NEW Clarion

SAM 1066 Newsletter

Society of Antique Modellers Chapter 1066

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Editorial

As I write the National Free Flight Championships are taking place on Salisbury Plain, the weather forecast does not look too good with rain showers promised. I am not fit enough to attend these days, but I wish all competitors the best of luck and hope you can dodge the showers. I ask that one or two of you find time to take a few pictures and report on your experiences.

Right, what have we scraped together for this issue:

- We kick-off with another of Peter Hall's Couprofiles' this time the victim is Colin Foster.
- Pylonius has a bit of a sideways poke at the scale modeller amongst other things.
- Dave Hanks has penned a piece on the life and times of South Bristol MAC.
- Engine Analysis is the OS29 Max 1, the first of their performance engines I believe.
- Jim Paton responded to the piece on Jim Bagley in the last issue. I weigh in with a snippet of my own.
- News Review from 1949 Model Aircraft talks of the lack of funding for the forthcoming Wakefield Contest, also complains of competitors who criticize event organisation but make no attempt to assist in any way. Hints on approaching authorities for permission to fly in their local parks rather than just using them until someone objects.
- I report on a quick visit of mine to the Sneyd indoor meeting to return Colin Shepherd's 'Jaguar' in order for him to R/C electrify it.
- There is a blast from the past in the shape of an article by Dave Rye published in the old paperback Clarion March 2003.
- Heard at the Hangar Doors from Aeromodeller June 1954 reports on success of new membership scheme; sets out details of a mystery engine; reports on exhibitions; supports SAME attempts to get club officials to abide by regulations for reporting contest results; and finally advises of a £1 license requirement for model R/C frequencies.
- Nick Peppiatt is back with his compressed air models and motors.
- An email from Robert MaKeon in the States featuring a 40 minute rubber model from a 1929 Popular Mechanics magazine.
- Southern Coupe League results from Roy Vaughn.
- I trawled the tinternet for the first winner of the Schneider Trophy. It was in 1913 that a Frenchman Maurice Prevost won, flying a Deperdussin. Surprisingly the aircraft was a monoplane. There is a plan for a model.
- Roy Tiller is back to delving into our archives oldest books again.
- Spencer Willis has numerous Jetex, Scorpion and Rapier smoke generators for sale and a few other odds and ends.
- The Indoor Scale Nationals is the subject of an article by Martin Pike backed up with a few pictures. A Short Shetland flying Boat is particularly impressive.
- Roger Newman sends in a report from North Wales and continues his personal observations on 'The Wacky World of eVTOL'. This time highlighting the visions of development of Vertiports for these vehicles. I personally cannot see all this happening, after all, currently we cannot seem to get the infrastructure in place for electric cars.
- Our secretary reminds us of the Odiham meeting and our Cagnarata event. In addition he has several models from deceased modellers for disposal.
- We wind up with the usual three plans supplied by Roger.

Editor

Couprofile No.20: Colin Foster - Peter Hall

Colin with his Baron Knight coupe

I asked Colin the usual four questions - Can you tell us about your free flight experience, particularly with coupes? What is your approach to coupe design, construction and mode of operation? How do you pick the air? What developments do you envisage? Here is his response.

Colin:

I was brought up in the small village of Rufforth near York right next to RAF Rufforth. The Northern Area used the 'drome for contests and I knew when an event was on, as all the charabangs and cars with model boxes and bikes strapped to the roof had to pass our house to get on to the 'drome. In those days the meetings had control line, radio and free flight all on the same day. I remember one day there was a group of people watching a man towing a glider, he did not look the athletic type, but was wearing white plimsoles with his big toes poking out. He launched the gilder and the comment from the onlookers was that J.O'D. was away. This meant nothing to me at the time 'till some 40 years later.

My first model was a Champ control liner with a Mills .75 motor and then a Keil Kraft Caprice gilder which flew very well. Too well - one day I put it in a boomer and lost sight of it after following on my bike for 3 miles. We did not have a phone at home but I had put my name and address on the model and some 3 months later I received a post card from a farmer at Tadcaster. He had found the model in his corn field but could not understand how it had got there as there was no means of propulsion. When I went to get the model back and explained to him I had towed it up at Rufforth on a length on string and he was most impressed.

The RAF closed the 'drome and all model flying stopped. I started work and got married and raised a family and did not do any flying until I met my good friend Ian Wilkinson, he flew radio models on the Knavesmire in York. I went down to watch him flying and decided to start modelling again. I built a Junior 60 and Ian had a Majestic Major we used to have timed engine runs and see who could stay up the longest. Ian had seen advertised in the Aeromodeller that John Pool was running a competition on the Knavesmire so we went down on the day to watch. I was most impressed how well the models flew and Ian suggested I should build a free flight Keil Kraft Senator rubber model and fly it in a contest. The model was built and trimmed, all that was required now was to find a venue where the BMFA was holding a contest. The area free flight contact was Dennis Davitt, Ian contacted Dennis and found out that there was an area meeting at RAF Finningley 2 weeks later. Ian offered to take me in his car and after about half an hour driving round we found the entrance to the aerodrome. I entered the contest with the Senator and it flew very well, I even did one max! The model had suffered slight damage and I was knelt on the ground doing the repairs when there was a booming voice saying "will it repair lad? " I looked to my side to see a pair of white plimsolls with 2 big toes poking out - it was John O' Donnel some 40 years later. I still wonder if they were the same plimsolls. It was 1996 and this was the start of my free flight career proper. Ian and I both joined MADMAC and went to fantastic Wednesday trimming nights that Dennis Davitt organized at Church Fenton and also went to the club meetings. The BMFA had recently altered the rules in the Plugge Cup to include all classes and John Godden thought Morley club has a good cross selection of flyers that could beat, as John put it, them "Southern softies" and could win the cup. With this in mind I started building as many different models as I could which included my first coupes. With Johns leadership Morley went on to win 6 consecutive Plugge Cups which is still a record. My first coupe event was in December 2001, Dennis Davitt organized the Coupe 2001 at Church Fenton There had been a severe overnight frost but still 19 flyers entered the 80 gram event, if we could only get that many today. I managed to come equal 7th with Ian Davitt and Dave Hipperson won the event. I now fly most classes at the area events and galas and always attend Gavin Manion's brilliant Grand Coupe De Birmingham. The first time I flew at that event I came second in vintage coupe with a Michel Etienvres. The next time, on a very windy day I won both the Aeromodeller trophy and vintage plate beating Phil Ball in the fly off with a time of 3 seconds as Phill did not return in time for the fly off. My model crashed on launch this is my shortest winning time ever. This year I won the pre-1970 coupe with a Baron Knight and came second to Peter Woodhouse in the Aeromodeller trophy.

Coupe design:
I only build proven design models ie Dennis Davitts DIG 150, Michael Etienvers, Jump Bis and Dave White's Baron Knight.

Picking the air:
Being brought up in the country, I like to use all that nature can offer me. At a recent glider event that I won, there were some flying ants hatching and they only hatch when a thermal comes through - so you just waited till the swallows and starlings arrive to catch the ants in flight to launch into lift. We all know about Red Kites and Buzzards using thermals but the rest of the time I use a mylar streamer and if it feels right chuck it up.

As for developments, I like to have at least 2 models of the same class so I will have to build another Baron Knight and as all my models are over-weight I need to try harder and build one down to weight, although suppliers of decent balsa etc. are becoming harder and harder to find.

Colin Foster/Peter Hall

Extract from Model Aircraft June 1955

Topical Twists

Just up his Street

In concluding a three page soap box marathon on the evils of duration flying, one of the hot gospellers of the Realist cause did a magnificent back somersault off the pulpit by declaring that he didn't build models to look at.

Well, nor do I, come to that. Which is understandable, as no one could regard my botched up efforts with fond admiration, not even if models had mothers. But for the arch-priest of scale ornamentation to make such an admission is enough to cause any self-respecting Realist to blush to the roots of his lacquered wings; for it implies that all the strut and cabin dressing is not to provide a pleasing eyeful for the proud constructor, but to bedazzle the baleful blinker of that anonymous character, known as the man-in-the-street.

Now what this concrete-plodder has to do with model aircraft, apart from giving the horse laugh to the sight of overgrown kids playing with toy aeroplanes, is a bit of a puzzle; but a psycho-analysis of our man-in-the-street will reveal a deep frustration, going back to the time when, as the boy-in-the-street, he was prepared to swap his champion conker, fag cards and pet snake (only dead a week) for a flying toy aeroplane that looked just like the real thing. A subconscious desire which now manifests itself in the secretive purchasing of 3s. 6d. kits.

Exploiting this psychological kink to the full, the silver dope and cabin brigade are tantalisingly waving their super, dream-of-every-child toy aeroplanes under his nose, in the hope that his horse laugh will eventually give way to a whinny of delight.

By thus winning the approval of the man-in-the-street all would be well. The Realist would no longer have to sneak furtively out of the back way in order to make his shame-faced way to the flying field. He could go forth along the main street with head erect and model openly displayed, and with not so much as a horsey titter to discourage him. In fact, he'd feel no more ashamed of his hobby than any slap-happy duration type.

• • •

That new solvent for removing cement from clothes should come in useful on my old modelling jacket. This hoary relic is so thickly caked that when it went to the cleaners they didn't know whether to clean or polish it.

News of this solvent coincided with a survey of model adhesives. A survey which did not, as we hoped, include any mention of the development of the ideal balsa cement, a substance which would adhere to balsa with the same tenacity as the present stuff does to fingers and best Sunday clothes.

• • •

Balsa Strip

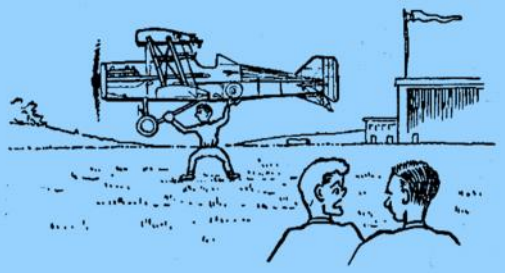
Now that it is generally considered that the modelling public is composed of a bunch of scale-struck adolescents, struggling with their first three and sixpenny kits, it is not surprising that the horror of the comic strip has invaded even this august and adult journal. Admittedly the assault is only on a minor scale, confined to the advert section, but what if the dialogue balloons make an airborne attack in force on the editorial pages? Already the American model mags (those that still charitably squeeze in the odd model page between "Sabre Jet Gossip" and the "Global Atom Bomber") are running pictorial knowhow strips.

Possibly you've seen the sort of thing. Little Elmer's Gee-Whizz power job keeps horsing into a heluva spiral, which is upsetting Little Elmer more than somewhat as he had traded his best Hopalong Cassidy outfit for this same beat up crate that very a.m. Luckily along happens Big Jim, the club know-all, to give Little Elmer the lowdown on the trimming angles. Result—Little Elmer's job is hot-footing it o.o.s., while Big Jim sends up an extra special size in balloons to announce, "Never fly a crate without the tailplane—it's them little details that make a top-notch flier."

Once the trend gets really under way, we can look forward to the appearance of Supermod; an inoffensive rubber powered character which, on the magic word "Prangem!" is transformed into a supersonic, radio controlled jet—the guardian of the model skies.

A typical episode might deal with a model club that uses the local park as a flying field. An arch-criminal—one of the protesting park-side residents—is plotting to have the club thrown off.

Comes the memorable day when the mayor visits the park to open the new control-line area. He is standing waist deep in the long grass, when out of the clouds swoops a sinister black model. Whoosh-wham-m-m—blam-m-m, and sundry stereocomic sounds, and the mayor is struck violently in the Corporation by the evil interloper.



"Believes in building 'em to look like the real thing."

The club is naturally blamed and banished from the park in disgrace. But, suddenly, "Prangem!", and Supermod is on the scene. Its super, X-ray, telepathic model detector locates the offending model in the Arch-criminal's shed, together with the Marble Arch, Admiralty Arch, and the fallen arches of the entire police force.

Amid cheers of "Good old Supermod," the club is vindicated, and the arch-criminal suitably punished by having the control line area shifted to a position just outside his back garden.

• • •

Air Trailer

We see that the super, colossal, tremendous, etc., model of the year took as long in the making as "Gone With The Wind"—three years. This, we understand, was an all out effort, unlike the building progress of most models today, which are feverishly assembled during television breakdowns.

Ultimately, we suppose, this super model will reach the model mags in plan form, when, no doubt, some bright optimist will take up the challenge in the hope that there will be somewhere left to fly it in three years' time.

• • •

Fin(n)ish

Finnish modellers hold many of their winter comps on frozen lakes. This means that each year they see their flying fields just melting away—just as we do in this country.

Pylonius

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Model Aircraft June 1955

South Bristol MAC - Dave Hanks

All Change at South Bristol MAC

For many years the South Bristol club has had intermittent use of the airfield at the former RAF Colerne. However, a few years back ,the airfield was decommissioned as an active airfield and then , when the last of the ATC personnel left the control tower, control was handed over to RAF Cranwell.

Resulting from this change no 'casual licences' held by users of the site (i.e. ourselves, the Bath Spa RC club and Bath University) were allowed to renew upon expiry and it was rumoured the site was closing to all activity and might be sold off. However the army, on the adjacent base, then kindly offered us the use of their former sports ground as a new flying site – of course we said "Yes please"! (Colerne is approx. 18miles east of Bristol and 7 miles from Bath).

The new site was originally the upper end of the old airfield and comprises approximately 30+ acres of flat land (approx. the same size as the Buckminster site) with tarmac access and parking around two sides. Unfortunately what it doesn't have is the wide tarmac/concrete areas of the old airfield and so C/L speed and team race is no longer feasible. It has plenty of space for C/L circles over grass plus an area with short grass suitable for C/L aerobatics etc. Being bounded by the army base on 3 sides F1 type competitive flying is probably a no-go but most other F/F should be possible with careful selection of maxes, launch points etc and the use of DTs, remote DTs or radio assist. Powered models, scale models, all types of rubber models and most gliders should be easily accommodated - plus C/L of course.

We have exclusive use of the site on our days there and we fly on approximately 30 Sundays of the year (one Sunday each month we fly C/L and indoors at our other site at Berkeley). We will also be flying some mid-week evenings during the summer .

Our licence only permits its use by club members but if anyone out there fancies trying the site you are very welcome to visit as a guest flyer. You would need to arrange access by contacting myself or via the 'contact us' page on our website (www.southbristolmac.co.uk). As it's basically kept as a meadow you will find plenty of 'KeilKraft grass' to fly over!

Dave (secretary SBMAC) 01179672323

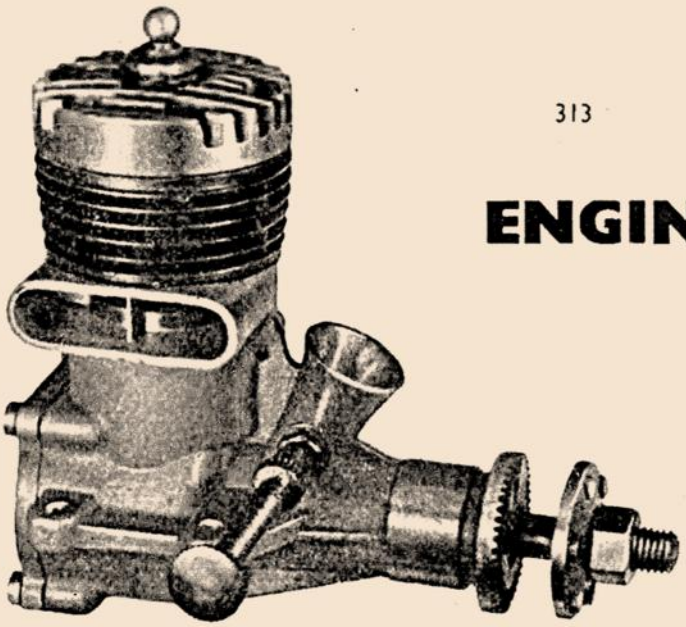
p.s. We are holding our club's **Open Day at our Berkeley site from 1 -6pm on Sunday 21st July.**

There will be a static display of members models (to give visitors an idea of the range of interests within the club), combat flying taking place, other control-line models being flown and a 'have-a-go' circle for anyone new to C/L flying or returnees wanting to see if they can still manage a few laps! The bar will be open and there may be food available. Please come along and see what we get up to.

Dave Hanks

Engine Analysis: OS29 Max-1 - Aeromodeller June 1957

AERO MODELLER



ENGINE ANALYSIS

NUMBER 36

Outstanding plain-bearing glowplug 5 c.c. from Japan

OS 29

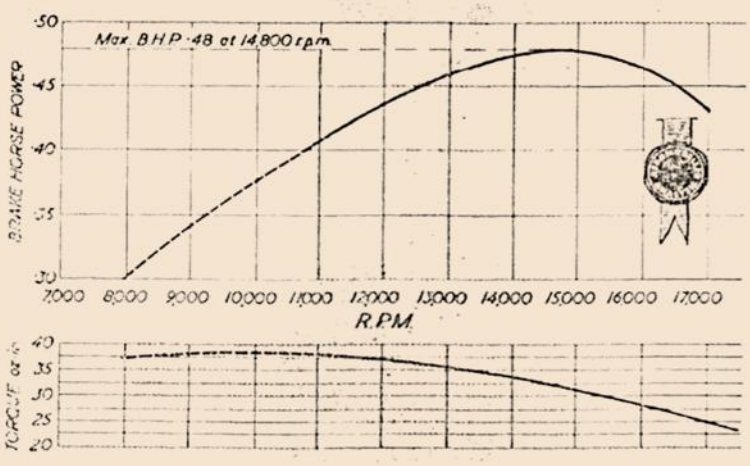
reviewed by *R. H. Warring*

AFTER A RUN of the smaller sizes of engines, to come up against a really potent 5 c.c. job for test can be a little shattering, and in this category the O.S. "29" rates with the best—both for power and noise output. Frankly it would be invidious to attempt criticism of design, workmanship or performance. It is a first class engine in every respect, even if a bit of a brute to handle.

Mainly these latter remarks are concerned with starting characteristics. The test engine needed flooding through the exhaust port to get any signs of life, and a sharp flick-over even on the larger sizes of propellers. The kick-back is really vicious and the compression ratio and compression seal good enough for any diesel. As regards piston-cylinder fit, in fact, it puts many a contemporary American glow motor to shame. The Japs, somewhere along the line, have acquired a lot of "know how" on model engine design and construction and whilst following American general technique, have added a few ideas of their own to good effect.

For what main purpose the O.S. "29" is designed we were not told—presumably control-line stunt work? It is a high-revving engine producing its peak power in the region of 15,000 r.p.m. which should give wonderful results in free flight power duration, if people do get around to building models that size again. Frankly, though, we would be tempted to "detune" it somewhat if we were using it in a stunt model with a smaller diameter propeller, by decreasing the compression ratio with an additional gasket under the head. We noticed, too, that the engine submitted for test had an inserted venturi throat section (located by the spray bar) which is made to be interchangeable for other throat diameters. A smaller throat diameter coupled with reduced compression ratio would undoubtedly tame the O.S. "29" down somewhat as regards starting. But perhaps we were a little put off when our initial attempts at starting produced a backfire and the ejection of solid fuel back out of the intake straight into our face!

Running tests were conducted between a range of 11,000 and 18,000 r.p.m., smooth two-stroking being obtained readily by adjustment of the needle valve after starting very rich in each case. Nothing smaller than an 8-inch diameter propeller was used for hand starting. The engine inevitably "died"



SPECIFICATION:

Displacement: 4·857 c.c. (·2963 cu. in.)
Bore: ·739 in.
Stroke: ·691 in.
Bore/stroke ratio: 1·06
Bare weight: 6¼ ounces
Max. B.H.P.: ·48 at 14,800 r.p.m.
Max. torque: approx. 38 ounce-inches at 10,000 r.p.m.
Power output: 1 B.H.P. per c.c.
Power/weight ratio: ·071 B.H.P. per ounce.

Material specification:

Crankcase unit: pressure die-cast light alloy
Cylinder: mild steel (unhardened)
Piston: cast iron
Head: light alloy die casting
Crankshaft: hardened steel
Connecting rod: dural, brass big end bush
Main bearing: brass or bronze sleeve
Spraybar assembly: brass

Manufacturers:
Ogawa Model Mfg. Co., Osaka, Japan.

unless started very rich and also ran very hot, but it ran steadily and smoothly when properly adjusted. It did, however, appear to generate a fair amount of vibration at all speeds. The power output achieved on test could no doubt be improved with more rigid mounting and experimenting to find an optimum fuel mixture, when its performance for a plain bearing engine could be quite phenomenal.

Constructionally the O.S. "29" follows conventional glow motor practice. Only one major casting is involved—the crankcase unit, which is bushed with a bronze or brass sleeve for the main bearing. (It is reputed that the bearing life is low on the O.S. "29", which would be the case if this is brass. On the other hand the fit was perfect and there was not the slightest evidence of wear on the test engine at the conclusion of two to three hours running.)

The cylinder is of mild soft steel, machined with thin fins in the conventional American manner. This is a sliding fit—and a tight one, too—in the crankcase casting, with only a relatively narrow seating area on the transfer passage side. Nevertheless the sealing seems quite satisfactory, the cylinder unit being held down with two long bolts. Four more bolts secure the finned head to the top of the cylinder. Both the head and the crankcase backplate are light alloy pressure die castings.

The (upper) transfer and exhaust ports are rectangular and of generous area, cut into the cylinder walls diametrically opposed. The lower transfer ports consist of two holes in the cylinder, matching two similar holes in the piston, the transfer

PROPELLER—R.P.M. DATA

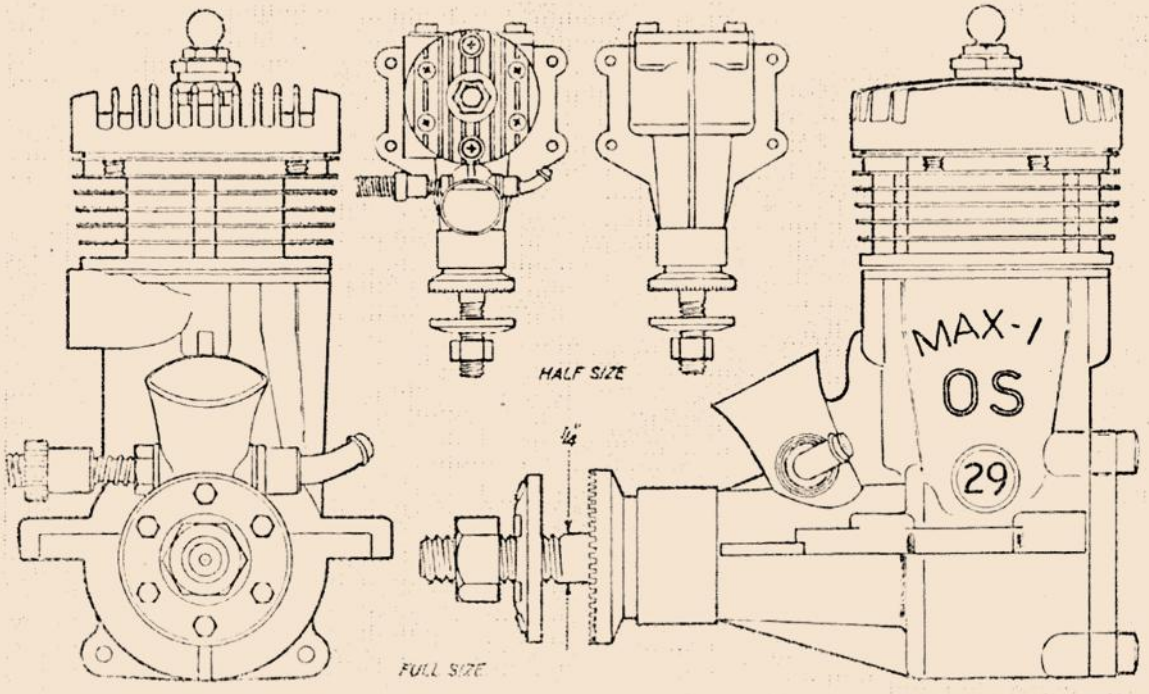
Propeller dia. x pitch	*r.p.m.*
9 x 4 (Stant)	13,500
10 x 4 (Stant)	12,000
8 x 4 (Stant)	16,300
8 x 5 (Stant)	15,100
7 x 4 (Stant)	17,600
8 x 8 (Stant T.R.)	13,600
7 x 9 (Stant T.R.)	13,400

Fuel used: methanol 40 per cent.
nitromethane 20 per cent.
Castor 40 per cent.

passage being provided in the crankcase casting. Transfer and exhaust overlap to a considerable extent, the transfer opening very shortly after the exhaust. The piston is provided with a deflector on the transfer side to direct the incoming mixture into the head. Nevertheless a considerable proportion of incoming unburnt fuel is ejected through the exhaust, adding to the fuel consumption of an already thirsty engine.

The inlet port timing is also quite extreme, being open for well over 180 degrees. It opens very early long before the transfer is closed. The porting is thus quite obviously designed for efficient high speed operation. At lower speeds the O.S. "29" is not so happy about running at all.

The connecting rod appears to be a forging, with a brass or bronze big end bush, drilled through for oil passage. Gudgeon pin diameter is 5 mm. (·196 in.), this being an easy "floating" fit in the cast iron piston. The little end bearing extends the full internal width of the piston, but is not bushed. Fits throughout are excellent. The piston itself is



not as light as on some American glow motors of similar size, but is still only just over ¼ ounce. It is important when taking this engine apart to re-assemble with all the components the design way round.

The crankshaft is quite massive—11 mm. diameter (·434 in.), stepping down to ¼ in. at the threaded front end. All sizes, incidentally, appear to be metric throughout with the exception of the crankshaft thread which is ¼ × 28 American National Fine standard. The crankpin is hollow (drilled through) and the crank web machined away to produce a counterweight. The ⅛ in. hole through the crankshaft extends past the intake port for lightness, the crankshaft weighing 1¾ ounces nevertheless. The main bearing fit and finish is just about as perfect as one could hope to achieve, with the shaft a smooth, sliding fit inserted from either end.

The spray bar is mounted right at the bottom of the bellmouthed intake (cast integral with the crankcase unit), the height of this tube being relatively short. The spray bar unit is of brass, with the fuel tube fitting angled back—a feature we would like to see on more engines. It certainly means that the fuel line can be laid neatly alongside the engine without kinking. The exterior part of this fitting is nickel plated. The needle valve is mounted on a flexible extension, with coil spring locking inside the thimble. This, again, was another welcome feature since it meant that the needle could be adjusted out of range of the heat and waste oil—ejected from the exhaust. Another fore and aft spacing of the mounting bolt holes, practical feature deserving of comment is the wide giving a nice firm base for anchoring the motor securely.

Summarising: an engine where the general standard of design, workmanship and finish is very high; and although a plain bearing engine its performance must be competitive with many racing engines of similar size. Certainly not the sort of engine you want to bench run at home if you want to stay popular with your neighbours—and the rest of your family—but one which could undoubtedly win honours on the flying field, in the right hands.

What's the answer?

About downthrust, power and performance.

Frank's 1957 Wakefield is just about as good as any we have had in the Club. Frank placed a good second in the Area Eliminators with it and only just missed a place in the team. He believes in using a fairly weak motor to give a longer power run—something like 70 seconds in the air.

Our theory man knew just why Frank missed one of those four top places in the Trials. "Look at all the downthrust you're using," he said. "With a weak enough motor to start with you are wasting another ten per cent. or so." Yet that does not seem to be borne out in practice. Downthrust or not we reckon Frank's model is as good as most, judged on its consistent high performance. What's the answer?

"WEAK:—MAY LAST THE DAY OUT"

What would YOU do in a case like this! Think a moment then twist this page for the solution to the problem printed below.

"IT'S HOLDING ITS OWN FRANK!"

ANSWER: Downthrust is not necessarily wasteful of power. The fact that the thrust line is tilted down relative to the *fuselage* centre line does not mean that it is acting at that same downward angle to the flight path.

Almost certainly, we would say, Frank's model is balanced with the centre of gravity fairly well forward. This implies a negative tail setting to trim and a negative tail setting, in turn almost always means using a fairly generous downthrust angle. This holds true whether the motor is weak or strong.

If the point of balance were moved *back*, then the tailplane setting could be reduced, or even made positive. With this change of trim, downthrust could be reduced. Whilst theoretically the performance should be increased slightly this is because the tail is now contributing more to the total lift—not because the downthrust has been reduced. In practice the longitudinal stability has also been *reduced* by this change. This a model trimmed out with a fairly large downthrust angle is often more stable and consistent. This type of trim, incidentally, works out best on models with freewheeling propellers.

"YOU'RE LOSING 10% ON DOWNTHRUST, 10% ON A NEGATIVE TAIL, 10% ON THOSE WARPS, 10% ON THAT COVERING AND 50% ON THAT PROP — IT'LL NEVER FLY!!"

"PEAK PERFORMANCE"

Jim Bagley - Jim Paton

Jim Bagley and the 'Last Resort'

I received the following comment from Jim Paton on the Jim Bagley appreciation piece in the last issue of the NC.

Jim Wrote:
I read with interest the tribute to Jim Bagley and the Last Resort plan. I actually have three of these, one I made, one of the late Ted Tyson's, and one by Andrew Longhurst. It is certainly a very competitive design which I really love and much easier than most to max out with. There is a certain fellow aeromodeller who always asks when I get it out of the box "did you not have anything better to bring". To which I am expected to reply "no it's my last resort". Unfortunately I never met Mr Bagley.
Regards
Jim Paton.

I replied:
Hi Jim,
I built a Last Resort and it was the best model I ever had. Eventually lost it, bug and all, due to D/T failure
I did not know Jim Bagley personally but flew at meetings where he performed. I have a long piece of video of him with a wound open rubber model waiting for lift. He was prowling back and forth though a line of cars, first looking at his temp meter on his pole, then back through the cars looking at the approaching clouds, he was at it for ages. He eventually launched into lift.
I used to make videos to show at my R/C club nights and I used that video as a running gag, showing a bit now and again in between other content. Got a bit of a cheer when Jim eventually launched.
Good old days.
Regards
John.

My Last Resort

A superb competition aircraft, It's the *'to hell with theory'* big paddle prop that is the models most notable feature. I flew mine on 12 strands of 3/16 rather than the 8 Strands of ¼ recommended. I liked my models to really climb.

Jim Paton/John Andrews

NEWS Review

Wakefield Cup Fund

As the time for the Wakefield Contest approaches, the question of adequate finance to cope with this event assumes considerable importance.

Last year the aeronautical trade rallied to the help of the Society, but one cannot expect the aircraft trade to provide every year the funds required by the S.M.A.E. to run the contest in a manner befitting to an international event.

This leaves the model movement in the position where it must find its own finances to deal with the situation, and this is a fact which must be realised by every club and aeromodeller.

So far, the financial support which the S.M.A.E. has received from within the movement has been disappointingly small ; the number of clubs who have made any subscription to the funds for this purpose can be counted on the fingers of one hand.

The Society cannot run continually on charity and its members should not expect it to. The sooner the clubs realise this and make a real endeavour to meet their obligations in this respect the better. Only a self-supporting movement can be a strong movement.

We feel sure everyone wants to see a successful event at Cranfield this year and extend a hearty welcome to the eleven foreign teams who have already signified their intention of competing. The S.M.A.E. badly need funds for this purpose and look to the clubs for their unrestricted support in this direction.

South African Wakefield Team

As a result of elimination trials held recently in South Africa the following team has been selected to represent them in the Wakefield Cup Contest. (1) B. Partridge, 1,104.4 sec. (2) L. Morrison, 761.5 sec. (3) C. Leibenberg, 572.2 sec. (4) C. Ahleveldt, 415 sec. (5) J. Sala (junior), 319 sec. (6) R. Munnick, 299.4 sec.

We understand that the winners of the first two places were flying "Jaguar" models. The South African Air Force have agreed to fly the models to this country, and also the competitors if they are able to make the necessary arrangements to get away.

Competitors' Co-operation

It has been frequently noted that while competitors are only too ready to criticise the organisers of any event they attend they are all too frequently reluctant to assist by co-operating with the officials running the meeting.

This was particularly noticeable at the recent control-line meeting at Dover where the officials had great difficulty in getting the event going in the morning through competitors not coming forward during the early stages of the proceedings. Indeed the organisers were kept hard at work most of the day coaxing contestants over the microphone, and by personal contact, to make their flights.

It is most disheartening to officials who have devoted much time and energy to organising an event to have their efforts counteracted by a strong reluctance on the part of the competitors to make their flights in good time, and when a public audience is involved, as it was at Dover, it is in addition bad manners which can only leave a bad impression and harm the movement.

If aeromodelling is to get public support, we must give some consideration to the viewpoint of the spectator, particularly when he is being asked to pay for the privilege of witnessing our sport.

What would an aeromodeller think if after he had paid to see a football match, the teams decided not to start the game until they felt inclined ?

Flying in Parks

The importance of the correct approach to local bodies when seeking permission to use public grounds for control-line flying cannot be overstressed, and it is safe to say that a large percentage of the official bans which have been imposed on this type of flying by local authorities has been the result of either a wrong approach on the part of the club concerned, or no approach at all.

As an example of the correct type of approach we would quote two clubs who have now obtained special facilities for control-line flying from their local authorities through making sensible overtures to the official bodies concerned and arranging properly organised demonstrations before the officials concerned.

The Bournemouth club for instance has now obtained permission for control-line flying in Queens Park under very favourable terms as the result of an organised demonstration of control-line flying before representatives of the local authorities concerned.

The Reading club have also received concessions to use the local running track for control line flying for their club members as the result of giving a demonstration of this art to the officials concerned following a sensible and courteous approach.

This is in strong contrast to the all too frequent method adopted by some clubs of flying on their local public open spaces without prior permission and then complaining when they are restrained from doing so.

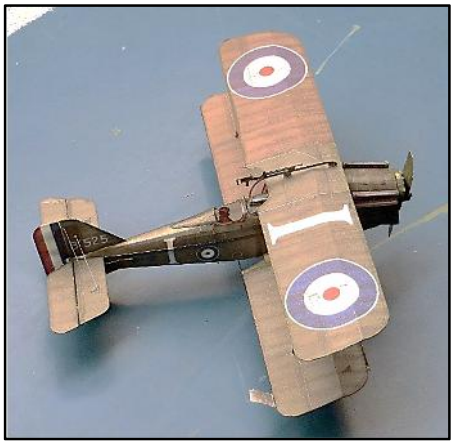
Sneyd Indoors - John Andrews

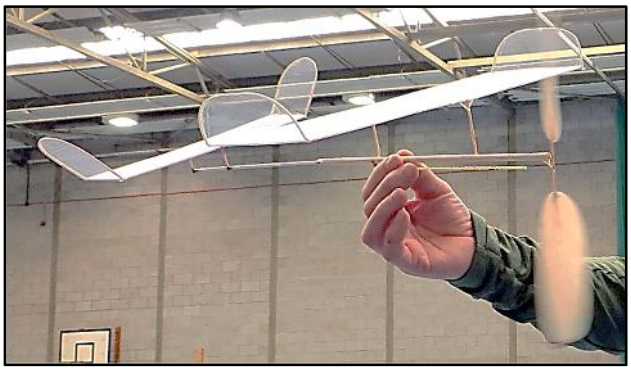
May the Fourth be with you.
(Just a little Star Wars pun)

It was Saturday May 4th that Rachel and I took a quick trip up the M6 to Walsall and the Sneyd Indoor meeting to drop off the ex. Colin Shepherd 'Jaguar'. Colin gave me his 'Jaguar' many moons ago and I used it in 8oz Wakefield quite a lot if weather was kind. I managed to win the magnificent Jaguar Trophy once or twice in the process. Now Colin wanted it back to convert into electric R/C, hence the trip. The trophy is reputed to have been made by apprentices at the Coventry Jaguar Works.

Attendance at Sneyd has been improving evidenced by the panoramic pictures below.

The hall was uncomfortably hot, I think the vents had been closed for the meeting but the heating must have been going full blast. I manage to get a few pictures before we took our leave, which was precipitated by the heat. We spent less than an hour inside and after delivering Colin his 'Jag' in the fresh air of the car park we made our way to our nearby daughters for a cup of tea before heading back down the M6 home.





Some model boxes are bigger than others, this one contains Graham Smith's R/C 'Valkyrie' above. A masterpiece of modelling.

John Andrews

Wherefore Art Though Wallop - Dave Rye

Extract from the old paperback Clarion March 2003

Wherefore Art Thou Wallop? Dave Rye.

If the number of telephone calls is anything to go by, then like me, you are all beginning to suffer withdrawal symptoms, it is a long time since our monthly fix of Clarion arrived to brighten our days. I should have titled this 'Wherefore Art Thou Clarion', but read on. I promise I have written my bits for both Jan. and Feb., so you have a lot to look forward to. I am sorry I have been unable to give any reason for their non-arrival, no doubt our esteemed globe-trotting leader can tell us more. Like buses, they will surely arrive in number. Phone calls are always most welcome, whatever they are about, because they become a good chat about mutual interests. I was pleased to get a call from Alec Green recently, amongst other things, explaining that he had sent me a copy of the Invicta newsletter. I had been worried about this since I had not been able to find any reference to where it had come from, and was unable to say thankyou for it. So thankyou, Alec. These newsletters give a great picture of what is going on over the country.

I am not sure whether to mention the time of year, because of the above, you still have my good wishes for Christmas to come, and the New Year is becoming distinctly old! Anyway, it is all over for another year, I hope it was an enjoyable time for you, with some inspired presents. I had a very nice mini Hi Fi system for my den, so as I type this, I have a background of Django Reinhardt and Stephane Grappelli playing some lovely '30s and '40s swing. Instead of buying, say, a train set supposedly for my grandson but really for me, my wife openly gave me two presents, so that 'I can play with him'. They were a kit of paper aeroplanes with manual, and a construction kit for building marble runs - you can be quite imaginative with this, it is good fun! The tracks for the marbles to run down are twin lengths of stiff fuel tubing (not silicone). I hope John and Pauline have some, I want to extend it and try to incorporate a loop.

I digress, sorry - tell us something new, I hear you say. The Bournemouth Club Dinner (strictly Luncheon) is on Sunday, and once again, they have been kind enough to invite me and a friend, Ken Herridge. It is always a very enjoyable gathering, with good company, good food and plenty of chat about our favourite hobby. I have said many times in the past what a good, active club this is, and they are currently enjoying a considerable expansion in membership. They deserve it.

This leads me on to the subject of Wallop in 2003. When I received the latest Bournemouth newsletter, at the heading of forthcoming events, I read the words, 'Wallop only available on 2.02.03, 3 days at Easter, and 3 days in August'. What a blow, we were expecting so much more this year, with a really full calendar of events every month, including more 2-day meetings. I have so far been unable to find out exactly why this has happened, the possible war with Iraq is the first thing to come to mind, but I would have thought that if this is to affect us, then it would be a permanent ban until

hostilities are over. Often it is not possible to be given reasons by the M.O.D of course. It cannot be that we are uneconomic, after breaking so many records for crowd numbers last year, so it must be something serious. Hopefully it is not something we have done wrong, perhaps we should search our consciences. No doubt time will reveal all. Thankfully, my local field, Merryfield, is available as usual, although where I live, only 10 mins away (less as the chopper flies), we are currently seeing a lot more activity than usual there.

Down here we have had some good, if cold , flying days recently, now we are back to wet and windy. Before the cold spell, we had a lot of rain and extensive flooding around us. I am always pleased when February is over, I know March can be bad, but at least it cannot last for long.....can it? Looking back, we did very well with our weather at Wallop last year, considering the overall pattern. Let us hope our few visits this year will be days to remember for all the best reasons. I can see I shall be using the facilities at Merryfield even more than usual, after the f &m, I got out of the habit.

My thanks to all who sent me Christmas cards, some were particularly appropriate, depicting vintage models, in the style of Rupert Moore, and other ways of personalising them, like that from John O'D., which had a picture on the front of the Madonna and Child, who was holding a toy with a 4-bladed propellor on the top. The inscription inside said,'The Madonna and Child painted by an unknown European artist (circa 1460) shows the child with a string-pull whirling toy, which prefigures the 20th. Century helicopter'. Good one John, and can I add, good to see you fit and well, and back flying again. I have continued to receive too, hints and tips on small electric models, my thanks for these. If I get sufficient to make up a useful article, I will put it into Clarion. Geoff Dunmore sent me some notes, and was telling me about a very successful half-size version of his Dizzy Diesel, with KP 01 power, he has promised me drawings, I look forward to these.

My building recently continues to be replacement wings, this time for the Caprice (after the Lulu), which is nearly finished, I managed more than I thought I would over the Christmas period. I am sure these will not fold easily, I only hope they are not too heavy to fly! I came across some bass wood in my extensive store, so used this for one of the two main spars in the outer sections of the wing. I did not want to use spruce there, and have used bass before, it looks rather like ramin, but lighter and with very little grain to be seen. I am not sure where it can be bought (no idea where this bit of 1/4 by 1/8 came from) but it seems to be a useful wood, somewhere between balsa and spruce. I remember a Gentle Lady from my R/C gliding days having a rectangular bass main spar, running through holes in the centre of the ribs. This was very strong, on tow or bungee the wings would flex when spanwise corrugations could clearly be seen in the tissue. I flew this model for many years without any serious damage, very good for a structure built along F/F lines.

CONTINUED

Talking of the Caprice, while I was working on it, I got to wondering if I shall ever reach the (boring?) stage of building a model all the way through without any minor problems or silly mistakes. I doubt it since I have been an aeromodeller for well over 50 years now and have yet to get there. The occasion that prompted these thoughts concerned the wing ribs. Those of you who have built a Caprice will know that the 3 centre ribs have an extra 1/8 square cut-out for a wing-retaining bands support. I cut out all the ribs, with these 3 different ones, then at a much later stage, when the wing was largely built, I suddenly thought of them, and there they were, in random positions spread over the wing! Needless to say, not one happened to be in one of the correct places. Never mind, I suppose life would be very dull if we remembered everything and did it all perfectly. Once in a while would be nice though.

Some time, many moons ago, I mentioned the T.V. programme 'Scrapheap Challenge'. I never watch this now, but a couple of weeks ago, my son-in-law gave me a tape of a programme which was called a 'mega-challenge' involving 3 teams from the States, France and the U.K. They were required to build a full-size aeroplane to carry one man, in 20 hours! I found it a fascinating programme, particularly as a modeller. In the interests of safety, an engine and prop were provided, and each had to be passed and given an airworthiness certificate by a CAA inspector. Covering material was interesting, a type of heat-shrink fabric, a heavyweight Solarfilm perhaps? All three completed the task and all three got their certificate, after only 20 hours work! The Americans built a version of an open-frame home-built, whose name escapes me, the French, naturally perhaps, a Bleriot-style affair, and the Brits an O/D biplane (double the wings, in 10 hours!). In the flights, the U.S. went first and could not get off the ground, the French managed a few clear feet between the wheels and the Utah salt flats, then came the Brits, who soared to a great height . This latter was a very stable performer, but the landings were hairy on its single-wheel undercart. In the final competition flights, the U.K. won easily, but both the other two got off the ground well. If you can get hold of a tape, it is well worth watching.

Enough waffle for yet another month. Our latest thought : To be happy with a man, a woman must understand him a lot and love him a little, to be happy with a woman, a man must love her a lot and try not to understand her at all.

See you all in February, or August, by the time you read this.

dandjrye@ntlworld.com
tel. 01823 490489.

Mellstock, 37 Church Close,
Stoke-St.-Gregory, Taunton,
Somerset. TA3 6HA

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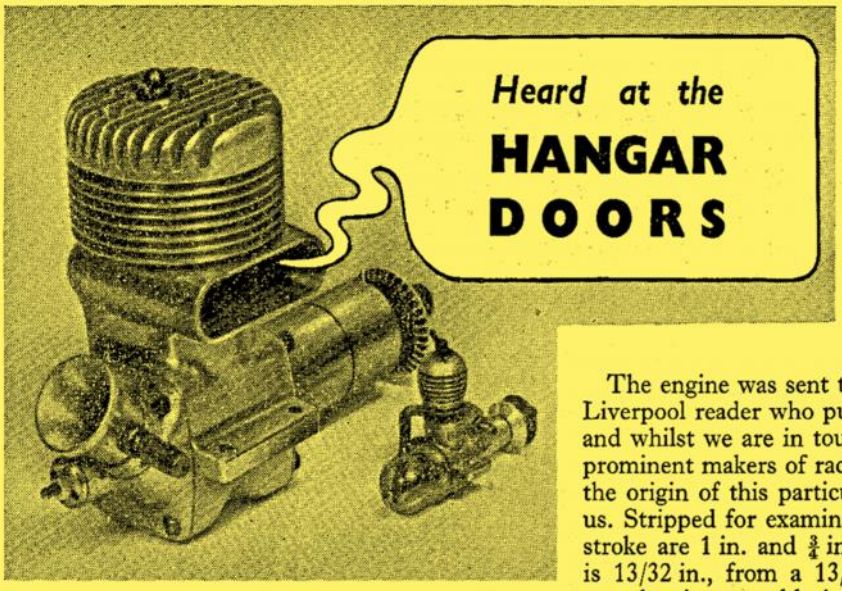
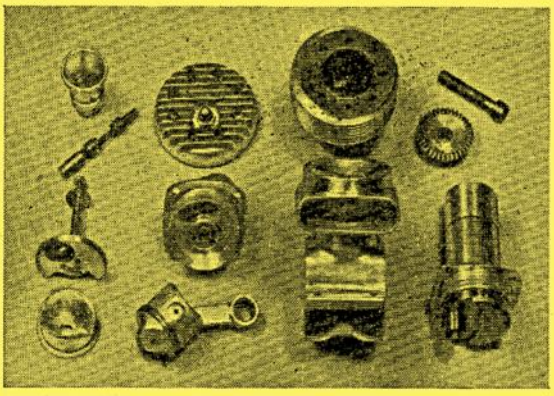


Gratifying Expansion

Response to the new S.M.A.E. Membership scheme has been immediate, and already a very large number of individual and Club fliers have taken advantage of the new Associate Membership, instituted to cater for that majority section who have little or no interest in contests.

The first quarter of 1954 shows 48 new clubs affiliated as against 11 for the same period in 1953, while the re-affiliations are 82 against 50. It is significant that membership within the clubs joining since the inception of the new scheme shows ratios of 46% Seniors, 16½% Juniors, and 37½% Associates, and it will be interesting to see just how membership divides by the year end when existing clubs have re-affiliated under the new system.

Have YOU joined the S.M.A.E. yet? Remember, a strong national model aeronautical movement can only benefit all who are interested in the hobby, and the advantages of membership-cum-insurance are too obvious to need elaborating. If you are still outside the fold, we draw your attention to the form contained on page 328, and urgently request that you JOIN NOW.



Mystery engine—who made it?

Massive in every proportion, and just about the best example of a home-built 10 c.c. racing motor it has been our pleasure to examine, is the beautiful piece of machinery shown with the Allbon Bambi in the heading and bottom photo's.

The engine was sent to us for identification by a Liverpool reader who purchased it "second-hand," and whilst we are in touch with many of the more prominent makers of racing engines of this quality, the origin of this particular 18½ oz. engine escapes us. Stripped for examination we find the bore and stroke are 1 in. and ¾ in. respectively. Intake bore is 13/32 in., from a 13/16 in. bellmouth, and the spraybar jet assembly is aerodynamically sectioned. A bi-metal rotary disc valve spins smoothly on its ballrace mounted shaft, and crankcase volume is cut down to the barest minimum with a large diameter and comparatively shallow big-end assembly. Rings must be home-made, with diagonal splits—the huge finning area is circular in plan, yet offset over the voluminous transfer passage side of the engine, and the contoured portion of the beautifully finished cylinder head is detachable for compression ratio adjustment. A desaxe offset cylinder arrangement is employed. Such workmanship and design is deserving of recognition and if any of our readers can provide correct identification we would be only too happy to pass the information on to the fortunate present owner.

Finger Trouble

A number of Club and Area Competition Secretaries have come in for some sharp criticism this year, and we welcome the decision by S.M.A.E. Council to attempt to put some houses in order! Most of the trouble arises through officials not being fully conversant with regulations, and already some fliers have had their results "scrubbed" through failure on the part of a Comp. Sec. to either send in the results correctly or in time.

J. D. Henderson of Sunderland was originally ruled out of the Pilcher Cup event, but a full and reasonable explanation tendered by the defaulting official responsible was accepted by the Council, and the results have been revised as noted on page 326. We learn that several Areas were penalised in the first of the 1954 Area organised events, and we trust that the lesson duly administered will properly register, and that an improvement in such simple requirements will take place. After all, the rules connected with the forwarding of contest results are simple enough, and the time factor ample. See to it that your Comp. Sec. knows his job, and, what is even more to the point, keeps on his toes and gets your scores in correctly and to time!

Exhibition Contrasts

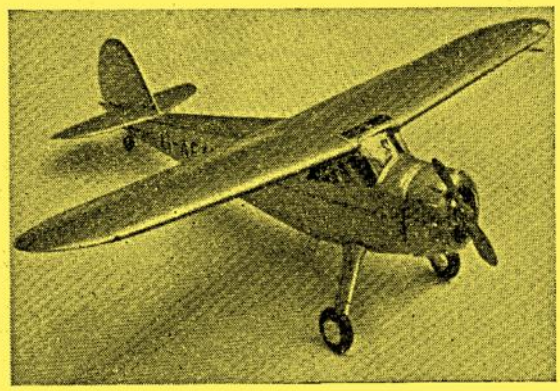
Two well established Model Exhibitions have just had their 1954 airing, and the pleasurable task of adjudicating in the model Aircraft sections gave us a fine opportunity for comparison. First show was the Sixth Northern Models Exhibition, held again at the Manchester Corn Exchange, and our immediate reaction on entering was "where are the aircraft models?" In previous years, aircraft have formed the major portion of exhibits, but something had definitely gone wrong this year.

Only 20 model aircraft shared the nine categories devoted to them, and single entries were received in three of the classes. However, as was to be expected of the North Western Area contingent, the standard of exhibit was high, the outstanding model on show being a very fine Cessna C.34 scale model entered by Ian Cameron of Ellesmere Port. This model is the result of 2½ years of spare time working, progress being related to the rate of information becoming available. The construction follows closely that of the prototype 24 gauge Alclad sheet being used where authentically demanded, and $\frac{1}{32}$ in. dia. rivets employed to imitate the full-size construction. Fibreglass was also used where specially shaped parts were required. Altogether one of the best examples of modelling art we have had the pleasure of seeing. (Picture below.)

We forecast a better liaison with the Exhibition organisers in future years, for this years' affair showed up very poorly in relation to previous shows. and the local Area can only feel on their mettle from now on.

In contrast, the Fifth exhibition organised by the Sheffield Society of Aeromodellers was well up to previous standards, and in many respects surpassed its forerunners. Aeromodelling was very well represented, and again the standard of exhibit was if possible better than hitherto.

This was particularly evident in the Glider section, where the judges had great difficulty in deciding between the "Nordic Tern" of old-hand R. F. L. Gosling—well known for many years for the excellence of his workmanship—and the black and yellow "Seraph" of K. Lee. The finish on the sheeted fuselage of the latter model was first-class, and the rest of the model's construction was to top standards. The amazing thing is that Master K.Lee is only 14-years-of-age—a factor that we feel will encourage other youngsters to "have a go" at the old-timers of the hobby.



Our old friend J. D. McHard of the R.A.F. took two classes with his beautifully finished "Cucumber" (tandem biplane with two Albon Darts fitted in push-pull fashion), and a really excellent solid scale Messerschmitt 262 A6. Other class winners were B. F. Ridal (rubber), D. Wynch (flying scale) and J. W. Swift (control line), all of whom were congratulated by the Lord Mayor of Sheffield when performing the opening ceremony.

Control of Radio Control

We understand from the G.P.O. that as and from the 1st June, 1954, a licence will be necessary to operate radio control equipment on the two allocated frequencies of 27M/cs and 465M/cs. The fee will be £1 for a period of five years.

It is emphasised that this is not a restrictive act and that no tests are needed, neither will distinguishing numbers or call signs be issued.

Application for licences (to be issued from 1st June) should be made as soon as possible to:—

RADIO BRANCH,
RADIO & ACCOMMODATION DEPT.,
G.P.O. HEADQUARTERS,
LONDON, E.C.1.

We asked the G.P.O. the reason for this rather sudden move on their part, explaining that whilst everyone appreciated the facilities that had been enjoyed to date, they would obviously not welcome any additional cost to what is already the most expensive section of aeromodelling. The reply was as follows:—When the G.P.O. originally granted the two licence free frequencies it was understood that it was a temporary measure until such time as the Wireless Telegraphy Act 1949 was fully implemented, and, that at the time of the granting of the frequencies Radio Control Equipment was not licenseable under the W/T Act. When the new and wider definition of the Wireless Telegraphy Act 1949 becomes law on June 1st, 1954, the P.M.G. must authorise equipment covered by the act and accordingly is required to issue licences for the operation of equipment under the terms of the Act. Furthermore, the administrative cost of licensing such equipment must be borne by those people operating such equipment. The G.P.O. appear to realise the value of radio control experimentation and have therefore made the licences as simple and straightforward as possible and also have kept the licensing fee to the minimum permissible.

Well there it is, radio men. The law says that as and from the 1st June you must take out a licence It might have been worse, for certainly the annual cost of 4 shillings is reasonable and the licences have been applied with the minimum of restrictions.

Indoor Isn't For Everyone 77 - Nick Peppiatt

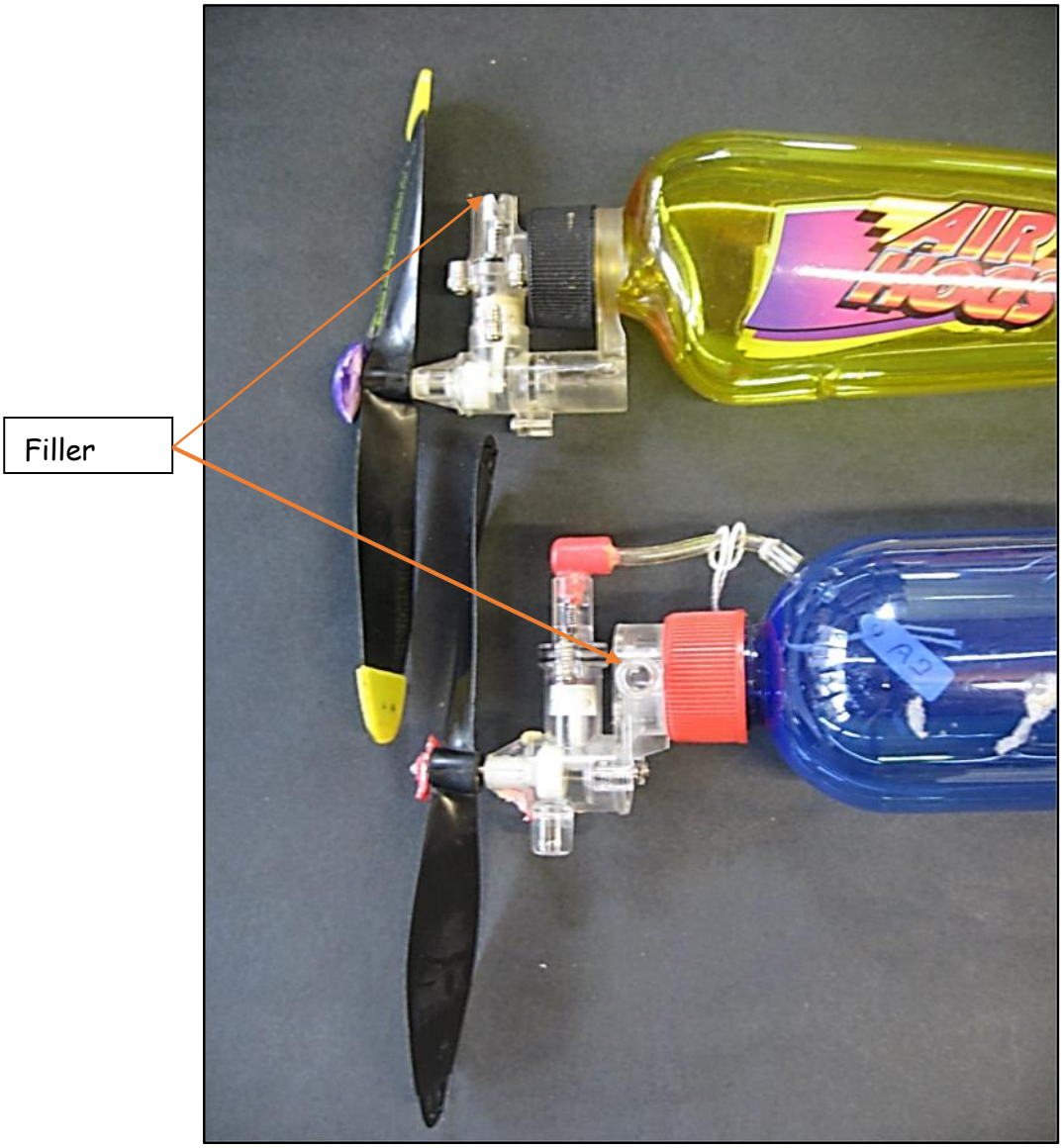
Compressed Air Motor Catch-up

Unfortunately, circumstances conspired against me attending the Indoor Scale Nationals this year, so instead of a report on this event, I'll have a catch up on compressed air motors.

Air Jammer Dazzler box above, and Jasman Air Jammer power unit below.
The plastic bracket holding the motor has broken and been repaired using a 1/16" ply plate.

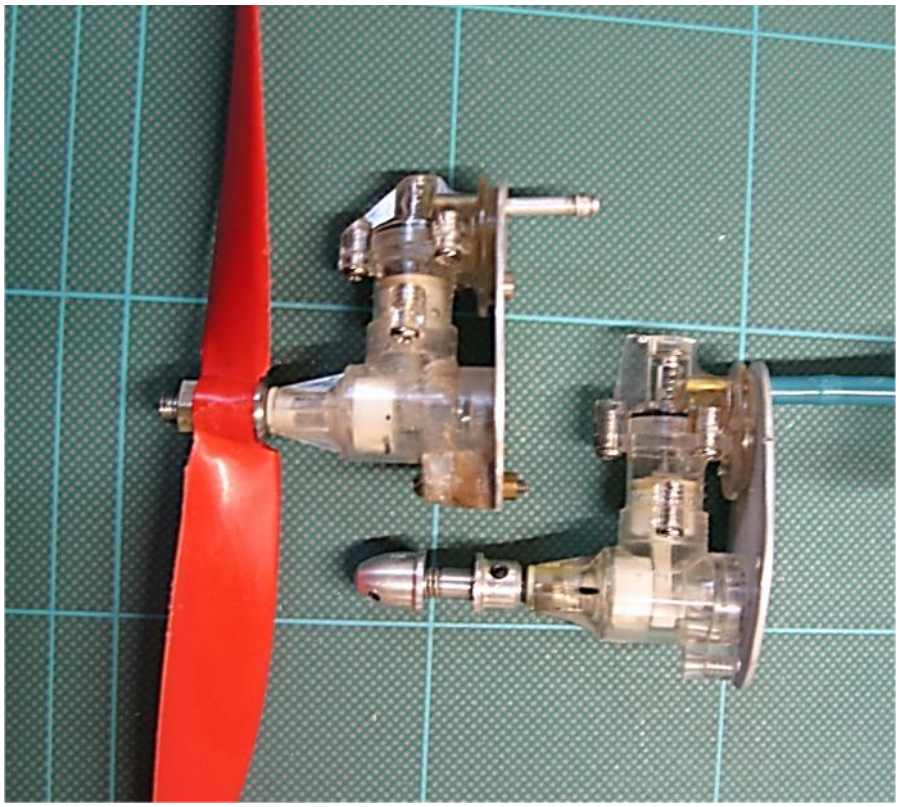
In IIFE 72 (NC January 2024), I published a couple of pictures of CA motors that were in the late Lindsey Smith's collection and that I had been unable to identify. Simon Rogers kindly sent me a photograph of an Air Jammer Dazzler box, which clearly identifies the source of one. This was further confirmed as, while I was taking this photo, I spotted some not so obvious engraving on the red wing mount – '*Jasman*' 'AIR JAMMER' 'CHINA'! So this is a completely different design of Jasman motor to the one shown in IIFE 72, which powered the Stinger, and is far closer in this respect to the Air Hogs motor of similar size. The obvious differences are that the crankcase and cylinder are in one piece, unlike the Air Hogs motor, where the cylinder and crankcase are separate mouldings, held together by two screws.

Also, the cylinder head is held on with two screws in the Jasman motor, rather than three, and the filler valve and cylinder head valve are separate.
The Air Jammer Dazzler is clearly a pusher design, but there is also a Jasman power unit with a tractor propeller, indicating that, like Air Hogs, a number of Air Jammer models with this motor were once available.



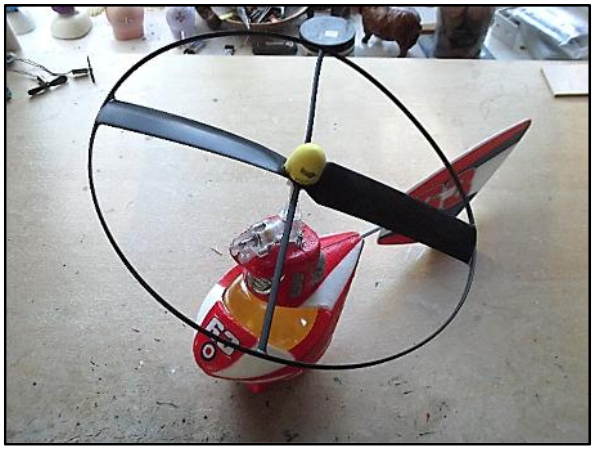
Air Hogs CA power unit (top), Air Jammer, below.
Both have tractor propellers and the soft spinners have been removed.

Whilst I was looking for Dave Ridgeway's feature on the Flutterby ornithopter in back issues of the Model Flyer magazine (IIFE 75, NC April 2024), I came across several articles on compressed air motors. The first (November 2000), which included a contribution from Lindsey Smith, who made a comparison of the performance of the Air Hogs Sky Shark and Air Jammer Stinger aircraft, but said little on the differences between the motors, although the article is headed by a close up picture of the Stinger motor. Aerodynamically, the Air Hogs aircraft was considered much superior. In the second (December 2000) Doug McHard presented some background and history of compressed air motors, including the Zanin brothers MM3 (see IIFE 50, NC March 2022, for photos). In the final part February 2001), Doug showed how to convert the Air Hogs motor for use in built up models.
There are a couple of examples of such conversions in Lindsey Smith's collection.



Adapted Air Hogs motors fitted to duralumin mounting plates.

With his email about the Air Jammer Dazzler, Simon Rogers also sent me two photographs of Air Hogs products that were made for Marks and Spencer. This is not an emporium that I would have associated with flying toys in any way! He reports that the helicopter flies quite well, but, despite his best efforts, the Air Power flying wing refuses to. I wondered initially whether the helicopter was the source of the Air Hogs motor with the integral cylinder head (IIFE 72), but no, examination showed that this motor also has a separate cylinder head retained by three screws, like the others, shown above.



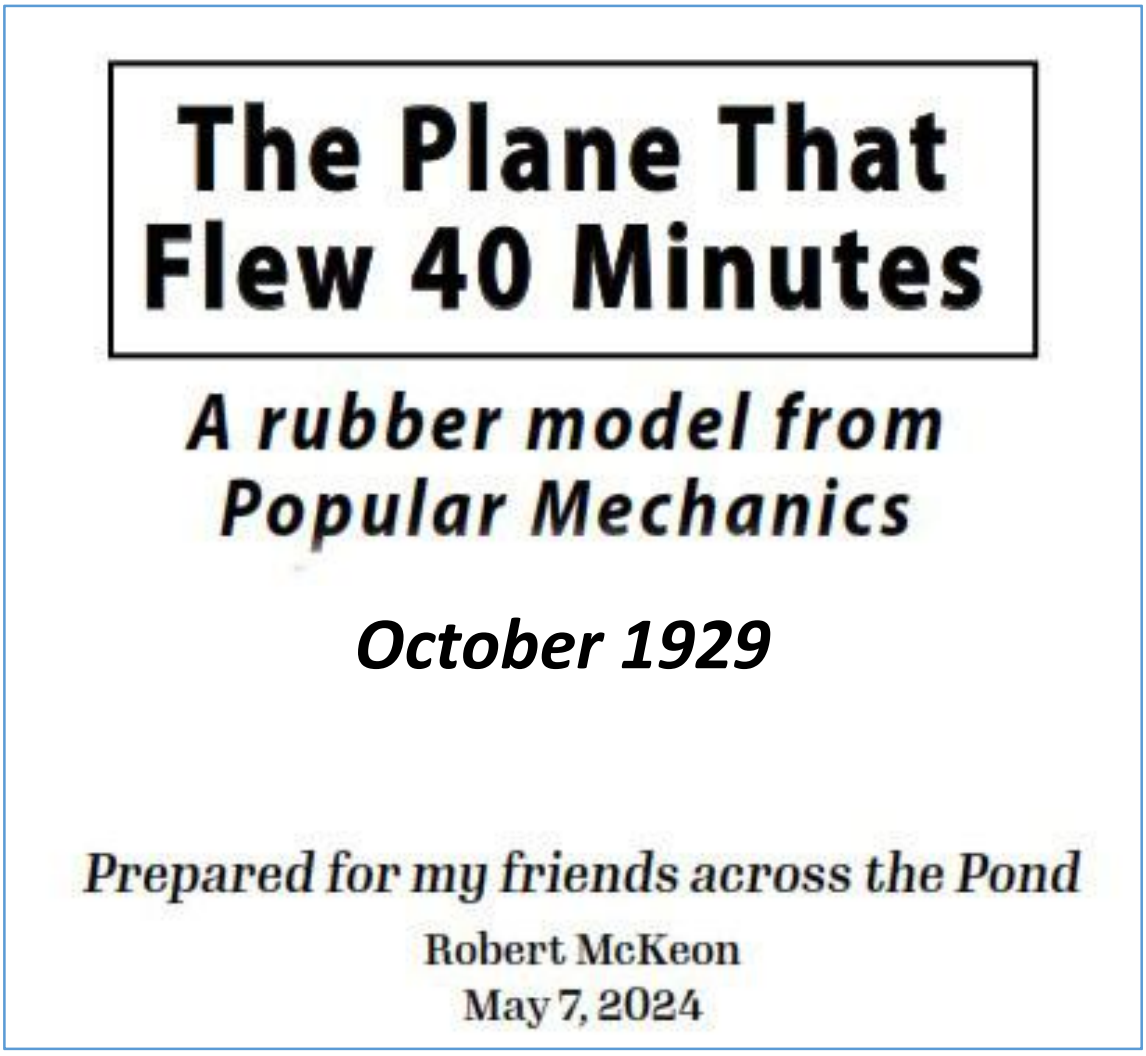
Not just flying toys, but M&S flying toys!
Marks & Spencer is printed on the top left hand corner of the box lid.

I think this concludes my occasional forays into moulded plastic compressed air motors. This started with the examination of Keith Sedgwick's Foster Wickner Wicko (NC December 2021), which was fitted with a Z Model MM3 and was continued through the acquisition of Lindsey Smith's assorted collection, most of which have now been identified. Unfortunately, the MM3 motor was very prone to brittle failures. The later Jasman and Air Hogs motors are much more robust.

Nick Peppiatt

Letter from AZ USA - Robert McKeon

To my Friends: SAM 1066
Thought this might be of interest to all across the POND.
I've followed your newsletter for years and always found something that brings me back with some great memories of my modeling F/F & Wakefield in the late 50's here in the States.
And, as I am now pushing 85, I find after many absent years of the model airplane hobby it has once again perked my interests. Limitations…Just moved to an Independent living facility…2 bedroom and not much room for a bench. However…. Have put together small sling-shot style gliders and am presently gathering some ideas for small stick rubber driven plane (14 inch W/S). Still looking.
AND….search of the internet that led me to the attached PDF.
Trust you'll enjoy my findings and perhaps pass them on to anyone across the Pond.
Enjoy, Popular Mechanics, October 1929 issue with model rubber airplane.
Warm regards,
Robert McKeon,
Chandler,
AZ, USA,
R.Bookmark2@gmail.com



This Plane

Takie Tabata with His Prize-Winning Model Plane; Note the Position of the Wing

TAKIE Tabata, a 14-year-old boy scout of Pasadena, spent three painstaking days constructing this trim monoplane. It looked pretty good to Takie, but this modest little craftsman was in no way prepared for the sensation his ship made by remaining in the air 41 consecutive minutes at the Star-News—Pitzer and Warwick model-airplane meet at Ross field, Arcadia, Calif., on June 1st.

The judges were amazed at the swift climb of this 2-oz. tractor, and when it passed out of sight beyond a tall eucalyptus tree, the timer assumed it had come to earth and stopped his watch at 10 min. 46:5 sec. Even that seemed a long flight to the timer, but the adventurous little monoplane had only begun to warm up; for 30 more minutes it soared above the fields before coming to earth again. Had it not been for the timer's error this would have set a world's record.

Of course Takie had made other model planes; many of them, and he "knew his stuff." The features which enabled the record-breaker to ride on the breeze and cover over 2 mi. are, in his opinion, the exceptionally wide wing span of 48 in. and the reverse camber of the stabilizer which tends to hold the tail down when losing speed, and preventing a nose dive. By no means did the propeller pull continuously for 41 min.; on the contrary, tests demonstrated that when wound to the safe limit of 200 turns with a 4-to-1 mechanical winder, the prop revolves only 2½ min. But in that comparatively brief space enough altitude is gained to permit duration and distance before yielding to gravity. It is estimated that this plane attained from 800 to 1,000 ft. altitude on its record flight.

Young Tabata says there are no tricks in building a duplicate of his prize winner, and he wants all Popular Mechanics model-airplane builders to have an opportunity to share his design.

With the exception of bam-

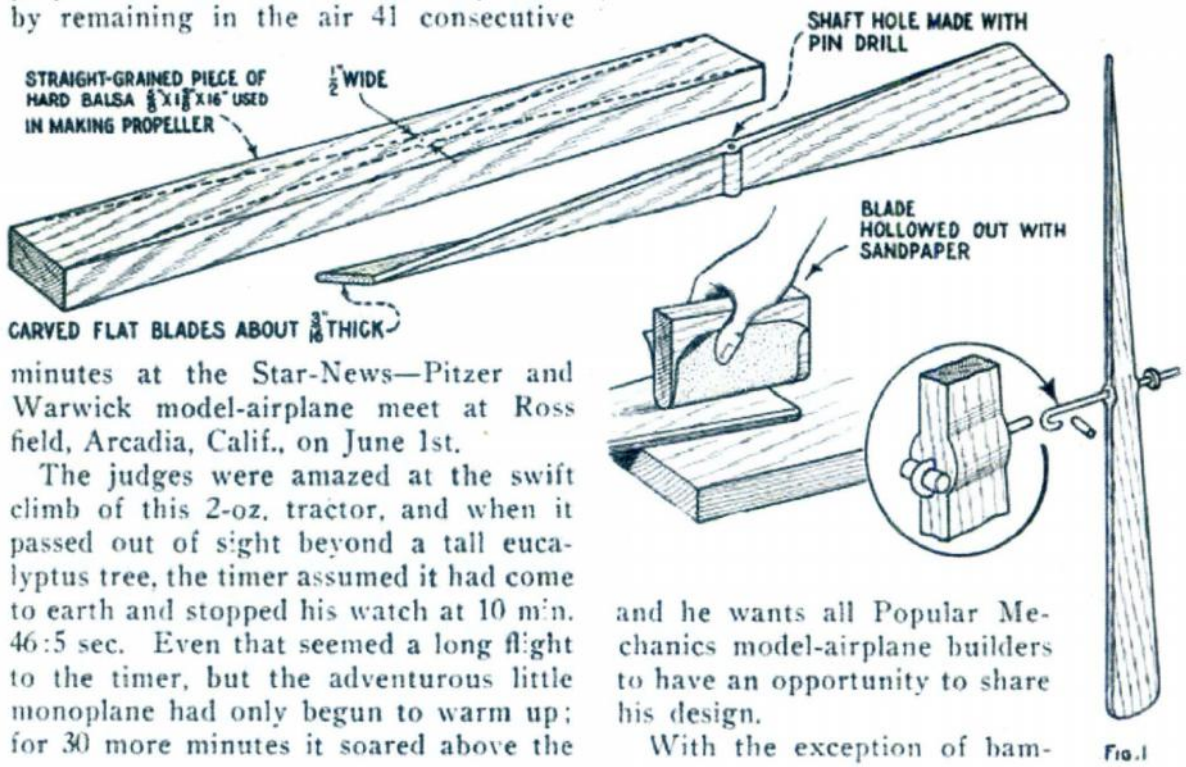
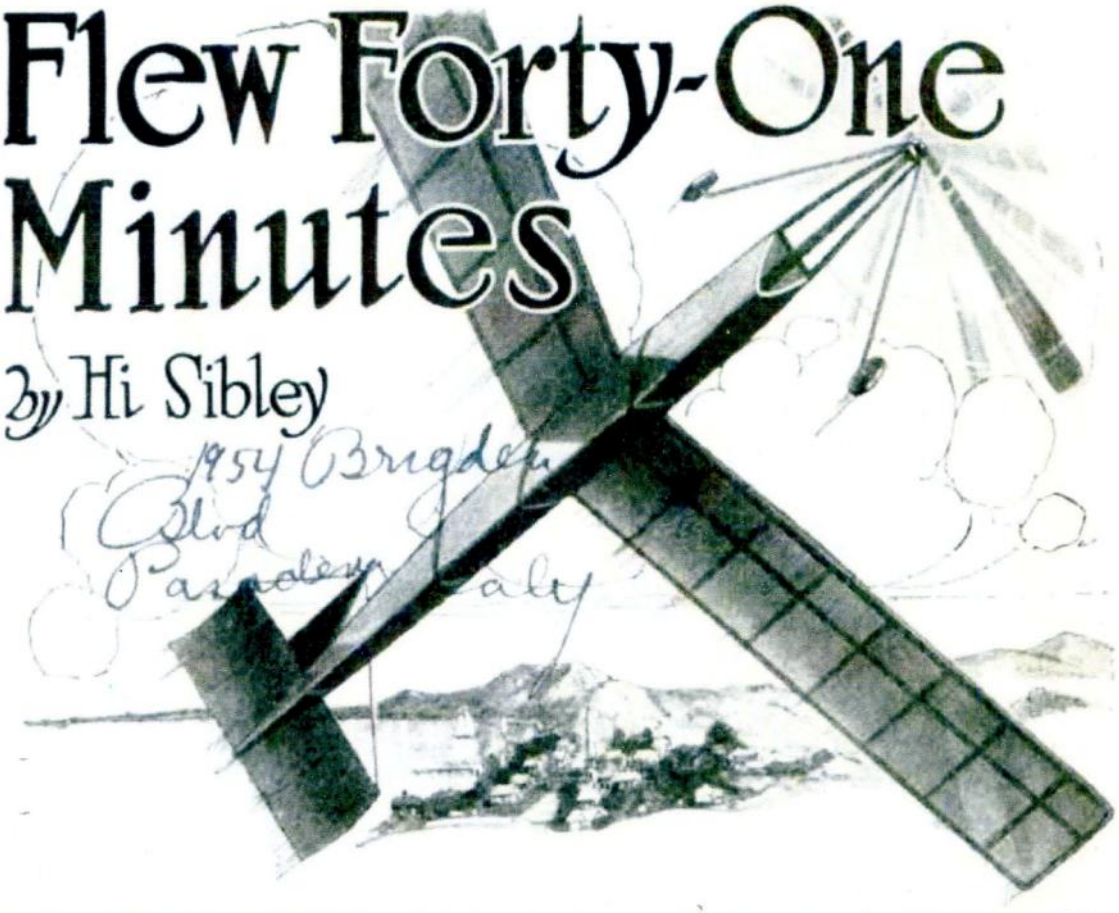


FIG. 1

Flew Forty-One Minutes

By Hi Sibley



boo "wishbone" ribs in the fuselage and such music wire and washers as are required, the plane has an all-balsa framework throughout.

Begin with the two top longerons, Fig. 2, tying them together with cross-frames of the sizes shown, all of 1/8-in. square so-called "hard" balsa, which is

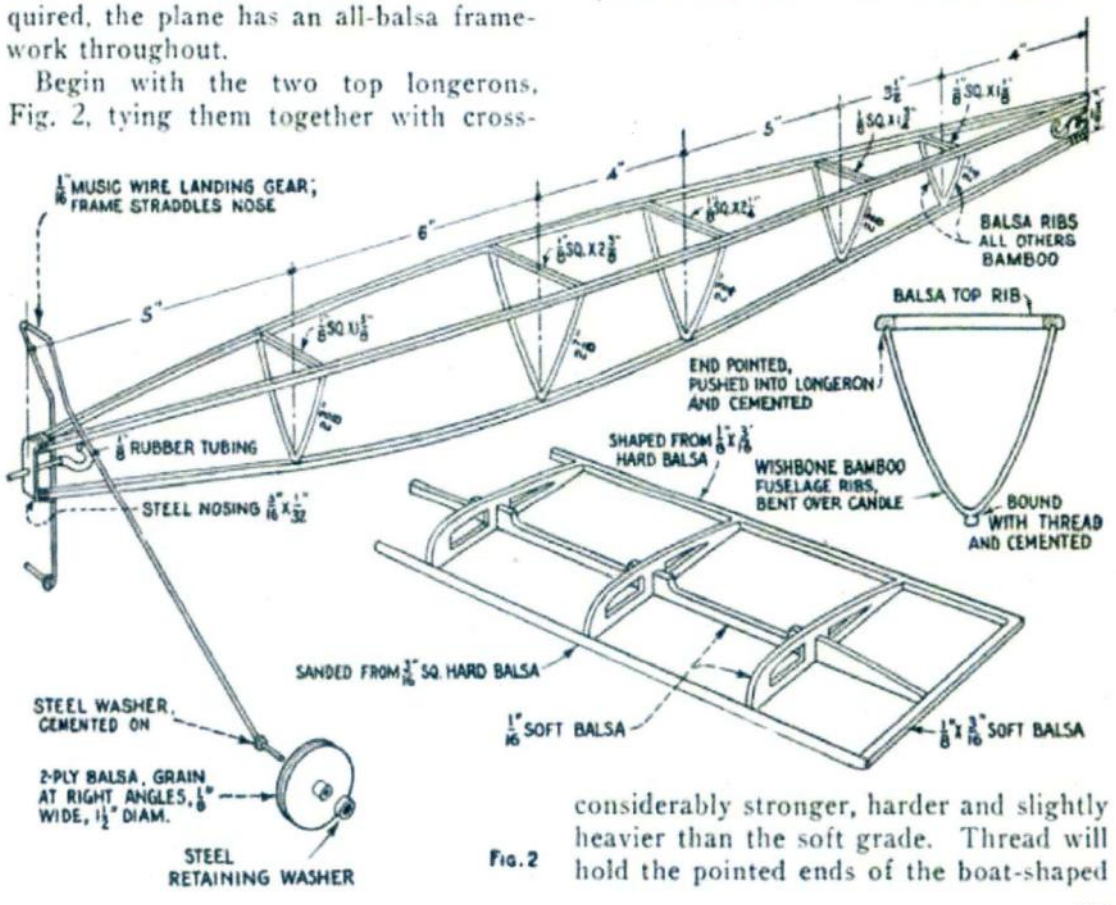
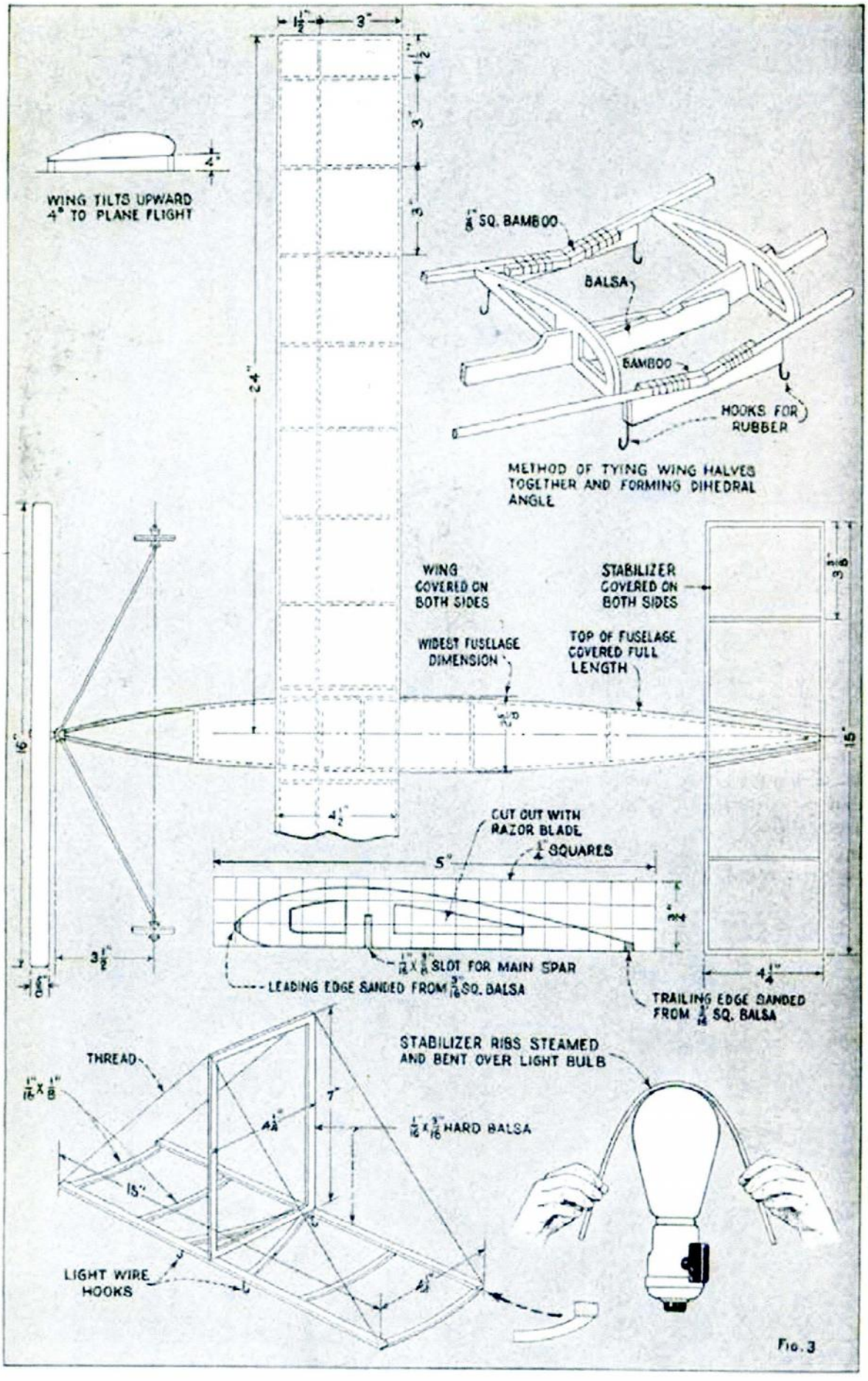


Fig. 2

considerably stronger, harder and slightly heavier than the soft grade. Thread will hold the pointed ends of the boat-shaped


WING TILTS UPWARD 4° TO PLANE FLIGHT
1½"
3"
24"
⅛" SQ. BAMBOO
BALSA
BAMBOO
HOOKS FOR RUBBER
METHOD OF TYING WING HALVES TOGETHER AND FORMING DIHEDRAL ANGLE
WING COVERED ON BOTH SIDES
STABILIZER COVERED ON BOTH SIDES
WIDEST FUSELAGE DIMENSION
TOP OF FUSELAGE COVERED FULL LENGTH
4½"
CUT OUT WITH RAZOR BLADE
¼" SQUARES
5"
3½"
LEADING EDGE SANDED FROM 3/16" SQ. BALSA
TRAILING EDGE SANDED FROM ¼" SQ. BALSA
4¼"
THREAD
STABILIZER RIBS STEAMED AND BENT OVER LIGHT BULB
7"
4½"
HARD BALSA
15"
LIGHT WIRE HOOKS
FIG. 3

frame together until the ambroid hardens at the joints of the cross-pieces. Next bend four bamboo wishbones at a sharp angle over a candle flame. The bamboo pieces should be about 1/16-in. square section, and bending should be done slowly and gently, with the glossy side of the bamboo about an inch above the flame. The ends of the bamboo are pointed and pressed a little way into the top longerons, just enough to keep them from springing out while the ambroid is hardening. When all are set, install the bottom longeron, binding it to the apexes of the wishbones with thread and ambroid.

The nosing, which serves also as a prop-shaft bearing, is of steel, 7/16 in. wide and about 1/32 in. thick, or less. Neither aluminum nor brass will carry the load properly. The rear ends are tied together with a piece of 1/32-in. music wire having a "U" bent in the center to carry the S-hook.

For such a long and thin propeller as this 16-in. job, a select piece of straight-grained hard balsa should be used. The diagrams (Fig. 1) illustrate the method of shaping the blades, substantially the same as on the prop of the Hixon-Wheaton tractor described in the September issue. The thinness of the blades is limited only by the builder's skill, but should not be over 1/16 in. at the tips. The hole in the hub for the shaft should be absolutely square with the blades and can be drilled with a tool made by flattening the end of a short section of music wire, grinding the edge sharp and chucking in a hand drill. This tool also is handy for drilling the hole in the nosing, although a fine twist drill is even better. A small steel washer is ambroided to the back of the hub, and a loose brass nut runs on the shaft behind it. All steel washers can be cut from the same size sheet steel as the nosing.

Make the wheels of 2-ply balsa by ambroiding two pieces of 1/16-in. stuff together with the grain at right angles. A short piece of brass tubing serves as the hub. Washers ambroided to the axles keep the wheel in place.

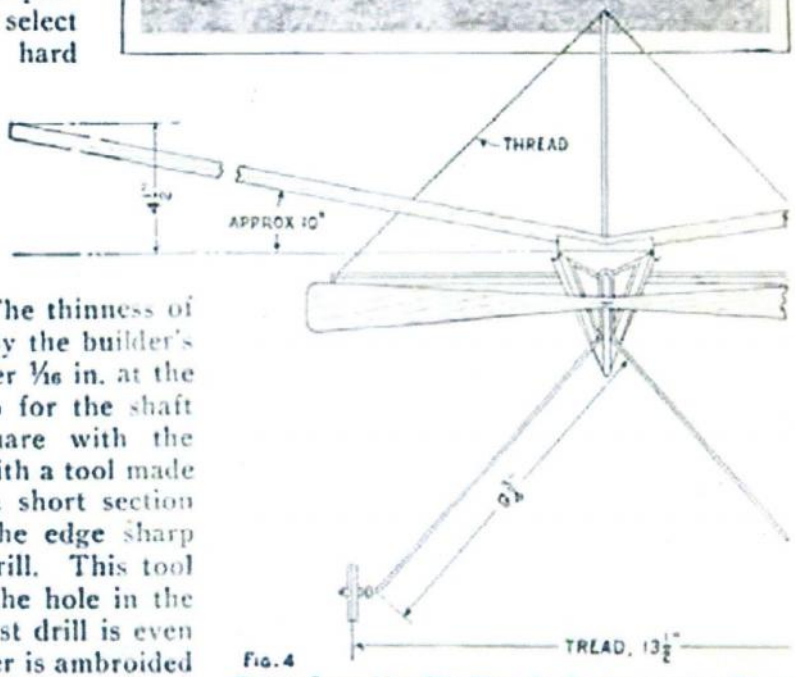
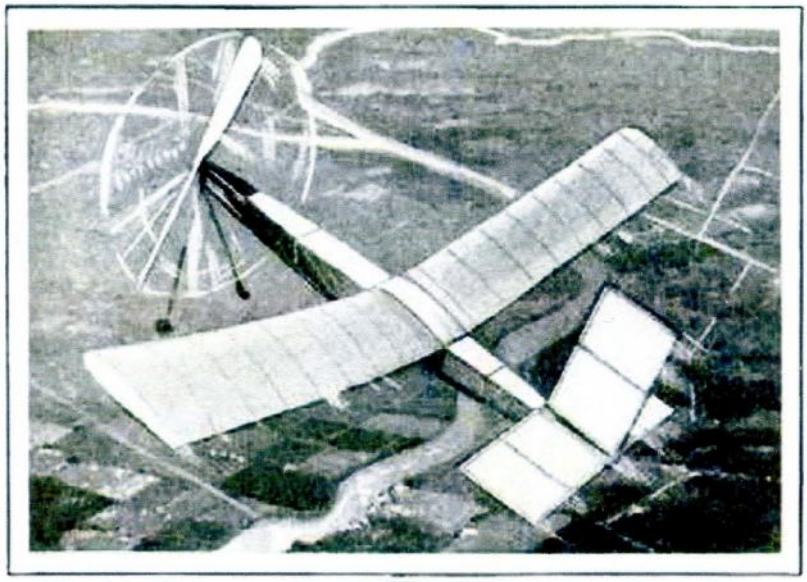


Fig. 4

Tabata Launching His Plane for Its Astonishing Flight at the Arcadia Meet, Where It Created a Sensation



When the glue holding the paper fabric is thoroughly dry, apply wing dope with a soft brush. Best results are secured with a half-and-half mixture of the dope and lacquer thinner. But do not use any dope on stabilizer or fin, as it will warp the delicate frames.

The three sides of the fuselage are covered one at a time with separate pieces of rice paper. As

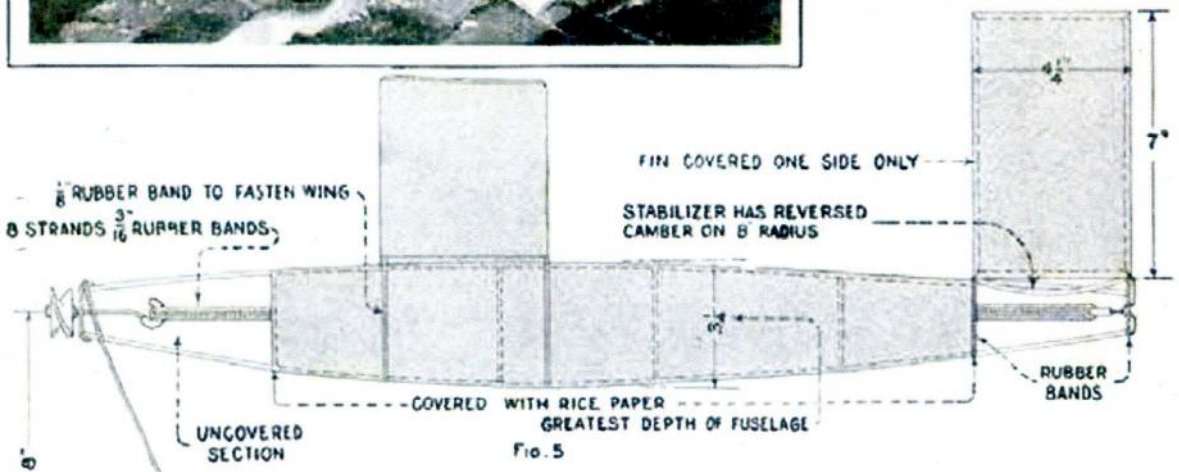


Fig. 5

The wing, Fig. 3, is an all-balsa job, with hard balsa for the outer spars and soft for the central spar and ribs. The diagram illustrates the exact size and shape of the Clark-Y airfoil used in this wing. Young Tabata used a surgeon's scalpel for cutting out the ribs and central spar. A razor blade will do. Before tying together, the two wing halves are covered with rice paper. This material is extremely fine-textured and tough, and better for the purpose than the coarser bamboo paper. Glue is applied on the outer edges of the leading and trailing spars and end ribs. Use the finger tip in applying glue; it spreads more thinly than a brush. The lightest application is sufficient. Hold the paper taut from end to end over the glued end ribs and press down with a dry finger. Then pull it taut from front to back and press down on the glued spars. Do not put glue on the intermediate ribs, in the case of the wing, do not apply glue to the ribs.

When the glue is dry on the wing halves, tie them together at the dihedral angle (see Fig. 4) by means of short pieces of bamboo bent over a candle. The central spar is tied with a short and stout piece of balsa. All joints are ambroided and bound with thread.

In making the stabilizer frame, Fig. 3, take care that all ribs are bent on the same curve, that is, with an 8-in. radius. This can be done by steaming and bending over a lighted electric bulb, or over a wooden form. They should be thoroughly dry, however, before ambroiding to the framework. Paper is used only on the bottom of the stabilizer, and on one side of the fin, or rudder. The frame of the latter is simplicity itself, being merely a rectangle of 1/16-in. by 3/16-in. hard-balsa strips mitered at the corners. It is braced by threads to the corners of the stabilizer. A small block of balsa is ambroided to the rear center of the stabilizer to make

it level with the direction of flight, or parallel with the strands of the motor.

Balsa blocks are also ambroided to the underside of the wing at the center in order to tilt the front edge upward at approximately 4°. The most efficient angle will be determined by experiment.

Now adjust eight strands of 3/16-in. flat-rubber band so there is a little slack when unwound. By all means provide yourself with a mechanical winder, or make one from an egg beater. It is indispensable for this type of ship, since the rubbers can be wound four times as much by stretching them out. At first do not go over about 75 turns with a 4-to-1 winder. Tabata says that 200 turns with the winder is a safe limit; he has gone as high as 250, but does not recommend it.

You will get best results at first by launching in the air by hand. Give it a gentle thrust—and always into the breeze, not with it. The breeze will help it gain altitude, though in the meantime it will swing about and follow the direction of the wind.

It is of utmost importance to have all surfaces in their proper alinement. A slight variation one way or another will ruin its performance. And note from the photo how far back Tabata sets his wing—well back of the center of the fuselage. But this is precisely the position in which it made the record flight for him.

Make this wonderful little monoplane according to these plans and you will have a ship you've always hoped to own—one that flies and flies—and how!

Popular Mechanics- October 1929

This is a separate article as page filler

Cornstalk Fuselage for Model Airplane Is Strong and Durable

Cornstalk Makes Airplane Fuselage

A piece of cornstalk makes an ideal model-airplane fuselage, according to Myron Alber of Beatrice, Nebr. A section of stalk, about 20 in. long, is carefully hollowed out. This can be done by means of a length of wire, one end of which is flattened and bent over at right angles to form a scraper. The shell of the cornstalk is very strong, stands considerable twisting, and completely incloses the rubber band used as motor. A balsa-wood plug is fitted into the front end of the stalk. The rear part is reduced in size by cutting out triangular sections, about 5 in. long and ¼ in. wide at the base. After these sections have been removed, the end of the stalk can be brought together and glued, leaving a hole about ⅜ in. in diameter at the end. This hole is also plugged with balsa wood in which a hook is fastened for the attachment of the rubber bands.—Dale R. Van Horn, Lincoln, Nebr.

Robert McKeon (USA)

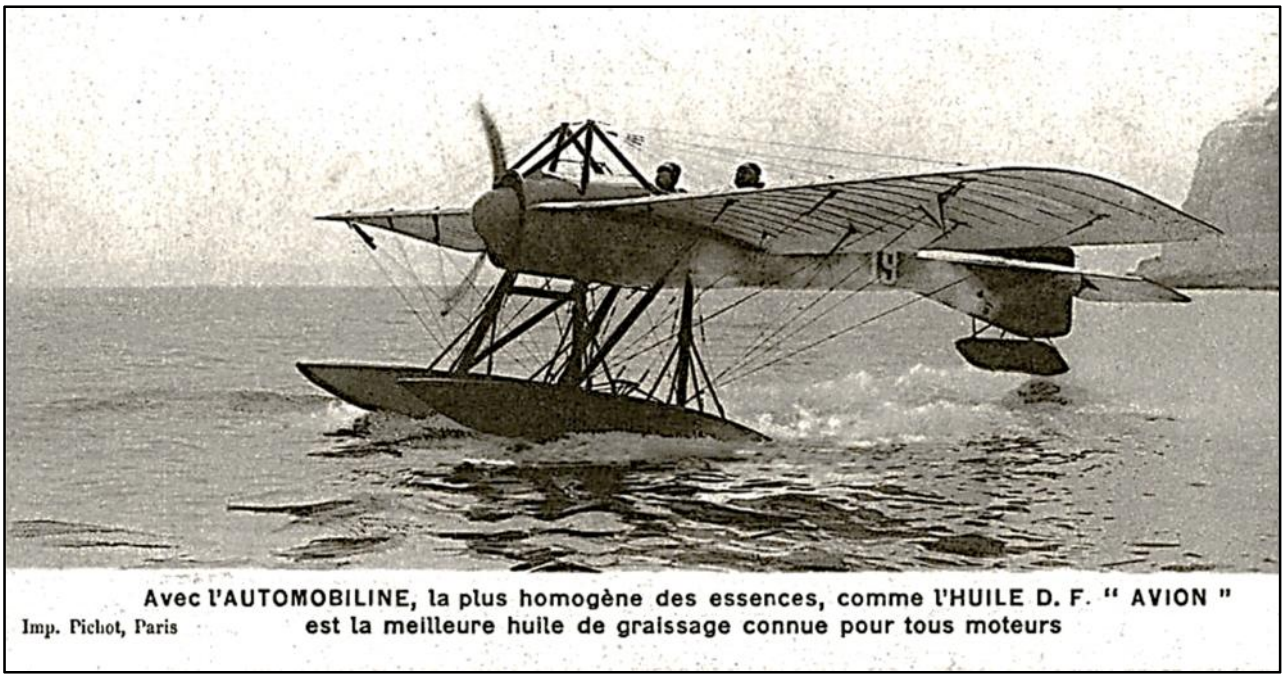
Southern Coupe League - Roy Vaughn

Second Area Results			
	Entrant	**Club**	**League Score**
1	P.Woodhouse	Morley	12
2	S.Fielding	Morley	9
3	R.Marking	CVA	8
4	B.Hobbs	Oxford	7

Southern Coupe League Table
Standings after Round 3

	Entrant	Club	Coupe De Brum	London Gala	Second Area	Total
1	P. Woodhouse	Morley	12		12	24
2	B. Hobbs	Oxford		9	7	16
3	A. Brocklehurst	B&W		12		12
4	C. Foster	Morley	9			9
=	S. Fielding	Morley			9	9
6	S. Philpott	Birmingham	8			8
=	M. Stagg	B&W		8		8
=	R. Marking	CVA			8	8
9	I. Taylor	Birmingham	7			7
10	G. Manion	Birmingham	6			6
11	B. Whitehead	Peterborough	5			5
12	A. Moorhouse		4			4
13	B. Dennis	Oxford	3			3
14	M. Marshall		2			2
15	S. Darmon		1			1
16	A. Hewitt					0
=	L. Drennan					0
=	G. Warburton					0
=	R. Vaughn					0
=	R. Elliott					0
=	P. Carter					0
=	G. Peck					0

Roy Vaughn



Frenchman Maurice Prévost brought the first trophy to France in 1913 flying his Deperdussin to victory. (Historynet Archives)

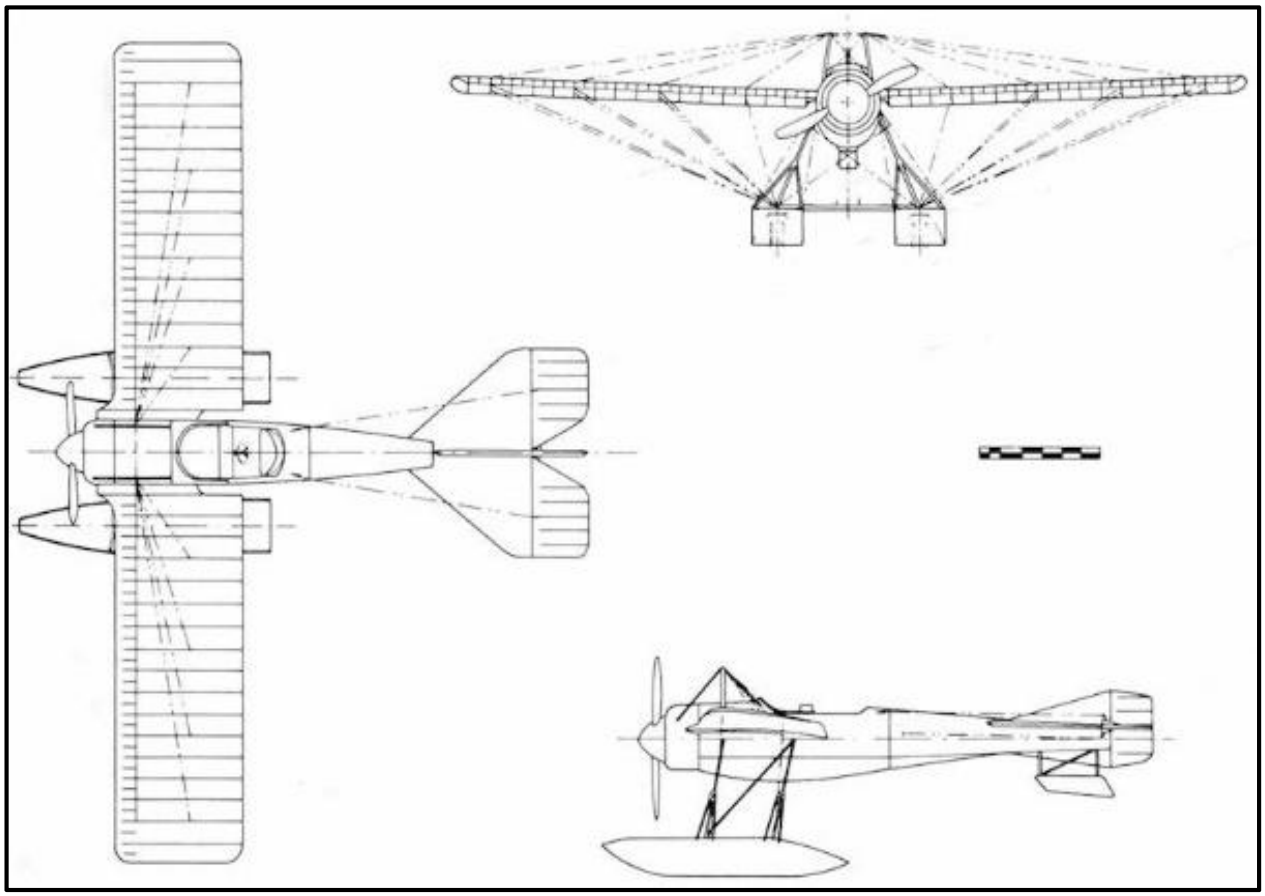
The son of a well-known French steel and arms manufacturer, Jacques Schneider was an aviation enthusiast who believed that floatplanes and flying boats were the most practical military and civilian design, since they could fly to any country with a coast, a river or a lake without requiring the construction of expensive airfields.
On December 5, 1912, he declared a competition in which he appealed to manufacturers of marine aircraft to develop the world's fastest airplane.

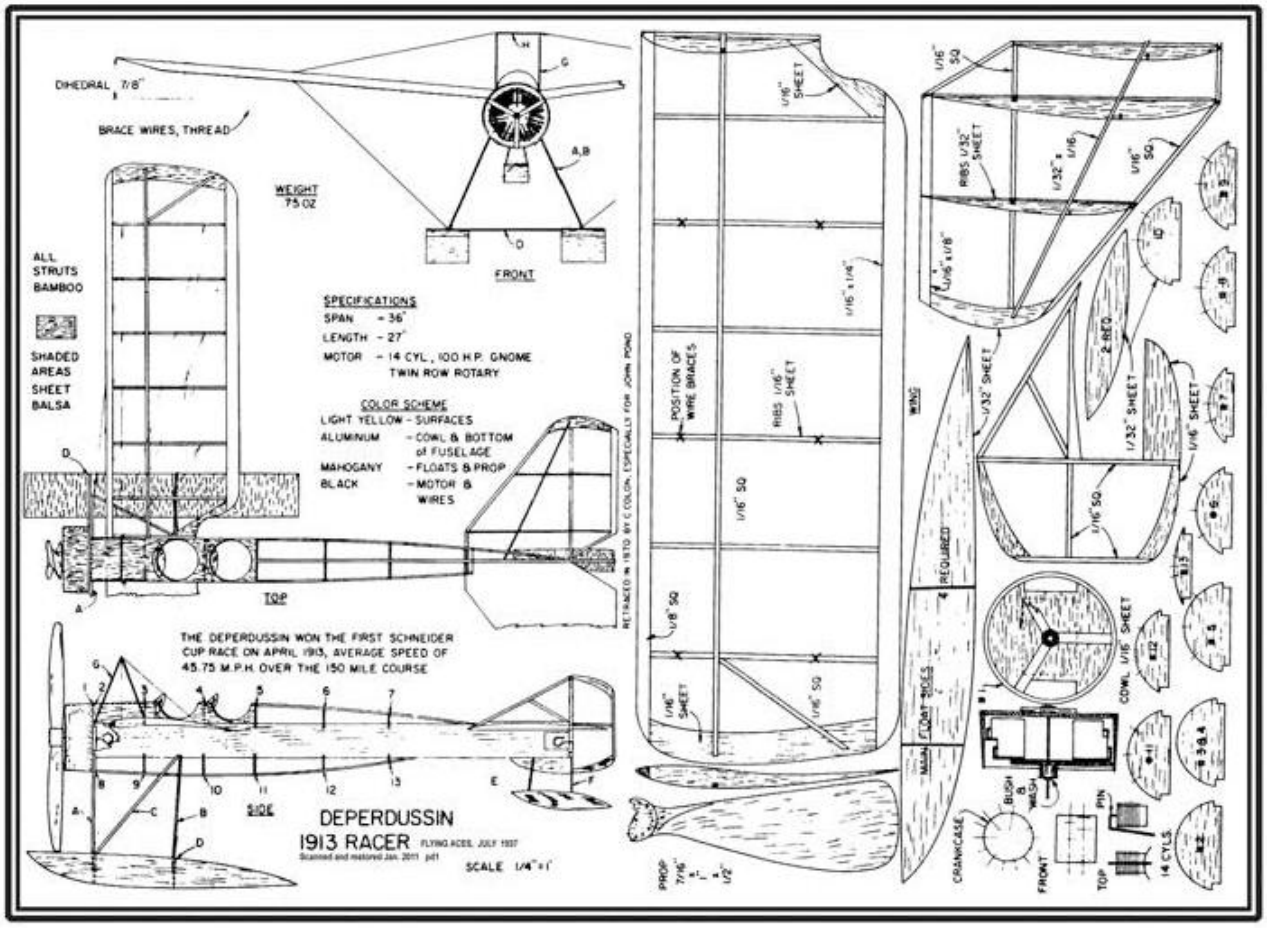
The trophy, which he called the 'Coupe d'Aviation Maritime Jacques Schneider, consisted of a silver sea wave 22 1/2 inches across, with the figures of Neptune and his three sons, over which was poised the winged, female personification of the spirit of flight, all set on a marble pedestal. In addition, the winner received 1,000 pounds sterling.

The race — which soon came to be known simply as the Schneider Trophy — became one of the most prestigious annual competitions in history.

The distance flown had to be at least 150 miles over a triangular route, but prior to that Schneider expected all entries to cover a distance of 547 yards in contact with the sea. In later contests the aircraft were supposed to sit in the water for six hours to test the integrity of their floats or hulls — and to race weighed down with whatever liquid they had accumulated if they developed leaks during that time.

The ultimate stake in the contest was permanent possession of the trophy, which would go to the country or pilot that could win three consecutive races within five years.



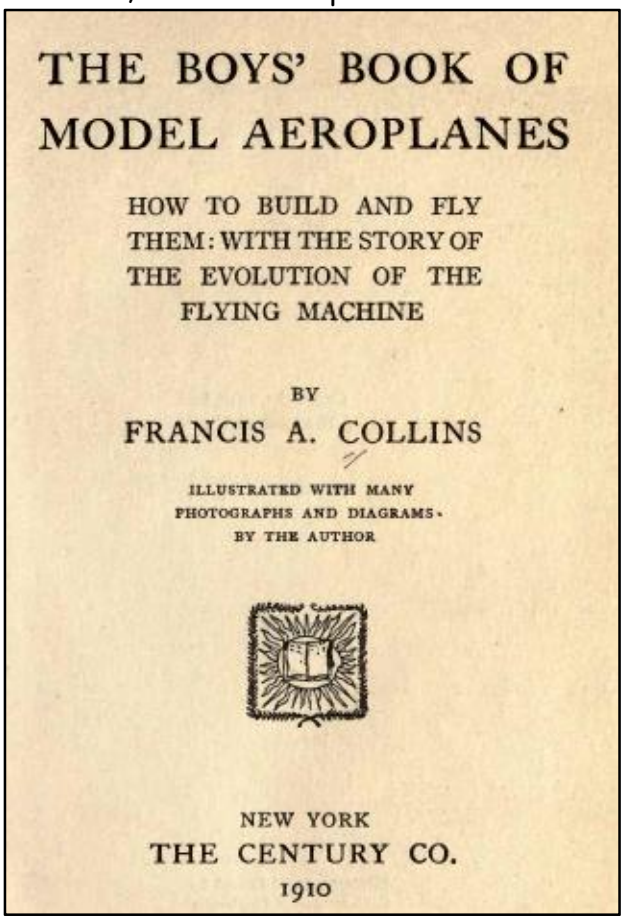

DIHEDRAL 7/8"
BRACE WIRES, THREAD
WEIGHT 75 OZ
FRONT
ALL STRUTS BAMBOO
SHADED AREAS SHEET BALSA
SPECIFICATIONS
SPAN - 36"
LENGTH - 27"
MOTOR - 14 CYL., 100 H.P. GNOME TWIN ROW ROTARY
COLOR SCHEME
LIGHT YELLOW - SURFACES
ALUMINUM - COWL & BOTTOM of FUSELAGE
MAHOGANY - FLOATS & PROP
BLACK - MOTOR & WIRES
TOP
THE DEPERDUSSIN WON THE FIRST SCHNEIDER CUP RACE ON APRIL 1913, AVERAGE SPEED OF 45.75 M.P.H. OVER THE 150 MILE COURSE
SIDE
DEPERDUSSIN
1913 RACER
FLYING ACES, JULY 1937
SCALE 1/4" = 1'
RETRACED IN 1970 BY C COLON, ESPECIALLY FOR JOHN POND
POSITION OF WIRE BRACES
RIBS 1/16" SHEET
WING
REQUIRED
MAIN FLOAT SIDES
PROP
CRANKCASE
BUSH & WASH
FRONT
TOP
PIN
14 CYLS
COWL 1/16" SHEET

Tinternet

Report No.160 Our earliest books.

After an "Eagle" based interruption of some months, a return to a look at our earliest books.

We last reviewed "Model Flying Machines" by W. G. Aston, published in 1910 in England.
A jump across the pond to U.S.A. brings us to "The Boys' Book of Model Aeroplanes" by Francis A. Collins, another 1910 publication.



THE BOYS' BOOK OF MODEL AEROPLANES

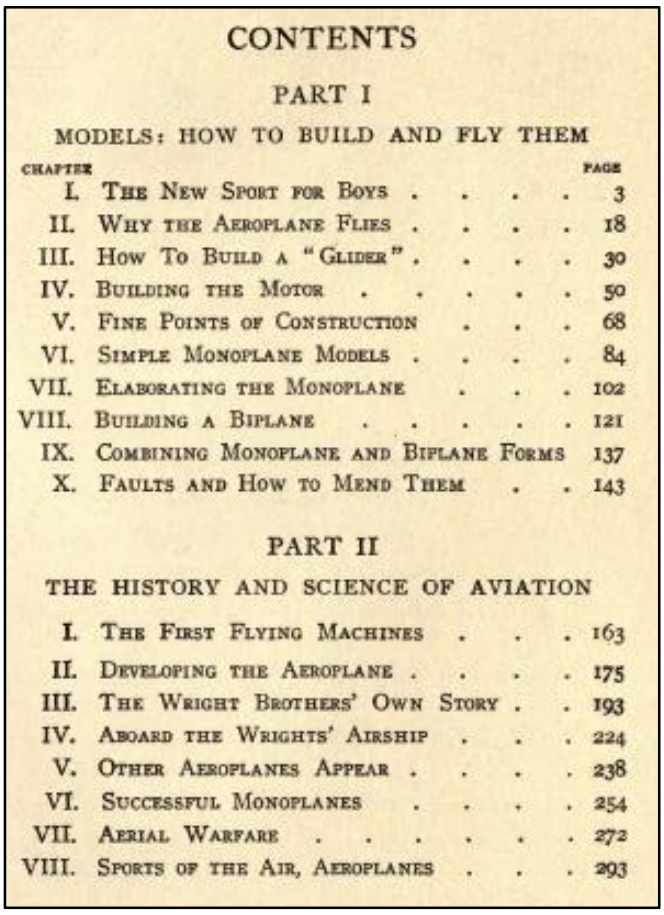
HOW TO BUILD AND FLY THEM: WITH THE STORY OF THE EVOLUTION OF THE FLYING MACHINE

BY

FRANCIS A. COLLINS

ILLUSTRATED WITH MANY PHOTOGRAPHS AND DIAGRAMS BY THE AUTHOR

NEW YORK
THE CENTURY CO.
1910



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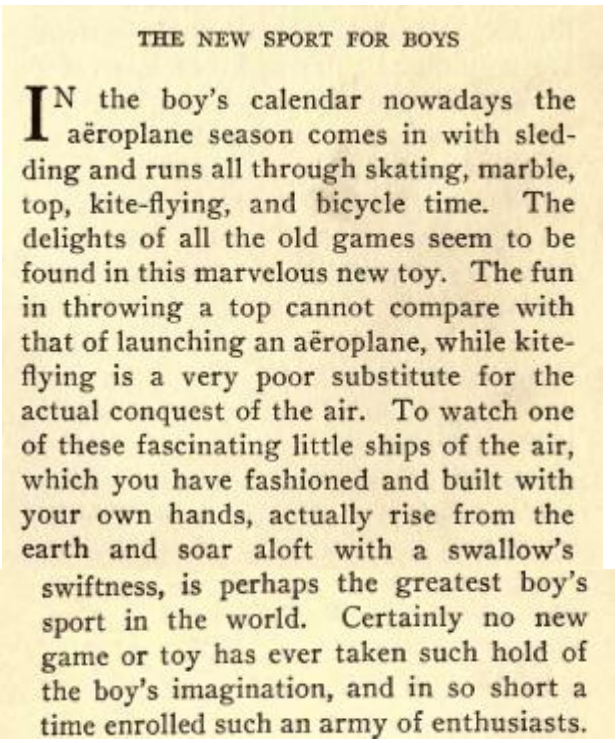
PART I

MODELS: HOW TO BUILD AND FLY THEM

PART II

THE HISTORY AND SCIENCE OF AVIATION



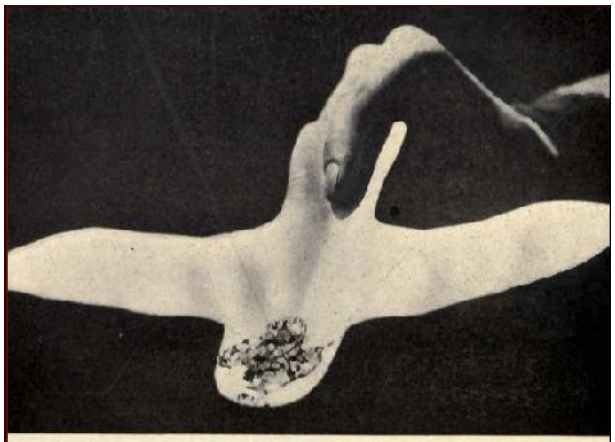
THE NEW SPORT FOR BOYS

IN the boy's calendar nowadays the aëroplane season comes in with sledding and runs all through skating, marble, top, kite-flying, and bicycle time. The delights of all the old games seem to be found in this marvelous new toy. The fun in throwing a top cannot compare with that of launching an aëroplane, while kite-flying is a very poor substitute for the actual conquest of the air. To watch one of these fascinating little ships of the air, which you have fashioned and built with your own hands, actually rise from the earth and soar aloft with a swallow's swiftness, is perhaps the greatest boy's sport in the world. Certainly no new game or toy has ever taken such hold of the boy's imagination, and in so short a time enrolled such an army of enthusiasts.

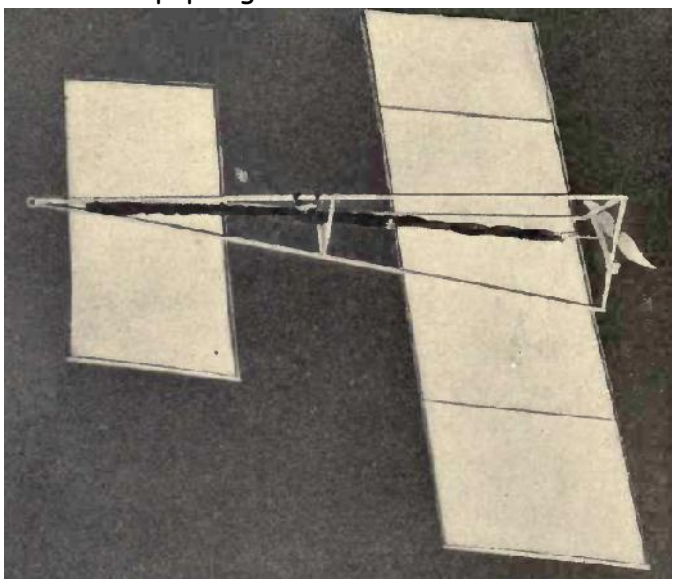
Our copy of this book is in digital form and includes a contents list and a list illustrations which runs to more than 40 photographs and sketches. Three of these illustrations are missing from the digital copy, these being on pages 37/38, 183/184 and 201/202. The double page numbers do not represent a foldout drawing but follow the practice throughout the book of leaving the reverse, or facing, side of photo pages blank. I found an online source for reprints of this book with the possibility of reviewing the reprint quality before committing to a purchase. Optimistically, I reviewed the reprint only to find that pages 37/38 were missing and, as you might expect, I did not proceed to look any further or to commit to a purchase.

Now try to visualise yourself in 1910 wishing to make a model aeroplane. There is no balsa wood or balsa cement but more critically, there is a dearth of information on designs of successful model aeroplanes. Today, we have balsa, carbon fibre, numerous covering materials and glues. Equally we have thousands of proven designs to copy, adapt, "improve" and make our own. The 1910 modeller worked with cane, bamboo, wood (various sources) and for the covering, muslin, linen or white silk "all found in the family piece-bag".

The author very sensibly suggests starting with a glider made of stiff card and informs the reader: "There are many ways of folding a sheet of stiff paper which will convert it into a surprisingly clever little airship." The accompanying photograph shows a bird-form of glider, hardly the easiest way to achieve a successful paper glider.

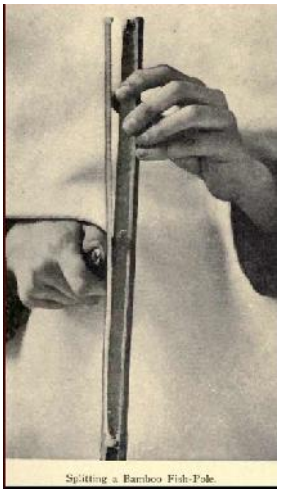


The First Glider Weighted at the Front.



Instructions are next given for a built-up glider, starting from the (very reasonable) assumption that the reader has previous experience of making kites. The builder is informed that, for a flying model, strength with lightness is essential. All joints must be secure and "the entire structure braced in every possible way."

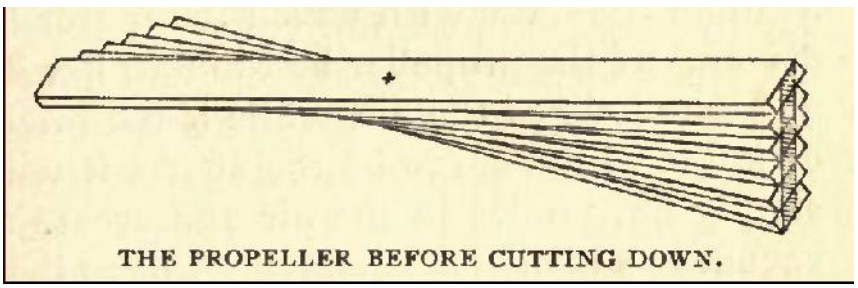
The most critical of the missing pages is titled "Diagrams of Plan of Aeroplane on Page 58". Pictured above is the aeroplane from page 58, which shows the model's second life having been converted to rubber power. The fuselage is of triangular cross section and every side is a triangle, a good basis for a strong, rigid and light structure. The "planes" are of acceptable proportions, but there would seem to be a lack of dihedral.



Splitting a Bamboo Fish-Pole.

Photographs show the technique for splitting a bamboo fishing rod to produce material suitable for longerons and spars, also, how to split a cigar box lid to make a quite effective looking propeller.

Splitting the Cigar Box Cover to Build the Propeller.



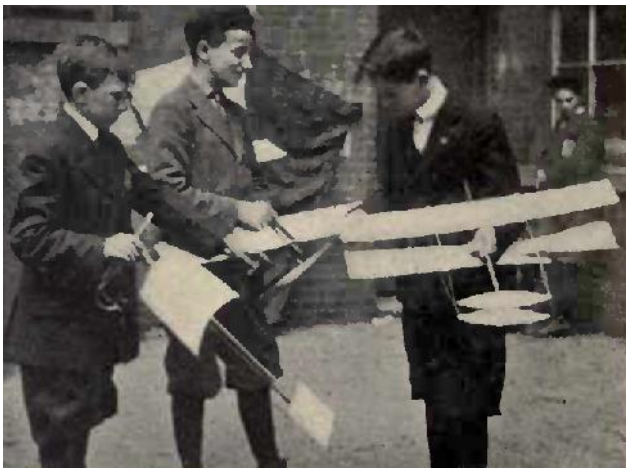
THE PROPELLER BEFORE CUTTING DOWN.

Boys are advised to seek the help or advice of a big sister when sewing the covering to the frames as "Boys are likely to be awkward with the needle." When complete, the planes should be covered with a "thin solution of paraffin dissolved in benzene." The finished planes are attached to the frame, with no mention of incidence angles. The author notes that the spacing of the planes is "a complicated problem." See extract here.

glider will fall. The amateur must experiment by changing their position on the central axis until he hits the right proportion. He will be able later to carry this proportion in his eye, and the experience will prove invaluable. Until you have hit upon the proper position, fasten them to the backbone with rubber bands. These permit you to slide the planes back and forth without the trouble of nailing.

There is much more on construction, but in 1910 the design for flying models was clearly in early development stages, as were ideas on trimming the model. See the author's comments on propeller position.

Aviators differ as to the proper position for the propellers in toy aëroplanes. Here is a problem you must work out for yourself. Some believe that the propeller placed in front of the planes gets a firmer grip on the air, since when the propeller is at the stern the planes make many disturbing currents, just as a steamship



The author recommends that the reader should study the sketches and photographs in the book for ideas on model design, see some of these below and alongside.

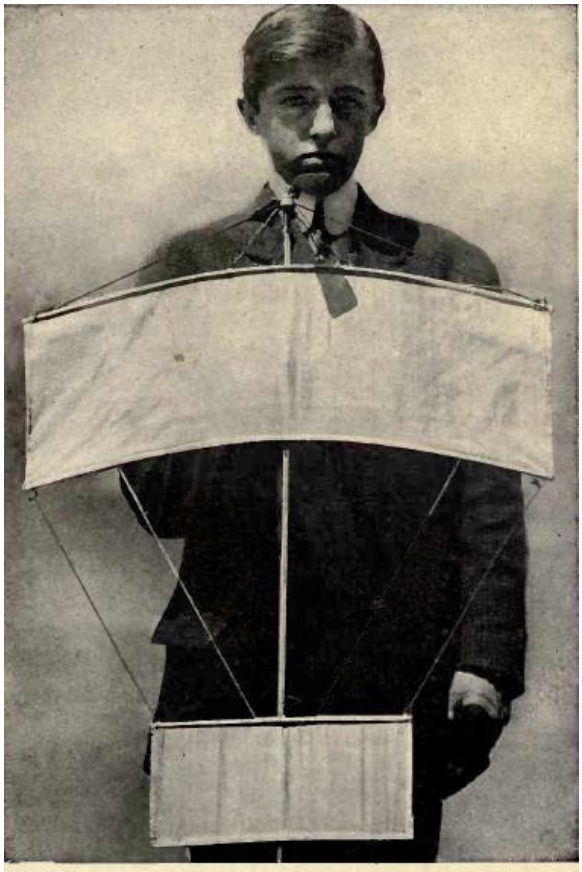
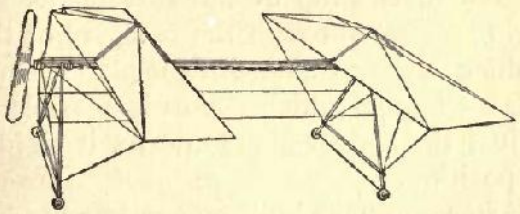


PLATE II.
A Model Aëroplane Worth Imitating.

An excellent monoplane for the beginner is shown in drawing. (Plate C.) It is very simple and easily adjusted, and when well tuned up will fly upward of two hundred feet. The two planes are built separately in the proportion indicated. The frame consists of a central stick supported by triangular skids. An ordinary hat-pin run through the supports near the ground serves as an axle for wooden disks or wheels. The front skids are made somewhat higher to give the front planes the proper angle of elevation.



THE DIAGRAM OF A MONOPLANE.
Planes measure 20 inches by 8 inches. The motor base is 36 inches in length.

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

Roy Tiller

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Indoor Scale Nationals - Martin Pike

The Indoor Scale Nationals is a great opportunity to see indoor models flying and to measure your own skill against the - considerable - competition. The Saturday is for radio control models, with free-flight on Sunday.
For me these events are primarily about meeting fellow modellers and reigniting one's enthusiasm. I compete, not with any expectations of gaining an award, but to challenge myself to improve.
Although I am not very involved with radio controlled models, we attended the Saturday event because my son was interested and it gave me an opportunity to meet some competitors, such as Mats Johansson and his companion….whose name I did not catch; who had come over from Sweden with some excellent models.
Despite the miniaturisation of radio equipment, getting a wing loading low enough for a scale speed is still difficult. Other than some notable exceptions, the most convincing flyers had relatively limited scale details. Indoor R/C remains a challenge, in both building and flying. I suspect there would be very few competitors if it were not.

For the Sunday free-flight competition, I had entered peanut and intermediate scale. My peanut entry was a model that had only just been completed. I made a Piper J3 cub, a very safe Peck-based design, but in an unusual livery of a Flitfire - silver with RAF roundels. I tried a technique used by Ralph Sparrow; silver Mylar sprayed with acrylic paint and with decals and scale details added whilst the Mylar was stretched on a frame. I was pleased with the result, but should have been more careful in sanding the airframe, as the thin semi-gloss finish shows up any defects. Setting out the markings has to be done with care, in future I would not add the flap lines until the covering was on, to ensure better alignment.
As with most new models, a few trimming outings are required to get a good flight profile. I had booked a sports hall for an hour a few days beforehand and used the Saturday evening and Sunday morning trimming sessions, but still only got recordable flights in the later rounds. The way peanut sessions are run does allow some opportunities for improvement. Eventually it was flying in a more scale fashion than my intermediate scale entry - with which I failed to make a qualifying flight.

The intermediate scale class is judged for scale fidelity against the photos and three views you supply, not against the plan as for kit scale. Although my Auster J4 was a hybrid from the Aerographics/VMC kits, I wanted to challenge myself to build to a better scale level. I had covered it in Dilly jap tissue, sprayed the model and then cut tissue markings to apply to the airframe. Using spray masks would have given sharper-edged and more accurate lettering. I have had success on other models using bespoke masks cut from plan details by Modellers United, a service I can thoroughly recommend (Fred - sales@modellers-united.co.uk)

In pursuit of better scale details, I used hinged elevators and rudder. Whilst they look better than my usual Gurney flaps, I found them over-sensitive and too easily nudged out of place for competition use. I will go back to fixed surfaces in future. Although this model is capable of ROG flights, it was out of trim for this competition. I did not have time to correct it, using trim time for the peanut. Consequently I failed to make a qualifying 15 second flight in any of the three attempts. A lack of forethought, planning and practice. Oh well, I still enjoyed trying.

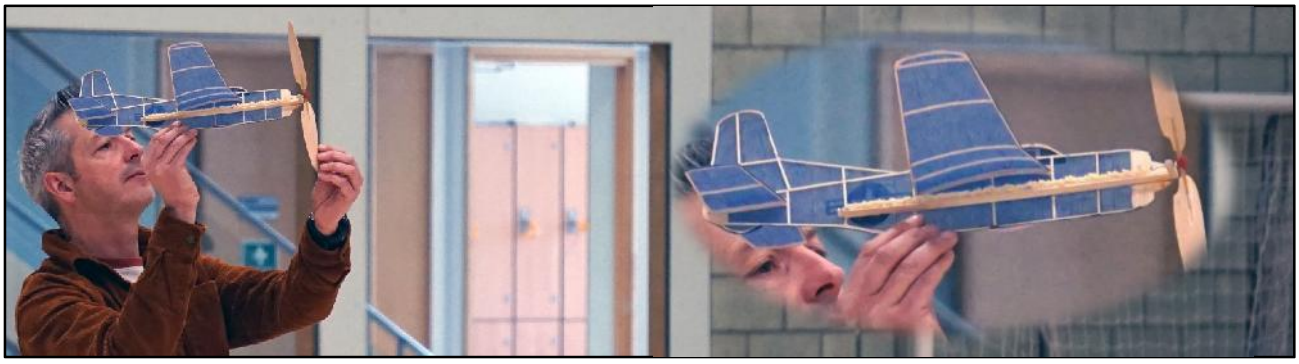
Despite competing, there was plenty of time between rounds to admire other models and meet fellow Aeromodellers. Paul Rich had also arranged a joint meal on the Saturday evening which was a welcome opportunity for a chat. Given the dispersed nature of scale aero modelling, these opportunities are not to be missed.

The final event was an air race, with ten minutes to do as many laps as possible of the helium pylons. I donated (sacrificed?) a model to this, but it was my son Rory and my friend Allan who competed. It is very difficult and many models ended up hitting walls or the pylon strings - meaning massive delays. We plan to be back next year, with a more suitable model and having practiced!

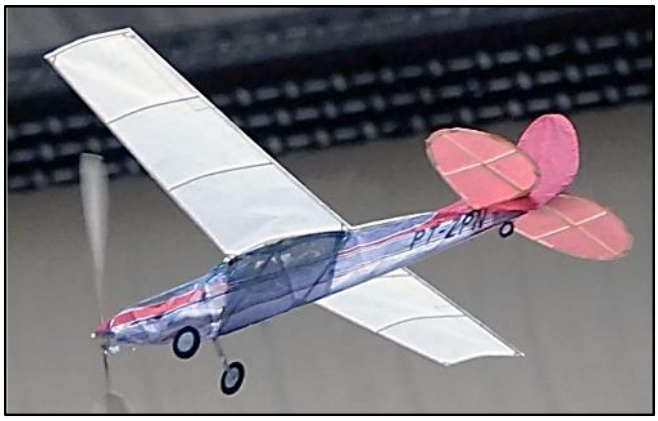
A very enjoyable event, well organised and a great source of inspiration. I would like to thank all the people who made it possible.

A Few Pictures

My Piper Cub gets away

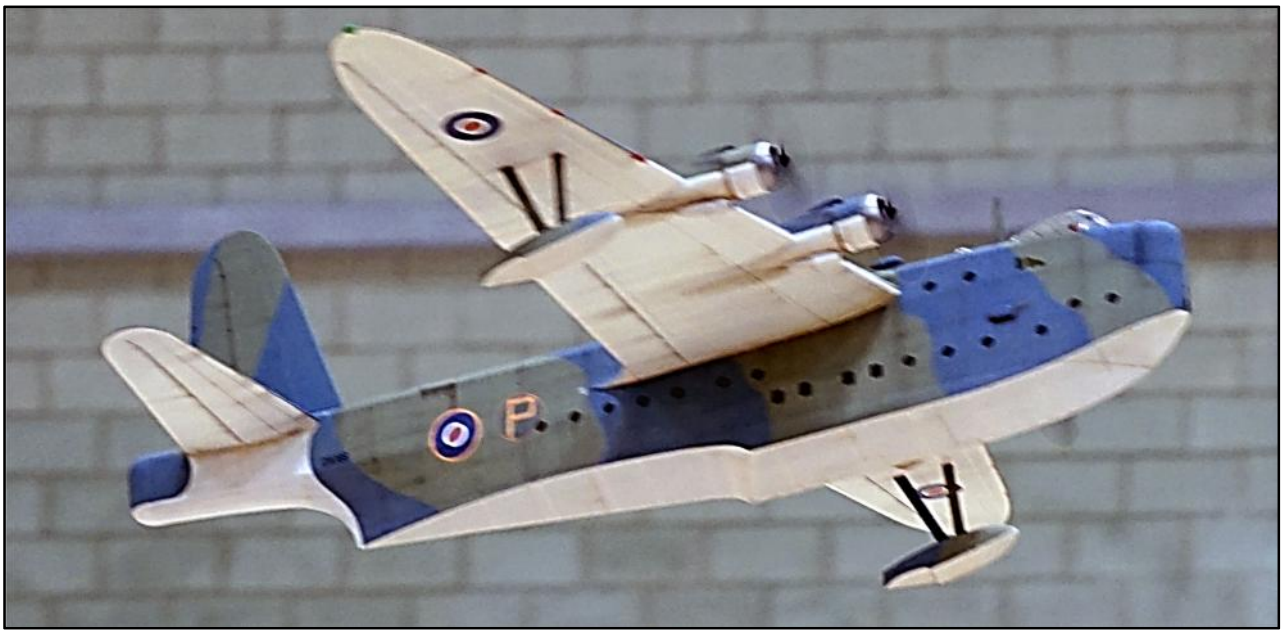


A No-Cal



Another No-Cal

Richard Crossley's Short Shetland flying boat.



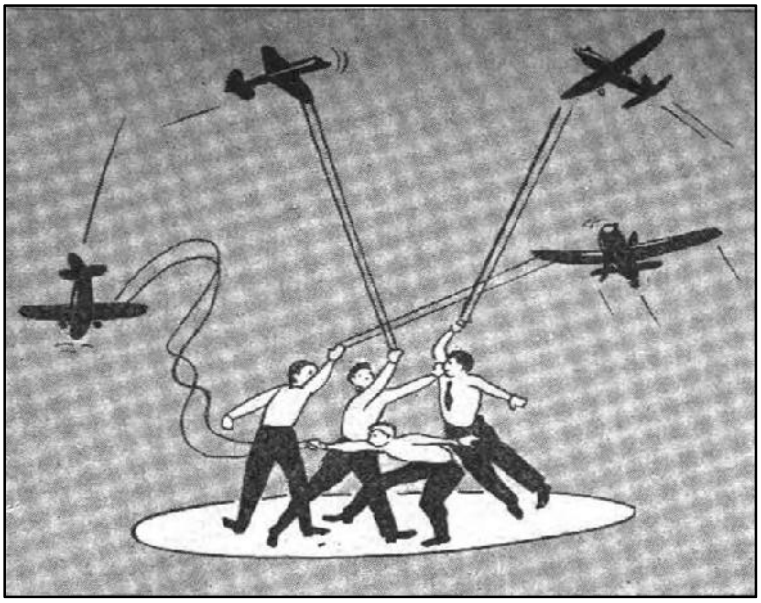
Martin Weiersmueller-Pike

Notes from North Wales - Roger Newman

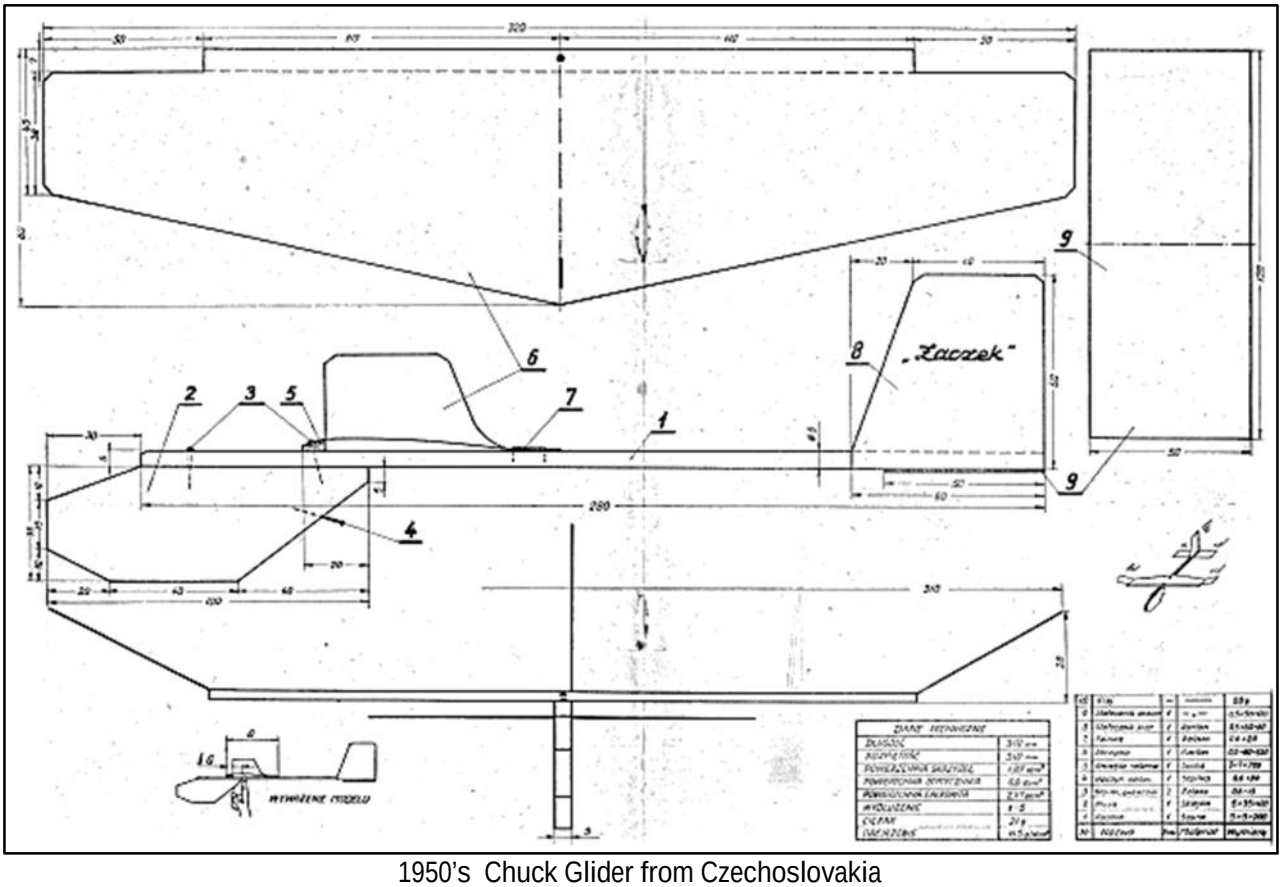
Nationals weekend is upon us. I hope the weather behaves & that those attending the meeting on Area 8 have some very successful flying. After the health traumas earlier this year, it's too far to travel at present – would be nice if a few pics of the event could be seen.

Shorter note than anticipated on the eVTOL scenario this month, time seems to have run away at present & is proving difficult to recover!

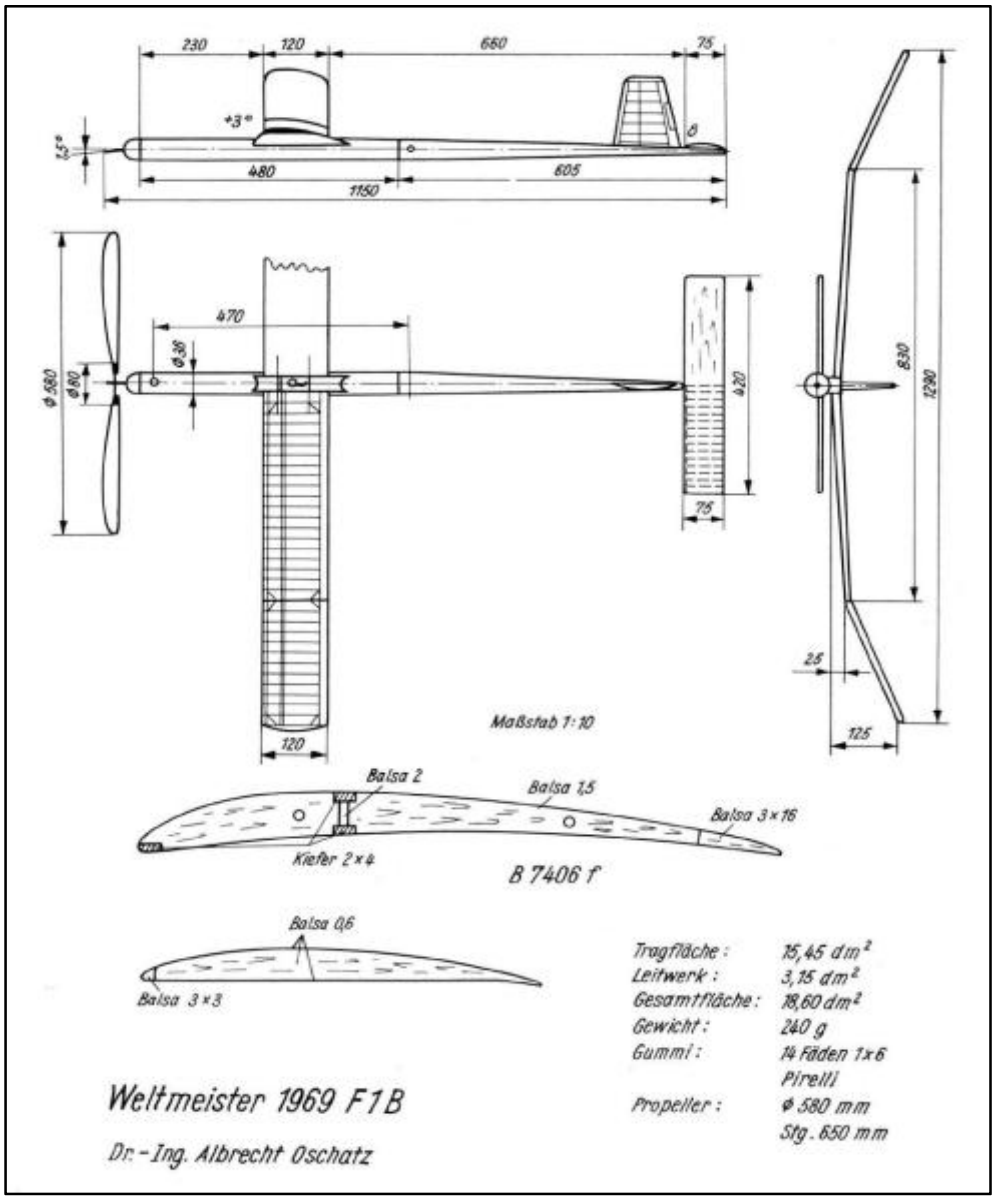
Received a memory stick full of digital info from Paulo Rossi in Bergamo, which has now been passed to our Hon Librarian to keep him busy for a while. The files include scans of a variety of vintage continental aeromodelling mags e.g. Argentina, Czechoslovakia, DDR (formerly East Germany), France, Italy & Scandinavia. Here are a few clips. Thanks Paulo.



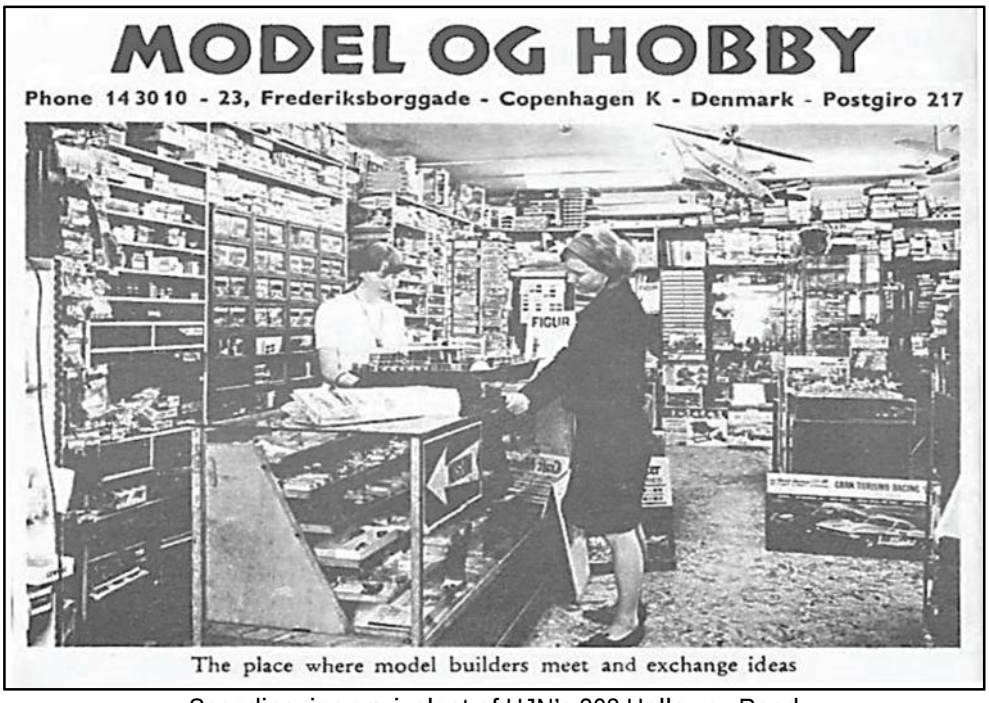
Team racing South American style in 1950



1950's Chuck Glider from Czechoslovakia



1969 Wakefield winner from DDR



Scandinavian equivalent of HJN's 308 Holloway Road

Roger Newman

The Wacky world of eVTOL – Part 3: - Roger Newman

The Vertiport

For the much hyped eVTOL revolution to move at a pace, there has to be a myriad of regulations debated, documented & issued by the regulatory authorities. Amongst these are those concerning vertiports which form a significant part of the essential infrastructure & cornerstone of eVTOL operations. Without vertiports or even an interim implementation of a vertiport, there can be no revolution.

But what is a vertiport?

A vertiport is notionally a designated area that supports take-off and landing operations of eVTOL air vehicles, conceptually similar to a heliport but different. There seems to be no agreed universal definition. Indeed a number of variations already are in circulation.

For example, these include – for example, terms used such as simple, elevated, integrated, enclosed, urban hub and UAM/AAM regional hub. The distinctions between these are somewhat blurred (for example an elevated vertiport can also be an urban hub), but the variety of categories appear to reflect the need to develop different types of infrastructure to support different eVTOL services, piloted and/or autonomous.

There has been a plethora of learned papers published on the subject by governments, academia & industry, swiftly followed up by commercial enterprises jumping on the bandwagon with their various interpretations. Following at a slower & more considered pace are the major regulators – namely EASA, FAA & CAA.

EASA, the FAA & CAA have all initiated consultations & provided their views of draft specifications on designs for vertiports. The guidelines documented thus far are inevitably subject to updates as new information and data analysis on eVTOL aircraft operations become more available. The design of a vertiport has similar basic infrastructure elements to a heliport, including a touchdown and lift-off (TLOF) area, a final approach and take-off (FATO) area, and visual aids but with additional complexities.

The guidelines and specifications for so far released for vertiports are still incomplete due to insufficient data for eVTOL operations. Fully operational vertiports are currently non-existent. Heliports and airports look to continue to serve as eVTOL flight operation test sites for the immediate future. Planning regulations & energy resourcing are unclear, as are air traffic operations etc, etc.

Several eVTOL companies are developing unique vertiports concepts independent from heliports and airports, and their planned construction is potentially an ongoing program. Others are pursuing vertiports in collaboration with airport owners & architects e.g. Ferrovial, Fosters etc.

It is likely that initial implementations will appear as "add-ons" to existing airports, which logically is the most sensible approach. However the "tread carefully" path outlined as extensions of existing aerodrome operations by both the FAA & CAA potentially impacts the introduction and very concept of the existence & operation of eVTOL air vehicles in terms of ease of use, flexibility & financially viable businesses? Can the organisations developing eVTOL air vehicles sustain a large amount of financial pain before commercial viability creeps into view? Particularly so if the volume building of infrastructures lag the planned introduction of entry into service of eVTOLs. This looks a possible reality.

Does all this point towards potential disorderly chaos in the short term? Probably so. Will lots of money be raised, spent & maybe lost for little short term benefit. Almost certainly. Will the eVTOL vertiport bubble ever succeed in becoming the commercial success it is currently hyped up to be? Very doubtful but who knows!

One UK based start-up Company (Urban-Air Port) built a vertiport concept (Air-One) in 2022 in conjunction with Coventry City Council, Hyundi (Supernal eVTOL) & Coventry University, located within Coventry & displaying an early Supernal (non-flying EVTOL). Multiple drone test flights were stated to have been conducted over a period of three weeks – I guess permission must have been granted by the CAA under some form of dispensation? The 'Air-One' project was funded by Innovate UK as part of the Future Flight Programme to over £1M. Urban-Air Port simultaneously announced plans to construct 200 vertiports globally within 5 years but there have been no further announcements found to indicate any significant progress on this objective.

A couple of years ago there was a great deal of press activity regarding construction of vertiports & eVTOL operations to be ready for the Paris Olympic Games in July 2024 involving Volocopter, Skyports & the French Airport Operator Group ADP, but this all seems to have gone somewhat quiet of late. Maybe it's all under wraps ready to be released to the unsuspecting world?

Some examples of concept vertiports:

Ferrovial design concept

Design concept by Fosters for Dubai

Vertiport of the future concept

Next month – if time permits, a little deeper delve into complexities surrounding vertiports.

Roger Newman

Secretary's Notes for June 2024 - Ray Elliott

Arrangements have now been finalised for the BMFA Southern Area Gala at Odiham on the 18th August. Information regarding the Cagnarata contest has been prepared by the CD, Nick Peppiatt, and is shown elsewhere in this issue. For those who are planning on entering can I remind you that registration for the event is mandatory; details for doing this were provided in the May issue.

I still have available several models built by the late Peter Jellis and a couple built by Peter Tolhurst, who is now unable to fly. The models are:

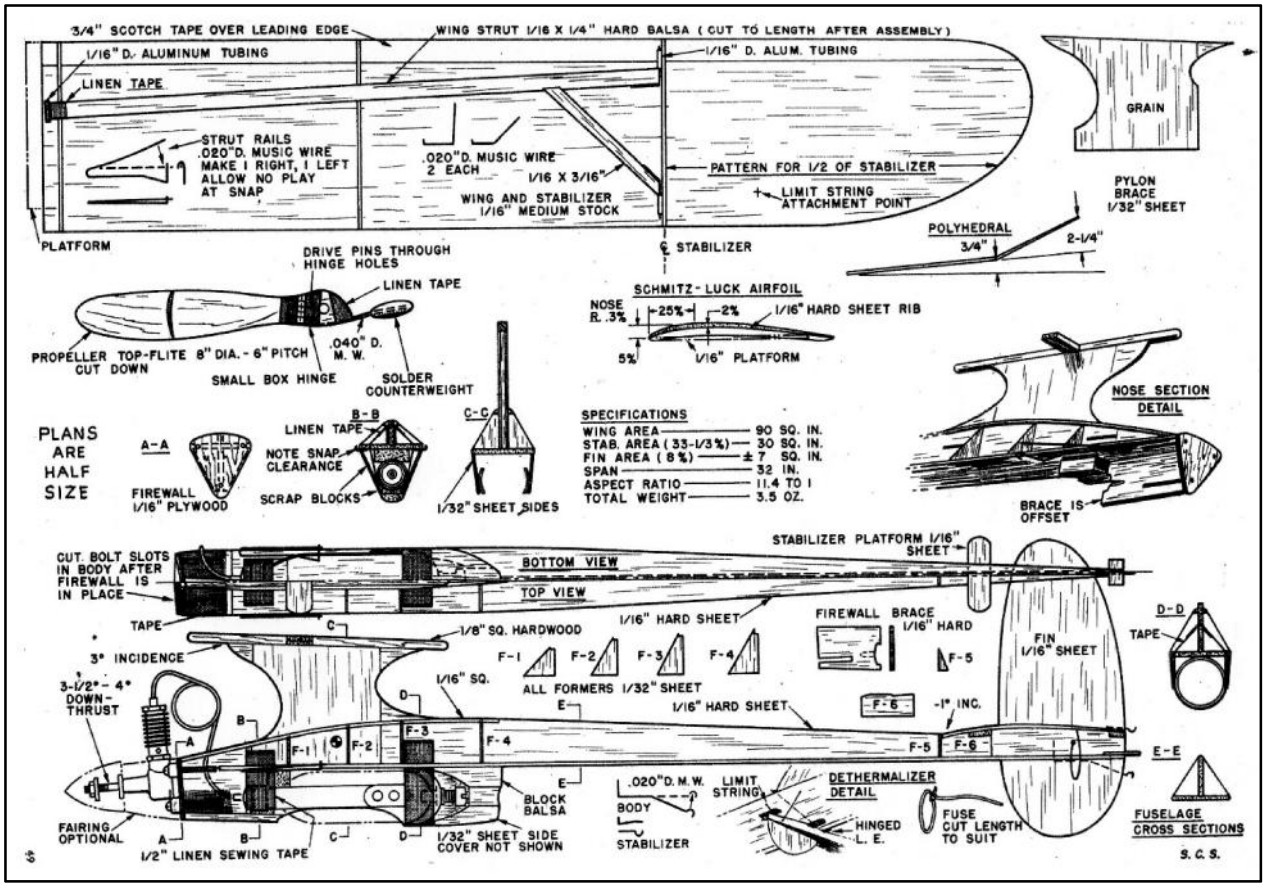
By Peter Jellis:
RAFF V Mini Vintage Rubber (2no)
P30 Rubber (2no)
Marcus Lightweight Rubber (designed in the early 50's, suitable for Classic and 50g Rubber)
E36.

By Peter Tolhurst:
E36 (2no).
All models are in very good condition and are ready to fly, although some trimming may be required. Rubber/batteries not included.
For further information, including photographs, please contact me at:
ray.elliott8@btinternet.com.

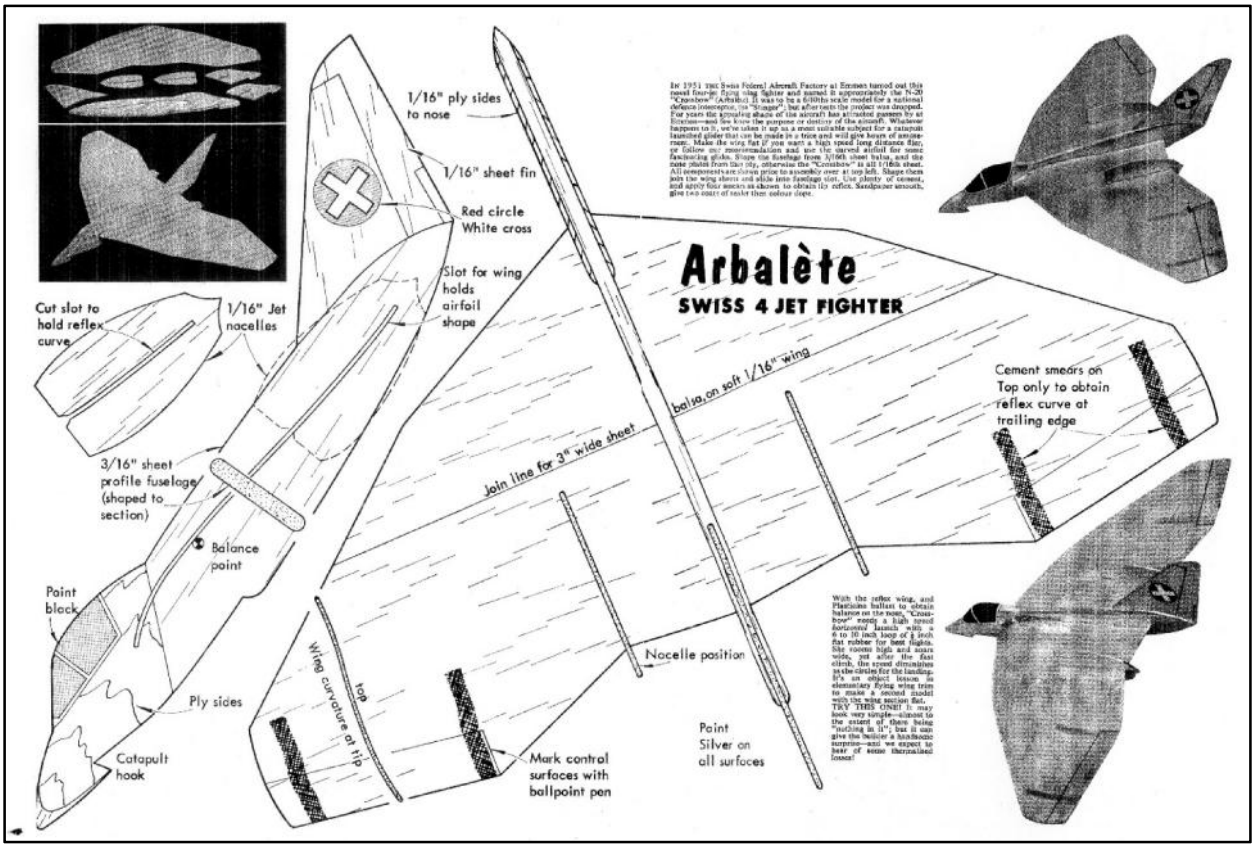
Ray Elliott

Plans for the Month - Roger Newman

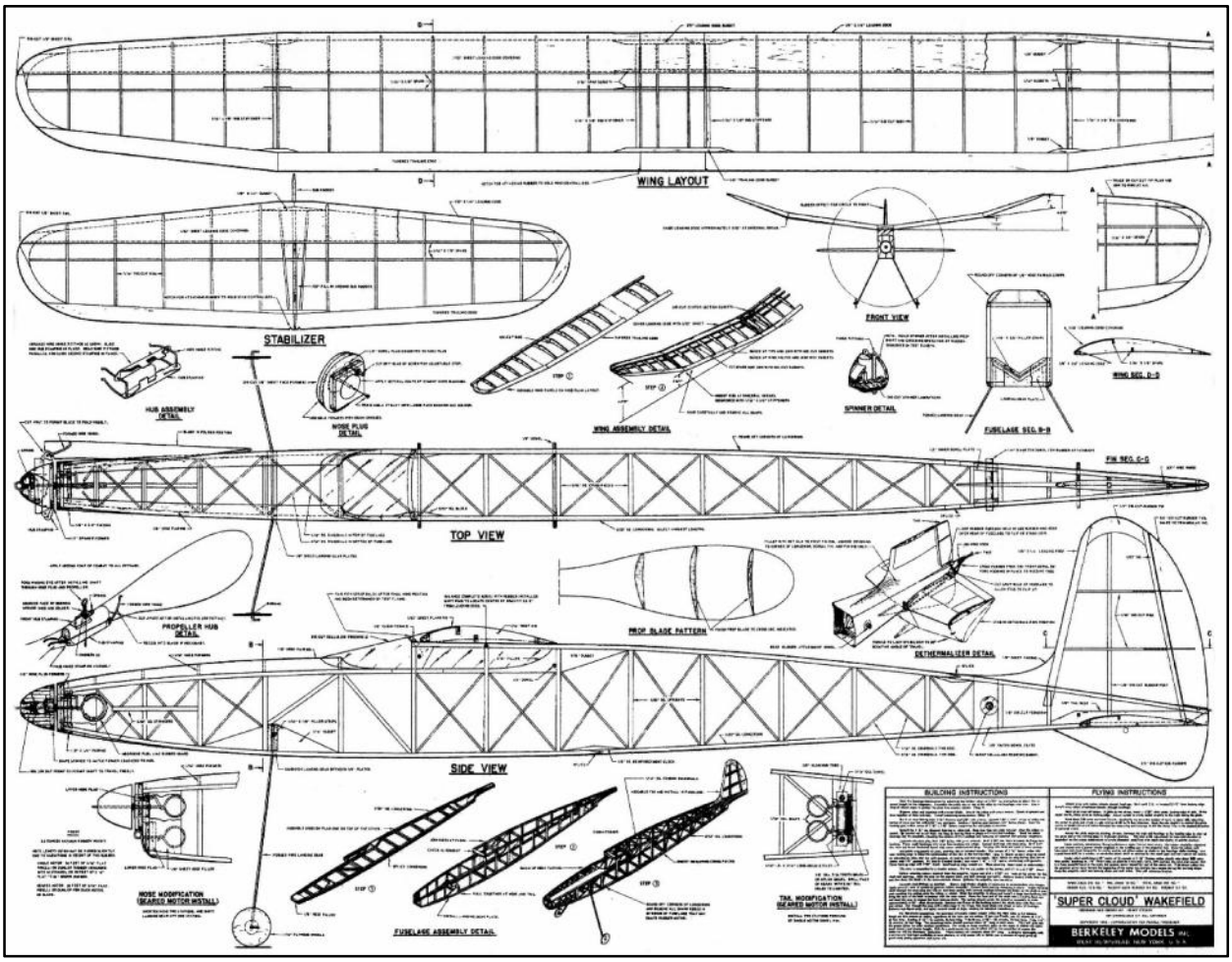
Power: Aloha - July 1949 all sheet CO2 small duration model



Glider: Arbalete - Catapult launch model of 1951 Swiss flying wing fighter



Rubber: elegant 1953 Berkeley Super Cloud Wakefield from USA, designed by Henry Struck



Roger Newman

Events and Notices

Provisional Southern Coupe League Calendar 2024

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

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

CROOKHAM GALA 2024

This year the Crookham Gala will be held on either the

22nd or the 23rd of June

on Area 8, Salisbury Plain.

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

CLASSES:

Modern and Vintage Coupe combined
(3 flights only. Prize for best vintage score.)
Combined Glider (prize for best Classic A1)
Combined Power (including George Fuller Trophy for best placed Dixielander)
Mini Vintage. E36 & E20

Comps start 10.00am. Finish 17.00pm.

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

Chris Redrup 07544 533509. chrisredrup@yahoo.com

Crookham Gala - New event added

This year we are adding an event for E20 models at the Gala, which takes place on the 22nd or 23rd of June; to be flown to the NFFS E20 rules. This is an inexpensive and fun class, full details of which can be found in the excellent series of articles in the March, April and May 2024 editions of the Aeromodeller, including a free plan for an E20. There is still time to build one for this event and it would be great if we could see some of the Peterborough club experts come and show us how it is done.

If you are thinking of coming to the Gala, please send your email address to chrisredrup@yahoo.com and you will receive email confirmation of the final date, on the Thursday before the weekend.

Southern Area BMFA Free Flight Gala

Sunday 18th August 0900-1800 hrs

RAF Station ODIHAM, Hants

CAGNARATA Comp. CD Nick Peppiatt. nickpeppiatt@hotmail.com

SCALE Comps. CD Mike Smith. michaeldocsmith@gmail.com

& SPORT Flying

For security reasons all attendees are required to pre- register.
Those wishing to attend **must** send the following details to:

Peter Carter
74 Buckland Avenue
Basingstoke
Hants, RG22 6JA

Phone 01256 352922 - p.carter34@btinternet.com

Name, - Car: make, model and registration no.; BMFA number, together with Contact details.

including entrance fee of £10 with cheques made payable to Southern Area BMFA;

Arrive at Station main gate from 0800-0945hrs.

Please note those attendees that paid the entry fee for last year's cancelled event are exempt from payment this year.

SAM 1066 'Cagnarata' Contest

To be held at the Southern Area BMFA Free Flight Gala
on Sunday 18th August 2024 at RAF Odiham

This contest format is popular in Italy and is basically an all-in event where models of different classes are flown against each other.
Differences in performance of the various classes are taken into account using a handicap system (K factors) with different maxes depending on the K factors. The classes to be flown with associated K factors and maxes are set out below. The total flight time score is calculated by taking the sum of the actual flight times and multiplying it by the appropriate K factor.

Class	K Factor	Max (secs)
E36 (motor run 8 secs)	1	120
Mini Vintage Power (motor run 10 secs)	1	120
F1G/Vintage Coupe	1	120
F1H/A1	1	120
Mini Vintage Rubber	1	120
Open Vintage/Classic Glider	1	120
Tailless	1	120
E30 (motor run 40 secs)	1	120
P30	4/3	90
CO_2	4/3	90
E20 (NFFS Rules – motor run 20 secs)	4/3	90
Under 25in Vintage Rubber	3/2	80
Hi-Start Glider	3/2	80
CLG/HLG (modern)	2.5	48
CLG/HLG (classic/vintage)	3	40

Note 1: All fliers must be BMFA members – pre-entry is required via Peter Carter – see separate ad
Note 2: Four flights for comp, no rounds
Note 3: Competitors may enter more than one class
Note 4: DT fly-offs may be used as appropriate, fly-off time as per max in class.
Note 5: Free competition entry, prizes for the first four places.
Note 6: Competition will begin at 10.00 and end at 16.00, followed by any fly-off.

Croydon / SAM 1066 Contests 2024

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

Salisbury Plain Area 8. Start 10.00

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

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

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

13th October: Croydon Coupe Europa / SAM1066

Salisbury Plain Area 8. Start 10.00

Croydon Classes:
F1G (in rounds), Vintage Coupe

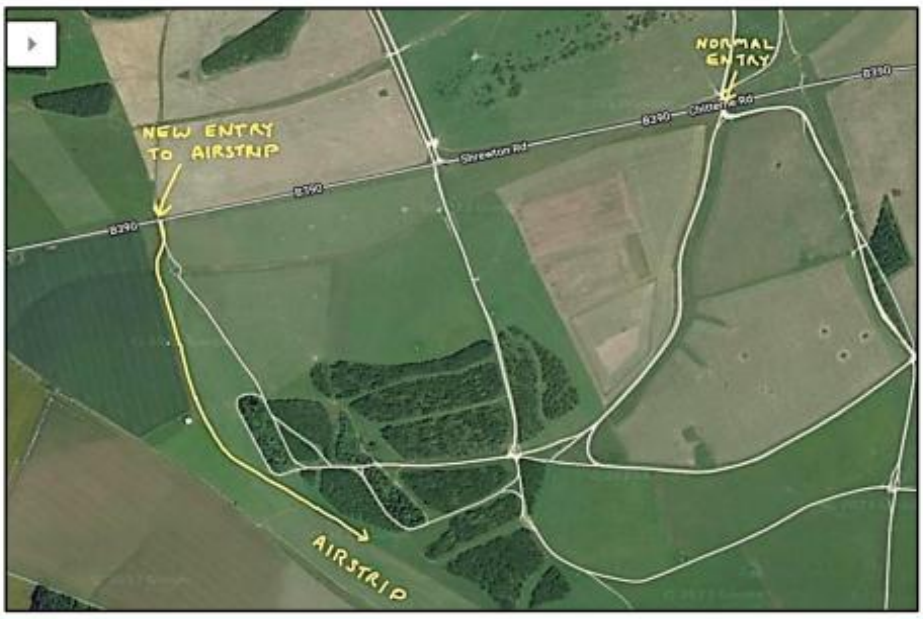
SAM1066 Classes:
Mini Vintage to BMFA rules,
Vintage / Classic Glider (combined) Vintage / Classic Power (combined)
to SAM1066 rules.

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

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.



Permits for Salisbury Plain & North Luffenham

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

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

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

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 .

Cocklebarrow Vintage R/C

Sundays

14th July, 18th August, 22 September.

Signposted from Aldsworth Glos.
on the B4425 between Cirencester/Burford
and off the A40 between Northleach and Burford
[follow SAM 35 signs].
What 3 Words: positives arrival calculate

All types of R/C up to 1975
sport flying no competitions.
BMFA insurance essential.

Contact:
Tony Tomlin Tel.02086413505 Mob. 07767394578
pjt2.alt2@btinternet.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:

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

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

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

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

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

For further details please contact:

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

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

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

E30/RDT/BMK/E20 Batteries

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

FREE FLIGHT SUPPLIES

MICHAEL J. WOODHOUSE
12 MARSTON LANE, EATON, NORWICH
NORFOLK, NR4 6LZ, U.K.
Tel/Fax: (01603) 457754 International Tel +44-1603-457754
e-mail: mike@freeflightsupplies.co.uk.
Web site: http://www.freeflightsupplies.co.uk.
Face book https://www.facebook.com/groups/266212470107073/

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

ORDERS and PAYMENT

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

AVAILABLE

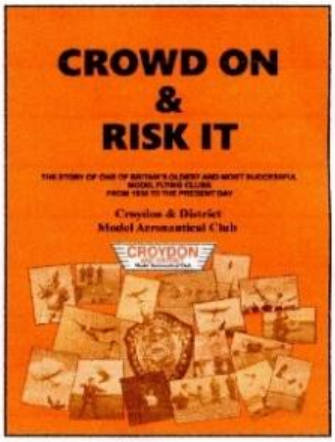
LIGHTWEIGHT COVERING MATERIALS - HI-TECH MATERIALS – FIXINGS - RUBBER - RUBBER MODEL PROPELLERS – TIMERS - KP AERO MODELS - TOOLS - PLANS – KITS - "HOW TO DO IT" PUBLICATIONS – BOOKS.

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

CARBON HLG AND E-20 BOOMS

I expect to have by mid-July a small number of carbon booms suitable for E-20s and HLG/CLGs, in fact probably long enough to make one of each.
They'll be 80cm, 4mm tapering to 2mm.
Price uncertain at present, but please let me know if you might be interested as it will have to be first come, first served.
I'm on 0208-7775533 or martindilly20@gmail.com.

CROWD ON & RISK IT



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

Just £8 by PayPal or cheque.

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

DILLY JAP IS BACK –AGAIN

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

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

I'm on 0208-7775533 or e-mail: martindillv20@gmail.com

INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

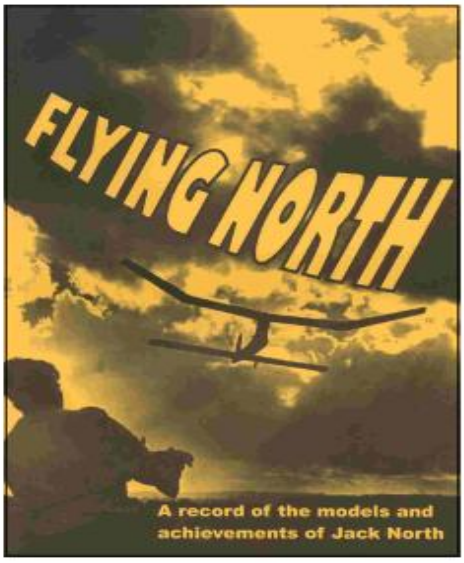
The following appeared on the Hip Pocket Aeronautics Builders' Forum. Nine different tissues were tested, doped and un-doped.

"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 Silkspans tested. Doped Dilly Jap has nearly double the strength of doped Japanese Esaki tissue and yet doped Dilly Jap weighs 0.1 grams per square foot less than doped Esaki. Dilly Jap can't be beat for weight critical contest models requiring the torsional rigidity afforded by tissue papers!"

THIRD RE-PRINT JUST ARRIVED



FLYING NORTH

A goldmine for vintage and nostalgia model flyers -

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

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

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

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

READERS' FEEDBACK

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

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

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

FREE FLIGHT FORUM REPORT 2021

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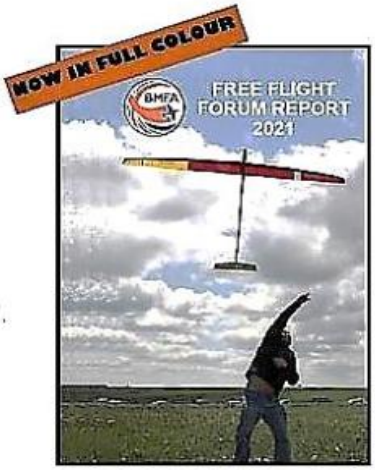

The UK price is £13 including postage; to the rest of Europe its £16 and everywhere else its £20. Forum Report sales help to defray the heavy expenses of those who represent Great Britain at World and European Free Flight Championships, Cheques should be payable to UMFA FF Team Support Fund' in pounds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

Copies are available from: Martin Dilly, 20, Links Road, **WestWickham,** Kent BR4 OQW
Or by phone: +44(0)2087775533 Or e-mail: martindiHy20@gmait.com

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

Provisional Events Calendar 2024

With competitions for Vintage and/or Classic models

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

February 24th	Saturday	Coupe De Brum, Luffenham
or February 25th	Sunday	
March 10th	Sunday	BMFA 1st Area
March 16th	Saturday	Le Petit Class'Q de Brum, Luffenham
or March 17th	Sunday	
March 29th	Good Friday	Northern Gala, Barkston
April 1st	Monday	Croydon Wakefield day + SAM1066 - SP
April 13th	Saturday	London Gala, Salisbury Plain
April 14th	Sunday	London Gala, Salisbury Plain
April 28th	Sunday	BMFA 2nd Area
May 19th	Sunday	BMFA 3rd Area
May 25th	Saturday	**FF Nationals,** Salisbury Plain
May 26th	Sunday	**FF Nationals,** Salisbury Plain
May 27th	Monday	**FF Nationals,** Salisbury Plain
June16th	Sunday	BMFA 4th Area
June 22nd	Saturday	Crookham Gala, Salisbury Plain
or June 23rd	Sunday	
July 7th	Sunday	BMFA 5th Area
July 21st	Sunday	BMFA 6th Area
August 3rd	Saturday	East Anglian Gala, Sculthorpe
August 4th	Sunday	East Anglian Gala, Sculthorpe
August 18th	Sunday	Southern Gala, Salisbury Plain
August 18th	Sunday	Southern Area BMFA Gala, Odiham
September 1st	Sunday	BMFA 7th Area
September 14th	Saturday	Stonehenge Cup, Salisbury Plain
September 15th	Sunday	Equinox Cup, Salisbury Plain
October 6th	Sunday	BMFA 8th Area
October 13th	Sunday	Croydon Coupe Europa + SAM1066 - SP
October19th	Saturday	Midland Gala, Venue, Barkston
November 5rd	Sunday	Buckminster Gala, BMFA Centre
or November 17th	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
Belair Kits	-	www.belairkits.com
Wessex Aeromodellers	-	www.wessexaml.co.uk
US SAM website	-	www.antiquemodeler.org
Peterborough MFC	-	www.peterboroughmfc.org
Outerzone -free plans	-	www.outerzone.co.uk
Vintage Radio Control	-	www.norcim-rc.club
Model Flying New Zealand	-	www.modelflyingnz.org
Raynes Park MAC	-	www.raynesparkmac.c1.biz
Sweden, Patrik Gertsson	-	www.modellvänner.se
Magazine downloads	-	www.rclibrary.co.uk
South Bristol MAC	-	www.southbristolmac.co.uk
Vintage Model Co.		www.vintagemodelcompany.com

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 members@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*