


	<h1 style="color: red; text-align: center;">NEW Clarion</h1> <h2 style="color: red; text-align: center;">SAM 1066 Newsletter</h2>	<b>Issue</b> 022020
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Pad users: If you are having trouble opening the New Clarion, hold your finger on it to display a menu, then select "open in new tab". You will find the new tab to the right of the SAM1066 tab.

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## Editorial

Hi all, here we go again, next month will be the start of the competition season with the first three BMFA Area comps all in the same month. I hope to be at them all at Barkston and Rachel's electric recovery bike may finally get used well over 12 months since its acquisition, battery should be charged by now.

If one or two of you could write a little about goings on in your own area comps I'm sure our readers would appreciate it.

This issue kicks off with a research piece by Dick Twomey on parachutes. I don't know if Dick ever had to use one himself, but it would not surprise me if he had, he seems to have done everything else in his flying career. The picture he dug out is a cracker.

The engine analysis in the 1954 Aeromodeller Annual had a few reports truncated somewhat to normal so I stuck three of them in for your perusal.

If anyone has any of the rarer motors that I report on and runs them, I'm sure a few comments would be well received.

Co2 motors are back in the press thanks to Nick Peppiatt, I still am amazed that they work at all with the piston knocking open the head valve. All sounds very iffy to me. Still, I shoot competition airpistols and they work in a similar manner with a firing pin striking a valve to release a burst of air from the pistols air reservoir. The pistols work at 200bar pressure, not too sure about Co2 engines.

Articles a bit thin on the ground this time of year so I delved into my archive CD for another of my old Clarion articles from 2003. Picture depicts me in my fitter days on Warwick racecourse, I remember one calm day when drift blew up and my Stomper, with too long a D/T, flew off the race course and I located it up a tree in a field over a brook. I had to go back to the car park in the opposite direction to fetch my pole to dislodge the model. There was a footpath nearby and the tailplane had fallen down to be picked up by a member of Joe public who brought it to the radio guys who were flying at the time. How Joe got over the brook and through the course boundary hedge to deliver such a small part beats me. Some folk will go the extra mile.

I've popped in a couple of sheet quick builds from Model Aircraft if anyone is needing something different to knock up. Let us know if you do or have done.

My flying this year has started with the two regular indoor meetings that I attend, Thorns at Quarry Bank, B'ham and Sneyd in Bloxwich. Currently my enthusiasm is at a fairly low ebb but I manage to haul myself out of bed to get to the meetings. I do more sitting about and chatting than flying, I doubt I get more than four or five flights. In the old days I used to take two boxes of models and fly everything that was in them. Now it's just one box with two models and only one gets flown unless there is a severe breakage problem.

Roger has researched the Macchi M-72 and has received more details from Italy on that contra rotating twin engine intended for a control-line model of the aircraft.

Roy Tiller continues to ferret through the old Meccano magazine, copying plans etc.

Something different is an article by a reborn aeromodeller one Stewart Mason, welcome back.

Our secretary's report indicates that there are a few event venues and dates a bit up in the air but should be resolved soon. Best news is a book by Dick Twomey due for release soon.

That's it for this month.

*Editor*

A Parachute is a life-saver, but its uses are in fact much more varied than that. The invention has a rich history, possibly going back to the Chinese Han Dynasty 4,000 years ago, when this first "device to slow the motion of an object through the atmosphere" (Wikipedia definition) was reportedly used by the legendary emperor Shun to escape his murderous uncle "by grabbing two bamboo hats to glide down to safety" (from the top of a high granary)! If true, Shun really started something: Modern parachute loads, which are attached to reduce the effects of gravity, can include people, food, equipment, space capsules and even whole aircraft; also -- this time as horizontal braking devices on the ground -- aircraft or high speed cars or other vehicles.



Most researchers will claim Leonardo da Vinci as the father of the modern parachute, he having designed a pyramidal example in about 1485. A first usage of a frameless parachute, looking more like those we know today, was made by either Jean-Pierre Blanchard in 1793 or in 1797

by Andre Garnerin. In each case the claim was that a successful escape from a deflating balloon had been achieved. In 1804 Jerome Lalande cleverly introduced a vent in the canopy to prevent violent oscillations. The first parachute jump from an aeroplane was made in 1911 from a Wright Model B in California, USA; and in the same year a backpack parachute was invented by Russian experimenter Gleb Kotelnikov.

The first use of parachutes during World War One was as emergency escape devices for observers in tethered balloons. At the first sight of enemy aircraft these brave men would bail out immediately - there could not have been a more dangerous wartime job. Later the German pilots parachuted to advantage, but early equipment was not directly attached to the human body and thus was difficult to use in a hurry. Until backpack type versions were adopted there was always a danger that shroud lines would become entangled with an out of control abandoned aircraft. In the 'Allied' air forces staying on board and attempting to save the damaged aircraft was a greater priority.

The US's Leslie Irvin went on post-WWI to make improvements, highlighting three main considerations. These were:

- ) Storing the parachute in a soft pack worn on the back;
- ) Using a ripcord to deploy the parachute manually when at a safe distance from the aircraft, and;
- ) Fitting a pilot chute to draw the main canopy from the pack.

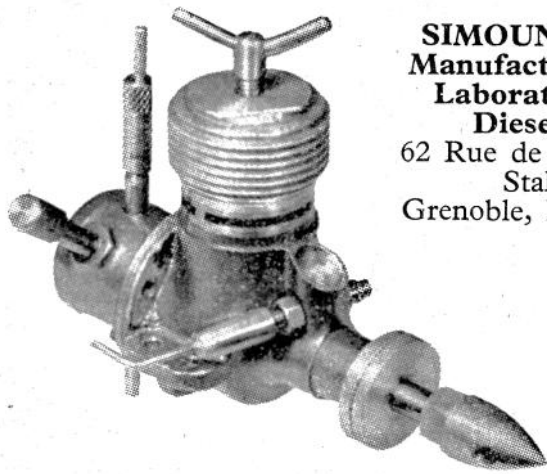
Irvin himself was the first to make a deliberate free-fall jump before opening his chute, and in 1920 the Irvin Air Chute Company claimed that one William O'Connor had become the first person to save his life thanks to an Irvin. Soon, in 1922, the now-famous "Caterpillar Club" was created for successful jumpers from disabled aircraft, and before long parachuting became a sport. With the arrival of WWII, chutes for military use became standard equipment, and to save cockpit space one would sit on them -- already attached to the body -- in a bucket-type seat. The writer, flying after the war, was never tempted to try either jumping out or pulling the Ejector Seat handle, which would rocket you up and out, still sitting in your seat! That works well too!

As regards the shapes of parachutes, there are those with conventional round canopies, as used in simple cargo drops; cruciform (United States Army) and other specialized designs. Also classified as a parachute is the Rogallo Wing used on many hang-gliders, more rectangular or elliptical in form and much more steerable. The best, used by sports jumping specialists, require a high level of experience to operate safely. For any Mauritians (or our visitors) who are taken with the desire to try "Sky-Diving" at Mon Loisir In the North of the island), be assured that all jumps are "Tandem"... which means that you are always accompanied in the jump by an experienced sky-dive Instructor.

To finish I have a personal true story of one day during youthful training in the Royal Air Force. The occasion was a visit to our Station by a group of some 20 Army Reservists (their day-jobs being bank managers, shopkeepers or whatever was their civilian occupation), who had been 'called up' to refresh their parachuting skills for one week every year). They were a cheerful lot, and as I had a free day I elected to scramble into the big Fairchild Packet "drop" aircraft just to watch what they did ... no intention of jumping myself of course. As we overflew the airfield I was chatting with the last man in the queue of reservist paratroopers, each of whom had his chute deployment line attached to a sliding rail in the roof of the aircraft. With the barn doors at the rear of the aircraft now open, the Crew Chief barked his orders to each man in turn. The man I was talking to turned to me and asked: "By the way, what are you doing here anyway?"... to which I replied: "I'm just here to learn to be a jet pilot." "You're mad!" he said, then promptly jumped out of the aircraft!

It takes all sorts!

*Dick Twomey*



**SIMOUN HR15**  
Manufacturers.  
**Laboratoire Diesel,**  
62 Rue de  
Stalingrad,  
Grenoble, France.

**Retail Price.** 4,900 francs (£5 approx.).  
**Displacement.** 1.5 c.c. (.09 cu. in.).

**Bore.** 13 mm. **PROPELLER TEST DATA**  
**Stroke.** 11 mm.

**Weight.** 2,625 oz.  
**Mounting.**  
Beam/Radial.

*Fuel used:* Mercury  
No. 8; and Family of  
constant geometric  
pitch wooden air-  
screws.

Propeller		R.P.M.
Dia.	Pitch	
9 × 6		5,800
9 × 4		7,250
8 × 4		9,500
8 × 8		7,550
7 × 4		10,300
6 × 4		11,200

**A.M.A. 2.5**  
**Manufacturers.**  
Ant. Machacek.  
Czechoslovakia.



**Retail Price.**

**Displacement.** 2.47 c.c.

**Bore.** 14 mm. **Stroke.** 16 mm.

**Bare Weight.** 4 3/4 oz.

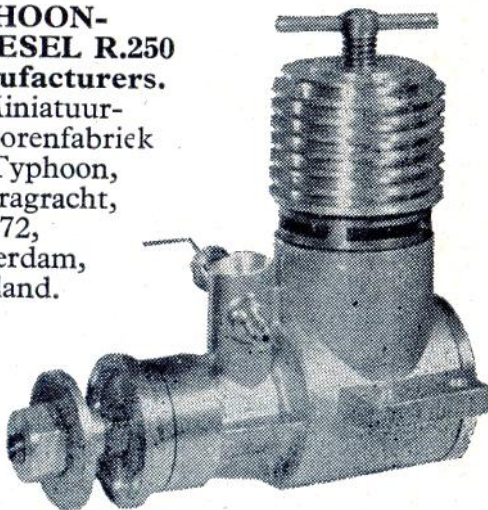
**Mounting.** Radial.

**PROPELLER TEST DATA**

*Fuel used:*  
Mercury No. 8.

Propeller		R.P.M.
Dia.	Pitch	
10 × 10		4,700
10 × 6		6,900
10 × 4		9,500
9 × 6		7,850
9 × 4		10,500
8 × 6		8,900

**TYPHOON-  
DIESEL R.250**  
**Manufacturers.**  
Miniatuur-  
Motorenfabriek  
Typhoon,  
Keizeragracht,  
372,  
Amsterdam,  
Holland.



**Retail Price.** (Holland) 47.45 guilders  
(approx. £5 equiv.).

**Displacement.** 2.47 c.c. (.15 cu. in.).

**Bore.** 15 mm.  
(.590 in.).

**Stroke.** 14 mm.  
(.551 in.).

**Bore/Stroke**  
**Ratio.** 1.07.

**Bare Weight.**  
4 3/4 oz.

**Mounting.**  
Beam.

*Fuel used:*  
Mercury No. 8.

**PROPELLER TEST DATA**

Propeller		R.P.M.
Dia.	Pitch	
11 × 6		6,600
10 × 6		7,400
10 × 4		8,700
9 × 6		7,900
9 × 5		8,750
9 × 9		10,900
8 × 6		9,200
8 × 5		10,750
8 × 4		11,900
8 × 3		12,750

\* Constant geometric pitch wooden propellers.

### Vintage CO<sub>2</sub> models

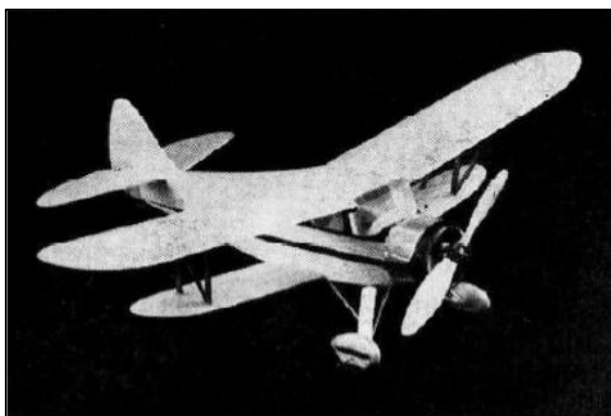
I thought I would take a look at the genuine vintage designs for CO<sub>2</sub> motors (i.e. those published before January 1951).

In the immediate post-war period I am aware of four motors that were commercially available in the USA: - the Herkimer OK CO<sub>2</sub> motor, the Campus A-100, the Campus Bee and the Buzz. I have searched the available records, mainly Outerzone ([www.outerzone.co.uk](http://www.outerzone.co.uk)) and the magnificent resource that is the 'plansinmags' spreadsheet compiled by Roy Tiller and available from the David Baker heritage library on the SAM1066 website. Thanks also to Roy for supplying copies of plans and articles not available elsewhere.

I'll start with the published plans for the smallest motor, as these are most suitable for indoor flying.

### Designs for Campus A-100

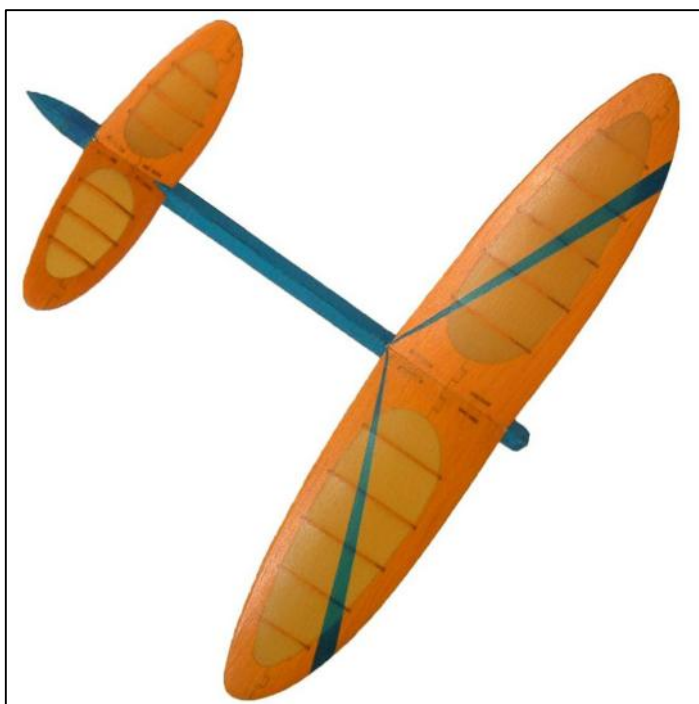
According to Vic Smeed in 'Model Flying the First 50 Years', the Brown Campus A-100 was launched in December 1947. It had a 1/8" bore and 1/8" stroke giving a capacity of 25mm<sup>3</sup>. More modern substitutes would be the Brown Campus A-23 and the Gasparin G-24 or G-28 models.



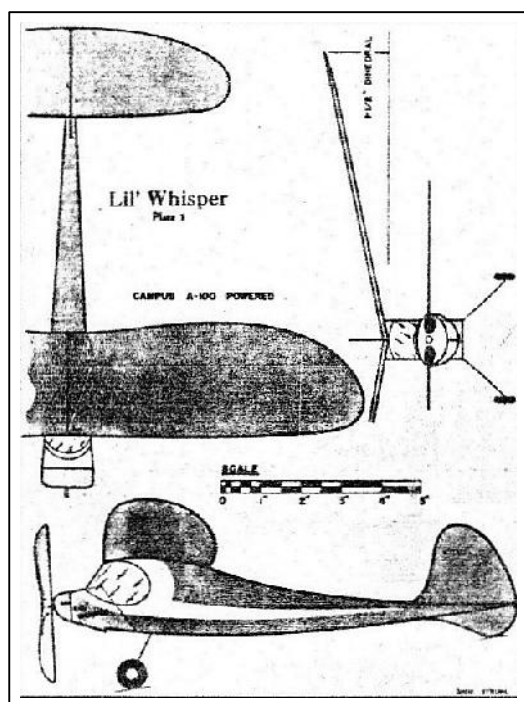
Ken Willard's Wee Waco



Full-size Macchi MB 308



Frank Ehling's Dioxide Darling by Retro RC



Ed Lidgard's Lil' Whisper

I have found thirteen designs, details given in the accompanying table. As can be seen, there is a wide variety of types and many are from the drawing boards of well-known model aircraft designers. As a representative example I have included a copy of the plan of the rather charming Wee Waco. It was designed by Ken Willard, better known to me as a designer of R/C models e.g. the Gasser. Where does one procure a 1-1/2" aluminium cowl these days? The motor installation detail sketch shows the long cylindrical tank arrangement that the Campus A-100 used. This was fitted horizontally and several of the designs had this style of tank fitted in a narrow fuselage, for example the Dioxide Darling and the Flat Bat. The motors from the 1970s and later had fatter aluminium tanks which are mounted closer to the vertical, which would make fitting them to some of the earlier designs something of a challenge.

The Retro RC ([www.retrorc.us.com](http://www.retrorc.us.com)) kit for the Dioxide Darling appears to be rubber powered, with options for small electric or CO<sub>2</sub> motor (if you have one!).

The Tadpole was mentioned in my first article on CO<sub>2</sub> motors (NC December 2017), as I built one for a Telco about 35y ago.

The Macchi MB308 appears rather large at 25in span, to me, for a motor of this size, but the text of the construction article

concludes: - 'Our model balanced perfectly with the Campus A-100 and required only a slight warp in the rudder for right circling flight. We fly it indoors to add variety (and speed) to the usual slow flight of microfilm models. However it is rugged enough to be flown outdoors on a calm day.' What more could you ask for?

Ed Lidgard's Lil' Whisper is based on the Little Mike rubber powered model, which was designed by his wife, Patsy. If you fancy building one the plans can be obtained from the outerzone website, where shown, Roy Tiller can supply copies of articles, or you may have a copy of the original magazine. A lot of early aeromodelling magazines are now available from [www.rclibrary.co.uk](http://www.rclibrary.co.uk) - another great free resource.

I'll take a look at designs for the larger vintage CO<sub>2</sub> motors next time.



**The Campus**  
**"A-100"**  
 WORLD'S SMALLEST ENGINE

**Now!**

COMPLETE WITH  
 REFILLABLE TANK!

**\$ 9.95**

**CO2 POWERED ENGINE!**

Ignitionless. CO<sub>2</sub> operated—weighs 1/4 ounce with propeller and tank—1/8" stroke—1/8" bore—8000 RPM—precision made to tolerances of 1/10,000 of an inch—comes complete with CO<sub>2</sub> charger—No accessories required—8 or more flights per CO<sub>2</sub> cartridge.

*If Your Dealer Can't Supply You Write Direct*

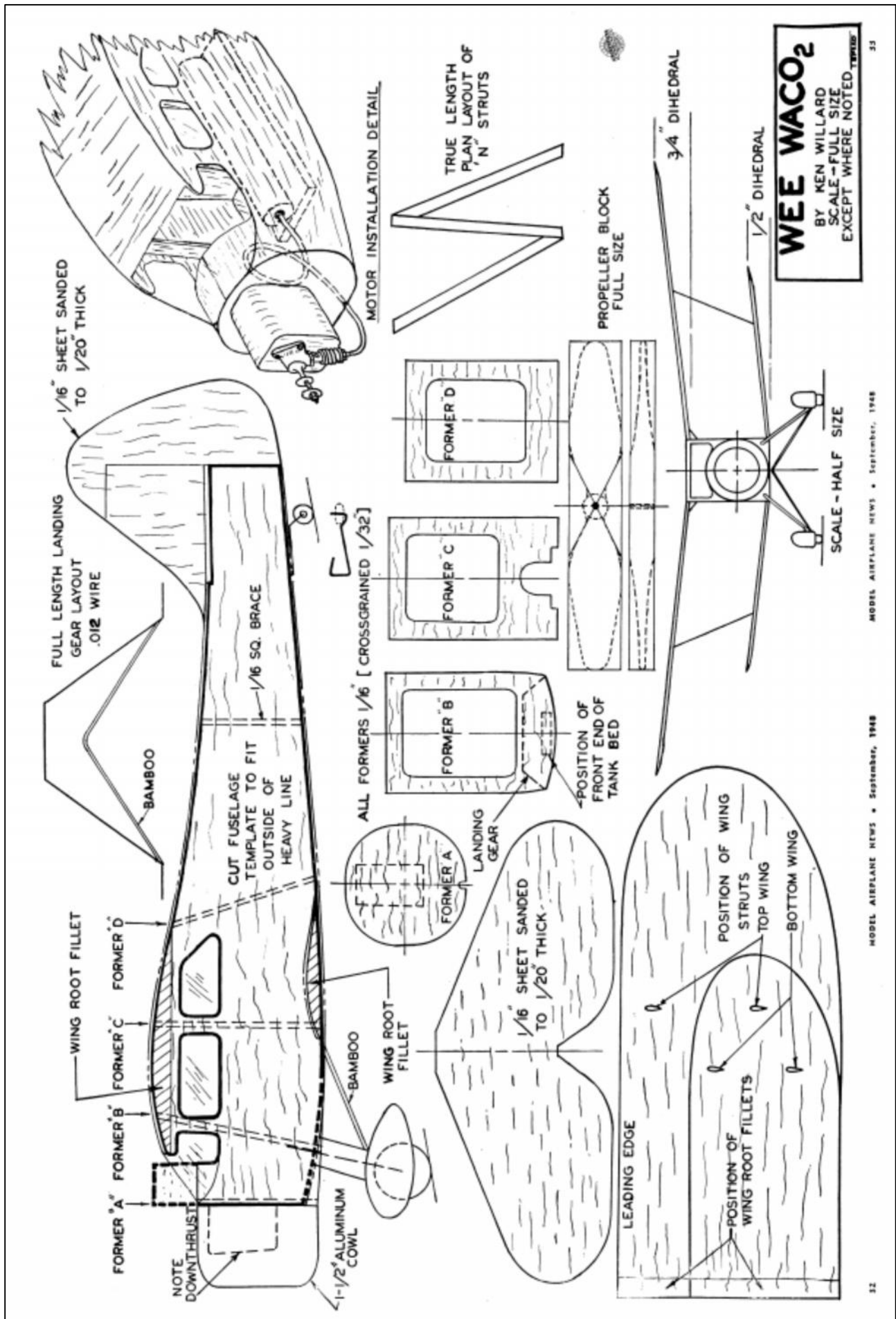
**CAMPUS INDUSTRIES, Inc.**  
 3914 Ludlow Street Philadelphia 4, Penna

Don't forget the Crawley indoor meeting at the K2 Leisure Centre on Saturday 15<sup>th</sup> February, 11am to 5.30pm.

### Model aircraft designs for the Brown Campus A-100 CO<sub>2</sub> motor

Design	Designer	Source	Date	Span (in)	Secondary plan source	Description	Construction
Sub Midget	Howard McEntee	MAN	Dec-47	16	S35S Jan-86 (Green Bottles 23)	Twin boom pusher	All sheet
RAF SE5	Howard McEntee	MAN	Mar-48	13		Scale biplane	All sheet
The Dean	Frank Ehling	MAN	Jul-48	17	S35S Oct-85 (Green Bottles 21)	High wing pylon	Sheet fuselage, built-up wings
Living Room Lilliput	Jim Walton	Flying Models	Aug-48	12	RC Groups	Profile scale model of Stinson 150	Built up fuselage, sheet wings - flown on thread line
Wee Waco	Ken Willard	MAN	Sep-48	15	Outerzone	Scale biplane	All sheet
Tadpole	Howard McEntee	MAN	Nov-48	18	S35S May-85 (Green Bottles 17) Outerzone	Pusher flying boat	All sheet
Dioxide Darling	Frank Ehling	Air Trails	Dec-48	14	S35S Oct-84 (Green Bottles 10) Retro RC kit	Canard pusher	Sheet fuselage, built-up wings
Lil' Whisper	Ed Lidgard	Flying Models	Feb-49	14		High wing cabin	All-sheet
Flat Bat	Kenny Fisher	Flying Models	Jun-49	18	S35S Apr-87	Conventional monoplane, but flat	Stick & tissue
Macchi MB308	Christo Russo	Air Trails	Sep-49	25	Outerzone	Scale high wing cabin	Stick & Tissue Rubber or CO <sub>2</sub>
Waco Aristocraft	Dick Struhl	Flying Models	Apr-50		RC Groups	High wing profile scale pusher	All sheet
Microplano Veloz	Joseph Wherry	MAN	Aug-50	20	Outerzone	Scale biplane	All sheet
Laird Biplane	Dick Struhl	MAN	Dec-50	15	Outerzone	Profile scale biplane	All sheet profile fuselage

MAN = Model Airplane News, S35S = SAM35Speaks, RC Groups = [www.rcgroups.com](http://www.rcgroups.com)





Extract from Model Aircraft June 1951

### **Model Exhibition-ism**

Do you fly model aircraft simply and exclusively for the good, clean, wholesome fun of it ? Do you disdain the goggling admiration of the spectatorial hordes, and wish only to retreat into some quiet corner of the airfield where to fly the humble rubber or sport model in peace and solitude ?

Well, read no further, my self-effacing friend, for the advice I am about to give is not of your concern. I seek only to instruct those who aspire to the cutting of a nifty dash in the glory of the centre-field limelight.

Well, boys, having thus disposed of the pleasure-boat mob, let's get down to brass tin-tacks.

About those forthcoming rallies. Now, I know it's a bind having to blush unseen in the back row of the chorus while the radio, ten-foot glider and scale jet types are getting all the up-stage spotlight treatment, but even if you don't happen to be a genned-up genius or workbench weasel, there is no cause for despair—absolutely none. In fact, quite a goodly gasp can be squeezed from the gaping gallery with nothing more elaborate than one soiled rubber model and a couple of wild-eyed oppos. An optimistic claim? Not a bit of it. At least, not with the super-special "Mystery Man" technique; a sure fire winner in any rubber-necking stakes.

First requirement is your "Mystery Man" outfit; some highly dramatic get-up such as full motor-cycling regalia, duffle coat and jack-boots, or, equally effective, a fur-lined airman rig.

Thus arrayed, the next step is to lurk on the fringes of the field and await your cue. Don't be over eager, but give the comp. plenty of time to warm up. Then, when you see the arena surrounded by a dense mass of gaping gargoyles, the stage should be all set for the grand entry.

Come charging in upon the scene with all the bustle and cavortings of a troop of cavalry. Start shouting in an urgent, imperious voice. Engage in a series of breath-less conferences with your chiefs-of-staff, that is, the couple of wild-eyed oppos. Keep up the tension with a loud volley of "Right," "All-set," and similar terse epithets. Above all, don't relax, especially if there are any ten-foot glider and radio jobs in the vicinity ready to steal your thunder.

The grand finale comes in the chase. Quite a good dramatic effect can be achieved with a single high-revving motor-bike, but the larger the hunting pack the better. One skilled exhibitionist I know always manages to deploy two cars and three motor-bikes; not to mention the lighter reinforcements of cycle-squads and foot-men. And very impressive, too.

The general idea is to give the impression that the snarling, quivering model is all but impossible to hold in check; tension being built up by pointing it at different sections of the crowd. A process, which if maintained for a few minutes before finally releasing the model, will have the gallery swooning in admiration.

Got the idea ? Good. Now quit dreaming about that ten-foot glider and go to it.

"Yes, the fuselage is completely resistant to any torsional stress, and you can't twist it either."

### **No Holds Baa-ed**

Some festival visitors, not too conversant with our weird rural nomenclature and fearful of that perverse characteristic known as the British Sense of Humour, have tended to eye with the deepest suspicion an item in our Contest Calendar announcing a slope soaring meeting to be held at Sheepwash, Osmotherly.

That Sheepwash is an exaggeration must be admitted— they have to be thrown in. But, even so, let me hasten to assure our worthy visitors that there is no intention of pulling the wool over their eyes; Sheepwash does, in fact, exist.

Visitors to this sleepy little backwater would, perhaps, express only one grievance: the bleating noise the sheep make. However, the journey to Sheepwash is a most interesting one. Weaving your way through the wild and woolly Ewe Valley, by way of Itchy Comms, you will eventually come to a notice which reads: "Vetting and Gamboling Strictly Prohibited." Just beyond this point is to be found the actual site of the meeting; the famous Sheep Dip, which, as you may guess, is a shear slope.

Naturally, all the models flown there are of the Ram-jet type, and . . . Editor ! W-what are y-you d-doing with that g-gun?

It was my intention to pen a few thoughts on individual handicaps but when I saw the 'Cagnarata' handicap 'K' factors for the event at the new venue RAF Colerne listed in the events section of our website, I started thinking about them again.

'K' factor		'Gagnarata' Model Classes	
1	E36; M/V Power; F1G/VintageCoupe; F1H/A1; M/V Rubber; V/Classic Glider		Max 120 seconds
4/3	P30; E30; CO2; Tailless.		Max 90 seconds
3/2	Under 25" V Rubber; Hi Start Glider.		Max 80 seconds
2	Cat/HLG.		Max 60 seconds

All models fly in one event and the flight scores are uplifted by multiplying by 'K' Factor

I understand that the system is flown by our Italian Vintagents with much support and is proving successful.

There is only one minor flaw that I can see and that is that the lower scorers in each model class will get proportionally less uplift to their flight times than the higher scorers. This fact is against what I perceive as the purpose of the system, to equalise model performance. It should not disadvantage the lower scoring flyers.

This flaw could be eliminated by the 'K' factor being a fixed time addition to the flight score.

- ie. 'K' factor 1 could be + 0secs; 'K' factor 4/3 could be + 30secs;  
'K' factor 3/2 could be + 40 secs 'K' factor 2 could be + 60 secs.

Don't forget I'm more or less making this up as I write so I could well miss some vital point that makes my statements invalid. Please chip in if you've any thoughts.

My interest in handicap systems leads me to wonder if the 'K' factors could be refined to more accurately equalise model performance by digging into past competition results. As I said last issue, the accuracy of any research is dependent on the depth of the data base referred to. Probably the best place to start would be the result sheets of the BMFA National Championships which are readily available on the BMFA website and have a reasonably large number of entrants. One thought would be to calculate the 'average' time for each class of model and equate these to each other to produce 'K' factors. The snag is that FF model flying results are affected by weather conditions, unlike other sports which I have handled, therefore the 'K' factors produced may not be as realistic as one would hope for. Only total flight times over the rounds are listed for the Nats therefore maximums and incomplete scores will effect the resultant average and possibly make results inaccurate in terms of assessing a model class average performance. I'll have a stab at it for the next months issue just to see what might be achievable.

Back to individual handicaps for each modeller to give all entrants a chance of an event win. Having given the matter a little thought I feel that the idea is a **no go** as most contests have too few entrants these days for the results to provide meaningful handicaps. The only event which might have sufficient entrants and performance records is 'The Southern Coupe League'. The results of the previous year could be used to calculate a handicap for individual competitors which would be applied to each round's scores. The h'cap could be the time difference between the modeller's previous years average duration and the 2min event maximum. This time to be added to a competitor's score each round.

There is another more accurate method which is based on a time dropped ratio,  
but I'll leave that for next time.

Andycapper

*Extract from an old paper back Clarion circa June 2003*

John Andrews – STOMPER No.2 & Windy Wallop

*I mentioned last month that I had built myself another STOMPER to replace the one I lost in the large field of grain on the perimeter of Barkston at last years BMFA Nationals.*

*I don't suppose you will recall but the first thing I ever wrote that got into the CLARION was a letter to David, in August 2000, saying how easy the STOMPER had trimmed out. All my literary efforts stemmed from that letter, I thought, well if David is going to print that, I know I can do better. Since then, I have keyboarded a few efforts and received some kind remarks so I keep going. I think I must be a frustrated novelist as I do enjoy putting these epistles together.*

*The original STOMPER trimmed out to full power with no adjustments in only five flights. Although later on, when I flew it in anger, it gained a little plasticine at the rear end to get it a little nearer the stall. It proved to be a reliable model, and I managed a 2<sup>nd</sup> place in Nostalgia Open Power at the SAM 35 Gala at Barkston, so when I lost it at the Nationals I just had to make another.*

*Having finished STOMPER No.2 I thought you might be interested in my trimming efforts with this one. When I lost the first one I was using a fuse D/T and was trying to bring the model down before the grain field but timing accuracy was not good enough. With the 20/20 vision of hindsight, I would have been better off using a long D/T and clearing the grain field, as the ground beyond was reasonably clear anyway. On STOMPER No.2 I decided to try a Tomy based D/T timer, I was not sure how it would stand up to engine vibration but gave it a whirl anyway. Up to date, fingers crossed, no problem but it has only had a dozen flights or so plus a couple of long engine runs on the ground for running in purposes.*



Happy Author with STOMPER No.2 at Warwick Race Course in 2003

Anyway, back to the trimming of STOMPER No.2. I had learned very little about trimming power jobs with No.1, Five trimming flights and no adjustments at all, therefore I was a little apprehensive with No.2. However, I need not have worried, No.2 test glides were OK as before and the trip to Warwick Race Course proved virtually identical. STOMPER No.2 trimmed out up to full whack in five flights again. The only difference being, the addition of a small piece of 1/8<sup>th</sup> square on the fin to open out the power and glide turn. After the third flight, I thought the first turn downwind looked a little flat so I took off some turn with the 1/8<sup>th</sup> square on the fin. Looking at the model, I think I have got a little less wash-in on the R/H wing than I had on No.1, which possibly means the model has to get up to full speed before the wash-in picks the wing up to get into the spiral climb. It is also significant that subsequent flights have seen a little plasticine added at the rear end as on No.1. The wife Rachel accompanied me to Warwick and I have a blow-by-blow video recording of the whole initial trimming process. David and the lads at the Friday hanger meeting formed a captive audience and I bored them to death with the video at the first opportunity.

I was at the wind swept Easter meet at Wallop on the Sunday and Monday. I missed the Saturday due to a club golf match but from what folks said it was the worst day of the weekend. The only positive results for me were the bacon butties I had in the Café, trouble is it makes a late start as I am straight up there as soon as I hit the airfield.

Sunday was quite a pleasant picnic day in the lee of the spinney but flying was a nightmare. I could see the models of the brave souls flying still bucketing about well over 100 yards downwind after launch so I decided to use my old heavy Senator to see if I could find any cleaner air around the corner to the left of the spinney. I had a few abortive flights, spinning round on a wing tip one flight then stalling like mad on the next. I could not decide whether it was bad trim or wind (I had had beans for breakfast). After much application of cement to split tissue the poor old Senator finally piled in cracking the wing so I gave it best for the day and switched to chit chat and picnic mode thus saving my intended competition Hep-Cat for another day.

The forecast for the Sunday was much better, I arrived very early but the wind had obviously not heard the forecast as it was still there. The only improvement being, that it had turned through almost 180 degrees and was coming across clear ground, therefore no turbulence.

I set up alongside one Tony Shepherd and low and behold, fame was in my grasp. "Your John Andrews aren't you" says he in recognition of my portly self (I knew sticking my picture in a few of the articles would bring a result). "Yes" says I with glowing pride, although I must admit that I was a bit disappointed that he did not ask for my autograph.

Tony said he was new to competition flying however he was campaigning with two very neat P30's. I was walking back from a GIPSY trimming flight when I saw this model go rocketing up vertical for 50 or 60 feet then roll into a steady climb in good lift, obvious max potential. Then Tony passes by, big grin on his face, "is that yours?" I say. "Yes" says Tony. Some first comp flight thinks I. How can anyone turn up for his first competition with two identical models and put up a first flight like this? I suppose he just does not know how difficult it is yet.

The GIPSY was acting up again, it took two or three test flights to get the glide looking right and then when I goes for the first comp flight, I launch too square into wind. Up goes the GIPSY in a monumental stall followed by one more, then bang! Hump-backed two-piece fuselage held together only by the motor. Did not impress timekeeper Tony too much.

Tony had his second comp flight, not such a good pull off the top of the climb but he got good air again, max again.

I jinxed his third flight though; I threatened to write a complete article on his efforts if he maxed out so he put the model up in bad air. Did not save him from a mention though.

One interesting point, Tony was using those silly putty D/T timers, his first max was a flight of getting on for 4 minutes, and he had set his timer for two minutes on a ground test. The timer appeared to be running slower in the air. Anyone got any ideas?

Back to STOMPERs, Tony had a nice one in the back of his car and would you believe it, he remembered my original letter/article in the 2000 CLARION. He confirmed my experience saying, "if you build them to plan they fly". The STOMPER must be a good model cos George Fuller has built one. There's a photo in the Aeromodeller section of the 'whatever they call it now' showing George Fuller with what must be a new one as it's far too clean to be the original from 1953.

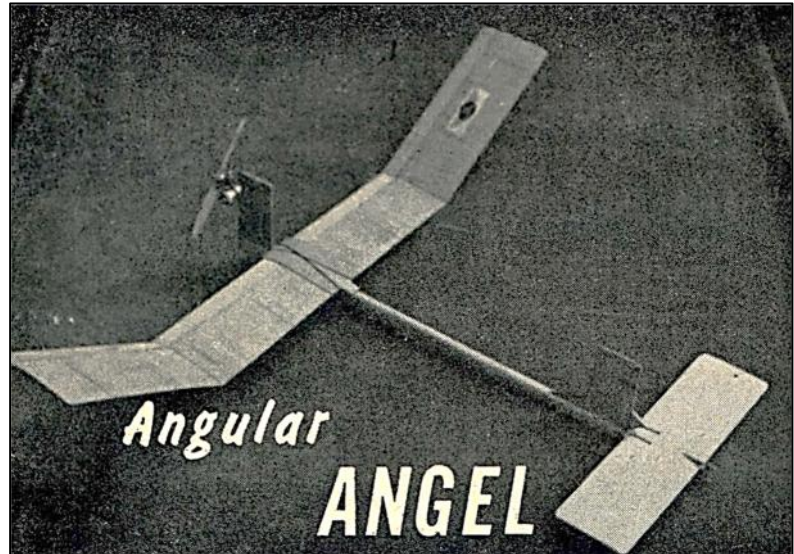
Back next time with my BMFA Nationals debacle and odds & ends.

### **Angular Angel**

Here is a simple contest F/F model of unusual, but very practical layout. The construction is rather unorthodox, yet it is easy to build, warp-proof, robust and easy to trim and fly. You can use the model for open or FAI contests, although for the latter it must be ballasted.

#### **Wing**

This is the most important part—once you have finished it, the model falls together almost by itself. Start by sanding all the balsa sheet you will be using, then sand the leading edge block and ply trailing edge to a wedge-shape. Cement the



1/16 in. sheet on to this wedge-shaped nose with contact cement or PVA white glue. This sheet must be prepared beforehand, because the grain has to run chordwise. For this cut 3 in. long pieces from 3 in. or 4 in. sheet, cement them edge to edge, and then glue the ply trailing edge in position. After the whole assembly has dried, sand the upper side of the leading edge to an airfoil shape and place a strip of Scotch tape around the L.E. for strengthening and to prevent splitting. Now cut off the outer panels and sand the ends to the correct angle to allow for a neat dihedral joint. Double cement the outer and inner panels together. In case of a bad crash, this cement joint will break and the tips come off without doing any harm, it is then a simple job to cement them back in place. Fix the wing-seat parts in position, do not spare the cement, and cement a strip of sandpaper to the front of the wing-seat. Treat the wing with banana oil or similar non-shrinking dope, thin this down to the consistency of water and give three coats as quickly as possible, so that it soaks well into the wood. Lightly sand the wing after the dope has dried, in order to get a smooth finish.

#### **Tailplane**

Cut out and sand to an airfoil shape, lightly dampen the panel on the upper side and cement the parts together. As hold-downs, use ordinary pins, which are pushed through, bent over and pulled back flush with the underside. A piece of dowel is used for the rear hold-down. Give the tail only two coats of dope.

#### **Fuselage**

Cut the pylon from 1/8 in. ply. Also cut the other necessary parts and cement everything together. Cement the engine bearers to the 1/8 in. ply pylon and fill the space between these with 1/8 in. balsa. Drill the motor-mounting holes for the motor you are going to use. Fix the wing and tail seating strips to the fuselage and the stair-like incidence piece (extreme rear). Round off all the fuselage corners to the section shown and cement sandpaper to the fuselage sides, then dope as for the wing and finally give one coat of fuel proofer.

#### **Flying**

Slide the wing backwards or forwards until the model balances at the point shown on the plan, then key the wings and tail with split dowels. Now hand-launch as usual and trim for a flat glide.

The first powered flights should be made on full power but with the prop on backwards. The model should fly almost straight with only a very slight turn which should be in the same direction, both under power and on the glide. Correct the power-on turn by altering the thrust-line. The model needs a moderate throw on launching to achieve full flying speed, or else it will sink to the ground before climbing away. The climb is at an angle of 45 deg. and very fast.

Always use a dethermaliser fuse in the rear tailplane rubber band when flying under power, otherwise you may easily lose your *Angular Angel*.

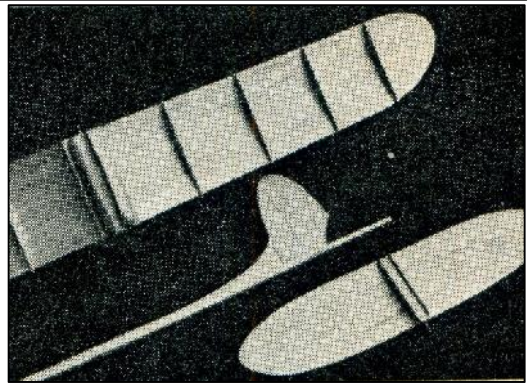
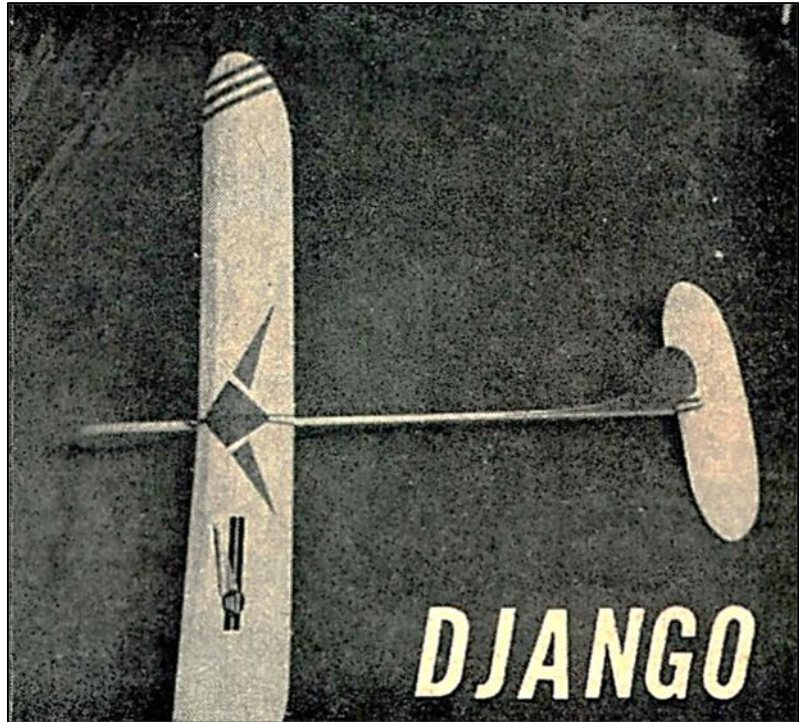


## Django

The trouble with most so called beginners' models is that they are too complicated, and take too long to construct. *Django* is so simple that it can be built in a couple of evenings. Despite its simplicity, it is an excellent flier, and building costs are low.

### Wing

Cut 10 wing ribs W.1 and spot cement these lightly to the building board (see sketch). Next cut and sand the wing panels; only the right wing is shown on the plans. Slightly dampen the forward half of the *upper* surface to produce the correct section and cement the panels to the ribs with a rolling motion. Secure the whole assembly with pins and Scotch tape. After drying, remove the panels with a sharp knife, separate them in the middle and sand the centre joint to achieve the correct dihedral, as shown in the third sketch. Now cement the wing halves together and fix the wing seat. Ribs W.2 are now fitted; note that they are parallel and trued up to the wing seat. Construct the wing seating accurately, for the squareness of the model depends upon it.



### Tailplane

Check for squareness. Cement the tailplane panel to the top side of it, and cement the seat-ribs (T.a) in place. Push two ordinary pins through the tailplane as hold-downs, bend them over and pull them back flush with the underside of the seat.

### Fuselage

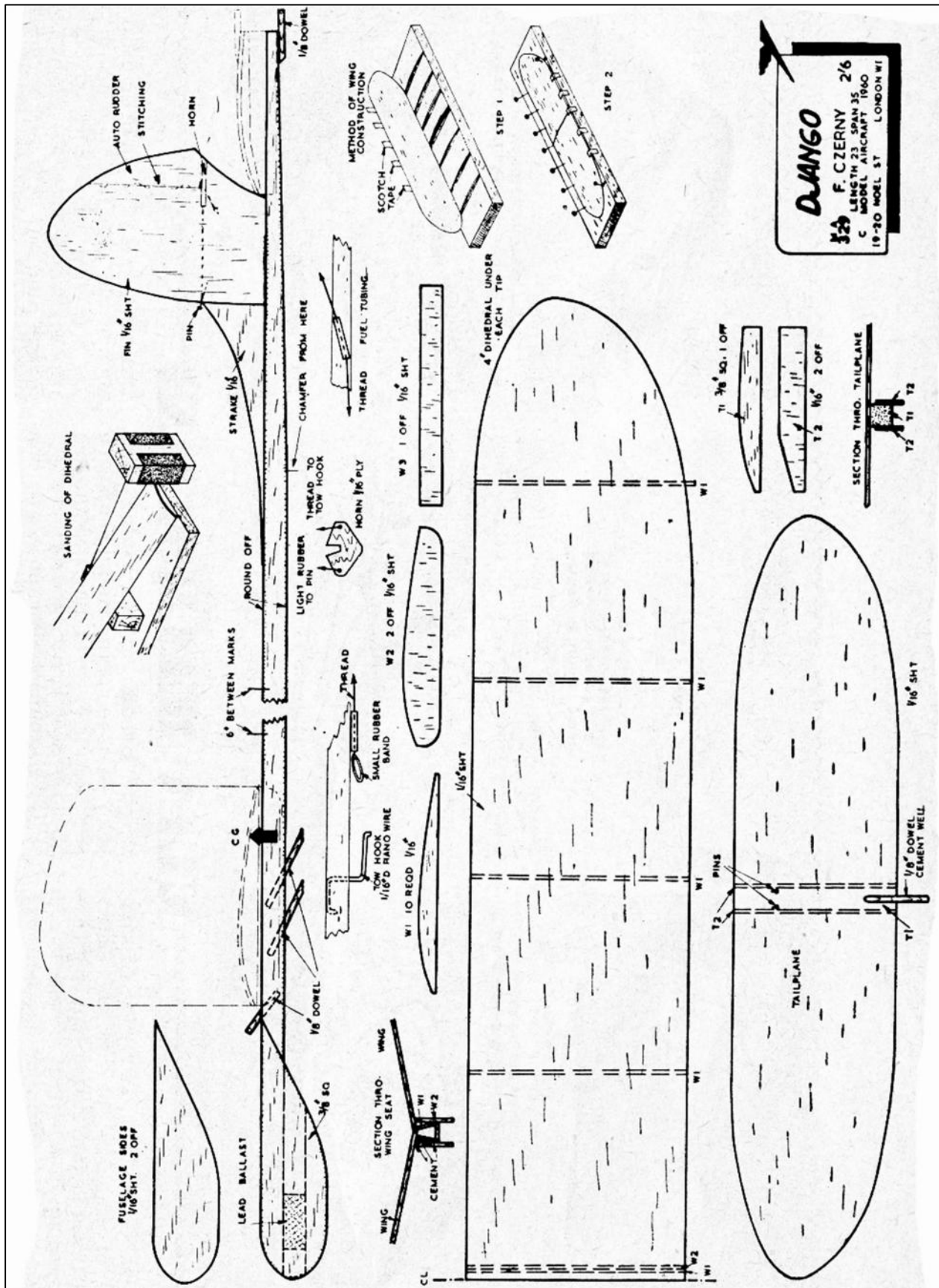
Cut a 28 in. length of  $\frac{3}{8}$  in. sq. for the fuselage boom, and a 3 in. length for the tailplane rib. The rest of the 3 ft. length is used for the fuselage-nose, with the nose side panels from  $\frac{1}{16}$  in. sheet. Cement the appropriate parts together, and fit 1 oz. of lead in the space provided. Taper the end of the boom as shown in the side view and round off the corners, except where the wing and tail "sit." The fin and strake are then cemented to the fuselage, together with the tail-plane holding down dowel. The wing holding down dowel and the two hooks can now be fixed in place—use great care in order to avoid splitting the fuselage.

### Flying

Assemble the model and balance at the point shown on the plan. Test glide from shoulder height and adjust for a flat glide, by packing up the L.E. or T.E. of the tailplane or wing. Excessive turn should be corrected by warping the rudder. When trimmed the model may be towed or catapult launched.

For a catapult, use a loop of  $\frac{1}{4}$  in. flat rubber about 10 to 15 ft. long and a length of fishing line about 30 yd. long. Push a spike into the ground, and fix the rubber band to it. Attach the fishing line to the rubber band and fit a wire ring to the other end. Launch by hooking the model to the line and gently pulling back. You may also, of course, tow launch the model.

If *Django* veers to one side, then release it, banked to the other side. The tow will not be exactly straight but rather in the form of a gentle "S." In windy weather use the forward hook, in calm the rear. When you have gained some experience, cut the dowel tow-hooks away, and install the auto rudder with the wire hook. This will enable you to achieve a straight tow and circling flight.



### Assembling "Angular Angel" and "Django"

The wing is fixed by a rubber band, which goes from the dowel, over the wing, around the fuselage and back over the wing to the dowel.

For the tailplane a rubber band is fitted from one pin, around the fuselage to the other pin. A small band is stretched between the two rear dowels. The stair-like incidence piece is used for test-gliding, starting with the middle step. The steps, which are not used after testing, are cut off or filled in, as necessary.

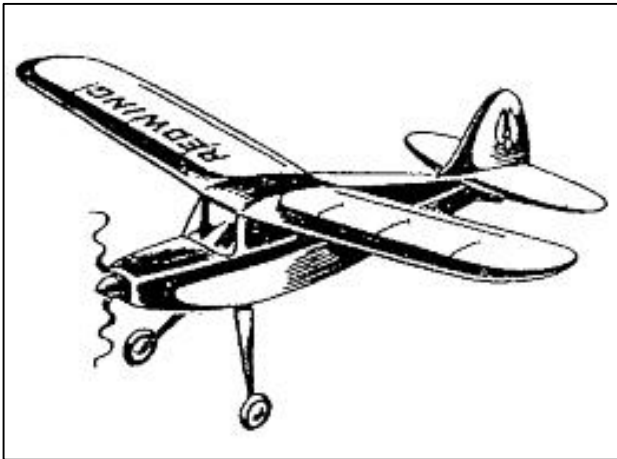
The year 2020 started for me at the 11<sup>th</sup> January South Birmingham indoor meeting in the Sports Hall at Thorns Leisure Centre, Quarry Bank.

In the week before the meeting Colin Shepherd, the organiser, rang with new year greetings and informed me that the Model for the 2020 xmas competition would be the Frog Senior 'Redwing'. I think he was checking to see if I thought it was a model that more of the regular flyers might build. The 2019 event had been only a 4 man affair, possibly due to the chosen model 'Kenny Penny' LPP being a bit special requiring light wood and mylar film for covering. I think he was really informing me of the model to be used for 2020 hoping I might get one built before the last two days of the competition.

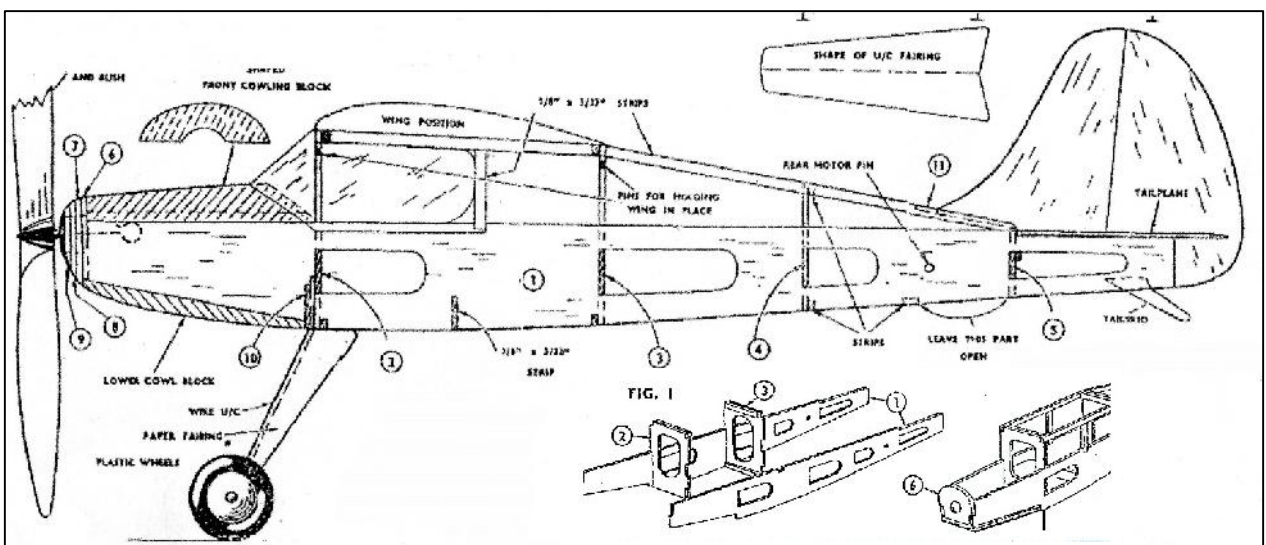
I immediately set about getting details off tinternet.

[www.houseoffrog.co.uk/senior\\_plans.htm](http://www.houseoffrog.co.uk/senior_plans.htm)

This website produced all the details necessary to build the model so I may well have one ready for the start of the winter meetings. Usual rules, built to plan, commercial plastic prop (will have to check if the 'Ikara' prop is legal), 20swg wire may be used for undercart, best two flights to count and only two ceiling contacts each flight.



Pictures from the website, model by Chris Wheatley



This is a composite picture from three of the website printouts

The model is 18" wingspan, built up wing construction so I would think 1 minute + will be the benchmark for duration. We should be able to get more attempts in than we did with the 4min Kenny Penny. In the end we will over power to get up to the ceiling and hope for only a couple of knocks that drop well down before recovery to rise again.

For this first meeting I took the same models as my last meeting, the 'Kenny Penny' and my old 'Big-un'. I last flew the 'Big-un' at the December Sneyd meeting and had some trimming difficulties finishing up with plasticine on the nose. I had taken a look at the model and it showed signs of having had the wing moved forward in the past but now I was moving it back again and a little further. I used a piece of 16swg wire to dislodge the wing mounting tubes, then re-attached  $\frac{1}{2}$  inch or so to the rear. I stick the first tube, then with the wing attached, I stick the other and hold position to give desired wing warp. Gets cyno on my fingers but the warp is set.

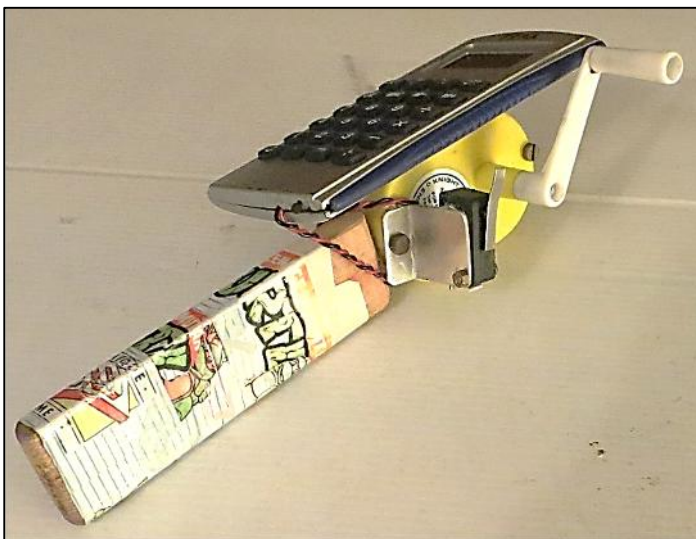


Rachel retrieves the 'Big-un'

I had removed the plasticine from the nose so I wound a few turns on a motor and off goes the 'Big-un' like a good un, no trim chage required. I then set about finding a correct motor size for the venue and from then on until chucking out time nothing seemed to obey normal trimming laws. The model would climb halfway up one fight then bounce around the lights on the next. I was making and breaking motors as I went but nothing made sense until I discovered one prop blade was loose and also the counter microswitch on my winder had worked loose, moved and was somewhat intermittent. I had been wondering why some motors wound tight and others loose, I had started to suspect the rubber until I finally noticed the winder skipping a beat or two.

I fixed everything and my final flight was over three & half mins without being fully wound and not up to the lights, so I think I've cracked it but it will have to wait until next outing.

4 mins + is my benchmark for the 'Big-un' as it weighs over 4 gms, I cannot expect much more.



The offending winder left has a microswitch attached to the equals button connections on the internal PCB (it's quite difficult to find old calculators you can easily get inside, £1 shops are a source).

The winder is a 15 to 1 so to use you set calculator to 15 and press + button twice. Each turn of the winder handle adds 15 to the total. A few missed clicks and turns go haywire. The bracket bolt had loosened so I had to tighten bracket nut and reposition microswitch. Could use reed switch I suppose.

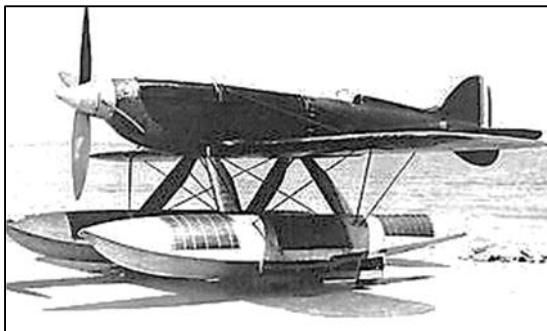
John Andrews

For those readers who have a good memory, I wrote a brief article many months ago about the Macchi MC-72 Schneider Trophy racing seaplane from Italy & how it gave rise to a quite unique motor - an in-line twin cylinder implementation using two Super Tigre G21 glow motors. A very recent article in the Italian Sam 2001 L'Aquilone magazine has provided a great deal more information. Thanks to the sterling efforts of Gianni Lofredo & Pierangelo Quagliari, here is a translated version of that article. I am most grateful to both of them as it fills in the gaps of a very interesting project that did produce a unique motor, but sadly not the model to go with it.

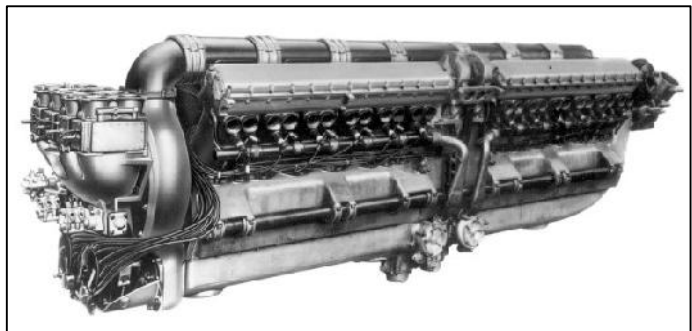
### **BIMOTORE MAGROTTI - STG 21/29 Translation from L'AQUILONE Part 1**

The aeromodellers of Varese, starting in the 1960s, thanks to the ingenuity of the late and well-known Ettore Bizzorero, began to produce control line models similar to the very famous seaplanes featuring in the Schneider Cup competitions of 1913 to 1931.

Aircraft competing in the Schneider Cup, at that time, could have been compared with Formula 1 cars of our modern age. As such, the design processes included the development of high performance engine standards and hydrodynamic techniques, especially for the Italian aeronautical industry. This culminated in 1934, with the Macchi Castoldi MC-72, piloted by Francesco Agello, reaching a speed of 702.209 km/h. This set a new world record for internal combustion powered engine seaplanes, which remains an unbeaten speed record .



Macchi MC-72



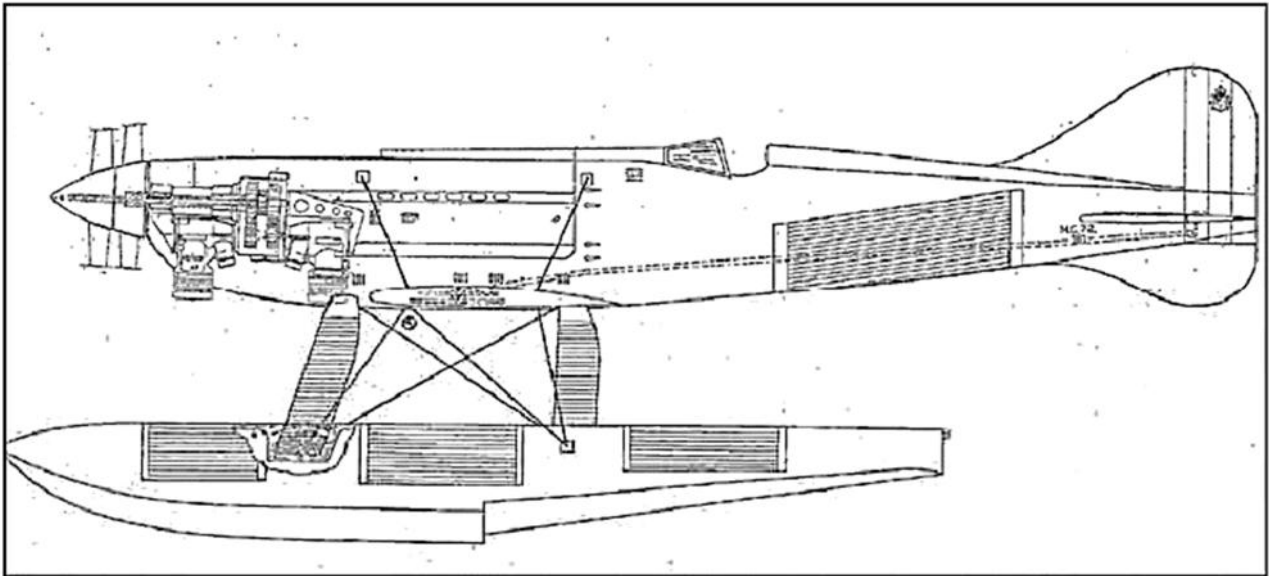
The full size in-line engine

In the 1960s an annual event was commenced based initially around "Mini Schneider" control line models. This eventually covered a period of 16 years & the competition for a trophy took place in Italy at Lake Varese with one held in Great Britain. Among our famous Italian modellers we remember Tabema, Bizzozero, Martegani, Poloni, Bergamaschi and among the foreigners the well-known Englishmen Charles E Webb and other nationalities.

According to the original rules, the maximum engines size for these models was 2.5 cc and the average of the wing size, of these models, was around 65- 70cm. (25.5-27.5 inches)

As time evolved, passing to the RC category, engine displacement was increased to 15cc for 2 strokes and 20 cc for 4 strokes.

The high level of competitiveness achieved in the 16 events and the spectacular introduction of well-built high scale models gave rise in 1966 for Italo Magrotti of Pavia to design a Macchi Castoldi MC-72 control line model of larger dimensions capable of taking an engine with two contra-rotating propellers that would not project out of the front part of the fuselage, because it would have spoiled the original aerodynamic frontal NACA outline of the aeroplane. The use of the 10 cc engine displacement, foreseen in a design phase, was abandoned since the dimensions of the thin frontal section of the MC-72 were not sufficiently large to hide the engine with the contra-rotating gear.



The intended model – never completed

Therefore an alternative solution was to use two smaller (5cc) engines (the ST G21 / 29 was selected) placed one against the other in such a way to have, by mechanical transmission, contra-rotating propellers as in the original MC-72.

At the same time the propeller revolutions of the G21 engines was reduced by applying a reduction gear ratio of 1 to 1.5 in order to use propellers of increased diameter in line with the size of the model dimensions.

Two other aeromodellers worked together on this Magrotti project: Bossaglia and Violante (mechanical engineering university students) who, once the engine design phase was completed, decided to build the model comprising fuselage, wings, tails and floats.

Meanwhile, a metal casting expert friend (Mr. Serra and his father), became interested in the in-line twin engine design and being owners of a mechanical workshop, undertook to build the wooden moulds for the special castings, while another friend interested in engine construction (Vito Consiglio), owner of the well known "Komet" factory (Karting world and model aircraft engines) provided the machines and tools necessary to construct & build the engine.

The work to construct the twin engine took a lot of time; modifications had to be made to the propulsion unit, since at the first trial run of the engine the reduction gears broke due to them having been cast at an incorrect temperature.

After the reconstruction of the gears and the crankshaft, the engine was successfully started for the second time but it was discovered that the rear engine, having chosen a "tandem (in-line) solution", overheated slightly due to the "shadow" effect of the first cylinder that obstructed the air flow generated by the propellers.

An external duct was made which directed an air flow to the rear cylinder and this improvement solved the overheating problem. In the end consistent running was achieved and the final prototype has remained as seen in today's pictures.

Sadly the quartet's professional commitments, as often happens, lead to suspension and then abandonment of the model completion. Thus a unique experiment stalled.

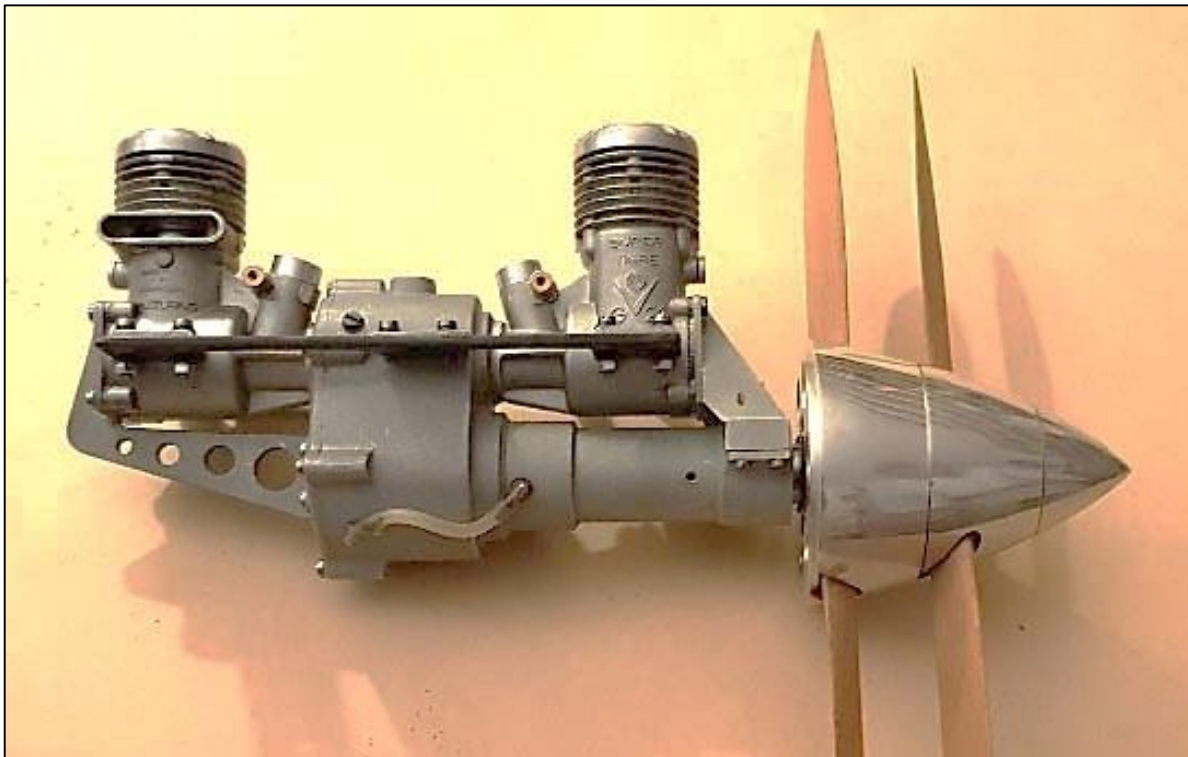
Bossaglia moved from the town of Pavia to Turin to work with Alfa Romeo cars, where he designed several new engines and Magrotti dedicated his knowledge to the factory and the construction of the new 2.5 cc model engine named KO-SMIC (2.5 cc) and his friend Consiglio joined the Kart company.

The completed and functioning engine remained in the Violante's workshop, who intended to build the fuselage and complete the model. Unfortunately this never happened.

This looked to be the end of the twin-engine prototype and the Macchi MC-72 model, and afterwards traces of both were lost.

History often changes its own course and in a not well defined period, a collector from Turin, the late Roberto Frigero, managed to contact Violante and recover the twin cylinder bimotore. Then, for several years, no-one had any knowledge of this unique twin cylinder engine. Two years after the passing of Roberto, his wife contacted Pierangelo and asked him to help her son Federico to sort out the modelling material left by his father. Amongst the many boxes there was a green one, which originally contained wines & on which was written "used engines parts"; it was not considered important and therefore was not opened.

The box was taken to Rome along with other various engine spare parts, as Pierangelo thought that some engine parts might have been useful to provide spares for old engines for SAM 2001 members. Whilst putting sorting out all the spares taken from the boxes the green box was also opened and with great surprise, the twin cylinder bimotore engine was found.



The motor in finished form

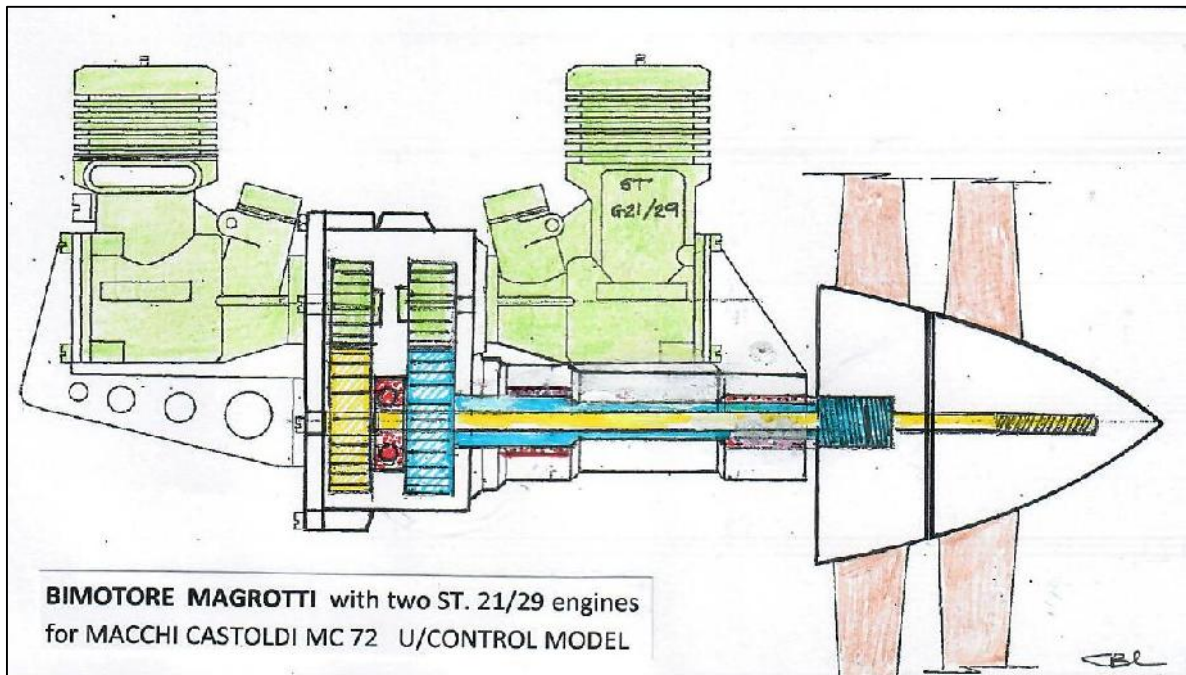
It was Magrotti's twin-engine as described in April 1967 *Modellistica* magazine. To obtain additional information & verification we phoned the designer Mr. Magrotti (who is now over 90 years old) & he confirmed that the engine was the only one made. Furthermore he was delighted to hear of the discovery & asked that some photos could be sent to him.

## **BIMOTORE MAGROTTI - STG 21/29      Translation from L'AQUILONE      Part 2**

### Engine Description

The bimotore engine was constructed by placing two conventional model aircraft engines in tandem, one facing the other. Since the engine was intended to be used in a control line model, two Supertigre G21 / 35 were used with fixed carburetors. To achieve the bimotore, the two engines were mounted together by a specially designed & cast aluminum casing (see drawing section) that contained the housings of two contra-rotating shafts, bearings etc.

The shaft (blue colour), hollowed inside, has a reduction gear at its end, and the other shaft (yellow colour) of smaller dimension and also with a gear, turns inside the hollowed shaft. The latter is supported by two roller bearings housed in the cast aluminum casing (red colour) while the rear one is also equipped with a thrust bearing. The smaller shaft (the one that rotates inside the hollowed shaft) has a roller bearing and a thrust bearing, installed at the rear inside the hollow shaft and a cage with free rollers that works, at the front, on both shafts.

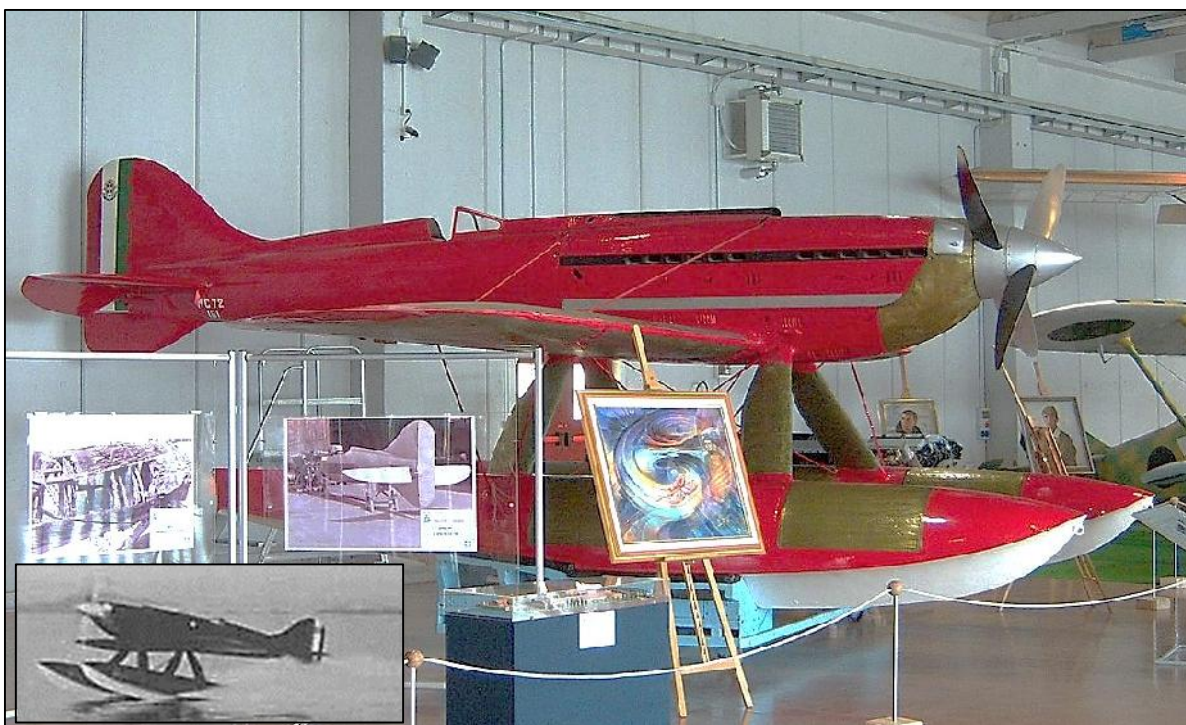


All internal components turn in an oil bath lubricated by the gears acting as a pump and are connected with neoprene tubes for the oil passage. The engine mounts are also made of aluminum and then lightened.

The traction twin propeller group was completed, as can be seen in the picture, with a complicated spinner made of anticorrosive aluminum which holds the two hand-made wood propellers with left and right helix pitches

The final difficult part of this front mechanism was thought to be the starting of the two engines, but due to the engines efficiency and easy start-up, the rear engine started with few hand flicks of the propeller. The front engine was then started by flicking the other propeller (front) with a lot of attention to the fingers as the rear propeller was already spinning!

*G. Loffredo & P. Quagliari / Roger Newman*



**Report No. 108**  
**Meccano Magazine continued.**

We are still in 1969 and Meccano Magazine carried "The Humbrol Story", extracts below.

"In 1919 a small factory of four began to produce cycle oil and calcium carbide for use in vehicle lamps. This was the Humber Oil Company. They then introduced the first midget tinlets of enamels in a limited range of 12 colours and soon established a reputation for their high quality products. In 1939, with new premises and a larger staff, the Humber Oil Company began to supply cellulose lacquers. Mr. Gerald D. Barton, son of the founder, entered the company after service with the armed forces and began working in the company laboratories. Always a keen modeller, he began to experiment with various formulae in a bid to produce a balsa cement which would satisfy his own critical needs. His samples were so much in advance of competitive products that it was suggested that it should be put on the market. Thus Britfix Balsa Cement was born----- it is still produced today, but under another name----- Humbrol. In the early 1950's plastic modelling kits were introduced and the Humbrol tinlets of enamel began to sell in the model shops. In 1964 an aerosol filling line was installed and another successful product was launched. To watch automatic machines filling 300 cans of paint a minute or 50,000 tubes of adhesive a day is a fascinating sight. Exports currently go out to well over 80 countries. It is certain that the next 50 years of the company's history will be as exciting as the first half century."

Well that last comment was certainly true! Below is more Humbrol history, found on the web.

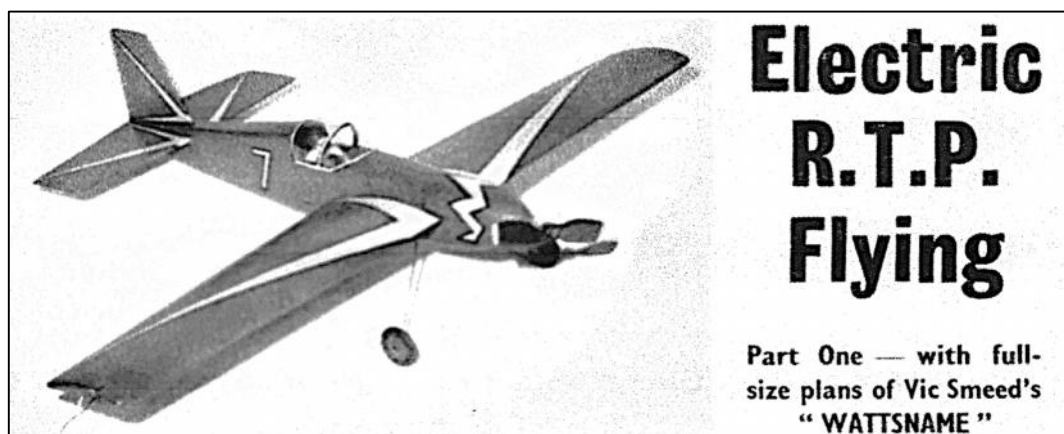
"Since Humbrol was founded in 1919 the brand has been under several owners. In 1976 Humbrol became part of the Hobby Products Group of the International Borden Inc group and then later in 1986 the Airfix brand also joined the group. In November 2006 the Humbrol and Airfix brands were acquired by Hornby Hobbies Ltd where they sit alongside some of Britain's best-loved toy and hobby brands - Hornby model railways, Scalextric slot racing and Corgi die-cast models.

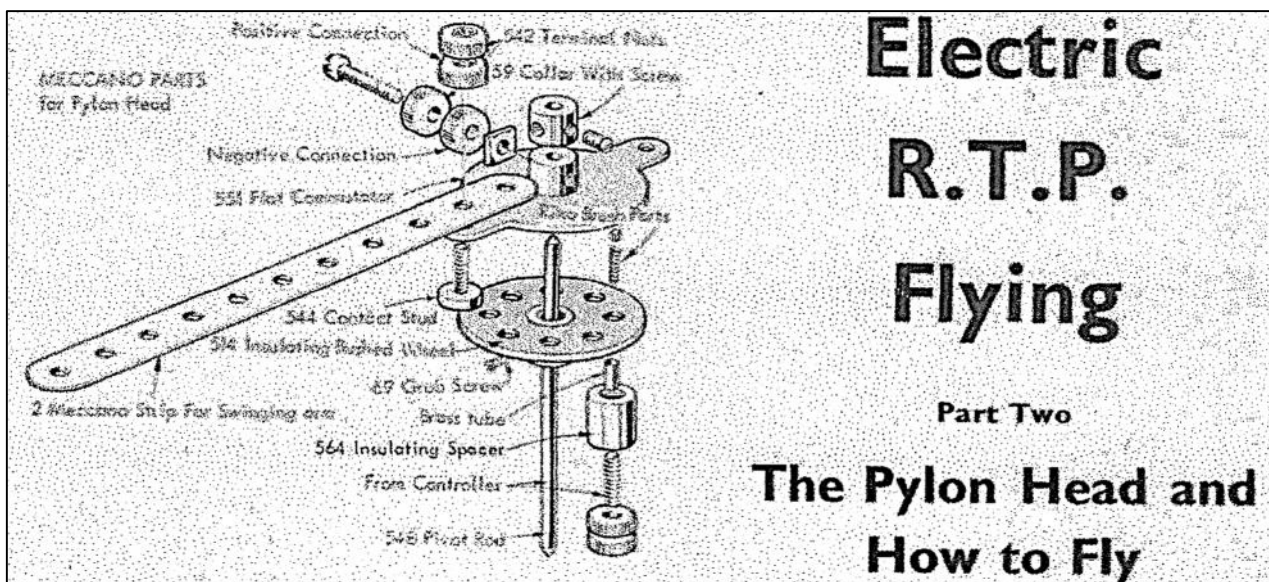
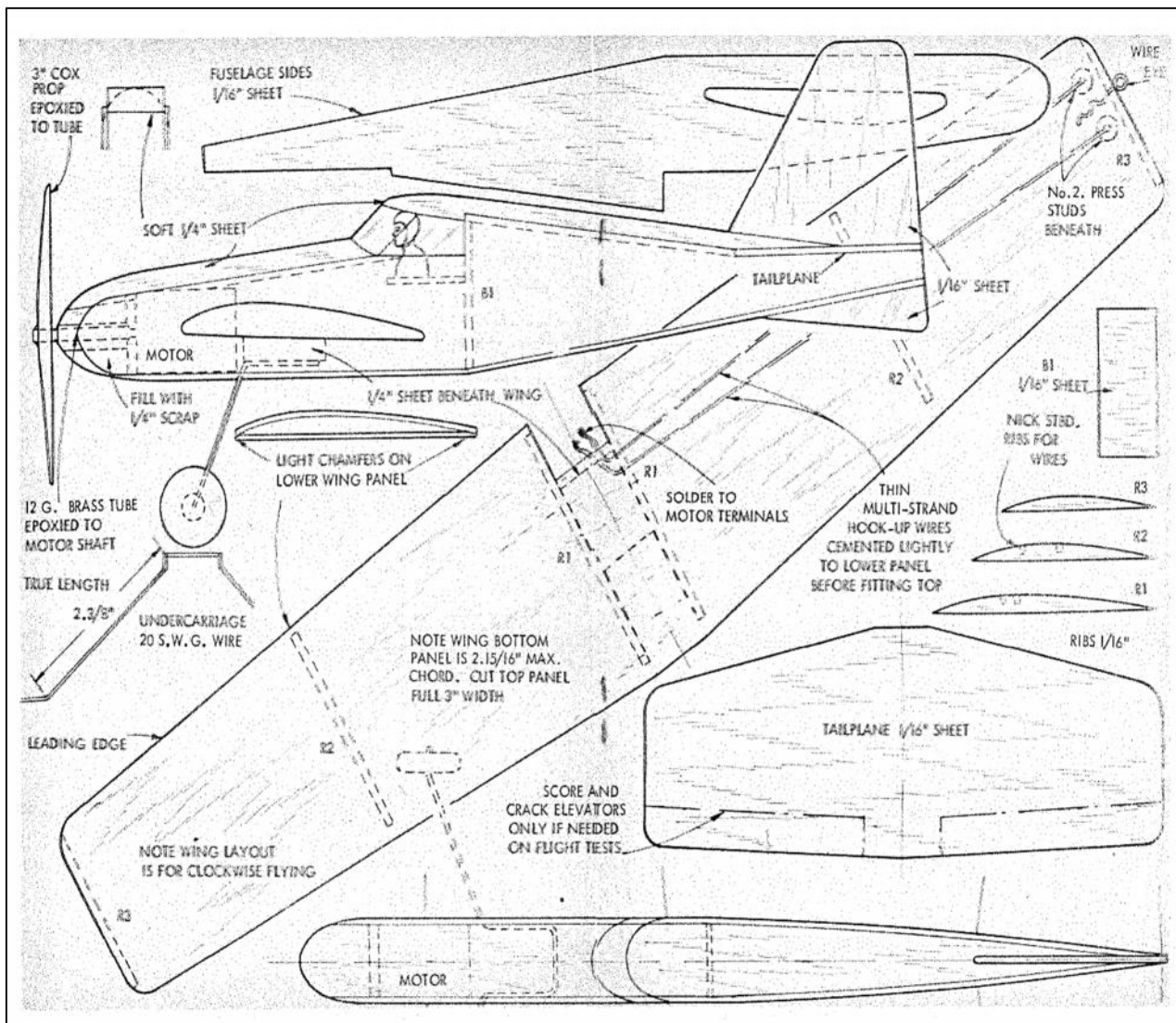
In 2012 Humbrol moved over 60% of its manufacturing back to the UK from China to improve supply, and ensure that high quality standards continued to be met. Humbrol's well-established and most popular range of enamel paint, as well as their new acrylic sprays, are now produced in London and Manchester. Humbrol produces over 460 different products and accessories which are sold in all major and independent craft and model retailers."

The picture on the right was copied from the web this year, so hopefully all continues to be well with Humbrol.



Last month's report featured Vic Smeed's Cracker RC power model from Meccano Magazine November 1969. What next for the aeromodeller? December, nothing. January 1970, Nothing. February to December, NOTHING. January 1971, Nothing. At last in May 1971 Vic Smeed returns with his **Wattsname**, a 16" wingspan electric powered round the pole model, and in the next issue details of the **RTP Pylon Head** made, of course, from Meccano.

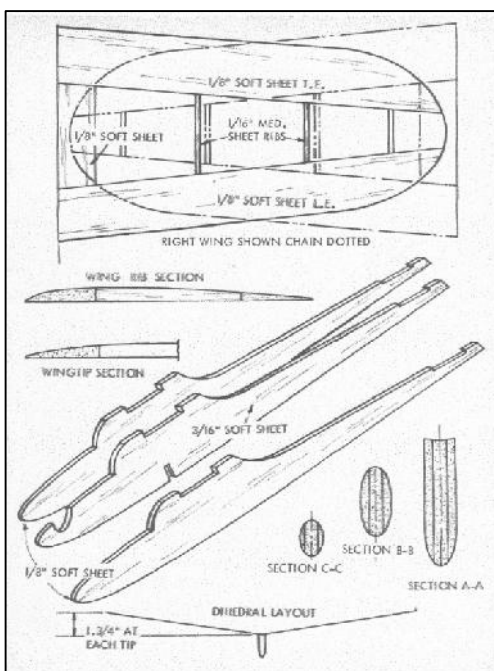
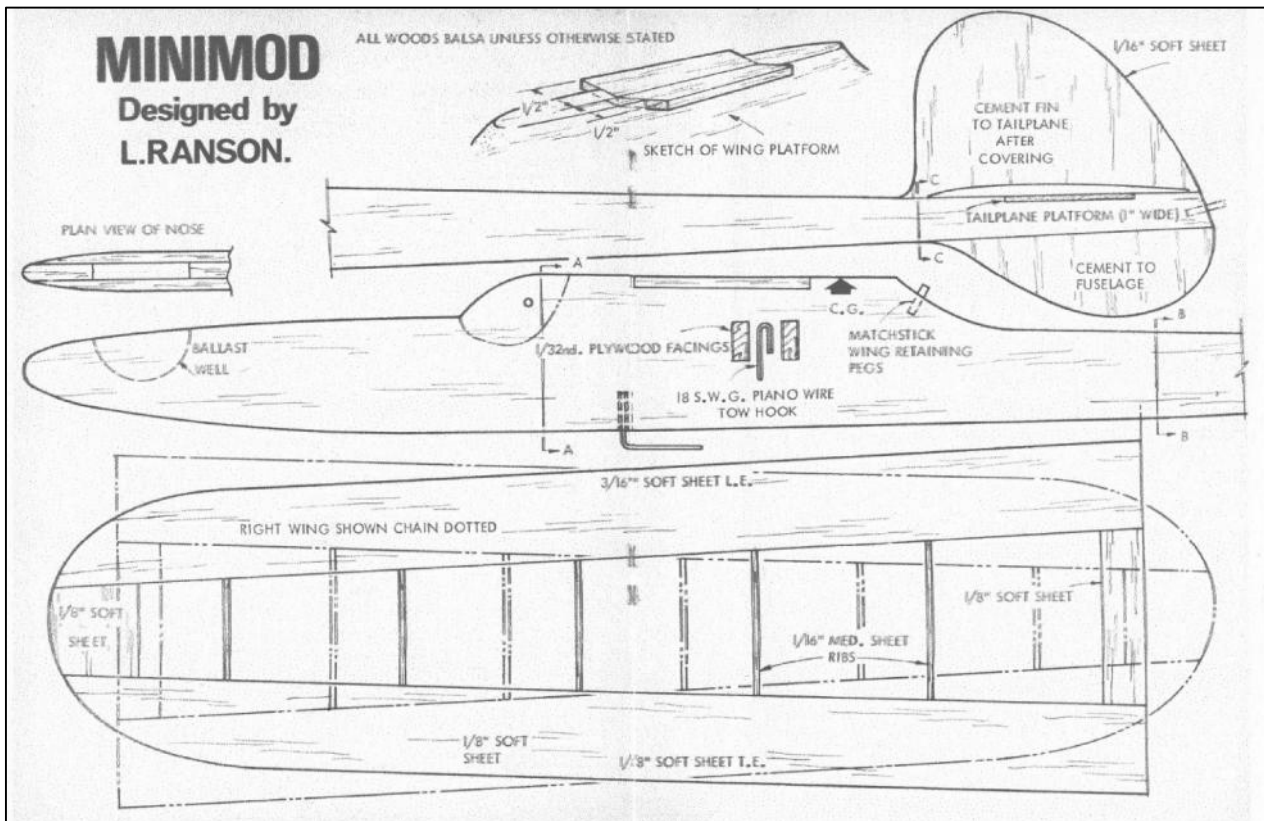




To quote. "You may think that there is little to learn about flying such a model, but it is by no means as easy as it looks. The problem comes when the model flies higher on one side of the circle than the other, when it will slowly get higher and higher and correspondingly lower and lower until it hits the floor. This can be started by a draught, by taking off too quickly, by a build up of power variations, or by changing power too quickly. What makes it difficult is that to stop the model climbing you have to take power off about half a lap early, and to stop it diving you increase power about half a lap ahead."

Next month, in Meccano Magazine July 1971, was their first model aeroplane designed by Len Ranson, his **Minimod**, a 25" wingspan tow line glider. The structure of this model was designed to survive the trimming difficulties which might be experienced by a novice aeromodeller. To quote "It is, of course, very unlikely that the model will be in correct trim. It might well stall, or go into a spiral dive. This is where the robustness of **Minimod** pays off. The sort of crash which would severely damage the balsa and tissue type of model will leave **Minimod** unscathed."

Len was new to Meccano Magazine but well known to readers of Model Aircraft with plans and G/A drawings published from 1953 to 1963.



More Meccano next month.

All plans, as in Meccano Magazine available from:-

Roy Tiller:

Tel:- 01202 511309,

Email:- [roy.tiller@ntlworld.com](mailto:roy.tiller@ntlworld.com)

Roy Tiller



On Saturday the 25<sup>th</sup> of January Rachel and I whizzed 50 miles or so up the M6 to get to Bloxwich and after depositing her at our daughters, I carried on about a mile or so to the Sneyd Community Association sports hall for the first indoor meeting of 2020.

The meetings are backed by the Walsall MFC and organised by Alan Price (*that's him with his back to camera on right of picture above*) and £8 buys us three hours flying, 2pm til 5pm.

I had left all my gear from my visit to Thorns a couple of weeks before in the back of the car so no real packing to do other than add a collapsible sack barrow to get gear from car to hall. I would have liked to change models but lethargy ruled, although I did sneak my very old LPP into the model box.

Turnout was smaller than desired but not bad for the first event of the year. Thorns organiser Colin Shepherd was a notable absentee having a commitment elsewhere. I normally set up next to Colin but in his absence I made a nuisance of myself alongside Peter Dolby and Mike Brown.

First out of the box was my old LPP which I had slipped in at the last minute. It had not been flown since last year's indoor nationals and then only to go through the motions as it's more than a bit on the heavy side. No wonder, as it has split mylar on wing and tail with cello tape patching.

I picked out a short .110" x 12" motor for what you might call indoor sport flying, it gets the model up pretty quick and then hangs about a bit just under the lights, assuming you get the turns right. I did not have many flights, spent most of my time reliving our past with Pete and Mike. Did manage a timed flight at the end of the afternoon, 3-57, after dancing around the lights a bit.



Did manage a timed flight at the end of the afternoon, 3-57, after dancing around the lights a bit.

A few random pics to finish my epistle.



Mike Browns models and box, note the sidewall extensions, just like the upmarket RV's



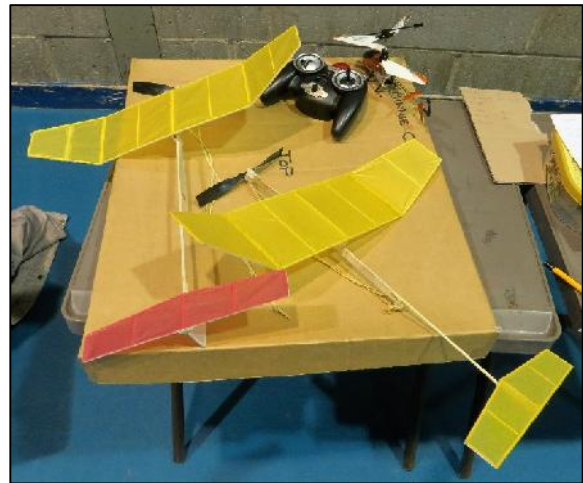
A prayer to the duration gods



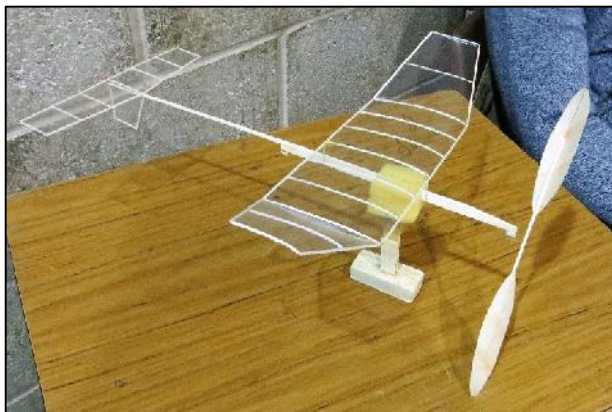
The good old BMFA Dart, not radio yet, just on a box



Graham Smith with a small O/D polystyrene R/C model



Kit Gyminnie Crickets popular as ever



Graham Bryant's Lightweight Cricket



Mobile illuminated repair to Peter Thompson's 'Plank'



Here we have a smiling Derek Richards showing off the tee shirt he wears when he's wandering the hospital on his volunteering duties. If anyone queries why he is walking a little oddly he can just point to the logo. Derek's fitness continues to improve and he is becoming a local indoor regular. His experienced advice is much appreciated.

I had a good afternoon out and retired back down the road to our daughter's residence to partake of a Chinese takeaway and a bottle of red.

*John Andrews*

It's a strange thing the aero modelling bug.

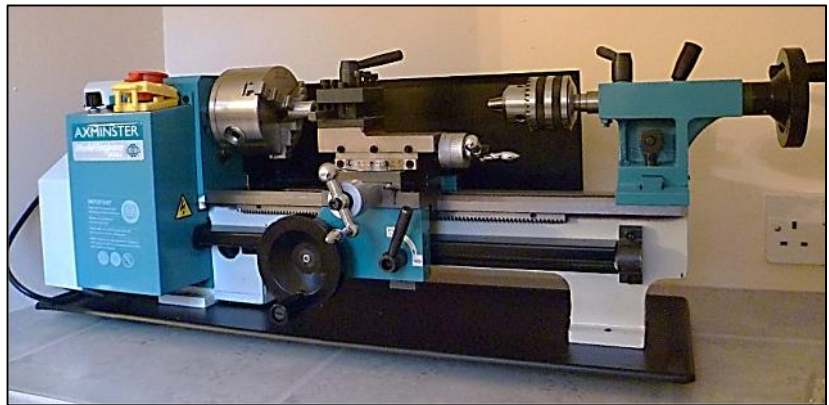
I'm just recovering from a severe bout of what I call 'rampant apathy'. One minute I was happily building models and planning to attend events, and the next minute I'd packed away most of my stuff into various cupboards and found myself reading 'Model Engineer' magazines! I even have the frame of a little live steam 3 ½ inch gauge locomotive riveted up!

I don't know how my dissatisfaction with aero modelling happened, but I think I'd burned myself out after a period of intense modelling activity over the last few years, and I found the whole thing had become rather stale. I turned my attention to other things, but in the back of my mind I knew I couldn't leave it for long.

It's the people who make the hobby for me. Aero modellers, particularly of the free-flight persuasion are the nicest bunch of people I've ever met, and although I put the hobby on the back-burner for a bit, I missed the various characters an awful lot.

I believe the break has done me good though, as I'm back with plans for new projects, I have a good stock of plans for models I want to build, and some new kits on the shelf too. The building board has been dusted off, supplies laid in, and a fresh stock of balsa ordered. I'm pleased I still have my original 'wood pile' as I'd hate to have had to build up from scratch.

Happily though, I'm now 'Man with lathe' as I have treated myself to a nice new metal lathe, so that can only enhance my aero modelling efforts. I'll maybe even have a go at building an engine! Who knows what may transpire...



The trouble with lathes is that you need to spend at least as much as the purchase price of

the lathe on additional tooling in order to do anything worthwhile, so I have plenty of little 'blobs and gadgets' now competing for cupboard space, none of which are particularly cheap.

I need to build a lathe bench too, as the thing is stuffed into a corner in my 'man-cave' which is a top floor spare bedroom I have happily commandeered. It's quite a quiet machine, no louder than a sewing machine really, but boy can it can make a mess! My long-suffering partner tolerates the occasional trail of balsa shavings down the stairs, but metal swarf is a different matter entirely!

My choice of project to get me going again is the Titch, by Ron Warring. A charming little free-flight design for .5 motors. It's built on the crutch method, but still a fiddly little devil to get right, and I find this to be true of all small models. I have hands like shovels, so manipulating little bits of balsa is a fiddle, but the results are very pleasing so far.



I've not gone through the cornucopia of nonsense that is drone registration yet. Having to do that *really* sticks in my craw. I'm sure you know the feeling...I want to build and fly some bigger models that will put me over the 250g limit, so I probably will register, being a mostly law abiding citizen, but I do so grudgingly and under duress. Fancy the 'powers that be' lumping us gentle stick and tissue types in with those sinister unnatural contraptions! It's like calling a Penny Farthing rider a Hells Angel, just because he's on two wheels!

I have plans to attend the FF Nationals this year, and I may even compete if I can put knife to balsa effectively enough. If anyone feels like they could help me out with timekeeping, please make yourself known, I'll happily return the favour.

I'm still looking to complete my collection of the original paper Clarions, so if anyone has any copies they could do with passing on, and you're going to the Nats in May, I'd be happy to give them a new home. If John can print my email, feel free to get in touch. I can be contacted at

[unknownntool@tutanota.com](mailto:unknownntool@tutanota.com)

From looking at the David Baker heritage library spreadsheet I see the Clarion started in September 1989, so I am short of the following issues:

1989 - September required. 1990 - Full year required. 1991 - Full year required. 1992 - April required 1993 - January to September required. 1997 - September required. 2002 - September required. 2004 - August required.

I'm also after some smaller diesels too, so if you have any motors you want to sell off, I'll certainly consider them.

So there we have it. Back in the game again. My apologies to all my Aeromodelling acquaintances if I've been out of touch. I still work full time for the Fire Brigade, and my two boys aged 6 and 10 take a lot of keeping in line! It's no excuse, I know.

Feel free to drop me an email and we can catch up.

So my advice to anyone feeling that they've lost their mojo, is to perhaps take a break, do something different for a while, and chances are that your 'bug' will come back stronger than ever, and you'll feel refreshed.

Happy flying.

Stewart Mason

### Secretary's Notes for February 2020

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Roger Newman

Aspects of the calendar are getting resolved slowly but surely. The current downside news is that although we have permission to hold the Southern Area Gala at Odiham on 31<sup>st</sup> May, there are no members of the RAF modelling club available to "police" us as Odiham is an active base. Therefore the Gala will not take place at Odiham. However, there is a possibility that we can use the same date & transfer the event to RAF Abingdon. This is to be discussed in more detail at the next Southern Area BMFA meeting later in January. If this proves viable, the intention would be to make the free flight event a Cagnarata Day for models under 250 grams. More on this next month. Otherwise the calendar is as stated on our website & in the NC.

It also seems that we will be ok for RAF Colerne - again another Cagnaratat Day, unless anything untoward occurs with the licence application. In this context, small models look to be a way forward on specific sites, with Area 8 of Salisbury Plain hosting events for larger models.

January traditionally is a quiet month, particularly for flying. However we have just had an unusually short period of really high pressure, so I hope a few of you managed to get some action. Unfortunately I didn't, still due to my inability to get my models sorted out. Other things seem to crop up, having said that I managed to build a new fuselage for a Keil Kraft Bandit during the month, now ready for covering.

The only other noteworthy topic is that of a relatively short autobiography written by our own Leprechaun, Dick Twomey, who is currently sorting out publishing details. All things being equal, printed copies should be available in the not too distant future at a very reasonable price.

### Wing Tips

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**About the book:**

In his Foreward, Rear Admiral Simon Henley, President of the Royal Aeronautical Society writes:

"This book is the story of a man who has applied meticulous thoroughness to his flying career (the early aircraft he flew would not have forgiven him for anything less). There are others who have similar traits and similar tales to tell. But Dick's love of flying was part of a much wider infatuation with all things aviation, leading to a career which is much broader than the usual "I learned about flying from that". It paints a picture of the very evolution of the commercial aircraft business, through different models which have come and gone, each of them adding to the rich tapestry of the development of that sector. Here is a man who has literally dedicated his life to aviation, and whose influence can be found in the business models of today which enable so many of us to benefit from the joys of low-cost air transport where and where we need it."

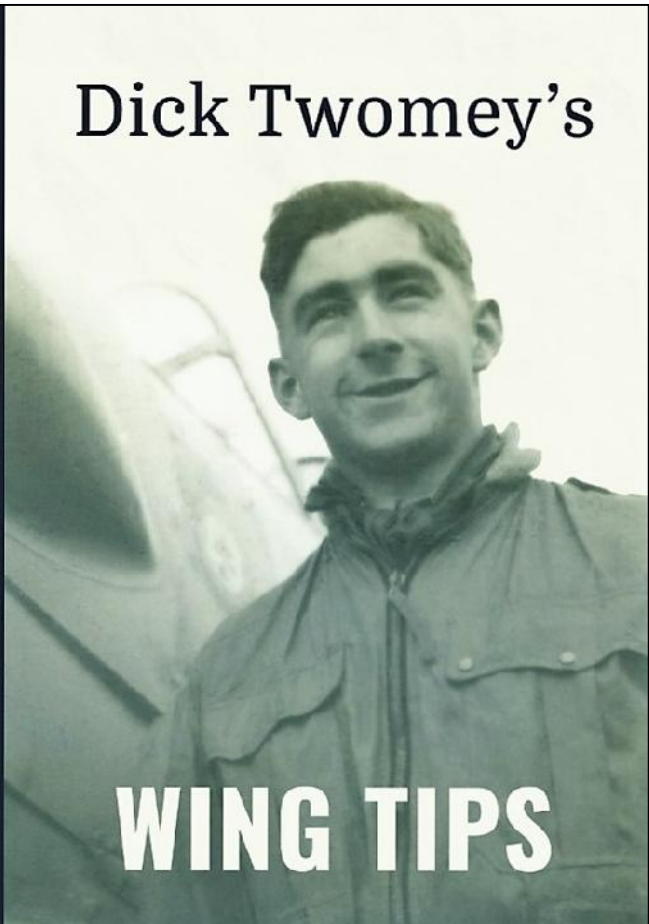
(Rear Admiral Simon Henley MBE CEng FRAeS FAPM FAeSM.  
President Royal Aeronautical Society 2018/2019.

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**The Author:**

**Dick Twomey** was born on 31 August 1930 in Cardiff and was schooled in the Classics at Ampleforth in Yorkshire. He was then trained as a Royal Air Force pilot from 1949 – 1951. After graduating with an Economics Degree at University College Dublin in 1954, he started on a life in commercial aviation, moving through 31 years in Cambrian Airways, British European Airways (BEA) and British Airways (BA), followed by his own creation "Berlin European UK" in the later years of the Cold War, and subsequently, in Air Mauritius. On the way he says that much satisfaction came from flying the DH Trident, the first commercial passenger aircraft to make "blind landings"; from management activities like setting up the BA Shuttle on BA's busy domestic trunk routes; and from his own startup airline Berlin European in Germany. In retirement and in his 90th year, Dick lives with his family in Mauritius, where in 2013 he was instrumental, with a group of aviation colleagues, in establishing The Aeronautical Society of Mauritius, which occupies him still.



A quick read of a proof copy indicates that Dick had a very long, varied & successful career in full time aviation, initially as a pilot & latterly in senior managerial roles. He describes these activities lucidly & with a great deal of gentle humour, so I am now going through at a more sedate pace to better appreciate what he achieved at work – we in SAM1066 of course know him through his modelling activities, notably his 103" span Leprechaun glider first published in the March 1950 Aeromodeller– several of which have graced the air at Middle Wallop in days gone by.

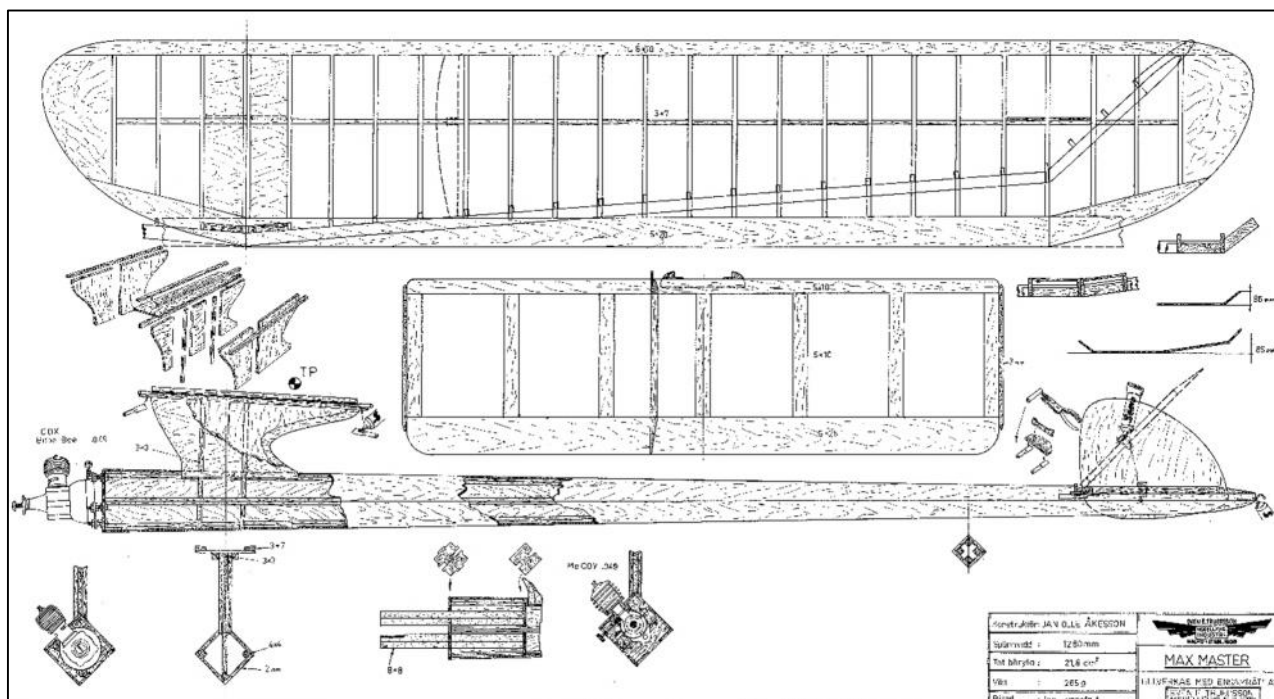
I've often wondered why Dick came up with the name as it seems to be derived from Irish Folklore, as a **dwarf** or **sprite**. a conventionalized literary representation of this figure as a little old man who will reveal the location of a hidden crock of gold to anyone who catches him – maybe it's to do with Dick's own size, which is quite diminutive which he himself makes note of in his book & not forgetting his gentle sense of humour!

Here's to good Spring weather.

Roger Newman



**Power:** Max Master - simple design from Sweden for 1/2A Power



*Roger Newman*

## ODIHAM EVENT CANCELLED

The event planned to take place at Odiham this year on the 31<sup>st</sup> May has had to be cancelled. The available dates were very restricted this year because of the Farnborough air show and the planned resurfacing of the runway, and though the military authorities were keen for us to hold the event, they required a member of the RAFMAA being present to supervise. Unfortunately there are only two such personnel currently and neither of them are able to attend on the available dates. Nevertheless, RAF Odiham are keen for us to have at least one event next year.

Negotiations are currently in progress with a possible alternative venue and it is hoped that we will have good news shortly.

Chris Redup

## Southern Coupe League 2020

The latest schedule of events counting toward the Southern Coupe League is as follows. The loss of the First Area meeting means there is a gap until the next event in April, plenty of time to get your models trimmed.

01/12/19	Coupe de Brum	N Luffenham	
26/04/20	London Gala	Salisbury Plain	
14/06/20	Oxford Gala	Port Meadow	
28/06/20	4th Area	Area venues	
23/08/20	Southern Gala	Salisbury Plain	
13/09/20	Crookham Gala	Salisbury Plain	
17/10/20	Coupe Europa	Salisbury Plain	

# Impington Village College - Cambridge

**Indoor flying on 15th March 2020 9 am to 5 pm**

We will be using the large (100 x 50 x 28 ft) sports hall at the College. The only restrictions are no radio models in the main hall and no internal combustion engines, jets or catapults anywhere.

Also Round The Pole (4.5 metre lines) and small electric helicopter and fixed wing flying (X twin or Vapour type) in a separate hall (radio or infra-red).

SAMS MODELS hope to be in attendance to supply all your needs on the day. Contact Chris Strachan shortly before the event if you need to be certain. Contact details below.

## Competitions:

There will be two, low key free flight (and one car!) competitions:

- **A Peanut event** using a simplification of the usual international rules,. Maximum size of model either 13" span or 9" length excluding propeller

A GA drawing, photograph or any other proof that the actual aircraft existed.

**A single judge for all entrants to award up to 30 scale points and up to 90 "difficulty bonus points", the purpose being to encourage those flying models of difficult and adventurous prototypes**

Any number of flights with a 10 second bonus for ROG.

Total of best two flights plus scale and bonus points to decide final score

- The usual duration event for **Bostonian** models. Any design to the Bostonian formula (If you are unclear about the Bostonian formula rules ring or email the contact below). Minimum airframe weight 14 gm and all flights to be ROG. Total score from best 3 flights

For both competitions get your flights timed and reported to control. As many attempts as you like. Awards in each event for overall winner and best junior (under 18). Bostonians to be weighed. No builder of the model requirement in any competition. Build one for your wife (or husband), child or grandchild who just has to wind and launch.

We will also feature the **Racing Car event** as usual. This is a fun event for rubber powered cars. We vary the distance to be covered, number of heats, etc. depending on the entrants on the day! Ring or email below for any further information and for plans of suitable vehicles.

## Exhibition

We would like models of all types in the exhibition and models other than aeroplanes are more than welcome. Bring whatever you like but please bring something (don't be shy) as this is a feature much enjoyed by our visitors - both flyers and spectators. It is also a good way of showing our kind of modelling to the public.

## Seminar

Andrew Boddington will describe the work done by his late father David producing both models and full size manned replicas for the film industry. Andrew is well known to many of us as the Editor of Aeromodeller and a good friend of Impington. I am sure that his audience will use this occasion to ask his views on the future direction of aeromodelling.

## Round the Pole

Will Beavor will be bringing his equipment, using 4605 connectors at the model, available from The RTP Hut ([www.thertphut.co.uk](http://www.thertphut.co.uk)). As usual RTP will share the second hall with small R/C helicopters and fixed wing models.

**Refreshments:** Hot drinks and snacks will be available from the Sports Centre

**Web Site:** Have a look at our website at [www.impmac.co.uk](http://www.impmac.co.uk) for more details of club activities

**Cost of admission:** Indoor Flyers - Adults £6.00, under 18s £1.50, Spectators and Chatters - £3.00

**Directions to Impington Village College: Post code CB24 9LX**

Leave A14 at the first junction East of M11 J14, signed Cambridge B1049. At the roundabout take B1049 to North signed Cottenham, Histon. In ¾ km at 2<sup>nd</sup> lights turn right into New Road. Pass hospital entrance on right. Village College is next on right (two entrances, 1/3 and 2/3 km). Entrance to be used and car park will be signed.

**Contact:- Chris Strachan**

**Tel no: 01223 860498**

**Email: [chris.strachan@btinternet.com](mailto:chris.strachan@btinternet.com)**

# Dreaming Spires Free-Flight Rally-2020

DATE: 14<sup>th</sup> JUNE 2020 - STARTING at 10 a.m.

VENUE: PORT MEADOW, WOLVERCOTE, OXFORD

## CLASSES

FIG (COUPE d'HIVER)	} 5 FLIGHTS
FIH (A/I GLIDER)	
MINI VINTAGE RUBBER (Max span 34")	} 3 FLIGHTS
VINTAGE/CLASSIC GLIDER (comb)	
HI-START GLIDER	
E30/P30/CO <sub>2</sub> (Combined)	
H/LG/CATAPULT GLIDER (comb)	7 FLIGHTS
ALL TOWLINES 50 METRES	

**FREE-FLIGHT SCALE** to "DREAMING SPIRES"  
 RULES — No Documentation, Static Judging, Quality of Flight etc. i/c motors up to 1.5 c.c. allowed.

## ALL FLIERS MUST BE INSURED

NO STREAMERS ON FOLDS, NO THERMISTORS, NO BUBBLES, NO i/c POWERED MODELS OTHER THAN IN SCALE COMPETITION

## CONTACTS:

LAURENCE MARKS  
 laurencemarks64@googlemail.com

ANDREW CRISP  
 4 GROVE STREET  
 OXFORD OX2 7JT  
 Tel: 01865 553800

## CROYDON WAKEFIELD DAY

11<sup>th</sup> April (Saturday)

Salisbury Plain Area 8.

4oz and 8oz Wakefield, F1B (in rounds),

Marcus Lightweight (RAFF V, Bazooka, Dinahmite, Supa Dupa)

For further information please contact:

Ray Elliott tel 020 8997 7745, email [ray.elliott8@btinternet.com](mailto:ray.elliott8@btinternet.com).

## CROYDON COUPE EUROPA

17<sup>th</sup> October (Saturday)

Salisbury Plain Area 8.

F1G (in rounds), Vintage Coupe.

Flitehook trophy for F1G teams.

Start 10am.

Entrance to Area 8 is approx 2 miles west of Shrewton  
 on B390 to Chitterne.

For further information please contact:

Ray Elliott, tel 020 8997 7745, email [ray.elliott8@btinternet.com](mailto:ray.elliott8@btinternet.com).

## Salisbury Plain Area 8. 2020.

Bids have been submitted to use Area 8, Salisbury Plain, for free flight, every Saturday and Sunday, plus 3 Bank Holiday Mondays in 2020.

At present these bids have been formally authorised until the end of March, although I do not anticipate there will be any problem with the later bids.

For those wishing to sport fly/trim, an annual permit must be obtained through: [donna@bmfa.org](mailto:donna@bmfa.org) for £20.

The terms and conditions remain the same as in previous years.

On contest days only, non-permit holders can sport fly/trim on payment of a site access fee of £5.

All flyers entering a contest must also pay the site access fee. This applies to Club Galas, Centralised, and Decentralised BMFA events. The exception to this is for BMFA Contest Season Ticket holders, who will not be required to pay the site access fee for BMFA Centralised events, and the World Cup events.

We have been politely asked not to create any new vehicle tracks on the area and to ensure that we stick to the established tracks when driving.

Most of you will be aware that part of the area was used as a film set in the spring of 2019. This has resulted in the access track being improved. The set was a French farm, the film is 1917, and will soon be showing at a cinema near you.

Peter Watson.

### L'AQUILONE SAM 2001

#### TOMBOY RALLY INTERNATIONAL POSTAL CONTEST 01/07/2019 – 30/06/2020

We wish to present this competition to all the lovers of this nice model with the only aim of having fun in a postal contest which is organized to provide some fun flying together or at the same time as are all postal contests. The Tomboy Rally wants to prove the performance of this model along with the ability of the builder and pilot, without reaching the peak agonism of usual contests and only wishing to fly the model having fun in a relaxed manner. After having carried out some tests we have decided to admit the use of i.c. engines and electric motors trying to reduce the gap between them.

#### Model

- The 36" or 44" wing span (as per plan Aeromodeller) and 48" (as per Boddington plan or 36" scaled up) models are admitted;
- Models may be fitted with floats as per plan (scaled-up for 48" version);
- no minimum weight;
- reinforcement or lightening of the structure with respect of the basic outline of the original model are admitted;
- materials to be used are those found on the plan;
- plastic covering in place of tissue, silk or other is admitted.
- More than one person can use same model;
- Same model can flight in L.&. or float version;
- Lone fliers can self launch and time

#### Engine/motors

**I.C. engines** are admitted within the following limits: **36"-44" wingspan:** \_Any engine 1 cc. max, Fuel tank : 3 cc. R/C carburettor is admitted.

#### Electric Motors:

Any electric motor is admitted with direct drive

The engine cannot be stopped and started again: the motor must run continually without interruptions till the end of the battery charge or competitor's decision. No folding prop is admitted; if a folding prop is used the blades must be held open with a rubber band; freely assembled admitted batteries:

-450 Mah 2 cell LiPo; separated batteries pack for Rx alimentation is allowed.

#### 48" Wingspan;

**I.C. Engines:** Any engine with 2.5 cc. maximum displacement; Fuel tank : 6 cc. R/C carburettor is admitted.

**Electric Motors:** Any electric motor is admitted with direct drive freely assembled admitted batteries: -500 Mah 3 cell LiPo separated batteries pack for Rx alimentation is allowed

The engine cannot be stopped and started again: the motor must run continually without interruptions till the end of the battery charge or competitor's decision. No folding prop is admitted; if a folding prop is used the blades must be held open with a rubber band;

#### Flights and results

Each competitor may fly as many flights as wished during the admitted period but only the best flight will be considered for the final result.

Hand launches are admitted. The flight time start when the model is released or takes off. The flight time ends when the model lands or hits a fixed obstacle. In case the model flies out of sight the timekeeper will time for 10 seconds after losing sight of the model. Timing will continue if model is seen again or stopped after 10" deducting this time from the total time of the flight.

#### Awards :

A diploma for all competitors and prizes for the first three in each version rank. Special prize for best flight in float version.

#### Results

Results, address, photos and technical specification about model must be forwarded to the Organization within the 15th June 2018 to Curzio Santoni ([cusantoni@tin.it](mailto:cusantoni@tin.it)) or to Sianfranco Lusso ([gfl@orange.fr](mailto:gfl@orange.fr)). Many pleasant flights and happy landings to ALL!!!!

#### Special Prize Vic Smeed

SAM 2001 have scheduled an extra Diploma that will be awarded to the best flight in Tomboy floatplane version (36" 44" or 48") taking off from water. The Editor will send to the winner a Diploma signed By SAM 2001 President and a bottle of special Italian Wine to drink to Vic Smeed! Good ROW and flight

#### Special Prize David Baker

The 2012 was the 5th edition of SAM 2001 Tomboy Rally and we have scheduled a special prize for the three best flights obtained with 36" Tomboy F/F. Only engines diesel max 0.75 c.c. shall be used. The other rules are the same for 36" or 44" wingspan type. It is possible to use an R/C Tomboy, however, being this a free-flight contest, the time must be stopped when transmitter is used, since the aircraft model should fly freely from any control from the ground. Good thermals

Indoor Flying with the South Birmingham MAC

**Mainly Free Flight**

## **Thorns Leisure Centre.**

**Stockwell Ave.**

**Off Thorns Road - Quarry Bank - West Midlands - DY5 2NU**

**Saturdays 1pm until 4pm**

**2020**

**Jan 11<sup>th</sup> – 8<sup>th</sup> Feb – 7<sup>th</sup> Mar – 4<sup>th</sup> Apl – 2<sup>nd</sup> May**

**Admission - Flyers £8.00 - Spectators £2.00**

**Ultra-light R/C models may be flown for the first 15mins of each hour  
(quad copters or heavy fast flying models not accepted)**

**For further information phone Colin Shepherd 0121 5506132**

**or e-mail [cosh43@hotmail.com](mailto:cosh43@hotmail.com)**

## **Indoor Flying Bethesda North Wales**

**Sessions are first Sunday of the Month  
September '19 through to May '20**

**13.00hrs til 16.00hrs**

Canolfan Hamdden Plas Ffrancon Leisure Centre, Coetmor New Rd,  
Bethesda, LL57 3DT.

Free flight rubber and small electric RC. Scale, sport, small helis, small  
quads, etc.

Fee £7 - £10. Contact Martin or Allan on 07425 860821

[martin.pike.xray@btinternet.com](mailto:martin.pike.xray@btinternet.com) [allanb2005@yahoo.co.uk](mailto:allanb2005@yahoo.co.uk)

Facebook <https://www.facebook.com/Flying.Bethesda/>

Teas & coffees available from the machine.



## Bloxwich Indoor Flyers

Free Flight & lightweight RC  
Sneyd Community School

Vernon Way, Sneyd Lane,  
Bloxwich, WS3 2PA

Saturdays 2pm until 5pm

Flyers - £8 Spectators £2

2020 dates

Jan 25<sup>th</sup> - Feb 22<sup>nd</sup> - Mar 21<sup>st</sup> - Apl 18<sup>th</sup>

Contact:- Allan Price

Tel: 01922 701530

e-mail: [montrose32@btinternet.com](mailto:montrose32@btinternet.com)

## BMFA South West Area Indoor Flying

organised by

Cornwall Vintage Aeromodellers

at

Saints Health and Fitness Centre

St Austell Rugby Club

Tregorrick Park, St Austell

Cornwall, PL26 7FH

Flying from 1200 to 1600 on the following dates,

2020

Sun 12<sup>th</sup> Jan - Sun 16<sup>th</sup> Feb - Sun 15<sup>th</sup> March

Mainly free flight but some micro R/C (fixed wing & helicopters)

Admission: Flyers **£10** Spectators **£1**

Phone: David Powis on 01579 362951

Email: [dave\\_powis@hotmail.com](mailto:dave_powis@hotmail.com)

## FLITEHOOK

Indoor Free Flight Meetings

West Totton Centre,  
Hazel Farm Road,  
Totton, Southampton.  
SO40 8WU

2020

12<sup>th</sup> Jan: 9<sup>th</sup> Feb: 8<sup>th</sup> Mar: 12<sup>th</sup> Apl:

Sundays 10.00a.m. to 4.00p.m

Contact: Tel. 02380 861541

E-mail [flitehook@talktalk.net](mailto:flitehook@talktalk.net)

Café on Site

Flyers **£8**

**Juniors & Spectators Free**

Flyers must be BMFA Members



## Waltham Chase Aeromodellers

Waltham Chase Aeromodellers, in association with South Hants Indoor Flyers, are pleased to announce the continuation of the Indoor F/F Meetings held at the Main Hall at Wickham Community Centre, Mill Lane, Wickham, Hants PO17 5AL. These meetings will be held on the following dates:

**Tuesday Evenings**

**2020**

**7th.Jan - 4th.Feb - 3rd.Mar - 7th.Apr  
5th.May - 2nd.Jun - 7th.Jul**

All meetings will run from 7.00 p.m. to 10.00 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 **£5** for fliers and **£1** for spectators, whilst accompanied children will be admitted free. Junior fliers will be charged as adult spectators. Fliers will be required to show proof of insurance.

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

Flitehook, who carry a large stock of indoor models and accessories, will attend many of the meetings.

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: [WCAero@outlook.com](mailto:WCAero@outlook.com))  
or see our web site: <https://wcaero.bmfa.org>

## SAM Speaks USA.

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!



## THE 2019 FREE FLIGHT FORUM REPORT

It's a Bumper Issue

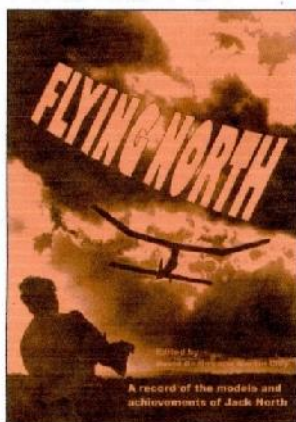
The Free Flight Forum Report is now in its thirty-fourth year and it's the biggest yet, with no less than 17 papers, covering a vast range of the topics that make free-flight so fascinating.

Only Joules and Forces - Peter Watson;  
 Classic 1/2A Models - Simon Dixon;  
 Trimming the Sopwith Snipe - Mike Smith;  
 Russell Strips - Russell Peers;  
 Testing June 2016 Tan Super Sport in April 2017 - Tim Chant;  
 Developments in Carbon Wing Construction - Stuart Darmon;  
 Buckminster - We've Got It; How Can We Use It?  
 - Gavin Manion/Stuart Darmon;  
 The Management of Models - Mike Woodhouse;  
 Combined BMFA Rubber and CdH (F1G) - Phil Ball;  
 Drone Legislation and Free Flight - Dave Phipps;  
 The Rate of Climb of Model Aircraft - Dr. John Gibbings;  
 A Review of Contemporary FAI Space Modelling - Stuart Lodge;  
 GPS versus Radio Trackers - Mike Woodhouse;  
 About Time - Chris Edge;  
 "W" Style Geodetic Ribbing for Model Aircraft and Microlights  
 - Denis Oglesby;  
 Flat Plates, Cambered Plates and Coupe Aerofoils  
 - Alan Brocklehurst;  
 FAI Free Flight Since the BoM - Stuart Darmon.



The UK price is £13.00 including postage; to Europe it's £15 and everywhere else £17. Sales of the Forum Reports help to defray the heavy expenses of those representing Great Britain at World and European Free-Flight Championships. Cheques should be payable to 'BMFA F/F Team Support Fund' in pounds sterling, drawn on a bank with a UK branch; you may also order by credit card, which is a lot easier (and cheaper).

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



Flying North is a 163 page book covering the model flying career of Jack North, and including 23 previously un-published plans of his aircraft. Access to Jack's drawings and notes dating back to 1938 means that there are a number of designs in the book likely to be tempting to the nostalgia-minded.

Contact: Martin Dilly on  
 020 8777 5533 or write to:  
 20, Links road,  
 West Wickham,  
 Kent BR4 0QW or e-mail:  
[martindilly20@gmail.com](mailto:martindilly20@gmail.com)

The price in the UK is £18; airmail to Europe £20 or to anywhere else £22. Cheques should be payable to BMFA F/F

Team Support Fund, in pounds sterling only, and drawn off a bank with a branch in the UK, you may also order by credit card, all proceeds help to fund the expenses of those representing Great Britain at World and European FF Championships

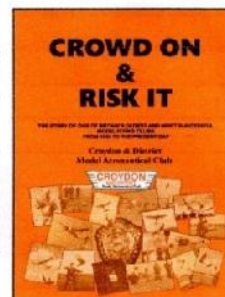
## CROWD ON & RISK IT

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 Basingstoun.

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](mailto: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

After a bit of a gap since the final 5 yards came off my last bulk roll of Japanese tissue several people have asked if it will be available again, so I've just received my sixth roll. Doing the sums, that means that there's now just under a mile of Dilly Jap covering models all over the world.

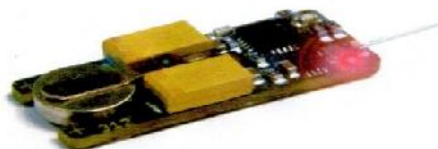
Anyhow, since the last roll came in 2015, the price is slightly higher (maybe as a result of you-know-what ...xit and its effect on sterling), but it's still only £13 for a five yard roll a yard wide.

To re-cap on the details, it's 12 gm/M<sup>2</sup> 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 normally sell it in rolls at contests, as it's a shame to fold it for mailing, but I can do that if you prefer.

I'm on 0208-7775533 or e-mail: [martindilly20@gmail.com](mailto:martindilly20@gmail.com)

# BUGS

## Free Flight Model Tracker



**£50.00** - each including 6 batteries

Ready to use radio tracker

Suitable for most handheld receivers

Powered by one 312 ZincAir hearing aid battery

27mm long, 11mm wide, 5mm thick 3 grams

including battery

Run time around 10 days

Red LED flashes when transmitting

Available in any frequency from 140MHz to 980MHz

Supplied in protective heatshrink

Very quick delivery, often next day

On sale at

[http://www.leobodnar.com/shop/index.php?products\\_id=217](http://www.leobodnar.com/shop/index.php?products_id=217)

or contact Peter Brown 07871 459291 for options

# E-Zee Timers



## *E-ZEE FF Combined Electric Motor Power and Servo Operated DT Timer Type EFF 1*

**Cost £15.00 + p & p**

This timer controls electric motor power and run-time (via an ESC) and after a further delay drives a D/T servo to terminate the flight. The motor power is set by a single turn potentiometer and the motor run and D/T periods are set by

a simple push button / LED interface

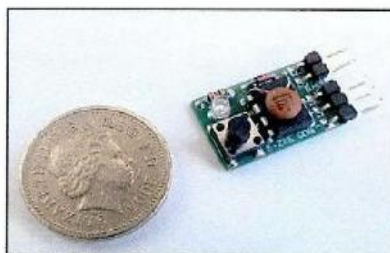
- motor run duration:-adjustable 1 to 30 seconds, set in 1 second increments
- d/t duration:-adjustable 10 seconds to 5 minutes, set in 10 second increments
- motor power:-adjustable at all times from zero to full throttle (by potentiometer)
- push button immediately stops the motor at any point during the flight profile
- duration settings are saved in memory a single button push serves to repeat a flight.

Length 30mm Width 20mm Height 11mm Weight 5gm

For installations where the timer is inaccessible remote pushbuttons and LED's are available

## **Servo operated DT Timer only Type SDG 1 Cost £12 + p & p**

This timer was originally developed for use with 36 inch hi start classic gliders, but will be of interest to all sports free flight flyers not requiring electric motor control. The timer drives a D/T servo to terminate the flight, the D/T periods being set by a simple push button / LED interface. Driven by a small 30mAh battery and using a 2 gram servo the avionics can be used as nose ballast so there is no overall weight gain



- d/t duration:-adjustable 10 seconds to 5 minutes, set in 10 second increments
  - push button immediately cancels the flight at any time
  - duration settings are saved in memory a single button push serves to repeat a flight.
- Length 22mm Width 13mm Height 11mm Weight 2gm

Timers are supplied with a comprehensive instruction manual and users guide

*E-Zee Timers have been designed and are manufactured in the UK  
Exclusively available from*

## Dens Model Supplies

*On Line shop at [www.densmodelsupplies.co.uk](http://www.densmodelsupplies.co.uk)  
Or phone Den on 01983 294182 for traditional service*

## Provisional Events Calendar 2020

With competitions for Vintage and/or Classic models

March 1 <sup>st</sup>	Sunday	BMFA 1 <sup>st</sup> Area Competitions
March 15 <sup>th</sup>	Sunday	BMFA 2 <sup>nd</sup> Area Competitions
March 29 <sup>th</sup>	Sunday	BMFA 3 <sup>rd</sup> Area Competitions
April 10 <sup>th</sup>	Friday	Northern Gala, Barkston Heath
April 11 <sup>th</sup>	Saturday	Croydon Wakefield Day & SAM1066, Salisbury Pl.
April 25 <sup>th</sup>	Saturday	London Gala, Salisbury Plain
April 26 <sup>th</sup>	Sunday	London Gala, Salisbury Plain
May 9 <sup>th</sup> /10 <sup>th</sup>	Sat/Sun	Mayfly, Old Warden
May 23 <sup>rd</sup>	Saturday	BMFA Free-flight Nats, Barkston Heath
May 24 <sup>th</sup>	Sunday	BMFA Free-flight Nats, Barkston Heath
May 25 <sup>th</sup>	Monday	BMFA Free-flight Nats, Barkston Heath
May 31 <sup>st</sup>	Sunday	<del>Southern Area Gala, Odiham</del> <b>Under Review</b>
June 28 <sup>th</sup>	Sunday	BMFA 4 <sup>th</sup> Area Competitions
July 19 <sup>th</sup>	Sunday	BMFA 5 <sup>th</sup> Area Competitions
July 25 <sup>th</sup> /26 <sup>th</sup>	Sat Sun	Scale Weekend, Old Warden
August 1 <sup>st</sup>	Saturday	East Anglian Gala, Sculthorpe
August 2 <sup>nd</sup>	Sunday	East Anglian Gala, Sculthorpe
August 9 <sup>th</sup>	Sunday	SAM1066 Cagnarata Day (250gm), RAF Colerne
August 23 <sup>rd</sup>	Sunday	Southern Gala, Salisbury Plain
September 5 <sup>th</sup> /6 <sup>th</sup>	Sat/Sun	Stonehenge Cup/Equinox, Salisbury Plain
September 13 <sup>th</sup>	Sunday	Crookham Gala, Salisbury Plain
September 19 <sup>th</sup> /20 <sup>th</sup>	Sat/Sun	Vintage Weekend, Old Warden
September 20 <sup>th</sup>	Sunday	BMFA 6 <sup>th</sup> Area Competitions
October 3 <sup>rd</sup>	Saturday	Buckminster Gala
October 4 <sup>th</sup>	Sunday	Buckminster Gala
October 5 <sup>th</sup>	Monday	Buckminster Gala
October 11 <sup>th</sup>	Sunday	BMFA 7 <sup>th</sup> Area Competitions
October 17 <sup>th</sup>	Saturday	Croydon Coupe Day & SAM1066, Salisbury Plain
October 24 <sup>th</sup>	Saturday	Midland Gala, Barkston Heath

**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](http://www.SAM1066.org)

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

[www.freeflightuk.org](http://www.freeflightuk.org) or [www.BMFA.org](http://www.BMFA.org)

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

[www.SAM35.org](http://www.SAM35.org)

## Useful Websites

SAM 1066	-	<a href="http://www.sam1066.org">www.sam1066.org</a>
Flitehook, John & Pauline	-	<a href="http://www.flitehook.net">www.flitehook.net</a>
Mike Woodhouse	-	<a href="http://www.freeflightsupplies.co.uk">www.freeflightsupplies.co.uk</a>
BMFA	-	<a href="http://www.bmfa.org">www.bmfa.org</a>
BMFA Southern Area	-	<a href="http://www.sabmfa.org.uk">www.sabmfa.org.uk</a>
SAM 35	-	<a href="http://www.sam35.org">www.sam35.org</a>
National Free Flight Society (USA)	-	<a href="http://www.freeflight.org">www.freeflight.org</a>
Ray Alban	-	<a href="http://www.vintagemodelairplane.com">www.vintagemodelairplane.com</a>
Belair Kits	-	<a href="http://www.belairkits.com">www.belairkits.com</a>
Wessex Aeromodellers	-	<a href="http://www.wessexaml.co.uk">www.wessexaml.co.uk</a>
US SAM website	-	<a href="http://www.antiquemodeler.org">www.antiquemodeler.org</a>
Peterborough MFC	-	<a href="http://www.peterboroughmfc.org">www.peterboroughmfc.org</a>
Outerzone -free plans	-	<a href="http://www.outerzone.co.uk">www.outerzone.co.uk</a>
Vintage Radio Control	-	<a href="http://www.norcim-rc.club">www.norcim-rc.club</a>
Model Flying New Zealand	-	<a href="http://www.modelflyingnz.org">www.modelflyingnz.org</a>
Raynes Park MAC	-	<a href="http://www.raynesparkmac.c1.biz">www.raynesparkmac.c1.biz</a>
Sweden, Patrik Gertsson	-	<a href="http://www.modellvänner.se">www.modellvänner.se</a>
Magazine downloads	-	<a href="http://www.rclibrary.co.uk">www.rclibrary.co.uk</a>

control/left click to go to sites

### **Are You Getting Yours?** - Membership Secretary

As most of you know, we send out an email each month letting you know about the posting of the latest edition of the *New Clarion* on the website.

Invariably, a few emails get bounced back, so if you're suddenly not hearing from us, could it be you've changed your email address and not told us?

To get back on track, email [membership@sam1066.org](mailto:membership@sam1066.org) to let us know your new cyber address  
(snailmail address too, if that's changed as well).

*P.S.*

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

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

Your editor *John Andrews*