel men—the only people who, out of a sense of public duty, are intrepid enough to venture near the things—are comforted by the existence of two microscopically fine wires, standing between them and a fate worse than television. Model fliers, and their associates, are not over-interested in the tethered blowlamp, since the model element to which it is attached, has diminished in size almost to the point of extinction.

Apart, therefore, from noise battered residents writing frantic letters to the authorities, it is only the newsreel men, and their public, safely entrenched in the one and ninepennies, who still suffer from the jet complex. An outlook which springs from the adult belief that the jet model on a string is the ultimate in thrilling toys.

If I may digress for a moment, the same attitude of mind was evinced by the well meaning gent who, seeing me piling on the Wakefield turns, interrupted with a few sage questions, based on the assumption that I was learning on elastic models before progressing to something with an engine. He now lies quietly at rest in a lonely corner of the common. . . .

Anyway, in order to revive the model fliers' interest in the jet engine, the PAA load people have thought up the brilliant idea of attaching it to a model plane, and modellers have been asked to give suggestions on adapting it for F/F purposes. One or two timid souls have answered in terms of immediate peace negotiation, while others have hinted at preliminary tests on the Woomera rocket range. Many more are asking if there are other, more civilised, ways of winning a gold watch. . . . Now, walk right up, ladies and gentlemen. . . .

**Co-existence**

At a recent model display for the benefit of the Anglo-Soviet Friendship Society, some disappointment was felt at the absence of a Lavochkin 17 model. True, the appearance of a model fighter plane would have been a nice, peace-loving, friendly gesture, but, more appropriate, to my way of thinking, would have been a replica of the famous Mannski monoplane, which is immortally coupled with the name of Prangalotski, the inventor of the model aeroplane.

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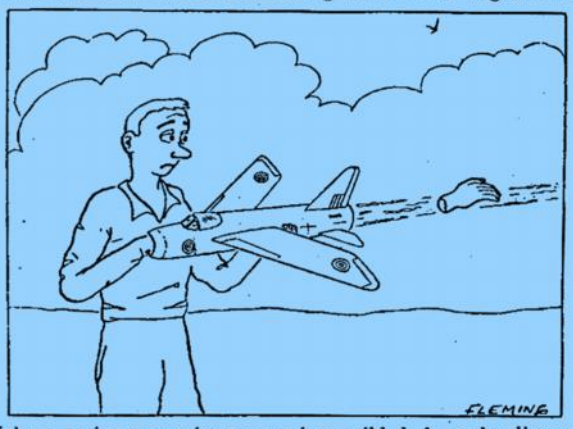
Collectors of outlandish club titles will be disappointed at the recent change of title of the Stockingford Air Scouts. Hopes for anything in the way of the Nylon Nomads were dashed by the mundane choice of Nuneaton & District M.A.C.

**Making Tracks**

R/C fliers, tired of fighting a losing battle with our gale force winds, have been toying with the idea of giving the breeze battered model its head, and chasing it pell-mell across country in the hope of breaking some record or other. Already the sport is well established abroad, where steppe, veldte and autobahn are crammed to overflowing with horse wagon and




jalopy, toting transmitter crews in a wild dash to the distant coastline.

While this sort of long distance duration flying presents certain problems in our own patchwork little island, these could be overcome to some extent by the use of an extra-large tank. Probably a Centurion would fill the bill.

**The Final Word**

Cause for personal encouragement is the discovery that the names of all the world championship winning models terminated with an "e." This gives hope that I am at last working on the right lines, and that my new masterpiece, Floppe IV, (the preceding three of which terminated with an O-h-h), will Win the Wakefield/Exceed 3 min./Exceed 1 min./Fly at all.*

* Delete items inapplicable.

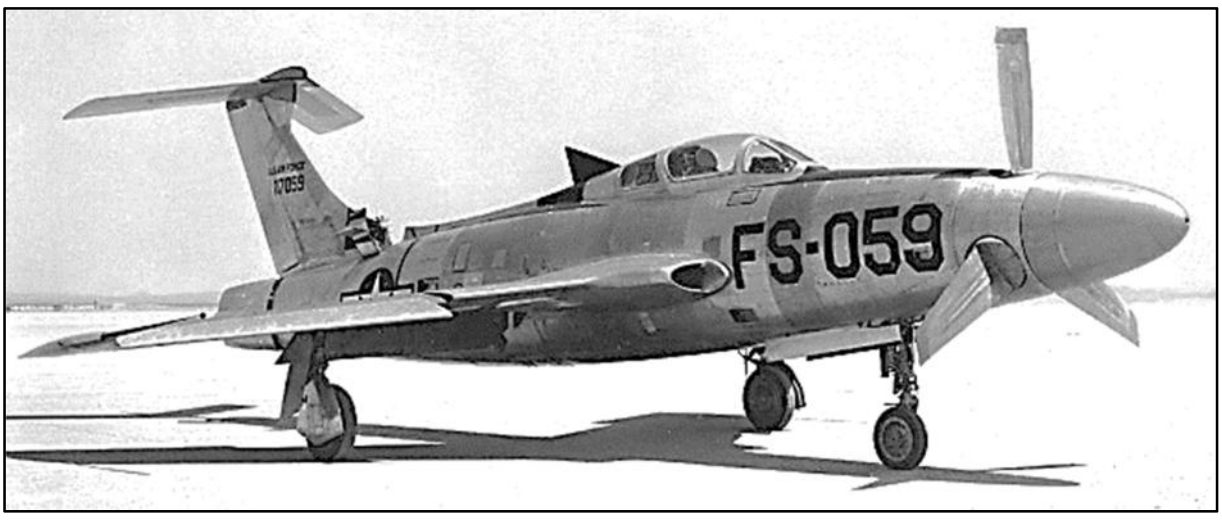
Pylonius

## Weird but they didn`t Work - Peter Watt

Following on from the article on the Thunderceptor XF91 in November 2024 issue here is another Republic post war plane the Thunderscreech. Hailed as the loudest and fastest propeller driven aircraft built. Derived from the Thunderjet/Thunderstreak family the F-84H Thunderscreech was conceived as a high speed interceptor with the speed of a jet engine plane combined with the low speed landing characteristics of a propeller driven aircraft. It was basically a Thunderstreak fuselage with the jet engine driving a variable pitch constant speed prop via a long shaft. The jet efflux was to add to the speed and an afterburner was to be used.


The biggest problem to manifest itself early in the programme was the outer area of the evil looking propeller blades were running above Mach 1 creating a continuous transonic boom making the ground crew vomit and on one occasion a crewmember of a nearby aircraft had a seizure. Initial trials were carried out at Muroc AFB but the air force were so concerned that the shock wave was damaging the control tower that they banned it to an airfield further out in the desert. As mentioned earlier the Thunderscreech was to be used as an interceptor but took half an hour`s ground running before ready for take-off!

The huge torque from the powerful prop lead to further in flight problems so several compensating measures were designed in. A dorsal fin was fitted behind the cockpit, differential aileron control added and the wing root intakes staggered but still handling proved to be a nightmare. One of the test pilots refused to fly it again after just one flight. Another made twelve flights of which eleven resulted in emergency landings. A small jet on an extending arm was deployable in the event of such an emergency.




The Thunderscreech reached a speed of 520mph which, although well short of its design speed, was nevertheless the fastest for a prop driven aircraft of the era. Needless to say the project was scrapped but not before it had earned the reputation of the fastest and noisiest aircraft around.

Even weirder was the Northrop XP-79 nicknamed the "Flying Chainsaw" or "Flying Ram"!
Jack Northrop had the idea that the flying wing was the most efficient format as probably best shown with his XB- 35 and 49 bombers already featured in New Clarion articles.


The XP-79 was initially designed in Jan 1943 to be a rocket powered fighter of magnesium construction with reinforced leading edges with the pilot lying prone in the cockpit to better resist the high G forces anticipated during flight.

The plane would take off and rapidly climb to 40,000 feet and then dive into an enemy bomber/fighter formation.

Now here the controversy begins because some say it was designed to slice into the wing or tailplane of the enemy (hence the Flying Chainsaw).

In fact, the design shows twin machine gun armament so the ramming action may be myth.

A few prototype gliders were built and even one rocket powered example but the rocket motors fuelled by fuming nitric acid and ethyl aniline proved unsatisfactory and the design was reconfigured around two turbojets. It was given the designation XP-79B.

Many of the ground trials were hounded by bursting tyres but finally in Sept. 1945 at Muroc the first and only flight took place.
After 15 minutes the aircraft entered a spin.

The test pilot Harry Crosby tried to bailout but was hit by the aircraft and died instantly.

When the aircraft struck the ground it exploded in a fireball of burning magnesium and the project was abandoned.

*Peter Watt*


## THE S.M.A.E. AREA COMMITTEES

The S.M.A.E. Area scheme has now been in operation for some time and while a steady growth has been maintained since its inauguration, there has been distinct signs of a falling off in efficiency of late in some areas. We are not in a position to define the cause, but it may well be one of pure apathy alone—we hope it is nothing worse, although this is bad enough.

The area scheme was brought into being in order to give the provinces the opportunity of taking an active part in the organisation of the model aircraft movement and its control, and it would be a severe set-back if the scheme failed through lack of sufficient interest to keep the individual areas alive. We hear trenchant criticisms of the S.M.A.E., as an organising body, when there is a breakdown in one of its complex details, but its task is not made any easier if weaknesses develop in the Area organisation and matters are not attended to as they should at the "outposts" of the movement.

We learn that all is far from well in the Western and Southern Areas, and we also note that at many of the meetings of the South Midland Area there have not been sufficient club representatives present to form a quorum. It is possible that a similar situation exists in other areas.

A vigorous S.M.A.E. is dependent on well-run and well-represented areas, and it is to be hoped that the officials appointed for 1950 will function with enthusiasm and a will to make the coming season the most successful ever; their efforts will, however, be of little avail unless they receive the *active* support and backing from the clubs in their areas.

We look forward to 1950 in the hope that the apathy we have noted is only a passing phase and that the area scheme will show fresh virility.

## MODELLING IN THE R.A.F.

It is strange how the Service side of aviation in this country has persistently ignored the value of model aircraft as an aid to the training of their personnel, except in the case of a few exceptions, of course.

It is, therefore, of special interest to note that the Air Ministry is now taking a very live interest in this branch of aviation, through the Royal Air Force Model Aircraft Association, and is encouraging the formation of model aircraft clubs at most R.A.F. units.

The general scheme appears to follow closely the S.M.A.E. organisation with variations which must inevitably occur as a result of the basic difference of conditions operating in the two organisations, but they are as near parallel as makes no difference.

Proper organisation is an essential to the development of any movement and we look forward with pleasant anticipation to a rapid growth of interest in model flying at the various air stations now that it has been placed on a proper basis.

Negotiations which have taken place between representatives of the S.M.A.E. and the R.A.F. Model Aircraft Association have proceeded very satisfactorily. As a result it is almost certain that in the near future all R.A.F. clubs will become affiliated to the society *en bloc*.

## THE S.M.A.E. PRIZEGIVING

The S.M.A.E. broke the usual tradition of the annual dinner, prize-giving and dance last year by placing the accent on the dance, and subordinating the dinner and prizegiving to make the event more social in character.

This was done to meet the criticisms levelled at the 1948 event that so much time was taken up in eating, speechmaking, and prizegiving that there was no time left for dancing—which was very true.

The breakaway last year has afforded members the opportunity of making comparisons and, perhaps, forming new ideas for this year's event. The Society is anxious to remain progressive and we feel sure it would appreciate expressions of opinion from those who attended the last function and suggestions for the improvement of the next.

We know it is not possible to please *all* the people *all* the time, but the viewpoints of those who were at Londonderry House for the 1949 function would materially help the Council of the Society to stage a function for 1950 which would at least please a majority of the members for *one* evening.

Let us have your views, and don't pull the punches!

**One for the Board** - Tony Shepherd

## ONE FOR THE BOARD

Isn't it funny how an idea can eventually lead you into something that is significantly different from that initial idea? The other day I was contemplating a future build of a larger sport model, something around 5ft wingspan. No, I don't need any more but it's just what we do! And that got me to considering an old favourite diesel engine, the ED Comp Special, which is perfect for a lumbering sport model and why I have one in my Simplex. There are also a few more in the box "just in case" so a cold afternoon was spent in the garage getting them un-gummed and running again. One in particular is a cracker (I got it via Rod Kenward from some friends of his perhaps 20 years ago) so that one has been put aside for the new project which is……temporarily shelved!

Years ago I built a Jimp. I was going to put a Comp Special in it just like the designer, Charlie Allen, put in his back in the late 40's when he used it to win the Northern Heights Gala. I thought it would be fun to compete with mine using the same engine.

The model was completed and flown a few times but with a PAW 149 for power and it was then forgotten about. The memory loses some clarity at this stage but for some reason I built a second Jimp which ended up a bit lighter than No1 and this one was eventually fitted with an Elfin 249. I gave it a few flights on Salisbury Plain but the Elfin was a pain to stop which is not good for contest flying. It was also a nightmare to hold as it threw oil all over the smooth, boxy fuselage so I gave up with that one too!

By then No1 had gone to Dave Cox and he'd fitted a modern glow plug engine on the front and to his and my surprise it goes up like a rocket and reaches a helluva height on its 18sec run. I meanwhile bask in the reflected glory of knowing that I originally built it!

I've considered fitting No2 with the same engine that Dave's using. I've considered fitting it with twin ballraced PAW80 for mini-vintage like Thommo did in his (article in NC February 2011 refers) but to quote our former Chairman:

*I built the model for Mini vintage comps powered by a PAW .8 twin race diesel (6x4 @ 16.4 k), the nose was lengthened to take account of the lighter weight of this engine compared to the ED. The model flew OK but really is a bit too large for this amount of power, being in wing area about the same as a Dixielander*

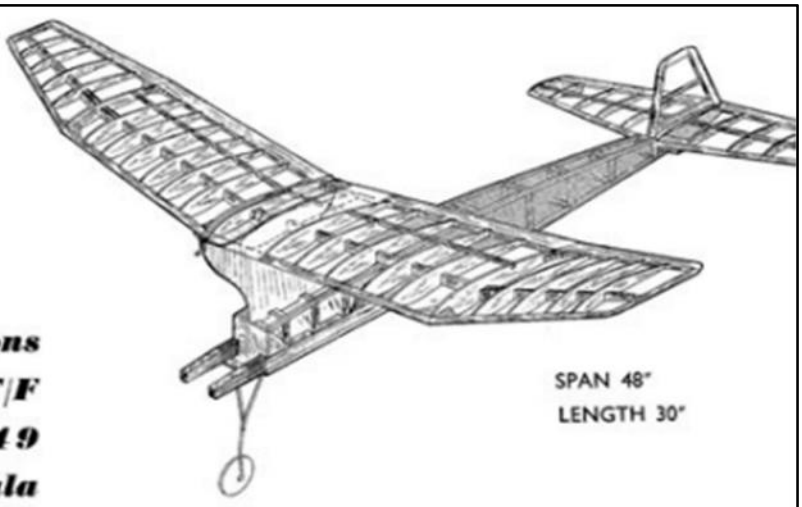
Echoing Thommo's views, Dave has desperately tried to convince me of the futility of the mini-vintage option so with the weight of all of this negativity I've reluctantly shelved that plan AND forgotten about the high power glow engine approach.

So as I now find myself with an unallocated Jimp airframe and a cracking ED Comp Special how about going back to the original proposal for Jimp No1? Dave will probably try and convince me to scrap that idea too but flying for fun is by far the most important thing for me so it might well happen this time. I like the idea of flying old models as they were originally configured so what a super opportunity and Charlie Allen won with his so it's got to be worth a punt - and I've still got a few more Comp Specials in the box so there are still plenty for the larger sport models.

# Jimp

## by C. A. ALLEN

***Plans and instructions for building the F/F winner of the 1949 Northern Heights Gala***




THIS simple pylon model was especially designed to suit the E.D. Comp. Special, but any similar (2·3·5 c.c.) diesel may be fitted, such as the E.D. 3·46 or Amco 3·5. Glo-plug motors of the Yulon 30 and ETA 29 types should also be suitable. Still air duration on a 10-second motor run is consistently over 2 minutes. Best flight to date has been one of 5 minutes O.O.S. At the 1949 Northern Heights Gala Day, this design won with a 100 seconds plus on a 5-sec. run. Second place was also gained at the North Hants Rally. The slightest thermal is enough to keep the Jimp floating around and for this reason a dethermaliser is advisable. A fuse-operated parachute of about 14 in. dia. is about right.

Construction of the model is particularly simple and the airframe weight works out very light. Only a few evenings are required for building and field repairs are aided by the straightforward structure. The square-tipped flying surfaces seem to be just as efficient as the rounded type—and have, of course, the advantage of being easier to build. Scale up the drawings to full size or write off for the 40 in. × 30 in. plan to the publishers. Full-size ribs, formers and other parts are provided on the next page. Pin-prick or trace these patterns on to the appropriate size sheet.

### FUSELAGE

Make up the pylon from ¼-in. sheet (P1-P4), remove from the plan when dry, then cover both sides with medium $\frac{1}{16}$-in. sheet. The fuselage side frames are built flat on the plan in the usual way—one on top of the other. When quite dry, lift the sides up from the building board and separate with a razor blade. Now add the hardwood bearers and join the two frames by means of the formers (F1-F6). Note that the F1 and F2 formers are sandwiched together. Pull in the frames at the tail end, cement, and add the upper and lower spacers. The fuselage is 1 in. wide at the tailplane leading edge position.

Bend the single-leg undercarriage from a piece of 14 gauge wire and bind securely to the bearers. Add the 1 in. × ¼-in. tailplane saddle and install a diesel type timer behind former F4. Fill in the top of the fuselage back to F6 with fairly soft ¼-in. sheet to provide a large cementing area for the underneath of the pylon. Cement the pylon in position, noting how the tongue on P1 butts up against F2. Fair in the fuselage/pylon joint with plastic wood

### WING

Begin this component by building up the main spar flat on the plan—using splice joints. Use pins to hold the spar strip to the plan and add the W2 and W4 braces on one side. When dry, lift up and add the braces to the other side.

Build each of the four panels flat on the appropriate sections of the wing drawing. Start with the inboard left panel and pin the spar in position. Next pin the unshaped leading and trailing edges to the plan, followed by the $\frac{3}{32}$-in. ribs. Check carefully that the ribs are vertical and notch all except the ones at the dihedral breaks into the trailing edge. The rear upper spar is next added. Note that the W5 and W7 ribs are tilted inwards slightly. When the panel is dry, remove the pins and pivot on W7 until the tip spar is flat on the tip panel. Tip construction is similar except that no upper (rear) spar is featured in this case.

The right-hand panels are built in a similar manner and when completed the tips, leading and trailing edges are all shaped to the indicated sections.

### TAILPLANE

First pin the leading and trailing edges flat on the plan. Then attach the ribs and follow with the ¼-in. square upper spar. Cap strip the upper profile of the centre rib with a piece of $\frac{1}{32}$-in. sheet (½-in. wide)—to protect the covering from the tailplane fixing bands. Make the fin flat on the plan and add to the tailplane after both have been covered and doped.

### COVERING

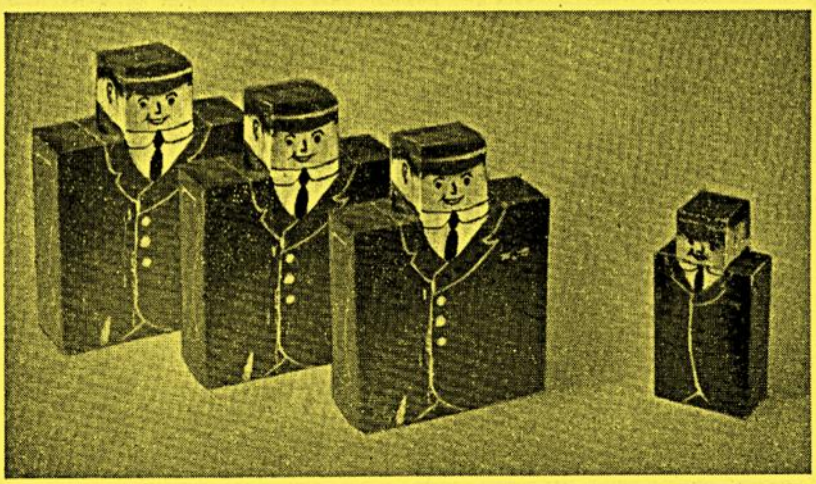
The fuselage is covered with double weight rag tissue. Cover the wings with eight separate pieces of coloured tissue and the tailplane with two. Give the fuselage three coats of clear dope and the flying surfaces two coats. Finish off by giving the complete model a coat of banana oil. Red or orange tissue is recommended for the flying surfaces as it shows up well at a distance. (*Turn to page 55*)



Tony Shepherd

Heard at the Hangar Doors - Aeromodeller February 1955

AERO MODELLER 66 February, 1955



# Heard at the Hanger Doors

## Bigger PAA loads in the U.S.A.

George Gardner, Educational Director of Pan American World Airways and prime mover of the PAA contests today, sent us a draft of PAA-load rules for 1955 that incorporated many changes. Dallas Sherman, known as the PAA-load PAAppy in the U.S., suggested that the rules were becoming over-easy as a result of model development. The result is that whereas there were ½A, A and B classes in the States, they will now have only ½A "America" class (up to .8 c.c.) and a new "International" class for up to 2.5 c.c.

Dummy size to be standardised at the 3 × 3 × 1 body with 1 in. square head but the weight to be reduced for this size from 8 to 5 ounces. Thus the small class would be carrying a larger, and 1 ounce heavier dummy, and the new "International" class would have to carry *three* such dummies (yes . . . 15 ounces total!). As the heading picture shows, the little man was to be left out in the cold and the bigger but five-ounce dummies took up three-in-a-row position.

But all PAA-loaders with existing designs for the smaller dummy or single seater may breathe a sigh of relief, for as we go to press an unofficial report reads that the above suggestions are now to be changed. The small dummy will still be used for the "America" at 4-ounces-plus 1 ounce of cargo, or if a 1 c.c. engine is used (a nice International thought on their part) it must carry a 2-ounce cargo, making a total of 6-ounces. For the F.A.I. class, we keep the 8-ounce single seater and carry in addition, 8-ounces of cargo, making a total of 16 ounces. So PAA-loaders are to be even heavier than before!

Immediate effect will be to limit flight times by no mean margin, and the further adoption of the International five flights of 3 min. maximum system, will certainly call for more competitor effort. As George Gardner states, "The changes are aimed at putting the premium upon skill in construction and flying and minimising the possibility of catching a lucky thermal."

## Scottish Festival of Model Aviation

A. T. Doughton, Scottish Sales' Manager for Pan American World Airways, has asked the West of Scotland Aeromodelling Clubs to organise a large two day Rally in the West of Scotland during 1955. A Committee has been formed with Mrs. Shirt as Festival Manager, and Mr. Meechan as Contest Secretary.

There has long been need for such an event in Scotland, and the Committee look forward to the support of all aeromodellers, particularly those in the North. Everything will be done to make the event a success, as it may become an annual affair.

Below is listed the Committee's proposed Contest Programme, and they would like to hear from Clubs and Individuals' constructive criticism and suggestions for any other classes.

**PROPOSED CONTEST PROGRAMME:—**

1. F/F Unrestricted GLIDER.
2. F/F Unrestricted RUBBER.
3. F/F Unrestricted POWER.
4. P.A.A. Load POWER, 1¼ c.c.
5. P.A.A. Load POWER, 2½ c.c.
6. P.A.A. Load RUBBER.
7. F/F SCALE EVENT.
8. TEAM RACE CLASS "A"
9. TEAM RACE CLASS "B"
10. C/L STUNT.
11. COMBAT CLASS "A"
12. COMBAT CLASS "B"
13. C/L SPEED ALL CLASSES.
14. RADIO CONTROL.
15. CONCOURS. ALL CLASSES.
16. JETEX.

The Festival is scheduled to take place on Saturday and Sunday, September the 10th and 11th, 1955, and at the present moment negotiations are in hand for the use of Heathfield Aerodrome, Ayrshire. There will be a very handsome prize list.

All enquiries and suggestions with reference to the Contest Programme, Accommodation and Travelling Arrangements should be addressed to the Festival Contest Secretary. All General enquiries, (and those for Accommodation and Travel from enquirers NOT living in Scotland) should be addressed to the Festival Manager.

**Festival Manager**
Mrs. Freda Shirt,
13 Patmore Road,
Sheffield 5.

**Contest Secretary**
Mr. W. Meechan,
110 Banner Road,
Glasgow, W.3.

## Red letter day for aeromodellers

Latest Hungarian stamps—produced as much for stamp collectors as for normal postal use—feature aviation from A to Z. Lowest value of 40 fillers shows the young aeromodeller at work on most ambitious glider: next value (50 f) shows him flying it, though it looks much smaller now it's covered. Then follows air progress, value by value, through learning gliding (60 f) to fly in Zlin 26 Trainer (80 f) parachuting (1 forint), fruit spraying in Bucker Jngmann (1.20 f) and finally civil flying with a Yak 16 and military flying with a Mig 15. Unused sets are available from most good stamp dealers at about 6/- complete.

Apart from a Russian Pioneer issue, this is the only occasion when we can trace aeromodelling as the direct subject of a postage stamp, though stamps have been used for aeromodelling fund raising, as in the Swiss Pro Aero series. Dare we suggest to the Postmaster General that here is a grand opportunity of collecting for that Wakefield Fund, while anything over could always buy the R.A.F. a Folland Midge or so!

## F.A.I. Gen.

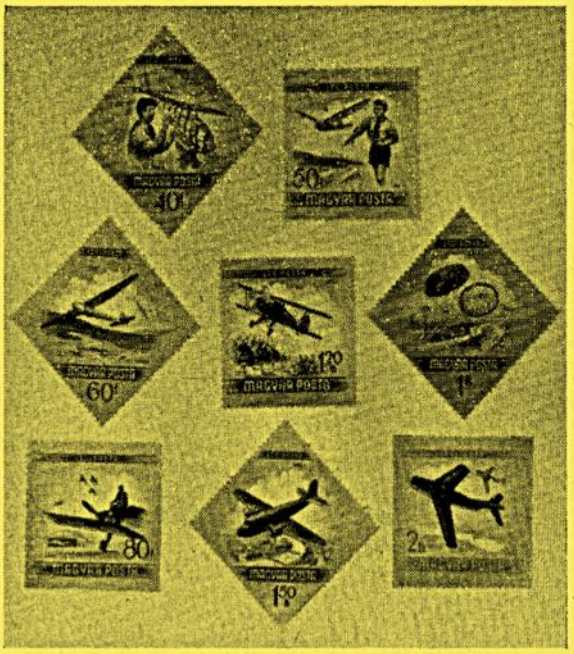
Though a meeting of the F.A.I. Models Commission was held at the beginnning of December, we have little news of what transpired as we go to press. One item however, will exercise the minds of those responsible for International aeromodelling affairs, and that is the vexed question of who will stage the 1955 Wakefield Trophy contest.

The original rules for the Wakefield state that the contest will be staged by the country winning the previous year, the Trophy being credited to the individual with the top score. F.A.I. regulations state that the country with the option for future running of the event is that which provides the winning team. Australia has applied for the contest in 1955, and America 1954 team winners have also made a bid for the event, and it will be interesting to see how this problem is resolved.

Personally, we favour the contest going to Australia—even though this may be contra to the current rules—for they together with New Zealanders have for many years supported the Wakefield by proxy, and it seems only fair when they have at long last made a successful entry that they should have their chance at staging this famed International affair. Granted, it will mean that the majority of the entry will have to be proxy, but it is only fair to have the positions reversed once in a while. We understand the Aussies have a suitable venue at Benalla, an old R.A.A.F. aerodrome approximately 100 miles north of Melbourne.

## Are you indexed?

A stamped and addressed envelope of normal 3½ in. × 6 in. proportions is all you need send to "Index" department, "AEROMODELLER" offices at 38 Clarendon Road, Watford, Herts, to obtain your copy of the comprehensive cross-indexed reference sheet for volume 19 of "AEROMODELLER" for 1953. This is yet another A/M service to readers as an aid to more and better aeromodelling.




## How are you as a designer ?

Good sport model and first-class scale designs are wanted for publication in "AEROMODELLER". It is essential that flying scale models are accurate, and both types required should be for motors ranging from ·5 c.c. to 2½ c.c.

Readers should not let the fact that they are not professional draughtsmen prevent them submitting designs. We prefer to receive *working* drawings, rather than a design re-drawn for our especial benefit. Good clear photographs of the model are also required. We like black and white glossy prints at least 6 × 4 in., but where the supply of these is difficult, we are quite happy to receive the negatives.

All designs accepted are paid for at handsome rates, and those modellers who think they have something worth offering, should send photographs only in the first instance, with one or two brief details of the model to put us well and truly in the picture.

## D/C and PRE-ENTRY

A recent approach to the S.M.A.E. to discontinue de-centralised contests was not approved, it being the opinion of Council that—though not supported to the extent they should be—nevertheless such contests form a vital link with those clubs who still wish to stage events at other than Area or Centralised level. However, in future pre-entry will be required for all National contests, thus ensuring that the prevalent practice of only sending the top club time of a dozen competitors is discounted.

Associate Society members will be interested to learn that it is proposed to award a National contest to them, entry being restricted to this class of membership only, thus producing—we hope—an experts barred event.

# Pictures from Meetings in 1915 - John Andrews

*A few pictures from my photographic archives of meetings in 2015*

Caitlin and Rory Pike clamour for their turn with the 'Red Admiral'
at the 2015 Nationals at RAF Barkston Heath

Rory gets the model away, heaven help the cameraman

North Luffenham, Timperley Gala, August 2015

Flight Line

Noreen looks on whilst hubby Ken Bates assembles his ‘Senator’

I get to the bum twitching stage of winding my ‘Last Resort’
This model, designed by Jim Bageley, was the best performing model I ever built

East Anglian Gala, August 2015, Sculthorpe.

Flight Line

Mr & Mrs Malcolm Marshal, long time organisers of this two day event

Yours truly gives BMFA Rubber model '0-3' the old Heave Ho!

Back at Wallop in 2015, if you wanted it, John Hook had it.


John, a character in his own right, kept the vintage movement well supplied.
He attended most meetings with his van & caravan choc-a-block with all and sundry.
Sadly current health issues prevent him trading any longer.

Here I have the Colin Shepherd built 'Jaguar' wound and ready to go. I have won the Jaguar Trophy a few times with it and the much battered prop bears testament to a hard life in my hands. I have a brand new Spencer Willis replacement but I have returned the model to Colin who wants to R/C Electrify it, which leaves me with a superb replacement prop which will never be fitted.

*John Andrews*

## Indoor Isn't for Everyone No.84 - Nick Peppiatt

**Indoor meetings reminder**

This month sees two meetings in large indoor venues in the South East: -

BMFA South Midland Indoor Flying Extravaganza at Wycombe Leisure Centre on Sunday 9th February from 1pm to 7pm

BMFA South East Free Flight Indoor Meeting at the Triangle Centre, Burgess Hill on Sunday 23rd February from 10am to 5.45pm

**Christmas Elves at Trinity**


A line up of fifteen Elves!

The 16" wingspan KeilKraft Elf, designed by Bill Dean, is a popular model among the Trinity Indoor Fliers. It can be trimmed to fly very well inside the confines of the hall and a number of one model competitions for this design have been held over the years.
The latest was at the December meeting, which attracted fifteen entries! This was basically a duration competition with a 10s bonus for ROG and 5s for a clean wheeled landing. Steve Haines was the winner, with Gerard Moore second and Peter Brown, who also won the prize for the best seasonal decoration, third.

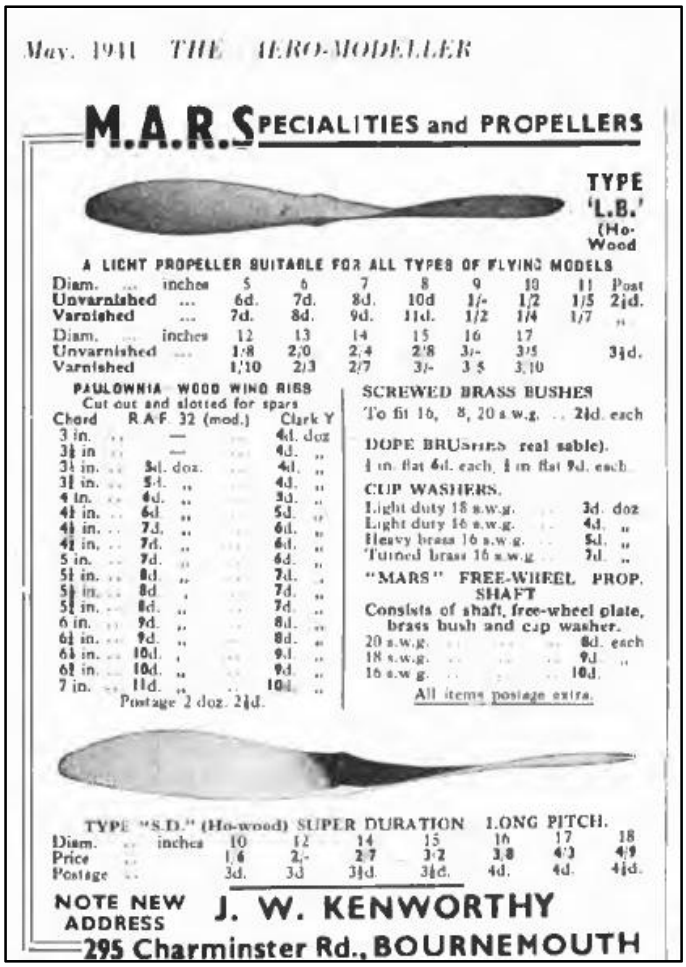
**Commercial wooden propellers for rubber power**

Ho-Wood propellers from 9" to 17" diameter.
There are two different styles, one with a circular hub and the other with a slim hub.


Two 9" diameter wooden propellers from Lindsey Smith's estate, made in Japan.
The R/H with the jet plane logo has 'MADE IN JAPAN' printed on the rear side

Some years ago I acquired a set of commercially produced wooden propellers for rubber powered models from Rod Green. With it there was a copy of a page from the May 1941 edition of the AeroModeller with an advertisement for such propellers, which were made from Ho-wood and supplied by J.W.Kenworthy in Bournemouth, under the 'MARS' brand. Ho-wood appears to come from the camphor or camphor laurel tree (cinnamomum camphora), which is native to countries in the Far East, including China, Japan and Taiwan.

According to the Wood Database www.wood-database.com the dried wood has an average density of 0.53 g/cc. This density makes it easy to shape and machine with minimal effort. It glues and finishes well. I have checked the density of the 9" diameter propeller, by weighing it and measuring its volume using a measuring cylinder of water and found it to be 0.58 g/cc, so the assumption that it is made of Ho-wood seems reasonable. My guess is that these propellers were made in the Far East (Japan) and imported. The 17" diameter example has 'FOREIGN' printed on it near on the back, near the hub. There is no printing on any of the others. I have made use of the 8" diameter propeller from Rod Green's set in a Cloud Tramp, which it suits very well.



May, 1941 THE AERO-MODELLER

**M.A.R. SPECIALITIES and PROPELLERS**

TYPE 'L.B.' (Ho-Wood

A LIGHT PROPELLER SUITABLE FOR ALL TYPES OF FLYING MODELS

| Diam. ... inches | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Post |
|---|---|---|---|---|---|---|---|---|
| Unvarnished ... | 6d. | 7d. | 8d. | 10d | 1/- | 1/2 | 1/5 | 2½d. |
| Varnished ... | 7d. | 8d. | 9d. | 11d. | 1/2 | 1/4 | 1/7 | " |

| Diam. ... inches | 12 | 13 | 14 | 15 | 16 | 17 | |
|---|---|---|---|---|---|---|---|
| Unvarnished ... | 1/8 | 2/0 | 2/4 | 2/8 | 3/- | 3/5 | 3½d. |
| Varnished | 1/10 | 2/3 | 2/7 | 3/- | 3/5 | 3/10 | |

PAULOWNIA WOOD WING RIBS
Cut out and slotted for spars

| Chord | R.A.F. 32 (mod.) | Clark Y |
|---|---|---|
| 3 in. | — | 4d. doz |
| 3½ in. | — | 4d. " |
| 3¾ in. | 3d. doz. | 4d. " |
| 3½ in. | 3d. " | 4d. " |
| 4 in. | 4d. " | 3d. " |
| 4½ in. | 6d " | 5d. " |
| 4½ in. | 7d. " | 6d. " |
| 4¾ in. | 7d. " | 6d. " |
| 5 in. | 7d. " | 6d. " |
| 5½ in. | 8d. " | 7d. " |
| 5½ in. | 8d " | 7d. " |
| 5¾ in. | 8d. " | 7d. " |
| 6 in. | 9d. " | 8d. " |
| 6½ in. | 9d. " | 8d. " |
| 6½ in. | 10d. " | 9d. " |
| 6¾ in. | 10d. " | 9d. " |
| 7 in. | 11d. " | 10d. " |

Postage 2 doz. 2½d.

SCREWED BRASS BUSHES
To fit 16, 8, 20 s.w.g. ... 2½d. each

DOPE BRUSHES (real sable).
1 in. flat 6d. each, 1 in. flat 9d. each

CUP WASHERS.
Light duty 18 s.w.g. ... 3d. doz
Light duty 16 s.w.g. ... 4d. "
Heavy brass 16 s.w.g. ... 5d. "
Turned brass 16 s.w.g. ... 7d. "

"MARS" FREE-WHEEL PROP. SHAFT
Consists of shaft, free-wheel plate, brass bush and cup washer.
20 s.w.g. ... ... ... 8d. each
18 s.w.g. ... ... ... 9d. "
16 s.w.g. ... ... ... 10d.

All items postage extra.

TYPE "S.D." (Ho-wood) SUPER DURATION LONG PITCH.

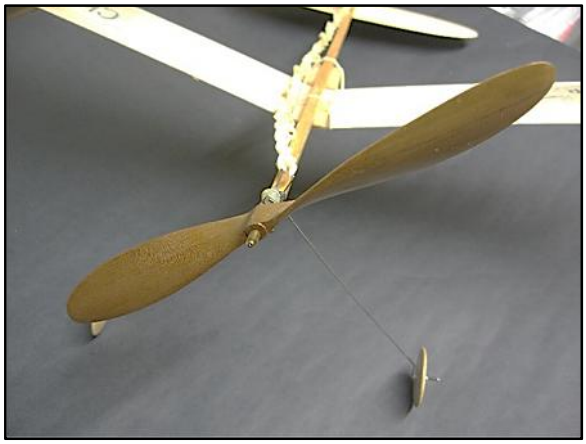
| Diam. ... inches | 10 | 12 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|
| Price ... | 1/6 | 2/- | 2/7 | 3/2 | 3/8 | 4/3 | 4/9 |
| Postage ... | 3d. | 3d | 3½d. | 3½d. | 4d. | 4d. | 4½d. |

NOTE NEW ADDRESS
**J. W. KENWORTHY**
**295 Charminster Rd., BOURNEMOUTH**

Finally, again from Lindsey Smith, is a balsa prop blank of 9.25" diameter with Airyda printed on it. Its greatest width is 1.25" and it is 0.75" deep giving a pitch of 8.75". My best guess is that this was produced as a blank for the Airyda Student, a 24" wingspan rubber duration model from 1948.The plan specifies a 9.5" diameter prop of medium pitch. Does anyone know anything different? Did Airyda produce a range of such propeller blanks and, if so, do any instructions for carving them exist?

I would also be delighted to hear if anyone has further information on Ho-wood or similar propellers.


Airyda balsa propeller blank, 9.25" diameter. Was it for the Airyda Student?

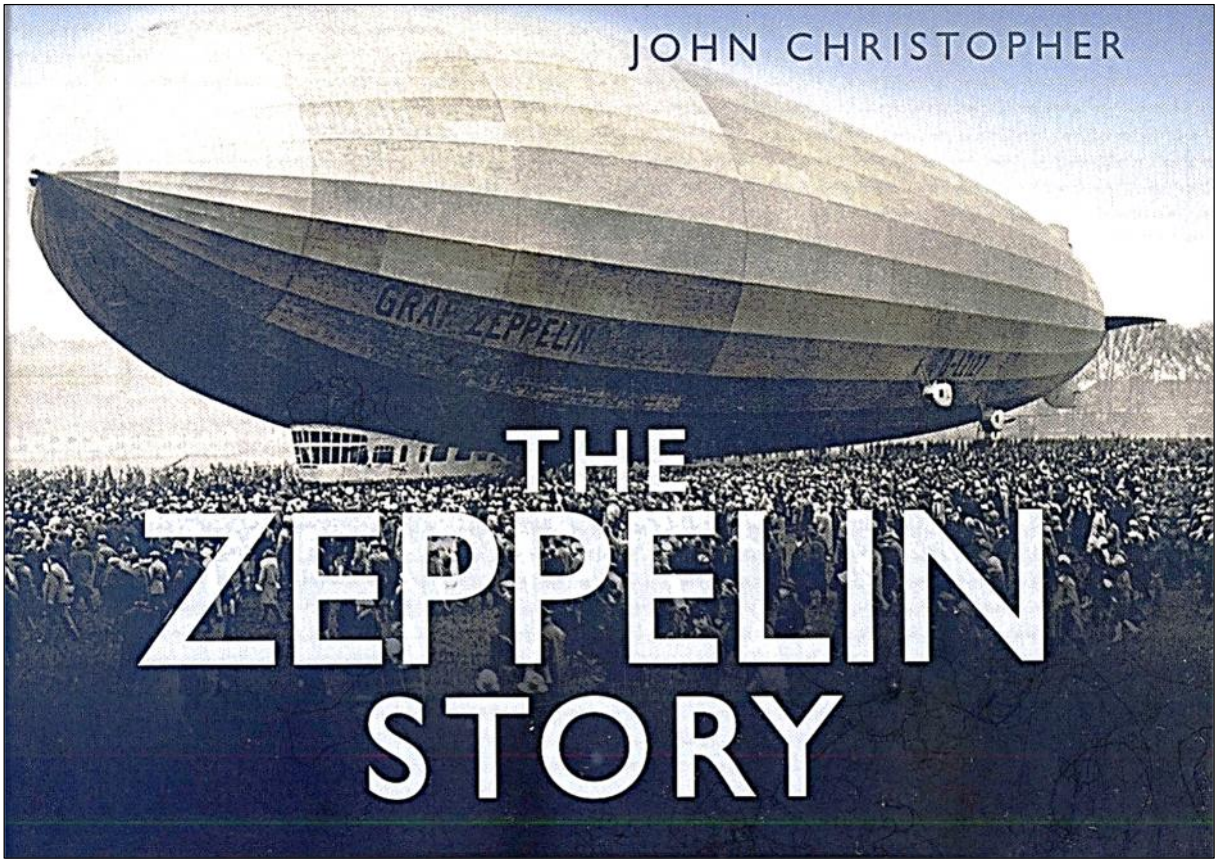


8" diameter Ho-wood prop fitted to a Cloud Tramp

nickpeppiatt@hotmail.co.uk

*Nick Peppiatt*

**Zeppelin: conclusion** - John Christopher




## A RENAISSANCE FOR THE AIRSHIP?

Can the airship make a comeback as a practical transport vehicle? Passenger travel by airship may sound somewhat too relaxed for the businessman in a hurry to get somewhere. However the strongest argument for the comeback of the airship is not for passenger travel, but for cargo transport.

*Future Life* magazine, December 1979

In one of the most unusual share offerings ever seen, a German company that plans to make giant airships is launching on the Frankfurt Stock Exchange. The company, CargoLifter AG, intends to reinvent the Zeppelin as a modern form of freight transport. The airship will be so long, say its designers, that it will be able to lift the equivalent of ten fully-loaded trucks.

BBC News, May 2000

**Did you know?**
Proposals have been made to use robotic airships, or 'aerobots' for the exploration of those planets or moons that have an atmosphere thick enough to provide for buoyant flight

Despite a plethora of grand schemes featuring giant airships and an ever increasing variety of hybrids in all shapes and sizes, the design and construction of the pressure airship had little changed for decades by the 1970s. Indeed, the Goodyear airships were flying with reconditioned gondolas from the US Navy's wartime training ships. That was all about to change thanks to the efforts of a young naval architect working in Britain.

Roger Munk became fascinated with airships after reading about the R101 and he set about reinventing the pressure airship by

*Developed by Airship Industries in the 1980s, the Skyship 600 features fly-by-wire flight systems and vectored thrust for improved manoeuvrability.*

giving it a modern twist. The Skyship series featured many elements that have become standard for the new generation of airships: new lightweight materials for the envelope, gondola and control surfaces, fly-by-wire controls which activate servo motors at the control surfaces, twin yoke control columns instead of the outmoded heavy foot pedals and elevator wheel working by direct mechanical means and, perhaps most importantly, a system of tilting or vectoring the propellers through an arc of up to 200 degrees to direct their thrust. The latter gave the Skyships unsurpassed manoeuvrability, especially when it came to take-off and landing.



*A Skyship 600 operating passenger sightseeing flights in Europe. (Skycruise Switzerland)*

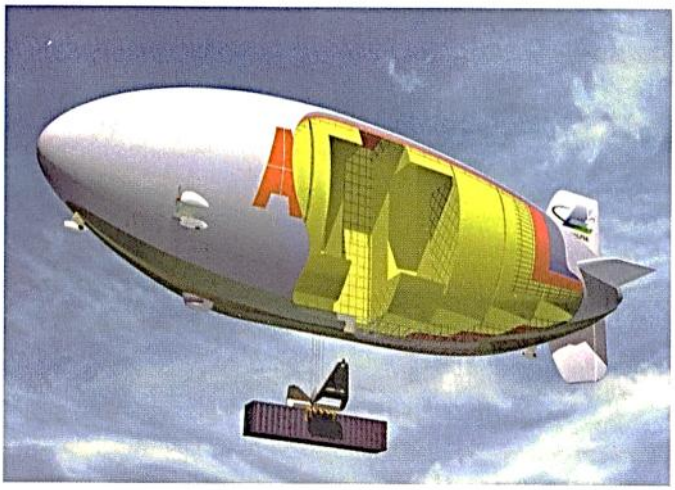
*A Lightship A60+ on the mast in front of the airship sheds at Cardington, prior to a European promotional tour.*

The prototype for the Skyship series, known as the AD500, was built by Aerospace Developments in the giant airship sheds at Cardington and first flew on 3 February 1979. Unfortunately it was wrecked at the mast in severe gales shortly afterwards, but Munk's team regrouped as Airship Industries to build the Skyship 500 and 600 series throughout the 1980s. The SK500 was 170.5ft (51.8m) long and had a volume of 182,000cu ft (5,150cu m). It was powered by onboard Porsche engines which gave a respectable speed of up to 70mph. The stretched version, the SK600,

was 193.5ft (60m) long with a volume of 235,400cu ft (6,662cu m) and could accommodate up to twelve passengers.

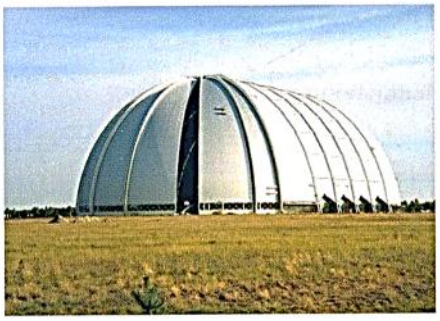
With their all-white envelopes, modernistic gondolas and state-of-the-art flight systems, the Skyships certainly looked the business, and at their peak they were operating in locations throughout the world. Their main roles were to be tourism advertising and airborne surveillance, but by the end of the 1980s Airship Industries was struggling to find buyers for the airships. Thirty years on, a number of SK600s continue to operate under the ownership of Airship Management Services, and several have been upgraded with new Textron Lycoming IO-540 engines.

One of the drawbacks with large pressure airships is the cost of purchase and operation. In the USA, Jim Thiele and his American Blimp Company came up with the Lightship series as a cheaper alternative aimed specifically at the advertising market. The first Lightships put into production, the A60+ series, were less than half the volume of the Skyships at only 68,000cu ft (1,900cu m) and 128ft (39m) long. It was argued that size didn't matter as all airships look big in the air The Lightship also features a unique way of attracting attention as its translucent envelope enables it to be lit up internally to create the world's largest flying lightbulb which, incidentally, has resulted in a trail of UFO sightings whenever one flies in a new area.



*Artist's impression of the proposed CargoLifter CL160 heavy-lift semi-rigid. The design changed in many details but it never progressed beyond the drawing board. (CargoLifter)*

*This massive airship hangar built by CargoLifter to house two CL160s side by side is at Briesen Brand to the south of Berlin. Following the collapse of CargoLifter it was converted into an indoor tropical resort.*



*British design from Roger Munk's company (now known as Hybrid Air Vehicles) to meet the requirements of the US Walrus military programme for a heavy-lift airship.*

In many ways the Lightships represent a retrospective step in terms of design The gondola, suspended via external patches attached to the envelope, is very basic with traditional controls, plus there is no means of vectoring the engines. Having said that, the Lightships came to dominate airship advertising throughout the 1990s, and larger A150 and A170 versions have been produced for tourism and for evaluation by the US Navy.


It is interesting that the military, especially in the USA, continue to dabble with airships and in 2005 the Walrus project held the promise of a massive rapid response airship capable to transporting 500 tons direct to any location in the world without the infrastructure required by conventional transport aircraft or the time limitations of sending men and equipment by sea. Several airship companies are continuing to explore

➤ *The prototype Zeppelin NT07 first took to the skies in September 1997 It features an internal framework with three longitudinal girders and three vectorable engines for unequalled manoeuvrability both in the air and on the ground.*


➤ *Close-up view of the NT07's passenger gondola. Note the absence of engines which are mounted higher up on the side of the envelope.*

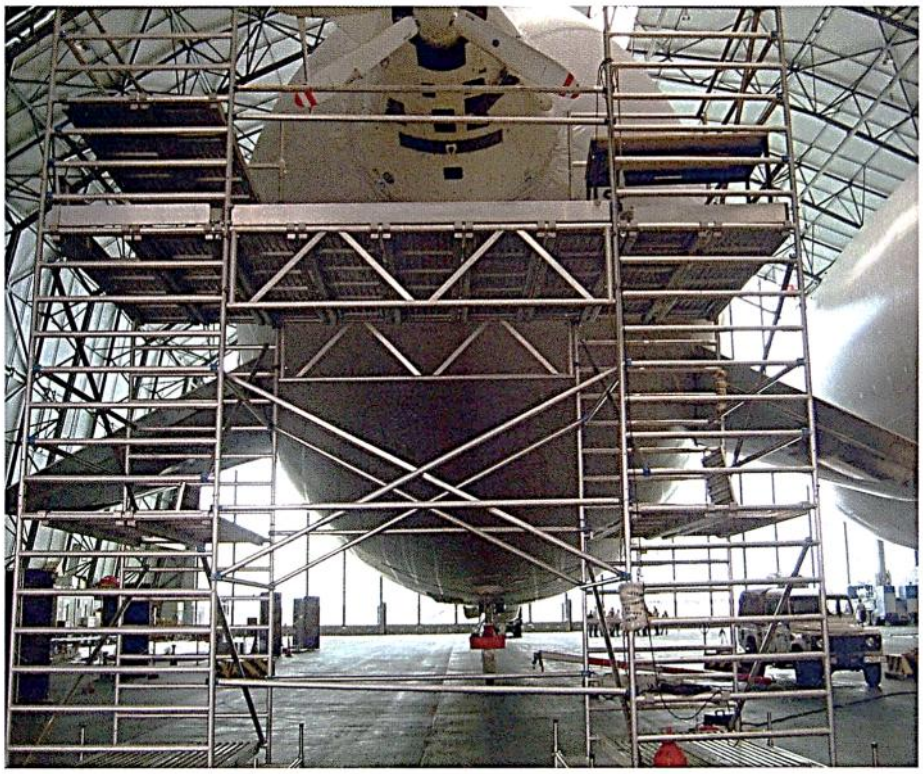


➤ *On board the Zeppelin NT07 003, the pilot points out notable landmarks during a hop across the Channel from the UK to Brussels in 2008.*

the lifting-body concept. Roger Munk's team (re-branded as Airship Technologies Group and more recently as Hybrid Air Vehicles) has produced designs for a series of heavy-lift airships known as SkyCats. Unfortunately, funding for large military projects is at the whim of the politicians and Walrus never made it off the drawing board, but HAV and a number of other companies, including Lockheed Martin in the USA, are developing lifting-body designs. Lockheed Martin successfully flew their P-791 manned prototype in 2006.

In Europe, interest in the potential commercial market for a heavy-lift airship


➤ *When not in the air, the Zeppelin NT07 can be docked to this hefty mobile mooring mast and is allowed to weathervane to keep it facing into the wind.*



*Inside the hangar at Friedrichshafen, a Zeppelin NT07 undergoing a routine maintenance inspection. Note the inverted 'Y' tail configuration and rear-mounted engine.*

*The Z-ship is a proposal for a larger forty-person Zeppelin, based on the NT design, proposed by the Zeppelin Europe Tourismus organisation. (ZET)*

that can transport large or indivisible loads to any location saw the creation of the CargoLifter Company in the 1990s. Based at a former East German fighter airfield to the south of Berlin, CargoLifter proposed a gigantic semi-rigid airship twice the size of the *Hindenburg*, known as the CL160, capable of lifting loads of up to 160 tons. Their work attracted considerable interest at the time and a vast jelly-mould hangar, to house two CL160s, was constructed at the Briesen-Brand site. A small one-man test airship and even a heavy-lift spherical balloon did fly, but the CL160 failed to materialise and CargoLifter went belly-up in 2002. The hangar is now an indoor tropical holiday resort.

In an age in which flying has become one of the most unromantic of all travel experiences, the resumption of Zeppelin flights has proved an unqualified success.

*Telegraph Travel*, March 2007


*There have been several designs for a high-altitude unmanned airship for telecommunications and AEW surveillance purposes. The StratSat was a short-lived British concept, while in the USA Lockheed-Martin is nearing completion of its High Altitude Long Endurance Demonstrator (HALE-D).*

Meanwhile a slumbering giant was stirring. By the 1990s the Zeppelin Company was ready to return to the lighter-than-air business with its own take on the modern airship. The Zeppelin NT07 features a rigid framework with three longitudinal girders joined by triangular transverse frames which provide the supporting points for the engines and the control surfaces.

It would be most accurate to describe this configuration as a semi-rigid because the outer envelope, although attached to the framework, still requires internal gas pressure to maintain its shape. The NT07's 290,000cu ft (8,255cu m) volume and length of 246ft (75m) make it the largest manned airship operating at present. The framework provides attachment points for the Textron Lycoming IO-360 engines, vectorable of course, positioned well away from the gondola to reduce cabin noise, plus a third one mounted at the tail. The result is an airship with vastly improved ground manoeuvring capabilities which drastically reduces the need for large ground crews.

The prototype NT07 first flew in 1997 Three more have been built since then and are operating in Germany, Japan and the USA. More are sure to follow and a group called Zeppelin European Tourismus (ZET) hopes to establish an airship shuttle service between major European cities using a larger version of the Zeppelin.

One only has to have the will for it to succeed.

Ferdinand Graf von Zeppelin, 1838–1917

Although the airship might not be the solution to all our transport needs, its unique flight characteristics make it ideally suited to a number of roles. To predict a renaissance of the airship is to overstate the case, but airships are being taken seriously again. There is interest in heavy-lift airships to serve inaccessible regions of northern Canada, and the US military is proceeding with development of a colossal unmanned high-altitude airship for communications and surveillance missions. Keep watching the skies.

Although none of the great rigid airships have survived intact, there are still a number of locations providing the opportunity to connect with these bygone leviathans.

**THE ZEPPELIN MUSEUM, FRIEDRICHSHAFEN, GERMANY**

Friedrichshafen is Zeppelin town, and one of the main attractions is the award-winning Zeppelin Museum, located in the Bauhaus-style harbour building. The items on display include an original engine pod from the *Graf Zeppelin* but undoubtedly the focal point of the museum has to be the full-size replica of a section of the *Hindenburg*.
(www.zeppelin-museum.de)

Friedrichshafen is also home to the Zeppelin Company and although the old hangars are long gone a new one has been constructed beside the airfield for the construction of the new Zeppelin NT airships. Flights and hangar tours are available. You can also fly in San Francisco or Tokyo, and occasionally at other locations when the Zeppelins are on tour
(www.zeppelintours.com)

**ZEPPELIN MUSEUM, MEERSBURG, GERMANY**

Just down the road from Friedrichshafen is the independent Zeppelin Museum at Meersburg which features the collection of Heinz Urban.
(www.zeppelinmuseum.com)

**ZEPPELIN AND GARRISON MUSEUM, TONDOR, DENMARK**

During the First World War the German Imperial Navy operated Zeppelins from an airbase at Tondor now part of Denmark. Although the hangars are long gone, this small museum is of interest.
(www.zeppelin-museum.dk)

**RAF MUSEUM, LONDON, UK**

Among the aeroplanes displayed at Hendon is a section of the R33's forward control car
(www.rafmuseum.org.uk/london)

**CARDINGTON, BEDFORD, UK**

This is a very special place for the airship-minded. The two massive hangars, or sheds, stand as poignant relics of the Imperial Airship Scheme. This is where the Skyship series was developed and built. There is some redevelopment around the site and the former office building for the Royal Airship Works still stands; across the A600 is Shortstown, which once housed the workers. Nearby, in the village cemetery at Cardington, there is the mass grave of the forty-four men who perished in the R101 and the airship's flag hangs in the church. At the time of printing there is no public access to the Cardington hangars.

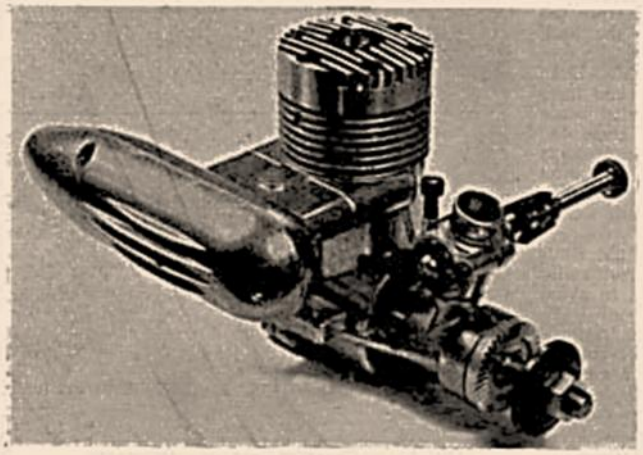
**US AIRSHIP HANGARS**

Although many of the original hangars have been lost, there are several survivors, including those at Lakehurst in New Jersey, Moffett Field (formerly Sunnyvale) in California and the former Goodyear construction hangar at Akron, Ohio. In addition there are a number of Second World War hangers. It should be noted that many of these facilities are either on military bases or in commercial use and may not be accessible to the public. One exception is at the former Naval Air Station at Tillamook, Oregon, now home to the Tillamook Air Museum.
(www.tillamookair.com)

*John Christopher*

**Engine Test: OS Max-H 40-R/C** - Aeromodeller February 1966





Second in a new series of regular monthly

## ENGINE TESTS

by

## Peter Chinn

Designed for U.S. Pylon Racing . . . "well constructed"

# O.S. MAX-H 40-R/C

(tested with silencer fitted)

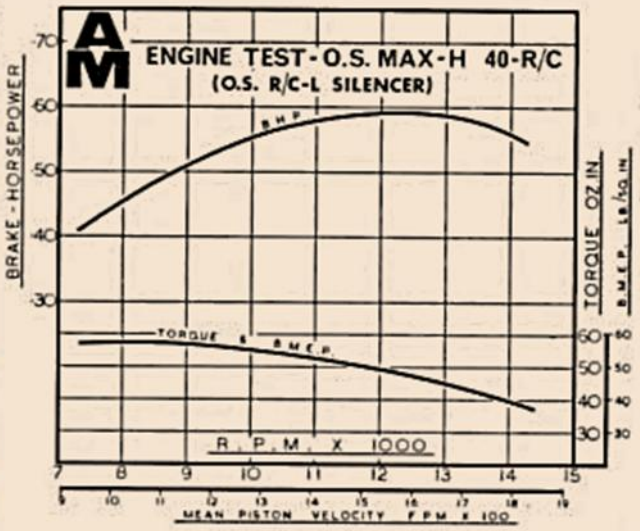
IT has to be admitted that most radio-control engines are hybrids. Very few were designed as R/C motors at the outset. The smaller jobs, as used for single-channel, are nearly always stock general purpose diesels or glows to which a throttle has been added. Early "multi" engines were usually stunt .35's equipped with throttle type carburettors and, even with the more recent .45-.60 cu. in. R/C engines, the tendency among manufacturers, to make one basic design serve more than one purpose, has persisted.

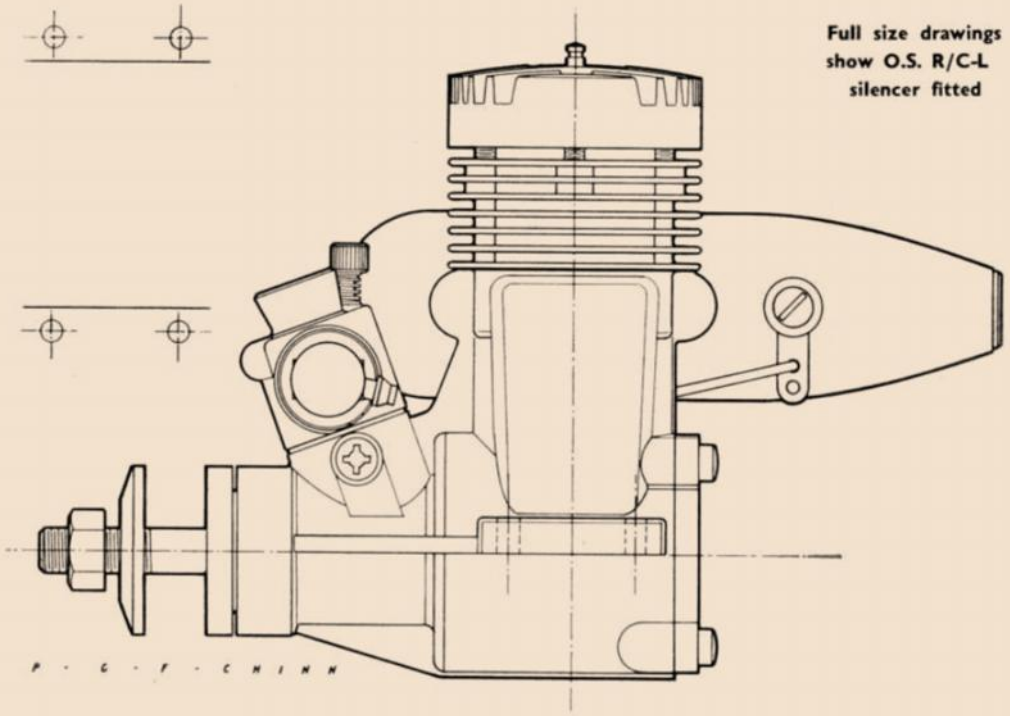
This often works better than one might suppose. Even engines that were designed purely for control-line speed (e.g. McCoy 60) can sometimes make quite good R/C motors with the addition of a suitable carburettor (and by reducing compression ratio if necessary) provided that port timing is not too extreme. If a high power output is required—as in a modern R/C aerobatic contest model—certain of the characteristics of the typical hot contest engine may, in fact, be desirable.

These may include generous intake porting and transfer passages, a light piston and conrod assembly, plus the structural rigidity and good bearings that sustained high performance calls for in any engine. If the manufacturer then makes the necessary modifications to ensure efficient carburation at low, as well as high, speeds and under conditions of extensive variation in fuel head, the basis of a good powerful R/C engine may be established. Drastically reduced carburettor choke area will, of course, be required (especially if the original design was intended for pressure feed and speeds of 16,000 r.p.m. and upwards) and this will automatically bring the b.h.p. peaking speed more into line with the prop requirements of R/C models. At the same time, it will usually be profitable to replace the cylinder with one providing modified port timing.

The O.S. Max-H 40-R/C, which is the subject of this month's report, undoubtedly benefits from the fact that it embodies basic design concepts contained in the other Max-H series high-performance engines (29R, 35C and 40-RR) without prejudice to the essential characteristics of a good R/C engine. In part, this is due to the fact that the Max-H series was conceived as a whole and not as a single type later modified to other uses.

Actually, the only components of the Max-H series that are exactly the same in all four models, are the connecting-rod and backplate. Many other parts look similar but have subtle modifications. So far as the 40-RR and 40-R/C are concerned, the latter has






(quite apart from the obvious addition of the throttle system) a different cylinder with slightly smaller port areas, shorter transfer and exhaust periods, a hemispherical, instead of a wedge, combustion chamber and a slightly lower compression ratio.

## Suitable Model Types

With a displacement of 6.5 cc. or .40 cu. in., the Max-H 40-R/C will probably be regarded in the U.K. as something of an "in-between". It is true, of course, that most current "full house" aerobatic models use .45-.60 cu. in. (7.5-10 cc.) engines and that, for models equipped with fewer controls, notably trainers and intermediate types, motors in the .19-.30 cu. in. (3-5 cc.) group are the generally accepted wear. However, it is worth pointing out that the Max-H 40-R/C would not be entirely out of place in a light multi since it actually equals (or in some cases exceeds) the power of most current 45-49 cu. in. R/C engines.

Where the 40-R/C has an obvious application, as American modellers have already discovered, is in "Goodyear" pylon racing. It meets, exactly, the rules laid down by the National Miniature Pylon Racing Association concerning power units for this type of event and its performance must obviously make it a serious contender. It remains to be seen whether this type of event will become popular in the U.K.

Examination of the parts of the Max-H 40-R/C discloses both intelligent design and notably good workmanship. The combined crankcase/front-housing/cylinder unit is an excellent diecasting, well-braced and extensively machined and the drop-in hardened steel cylinder liner is highly finished with cleanly cut ports. The crankshaft has an exceptionally large bore gas passage (bigger than on the O.S. 50 and 58 in fact) is finely ground on all working surfaces and avoids points of possible local weakness by the extensive use of radii. It runs in a high quality ball-bearing at the rear and a cast-in bronze bush at the front.

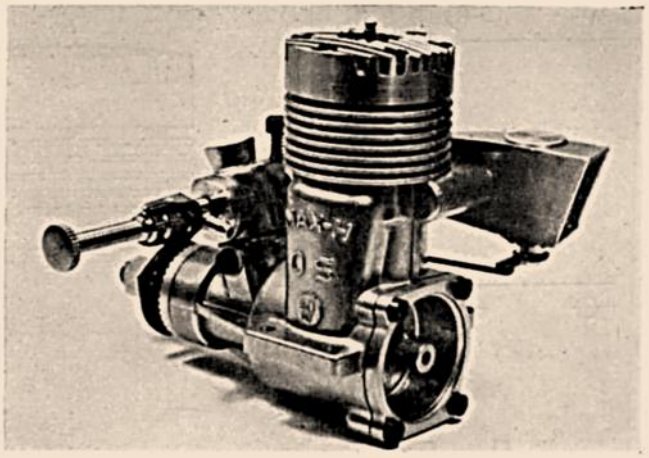
## Throttles and Silencers

The carburettor is the same as that fitted to the O.S. Max-50 R/C and 58 R/C except for a slightly smaller (6.3 instead of 6.7 mm.) choke diameter. It has a ground brass throttle barrel smoothly rotating in a honed bearing surface and has the usual throttle stop and airbleed adjusting screws. The complete needle-valve assembly with tee fitting fuel inlet is mounted on the left hand side, the jet protruding into the centre of the throttle barrel which rotates around it.

No less than three types of coupled exhaust restrictor units are produced for the 40 R/C, the standard fitting, as seen in the U.K., being a right-angled, funnel-shaped diecast extension, with a vertically-pivoted butterfly valve coupled to the carburettor throttle. However, these various units are now of little concern in view of the obligation to use silencers. O.S., who were one of the first manufacturers to offer silencers for their engines, make two suitable for the 40 R/C, namely, the standard Jetstream type "L" (large) silencer, and the "R/C-L" type which has the addition of a laterally pivoted valve, in the aft section, for coupling to the carburettor throttle. Either type can be used with or without an extension duct supplied. They are made in diecast aluminium alloy half shells with machined dural nozzle rings and neat internal two-screw fixing.

## Performance

One big disadvantage of many medium and large



Diecast funnel extension exhaust throttle fitted to O.S. Max-H 40-R/C is not a silencer as might be first supposed. This is in fact just an extension exhaust duct with a vertically pivoted butterfly valve located at its rear end linked to the carburettor throttle. This cannot be used with a silencer and thus the type R/C-L silencer was introduced with an internal butterfly valve.

size lapped piston engines has been the irksome and lengthy running-in period they require. Happily, this does not seem to be the case with the Max-H 40. During the first hour or two of running on our test engines, there was a slight loss of revs (2-3 per cent) in reaching running temperature from cold if the mixture was leaned out to the optimum, but there was never any question of hardening to a stop and, with the needle set a trifle rich there seems to be no reason why the 40 should not be run-in in the air. It was noticeable, however, that both hot re-starting and throttling improved after about two hours running.

Most of our tests were carried out with the R/C-L type silencer fitted. This chopped 300 to 1,000 r.p.m. off the revs depending on prop size, but the power output of the engine is so good that this can easily be afforded. On a 12 x 5 Power-Prop, for example, r.p.m. was reduced from 10,100 to 9,700. Matching the prop size closer to the engine's peaking speed, 10 x 6 and 10 x 5 Top-Flites (wood) were turned at 11,900 (11,300 with silencer) and 12,500 (11,900 with silencer). With the silencer, the engine pulled a wide range of other prop sizes quite happily, e.g. 8.100 on a 13 x 5½ Top-Flite wood, 8,700 on a 12 x 6 Power, 9,900 on an 11 x 6 Power, 10,800 on an 11 x 5 Top-Flite wood, 12,000 on an 11 x 4 Top-Flite wood and 13,500 on a 10 x 3½ Top-Flite wood.

Throttling was generally good and safe (bench) idling speeds on typical props ranged from 2,300 on an 11 x 6 to 2,900 on a 10 x 5. These required the airbleed almost fully open, but the engine remained somewhat critical to the throttle stop adjustment and we would suggest that when the throttle is coupled to a servo, any backlash in the linkage would need to be taken up.

As suggested by the r.p.m. figures on big props, the Max-H 40 R/C delivered notably good torque, and this reached nearly 58 oz. in. at 8,000 r.p.m. with the silencer fitted. As is usual with orthodox silencer systems, torque dropped off a little faster, as load was reduced, than it did without the silencer but the decline of the torque curve was by no means steep and, as a result, a very good maximum output of 0.59 b.h.p. at approximately 12,400 r.p.m. was recorded. Without the silencer, the engine reached .70 b.h.p. at 13,700 r.p.m.

The outstanding feature of the Max-H 40-R/C is, undoubtedly, its high power output and we think it is sufficiently well designed and constructed to stand up to this sort of performance, without deterioration, for long periods. Incidentally, the O.S. No. 7 bar-type glow plug survived all running and testing.

**Power/Weight Ratio** (as tested complete with silencer): 0.89 b.h.p./lb.

**Specific Output** (as tested complete with silencer): 91 b.h.p./litre.

**SPECIFICATION**

**Type:** Single-cylinder, air-cooled, loop-scavenged, two-stroke cycle glowplug ignition with ball-bearing crankshaft. Shaft type rotary-valve induction. Coupled throttle system.
**Bore:** 20.6 mm (0.8110 in.) Stroke: 19.5 mm. (0.7677 in.)
**Stroke/Bore Ratio:** 0.947:1
**Weight:** 9.9 oz. (with standard exhaust valve)
10.6 oz. (with Jetstream R/C-L silencer)

**General Structural Data**

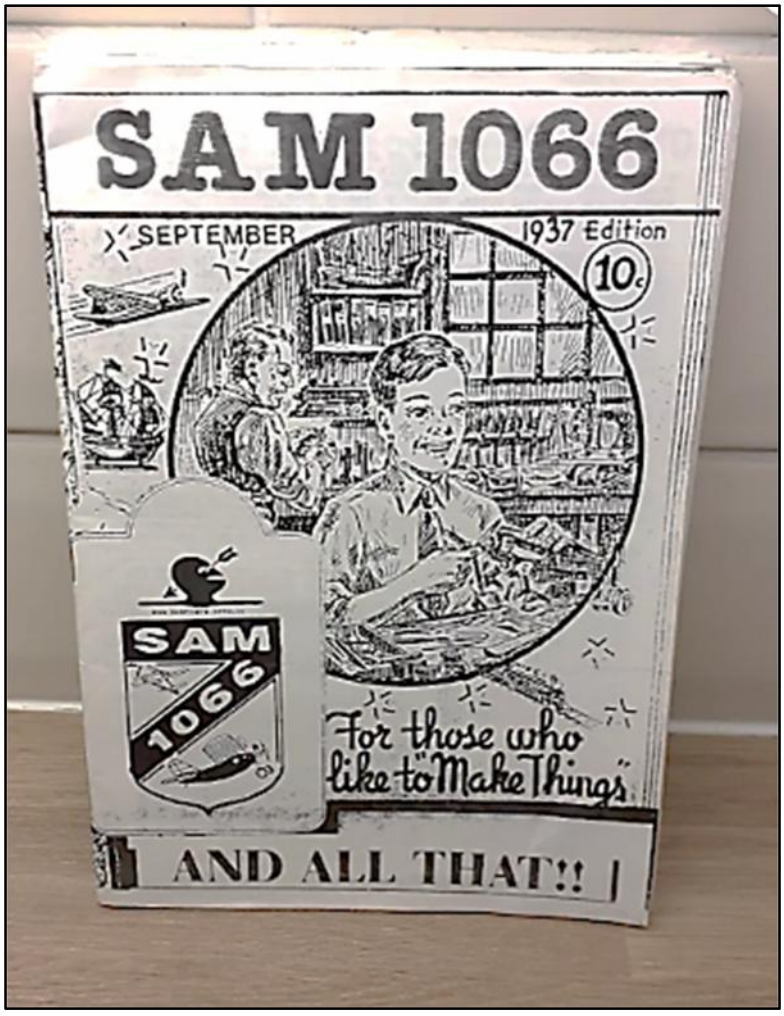
Pressure diecast aluminium alloy *crankcase/cylinder block/ front housing* unit with detachable *rear cover* secured with four Phillips screws. Case-hardened steel *crankshaft*, with 13 mm. dia. journal, 9.8 mm. bore gas passage and 6.35 mm. dia. hollow crankpin and counterbalanced by machined-in crescent counter weight supplemented by cutaway web flanks. 13 x 28 mm. 8-ball heavy duty *ball-bearing main*, supplemented by bronze *outer bearing*. Hardened steel *cylinder liner* located in cylinder block by flange at top and secured by cylinder head. Meehanite *piston* with flat crown and straight baffle filleted at base and with internal annular stiffening web above gudgeon-pin bosses. Fully-floating case-hardened 5 mm. dia. tubular steel *gudgeon-pin* with brass pads. Machined 24ST3 duralumin *connecting-rod* with two lubrication holes at big end. Pressure diecast and machined aluminium alloy *cylinder head* with cast-in brass thread insert for glowplug, recessed soft aluminium blowout-proof gasket and secured to cylinder block with six Phillips screws. Pressure diecast aluminium alloy *carburettor body* seating on rubber grommet in intake boss and secured with two screws. Ground brass *throttle barrel* rotating in honed bearing surface in carburettor body. Plated brass *spraybar assembly* with flexible needle-valve extension. Pressure diecast aluminium alloy right-angled *exhaust duct* with machined dural butterfly throttle unit and optional extension adaptor and interchangeable with Jetstream "L" or "R/C-L" silencers.

**TEST CONDITIONS**

**Running time prior to test:** 2 hours
**Fuel used:** 5 per cent nitromethane, 25 per cent Duckhams Racing Castor-Oil, 70 per cent, I.C.I. methanol.
**Glowplug used:** O.S. No.7 bar type, platinum filament, 1.5 volt.
**Air temperature:** 62 deg.F (17 deg.C)
**Barometer:** 29.8 in. Hg.
**Silencer type:** O.S. Jetstream R/C-L.

## Old 'Clarion' Add - Tony Shepherd

**Recently Spotted On A Well-Known Internet Auction Site**




That well-known internet auction site that has proved to be a wonderful source of general aeromodelling equipment and some great engines came up with this the other day.

Now even I know that the original Clarion wasn't available in 1937 so I asked the rest of the committee what I was actually seeing.

Inevitably it was Roy Tiller that came up with the facts as follows:

*SAM1066 with style of front cover shown in the advert was first issued in September 1989. The date of the newsletter was in bold print on the back page which also had the name and postal address of the intended recipient. This style of cover continued until December 1991. The January 1992 cover was much the same but printed on red paper.*
*February 1992 saw a change, the front cover now stated "The Clarion the Journal of SAM1066", the date of issue is on the front cover, the back cover still has a box for the postal address label and the postage stamp.*
*We have a complete collection of Clarion Newsletters and our library copy was addressed to Rod D.G.Williams Esq.*

So there you have it. Thanks Roy.

*Tony Shepherd*

## Welsh Report - Roger Newman

**Occasional notes from North Wales: January 2025**

It was good to see comments from Peter Carter about his Nomad, with accompanying pics. Peter has built & flown a variety of very interesting models over the years that I have known him – some of which gave him a great deal of exercise in retrievals! His Yogi had a penchant for long distance travel – another great model which was always on my to do list but never got done.


The Yogi

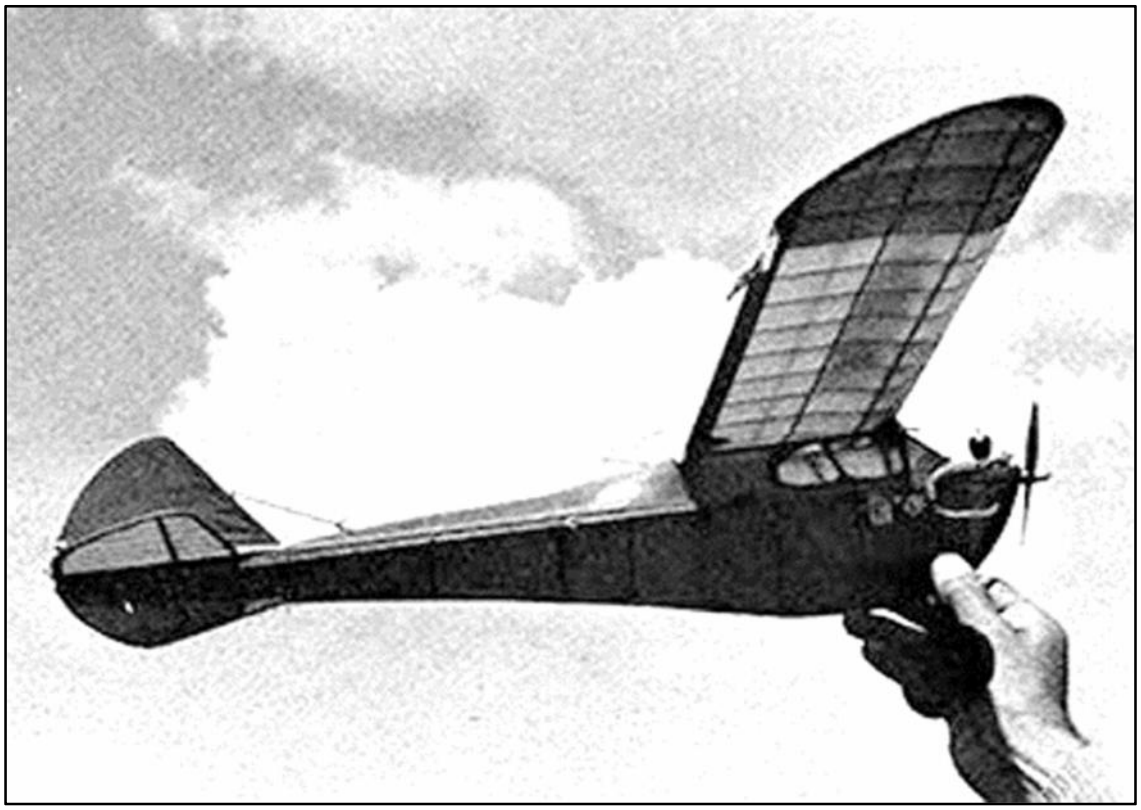
Probably too late now. Anyway, his comments led me off on another track. The Yogi was yet another vintage free flight model designed by Jerry Stoloff from the USA. There is an excellent biography of Jerry in the AMA History Archive. One of many about (mainly) American modellers that can be accessed through:

https://www.modelaircraft.org/museum/history-recognition

The link provides access to – quote - "*What is the AMA History Project? It is our on-going endeavour to save the history of model aviation by collecting the stories of model aviation enthusiasts, the histories of modelling companies, clubs, and other organizations, as well as other compilations of historical data about the hobby/sport that is model aviation.*"

The AMA has vastly more resources, financially & personnel, than our own BMFA but wouldn't it be great if the BMFA could do something similar for the history of the hobby in the UK. I know from personal experience that there is now a small but very dedicated volunteer team working on the archives already held at Buckminster & when I last saw the Archive room during the Centenary exhibition, the archives had already been transformed from a relative shambles into a well organised collection of material. More power to their collective elbows!

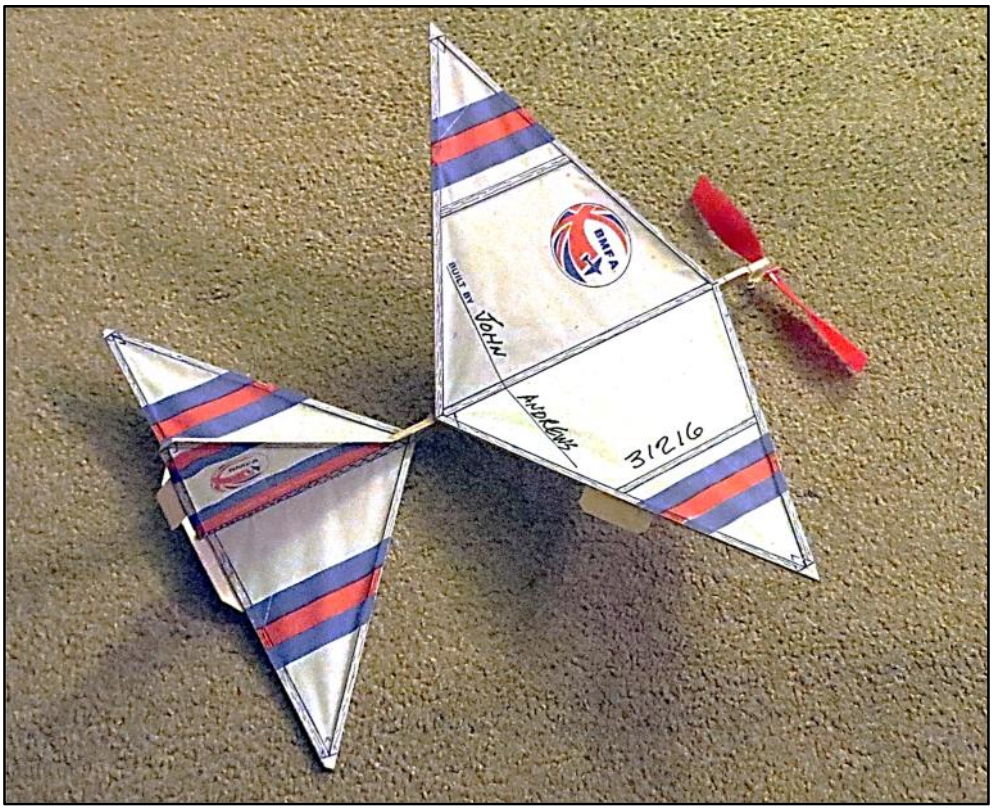
However, as oft a digression! The above mentioned biography – in part was written by one Mike Parker & Ted Smales of SAM35, who looked to be fans of Stoloff designs, as indeed is Peter. Another notable design by Jerry was the Diamond Demon, which I did manage to build & fly extremely well. Of course it got lost at Beaulieu one year, but was recovered several days later having fallen out of a tree located quite near a camp site & being discovered by a couple of friendly campers. Wine & model duly exchanged hands. Mine was Mills 0.75 powered which allowed to amble happily round the skies of Middle Wallop & Beaulieu & it did have a (fuse) DT!



As a postscript note, yet another Stoloff design was the rather unusual mid-wing Swami. I cannot remember whether Peter ever made this particular model.

Stoloff Swarmi

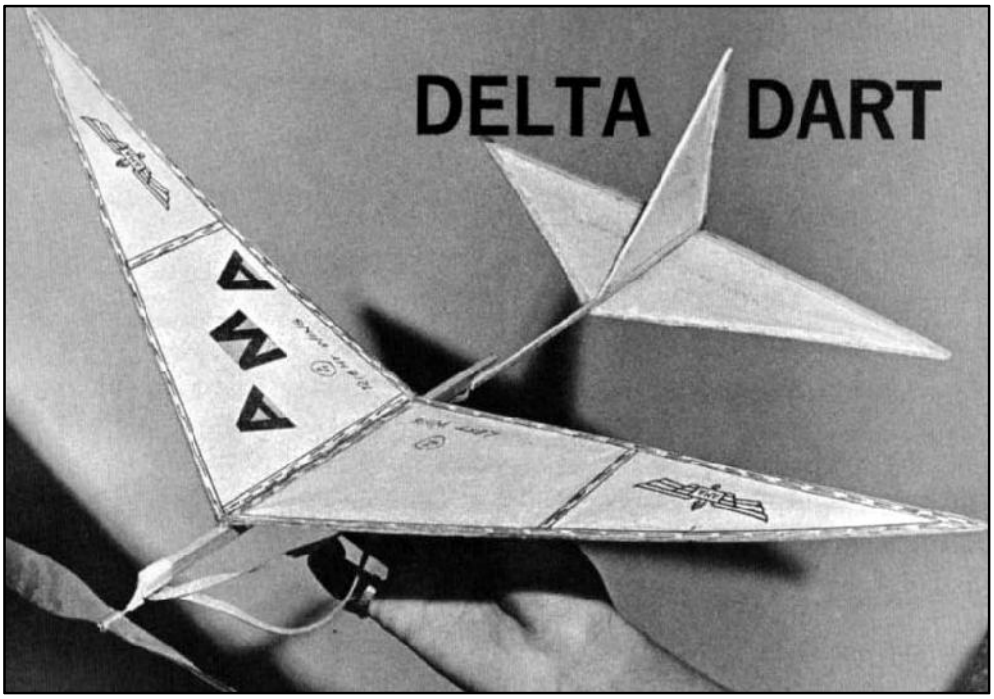
For reasons that I now cannot recall, off down another track – this time concerned with a bit of indoor flying. No doubt many of us have had a dabble with the BMFA Dart.



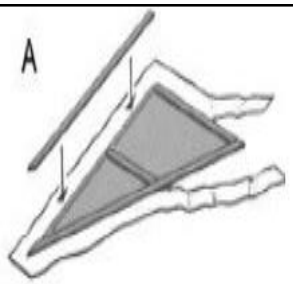

As the BMFA states "The BMFA DART is a simple rubber powered aircraft with a wingspan of 30 cm. It is derived from an American design. Millions have been successfully built and flown since its introduction in the USA in 1968. The DART has many unique features that ensure that it flies well, in fact a survey carried out in America claims that 98% of all Darts fly.

The DART can be flown in a school sports hall or outdoors on a calm dry day. This model is the 'corner stone' of the British Model Flying Association education programme and can be built and flown by a 9 year old under supervision.
So which American design? A quick bit of research revealed it must have been the AMA Delta Dart, the history & plan of which is below.

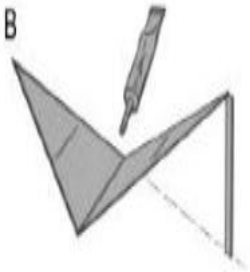
Again, perhaps a bit of fun indoor comp – which is the better flier – the AMA Delta Dart or it's BMFA derivative – the BMFA Dart?



# The plane that fooled the 'experts'—AMA's Delta Dart. A phenomenally successful junior interest wherever tried.



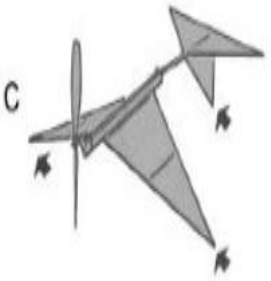

## Too elementary was the usual reaction.




Old fashioned. Crude. Heavy. Inefficient. But respect came when kids found the Dart a snap to build and a good performer.

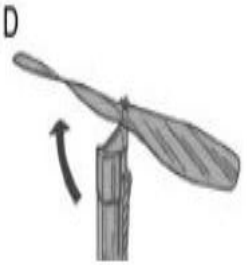
The pointed surfaces are blessed with a forgiving characteristic: warps have little effect since large areas are in close to the centerline where alignment tends to be true—out at the tips there isn't much surface to provide twisting forces.

Covering is a cinch as the structure is built right on the material—instead of trying to avoid glue joints sticking to the paper the idea is to deliberately make joints and the rest of the structure stick. Then it's only necessary to lift the framework, trim the excess paper off the edges and the usually mysterious covering job is already accomplished! And it doesn't really matter if the tail is upside down or reversed from front to back—the wildest of combinations fly just fine




A key element is the prop assembly. It's ready-made, cheap and excellent. Besides saving work it has natural adjusting qualities. The plastic propshaft bearing is easily twisted and may be set for various amounts of side-thrust. Similarly, the prop blades may be easily bent to experiment with different pitches. North Pacific makes the prop assembly for its nationally distributed Sleek Streek all-balsa ready-to-fly model. Sig Mfg. Co. also sells it separately or as part of their own kit version of the Dart (10¢ for the prop assembly or 35¢ for the complete kit, at hobby shops which sell Sig products).

Dick Meyer of Verona, Pa., (near Pittsburgh) started the Dart on the way to fame. He was urged on by the designer, AMA's Technical Director, Frank Ehling. Dick put the Dart to work in a Junior program backed by the Allegheny Model Aeronautics Council. Initially, the project was scoffed at by old timers but it soon caught on when kids flocked to it. Dick and wife Ruth actually made up 300 kits on the kitchen table, with materials donated by Sig, for kids to build. For leadership in this junior program Dick and Ruth received one of the new Distinguished Service Awards established by the AMA in 1966. (Continued on page 54)




April 1967

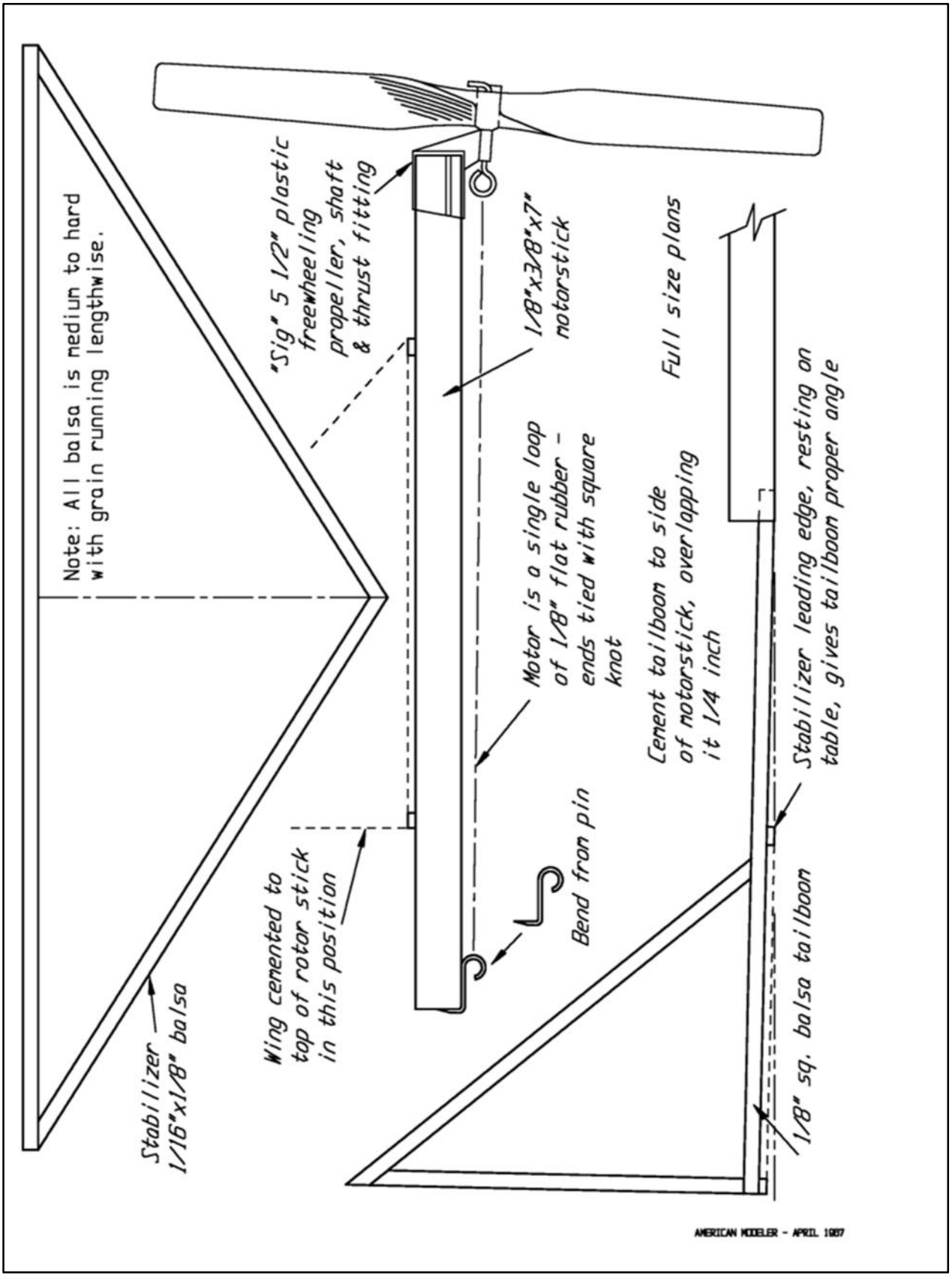
A number of these kits were supplied gratis to AMA HQ. Ehling took some to the '66 Nats where kids again proved how easy they were to build and fly. Demonstrations there helped create a demand, which influenced Sig to put the Dart out as a commercial kit called the AMA Racer as a stimulant to junior interest.

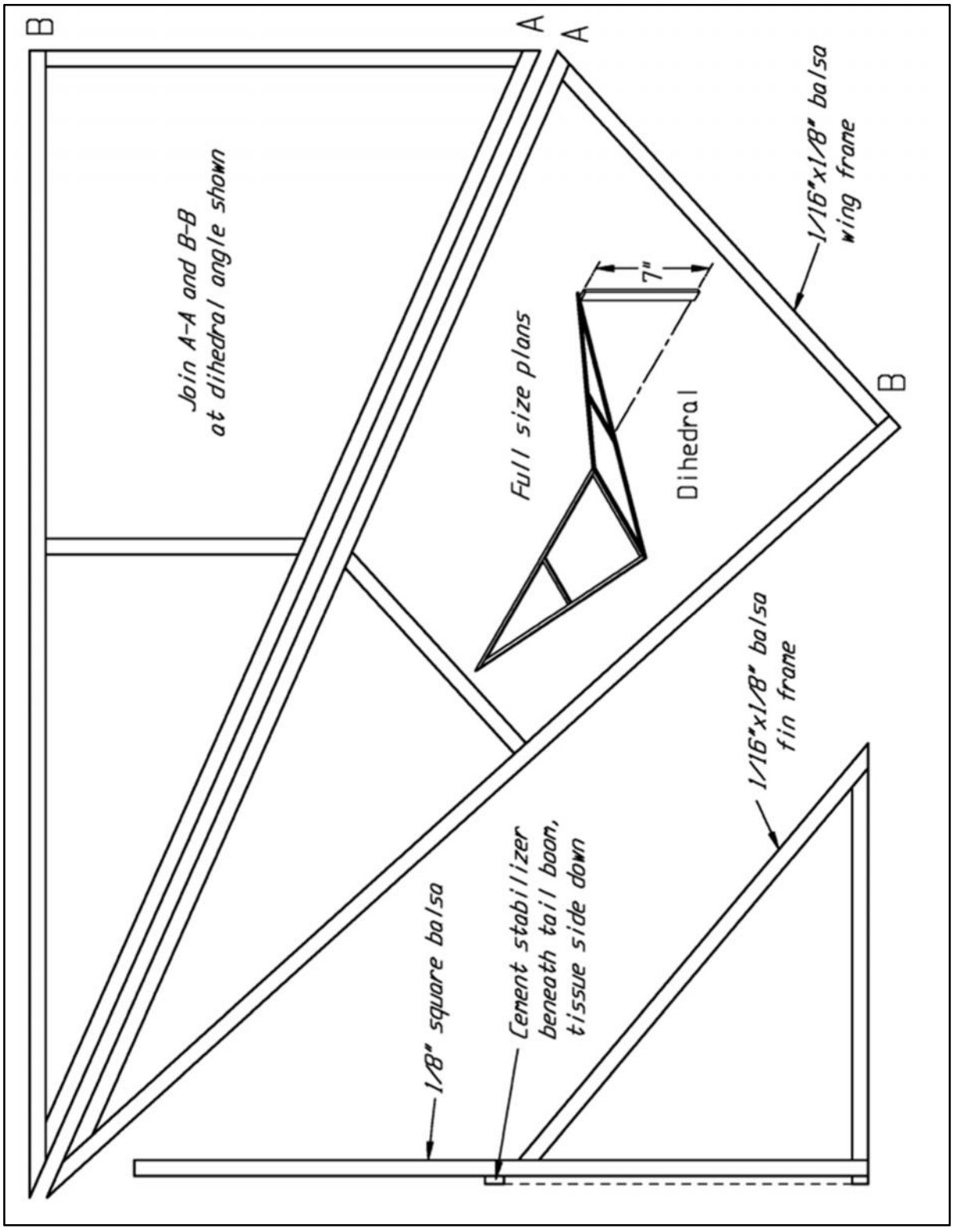
After the Nats, leaders of an AMA chartered free-flight club, the **D. C.** Maxecuters, took up the Dart as a junior project. Again the Dart had to overcome an initially lukewarm response, which it did dramatically—in one evening session about two dozen Darts were built and flown successfully. This factor of quick and almost certain success is what has made the Dart so effective. The results were spectacular and were featured in a photo story in the *Model Aviation* section of AMERICAN MODELER (Feb. '67, pp. 40-41).

NASA officials have also been impressed. As a result, a special Dart project is underway at one of the Government labs to produce packages for use by schoolteachers. The project was initiated by AMA HQ and is proceeding with AMA cooperation and consultation.

In a little over a year since the Dart was born its fame has grown rapidly. Dick Meyer recently joined with Cleveland sparkplug Chuck Tracy in promoting a Dart contest at the big annual Ohio model affair known as the 16th Great Lakes Indoor Air Meet. Chuck featured the model, Ehling, and the Academy of Model Aeronautics in his Cleveland Press newspaper column. Interesting sidelight—the daily circulation is over one third of a million!

With such impressive credentials the Dart needs no further recommendation. The plans by H. A. Thomas are of a version simplified slightly from the original. Don't *you* be fooled into not building the Dart because it's too simple.


Note: All balsa is medium to hard with grain running lengthwise.
"Sig" 5 1/2" plastic freewheeling propeller, shaft & thrust fitting
1/8"x3/8"x7" motorstick
Full size plans
Motor is a single loop of 1/8" flat rubber - ends tied with square knot
Cement tailboon to side of motorstick, overlapping it 1/4 inch
Stabillizer leading edge, resting on table, gives tailboon proper angle
Wing cemented to top of rotor stick in this position
Bend fron pin
Stabillizer 1/16"x1/8" balsa
1/8" sq. balsa tailboon
AMERICAN MODELER - APRIL 1957




**EVTOL snippets**

The fallout looks to have started with Lilium declaring insolvency just before Christmas.

*Advanced Air Mobility pioneer Lilium has ceased operations and laid off almost all its more than 1,000 employees after failing to raise the capital it needed to continue. Lilium entered insolvency in October and was unable to attract the investment it needed to continue. The German company, which stunned the aviation industry 11 years ago with its electric multi-rotor design and audacious plan to introduce short hop inner-city-to-inner-city service, raised more than a billion dollars in private investment before going public in 2021. It only attracted two orders for a total of 320 aircraft.*

Lilium burned through more than $1 billion in 11 years of development work but had yet to produce a full size prototype that flew. However, the story is not yet finished as there was another follow up announcement indicating possible salvation anticipated before end Jan 2025? Hope eternal?

*Lilium GmbH ("Lilium"), a pioneering electric aircraft manufacturer, announced today the signing of an asset purchase agreement with Mobile Uplift Corporation GmbH, a company set up by an experienced consortium of investors from Europe and North America. Mobile Uplift Corporation GmbH intends to acquire the operating assets of the Subsidiaries Lilium GmbH and Lilium eAircraft GmbH.*

*Subject to the satisfaction of certain conditions precedent, Lilium expects that the Agreement positions the Subsidiaries to obtain sufficient funding to restart their business operations. Proceeds received from the sale will be utilized according to German Insolvency Law, with no amounts being distributed to Lilium N.V.*

In the meantime, Volocopter - the other German based eVTOL Company was also placed in administration during December.


*Volocopter, whose predecessor E-Volo may have invented the multi-copter concept, has filed for insolvency in Germany but is vowing to continue its certification bid. It intends to gain EASA certification for its VoloCity, and the insolvency will keep creditors at bay while it raises more money to cross that finish line.*

However the investment flame still burns in the eVTOL world, with a focus on "Vertiports" & the very recent announcement that Atlantic Aviation (USA) has bought out the subsidiary set up by Ferrovial to design & build Vertiports.

A Ferrovial conceptual vertiport

Quote: "*We see tremendous long-term benefits and growth in building out infrastructure to support the advanced air mobility space," Atlantic Aviation CEO Jeff Foland said. "The combination of our operational expertise with the outstanding work the Ferrovial Vertiports team has done so far will serve as a tremendous boost to safe and efficient eVTOL operations as the network develops."*

*Vertiports are specified areas for eVTOL aircraft, which are powered by electricity to takeoff, hover and land in urban, suburban and rural environments. These next-gen aircraft will improve connectivity between regions and offer a more sustainable transportation option with fewer emissions.*

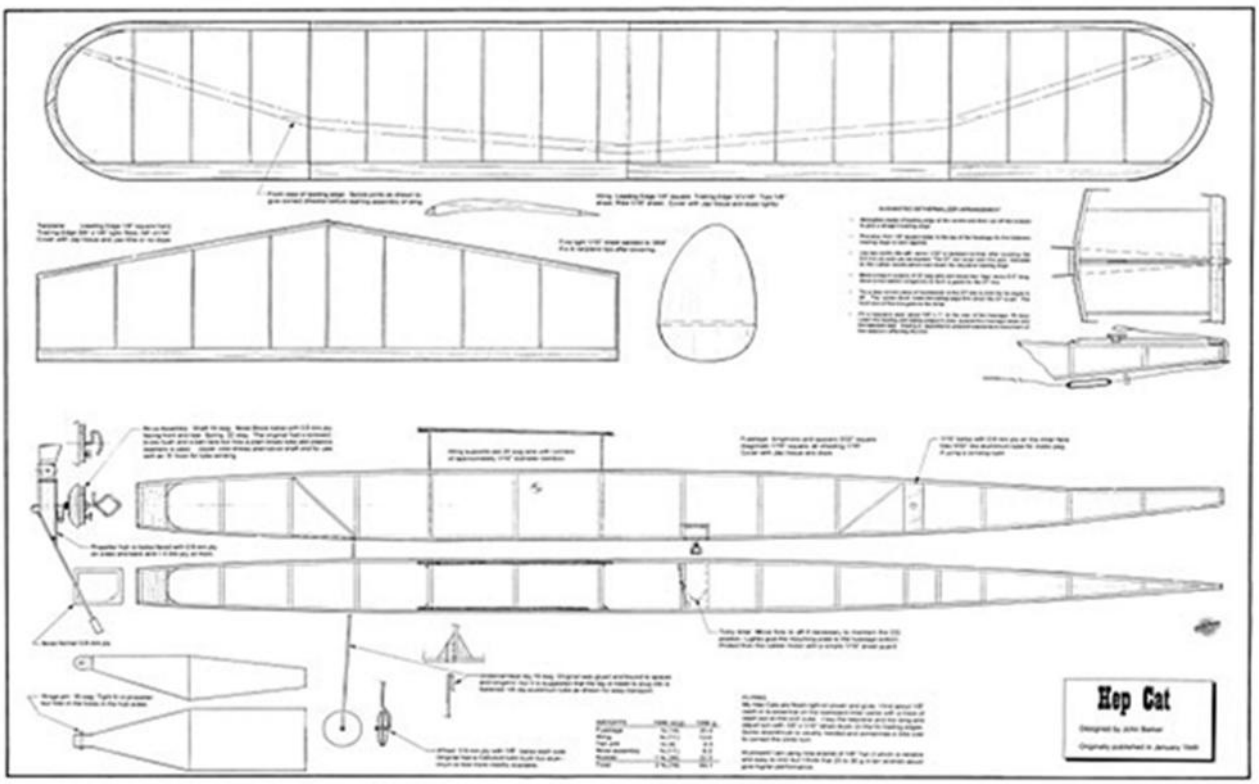
I wonder why? After all Ferrovial have quite extensive business interests in airports, maybe they couldn't envisage making any money out of vertiports in the short to medium future?

**Vintage Lightweights**

Continuing vintage lightweight variations, this month depicts the Hep Cat designed by John Barker. The Hep Cat was originally published in January 1946. There is a later redrawn plan, featured in Dec 1996 AMI, along with some additional notes on it re flying and dethermalizer arrangement (by the designer himself).

Quote: "My Hep Cats are flown right on power and glide. I find about 1/8 wash in essential on the starboard inner panel with a trace of wash out on the port outer. I key the tailplane and the wing and adjust turns with 1/8 x 1/16 strips stuck on the fin trailing edges. Some downthrust is usually needed and sometimes a little side to correct the climb turn."

Quite a few Hep Cats appeared at MW over the years.



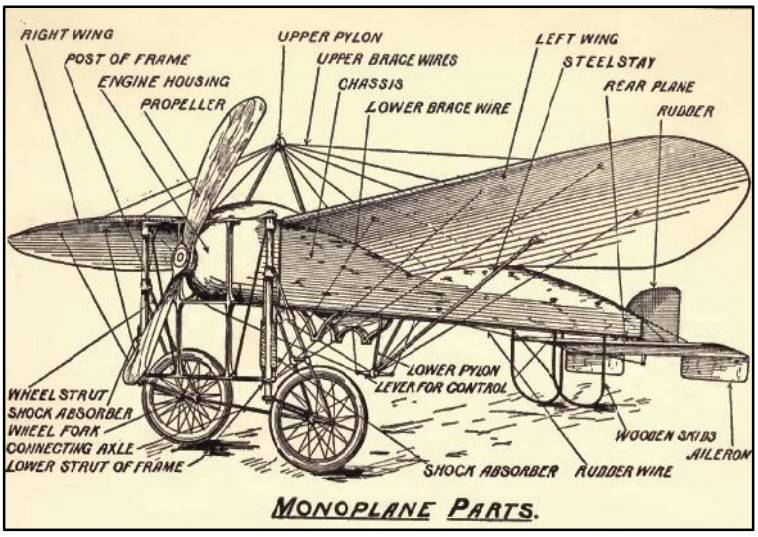

*Roger Newman*

**DBHLibrary No.146** - Roy Tiller

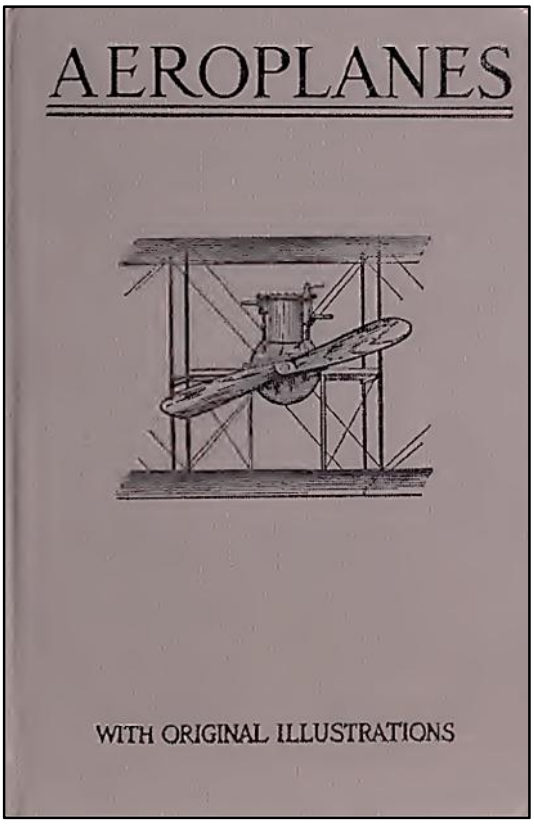
## Report No.168 Our earliest books.

This month we move on to 1915 and a book titled simply "Aeroplanes" edited by J. S. Zerbe and published in New York by Cupples & Leon Company.

The first thirteen chapters cover the theory of flying and the design, construction and flying of man-carrying machines.



MONOPLANE PARTS.




AT last "Experimental Gliders and Mode Aeroplanes".

I hope that you enjoy the following extracts.

"An amusing and very instructive pastime is afforded by constructing and flying gliding machines, and operating model aeroplanes, the latter being equipped with their own power. Abroad this work has been very successful as a means of interesting boys, and, indeed, men who have taken up the science of aviation are giving this sport serious thought and study.
"When a machine of small dimensions is made the boy wonders why a large machine does not bear the same relation in weight as a small machine. This is one of the first lessons to learn."
"THE RELATION OF MODELS TO FLYING MACHINES.
"A model aeroplane, say two feet in length, which has, we will assume, 50 square inches of supporting surface, seems to be a very rigid structure, in proportion to its weight. It may be dropped from a considerable height without injuring it, since the weight is only between two and three ounces.
"An aeroplane twenty times the length of this model, however strongly it may be made, if dropped the same distance, would be crushed, and probably broken into fragments. If the large machine is twenty times the dimensions of the small one, it would be forty feet in length, and, proportionally, would have only seven square feet of sustaining surface. But an operative machine of that size, to be at all rigid, would require more than twenty times the material in weight to be equal in strength. It would weigh about 800 pounds, that is, 4800 times the weight of the model, and instead of having twenty times the plane surface would re quire one thousand times the spread.
"It is this peculiarity between models and the actual flyers that for years made the question of flying a problem which, on the basis of pure calculation alone, seemed to offer a negative; and many scientific men declared that practical flying was an impossibility."

"LESSONS FROM MODELS. Men, and boys, too, can learn a useful lesson from the model aeroplanes in other directions, however, and the principal thing is the one of stability.
"When everything is considered the form or shape of a flying model will serve to make a large flyer. The manner of balancing one will be a good criterion for the other in practice, and experimenting with these small devices is, therefore, most instructive.
"The difference between gliders and model aeroplanes is, that gliders must be made much lighter because they are designed to be projected through the air by a kick of some kind."
"FLYING MODEL AEROPLANES - Model aeroplanes contain their own power and propellers which, while they may run for a few seconds only, serve the purpose of indicating how the propeller will act, and in what respect the sustaining surfaces are efficient and properly arranged.
"It is not our purpose to give a treatise on this subject but to confine this chapter to an exposition of a few of the gliders and model forms which are found to be most efficient for experimental work."

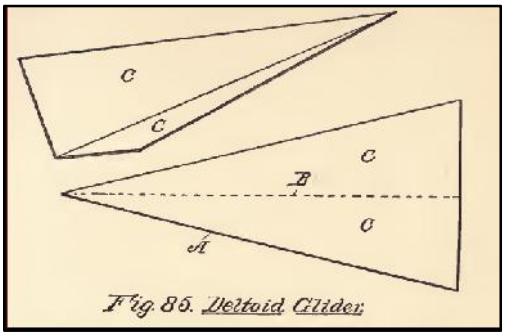


Fig. 85. Deltoid Glider.

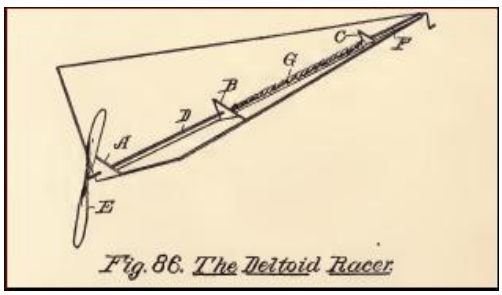


Fig. 86. The Deltoid Racer.

"AN EFFICIENT GLIDER. Probably the simplest and most efficient glider, and one which can be made in a few moments. This is merely a triangularly-shaped piece of paper, creased in the middle, along the dotted line B, the side wings C, C, being bent up so as to form, what are called dihedral angles. This may be shot through the air by a flick of the finger, with the pointed end foremost, when used as a glider.
"Fig. 86 shows the deltoid glider, or aeroplane, with three cross braces, A, B, C, in the two for- ward braces of which are journaled the propeller shaft D, so that the propeller

E is at the broad end of the glider. A short stem F through the rear brace C, provided with a crank, has its inner end connected with the rear end of the shaft D by a rubber band G, by which the propeller is driven. A tail may be attached to the rear end, or at the apex of the planes, so it can be set for the purpose of directing the angle of flight, but it will be found that this form has remarkable stability in flight, and will move forwardly in a straight line, always making a graceful downward movement when the power is exhausted. It seems to be a form which has equal stabilizing powers whether at slow or at high speeds, thus differing essentially from many forms which require a certain speed in order to get the best results.

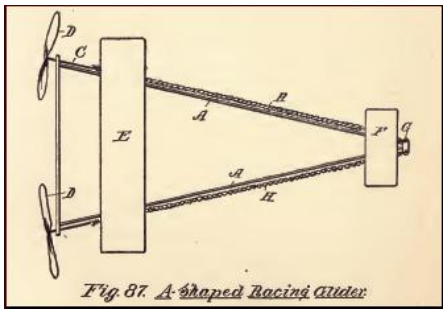


Fig. 87. A-Shaped Racing Glider.

"Fig. 87 shows the general design of the A- shaped gliding plane or aeroplane. This is composed of main frame pieces A, running fore and aft, joined at their rear ends by a cross bar B, the ends of which project out slightly beyond their juncture with the side bars A, A. These projecting ends have holes drilled therein to receive the shafts C, of the propellers D.

"A main plane E is mounted transversely across this frame at its rear end, while at its forward end is a small plane, called the elevator. The pointed end of the frame has on each side a turnbuckle G, for the purpose of winding up the shaft, and thus twisting the propeller, although this is usually dispensed with, and the propeller itself is turned to give sufficient twist to the rubber for this purpose."

"POWER FOR MODEL AEROPLANES - One end of the rubber is attached to the hook of the shaft C, and the other end to the hook or to the turnbuckle G, if it should be so equipped. The rubbers are twisted in opposite directions, to correspond with the twist of the propeller blades, and when the propellers are permitted to turn, their grip on the air will cause the model to shoot forwardly, until the rubbers are untwisted, when the machine will gradually glide to the ground."

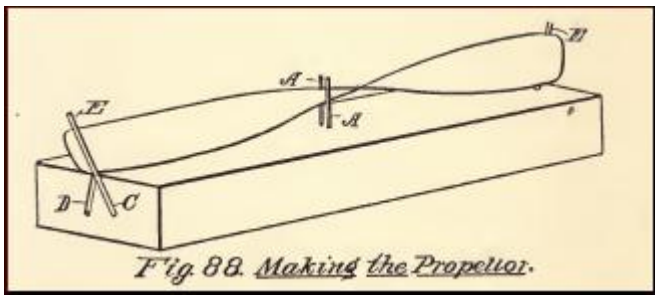


Fig. 88. Making the Propeller.

"MAKING THE PROPELLER. These should have the pitch uniform on both ends, and a simple little device can be made to hold the twisted blade after it has been steamed and bent. Birch and Holly are good woods for the blades. The strips should be made thin and then boiled. They are then taken out and bent by hand, or secured between a form specially prepared for the purpose. The device shown in Fig. 88 shows a base board which has in the centre a pair of parallel pins A, A, slightly separated from each other. At each end of the base board is a pair of holes C, D, drilled in at an angle, the angles being the pitch desired for the ends of the propeller. In one of these holes a pin E is placed, so the pins at the opposite ends project in different directions, and the tips of the propeller are held against the ends of these pins, while the middle of the propeller is held between the parallel pins AA. The two holes, at the two angles at the ends of the board, are for the purpose of making right and left hand propellers, as it is desirable to use two propellers with the A-shaped model.

After the twist is made and the blade properly secured in position it should be allowed to thoroughly dry, and afterwards, if it is coated with shellac, it will not untwist."

"MATERIAL FOR PROPELLERS.

"Very light propellers can also be made of thin, annealed aluminum sheets, and the pins in that case will serve as guides to enable you to get the desired pitch.

"Another good material is celluloid sheets, which, when cut into proper strips, is dipped in hot water, for bending purposes, and it readily retains its shape when cooled."

"RUBBER-Suitable rubber for the strips are readily obtainable in the market. Experiment will soon show what size and lengths are best adapted for the particular type of propellers which you succeed in making."

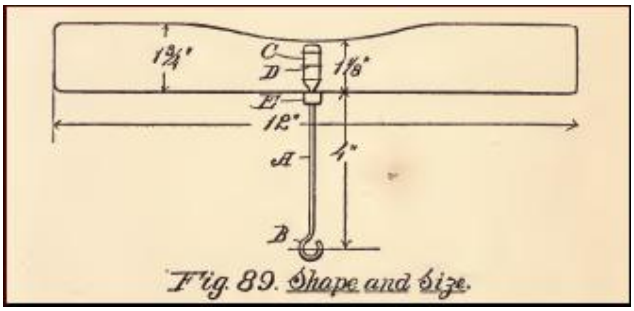


Fig. 89. Shape and Size.

"PROPELLER SHAPE AND SIZE. A good proportion of propeller is shown in Fig. 89. This also shows the form and manner of connecting the shaft. The latter A has a hook B on one end to which the rubber may be attached, and its other end is flattened, as at C, and secured to the blade by two-pointed brads D, clinched on the other side. The collar E is soldered on the shaft, and in practice the shaft is placed through the bearing hole at the end of the frame before the hook is bent".

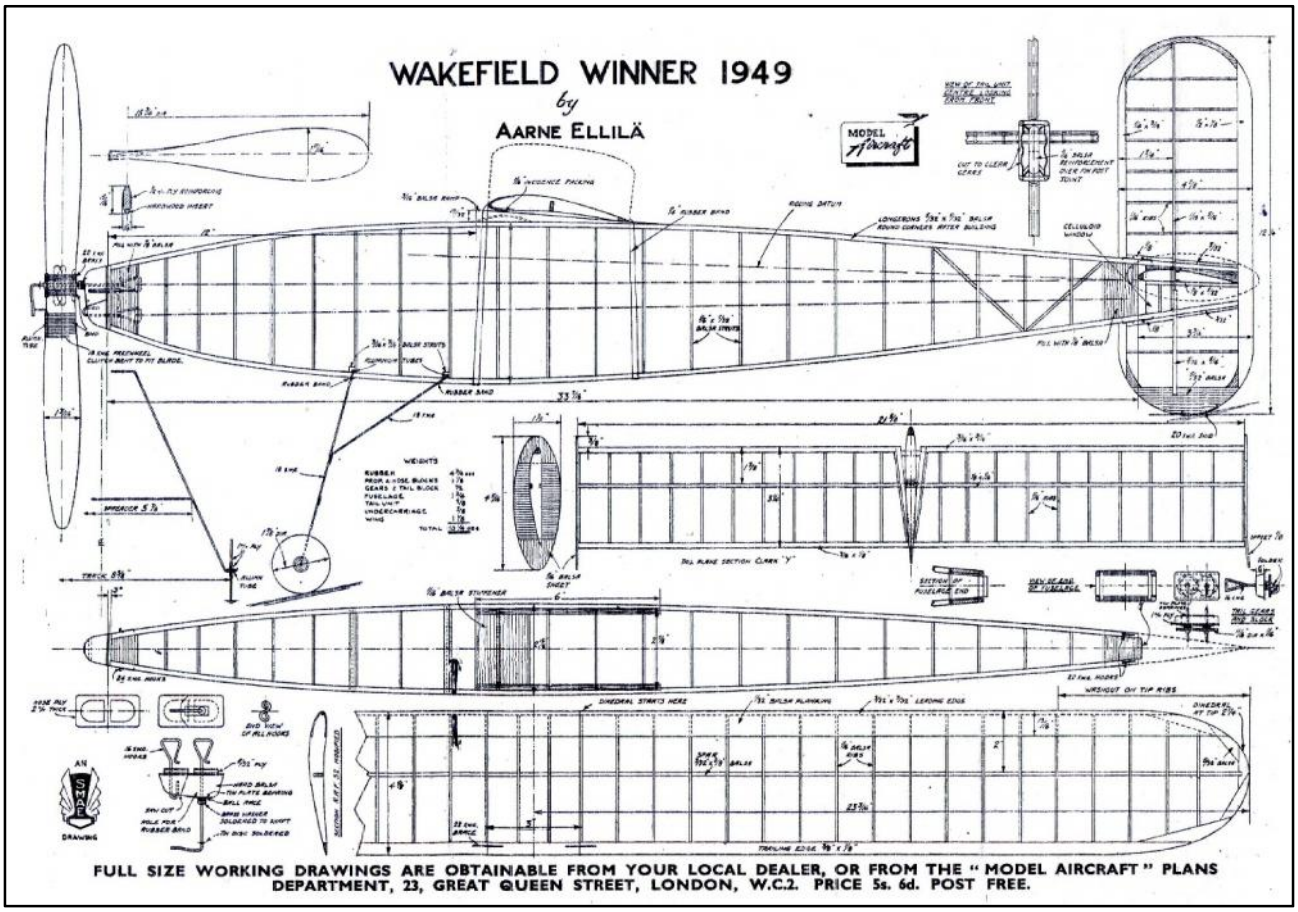
"SUPPORTING SURFACES -The supporting surfaces may be made perfectly flat, although in this particular it would be well to observe the rules with respect to the camber of large machines."

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

Roy Tiller

## Plans for Month - Roger Newman

**Rubber:** Aarnie Ellila's 1949 Wakefield Winner




**Glider:** Early A2 from Aug'51 Aeromodeler mag – Windrush

# WINDRUSH

## A 68 INCH SPAN A/2 SAILPLANE

**BY HENRY JONES**

Aged 20 . . . member of Bristol Aeroplane Co. " Aces " and is an Aeronautical Engineering Student with the Company . . . other hobbies include Light Plane flying . . . main interest is in Sailplanes but would like to get down to Flying boats if he had the time.

WINDRUSH was designed originally as a contest machine for the 1948 season, and was used for club flying, during which the Bristol " Aces " F.A.I. Club Record was broken with a flight of 11 min. 30 sec. o.o.s. early last year.

Designed to have good all weather contest performance combined as far as possible with a handsome appearance, WINDRUSH has an unusually large fuselage cross-section which enhances its semi-scale lines.

### CONSTRUCTION

**Fuselage.** Lay out the crutch on the plan. The top halves of the formers can now be cemented at their respective stations, taking care to line them up correctly. Add the keels, wing mount, cockpit roof and other details. Note that the cockpit roof and wing mount are joined together by vertical $\frac{1}{8}$ in. sheet planks to form a strong box. Take particular care over cement joints around the cockpit as this is the only cutaway.

Before lifting the fuselage from the board it is advisable to do some of the planking as this will prevent twisting when the rest of the structure is added. When planking has been completed to the cabin level, the fuselage can be lifted and the lower formers, keel, tow-hooks, etc., added. Now complete the planking. Remember to reinforce all fixing dowels with small pieces of celluloid. It is a good tip when fixing celluloid, especially for cockpit windows, to use cement first and then heavily clear dope the joint.

**Wings.** These are of conventional construction in all but a few points. Remember to pack up the front of the trailing edge to conform with the camber. The $\frac{1}{8}$ in. × $\frac{1}{16}$ in. stringer should be added after lifting from the board. The centre section should be built in one piece with dowels and tubes in position, and, like the spars going right across the break on the centre line. The two halves can then be cut apart with guaranteed accuracy.

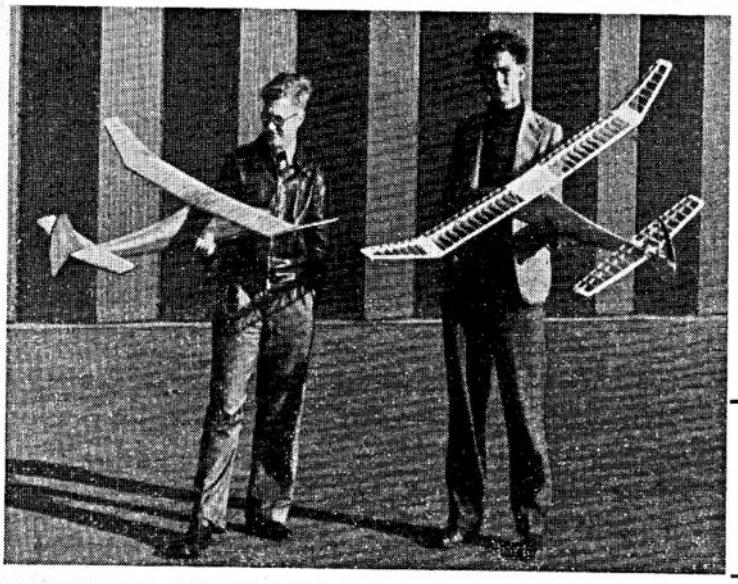
Note that there are no dihedral braces on the outboard dihedral break. The two end ribs are cemented together fairly weakly so that in a bad wing tip landing, they will break and save the rest of the structure.

**Tail Unit.** The tailplane is perfectly straightforward in construction, but particular attention should be paid to the strength of the centre section around the large cutaway for the fin. The fin is built flat on the plan, and then, after lifting, pieces of 1/16 in. square are cemented on each side of the ribs and sanded to aerofoil shape.

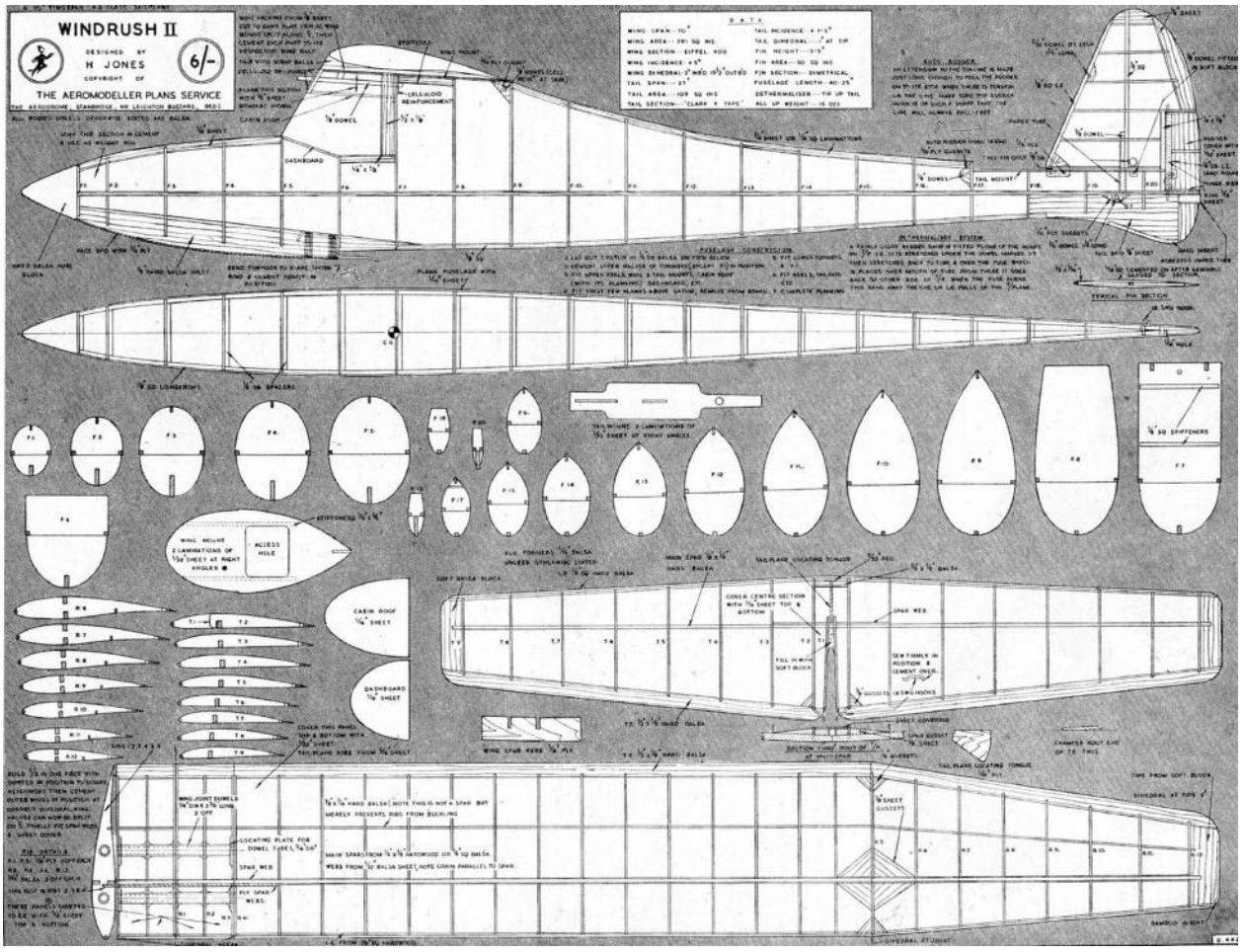
The auto rudder system is a little unusual, instead of an internal link to the towhook, an extension to the towline is utilised to straighten the rudder. When the line drops away this extension must also fall away cleanly, and so the shape of the hook on the rudder is most important.

**Dethermaliser.** This is an extremely important item of equipment on a model of this type. A double ended fuse of cigarette lighter wick has been found to give satisfactory results, but if your fuses tend to go out when they reach the asbestos tube, try a wire frame to hold the elastic band about $\frac{1}{2}$ in. behind the fuselage.

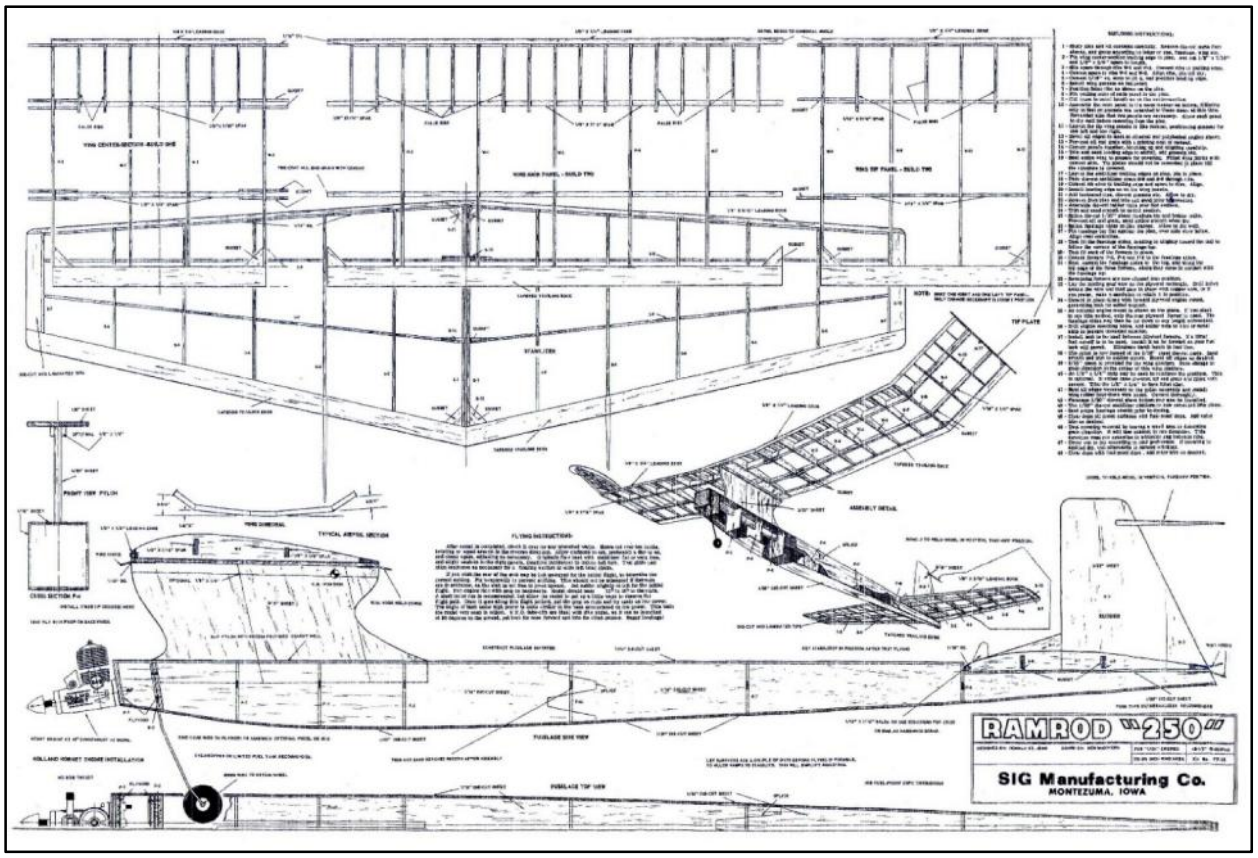
**Finish and Covering.** The original fuselage was covered in rag tissue and clear doped. After sanding, it was sprayed with 5 coats of colour, rubbing down between each and finally wax polished. The wings and tailplane were covered in Jap tissue and given two coats of clear dope and one of banana oil. The fin was covered in Jap tissue and given two coats of clear and one of colour. Colour scheme: fuselage and fin, red; wings and tailplane, white; cheat lines and lettering on fuselage, blue. — Happy towings!



*The designer left, with friend R. Prestwood who holds an uncovered " Windrush ".*




**Power:** SIG kit plan for Ramrod 250 & hot .049




*Roger Newman*

# 2024 Annual General Meeting of SAM1066

## Thursday 23rd January SAM1066 AGM 2024
## 7.00pm via Zoom

MINUTES OF SAM1066 AGM 2024

The AGM was held as a Zoom meeting on 23rd January 2025. Officers' reports had been circulated via the January 2025 New Clarion.

Present

Tony Shepherd (Chairman), Ray Elliott (Secretary), Alan Brocklehurst, Ken Brown, Tony Calvert, Peter Carter, John Leadbetter, Roy Levers, Paul Lovejoy, Tim Mountain, Roger Newman, Alan Patrick, Peter Tolhurst, Nick Peppiatt, Martin Pike, PJT2a, Chris Redrup, Barbara Tiller, Roy Tiller, Mike Woodhouse, Doug Hunt (guest)

Welcome to members old and new for the season 2025

The Chairman opened the meeting at 7pm with a welcome to all.

Apologies

Apologies were received from John Andrews.

Chairman's Report

Summarised and taken as included in the January 2025 edition of the New Clarion.

Secretary's Report

Summarised and taken as included in the January 2025 edition of the New Clarion.

Membership Secretary's Report

Summarised and taken as included in the January 2025 edition of the New Clarion.

Treasurer's Report

Summarised and taken as included in the January 2025 edition of the New Clarion. The Treasurer also detailed the change of the Society bank account to an online Virgin Money Account (part of Nationwide).

David Baker Heritage Library Report

Summarised and taken as included in the January 2025 edition of the New Clarion. Options for the long term future of library were discussed under Any Other Business.

Election of Officers

All members of the Committee were prepared to continue in office. A vote that they should do so was carried unanimously.

Annual Subscriptions for 2025

Further to the recommendation of the Treasurer in his report the meeting unanimously agreed that subscriptions for 2025 should remain at no cost.

Any Other Business

1. Proposed competitions for 2025

   The Society will be running two competitions, sharing the days with the Croydon club, as in previous years. The dates are the 14th or 15th June and the 4th or 5th October. Classes to be flown are yet to be decided but at least one of the contests is likely be run to the Cagnarata format. The venue will be Salisbury Plain. There is a possibility that there will again be a Southern Area Gala at Odiham, subject to discussions with the RAF. There may well be some involvement for SAM 1066 in the running of the contest on the day but the event will be covered by site entry fees and Southern Area BMFA.

2. Future of the SAM1066 library

   Roger Newman has produced a document outlining options for the long-term future of the SAM1066 Library. This includes the option that in the event that SAM1066 is no longer able to hold the content of the Library then an alternative location is found with the possibility of the disposal of items that cannot be rehomed. This document is included as an Appendix to these minutes.

   Further to this matter, discussions have been taking place between Roger and BMFA Archivist Doug Hunt about the possibility of the BMFA taking over part or all of the library. An initial response from Doug has suggested that the BMFA may be able to accommodate part or possibly all of the Library within their own archive. It was felt that this could provide a positive solution to an issue which has been troubling SAM 1066 for some time. Further discussions are required between SAM 1066 and the BMFA on this matter with Roger representing SAM 1066 and Doug Hunt representing the BMFA.

Possible future collaboration between SAM1066 & SAM 35

Doug Hunt, as Chairman of SAM35, raised the possibility of SAM1066 and SAM35 working together in some way in the future , for example in the organisation of contests. This will be discussed within the Committee and options considered.

The chairman thanked everybody for their attendance and participation. and the meeting finishing at 7.40 pm.

*Ray Elliott*

Appendix

Long term future of SAM1066 Library

At a future (as yet undefined) date, it will be necessary to move the SAM 1066 library from its current location (housed by our Hon. Librarian at his home). There may be another SAM 1066 member who wishes to take on the task of Hon. Librarian (including housing the library). A call for a volunteer could be made in a future New Clarion. The AGM should consider this option. The alternative is to plan for disposal of the physical content of the SAM1066 Library. This note addresses the latter situation.

The Library is a collection of magazines, books, catalogues & electronic files that have been been meticulously catalogued & housed by our Hon. Librarian over many years. It comprises content from the UK & many other countries. The full catalogue is available for download from the Club website in the form of a Microsoft spreadsheet.

The BMFA Archive Group has recently been approached to enquire whether all or some of the content could be assigned to them for the BMFA Archive. The Archive Group may wish to take everything & then themselves follow option (I) below excepting that any arising funds would go to the BMFA. Alternatively, they may wish to acquire only part of the content. However their response is still awaited.

This potentially leaves the SAM1066 membership with the question of what to do with content that the BMFA may not wish to acquire.

Should this situation arise then alternatives for disposal are viewed as:

1. Put this content up for sale at a future BMFA Auction, with any arising funds being transferred to the SAM1066 Club funds.
2. Offer them to alternative organisations who are competent to digitise them and to make the content generally available on-line. (Note this could bear a cost with no arising funds).
3. Try to sell content via Ebay or an equivalent outlet.
4. Dispose (scrap) content unwanted by the BMFA.

All alternatives will have costs associated e.g. transportation and / or postage and / or fees. Such costs (hopefully) may be covered by funds rising from the disposal.

Members may have other viable suggestions. Should we have no willing volunteer to take on the Library & the BMFA Archive Group not wish to acquire the complete content, my preferred option is alternative (I).

*Roger Newman*

## Secretary's Notes for February 2025 - Ray Elliott

The BMFA FFTC held a contest (Winter Rally) at North Luffenham on 11th January to "road test" the new combined classes contest format. It was very calm but cold. There were 12 flyers in total. A forecast of early morning and evening fog would have put some people off. I was unwell but wouldn't have gone if I had been OK because of the fog. Full results can be found at BMFA Public - 2025 FFTC WINTER GALA.pdf - All Documents

There is also a report by Bill Dennis, one of the participants, on Hippocket Aeronautics at https://www.hippocketaeronautics.com/hpa_forum/index.php?topic=27864.msg8444#msg8444

We await the views of the FFTC on the outcome of this contest

A reminder that the 10th Grande Coupe de Birmingham is due to be held on either the 22nd or 23rd February at North Luffenham. Full details are in the Events and Notices section of this NC. There will also be a contest for E20 models run by Colin Sharman, editor of Aeromodeller.

*Ray Elliott*

# Events and Notices

## La 10ème Grande Coupe de Birmingham

**A qualifying event**
**for the 2025 Southern Coupe League**

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

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

**F1G** for the Aeromodeller Trophy: Two flights between 10:00 & 12:00 then three rounds to published timetable.
**Pre 1970 Coupe** Three flights (no rounds) start 10:00. Within this event models which meet our pre 1958 cut-off date will fly as **Vintage Coupes.**
Pre 1970 Coupe may double up with F1G as at previous events. Contacts below for details if unsure.
Both event finish at 14.45 followed by fly-offs as required (Not DT!)
Maxes will be determined by conditions on the day.
Prizes for 1,2 & 3 in F1G and Pre 1970 Coupe. The winner of F1G will be awarded the **Aeromodeller Trophy** and the top placed Vintage Coupe the **Vintage Plate**.

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

The organisers will determine which of the two days of that weekend are likely to have best weather and will email potential attendees on the evening of Thursday 20th Feb to confirm the chosen day. Will all potential fliers please email gavin.manion84@gmail.com ahead of time so that they are included in that confirmation email. Single registrations on behalf of a group of fliers would be very welcome.

For further information contact: -
Gavin Manion at gavin.manion84@gmail.com tel 01543 422509 or
Stuart Darmon at stuartdarmonf1a@yahoo.com tel 01858 882057

## 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.

# 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

# Chasetown Indoors

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

## Flying 1pm til 4pm
## Saturdays

**2024**
**28th Sept, - 19th Oct,**
**9th Nov, - 7th Dec,**
**2025**
**11th Jan, - 8th Feb,**
**8th Mar.**

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

## Waltham Chase Aeromodellers

# INDOOR F/F MEETINGS

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

**2024:**
Sep:19th., Oct:3rd., Oct:17th., Oct:31st.
Nov:14th., Nov:28th.
Dec:12th.

**2025:**
Jan:2nd., Jan:16th., Jan:30th.
Feb:13th., Feb;27th.,
Mar:13th., Mar:27th.
Apl:10th., Apl:24th.
May:8th., May:22nd.
Jun:5th., Jun:19th.

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

## E30/RDT/BMK/E20 Batteries

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

## DILLY JAP IS BACK –AGAIN

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

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

I'm on 0208-7775533 or e-mail: martindillv20@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/**

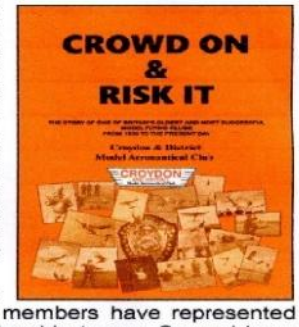
I supply items, which are needed by the free flight modeller, or any other modeller, items that cannot be readily obtained through the normal model shop outlets. I also believe in the builder of the model principal so what you will find, on my list, are components, plans and kits etc. Although I am not 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.

# CROWD ON & RISK IT




This is the story of one of Britain's oldest and most successful model flying clubs, Croydon & District MAC, from 1936 onwards. The club contributed much to aviation, both model and full-size, and the late Keith Miller compiled its history till around 1960. Now this up-dated 73 page version of the club's history, copiously illustrated with many previously unpublished photos, takes the Croydon saga up to the present. Contributions by past and present members vividly capture the atmosphere of the heyday of free-flight, with almost weekly contests at Chobham or Bassingbourn.
53 designs by Croydon members have been published in the model press and 24 of its members have represented Great Britain in World and European Championship teams. Several have gone on to notable careers in aerospace. Crowd On & Risk It covers all this and more.

Just £8 by PayPal or cheque.

Contact Martin Dilly or write to 20, Links Just £10 by PayPal or cheque x 020 8777 5533 V for your copy.

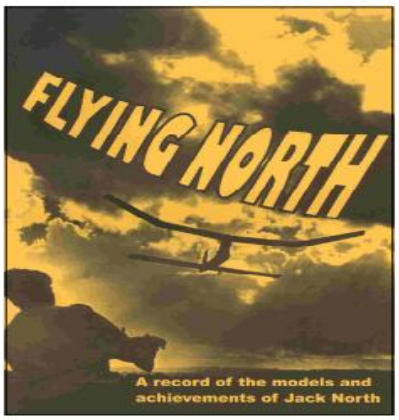
# FREE FLIGHT FORUM REPORT 2021

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


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

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

## THIRD RE-PRINT JUST ARRIVED




### FLYING NORTH
**A goldmine for vintage and nostalgia model flyers -**

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

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

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

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

### READERS' FEEDBACK

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

"I hope it becomes a classic."

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

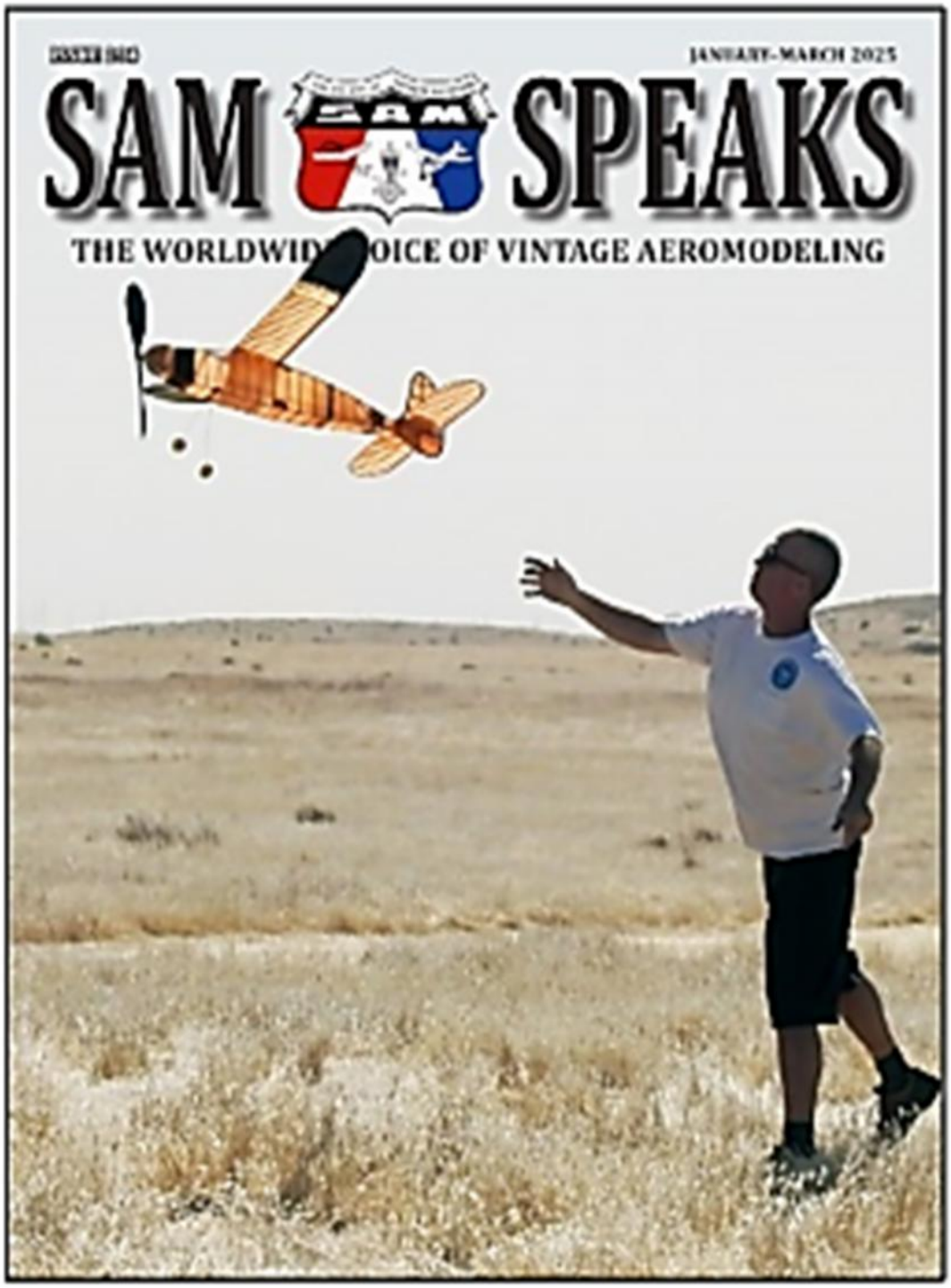
"... am immensely impressed. A splendid effort"

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

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

"The best aeromodelling book since the Zaic Yearbooks"

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




**This bi monthly emagazine can be obtained from the Society of Antique Modellers. Web site**

**http://www.antiquemodeler.org/**

**for the modest cost of $30 pa.**

**Quite a few UK people already belong,**

**but a few more might help our Parent Body!**

**Provisional Events Calendar 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*