

	NEW Clarion SAM 1066 Newsletter Society of Antique Modellers Chapter 1066	Issue nc102026 October 2026
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I 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

SAM1066 Extraordinary General Meeting

An E.G.M meeting will be held on Zoom on Wednesday 21st October 2026 at 7.30pm.

The purpose of this meeting is to present the following resolution for ratification.

It is proposed that the two societies, SAM 35 and SAM 1066, amalgamate to form a renamed society called SAM UK, to come into being on 1st January 2027.

If you wish to join the meeting please advise our secretary:

Ray Elliott - tel. 02089977745, - email: ray.elliott8@btinternet.com

We are approaching the end of SAM1066. Mike Parker and the late John Thompson deserve our thanks in abundance for resurrecting the Society when it all but foundered when our founder David Baker passed away. Thanks guys.

Wipe away the tears, what have we got in this issue:

-) A Jaguar Refurbishment and conversion by Colin Shepherd.
-) 1957 Pylonius has some observations on pilots and aeromodellers, also the *Gee-Bee* racers'
-) I pull out an old Clarion 2004 piece of mine and how I got into Indoor Flying.
-) Nick Peppiatt concludes his Guillows 'Swallow' build and makes some observations on their Dime Kits.
-) Wikipedia provides details of 'RUTAN' the first aircraft to circumnavigate the earth without landing or refuelling.
-) 1951 Here and There from the Model Aircraft reports on the National Model Engineering Exhibition and also on the A2 Nordic glider championships including a description of the unique design of the winning model.
-) Roger Newman offers his usual miscellany of thoughts and observations. He starts off with a bit about his intention to attend one of Martin Pikes indoor meets in Bangor and provides plans for two versions of 'The Elf' rubber model, perhaps suitable for indoor if built with that in mind.
-) Heard at the Hangar Doors from 1955 : talks of the 'Sea Dart' jet water plane; the expansion of M.A.P books; the Model Engineering Exhibition; modelling in the RAF; and other subjects.
-) Nick Peppiatt reports, with pictures, on the 'Cloud Tramp' mass launch on Epsom racecourse.
-) John Taylor, in response to the last issue, tells of a Jumbo Rubber model he has.
-) Rolf Christophersen shows progress of his Nordic glider build.
-) We then have bits & bobs for sale, a turnout of stuff from Martin Dilly and an engine sale of the late Jim Paton's stock.
-) A short report on the Crookham Gala by Alan Brocklehurst.
-) Engine Analysis is the Atwood Wasp .049.
-) Our secretary, in his notes for the month offers thoughts on the possibility of a new competition model class for small flying sites.
-) We wrap up with Roger's plans for the month and the usual forthcoming events adds.

Editor

(**Editor:** More than a few years back Colin Shepherd gave me his 'Jaguar' when he gave up Wakefield competitive rubber flying. I have used it on many occasions and have won the 'Jaguar Trophy' a few times. The trophy, reputedly made by Jaguar apprentices, resides in pride of place on our welsh dresser. Recently Colin asked if he could have the model back as he knew I was no longer fit to compete, he wanted to refurbish it to electric R/C. It has now been returned home and Colin has commenced work on it.)



The model before the Editor gave it a hard time in competitions

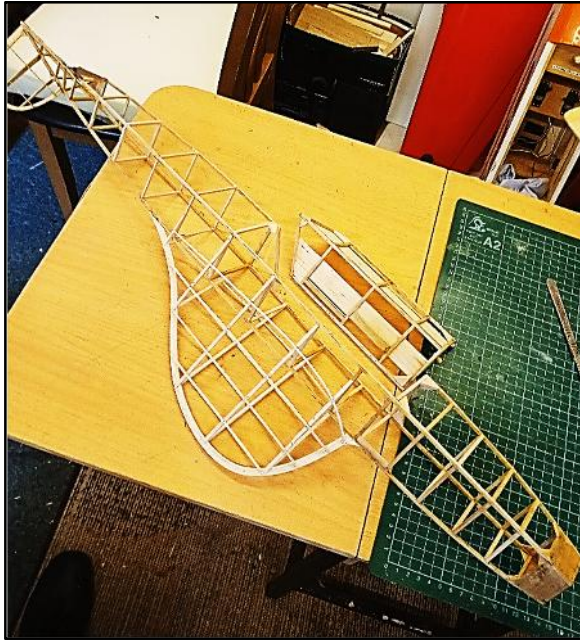
Work done so far:



Tissue stripped & underbelly removed



Making a laminated shape for the new underbelly.



Fuselage framework completed and ready for covering



Most of the reinforcement repairs done, motor and speed controller fitted
next job is to install servos and control rods.

Colin Shepherd

TOPICAL TWISTS

by pylonius

Extract from Model Aircraft October 1957

Topical Twists

by PYLONIUS

Situation Vacant

Somewhere, the other month, I read that the aeromodeller of to-day is the pilot of the future. On another page there's a picture of the plane of the future streaking confidently skywards, disdainful of anything so outdated as a human pilot.



This would seem to indicate a pretty dim future for our budding pilot. After packing away his toy models and rarin' to get at them full-size controls, he finds himself faced with two dismal alternatives; either to sit in a concrete blockhouse, count backwards from ten to zero, and prod a button, or to join the end of a dole queue. Being an open air type he'd probably choose the dole queue.

Not yet having caught up with the ready made plastic age I might have the wrong idea about the modern aeromodeller. Perhaps he's not a homo sap. type at all but a little electronic brain which turns out ready made models for the amusement of brainless

humans. In time, as it matures and grows a few more valves, it will be fitted into a sonic interceptor, and thus become the pilot of the future.

Gee!

Seeing all those fat, little Gee Bee planes floating about the other month took me right back to the balsa starved 1930's. This was the glorious hey-day of the American model mag., which invariably had one of these fat, little planes on the cover. After wading through a couple of dozen pages on the vital statistics of the little monsters (60-60-60) you would most likely come across a plan of one of the new fangled balsa models.

These models were, of course, strictly forbidden in this country, which was still deeply entrenched in the oiled-silk and spruce era. The magazines could only be smuggled in with batches of lurid, pulp literature. This made rummaging around a certain type of bookstall somewhat damaging to your moral reputation, but well worth the sacrifice.

News had leaked through that a model plane could be built with a razor blade, a pair of pliers and a handful of pins. Joe Bloggs thought that such a model would be rather on the heavy side, but, fortunately, his friend was holding a block of the infidel balsa at the time. Had he been patriotic enough to have remained loyal to the latest British article on "Four Blade Airscrews from Lignum Vitae," the model world would have been the richer by the loss of Joe Bloggs.

The intriguing thing about the new American models, apart from the fact that they didn't require multi-gear boxes and soldered up tailplanes, was their inability to do less than 18 min. Flipping through the mags, Joe Bloggs and friend were disdainful of anything that wouldn't remain aloft for more than a round 20 min.



"Hardly worth chucking the thing up for anything less," as Joe remarked.

They hadn't, of course, reckoned on our treacherous climate, but for some curious reason they were quite triumphant at getting 20 sec. out of the tenth model.

Fairy Aviation

As my odd reports always read a bit Irish I'm naturally interested in the genuine article—the Irish Club News. After ploughing tearfully through the calamitous report from the Phoenix Club of Dublin's fair city I was asking myself what had become of the luck of the Irish.

After much thought I could only conclude that the fairy folk took a dim view of competition from other improbable flying creatures, and turned out in force for a spot of sabotage.

With the sound of breaking Wakefield motors providing such entertainment we can only assume that the good fairies are partial to skiffle music, which just shows how inhuman they are.

It may well be that the fairy folk have nothing against model planes as such, but are disconcerted by the broomstick fuselages which are now all the rage. Seeing one of these pole-like efforts floating along they take it that their legendary enemy, the flying harpy, is abroad.

To avoid mistakes perhaps the Irish boys could fit their models with some friendly sort of identification, like a four leaf toadstool, so the good fairies will know which is witch.



Wash-Out

It appears that one of the first model flying machines was not just a straightforward, chuck-it-and-run affair made from eagles' feathers and bicycle chains, or whatever they used in those days—there were certain strings attached. In fact, it was a monster sort of kite. Not a flimsy Chinese affair with painted dragon and paper pigtail but something that looked like an enormous scrubbing board with Monday's washing flying below.

One thing these early, rope-tugging fliers had in common with the modern mod was a perverted idea of the beautiful. As today the love struck zealots make cooing noises in the direction of some repulsive pylon model, so did their rope-tugging forebears regard their gruesome contraption as graceful.

Even some of my models I regard as beautiful—when they fly. Definitely a love starved type.

Up the Pole

I seem to be a dead loss at these "win a guinea" competitions. Now, take the latest one, guessing what the lozenge shaped object on a ski plane is. The answer came to me in a flash. Obviously the pilot had heard that, up in those regions, you would never lose your way if you knew the position of the North Pole. So, being a canny sort of character, he just dug the thing up and mounted it on top of his plane—horizontally, of course, as the other way up would have been too tall a story.

What could be a more logical explanation? But, I bet I don't win. Almost certain to be something silly like radar.

A Doubtful Start

Report has it that the first model aeroplane was built about 1840—just a bit before my time. Pleasant visions are conjured up of a happy, be-whiskered gentleman reverently launching his model across ye olde village green. Now a few doubting Thomases are questioning the fact that the first model aeroplane really flew. Possibly their first models didn't, even when built from a semi-finished kit, so they don't see why this be-whiskered old gentleman should have things all his own ancient way.

SKETCHES BY _____ ALI

John Andrews - Goes Indoors - Part 1

I think I have mentioned before that I get writers block, that's fancy talk for "don't know what to write about". However, after a bit of head scratching, it occurred to me that this time of year I start doing the rounds of the Sports Centre Indoor Meetings so I'll inflict some of my thoughts and experiences of this sphere of aeromodelling onto your good selves.

I have tried to get to as many different venues as I can, to date I have visited the following Sports Centres: Coventry, Oadby, Nottingham, Bicester, Oxford, Wallingford, Swindon, Oundle, Cradley Heath, Alumwell, Impington and Moulton. They are all excellent facilities, two of the larger ones are Swindon and Alumwell which I think are 10 badminton court size. I fortunately live in Rugby which is close to the M1 and M6 motorways which enables me to get to most of the venues in an hour or so.

Lets get vintage to start with, I think I mentioned in my first attempt at Clarion fodder that the Rugby Model Engineering Society Aeronautical Section (if you want a club name get a good one) had an indoor club night in the local scouts HQ in about 1950. Apart from the suicidal jetex RTP speed model I did not feature with any distinction in the evenings activities. Around that era the club also had a static display at a local hobbies exhibition and during the day we gave RTP demo's using our outdoor rubber jobs with the motors restranded to half cross section. We managed flights of around two minutes or so if memory serves correctly, can you picture an eight ounce Wakefield fizzing round on 10ft of cotton thread with a safety pin through the wing tip.

Indoor flying did not feature in my modelling activities again until around 1970. I was well into radio control flying by this time and had been working for the Dunlop Aviation Division for a couple of years when a group of us started messing about during the lunch hour flying indoor models, free flight that is, in empty factory buildings.

Counting up there were at least seven of us as I recall, I seem to have the knack of interesting folk in various activities that I follow. Previously I had run an interdepartmental cricket team and a smallbore rifle team at the AEI Rugby Engineering Works.

Back to Dunlop, there must have been an article and plan in the Aeromodeller for I built an Easy B with condenser tissue covering and eventually managed a 2min. 40sec. flight. This was achieved by the fluke of launching from floor level, climbing up to the roof truss, banging on it and diving back down, recovery at floor level, then back up to roof truss for the second time to complete the flight with a good let down over a clear floor space.

We built one or two odd ball things, I remember a helicopter built by Mick Blunt (he got me into match fishing but that is another story, I did win my first fishing match though' with the Dunlop Angling Club at goose tree corner over towards Ely. I bagged 14lbs of bream).

Digressed again did I not. Mick's copter was a 12" built up square tube fuze with built up rotors top and bottom. He had, I think, one loop of 1/4 for the motor which was no use at all so we doubled it and wound it up. Mick held the two rotors then released, the copter wobbled for a second or so then up she went quite sedately to the roof.. Now the roof was a typical factory zigzag and the copter squared itself up on the slope and began to walk along the ceiling. We waited for its arrival at the roof truss at the end of the bay. No problem for the chopper, the rotor stopped, the chopper dropped down, walked under the truss, up the other side and walked on through the next bay. One more bay and she ran out of steam and down to the floor, Mick was more than pleased, he'd only built one other model before.

I built a rather heavy ornithopter and once again the 1/4 motor required doubling. It startled a welder one lunch hour on its one and only successful flight by fluttering by him whilst he was still welding, he was still under his mask and didn't hear it coming. Next flight it just blew apart when we piled on the turns. We had quite a good run until we ran out of buildings to fly in. In the process I had crossed swords with microfilm, scum round the bath, cellulose smell through the house, and an irate first wife. I did manage to cover a model though' and it was very satisfying to have achieved it using only dope and castor oil. When eventually activities petered out, the remaining models were confined to the loft. The EZB in a cardboard box and the microfilm job in a very old suitcase.

Indoor did not raise its head again until late 1996 or early 1997. I had retired, got fed up with radio, started free-flight again, re-met Peter Martin and was into vintage. Peter was promoting informal vintage meets during the winter months on Warwick Race Course at that time and one afternoon he mentioned that he was going to Coventry Sports Centre on the next Saturday evening to fly indoor. "Great" says I, "I think I have got two up in the loft somewhere."

Up into the loft goes I and emerges with the cardboard box and the old suitcase. This was a miracle in itself, since I had last seen them I had been divorced, remarried and moved house. The EZB emerged intact from the cardboard box complete with a packet of Micro-X rubber. The rubber must have come from Laurie Barr in the seventies, I seem to recall that he supplied bits and bobs in those days. The microfilm job however was a different story, the rolled tube fuselage and balsa prop were the only recognisable bits, the wing and tail were little piles of sticks with little or no evidence of microfilm covering. I re-assembled the framework and covered with pink and blue tissue. It must have looked very pretty because it was photographed on my first visit to Cardington later that year and appeared in the Aeromodeller. The effect was spoiled though, it was in black and white.

I had a really good time with the Coventry lads and the indoor bug bit me. I built three or four condenser tissue EZB's and a Penny Plane or two.

Coventry ran several meetings through the 96/97 winter and I honed my skills to a level of mediocrity such that I contacted Laurie Barr and extracted details of indoor meetings at the hallowed halls of Cardington. I keep an A4 indoor logbook (don't you just hate people who are organised) and it records that on April 13th.1997 I paid my first visit to No.1 hangar. That first visit was a real eye-opener but I'll keep Cardington exploits for next month.

My indoor interest continued to expand and after I procured some Mylar from Mike Woodhouse things began to look better. Eventually I managed a 5 minute flight with a large Mylar covered job using the old rolled tube fuz from the original Dunlop model, incidentally I am still using that fuselage (waste not want not). In the early days the Coventry lads were flying Hanger Rats and having informal competitions so I badgered Brian Roberts for a plan. I built mine and on Brian's advice added a little more down-thrust than the plan. I also put some under camber on the prop I just could not bring myself to make a flat plate prop .



Author with winning Hanger Rat

I first flew the Rat at Coventry on Dec.5th.98 with conspicuous failure. My logbook reads as follows

Comment 'No proper flights, dived in when motor ran down'.

The next outing however was a different story, logbook details as below

Coventry 9th. Jan 99			
Motor	Turns	Time	Comment
			More down-thrust, Pinned posts
1/8 x 18"	1000	2-14	
"	1200	2-18	With time out for hang up
1/8 x 20"	1600	-	Hung up
1/8 x 20"	1600	2-46	Banger

I had increased the down-thrust, I don't remember what the 'pinned posts' means, I assume that as I had made the wing removable with tissue tubes they may have been a little slack. John boy had made the winning flight and went home a happy bunny.

I don't fly at Coventry any more as around 1999 indoor radio was beginning to become popular and as more and more people were flying it it became unrealistic to mix free flight and radio. My last visit to Coventry resulted in my Polystyrene Hanger Rat being chopped into pieces by a tethered electric helicopter. The radio boys now have sufficient support to run their own meetings so its free flight only meetings for me now.

For anyone who is contemplating indoor free flight for the first time I would strongly recommend starting with the Hanger Rat. Its big enough to make trimming reasonably easy and strong enough to take more than a little abuse. It can be flown on 1/8 rubber strip which makes motors easy to get. John Hook can supply Kits and ready builds and he attends a lot of indoor events so visit one and get going. The best results from a Rat will always come from a scratch built one to plan. The plan was re-published in the Aeromodeller Vol.63 No.757 Nov./Dec. 1998.

Advice I would give on Hanger Rat construction is :-

- a. Build in at least 5 degrees of downthrust
- b. Make wings plug-in using tissue or flattened alloy tubes.
- c. Fly in R/H circles with about 20 degrees of rudder.
- d. Have obvious wash-in on R/H wing, say 1/4" down at T/E.
- e. Don't forget the pilot (I've got John Hook piloting my Poly Rat, I fitted him for John's Birthday Bash at Swindon last year)

If you want maximum performance then build as light as you dare, leave out the wing braces and use single cabane struts in the centre.

I think four pages is as much as you lads can take in one dose, I'll quit now and next month I'll put you to sleep with my exploits in the Cardington Airship Sheds, the Mecca of indoor flying.

John Andrews

There appear to be a large number of models in the Guillow's 'F' series. A number of plans for these are available for these on Outerzone - www.outerzone.co.uk and further examples can also be found in the plans gallery on the latest iteration of Hip Pocket Aeronautics [Hip Pocket Aeronautics Plans Gallery](#) , which is now looked after by George Kandylakis. The picture of an original Guillow's kit box was found in an article about Paul K. Guillow (P.K.G.) and his company on the Aircraft Owners and Pilots Association website [Rubberband man - AOPA](#) . Fortunately, the associated plan is available in the HPA plans gallery. The Fokker D-7 with the kit number F-3 is clearly an early example of the Guillow's range. The plan file name has a '1934' in it, which seems to be an appropriate date.

In comparison, the plan for the later Swallow, kit F82, is clearly marked 'COPYRIGHT 1939 P.K.G.' The earlier kits featured thick sectioned wings, which must have been double covered, but the instructions mention covering the tail surfaces on one side only. There are also the notes: - 'Shrink tissue tight by spraying the model lightly with water except for the tail surfaces. Water is used instead of dope on light models as dope makes the models too heavy'.

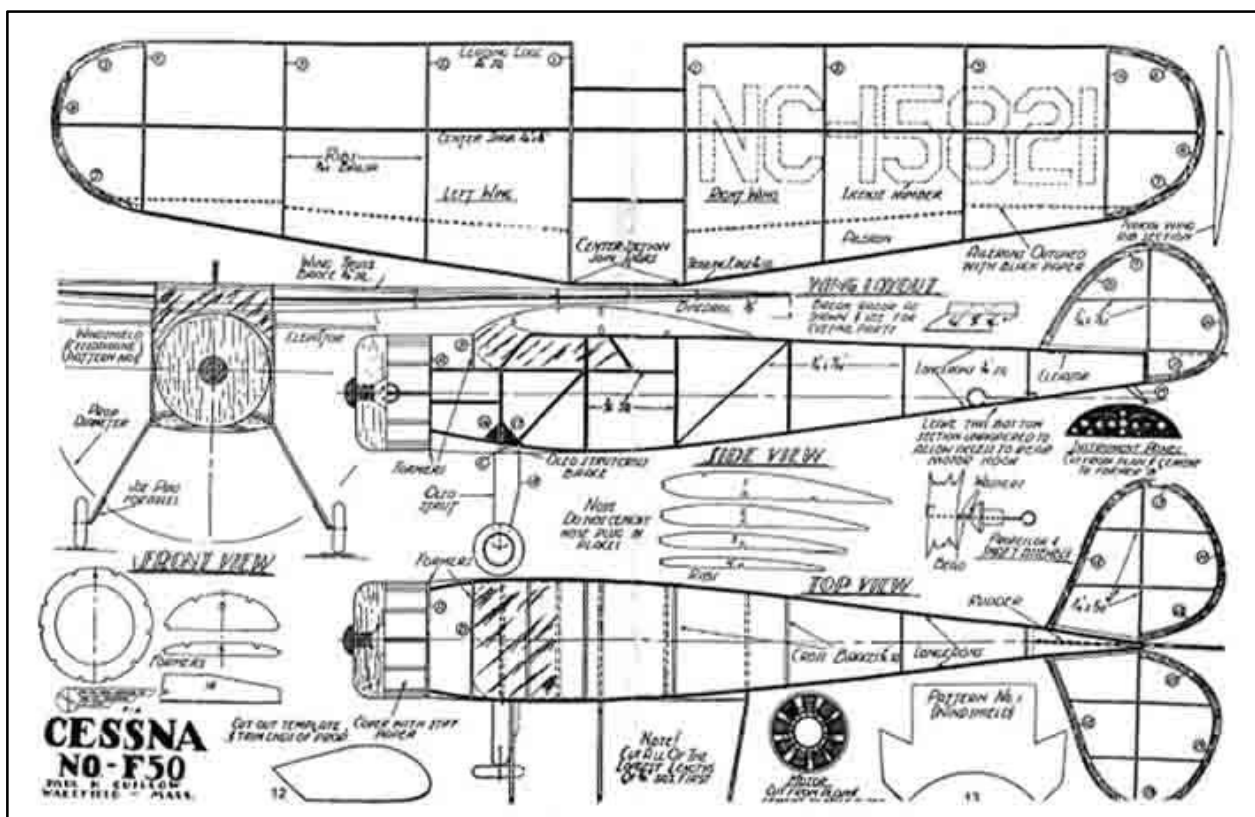
As can be seen the instructions are included on the Fokker D-7 plan, but they are an attempt to be universal, as a number of other kit F numbers are mentioned, up to F-34. I have been unable to identify the subjects of many of these numbers. These early models, where the plans can be found, have some bamboo flying surface outlines, a wire hook for the rear motor anchorage and detailed instructions printed on the plan.

The kit contents listed on the box include: -

Printed balsa sheet, balsa strips (supplied as a spray, according to the instructions), balsa nose block, sawed balsa prop., wood nose plug, Japanese tissue, full size plans, complete instructions, rubber motor, tube of cement, two wire hooks and wood wheels.

There is no mention of the bamboo! But, this must be a good indication of what was supplied with the later Swallow kit, where, I assume, a set of universal printed instructions were supplied separately from the plan.

In between the earlier kits and the COPYRIGHT 1939 P.K.G. models where the notes on the plan are clear, 'COVER WINGS AND ELEVATOR ON TOP SIDE ONLY - RUDDER ON LEFT SIDE ONLY', and use a cross pin through balsa uprights for the rear motor anchorage, are models with no bamboo outlines, but still with thick double covered wings and a wire hook anchorage. An example is the 16" wingspan Cessna (Airmaster) No. F50.

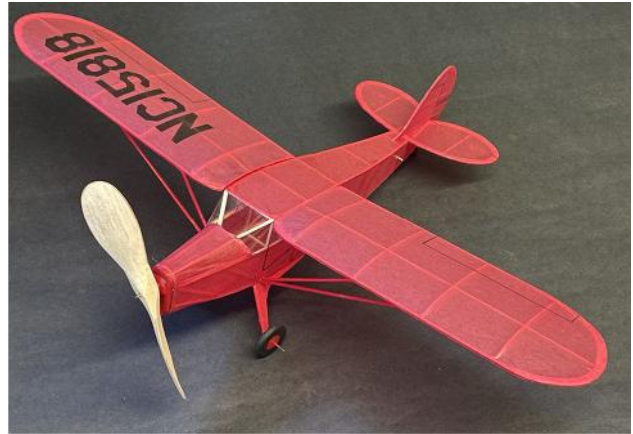


Guillow's F50 Cessna.

There is also a plan on Outerzone for a 12" wingspan Cessna, No G9, which looks like a three-quarter sized version of the plan above with the same structure.

Unlike the spurious registration given on the Swallow plan, NC15821 is a genuine Cessna C-34 Airmaster registration.

The Guillow's Dime Scale Swallow: - Completion



Guillow's Swallow with wings attached, card dihedral gauge and rear struts. & 16" Swallow ready for test flying.

Attaching the wing panels proved easier than I had feared. I coated the mating surfaces on the inner wing rib and the fuselage top with thinned Ambroid. The panels were then aligned separately to the fuselage using the nylon pegs and some more Ambroid applied at the gap before it was closed. Whilst the cement was drying the dihedral was set using a card gauge. The front wing struts, tissue covered 1/16" square balsa, were then fitted, again attached using Ambroid. As the cement is a shrinking variety any small gaps at the wing fuselage joints were closed neatly.

The stabiliser was retained with a couple of spots of cement at the leading edge/fuselage junction, to allow for decalage adjustment, if necessary. The fin was mounted with a small length of 15 Amp fuse wire and a couple of spots of adhesive at the stern post, again to aid adjustment. A couple of degrees of right side thrust and downthrust were adjusted into the KP Aero nose bush. And so off to the Trinity Indoor meeting on the 18th July for some trial flights. I started with a loop of 0.062" wide rubber, but the power was clearly insufficient. With a loop of 0.075" and 600 turns the model was starting to climb in a nice right hand circuit well within the confines of the hall. I took full advantage of the angled base I had built into the fin, and packed up the stabiliser by 1/16". The set up that I arrived at after a little trimming was: -

- CG at 24mm back from the leading edge (34%)
- Starboard wing flat, port wing 1/16" washout (this was built in)
- Fin with slight right offset, front of fin offset 0.5mm to centre line
- Weight without rubber 7.7g, including 0.25g nose weight
- Power rubber loop of 0.075" Super Sport, 1.28 g in weight
- Apologies for the mixed units, but that's how I work!

With 1260 turns I achieved a very satisfying hand launched flight over just over 50s.

So, despite its small tail volume, this is a basically sound model design. P.K.G. clearly knew what he was doing. The lightweight construction certainly helps.

Comet Skyrocket

In the August 2026 edition of NC Roger Newman presented the rubber powered Comet Skyrocket plan. I spotted a CO₂ motor installation on the drawing and realised it could not be pre-war as stated. On checking the plan on Outerzone the date is given as 1947, which would coincide with the introduction of the OK CO₂ motor. However, the plan does not show how or where to install the CO₂ capsule and holder. I also discovered the design was by one Vito M Garofalo, who was a Comet designer for many years and later established the Tern range of kits. A biography of Vito can be found in the AMA historical archive at [Vino M. Garofalo](#).

Nick Peppiatt

The **Rutan Model 76 Voyager** is an aircraft designed by Burt Rutan that became the first to fly around the world without stopping or refueling. It was piloted by Dick Rutan and Jeana Yeager. The flight took off from Edwards Air Force Base's 15,000 foot (4,600 m) runway in the Mojave Desert on December 14, 1986, and ended 9 days, 3 minutes and 44 seconds later on December 23, setting a flight endurance record. The aircraft flew westbound 26,366 statute miles (42,432 km; the FAI accredited distance is 40,212 km) at an average altitude of 11,000 feet (3,350 m).

Design and development

The aircraft was imagined by Burt Rutan and his brother Dick Rutan in 1980. Burt sketched his concept for the aircraft for Dick and Jeana Yeager during a lunch in 1981. The idea was sketched out on the back of a napkin. Voyager was built in Mojave, California over a period of five years, mainly by volunteers working under both the Rutan Aircraft Factory and an organization named Voyager Aircraft. Burt Rutan served as the lead designer for the project, and the chief aerodynamicist was John Roncz.

The airframe made of fiberglass, carbon fiber, and Kevlar weighed 939 pounds (426 kg) when empty. With the engines included, the unladen weight of the plane was 2,250 pounds (1,020 kg). When it was fully loaded with fuel for its historic flight it weighed 9,694.5 pounds (4,397.4 kg). The aircraft had an estimated lift-to-drag ratio (L/D) of 27. The canard and wing airfoils were custom-designed, and the aircraft was analyzed using computational fluid dynamics. Vortex generators were added to the canard to reduce sensitivity to surface contamination by rain.

Model 76 Voyager	
	
Voyager returning from its flight	
General information	
Type	Record plane
Manufacturer	Rutan Aircraft Factory
Designer	Burt Rutan
Number built	1
Registration	N269VA
History	
Introduction date	1984
First flight	June 22, 1984
Retired	1987
Preserved at	National Air and Space Museum



Voyager on display in the National Air and Space Museum, Washington DC

Voyager had front and rear propellers, powered by separate engines. It was originally flown on June 22, 1984, powered by Lycoming O-235 engines with fixed-pitch propellers. In November 1985, the aircraft was rolled out, fitted with world-flight engines, an air-cooled Teledyne Continental O-240 in the forward location and a liquid-cooled Teledyne Continental IOL-200 in the aft location. Both were firstly fitted with wooden, variable-pitch electrically actuated MT-Propellers. The plan was for the rear engine to be operated throughout the flight. The front engine was intended to provide additional power for takeoff and the initial part of the flight until fuel consumption significantly reduced the aircraft weight and lift-induced drag.

On July 15, 1986, Dick Rutan and Yeager completed a test flight off the coast of California, in which they flew for 111 hours and 44 minutes, traveling 11,857 statute miles (19,082 km) in twenty circuits between San Luis Obispo and Stewarts Point, breaking the previous record held since 28 May 1931 by a Bellanca CH-300 fitted with a Packard DR-980 diesel engine, piloted by Walter Edwin Lees and Frederic Brossy which had set a record by staying aloft for 84 hours and 32 minutes without being refueled. The first attempt at the Voyager test flight was ended by the failure of a propeller pitch-change motor that resulted in an emergency landing at Vandenberg Air Force Base. On a test flight on September 29, 1986, the airplane had to make an emergency landing due to a propeller blade departing the aircraft. As a result, the decision was made to switch to aluminium Hartzell hydraulically actuated propellers. In a crash program, Hartzell made custom propellers for the aircraft, which were first flown on November 15, 1986.

World flight

Voyager's world flight takeoff took place on the longest runway at Edwards AFB at 8:01 am local time on December 14, 1986, with 3,500 of the world's press in attendance. As the plane accelerated, the tips of the wings, which were heavily loaded with fuel, were damaged as they unexpectedly flew down and scraped against the runway, ultimately causing pieces (winglets) to break off at both ends (the pilot had wanted to gain enough speed for the inner wings, rather than the fragile outer wings, to lift the plane; in 67 test flights, the plane had never been loaded to capacity). The aircraft accelerated very slowly and needed approximately 14,200 feet (2.7 mi; 4.3 km) of the runway to gain enough speed to lift from the ground, the wings arching up dramatically just before take-off. The two damaged winglets remained attached to the wings by only a thin layer of carbon fiber and were removed by flying the Voyager in a slip, which introduced side-loading, tearing the winglets off completely. Some of the carbon fiber skin was pulled off in the process, exposing the blue foam core. Burt Rutan following with pilot Mike Melvill determined that Voyager was still within its performance specifications despite the damage and decided to allow the flight to continue. During the flight, the two pilots had to deal with extremely cramped quarters. To reduce stress, the two had originally intended to fly the plane in three-hour shifts, but flight handling characteristics while the plane was heavy prevented routine changeovers, and they became very fatigued. Dick Rutan reportedly stayed at the controls without relief for almost the first three days of the flight.

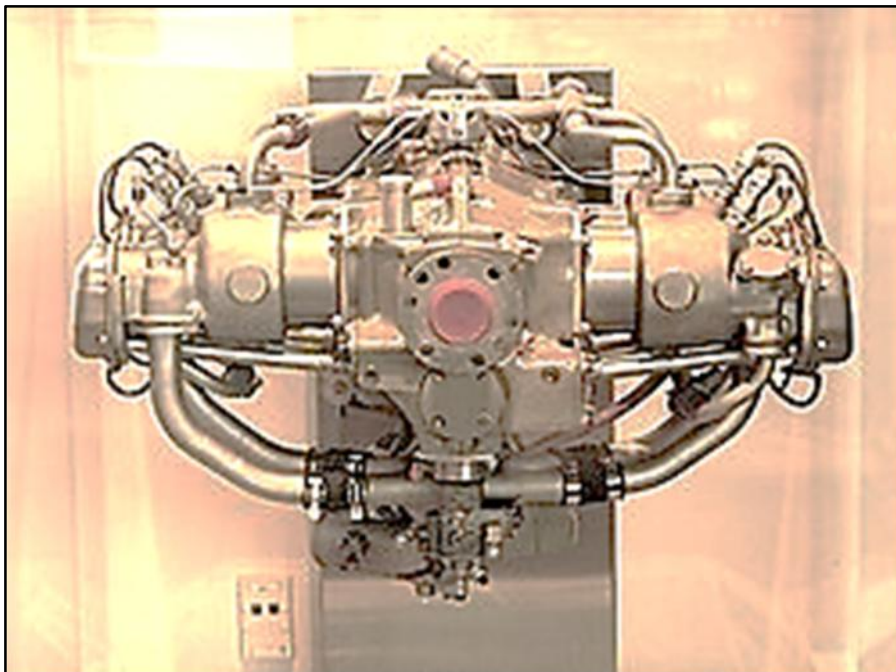


Damaged left wingtip

The plane also continuously reminded the pilots of its pitch instability and fragility. They had to maneuver around bad weather numerous times, most perilously around the 600-mile-wide (1,000 km) Typhoon Marge. Libya denied access to the country's airspace in response to Operation El Dorado Canyon earlier that year. There were contentious radio conversations between the Rutan brothers as Dick flew around weather and, at one time, turned around and began doubling back. As they neared California to land, a fuel pump failed and had to be replaced with its twin pumping fuel from the other side of the aircraft.

In front of 55,000 spectators and a large press contingent, including 23 live feeds breaking into scheduled broadcasting across Europe and North America, the plane safely came back to earth, touching down at 8:06 a.m. at the same airfield 9 days after take-off. Rutan made three low passes over the landing field before putting Voyager down. The average speed for the flight was 116 miles per hour (187 km/h). There were 106 pounds (48 kg) of fuel remaining in the tanks, only about 1.5% of the fuel they had at take-off.

Sanctioned by the FAI and the AOPA, the flight was the first successful aerial nonstop, non-refueled circumnavigation of the Earth that included two passes over the Equator (as opposed to shorter ostensible "circumnavigations" circling the North or South Pole). This feat has since been accomplished only one other time, by Steve Fossett in the Virgin Atlantic GlobalFlyer (also designed by Rutan). For the feat, Yeager, the Rutans, and crew chief/builder Bruce Evans received the 1986 Collier Trophy.



Replica of the rear Teledyne Continental Motors engine of the Rutan Voyager

Specifications

Crew:	two
Length:	29 ft 2 in (8.89 m)
Wingspan:	110 ft 8 in (33.73 m)
Height:	10 ft 3 in (3.12 m)
Wing area:	363 sq ft (33.7 m ²)
Airfoil:	Roncz 1046 (root), Roncz 1080 (tip), 1082/1082T (canard) ^[22]
Empty weight:	2,250 lb (1,021 kg)
Gross weight:	9,694.5 lb (4,397 kg)
Powerplant:	1 × Teledyne Continental O-240 4-cylinder horizontally-opposed engine, 130 hp (97 kW) (front engine)
Powerplant:	1 × Teledyne Continental IOL-200 4-cylinder horizontally-opposed engine, 110 hp (82 kW) (rear engine)
Propellers:	2-bladed
Performance	
Maximum speed:	122 mph (196 km/h, 106 kn)
Range:	24,986 mi (40,212 km, 21,712 nmi)
Endurance:	216 hours

Here and There

THE EDITOR COMMENTS ON CURRENT TOPICS

THE "MODEL ENGINEER" EXHIBITION One of the main attractions at this year's *Model Engineer* Exhibition, the attendance at which exceeded last years by some thousands, was the Model Aircraft Competition Section.

Here the current popularity of flying scale models was very much in evidence and some remarkably fine examples of workmanship were to be seen. The judges task was a very arduous one and the standard was so high that it would be no exaggeration to say that at least 75 per cent. of the models entered deserved to win a prize.

The Championship Award went to P. M. H. Lewis, of London, N.3, for his splendid 1/18th scale Hawker *Demon* which was a very fine example of clean construction and neat finish.

The "eye catcher" in this section was however, undoubtedly a model of a supersonic Naval jet which was entered by L. W. Harrison, of London, S.W.6. This was a very close runner-up for the Championship Award and the wealth of detail which had been incorporated in the model was incredible. Mr. Harrison certainly deserves full marks for his imaginative skill.

Next month's MODEL AIRCRAFT will contain a complete list of the prize winners together with photographs of the winning models.

AUSTRIA WINS THE A/2 As we go to press we learn that Oskar Czepa (pronounced Sheppa) of Austria, has won the 1951 Swedish Cup contest for A/2 gliders, with a three-flight aggregate of 871 seconds. All three of Czepa's flights were, in fact, maximums (five minutes under F.A.I. rules), bad visibility rendering the official time of his second flight as 217 sec.

The winning model is unorthodox in design and completed different from accepted British or Continental "Nordics." A very large wing area is employed with a span of over 6 ft., the tailplane area being only about one-seventh of the wing area. Fuselage is of the stick type, and also very long. The necessary fuselage area is given by a nacelle-type fairing around the tailplane centre section. Another most interesting feature is the bird-type aerofoil section employed.

According to the designer, models of this type give their best performance in still air conditions. This is particularly significant since the 1952 contest will be held at Graz in Austria in, so we understand, still air (as far as this can be guaranteed). We are there-

fore publishing plans and a detailed description of the design features of this winning model in an early issue. We hope, also, to include plans of the second place model (Petkovski of Jugo-Slavia), which also incorporates a number of unusual features.

R. C. Monks was top place British team member, placing fourth (including two maximums). Other British placings were H. R. Thomas 14th; W. T. Bailey 28th; and W. P. Holland 29th, out of a total of 42 entries.

The International Power Duration event held at the conclusion of the meeting was won by Jacques Morisset, of France, with a conventional long-moment pylon design with a British Elfin 2.49 motor. R. C. Monks was also fourth in this contest (Elfin 1.8)

Swedish Cup Result			sec. agg.
1. Oskar Czepa	Austria	...	871
2. Ljube Petkovski	Yugoslavia	...	800
3. Arne Hansen	Denmark	...	797
4. R. C. Monks	Great Britain	...	754
5. Pierre Serres	France	...	725
6. Andre Avonts	Belgium	...	689

(11 nations competed)

A detailed report of the International meeting at Bled in Yugoslavia will be given in our next issue, this meeting having been covered for us by Ron Warring, with Don Brockman as photographer.

WEMBLEY LESSONS

In view of the fact that the so-called Festival of Britain National Model Flying Championships, which were held at the Empire Stadium, Wembley, on July 14th, only drew a crowd of little more than 1,000, we can probably take it for granted that the sponsors will not be prepared to repeat the experiment next year.

From the competitors' point of view it was an enjoyable meeting, but it must be borne in mind that it was not organised for the benefit of the competitors—a point which seems to have been overlooked by many of the fliers present. The object of the Wembley Stadium authorities was to put on a show which it was hoped would attract sufficient numbers of the general public to make it a paying proposition. After all, they do not run speedway race meetings because the riders enjoy motor-cycle racing or greyhound races to provide exercise for the dogs!

It has been said that the poor attendance was due to the almost entire lack of press publicity which the meeting was given; to a certain extent this may be

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true. Supposing, however that a crowd of say 20,000 had been present, would the sort of show which they would have seen have kept them interested for 3½ hours and sent them home feeling that they had had good value for their money? We doubt it very much. Such shows are all right in small doses as additional attractions at air displays, fetes, etc., but a whole afternoon of C/L flying is, even to us, positively boring. Speed flying in particular is extremely dull to watch, unless one happens to be a C/L fan, and present day stunt flying is not much better. At Wembley the only demonstrations which had any spectator appeal were the mock "dog fight" between the *Flying Fortress* and the Fokke Wulf 190 and the flights made by the large Bristol *Brabazon* and Johnny Nunn's jet powered D.H. *Vampire*. As we have said before in these columns, team racing could be made interesting for the uninitiated to watch if it was well staged. However, in an arena as large as Wembley Stadium the fact that team racers are relatively small models is a big drawback.

We have mentioned all these points because we would not like to see the Wembley fiasco repeated. If at some time in the future a sponsor is found who would be prepared to back the organisation of a similar meeting we hope that the lessons learned at Wembley will be remembered—otherwise the event may well do the model aircraft movement far more harm than good.

TIMEKEEPERS, TYRO AND EXPERT

We could not agree more with our contemporary when they raise the question of the varying standard of eyesight as displayed by timekeepers at important National events. The standard of contest flying is now very high and, even in poor weather, something like a minimum three-flight aggregate of 12 min. is necessary to get into the top places.

Now, in poor weather, it is often very difficult to keep a model in sight for 4 min., and contests are won and lost on the ability of the timekeepers concerned to follow the flight through as far as ever possible. A system which allows a model to be clocked off immediately it disappears from view, even if momentarily, when it may be hundreds of feet up and obviously good for a much longer *actual* flight time seems unfair. When a model is quite high and near the limit of visibility it is generally invisible and visible, alternately. As it turns one way it disappears from sight and then re-appears again on the other part of its glide circle. The inexperienced timekeeper tends to "press the button" immediately the model first disappears from view, the more favourable official to wait until it is obvious that the model will not re-appear again and is definitely "out-of-sight." That two such interpretations of the rule are possible is inconsistent, to say the least.

There is no simple solution to this vexed question of timekeeping. We have heard many suggestions, and thought of a few ourselves. A simple eyesight test will not do much to improve the position, although it is a definite fact that many people just cannot see a model at a distance when it is clearly visible to other onlookers.

One suggestion made by a leading contest flier was to allow 10 sec. from the time a model first disappeared from view before clocking off. If the model reappeared again within that time, then timing was continued, and so on. Another suggestion was that binoculars should be used in the *really important National events*. Cost would prohibit the universal use of binoculars—those clubs or areas which had enough would obviously be at an advantage over poorer rivals—but it is not impossible to hope that with, say, a set of six official timers for the Wakefield and Nordic Trials enough binoculars could be bought—or borrowed—to eliminate the "eyesight factor" from a model's official performance.

One thing we do not want to see, however. With all this publicity now being devoted to clocking models off too soon the natural reaction may be for timekeepers in the future to err on the side of being too generous and resolutely refusing to clock off as long as they *think* the model must still be airborne. This could lead to a state of affairs even worse than the present!

CIRCULAR RUNWAYS?

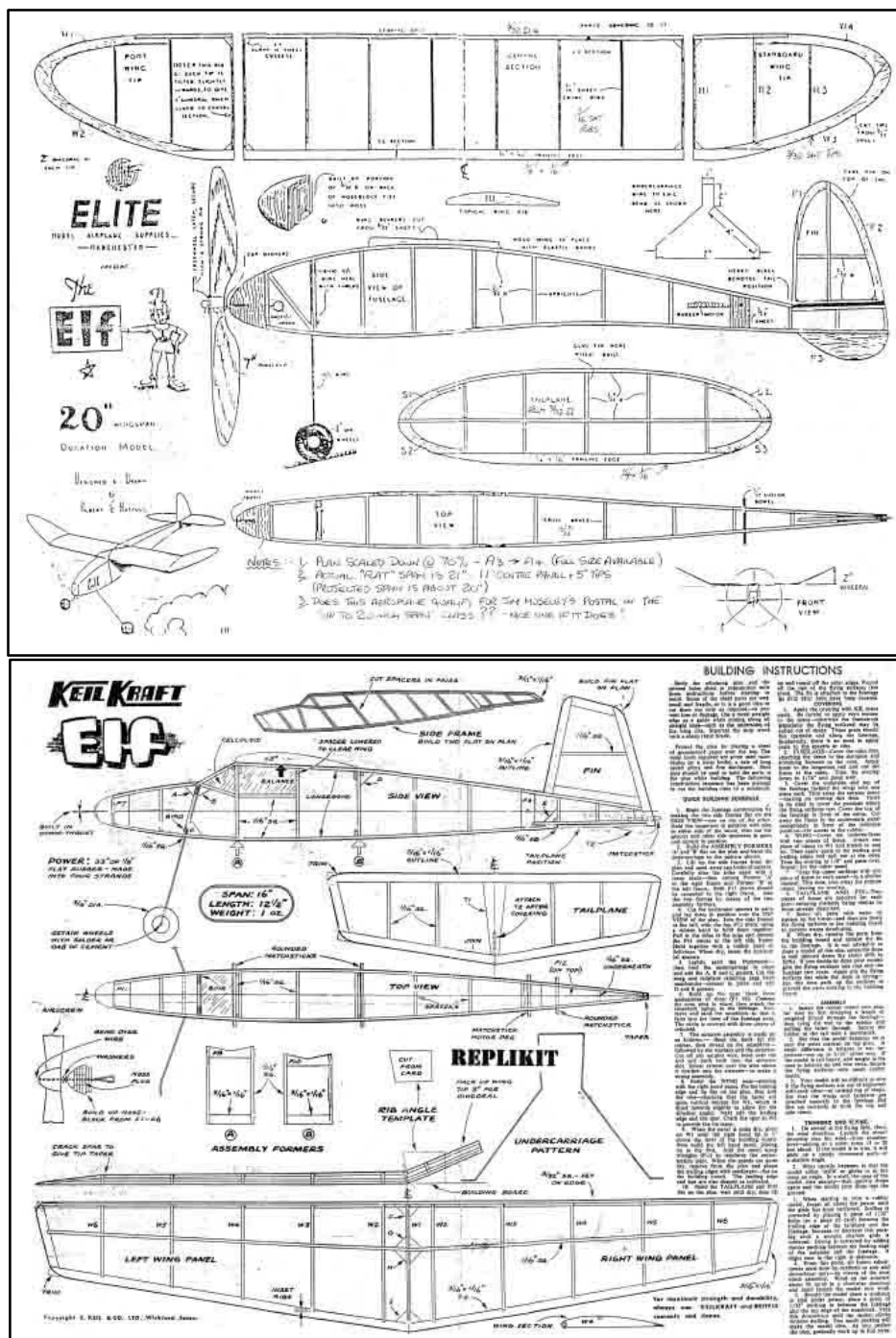
Once again the full size people have "borrowed" an idea from the modellers. The U.S. Army are now using control line take-off to launch remote control target models. The model is placed on a three-wheeled dolly tethered to a central pole by a 70 ft. cable. After some three laps the aircraft has picked up sufficient speed to become airborne and fly off the dolly, to continue in free flight under radio control. Previously the method of launching used was by rocket assistance, off a specially prepared ramp. This new method, it is claimed, saves both time and expense. Perhaps it is not beyond the bounds of possibility that one day we shall see conventional aircraft with pilot and passengers aboard taking off "control-line style." It would save a lot of runway!



The supersonic Naval jet "Attacker" model by L. W. Harrison, of London, S.W.6, which attracted a good deal of interest at this year's "Model Engineer" Exhibition

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Autumn approaches & the nights begin to draw in. Thoughts turn to a bit of indoor flying, where at least there are no long retrievals albeit in my case. I have a fairly lengthy journey to reach the nearest free flight indoor centre at Bangor, ably administered by our own Martin Pike who is endeavouring to stimulate a local "one model" activity. Martin has kindly "bulk purchased" a few kits of the old Keil Kraft Elf now manufactured by the Vintage Model Company, with one destined for me, to be collected at the next meeting in early Oct. It's a while since 1/16th balsa was hacked about so it will be interesting to see how enthusiasm can (may?) overcome a combination of poor eyesight, fingers that can't grip & old age! In the meantime, a search revealed an alternative Elf designed by one Albert Hatfield & produced by Elite Models. The original 20" span plan has been scaled down to approx 16" - same as KK Elf & perhaps a comparison of performance will emerge? Here they are:

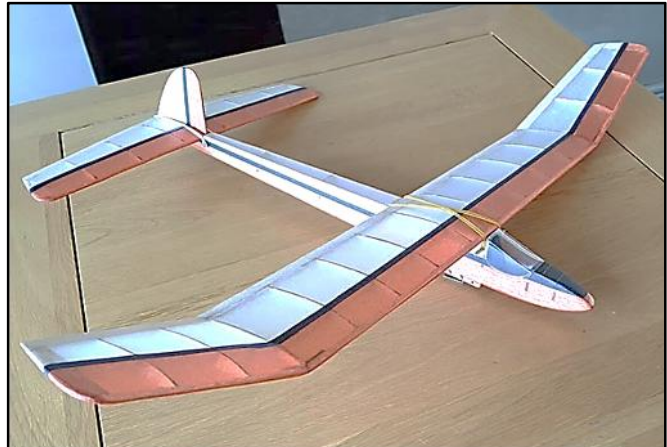


The latter designed by Bill Dean of Slicker fame.

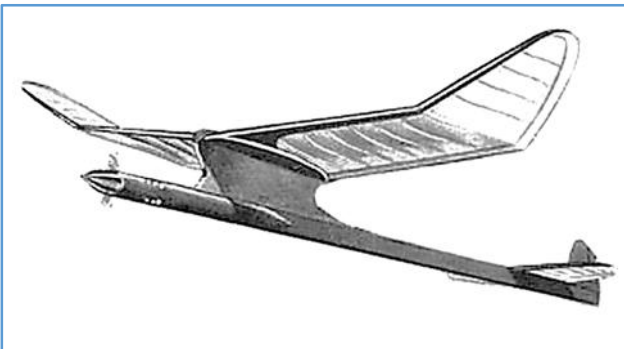
I wonder how many of us bother to read the online BMFA News? It contains a monthly 2 or 3 page article by Mike Woodhouse keeping free flight alive, always worth a browse. The most recent edition also had an obit by Mike on Neville Willis, who designed a few models for Keil Kraft in their later days. I guess we all know the Caprice as being a really well performing glider, mine still exists tucked snugly away in a model box waiting to see the light of day - maybe never? Other models he designed for Keil Kraft included Gaucho power comp, Snipe sports power for small motors, Robin 23" sport rubber & Conquest 30" span towline glider. All had a similar construction technique for the fuselage of sheet sides, probably deemed easier to produce for kits & quicker for construction purposes? Plans for these are all available on Outerzone. A few pics to jog memories (*Courtesy Outerzone*).



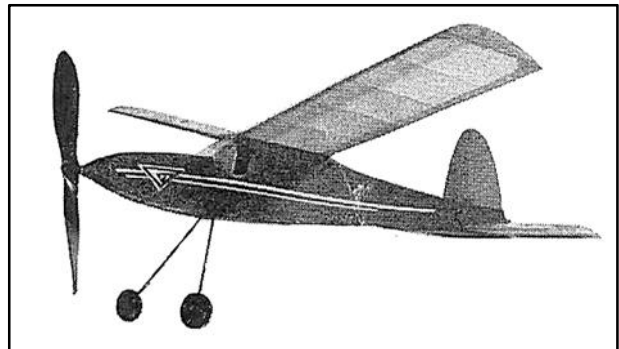
Caprice



Conquest



Gaucho



Robin



Snipe

Onwards from last month's snippet regarding Harold Towner, an enquiry was made of the RAF Museum to see if any of his models still existed in storage. A reply was duly received indicating 3 models, a kit & a book were indeed held in storage with no plans to exhibit any. The models are a Grumman J2F Duck, an Antonov AN-2 & a DH Mosquito, the kit is an Astral Boulton Paul Defiant, the book is "Scale Model Aircraft that Fly". Of these items, the book can still be readily obtained via the web for modest cost. A request has been submitted on how to loan the other items such that they can be loaned by the BMFA & exhibited at Buckminster. There is precedence for such loans as the RAF Museum Cosford has loaned full size aircraft - for example a magnificently restored photo reconnaissance Spitfire (PR XIX PM651) to Hooton Park Hangers. Await this space, albeit at first sight the loan process looks to be hideously bureaucratic!. These are pics sent by the Museum.



Antonov AN-2



Grumman J2F Duck



DH Mosquito



Astral kit

Further digging produced a clip from a past Model Engineering News edited so ably by the late Ron Chernich. "Astral had entered the model kit market back in 1939 as the "Atlanta Aero Model Company of Leeds". They changed the name to the "Astral Model Aero Company" in August, 1941 and managed to weather the dark days of World War II, producing scale, rubber powered stick and tissue kits. Despite a post-conflict resurgence which saw them obtain the "sole [UK] rights" to Leon Schulman's "Banshee" pylon design, they faded away in 1949.

Their war time kits included wondrously complex subjects like the four engined Stirling, Halifax and B17G "Flying Fortress", twin engine designs like the Bristol Beaufighter and Blenheim, plus other multi and single engine aircraft. With balsa and rubber unavailable after 1941 due to their classification as strategic supplies, Astral kits included a voucher which could be exchanged for rubber, and employed a furry hardwood balsa substitute which was almost totally impervious to knife or razor blade. This gave their kits a reputation as being next to unbuildable, so the cynical might see this as the reason for the rubber voucher scheme—they knew few kits would ever reached the stage where the rubber was required! Regardless, the actual designs, most by the renowned Harold J Towner, and Howard Boys, were and remain first class designs, very accurate with respect to scale, and fit of parts."

As a befitting tribute to a couple of really talented modellers in H J Towner & Howard Boys, here is the opening text of "Scale Model Aircraft that Fly" written in 1941 - the words still mostly holds true today albeit to a far smaller audience than in 1941 & to a country that is a far cry from those days.

SCALE MODEL AIRCRAFT THAT FLY

7

CHAPTER I

"RAISON D'ETRE"

THRILLS OF FLIGHT. RECREATION.

WHAT is the urge that makes us want to build and fly model aircraft?

Deep down inside most of us there is a desire to imitate, and in our case the imitation is of some well-known aircraft. Some mechanical device of man's that thrills our imagination, not only in the pleasure we derive from seeing a wonderful piece of mechanism or hearing the roar of the well-tuned engine, but also that perfect thrill of seeing this graceful object of man's inventiveness performing wonderful evolutions in the air and controlled by a perfect and measured sense of rhythm.

Now in our particular hobby, not only do we gratify our desire to imitate, but we go further, we imitate in miniature; anything in miniature always has an appeal of its own, whatever it may be, whether accuracy of detail or delicacy of outline.

Having completed our model, and spent many a happy hour of our winter evenings in doing so, we can stand back and admire our achievement, and the accomplishment of a thing well done gives a great satisfaction.

We must interpose a little note of warning just here. However well the job may be done don't be completely satisfied, but let it urge you on to greater achievements and perhaps more complicated designs, each with its attendant urge to do still better—that is the way to succeed.

But to return to where we were gazing upon our finished work with pride; we now step right out of the imitative sphere, which holds the large majority of people, and rise above them in attempting to impose our will upon Nature; so that our model shall be borne upon the wings of the wind and perform evolutions at our will. Not just a hectic few seconds of undulation in the air, but consistent, steady flight

after a snappy take-off from the ground under its own power, and then when the motor has run out, a long, easy, flat glide, a gentle touch down, and the model coming to a rolling stop.

These are thrills which only those who have achieved them can know.

It is because we have enjoyed these thrills that we wish to impart to others some of the knowledge gained both in the workshop and on the flying field, and hope that in so doing we may give many pleasant hours of relaxation to young and old alike.

Then there is the always open field of design, where we can actually design our own models, and, maybe in experimenting and scientific research, introduce to the world some hitherto unknown or undreamt of addition to the sphere of aeronautics.

Remember from the earliest days of human flight those great pioneers first of all experimented with models.

In normal times, too, we have our model aircraft clubs under the auspices of the Society of Model Aeronautical Engineers, who govern the model aircraft movement in this country. With these clubs we have our social side, where all are pals, irrespective of creed or class, each one helping the other, and at the same time a healthy competitive spirit pervading the whole, urging us on to do still better.

What a hobby! What a training for the schoolboy and the young man for after life—not forgetting that the ladies too are keen model-builders—what a recreation for the older man when he seeks to cast aside the trials and worries of workaday life!

Such, then, are the reasons why we build and fly model aircraft.

H. J. TOWNER.
HOWARD BOYS.

Rooting around through the plans library for this months' choice, I came across a little power model designed for the AMCO 87 called Triumph 33 from Aeromodels Ltd of Liverpool & as I couldn't recall anything about the Company who kitted the plan, another bit of digging produced the following (to me) interesting information from the Brighton Toy & Model Museum.

Aeromodels Ltd. produced a range of model aeroplane kits in the 1930s. The company advertised in Meccano Magazine from February 1932 to November 1937. Graces Guide also list them as having had a stand at the 1947 British Industries Fair.

1932 advertising text:
Model No.1 GIPSY MOTH

At Last! You can construct a scale model accurate in every detail!
Hours of interest and instruction are yours when you make this beautiful model of the Gypsy Moth. You build it from detailed plans of the machine, and every part is true to scale. In constructing it you will gain invaluable knowledge of the actual principles and problems of aeroplane construction.

AEROMODELS Are absolutely unique constructional sets, complete with everything needed for building perfect models - there are no extras to buy. All the parts are correctly coloured and the finished model has a most realistic appearance - so real that only an expert can tell a photograph of the model from one of the real machine. The elaborately detailed plans - scale copies of the originals - make the actual construction a fascinating job, yet a simple one.

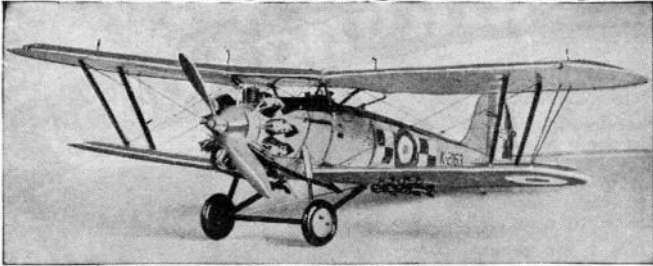
Model Series No.1., the world-famous Gipsy Moth is now ready.

Model No.2.

The well-known Comper-Swift, which recently broke the England-Australia record, is now in preparation, and sets of other celebrated aircraft will follow at intervals.

Hobbies Weekly, February 1932

AEROMODELS



Actual Photograph of Bristol "Bulldog." Wing Span 17 ins.

SCALE MODEL CONSTRUCTION SETS 1/24 Actual Size

Making scale model aircraft is an engrossing hobby. Aeromodel Kits have been specially designed to enable YOU to build Perfect Detailed Scale Models of Exhibition Standard without special tools or skill. Aeromodels are "Built Up" with double surfaced correctly cambered wings on spars and ribs, and cabin types have opening doors, transparent windows and interior seats.

	PRICE	Post Free	Gt. Brit.	do. Abroad
1. DE HAVILLAND GIPSY MOTH ...	3/-		3/4	5/3
2. COMPER "SWIFT" ...	3/5		3/10	5/9
3. DE HAVILLAND "PUSS MOH" ...	3/6		3/10	5/9
4. SUPERMARINE SCHNEIDER SEAPLANE ...	4/-		4/4	6/3
5. DE HAVILLAND "DRAGON" ...	7/6		8/-	9/9
6. DE HAVILLAND "FOX MOH" ...	4/-		4/4	6/3
7. S.E.5A ...	3/6		3/10	5/9
8. HAWKER "HART" ...	5/-		5/6	7/3
9. SOPWITH "CAMEL" ...	4/-		4/6	6/3
10. BRISTOL "BULLDOG" ...	5/-		5/6	7/3

Bristol "Bulldog" Kit
includes turned wooden crank case and cylinders for "Jupiter" engine.

Fill in the coupon and post it to-day. A 3d. stamp is sufficient if the envelope is unsealed.

Please send me free illustrated literature containing full details of all Aeromodel Sets.

Name

Address

.....M.
Hooton Road,
Willaston, Wirral,
Cheshire.

AEROMODELS LTD.

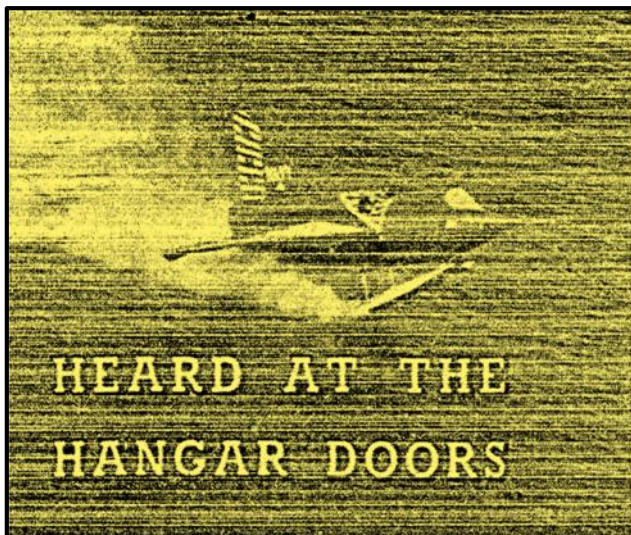
Trade enquiries are invited.

Here is one of their pre-war adverts - at this time, they were certainly not in Liverpool!

Has anyone ever come across or even built any models from this long gone Company?

If you can shed any light on the Company or its models, please let us know.

Roger Newman



Sea Dart

In an essentially waterplanes issue, it is only fitting that a somewhat unusual waterplane should head our Hangar Doors columns this month. The Convair XF2Y-1 "Sea Dart" Navy jet fighter is seen making a high speed run on San Diego Bay in California. Now fitted with a single ski as part of the Convair-Navy hydrodynamic research programme, it is powered by twin Westinghouse J-46 engines which permit subsonic speeds in level flight. The aircraft, which has exceeded the speed of sound, should make an interesting subject for a Jetex powered scale model, with the encouraging thought that Jetex units operate equally well under water as they do above the surface!

"M.A.P." Books

Model Aeronautical Press Ltd., besides publishing "AEROMODELLER" and its associate magazine *Model Maker*, has embarked on a gradually expanding book programme. The regular appearance of *Aeromodeller Annual* we know is appreciated for its cosmopolitan appeal, and quality of content, by modellers throughout the world. This year's edition, to be published November 1st, is no exception, containing as it does such excellent features as P. E. Norman on "Ducted Fans", "A/I Gliders" by Van Hattum, "Radio Control in New Zealand" by Les Wright, "Ultra Light Aircraft" by George Cull, "Combat Flying" by Ron Moulton, and many other first-class articles too numerous to mention here. The cover is C. Rupert Moore's best painting yet, depicting a helicopter over the Thames in front of the Houses of Parliament. Mr. Moore has also prepared a special colour plate within the book which gives accurate helicopter colour schemes for the discerning enthusiast.

Latest book from the M.A.P. press announced on page 509 is "Construction for Aeromodellers". Another "five-hobber", it can briefly be described as a companion title to "Design for Aeromodellers", giving a complete treatise on the constructional side of model aeroplanes. There are eighteen chapters ranging from Tools of the Trade—Simple Fuselages—Advanced Fuselages etc., through to Covering—Rubber Motors and Engine know-how.

For the beginner it is invaluable, and for the expert a most excellent reference book with a useful

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wrinkle on every page. Publication date was September 1st, 1955, when the second edition of "Simple Radio Control" by Harry Hundleby also appeared. Those modellers contemplating "button-pushing" for a change, who failed to obtain a copy of the first edition, should have no difficulty in finding this useful little book at their local model shop or bookstall.

Look out for . . .

As you read this our Staff Reporters will have just returned from the American Zone in Germany after covering the triple World Championships held during the first week of September. It is our earnest wish that the wonderful weather enjoyed in this remarkable summer of 1955 will have continued over the period of the events, for it is always disheartening—and most inconclusive—for contests of this importance to be influenced one way or the other by abnormal meteorological conditions. If the results are to be affected by weather, we infinitely prefer thermals and hot sun to chilling rain and high winds!

A fully illustrated report will appear in our next issue, published on October 15th, so make sure of your copy now by placing a firm order with your local agent.

Modelling in the R.A.F.

Our illustrated report in this issue on the recent R.A.F. Model Championships clearly demonstrates how firmly the Royal Air Force Model Aircraft Association is established in the eyes of the Service. Now in its sixth year of existence, the association has the full support of high authority in the R.A.F., which appreciates the important part aeromodelling can play in promoting skill, air-mindedness, and the sporting instinct in the Flying Service.

Air Marshal Sir Dermot Boyle, K.C.V.O., K.B.E., C.B., A.F.C., the President of the association, paid full tribute to the benefits of the hobby in his welcoming address to the assembled modellers, culled from the various Commands throughout the country. May we humbly suggest that the R.A.F. could well study the American system under which model enthusiasts are selected from overseas as well as Home Stations, and qualifiers flown home to take their place in the ultimate Championships meeting. Here is an incentive to those airmen stationed far away from the hub of activities, yet who retain their great enthusiasm for all things airborne, whether they be full size or models thereof.

Readers will note the striking advertisement in this issue on behalf of R.A.F. aircrew recruitment, which stresses the advantages of Service life for young men from 17½ to 26 years of age. There can be no doubt that the R.A.F. offers a most interesting and lucrative career for aviation enthusiasts in its flying branches, and equally so among its ground trades. Keen aeromodellers with enthusiasm and aptitude for this type of life can continue their civilian hobbies and interests in the comforting knowledge that these are not merely encouraged, but actively promoted within the Service.

1955 Model Engineer Exhibition

We were once again disappointed with the rather meagre support of the Model Aircraft Section at this popular annual exhibition, and even more with the poorly-dressed display of such models as had been collected. Surely a better background than bare brick walls could have been provided, for the standard of aircraft shown was quite high, but much of the potential value of the exhibit was wasted by poor lighting, totally unsuitable background, and the eternal "flat" layout which requires the public to strain over the front row of models to see those hidden away at the back.

The absence of certain well-known top line exhibits was noticeable, for we are continually witnessing outstanding examples of the aeromodeller's art in static displays at various Rallies and Galas, any of which could be among the prize-winners at the "M.E." Surely owners are not content to display their masterpieces to the converted only—a little more window dressing in front of the general public would not come amiss.

Perhaps the greatest disappointment is the continued absence of aeromodelling contenders for the Duke of Edinburgh Trophy. We see no reason why some of the better examples of the aeromodeller's art do not take their place with the loco's, ships, and general engineering exhibits that are so plentiful at the "M.E.". Granted, the bulk of model aircraft are built for functional performance with no thought of exhibitions in mind, but every Rally produces a galaxy of models never intended to take the air, any one of which could rank with those modelling marvels produced on a lathe.

This year's winner of the Duke's Trophy is outstanding inasmuch as it displays a thorough knowledge and skill in more than one branch of the modeller's art. Mr. C. A. Chapman, of Peacehaven, exhibited a small scale Admiral's Barge in a setting rarely witnessed in a show of this nature, for his general display created a picture in three dimensions that was excellent in all details. In our (probably biased) opinion, only a model aircraft from the Evan's stable could have competed on equal terms with Mr. Chapman, but we are unshaken in our view that it is high time aeromodelling exhibits took their rightful place with the other examples of modelling in this widely publicised annual show.

Mrs. Rip

Modellers everywhere will join us in tendering sincere sympathies to Mr. C. A. (Rip) Rippon on the loss of his wife, who passed away on the 22nd. August, 1955. To most of us, the "Rips" seemed to have been going as long as aeromodelling itself, and Mrs. Rippon will be sadly missed at those functions where her kindly and motherly presence made itself felt.

Our last recollection of her was the 1954 Northern Heights dinner, when these founder members were presented with a handsome volume of photographs, recalling many of their earlier activities in the Club, and particularly those connected with the famous N.H. Gala, which the Rippons' did so much to popularise.

There are probably few ladies connected with the aeromodelling movement so widely known as Mrs. "Rip", for apart from her activities in a hard working capacity at the various Galas, she met a wide circle of hobbyists at the well-known pre-war establishment of Premier Aeromodel Supplies, where the Rippons presided as a committee of two welcoming modellers for visitors from all over the country. There are far too few of her calibre today, and her cheerful presence will be sorely missed.

Golden Wings Finalists

The response to our special Junior contest, as announced in the July, 1955, issue, exceeded all expectations, and the flight entry forms came in at such a rate that we were hard put to it to cope! The enthusiastic reception of our junior stimulus has been most encouraging, and clearly demonstrates that there is a huge potential to the aeromodelling movement, if only those in charge of clubs will open their eyes to the fact.

The constant cry of "lack of members" surely indicates a want of drive and/or publicity on the part of established clubs. We have been particularly aware of the number of requests for information regarding local flying groups, and it is obvious that in a number of cases even the local model shop proprietor is not aware of clubs operating in his area. It is up to clubs to bring their existence to the notice of the public by means of articles or notices in local newspapers, and in particular the provision of suitable literature and notices in the local shop where new members can expect to be recruited. To those clubs who have informed would-be members that "they don't cater for juniors" we would only say, get genned up and form a junior section right away, for a youngster set on the right road now is tomorrow's first-rate senior. Lack of foresight seems to be an occupational hazard in some model clubs!

The lucky finalists who competed for the valuable list of prizes at R.A.F. Halton on September 10th-11th are as follows, and a full report will appear in our November issue, on sale October 15th, 1955.

District	Name	Age	Town	Total
A.T.C.	G. A. Rosson	15y. 10m.	Sandbach, Ches.	12m. 21s.
1	A. Black	15y. 7m.	Lanark, Scotland	7m. 10s.
2	J. Cooke	15y. 9m.	Spennymoor, Durham	7m. 30s.
3	I. A. Ramsey	14y. 2m.	Sheffield, Yorks.	5m. 53s.
4	D. R. Reed	14y. 4m.	Cheadle, Ches.	7m. 13s.
5	M. D. Simmons	15y. 2m.	Newport, Salop	15m. 10s.
6	J. Fellows	15y. 9m.	West Bromwich, Staffs.	9m. 23s.
7	P. Ball	12y. 10m.	Croft, Leics.	9m. 40s.
8	T. K. Donovan	15y. 10m.	Lambeth, London	14m. 02s.
9	M. Newman	14y. 6m.	Kingston, Surrey	7m. 45s.
10	R. A. Gatehouse	15y. 11m.	Mere, Wilts.	9m. 57s.

In addition we have selected the youngest competitor, John Shember of Oxford, who is only 8 years 11 months old, and whose total time was 4m. 19s.

We congratulate this round dozen of enthusiastic youngsters for their stout efforts in the contest. Some idea of the performance attained with the standard "Golden Wings" A/I glider design is reflected in the durations quoted above. Those who failed to qualify can be justly proud of their own efforts achieved against keen competition from the length and breadth of the British Isles.

31st Grant MIMLOCT, Epsom Downs, August 2026

One location where the annual Grant Memorial International Mass Launch of Cloud Tramps event took place at 5pm on Saturday 1st August was on Epsom Downs, inside the confines of the race course. This was organised by the Epsom Downs Model Aircraft Club. The idea is that Cloud Tramp mass launches take place at the same time throughout the world. The weather forecast for Epsom Downs was good with light winds, however when I arrived a kite was being flown and the wind speed was around 15mph. Fortunately, there was a lull around 5pm. Michael Hall took some fine photos of the event, two of which are included here. More can be found on the EDMAC website Epsom Downs Model Aircraft Club | RC Flying in Surrey.



The participants line up by the EDMAC sign
More information on the Grant MIMLOCT can be found on the Endless Lift website [endless Lift](https://endlesslift.com/),
the wonder of simple aviation



5pm - Up Up and Away

Nick Peppiatt

In the Sept NC Roger Newman mentioned the interest in Jumbo Rubber Scale by myself and Roy Tiller here in the Bournemouth club. Our interest was aroused by the sight of a beautiful SE 5 flying so realistically slow at one of David Bakers MW meetings. The builder was I think Lionel Haines. The model was built for a competition for scale models, rubber powered and 50 in minimum wingspan.

I drew up a plan for a 54in span Pilatus Porter. It had a long nose and seemed most suited to be rubber powered. Roy Tiller chose to build a Cessna from a plan from an American kit. The models had large unscale props which were unsightly but once airborne they were not noticeable. Both of our models flew well. After my model was disqualified for being too modern [post 1950] I needed to build a new model.

David Baker suggested the VIRI. The full size plane was a Finnish design built in 1936 and powered by 45 hp 3 cyl radial engine giving a top speed of 88 mph. The plane was only 26 ft span. The one and only plane built was destroyed in a non-fatal crash. My model was 52in span and weighed just 9 oz and flew on 12 strands of 1/4" rubber weighing 2 oz. It was covered in lightweight Modelspan dyed in Nescafe Gold Blend. I have seen a video of it flying at MW. Somewhere on You Tube I think.

In the meantime Roy Tiller started to build a Comper Swift, this was single seat high wing racing machine just 24ft span powered by a 75 hp radial engine. The early versions in the 1930's cost around £750 ready to fly. The last three planes to be built were powered by a de Havilland Gipsy Major 4 cyl in line engine. This motor could fly the plane at up to 88mph. Airplane G-ACBY crashed near Northampton during a race in 1933 killing the pilot.

Now back to Roy's model. After our flying at MW was stopped, Roy's Comper Swift had lain unfinished in his workshop for some time until he had a clear out and offered it to me. I took the project on to convert it to electric powered radio assist. Just Rudder, Elevator and Motor speed control. I laminated an extra spar to the main spar and added extra spars top and bottom removed the LE and fixed a thicker section hard balsa LE. The longerons were reinforced inside the fuselage and a rudder and elevator cut in to the tailplane. The original structure so carefully and skilfully built by Roy to be light and strong was now ready to be fitted with all the new gear. The model was covered in polyspan clear doped and sprayed from a spray can. The Model flies well and gives pleasure to those who have seen it. Another model saved to add to my collection.



Continued from September issue page 29

Hi John,

I drew my own airfoil after reading the Zaic glider book and the wing, 50", is in progress.



It has a carbon fiber strip across the center section and is now capped on the forward leading edge area with a strip of balsa.

I am going to use light weight heat-shrink cover when the construction is complete. I have a hot shoe and a heat gun to finish the covering. Having good tools makes the hobby more enjoyable for me.

Rolf Christophersen KDOEGD

Bits & Bobs & Engines for Sale

Martin Dilly:

Biotrack BT-1 professional animal/model aircraft tracking equipment

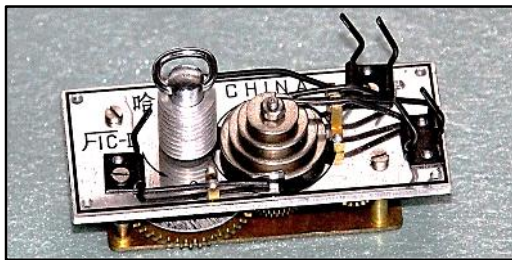
One Biotrack BT-1 tracking receiver with leather cover, folding Yagi aerial and nylon carrying case + earphones (one earphone clip to headband is missing). Three tag transmitters, weighing 1.5gm, currently using a CR2032 coin cell in a coin cell holder for use in a glider, but usually powered by a much lighter CR425 fishing float battery. Operates in the 173.2 MHz band with a range of around 30km in the air. The tags are specifically tuned to this receiver. All checked and working. Instructions and extensive data included.

The BT-1 originally cost £525 and the tags were around £60 each. I am no longer fit enough to compete in free-flight contests, hence the sale. Offers around £300 for the whole kit.

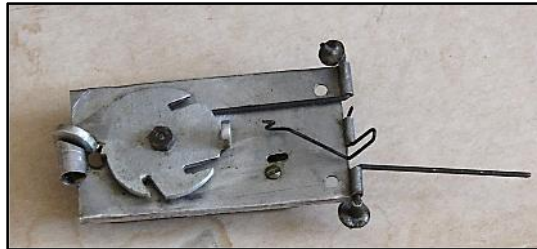
A Tatone tank mount, unused, for a TeeDee .049. £6.



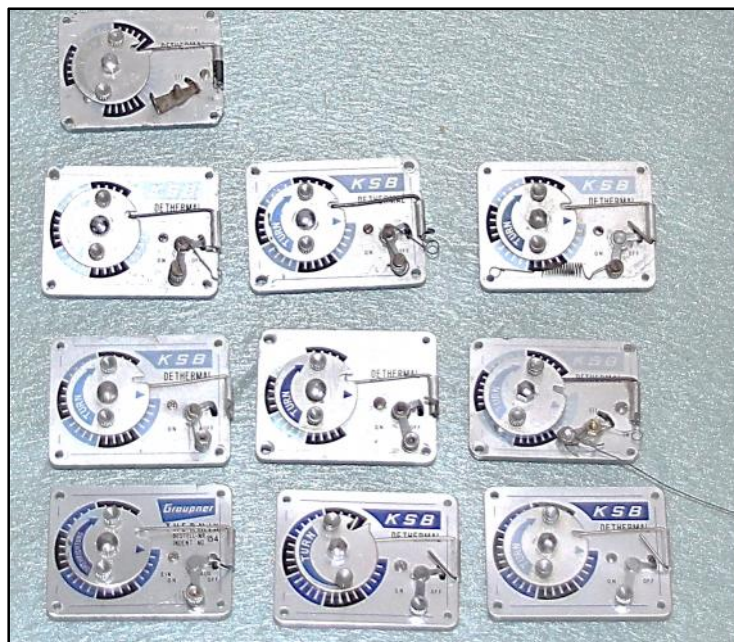
An unused Chinese knock-off of the Seelig F1C timer, in box. Four functions plus DT. £12



An unused Chinese P1C timer, in box. Two functions plus DT. £9



Engine Timer, based on KSB mechanism, but with squeeze-off plus two functions, say v.i.t. and AR. Used on the original Vindaloo 1/2 in Aeromodeller. £7



DT Timers. The bottom three, two KSB and one Graupner (KSB re-badged) appear unused and are £10 each. Four others have the auto-start mod for glider use and are £8 each. Three others, used and working, are £7.



Six unused Cox 6x3 props with packet, £10.



A pair of MS airwheels with box, inflator and instructions, £8.



CO2 chargers, two Telco and one unknown, possibly Modela, plus a tank and bits including filler nozzle. £10.

All plus postage.

Contact Martin Dilly on [02087775533](tel:02087775533) or martindilly20@gmail.com

Bits & Bobs & Engines for sale continued:**Andrew Longhurst:**

The well-known Oxford MFC member Jim Paton died recently.

I have been tasked with disposing of his engines. After club members have had their pick I still have about 28 left. The proceeds of any sales will go to the Tagora League for Children which is a charity Jim and his wife set up whilst working in Tanzania just after they were married.

No reasonable offer (plus postage) will be refused.

Anyone interested can contact me on the email or telephone number below. Please help.

Ref	Name	Capacity cc	Condition	Box Y/N
1	Millish 0.30 Redfin	0.30	Good Running condition	Y
2	VA Mini Mills .4cc	0.40	New in box	Y
3	Clan Diesel	0.48	In good running condition	Y
4	Mills 1.3 mini replica by Dave Banks	0.50	Contra piston loose but would run with comp screw lock	N
5	Mills 1.3 mini replica by Dave Banks	0.50	Good Working Order	Y
6	DC Bantam Glow	0.50	New in box but needs freeing up. Low power but the crankshaft may fit a Dart	Y
7	ED Bee miniature	0.50	New in Box	Y
8	MP Jet with Mills style induction	0.60	Excellent Condition - Only 2 lug holes but more powerful than a Mills	N
9	MP Jet with Mills style induction	0..60	Excellent Condition - bulkhead mount system	N
10	Mills .75 Gold Head replica	0.75	Heavy replica beautifully built but no maker. Very good condition	N
11	Mills .75 Replica (grey crancase)	0.75	Good running condition looks great in gold and grey but fins attacked with pliers	N
12	Original Mills .75	0.75	Which one is left?	Y
13	CS Boddo Mills .75	0.75	New in box	Y
14	CS Boddo Mills .75	0.75	In good running condition	Y
15	Late Model Cox 049 rear intake/mount	0.80	New recent production Reed valve Cox engine with split bifurcated exhausts	N
16	Cox babe bee rear intake/mount/tank	0.80	Immaculate with spinner	N
17	Cox TEE DEE 049 glow	0.80	New in rather battered box	Y
18	Cox Thimble Drome TeeDee 049	0.80	New in box	Y
19	ED Bee Mk1	1.00	Very clean engine with tank	N
20	ED Bee Mk2	1.00	Very clean engine with tank	N
21	ED Bee Mk2	1.00	Good running order but no tank or needle valve	N
22	Mills 1.3 full size replica	1.30	Heavy replica but beautifully built. Good condition but no tank or maker	N
23	AM 15 Mk2	1.50	Outside scratches but ready to go and feels v.good - no tank	Y
24	Cox TEE DEE .09 glow	1.50	Good running condition but scuffed outer	N
25	ED Racer	2.50	Good Working Order - one exhaust stack neatly removed for silencer strap. Spinner and prop driver graunched but working	N
26	New Forster 29 glow	4.75	New in Box	Y
27	Ohlsson & Rice 29 Sparkie (rear intake)	5.00	Pre war from USA needs TLC	N
28	Ohlsson & Rice 29 Sparkie (front intake)	5.00	Post war from USA in good condition	N

Hi John,

Here's a few words and a couple of photo's for the New Clarion - as usual, I was busy flying, so I didn't have time to take many! I imagine you will get a report and results from Chris and/or Ray.



First, a photo of the line of cars as I walked back from one of my flights. My model (C-04) was 'placed' in the foreground as my phone camera has a wide angle lens and I needed a subject. (Editor, I cropped it out, sorry)

Anyway, as you can see, there were about 12 cars present.

It was good to get out and fly FF again at the Crookham Gala on Sunday, despite the wind taking the models quite a way over Salisbury Plain.

(I hope Chris Redrup got his model back eventually!).

It was a pleasantly warm and dry day and the NW/NNW wind took the models along, or sometimes across the valley.

I flew my F1G in the Combined Mini event and assisted B&W club mate Colin Sharman, who did well in Maxi with his Inchworm.

Luckily, I launched into helpful air for my first flight, although it never really got high, but just made the max. Then, as the scores showed, conditions became a little tricky in the middle of the day! That's my excuse anyway!

For my last flight I launched from the SW corner of the 'trimming field' where the air seemed much more predictable and easily made the max.

Roy Vaughn did well with his F1G after one of his flights landed in the trees, but was recovered and I managed to get this photo as he launched for his 3rd max.

That's all for now,

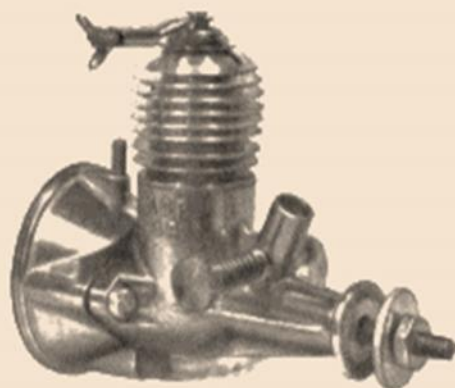


Alan Brocklehurst

Aeromodeller

614

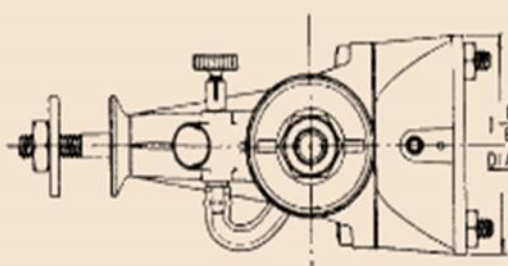
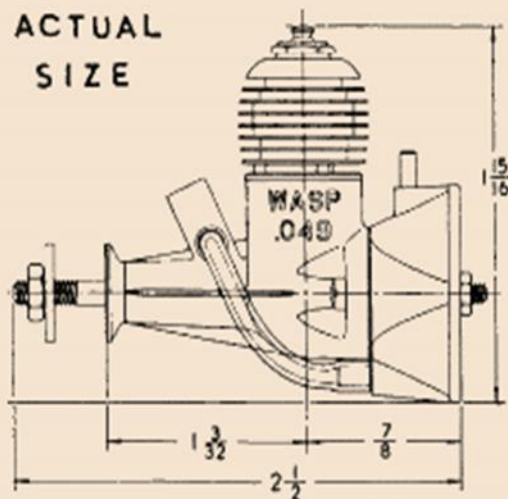
October, 1951



The

ATWOOD "WASP"

ONE of the most recently introduced American motors in the popular "Half-A" group is the Atwood Wasp, made by the Atwood Manufacturing Co., Pico, California. It follows a design used in many British miniature diesels, with radial porting and rotary crankshaft induction, and has a low stroke/bore ratio.

ACTUAL
SIZE

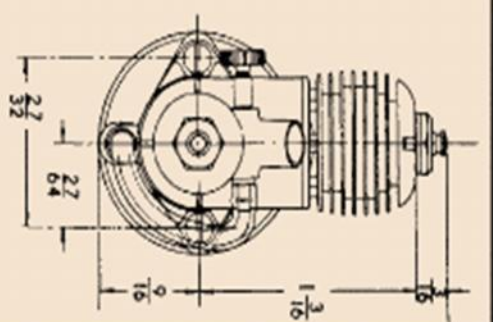
With its short connecting rod, the Wasp has a squat appearance, as reference to the actual size three-view drawing will show. It is supplied with an equally squat Glowplug to match, giving an overall height of only $1 \frac{15}{16}$ inches, as against the $2 \frac{1}{2}$ inches of a British diesel of similar capacity. Even allowing for the depth of the diesel contra-piston, the comparison emphasises the neatness of the Wasp.

The test of this small American engine is most interesting, not only as a comparison with British products, but as indicating that the American tradition of high revs. per minute is still maintained. Nor is this engine remarkable *only* for this feature, because it is probably the lightest engine, having regard to its capacity, that we have yet handled. The total weight, including tank, is but $1 \frac{1}{4}$ ozs., consequently, the power/weight ratio is outstanding.

It must be further remarked that the die-castings of this engine are very fine indeed: in fact, the whole engine has the appearance of having been polished! I have examined the castings carefully, however, but cannot see any evidence that they have been finished on a buffing-bob. This can usually be detected by a rounding-off of any square corners and sharp edges. A similar effect is seen also with "barrel polishing"—in which the components are revolved in a drum containing sawdust and some polishing agent—but the engine shows no signs of this. If this die-casting is straight from the mould it is the best I have yet seen. The design throughout is compact and pleasing.

Serving as a sump cap as well as mounting plate, the tank is an accurate die-casting of excellent quality. It is supplied detached, and can, we understand, be replaced by a plain sump cap to lighten the motor.

The engine includes a most ingenious glowplug clip, for attaching the leads from the battery to the plug. It consists of two spring clips, fastened together but insulated from each other. One clip embraces the electrode of the plug, while the other clips on to the body.



October, 1951

615



Two insulated wires connect these two clips to the battery terminals. In this manner, both the "earth" and "live" connections are made direct to the plug, and all earth wires and sockets are dispensed with. Once the engine is running, the clips may be pulled away in one movement.

Supplied in a smart display box, the motor comes complete with a special $5\frac{1}{2}$ in. by 3 in. yellow plastic airscrew and special spanner for the cylinder head, plug and shaft nut.

TEST

Engine : Wasp, .049 cu. in. (.803 c.c.).

Fuel : Mercury No. 5, Glowplug.

Starting : The engine started well when the maker's instructions were followed; namely, by priming with fuel through the exhaust port with a drop or two of castor oil in the venturi. When hot, this process was not necessary. Needle setting was critical.

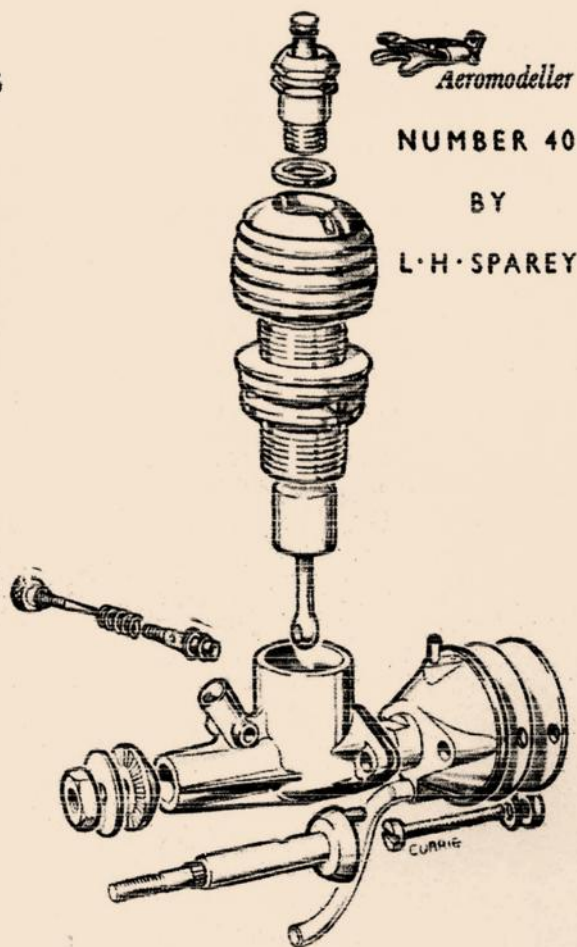
Running : This engine did not seem happy at speeds below about 8,000 r.p.m., but ran excellently above this, especially at the extremely high speeds. The top range was remarkable, and an unrecorded run at 17,600 r.p.m. was obtained.

B.H.P. The Wasp engine takes full advantage of its great speed to pile up horsepower in the high range. Maximum was reached at 15,400 r.p.m. with an output of .0995 b.h.p. Such an output for an engine of .803 c.c. capacity is remarkably good, and exceeds any result previously obtained for engines of this class.

Checked Weight : 1.5 ozs. (including fuel tank).

Power/Weight Ratio : 1.06 b.h.p./lbs.

Remarks : This is a very fast engine, with a remarkable power/weight ratio. The needle control is inclined to be critical, especially at high speeds. The cylinder head should be well tightened, with the spanner supplied, as there is a tendency for the head to loosen when the engine is running at high speed. The needle valve is rather too near to the propeller for comfort in handling.



GENERAL CONSTRUCTION DATA

Name : Wasp .049.

Manufacturers : Atwood Manufacturing Co., U.S.A.

Retail Price : \$6.75 (£2. 8s. 4d. plus duty and P.T.).

Delivery : Not available in Gt. Britain.

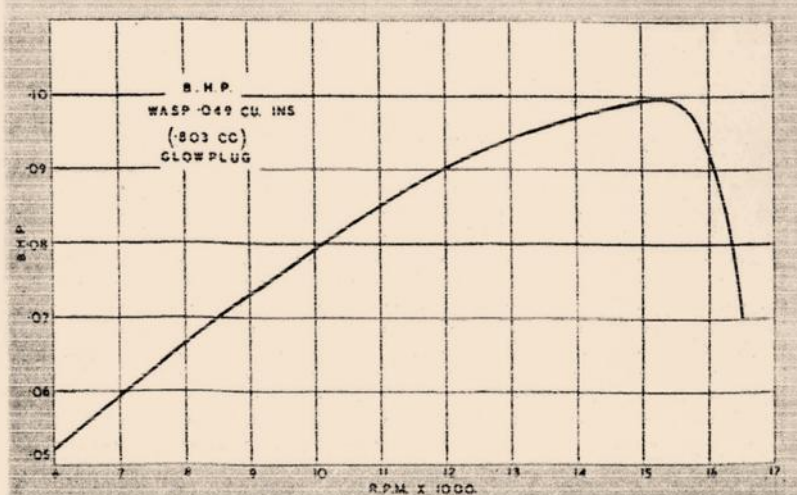
Type : Glowplug.

Bore : .421 in. **Stroke :** .356 in.

Stroke/Bore Ratio : .846.

Capacity : .803 c.c. .049 cu. in.

Mounting : Radial. **Airscrew :** $5\frac{1}{2}$ in. $\times$ 3 in.



Anyone for Electric Mini-Vintage Rubber?!

If the proposed amalgamation of SAM35 and SAM1066 goes ahead as planned it is likely that there will be more free flight contests held at Buckminster.

In view of this, with Buckminster being a relatively small site, consideration is being given to focusing on running contests for the 2 minute and smaller classes.

I would therefore like to explore whether a small electric free-flight class for vintage designs would be practical, fair and attractive to competitors.

Taking this premise I have been thinking about the possibility of having an electric class for vintage designs. To this end I have in mind a class based on Mini-Vintage Rubber with electric motors replacing the rubber.

I would suggest aiming for an electric power set up that has the same energy as a rubber motor. A 20g rubber motor has about 200 joules of energy. This value of energy could be achieved with an electric motor producing 10 watts with a 20 second run, or 10 watts with a 40 second run. A typical MV rubber model has a motor run probably more than a minute.

On the other hand, perhaps, it would be more logical to use the E30 rules with the following changes;

-) No minimum weight
-) No maximum wingspan of 30ins -change to 34ins
-) No maximum fuselage length

One advantage of an electric model over a rubber model is that the motor run can be readily changed to suit the weather conditions.

I note that SAM in the US have a class for Electric Rubber Vintage but this is only for Radio Control. I haven't carried out extensive research as to whether any other clubs/organizations/countries have such classes.

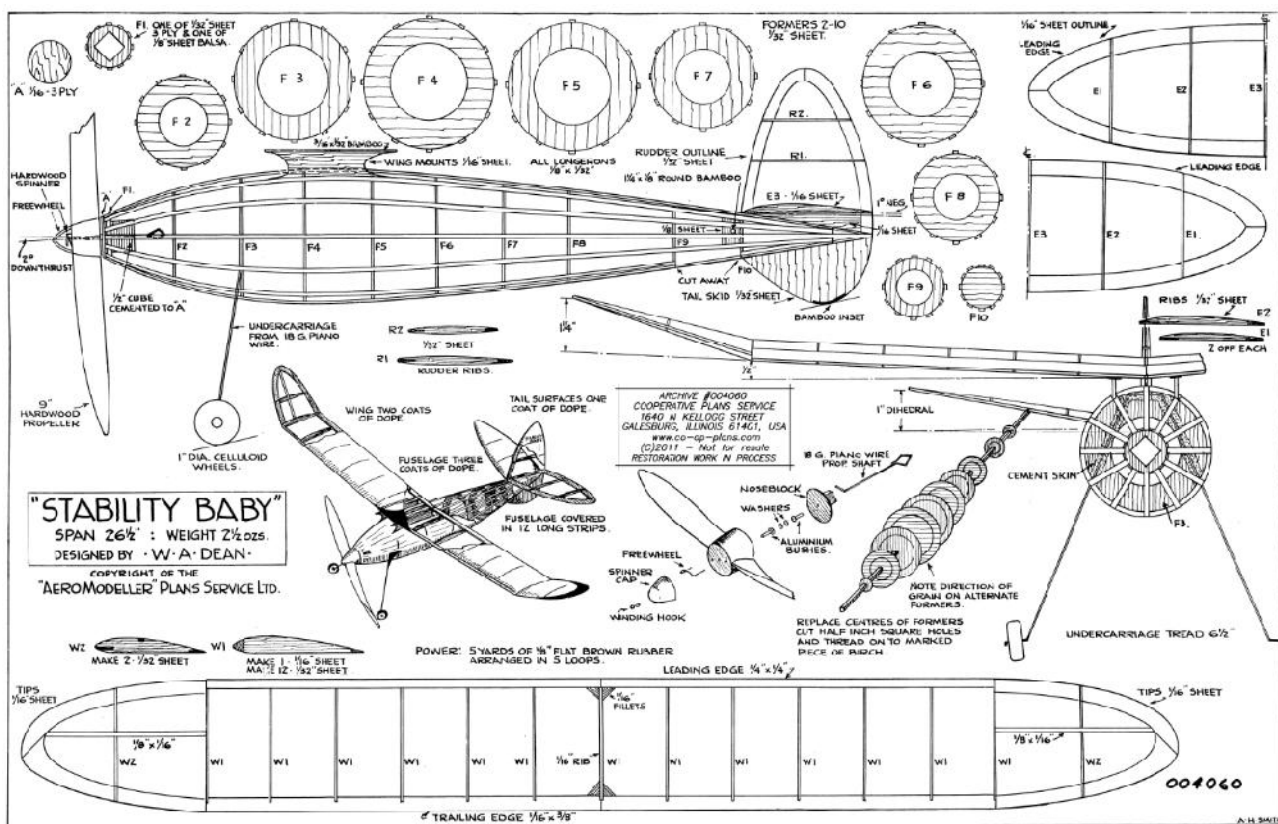
I would appreciate any comments on the above.

Ray Elliott

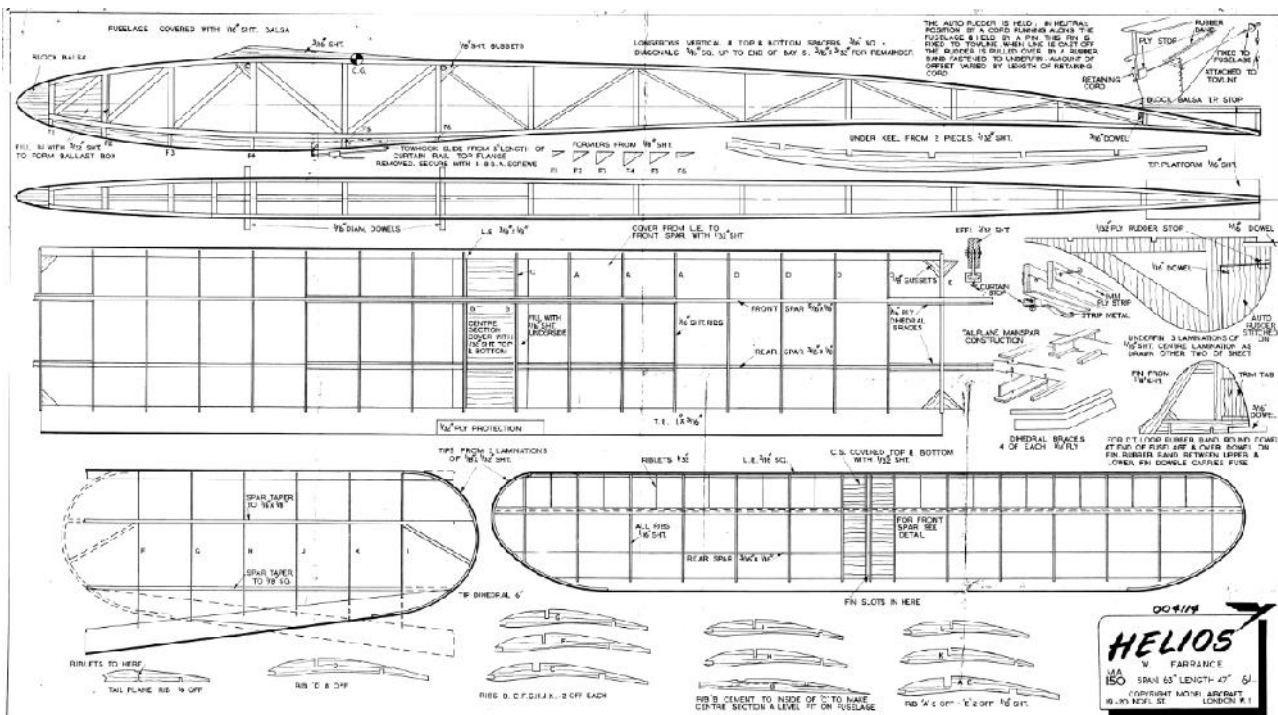


It's been like this ever since they opened Buckminster

Rubber: Stability Lady - early design by one Bill Dean published in Aeromodeller



Glider: Helios - another fairly early one from Model Aircraft mag





Events & Notices

Permits for Salisbury Plain & North Luffenham

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

The costs are:

£30 for Salisbury Plain - £35 for North Luffenham

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

Options for Flying on Salisbury Plain, Area 8

The flying of competitive events on Salisbury Plain occasionally requires the launch site to be changed from the usual trimming field to the north east side of the airstrip. This is often problematic as in the past access has proved difficult but a new route has now been found which has proved to be much easier, even after wet weather. The image below shows the route.

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



TWIFF

(Totton West Indoor Free Flyers)

(Free flight only)

Electric and rubber all styles **Sundays**, from 12:00-15:00

Admission for flyers £15.00 Free for spectators and helpers

2026

17th.May - 14th.June

20th.September - 18th.October

15th.November - 13th.December

The West Totton Centre is a good-sized hall, three badminton courts with no obstruction on the wall or ceiling. There is plenty of parking, although there are a lot of people coming and going at Vaccination times.

There is a Tesco Local nearby for coffee and snacks.

Location :- Hazel Farm Road, Totton,
Hampshire, SO40 8WU



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

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

Contact Ken Brown 02380578866 or 07913814492 brown53hh@gmail.com

DILLY JAP IS BACK –AGAIN

The ninth roll of tissue went pretty fast, 300 yards in a bit over two years. I've just received a new roll: almost inevitably there's a slight price rise but it's still only £17 for a five yard roll a yard wide, or £19 by mail to the UK, folded. E-mail for overseas mail costs. I normally sell it in rolls at contests, but if you want yours mailed in a roll let me know and I'll sort out a length of plastic pipe and find a courier price. Doing the sums, there's now well over 3 kilometres of Dilly Jap covering models all over the world.

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

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

INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

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

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

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

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

A CENTURY OF BRITISH FREE FLIGHT

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

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

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



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

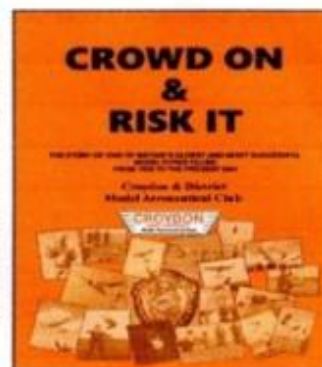
CROWD ON & RISK IT

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 Basingstoke.

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

Just £10 by PayPal or cheque

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



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

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

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

ORDERS and PAYMENT

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

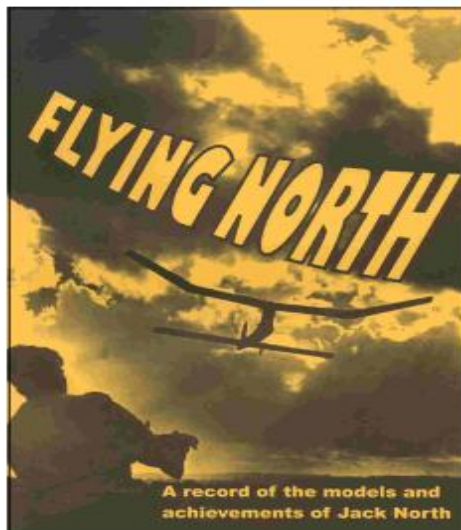
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AVAILABLE

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

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

THIRD RE-PRINT JUST ARRIVED



FLYING NORTH A goldmine for vintage and nostalgia model flyers -

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

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

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

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

READERS' FEEDBACK

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

"I hope it becomes a classic."

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

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

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Contact Martin Dilly on +44 (0)208-7775533 or e-mail martindilly20@gmail.com

FREE FLIGHT FORUM REPORT 2021

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



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

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

ISSUE 299

APRIL-JUNE 2020

SAM SPEAKS

THE WORLDWIDE VOICE OF VINTAGE AEROMODELING



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

Provisional Events Calendar 2026

With competitions for Vintage and/or Classic models
All competitions are provisional. **Check websites before attending**

March 1 st .	Sunday	BMFA 1st Area
March 22 nd .	Sunday	BMFA 2 nd Area
April 3 rd .	Good Friday	Northern Gala, Luffenham
April 6 th	Easter Monday	Croydon & SAM1066 , Salisbury Plain
April 26 th	Sunday	BMFA 3 rd Area
May 16 th	Saturday	Oxford Duration, Port Meadow
May 23 rd to 25 th	Saturday - Monday	May Welsh Bangor (see add)
May 23 rd .	Saturday	London Gala, Salisbury Plain
or May 24 th	Sunday	
June 7 th .	Sunday	BMFA 4 th Area
June 28 th .	Sunday	BMFA 5 th Area
July 11 th	Saturday	Crookham Gala, Salisbury
or July 12 th	Sunday	
July 26 th	Sunday	BMFA 6 th Area
August 2 nd	Sunday	Southern Rally, Salisbury
August 10 th	Monday	Cleemac KK Event, Buckminster
August 16 th	Sunday	BMFA 7 th Area
August 29 th .	Saturday	FF Nationals , Sculthorpe
August 30 th	Sunday	FF Nationals , Sculthorpe
August 31 st .	Monday	FF Nationals , Sculthorpe
September 12 th	Saturday	Stonehenge Cup, Sculthorpe
September 13 th	Sunday	Equinox cup, Sculthorpe
September 19 th	Saturday	Crookham Gala
or September 20 th .	Sunday	
September 20 th	Sunday	East Anglian Gala, Sculthorpe
October 4 th	Sunday	BMFA 8 th Area
October 10 th	Saturday	Croydon & SAM1066 , Salisbury Plain
or October 11 th		
October 24 th	Saturday	Midland Gala, Luffenham
October 31 st	Saturday	Buckminster Gala, Buckminster
or November 1 st	Sunday	
or November 7 th	Saturday	Buckminster Gala, Buckminster
or November 8 th	Sunday	

Please check before travelling to any of these events.

Access to MOD property can be withdrawn at very short notice!

For up-to-date details of SAM 1066 events at Salisbury Plain check the Website

www.SAM1066.org

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

www.freeflightuk.org or www.BMFA.org

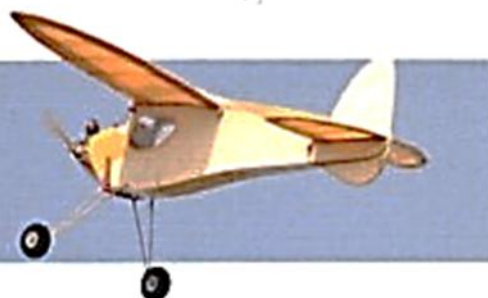
For up-to-date details of SAM 35 events refer to SAM SPEAKS or check website

www.SAM35.org

Events are open to all BMFA Members
Buckminster events require payment of Centre flying fees

- 7-8 Sept Sam35 Power Strugglers Buckminster. contact Andy Brough 07472079777 acbrough@hotmail.com
- 7 Sept Bowden BMFA Championship. Due to changes in FF Nats venues and dates this is now being held during the Sam35 Power Strugglers event at Buckminster on the Monday Morning. Also running the PMFC Stan Horne Trophy event in the afternoon. Contact Andy Green 07853 557085 chairman@peterboroughmfc.org
- 12 Sept Port Meadow Oxford. Autumn Duration. Classic A1 Glider, Vintage / Classic Glider, Coupe d' Hiver Catapult Glider, E20, OMFC Scale Rubber Duration. 9:30 to 13:30pm. Stay and fun fly after the competition. See OMFC website for more details. Gary Law gmlaw7@btinternet.com.
- 13 Sept Scale Glider Fly-in at the Hole of Horcum, North Yorkshire, YO18 7NR A fun day for all R/C model scale gliders BMFA membership required. £5 for non members Location What3Words – snowmen.ordinary.caps Lat – 54.332235 Lon - -0.690234 Walk to slope by 10.00am Michael Kitchen, 01347 810685 Due to local MOD restrictions, please contact beforehand for details
- 19 Sept Peterborough 'Flying Aces', Ferry Meadows, Nene Park, Peterborough PE2 5UU. Silent FF scale (inc: Maesfield, Open and FF3), duration, electric, hi-start glider (incl Scale), Guillows Models 100th anniversary event etc. with Special Junior Competition. <https://www.peterboroughmfc.org> Contact Andy Green 07853 557085 chairman@peterboroughmfc.org
- 20 Sept Cocklebarrow Vintage RC Rally Aldsworth Glos. B4425 between Cirencester / Burford and off the A40 between Northleach and Burford What Three Words " positives arrival calculate " Contact:- Peter Marsh 07831 193091 pjtw@msn.com or Paul Howey 07405 164040 G4BBP@aol.com
- 28-29 Sept Sam35 Power Strugglers Buckminster. APS plans Theme. contact Andy Brough 07472079777 acbrough@hotmail.com
- 10-11 Oct Sam35 Autumn Gala Buckminster Swap meet on Sunday (Monday available to Sam35 members Contact Doug Hunt 07899938556 dfhsam35@gmail.com
- 10 Oct Stunt Racing (both classes), KK Phantom 75 & KK Champ Racing run by PMFC with the Sam35 run Voetsak Tribute racing at Sam35 Retro Fest Bucky. Brian Lever: blever@btinternet.com
- 11 Oct Elite Voetsak Tribute racing class run by PMFC at the Sam35 Retro Fest Bucky. Brian Lever: blever@btinternet.com
- 11 Oct E20,RUBBER BOWDEN, 36" HI-START, CAT/ HLG run by PMFC at Sam35 Autumn gala. Contact Chris Grant 01162510716 freeflight@peterboroughmfc.org
- 11 Oct Mick Taylor Shield CL Aerobatics at the Sam35 Retro Fest Buckminster Event 3 of 3 & Trophy presentation contact Chris Maggs maggs2@gmail.com Mobile 07824828599
- 12-13 Oct Sam35 Power Strugglers Buckminster. contact Andy Brough 07472079777 acbrough@hotmail.com
- 17 Oct PMFC Indoor Flying at Bushfield Leisure Centre , Peterborough PE2 5RQ. 10:00 to 14:00 Sport free flight in a large hall with low key comps and prizes, Slow light RC welcome (no Shockies /Helis Includes BMFA Pussycat competition as detailed in "Tailplane" in June's Speaks. Competition full details at <https://peterboroughmfc.org/events> Andy Green 07853 557085 chairman@peterboroughmfc.org

Please email details of your event and your contact details for inclusion in "Whats On" to Andy Green at sam35events@gmail.com





In this edition Andy Brough updates us on the 2026 programme of SAM35 events at Buckminster, including the Bucky Power Struggler meetings. There are to be a number of themed BPS meetings, including one for David Boddington designs. Looking forward to that, Andrew Boddington has penned an excellent piece remembering his dad's Galloping Ghost sports aerobatic models. Finally, I give an update on the RC competition programme for the year.

The SAM35 Buckminster events 2026

April	11&12	Spring Gala and Swapmeet
	13&14	Power Strugglers
May	4&5	Power Strugglers - Boddo theme on Monday only
June	1&2	Power Strugglers - Modern Vintage Models demo
	12,13&14	RetroFest and Swapmeet
	15	Power Strugglers
July	27&28	Power Strugglers - Keil Kraft theme
August	17&18	Power Strugglers - Vic Smeed theme
September	7&8	Power Strugglers
	28&29	Power Strugglers - APS plans theme
October	10&11	Autumn Gala and Swapmeet
	12&13	Power Strugglers

Note that the June 1&2 BPS meeting directly follows the May 30/31 Modelair Mayfly event.

There is going to be a lot of SAM35 flying at Bucky in 2026, with 24 listed flying days and even more evenings.

Last year we had a successful DB Tyro themed Power Strugglers meeting thanks to Andrew Boddington. We intend to repeat this but with a wider remit to include all Boddo designs. Also, I had it in mind to have a KK designs theme, for which I have a Trophy engraved by Eddie himself. Another theme that came to mind is Vic Smeed designs. This could also include the actual models that Vic himself made, which are in the care of some of us. Charlie Jefferies and I have distributed a number of them. They can be gathered together for a group fly and photo session to honour him. A suitable trophy can be made, I'm sure. Andy Sephton has suggested an APS plans theme, which gives great scope from Model Aircraft, Aeromodeller and RCM&E magazines. Lastly, at the recent LMA

Useful Websites

SAM 1066	-	www.sam1066.org
Mike Woodhouse	-	www.freeflightsupplies.net
BMFA	-	www.bmfa.org
National Free Flight society (USA)	-	www.freeflight.org
Belair Kit's	-	www.belairdigital.co.uk
US SAM website	-	www.antiquemodeler.org
Peterborough MFC	-	www.peterboroughmfc.org
Outerzone -free plans	-	www.outerzone.co.uk
Model Flying New Zealand	-	www.mfnz.org
Raynes Park MAC	-	www.raynesparkmac.c1.biz
Sweden, Patrik Gertsson	-	www.modellvänner.se
Magazine downloads	-	www.rcbookcase.com
South Bristol MAC	-	www.southbristolmac.co.uk
Vintage Model Co.	-	www.vintagemodelcompany.com
Magazine Downloads	-	www.rcbookcase.com
Flying Aces Club	-	www.flyingacesclub.com
Oxford Model Flying Club	-	www.oxfordmfc.bmfa.club
DC Maxecutors MAC	-	www.dcmmaxecuter.org

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or paste the address into your browser

Are You Getting Yours? - Membership secretary

As most of you know, we send out an email each month letting you know about the posting of the latest edition of the New Clarion on the website. Invariably, a few emails get bounced back, so if you're suddenly not hearing from us, could it be you've changed your email address and not told us? To get back on track, email membership@sam1066.org to let us know your new cyber address (snailmail address too, if that's changed as well).

P.S.

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

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

Your editor

John Andrews