NEW Clarion

SAM 1066 Newsletter

Happy New Year

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Editorial

The coronavirus is still with us and currently shows no signs of slackening its grip. I personally find it difficult to imagine that the 2021 Contest Calendar will be able to start next month, I expect it will be a couple of months more before any improvement in the covid restrictions will allow Free-Flight competitions to get underway in some form or other and even longer for any form of indoor meets.

Sad to have to report three more losses to the dwindling Free-Flight community: Peter Iliffe; Raymon Alban; Robin Kimber. Our numbers continue to decline, old hands passing or becoming too old to compete. I continue to hope for a revival of interest, fingers crossed.

I have manage to get a few pages together to hopefully keep up your morale during the lockdowns but I am still appealing for some of you to put pen to paper or fingers to keyboard to keep Clarion content at a respectable level. Just take a look at what has been written for this month and I'm sure many of you could write something in similar vein. Give it a whirl.

My own contribution is a trip down memory lane, it's surprising what you can recall if you make an effort and the more you remember, the more memories seem to come. I think I will continue in the same vein for the February issue hopefully supported by some of you.

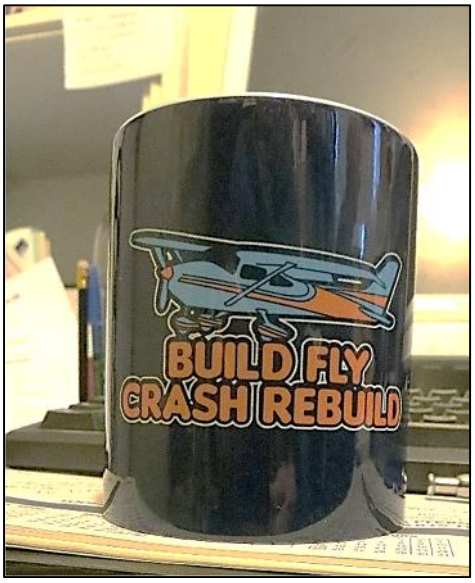
Nick Peppiatt, inspired by my article last month on my lost models, has search his memory banks and recalls models that he has lost over his modelling career.
Straying from the topic he first sheds some light on the Gatwick Airport drone kerfuffle of a while back and it appears that in certain quarters folk, in the absence of concrete evidence, cast doubt as to whether there were any.

Gerry Williamson in answer to my call for copy put together and interesting piece on his electric powered models and his lockdown builds. From the pictures he supplied it would appear he has quite a fleet.

The archive of Keith Miller's black & white photographs continues to provide me with pics of models of the past to help fill the pages. It would appear that the West Essex club control-liners were as active as the Croydon club were back in the 50's.

Roy Tiller continues to ferret through our magazine archives picking out things of interest. This issue he reproduces a series of aerofoil sections from the book Airfoil Sections by John Malkin, some are a little weird for our purposes.

Browsing through old Aeromodellers I came across an article on coupled rubber motors using crank systems instead of gears. The sketches of the suggested gearboxes so intrigued me that I just had to publish the article. Some of the multi shafted devices look so Heath Robinson that I have serious doubts that they would function.



Our secretary winds up with his report and the usual three plans for models of the month.

As a bit of an aside, I have a grandson who is a bit of a joker and seems to be able to find somewhat unlikely Christmas gifts. Mine is depicted here, a mug that might well spoil the taste of my elevensies.

Editor

Random Memories - John Andrews

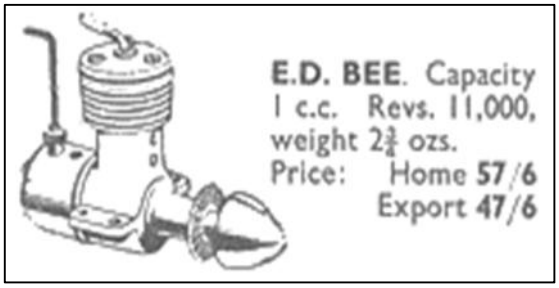
My first memories of flying model aeroplanes are of chucking small sheet gliders about in the driveway of the local cattle market at the end of our street. These were typical paper packet jobs, sheet fuselage with slots for wing and tail and a small nose weight. Instructions were wing at slot rear for gliding and at front for loops. Dating this episode is difficult, the models were bought from a toy shop at the end of the lane leading to my infants school. If I was still attending the infants school that would make it 1940 at the latest, myself being 7 years old. The models were balsa if memory serves so immediate post WWII is unlikely.

My next memory is being given a rubber model kit by my aunty Hilda, probably for one of my birthdays. I do not recall asking for one but I never really asked for anything in those austerity days. For some unknown reason I think it was a Frog kit, a typical stick and tissue model with suggestion of a cabin. The only real memory is of holding it up amazed at the water-shrunk tissue. No recollection of building, cutting, balsa cement, tissue paste etc. No idea of the fate of the model either but I would imagine trying to fly an un-doped model in a terraced house small backyard with brick walls, shed, clothesline and props would soon see it in bits.

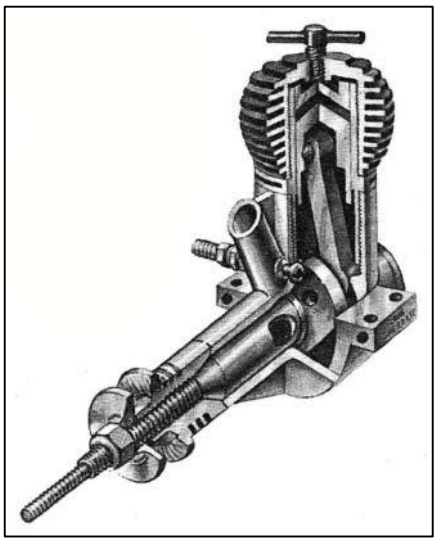
I recall trying to fly kit chuck gliders of some sort together with a schoolmate, up over and down but it seemed OK to us. A senior citizen came across the park and tried to tell us what to do to get them to fly properly, he must have been an aeromodeller I would guess. Do not recall any improvement.

Another memory is of my first rubber model that actually flew for a couple of circles. It was a Keil-Kraft Competitor. I built it and by this time I had read about dope so up to Charlie Moore's model shop goes I and a tin of clear and a tin of red were procured. That Competitor must have been heavy with the red doped fuselage, but after much mucking about over the 'Humpty Dumpty' fields with my next door modelling mate Ian we managed to get the model to climb up to the right and do a couple of circles. Deep Joy, the die was cast.
Rubber power has been my number one interest ever since, although control-line took hold for a number of years.

I started my apprenticeship in 1948 and with savings from my 5 shillings allowance I invested in my first engine, an ED Bee. Up with the Lark one Saturday morning, straight up to the local model shop, Charlie Moore's, and was soon the proud owner of a Bee.
I had an uncle who had a large lean-to brick workshop at the end of his garden and it contained two woodworking benches and I had been allocated one. I repaired to workshop together with a friend Laurie, bolted the Bee to a piece of wood and secured it in the woodworking vice, then set about trying to get it going. Took a while, we had a break for lunch then finally halfway through the afternoon we got it going. Flushed with success we ran a couple of tanks through it until we realised we could not see across the workshop for smoke. Opened up the door and exited in a cloud of fumes, jubilant in our achievement.

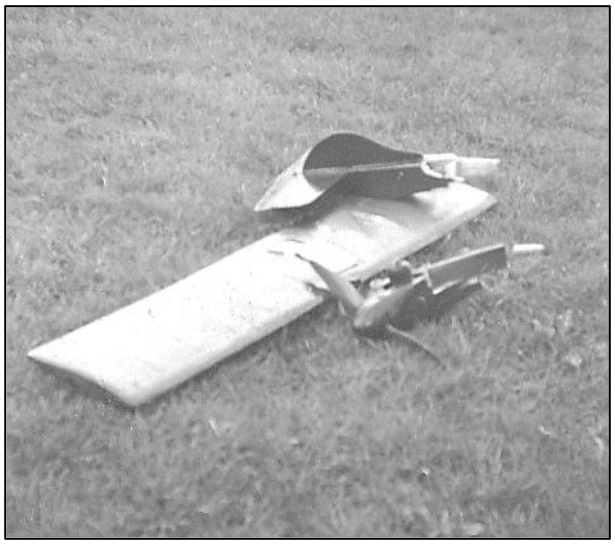


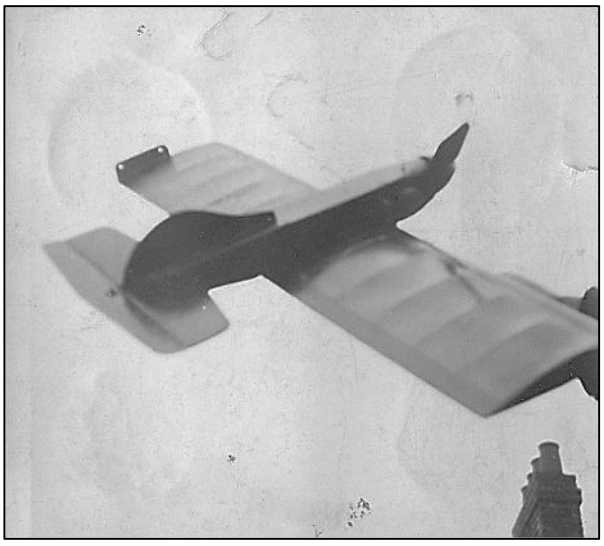
I had met two friends who were control-liners with ED Comp special powered KK Phantoms and as my future father-in-law had gifted me a Frog Radius kit, I made my first foray into control-line flying. The Radius was an all sheet affair with a fuselage made in two moulded sheet halves giving a circular cross section. The model was made for a radial mounted Frog engine of course so I must have modified it somehow to beam mount the Bee. We flew on Cotton/string lines supplied with the kit. My first attempt was of course a short one. However on the second go I did a few switch back laps without terra firma interfering then straightened it out until the fuel ran out. After landing I took one giddy step towards the model and my legs folded up under me and I lay on the grass laughing my head off, but now I was a control-line flyer.



I well remember my first powerful engine, a plain bearing Amco 3.5cc. I cycled from Rugby to a model shop at Spon End in Coventry to buy it, early 50's I would guess. I do not remember running in the motor but my memory, if it is to be believed, recalls the advised running in fuel being 50% ether / 50% CastrolXXL and nothing else. I built a stunt model and flew the first flights using said fuel. You would not believe the state of the model after each flight, thick black sludge all over, that XXL was Castrol's thickest oil I believe and not a lot got burned in running.
When I got on to regular fuel the motor was a real beauty but fragile. The prop extension piece was held in place by a 2BA threaded rod tapped into the end of the crankshaft and was always getting bent in unplanned arrivals on terra firma. Constant replacement was required and eventually the crankshaft would develop a small crack at the transfer hole. In this condition the motor would run hot and well below peak performance and this would alert me to send off for a replacement. Don't know what happened to the motor in the end but I think I've got one or two bits in a tin in the garage.

I developed a simplified version of the Aeromodeller's 'Happy Harold' using the Amco and I built one or two. I could get my wood from Charlie Moore's model shop during Friday lunch hour and be flying the model Sunday morning.



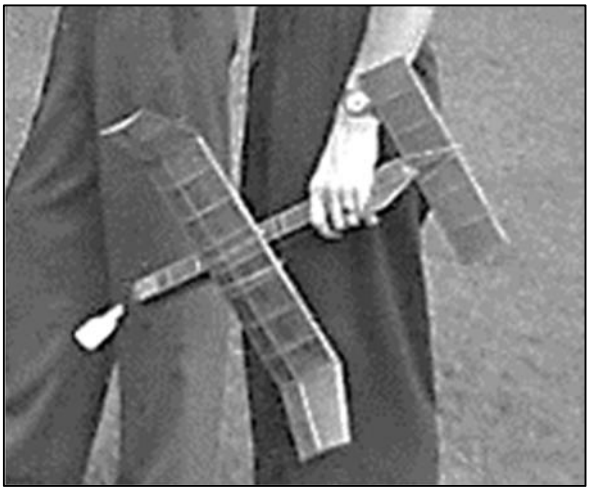


Flying one Sunday morning I made one of my unscheduled arrivals resulting in the somewhat shattered fuselage pictured above. In my defence the models wing loading was a little high and mushing out of manoeuvres was commonplace. Returning home early and using plenty of balsa cement I repaired the model and flew it again on the same Sunday afternoon.

I did my National Service 1954 to 1956 and was posted to the Hong Kong Signal Regiment headquarters in Murray Barracks on the Island. The model shop was on the mainland, Kowloon peninsula, and that was where we got all our modelling goodies. I became good friends with the proprietor Vincent and flew a lot with him on the local clubs flying field at ShaTin, first stop on the railway, inland through the mountain into the New Territories. The site was a sports field and they had a two storey brick built clubhouse with toilet and fancy bog paper.

Aeromodeller advert - Model shop interior - Proprietor Vincent Wong & family on clubhouse balcony

Vincent had a couple of pulse-jets, a Japanese one and an American Dynajet. Both were fitted in control-line models, the Japanese one in a typical training type with Jet on top and airframe below, the Dynajet however was inside a beautiful scale Lockheed Star fighter. I had one outing with him flying them. It was quite a palaver getting the engines to fire up, I was on a stirrup pump pumping air into somewhere, then there was the glowplug man or may have been spark generator and Vincent fiddling with the fuel feed *(as you may gather I do not know how they work really).* The Japanese jet would start fairly easily but would cut after one lap in the air. The Dynajet was a pig to get going but when it finally did run the model took off and circulated for quite a few laps making a tremendous racket. The motor eventually cut and the model was landed after a couple of fast gliding laps. As we moved towards the aircraft we saw a lick of flame then the whole model seemed to dissolve in front of our eyes long before we could get the fire extinguisher going.



Free-flight was not completely ignored during my stay in the Colony, I did build a small rubber job to satisfy my flying companions curiosity on the subject. I have no recollection of actually flying it but it appears in one or two pictures of our gang on the sports field on the island where we flew most of the time. I've got one picture somewhere, that I cannot find, of the model on display on top of my locker ready for some kit inspection or other. I do not recall any resulting disciplinary problems.

Happy days.

John Andrews

Extracts from Model Aircraft February 1952

Vetanvindee

Upon hearing that the appointed venue for this year's Wakefield is known as the Manchester of Sweden I at first feared that the sinister implications of such a comparison might well "damp" the ardour of our rain-weary contest types. However, I am now reassured to learn that the similarity is of an Industrial rather than a climatic nature. Thus, it seems, that while the chances are that our team will enjoy a dry sojourn in Sweden (externally at least), there remains, alas, the certain prospect of our Wakefield Funds receiving yet another good soaking.

Junior Genius

Why is It that on club nights the meeting room resounds to the piping treble of a horde of chattering teenagers while on Sunday the flying field is deserted save for a few rather senile specimens striving to uphold the traditions of active model flying as best their dimming vision and tottering old pins will allow? Recent comment on this vexed question would seem to suggest that the answer lies in our out-dated methods of approaching the teenage problem.

Well, I freely admit that I have always been a staunch advocate of the more old fashioned method of approaching the difficult junior member, that is from the rear with a hefty boot, but in the light of this new suggestion I have lost no time in making a closer investigation of the modern club-room adolescent.

What I have found is most revealing. Hitherto I had regarded all junior members as both lazy and stupid, now I know differently. Lazy? Yes, but stupid? Far from it. In fact the little beasts have been so devilishly ingenious as to devise a scheme whereby to establish a reputation as an expert aeromodeller without so much as squeezing a cement tube.

The idea is first to acquire a kit. Not just an ordinary kit, mark you, but one of those super, colossal American scale affairs. This masterpiece of commercial ingenuity is then paraded before one's friends, relatives and acquaintances, and the magnificent plan and all the twiddley bits of shaped balsa and wire held up to their admiring gaze. Truly, they think, only a veritable genius would contemplate the undertaking of a work of such incredible intricacy.

Ultimately, the kit is borne ceremoniously to the club-room, where its proud owner preens before the astonished eyes of the older members, who, wise as they might be in all the subtle ways of balsa butchery, quail at the thought of building such a diabolically involved monstrosity.

Cunning, eh? An accepted modelling expert without any of the fag of building or the bore of flying. Only snag is the initial outlay, and even this could be brought down to a reasonable level were some enterprising model business to introduce a service whereby such kits could be hired for a modest fee.

A Sorry Mesh

Those thankless Wakefield types who are currently giving vent to that soul-searing cry: "Where can we get gears?" don't really know how fortunate they are to be in their present gearless state.

Quite apart from the fatigue of winding two rubber motors, and the even greater fatigue of explaining to dim types why both motors have to be wound up the same way, there are those delightful occasions when the upper motor, overcome by a sudden fit of generosity, decides to slip its lower berth companion an extra strand. The resulting furious tangle is grand fun for one and all, the spectators absolutely rolling up at the sight of the stricken expression of the gear enthusiast when faced with the shocked realisation that he is left with no alternative but to rip the fuzz apart.

But all this is nothing compared with the initial fun of assembling the gear-box, a procedure involving the mutilation of several hundred feet of piano wire and about six fingers. And, no matter what cunning economies might be practised in its construction, the ultimate weight is ever the same: 1oz. This, of course, means extra load, which in turn calls for extra strength, which leads again to extra weight, and so on in a vicious upward spiral—which is more than can be expected from the resulting elephantine model.

Pylonius

The Ones That Got Away - Nick Peppiatt

This is the time of year for reflection and reminiscence, and following OEE's article last month on his lost models, I thought I'd take a look at the motley collection of mine that have gone AWOL over the years.

But, firstly, relating to things that got away, I must mention a long article published recently in the Guardian newspaper on the subject of the drones that shut down Gatwick airport two years ago www.theguardian.com/uk-news/2020/dec/01/the-mystery-of-the-gatwick-drone . The short conclusion is that although drones were seen by people who would be regarded as reliable witnesses, there is no actual hard evidence of their existence in the form of photos or film.

My first model loss was in the early eighties. We had moved to within a few miles of Chobham Common in 1983 and my young son, Andy, and I were flying a Peck Polymer One Nite 28, built from the kit for a simple rubber duration design meeting P30 rules, one Sunday. No D.T. is shown on the plans, and being relatively new to such models, none was fitted. Off it climbed to catch a gentle thermal, which took it southwards over the electricity cables and off into the distance.

Old Warden, 1988. I had built a Scram from Andrew Moorhouse's fine kit for a 3/10 scale model of Ray Heit's 1938 gassie, fitted with a Telco CO_2 motor. Given a gas charge, a relatively short flight was expected. Instead it caught some lift and off it went gliding and rising in a nice left hand circle.

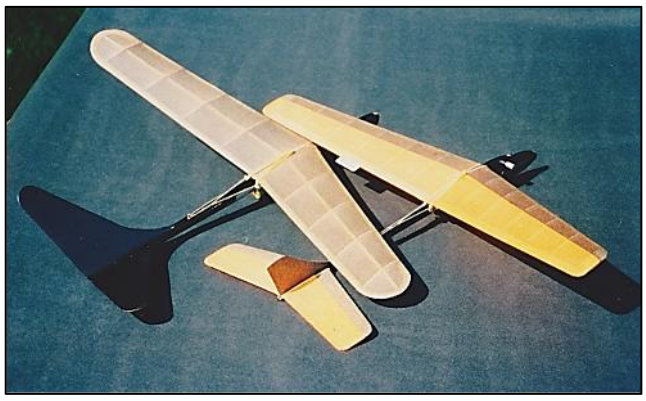
Chobham Common, again – an autumn day in 1990. Andy had been given an Estes rocket starter kit for a previous Christmas. I built an Estes Dragonfly, a kit for a simple all-balsa boost glider of about 10" wingspan, to make use of the launching apparatus. It used a 1/2A3-2T motor. There was a successful launch, the separation was good and the booster rocket was recovered. We watched as the glider went circling away, northwards this time, above the trees on Staple Hill and, presumably, across the M3 motorway.

Ted Buxton's Filibuster rubber duration design with a twin blade folding prop was originally published in the March 1947 edition of AeroModeller (about the time of my birth). I built one in 1992 and fitted it with a fuse operated pop-up wing D.T. The fuselage was covered in red silk and it had white tissue covered flying surfaces. In the summer of 1993 I took it over to Chobham Common for some trim flying. It duly climbed to a good height and the D.T. operated. Instead of descending, the only effect was a tightening of the glide circle as it made its way into the distance. It was in a Chobham boomer!

In 1998 I built a Vic Smeed Poppet for a Banks Mills 0.4cc motor. It was fitted with a tip-up tail D.T. using a Tomy timer. I last flew it in June 1999 on Chobham Common, but the timer setting was too long as it ended up in some thick vegetation. We had a dog at the time and we had many walks in search of it, but no luck. I did come across a stray Senator, which was duly returned to its owner, whose name, unfortunately, eludes me. About three years later I had a phone call reporting the finding of the model. It had been exposed because some hedge trimming had taken place down a path. The photo shows the model after recovery – very weather beaten but substantially complete. The tissue over mylar covering of the flying surfaces must have helped.

Like many in the early 2000s, I was dabbling with models for the Rapier motors produced by Dr. Zigmund in the Czech Republic. One of the aeroplanes I built was a slightly reduced size Keil Kraft Skyjet 50. The photo, taken by Bryan Stichbury in May 2001 at Middle Wallop, shows the model being launched for its second and final flight. The first flight had a tight turn that was corrected by the addition of an aluminium trim tab halfway along one wing. The Skyjet went off in a nice spiral climb and then started to descend only to enter the thermal that carried it away.

The launch of the first Rapier powered Skyjet



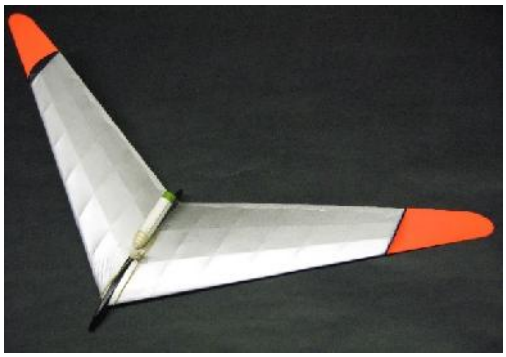
Second Skyjet (left) and Veron Min-O-Jet for Rapier L2s

A year later I was flying a Veron Min-O-Jet at MW. This and the second Skyjet had been fitted with fuse operated pop-up wing D.Ts. I was using D.T. fuse to light the Rapier fuse, so it was easy enough to light a D.T. fuse just before. Anyway, the fuse on this flight must have been a little long and the Min-O-Jet was lost over Hanger 4. A few days later I received a phone call reporting the recovery of the model, which was relatively unscarred.

To Port Meadow, Oxford for the Dreaming Spires meeting in 2003 and I was flying my General Aristocrat. I had built this in the 1980s from the Flyline kit and the photo shows it nearly complete in 1985. The registration markings, NC8656, were added later. It was powered by a dieselised Cox Pee Wee driving a 6x3 propeller. The conversion in this case was by Davis Diesel. I found that the best way to start these was to prime two or three drops of fuel into the open cylinder port and rotate the propeller slowly for about ten turns. The motor could then be flick started and would generally fire for a short run. The reed valve is often reluctant to get going initially, but after it has started and run in a day, repeat starts are generally straightforward. Anyway, it was a lovely calm day at Oxford and after several flights with the General Aristocrat it gently climbed, as usual, and found itself circling away in the company of a couple of red kites. If you are going to lose a model. This is the way to do it! Who said scale models don't need D.Ts?

The next one to go AWOL was the Brown Campus A-23 powered Lidberg Rocketeer at Chobham Common in 2005. I have already mentioned this in the first of my CO_2 motor articles (NC December 2017).

To Old Warden in September 2009 and Rapier powered models again. I made a 20" span Wing-Ding from the Bluebottle Squadron kit. This Steve Bage design for Rapier L1 motors is based on the Jetex Flying Wing. I had previously flown this model successfully at Middle Wallop. I had a new batch of L1s of 60mN. One was duly fitted, fired up and the model went up in a beautiful spiral climb. The glide was straight downwind until it turned into a tall clump of trees and disappeared.



To Middle Wallop in 2011 for the next two. I had built a Michel Etienvre vintage Coupe in 2007 and entered it in the 2010 Croydon Coupe competition, which was held in March, having been postponed from the previous year. I managed to achieve the required three two minute maxes. In the fly-off, which was timed by Geoff Smith and my old school chum, Tim Mountain, it landed upside down in the Apache helicopter compound – just the other side of a fence marked 'Danger of Death'. I understood that models found in this situation were often passed to the Museum of Army Flying. Unfortunately for me, in this case it was not.

The other 2011 loss was in August. I had entered my Veron Fledgeling, built in 2002, in the Very Small Rubber event. This was fitted with a viscous timer for the D.T., which in this case was not well set. For its first flight of the day, the 17g motor of four strands of $\frac{1}{4}$" rubber was wound to 1100 turns and the climb and trim were good and the flight was timed at 4min 11s, by which time the model was outside the airfield boundary, over woodland. I was once asked by Phil Smith, as he was strolling along the line of cars at MW inspecting the models, whether a D.T. was necessary on the Fledgeling. My current one is fitted with an RDT unit and has provision for a tracker.

The Jimmie Allen mass launch held at MW in August 2013 did not take place in ideal conditions. It was rather windy. My notes say that my Skokie went all over the place initially coming very close to the ground and then flying off for a flight timed at 64s out of sight. It went over a line of trees, but fortunately landed in a clearing where it was picked up by a passer-by sometime later. So this one was eventually recovered to fly another day.

An indoor loss, yes, models can disappear in large indoor spaces, was my Prime Suspect Legal Eagle into the roof furniture of the Thames Valley Athletic Centre in February 2018. Despite Andrew Chilton's best efforts the model could not be located or removed. The photo was taken at one of the much missed meetings at the Angel Centre in Tonbridge in 2012.

I have reported the loss and partial recovery of my Earl Stahl Rearwin Speedster at Old Warden previously (NC September 2018 and 2019).

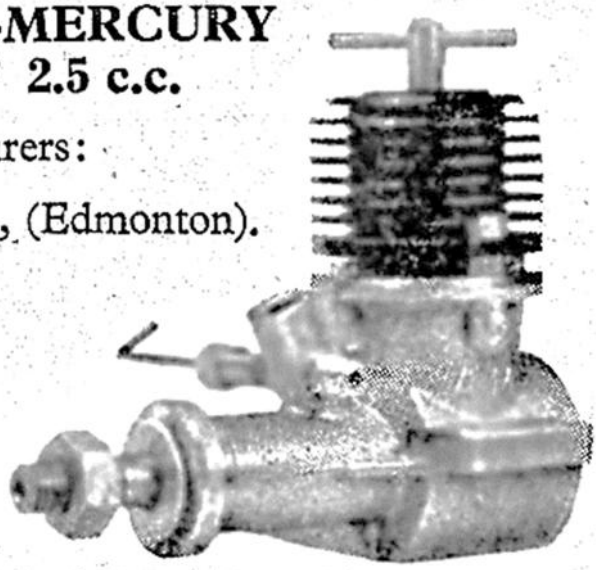
I'm sure many of you have even better tales to tell of lost models. And I'm even surer that in this time of very limited meetings and competitions OEE, John, would appreciate you jotting them down and sending them in for publication. On that note, let's hope that 2021 is much more conducive to model flying activity than 2020 has been.

Nick Peppiatt

ALLEN-MERCURY
"25" 2.5 c.c.

Manufacturers:

Allen Eng., (Edmonton).



Retail price 66/6

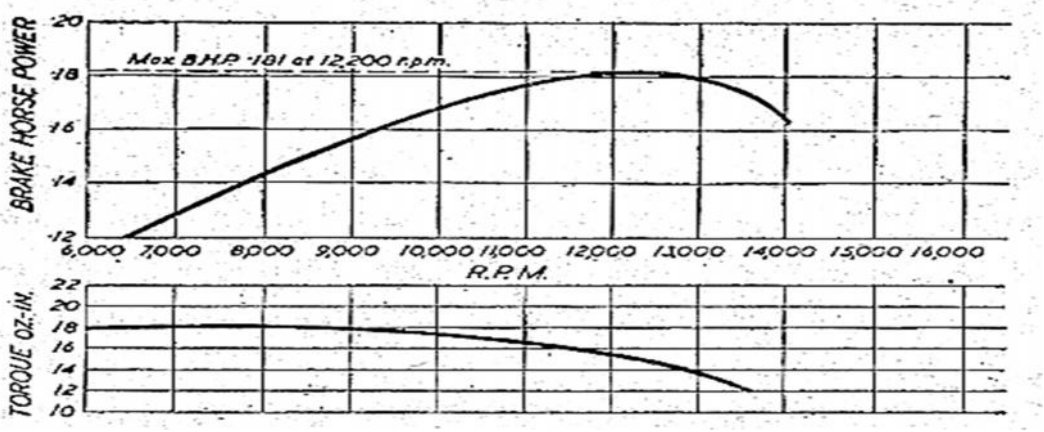
Displacement: 2.4

Bore: .570. Sroke: .562 Bore/stroke ratio: 1.01
Bare weight: 4 oz.
Max. B.H.P.: .181 B.H.P. at 12,200 r.p.m.
Power rating: .0725 B.H.P. per c.c.
Power/weight ratio: .045 B.H.P. per oz.

Material Specification:
Crankcase: L.M.2
Cylinder: Meehanite
Cylinder jacket: Dural
Piston: Meehanite
Contra-piston: Meehanite
Connecting rod: Dural
Crankshaft: S14. Case hardened
Crankshaft bearing: Meehanite bush.

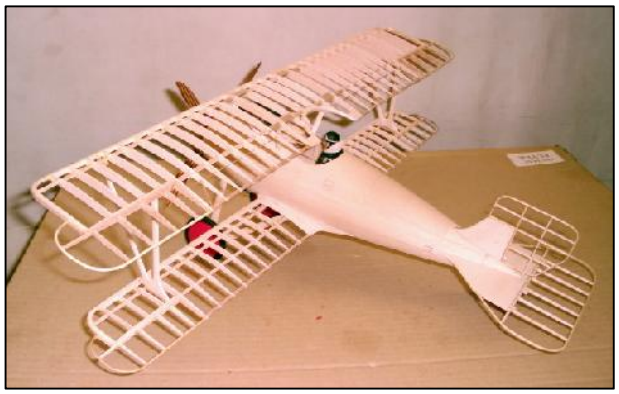
Propeller	R.P.M.
dia. pitch	
9 × 6	9,500
9 × 4 (Stant)	10,250
9 × 4 (K-K)	10,000
8 × 6 (Stant)	10,850
8 × 6 (K-K)	10,600
8 × 6 (Trucut)	10,500
7 × 6 (Stant)	12,000
7 × 6 (K-K)	11,800
9 × 4 Plastic	7,800

Fuel: Mercury No. 8



Aeromodeller Departed: Peter Iliffe

With sadness I report the death of Peter Iliffe.
Peter passed away early in December and he will be sorely missed by numerous aeromodellers' whom he was ever ready to chat to.
A master modeller who specialised in the production of scale model aircraft, particularly in the smaller sizes.
He was proud of the models he made and took every opportunity to exhibit them wherever he could and was always ready to explain the intricacies of their construction to any enquirer.
Many times he brought his latest project's part built airframes to the Walsall club indoor meetings and always collected a group of admirers who marvelled at the fine detail of the construction.
His models were not just exhibition pieces, he flew them indoors and out. Editor



R.I.P.

THE SIR JOHN SHELLEY CUP AND BOWDEN TROPHY COMPETITIONS

HELD ON AUGUST 2nd, 1937, AT FAIREY'S AERODROME

(By Kind Permission of C. R. Fairey, Esq.)

THE SIR JOHN SHELLEY CUP.

THE weather for the two petrol 'plane contests dawned even better than the previous day, there being little wind and the day very hot. This was particularly appreciated, as it is no joke to " wash up " a gas job which has probably cost quite a few pounds to build!

Up till about 10 a.m. competitors were everywhere "test hopping" their jobs, while the less fortunate remained on *terra firma* coaxing their motors to start! The American, Bodle, was unfortunate in cracking his model up, and he and his confederates put in several hours of frantic repair work to make ready for the International in the afternoon. One machine came roaring to earth under full throttle, struck with a bang, and the wing flying off, the fuselage complete went running across the 'drome!

Capt. and Mrs. Bowden, E. F. H. Cosh (hon. secretary, S.M.A.E.) and H. Fish, the winner of the Bowden Trophy.

An immense improvement in design was noticeable. In fact, the " crack-ups " could be counted on one hand, and in no case was a crash caused by structural failure. Such smashes as did occur were due to faulty trimming on the tight circles, which gas jobs are inclined to develop. We noticed that there was a great deal of duplication of design. Several " T O Coupes " were present, and seemed quite successful, though one provided some thrills. After developing a vertically banked turn at about 800 feet it came down, motor wide open, closer and closer to the ground. Then, at the last moment, when it had only about 15 feet to go, the motor " cut," and settling into an easy glide it made a perfect landing! Incidentally, we noticed that Mr. Fairey had generously had the grass cut very short, making good landings feasible, even with small wheels. Mr. R. Sharvell's little job is an excellent example of the small-sized model. The motor, which he built himself, is a half-size Brown Junior. As soon as the Shelley Cup contest opened it became apparent that the standard of flight was going to be very high indeed. Mr. R. J. Trevithick's little Brown-powered model was putting up some fine flights, despite its 23 oz. per sq. ft. loading. (This model had a ducking in the lake in the gravel pits some weeks ago, with the result that most of the plywood had parted, and the nose of the job and engine mounting had to be rebuilt just before the contest). The Bournemouth contingent all had machines of similar design, with wide track undercarts, which helped considerably to good landings. Two or three of Captain Bowden's " Kub " designs were flying very well, and it was with one of these, powered by a " Baby Cyclone," that Mr. Jeffries, of the Birmingham Club, won the trophy.

Competitors using lightly loaded machines had difficulty in judging the times, as there was so much lift in the air that models would stay up for quite a considerable time after the motor had cut out. At times, near the " control," so many motors were being run up that it was quite difficult to make one's self heard! As each machine was started up the owner would take it to the board. Meanwhile, Mr. J. C. Smith, at the microphone, would give a running commentary on the machine's performance in the air. The take-off board was only short, and was used to enable the models to overcome their inertia, so that when they came to the actual grass they were well moving, and only in a few cases were there failures to get off.

THE BOWDEN INTERNATIONAL TROPHY

This contest was won by Mr. Fish, of U.S.A. When one considers that there were no teams, as for the Wakefield Cup, each country entering as many models as it liked, this feat was quite remarkable, the odds being around 20—1 against him. We, personally, had hopes that Mr. Trevithick, who obtained second place in the Sir John Shelley Contest, would pull this second event off, as his machine was putting up very consistent flights, but his heavily loaded machine made a high speed landing in the long grass and nosed over. Mr. Bodle had by this time repaired his model, but apparently the bad smash it had sustained in the morning would not permit it to be easily trimmed. A machine built from the Scientific Model Aircraft Co.s " Miss America " kit (designed by Frank Zaic) was performing very consistently, and looked very pretty in the air with red wings and a blue fuselage. The Frenchmen's machines were all of a similar design, flat-sided fuselage cabin jobs, with wings employing a flat equal chord portion in the centre, with tapered tips sharply inclined upwards. They all failed to get off, due to

mechanical difficulties; they were all nicely built, and some employed a metal casting at the junction of the wire undercarriage legs.

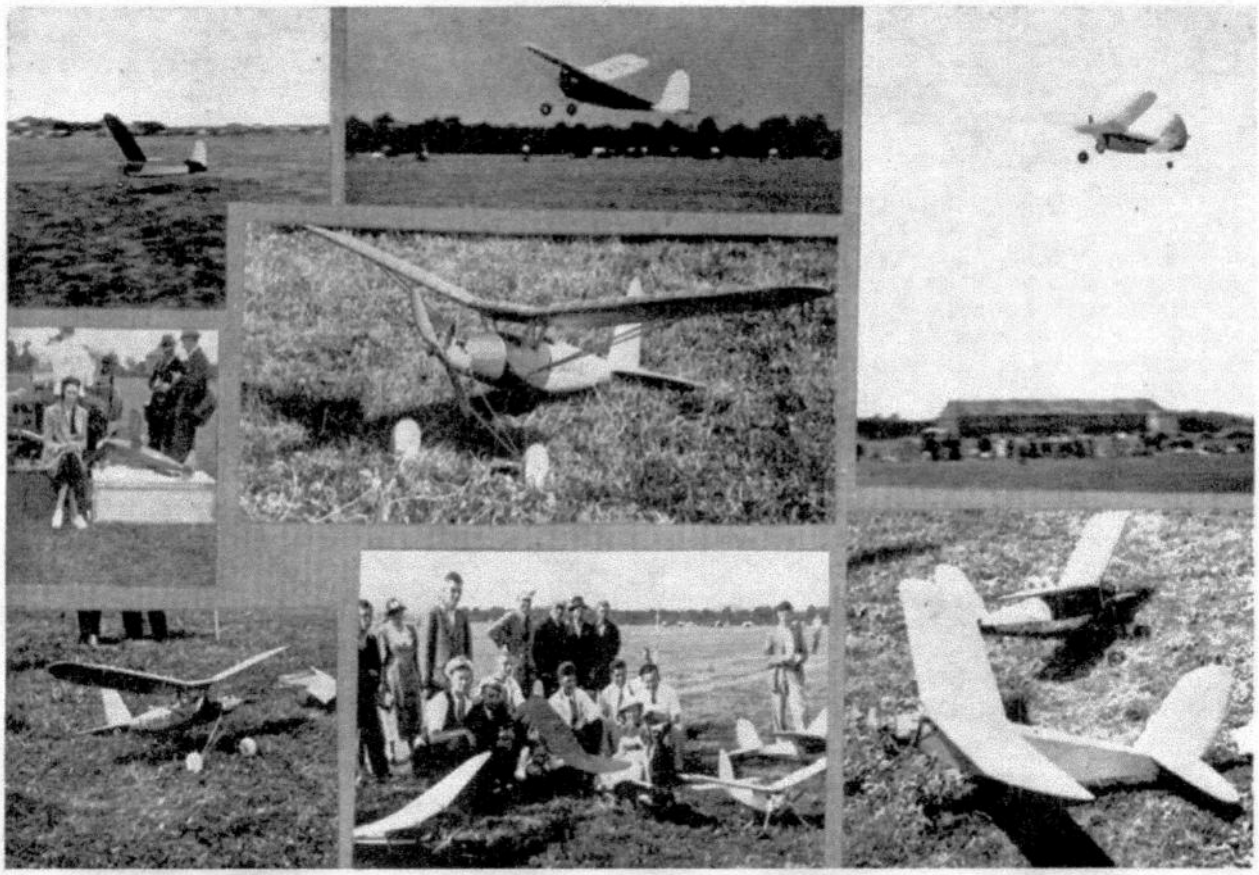
There were few radical departures from general design, though one was a very nice cabin pusher (Baby Cyclone). Also one " Cavalier," 10 in. span, finished all silver, with a fine monocoque fuselage. Mr. Wigdor had a very nice job, parasol monocoque fuselage, with the tail plane carried high on the rudder. In the competition competitors were allowed a time of between 45 to 90 seconds. By varying degrees the different machines were eliminated.

Mr. Fish (U.S.A.) had a very narrow escape with one of his flights, as his design was a typical American duration gas job, which floated for a long time after the power cut out. Having set his switch as for previous flights the model took off steadily and climbed higher and higher—the higher the model the longer was Mr. Fish's face! It became apparent when the motor cut out that he was going to be very fortunate indeed if it came down in time. On and on it glided, hardly seeming to lose height—the timekeepers began to count the seconds aloud, " 86, 87, 88, 89 and a fifth! " It just touched ground with ½ sec. to spare! So close were the results that two English machines and Mr. Fish had to re-run. The first job off turned in a wide sweeping circle, then, the motor cutting, commenced a long flat glide which took it right outside the drome and on to the cabbage patch. Disqualified! Fish's model took off perfectly, clocked the requisite time, but on landing the model ran along the ground, struck a tuft of grass and overturned. Loss of points! It all depended on the next job now, and with bated breath we watched the model take off, fly round nice and smoothly, then the time switch " cut," and with a dead motor it started coming in for a landing. Just as it touched down an amazing thing happened: the undercarriage folded up underneath it! Amidst wild applause Mr. Fish was nominated winner. This was a very popular win, as after the long trip they had made we could well imagine the American's feelings had they gone back empty-handed!

There is no doubt that the two-day meet this year has been an immense success, and though next year the Wakefield contest will be in France, the Bowden Trophy Contest will be held in England, and we look forward to the next international meeting for this splendid trophy, so kindly presented by Captain C. E. Bowden.

The contests were all exceedingly well run, and the S.M.A.E. deserve every credit for organising the whole affair without any hitches. Mr. H. York put in spartan work meeting the foreign visitors, and getting them housed in London, while Messrs. Cosh and Smith put in similar hard work in correspondence and the handling of competitors and stewards on the actual day.

PHOTOGRAPHS AT PETROL CONTESTS AT FAIREY'S, AUGUST 2nd



Top left: Mr. Fish's winning gas job.
Centre left: Mrs. Fish and the U.S.A. contingent.
Bottom: Mr. Sharvell's diminutive model.

Top: Off! Contestant for the Shelley contest.
1.3 cc. powered gas job.
U.S.A. entrants pose for THE AERO-MODELLER.

Top right: R. J. Trzvithick's 2¾-oz. per sq. ft. machine underway.
Bournemouth entries. Model in foreground with a " Comet " motor.

Lock Down builds - Gerry Williamson

When I returned to free flight modeling about four years ago, after a gap of about fifty five years, I decided I would take full advantage of the modern electric components available. I find electric motors that start with a push of a button are much less smelly and problematic than my Webra mach 1 and Oliver Tiger powered Dixielanders when I was sixteen!

I designed a couple of models For the E36 and BMFA electric classes based on a 1960's design, Heatwave , by Mike Green. Square tips, flat centre section and a flat bottomed wing section. The wing section comes from a 1960 world championship model, Pulteri. All for easy building.
These models proved easy to trim and have afforded me some success.

So with lockdown arriving, although I am retired of course, I decided with all the time on my hands to try something different. After scouring the Outerzone website looking for a pretty power model I settled for George French's Night Train.

I first drew the plan for an E36 version and started the build, the first elliptical tipped model I had built since 1960. Luckily where I live there is a large area of common land which is ideal for trimming.

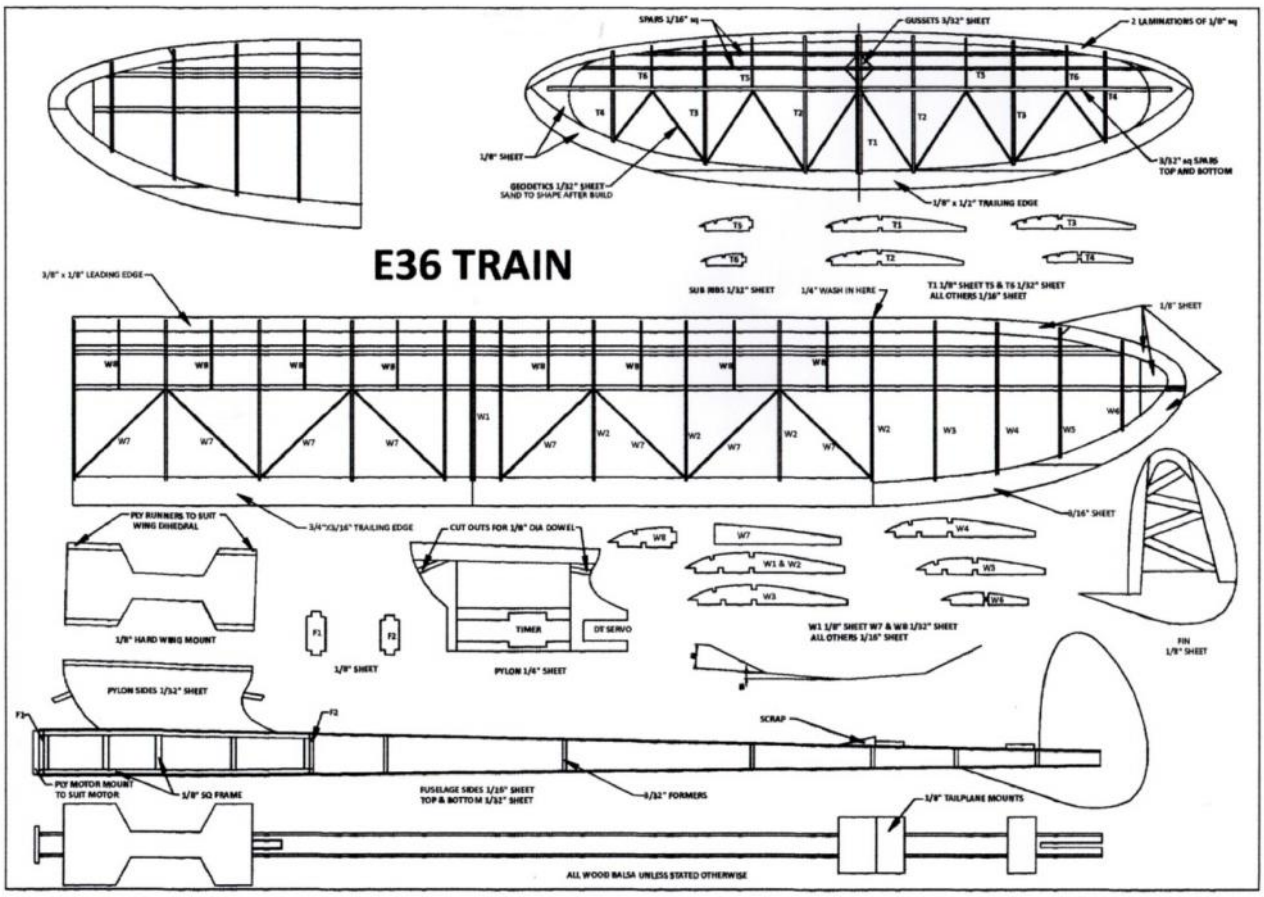
My trimming method is not for the purist. After checking rigging angles and CG, I mount a lightweight RC receiver , then with the motor going flat out point the model vertically and let go. If anything unexpected happens during the climb I can stop the motor and DT immediately. Once the climb is sorted I concentrate on the glide. This model had three trimming flights to get it in pretty decent trimmed condition.

The fourth, on a dead calm sunny day with high clouds, the DT failed, and after gliding for about eight minutes disappeared into a cloud, never to be seen or heard of again, name and address on board.
So I have built two more. Flushed with the success of these models I have now built 45 inch and 50 inch versions.

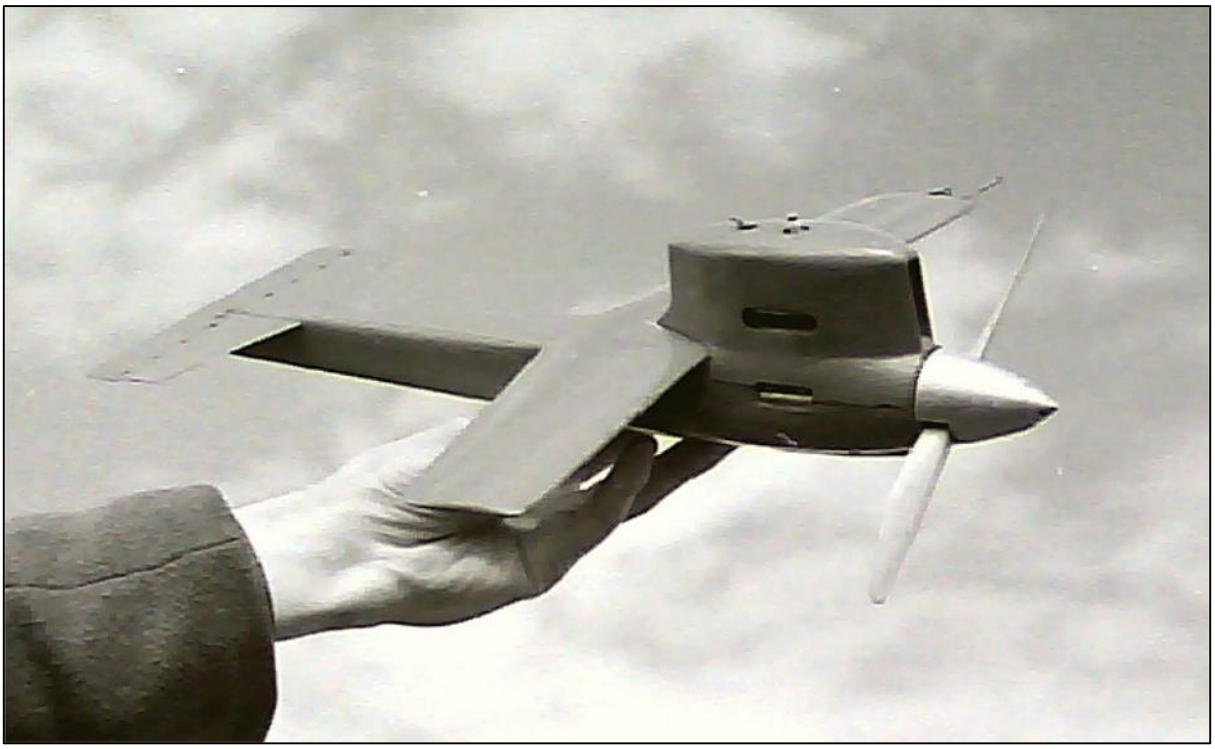
Initial test flights show the same characteristics as their smaller cousins. They seem to climb much faster than my square tipped models.

Roll on the time when I can try them in some competitions.

During the last lockdown I have built an E30 model, (right), back to the square tips I'm afraid. This model is so far untried.
My models are all Balsa wood with ply used for motor mounts, dowels, no carbon. I use Solafilm So-Lite to cover all my models, much easier than tissue paper and dope.



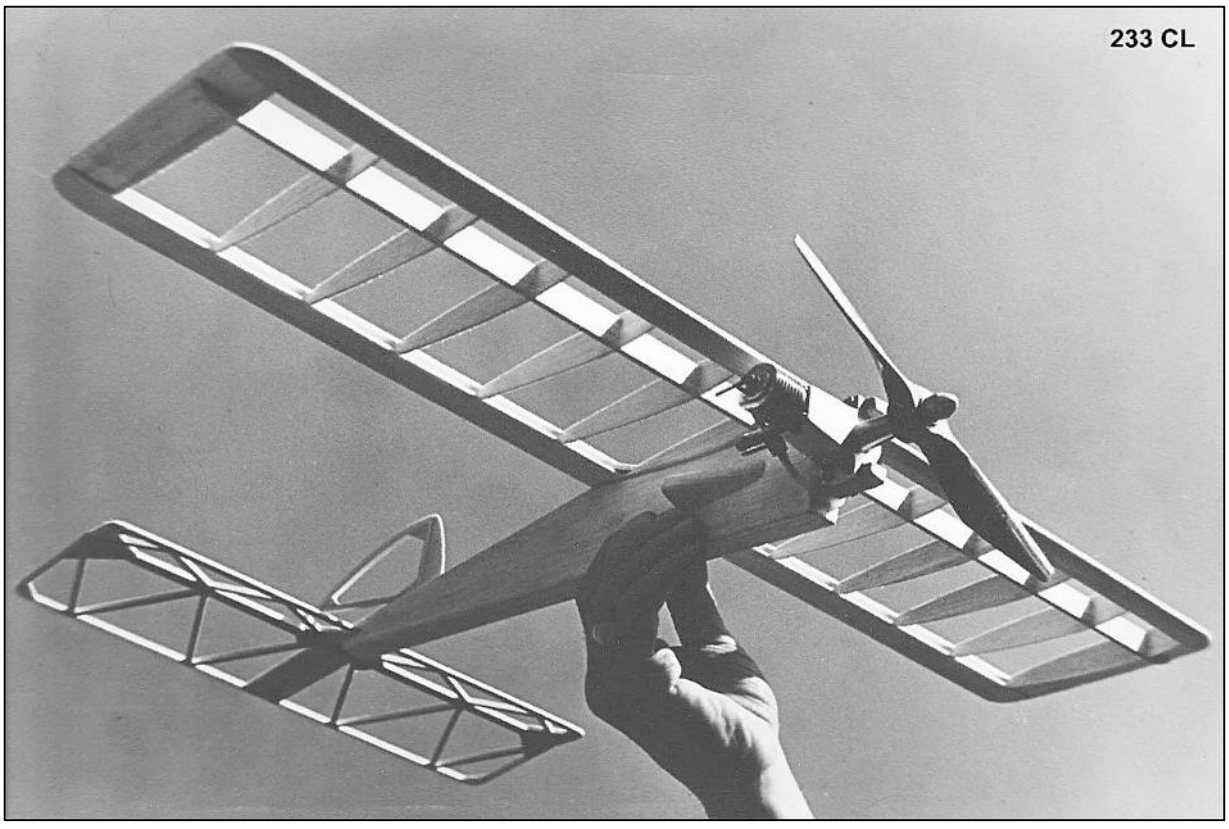
Gerry Williamson



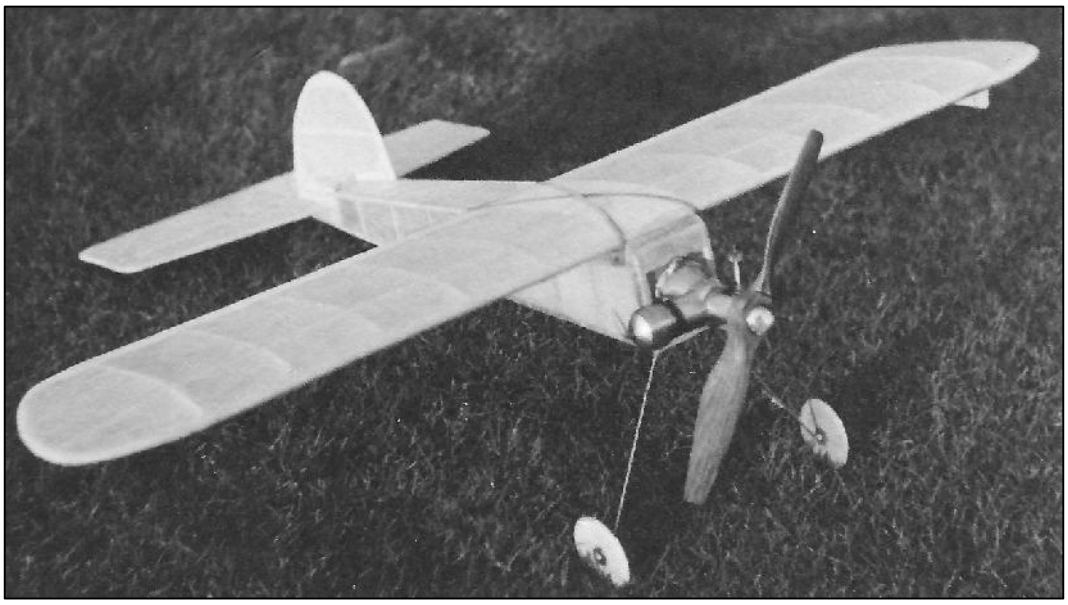
Speed control line model by Fred Deudney (West Essex) at Fairlop in the 50's.

C/L team race tank check at Woburn

West Essex club speed control line model at Fairlop in 1950.



Keith Miller's (CDMAC) first C/L stunt model powered by one of the first Mills 1.3 diesels.



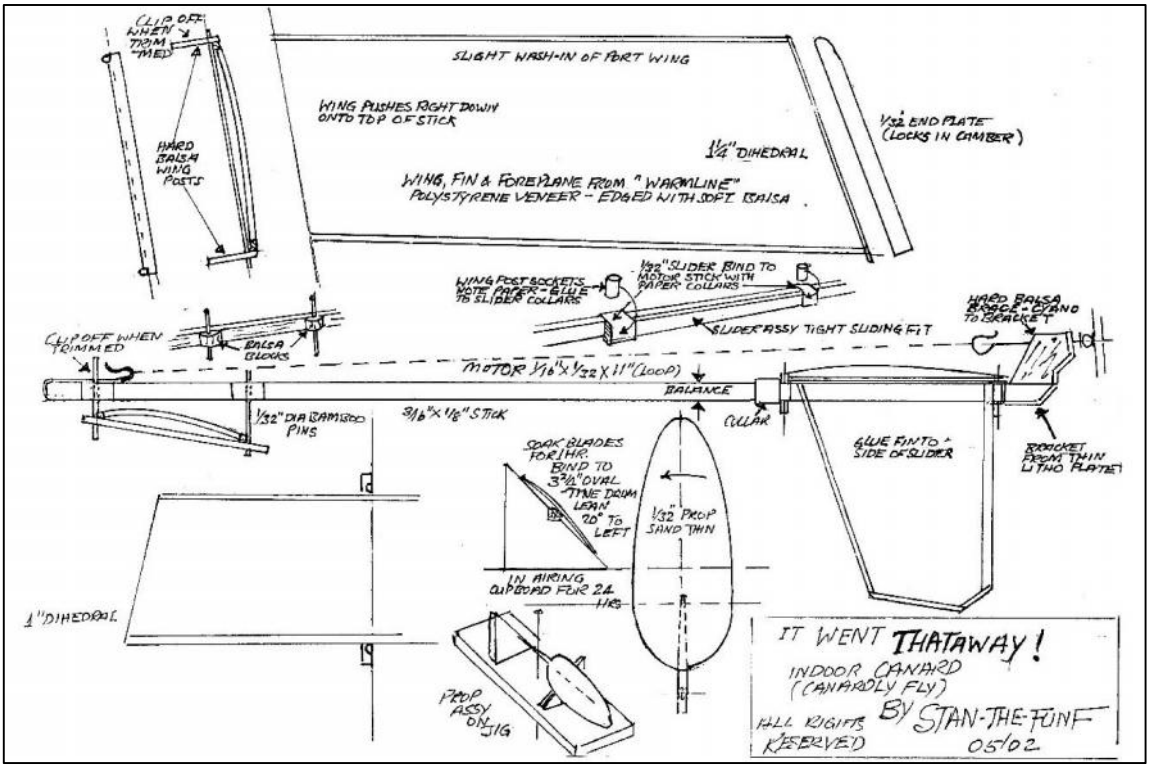
Keith Miller's (CDMAC) Elfin 1.8 C/L stunt model. Early 50's.

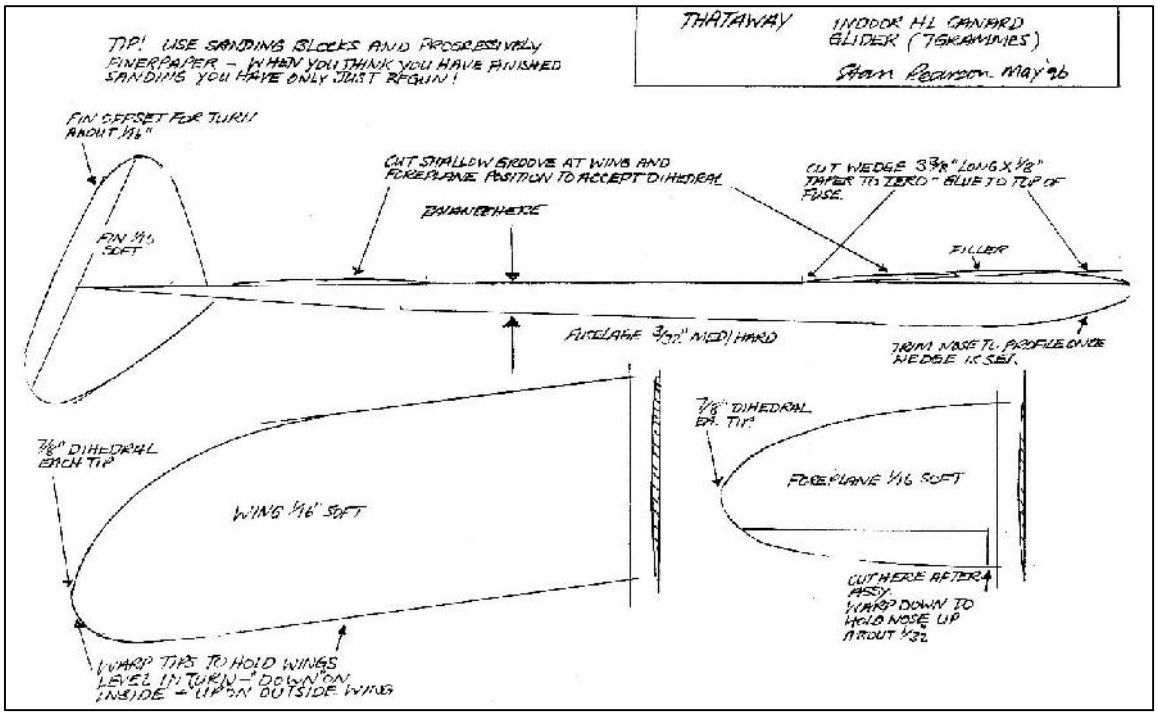
A West Essex club member's C/L stunt model after the up line broke. Super Cyclone powered.

Keith Miller Archive

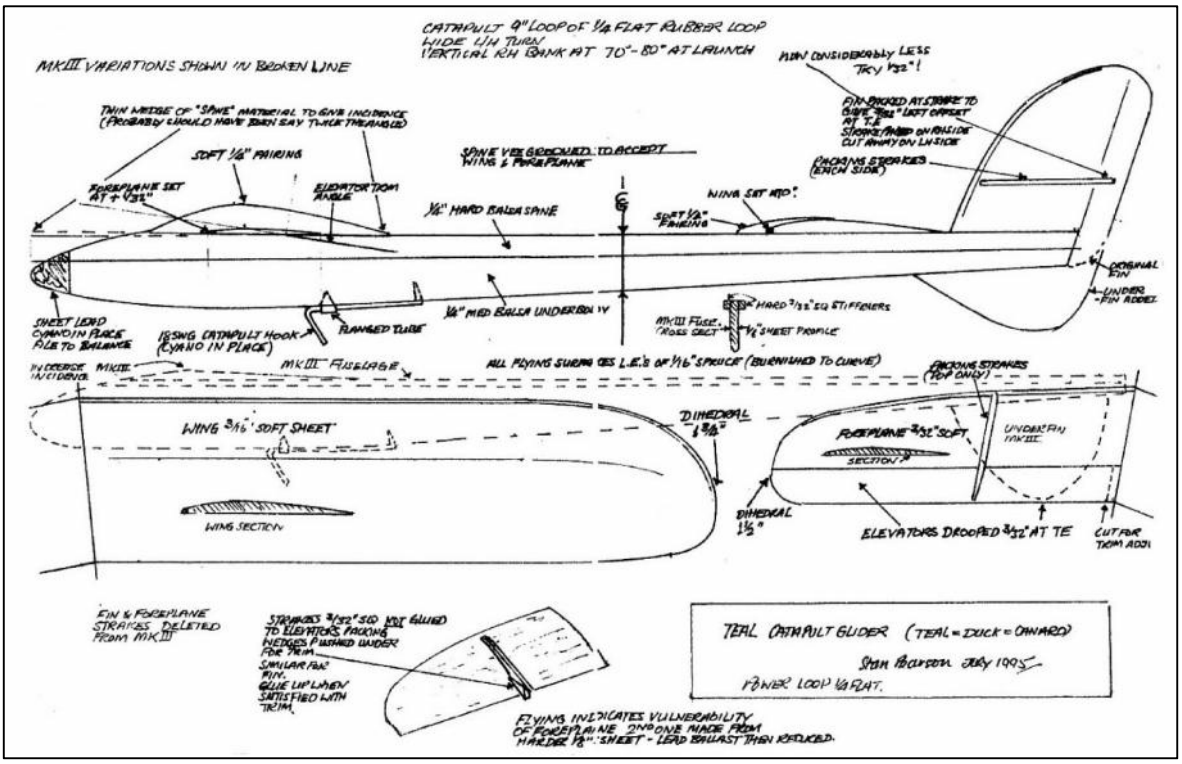
Report No. 119 New arrivals.

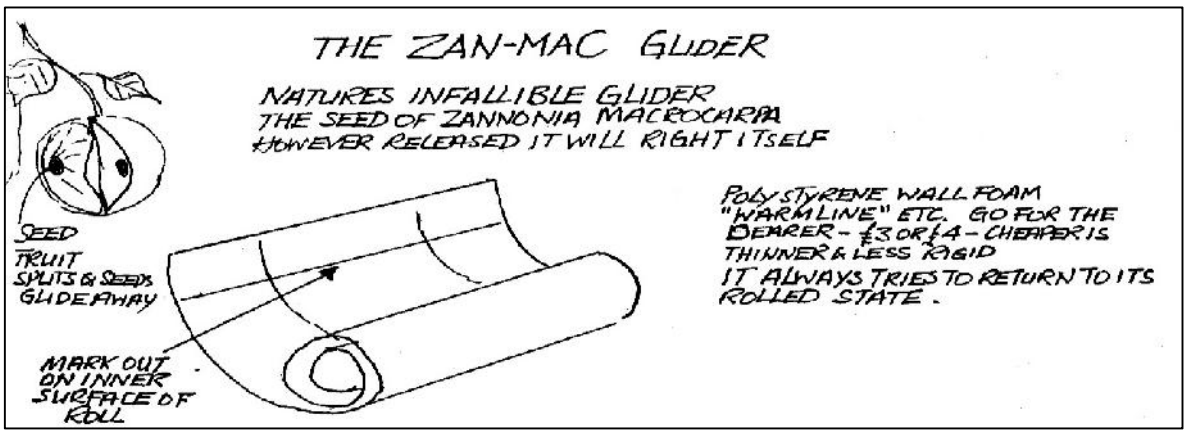
Last month I reported that Andre Bird had advised of his placing a "clear out" box of various bits, including Arm Soar newsletters, by the control tower at Old Warden on a help yourself basis. Nothing further heard on this so we are still seeking Arm Soar, but Andre has been in touch again, this time with copies of correspondence and plans from Stan Pearson who is perhaps better known as Funf. Some of these plans do not seem to have been published in any of the magazines or newsletters held in the library so they are shown here for your enjoyment. First a couple of indoor canards, one rubber powered and named "It went thataway!" and a glider simply named "Thataway".

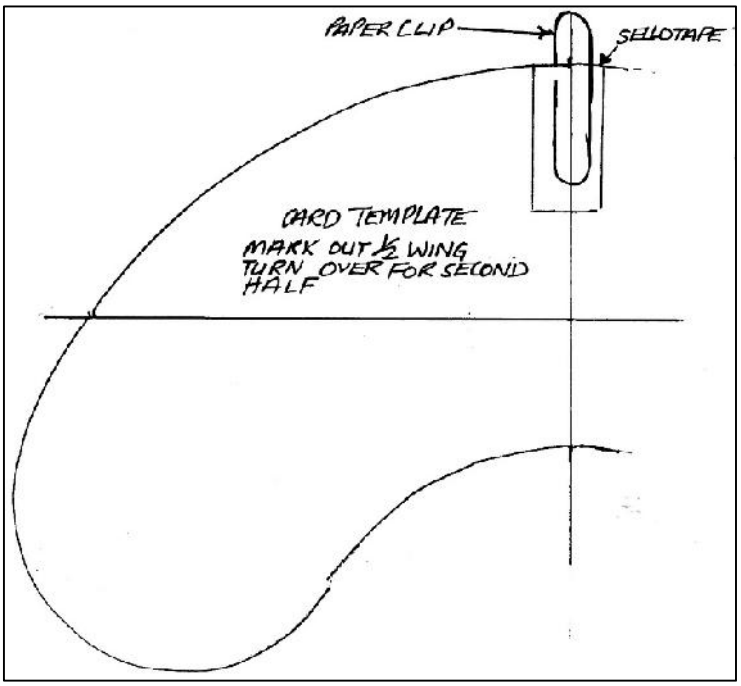


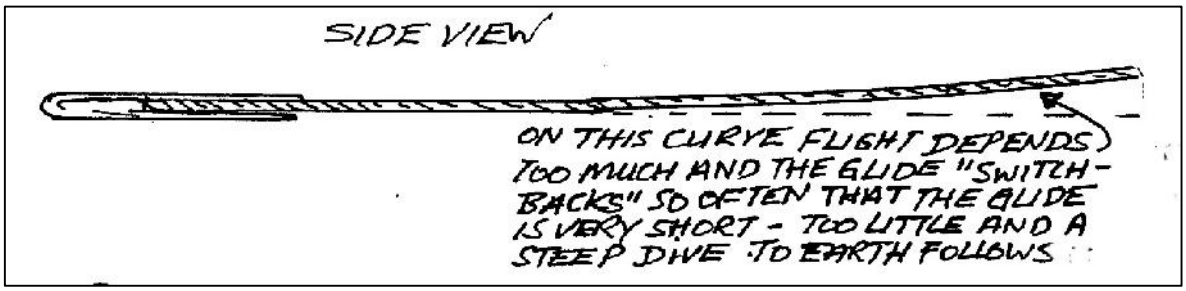


Now two outdoor gliders, a canard, the "Teal" needing a loop of ¼" rubber to make it perform and Fumf's take on the Zannonia Macrocarpia seed which you just let fall from your hand.



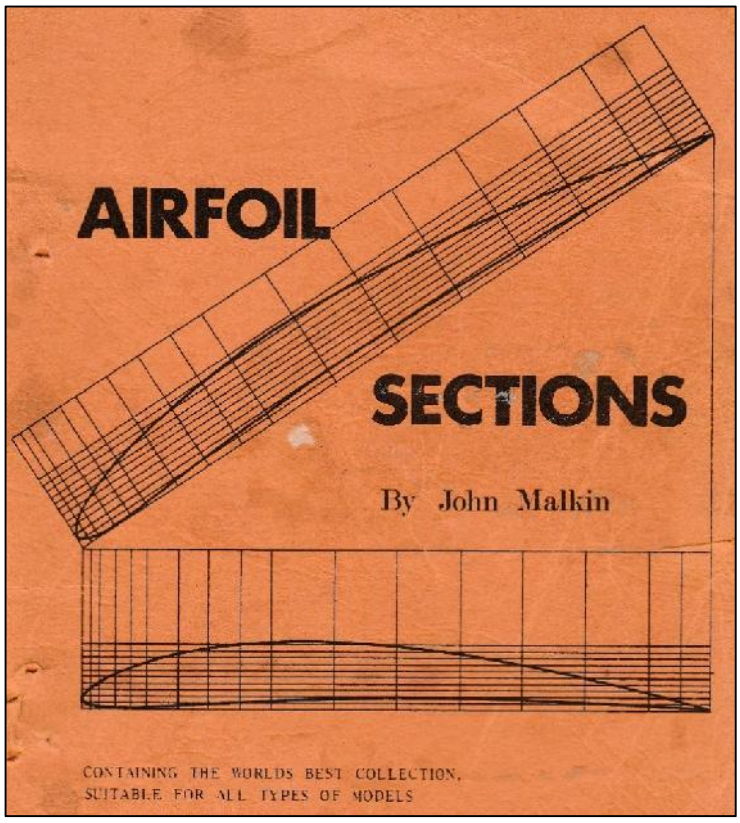






Copies of any of the above Funf plans available by email.

Another new item in the library is a digital copy of John Malkin's "Airfoil Sections", a 1971 first edition. In this case a thank you is due to Gavin Manion for loan of his copy.

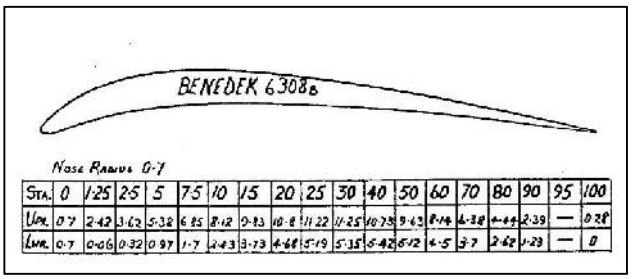


The reason which prompted me into compiling this listing of Airfoils was, whenever I wanted a particular airfoil section I would have to search through all my magazines and books and this would usually take me an evening or more as I would invariably come across some interesting article or plan which would divert me from my original theme.This in itself didnt bother me,but, occasionally because of it I would miss seeing the section and have to start all over again. This did annoy me and I am sure there are many modellers like me and to all of you who find it difficult to go through your books and not be mislead I hope my work will save you some valuable building time.

If nothing else this book will serve as an extremely useful reference to all modellers.

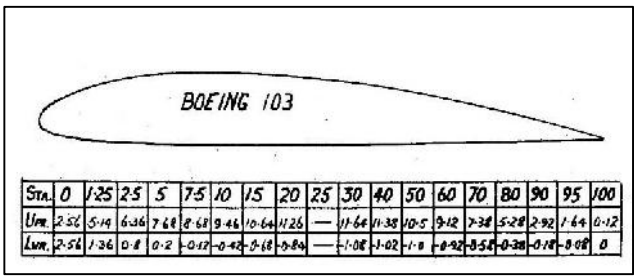
JOHN MALKIN
UPPER HUTT.
NEW ZEALAND. MAY 1971.

Here are a few examples of shapes familiar and some perhaps less so.

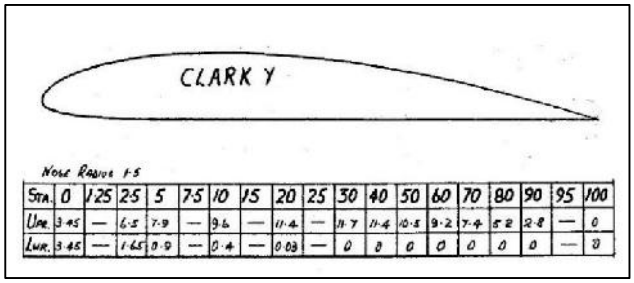


Nose Radius 0·7

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	0·7	2·42	3·62	5·32	6·85	8·12	9·83	10·8	11·22	11·25	10·75	9·43	8·14	6·38	4·49	2·39	—	0·28
Lwr.	0·7	0·06	0·32	0·97	1·7	2·43	3·73	4·68	5·19	5·35	5·42	5·12	4·5	3·7	2·62	1·23	—	0

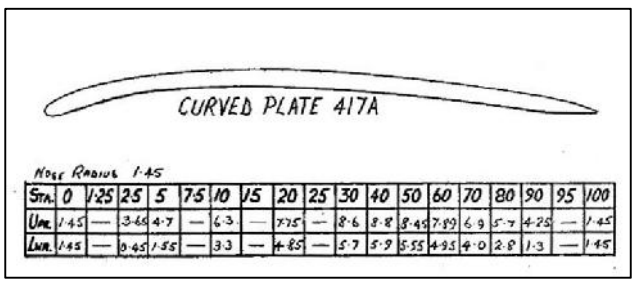


Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	2·56	5·14	6·36	7·68	8·68	9·46	10·64	11·26	—	11·64	11·38	10·5	9·12	7·38	5·28	2·92	1·64	0·12
Lwr.	2·56	1·36	0·8	0·2	-0·12	-0·48	-0·68	-0·84	—	-1·08	-1·02	-1·0	-0·92	-0·56	-0·38	-0·18	-0·08	0



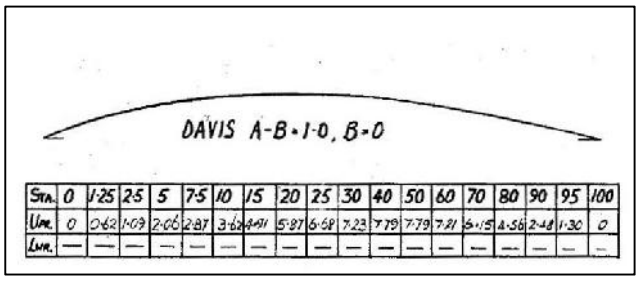
Nose Radius 1·5

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	3·45	—	6·5	7·9	—	9·6	—	11·4	—	11·7	11·4	10·5	9·2	7·4	5·2	2·8	—	0
Lwr.	3·45	—	1·65	0·9	—	0·4	—	0·08	—	0	0	0	0	0	0	0	—	0



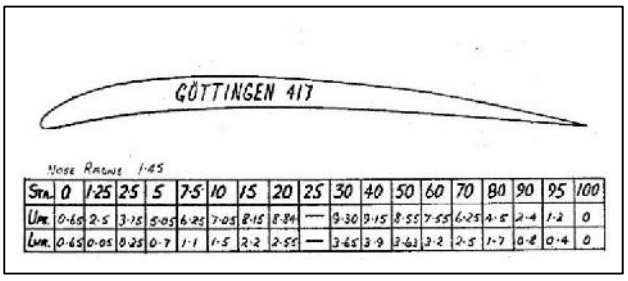
Nose Radius 1·45

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	1·45	—	3·65	4·7	—	6·3	—	7·15	—	8·6	8·8	8·45	7·89	6·9	5·7	4·25	—	1·45
Lwr.	1·45	—	0·45	1·55	—	3·3	—	4·85	—	5·7	5·9	5·55	4·95	4·0	2·8	1·3	—	1·45



DAVIS A-B-1·0, B-0

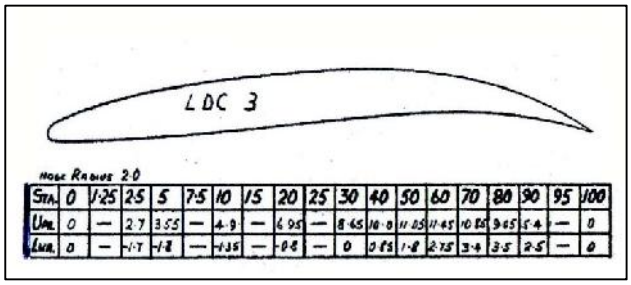
Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	0	0·62	1·09	2·06	2·87	3·62	4·91	5·87	6·58	7·23	7·79	7·79	7·71	6·15	4·56	2·48	1·30	0
Lwr.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



GÖTTINGEN 417

Nose Radius 1·45

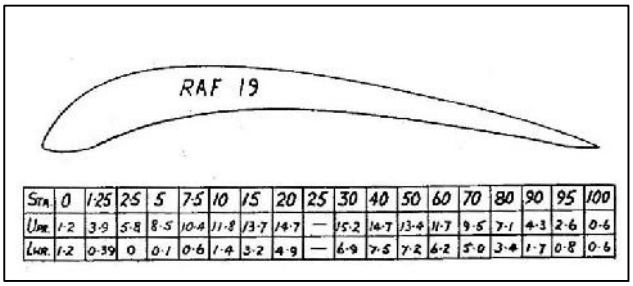
Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	0·65	2·5	3·75	5·05	6·25	7·05	8·15	8·84	—	9·30	9·15	8·55	7·55	6·25	4·5	2·4	1·2	0
Lwr.	0·65	0·05	0·25	0·7	1·1	1·5	2·2	2·55	—	3·65	3·9	3·63	3·2	2·5	1·7	0·8	0·4	0



LDC 3

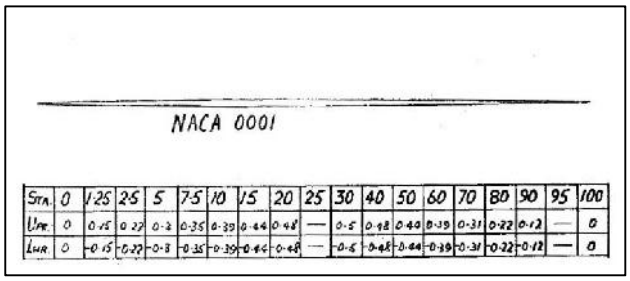
Nose Radius 2·0

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	0	—	2·7	3·55	—	4·9	—	6·95	—	8·65	10·8	11·85	11·65	10·85	9·65	5·4	—	0
Lwr.	0	—	-1·7	-1·8	—	-1·35	—	-0·8	—	0	0·85	1·8	2·75	3·4	3·5	2·5	—	0



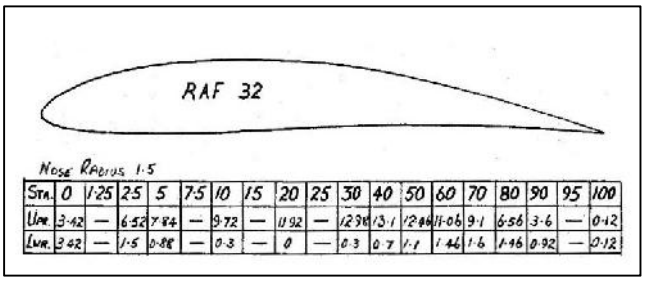
RAF 19

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	1·2	3·9	5·8	8·5	10·4	11·8	13·7	14·7	—	15·2	14·7	13·4	11·7	9·5	7·1	4·3	2·6	0·6
Lwr.	1·2	0·39	0	0·1	0·6	1·4	3·2	4·9	—	6·9	7·5	7·2	6·2	5·0	3·4	1·7	0·8	0·6



NACA 0001

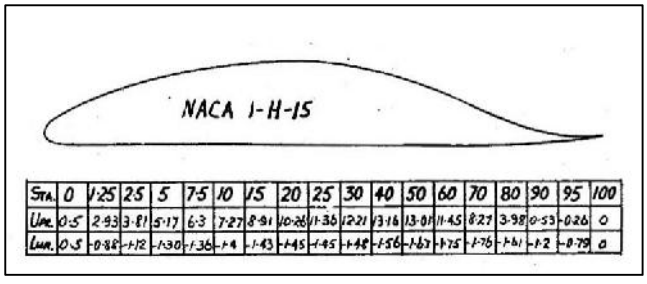
Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	0	0·15	0·22	0·3	0·35	0·39	0·44	0·48	—	0·5	0·48	0·44	0·39	0·31	0·22	0·12	—	0
Lwr.	0	-0·15	-0·22	-0·3	-0·35	-0·39	-0·44	-0·48	—	-0·5	-0·48	-0·44	-0·39	-0·31	-0·22	-0·12	—	0



RAF 32

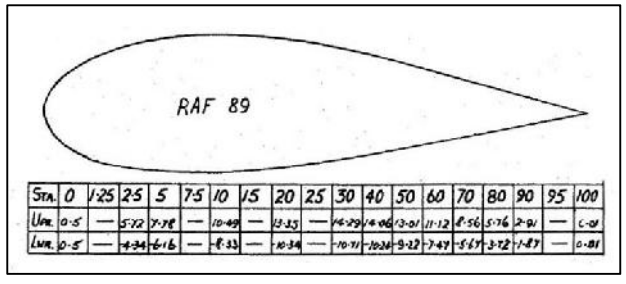
Nose Radius 1·5

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	3·42	—	6·52	7·84	—	9·72	—	11·92	—	12·98	13·1	12·86	11·06	9·1	6·56	3·6	—	0·12
Lwr.	3·42	—	1·5	0·88	—	0·3	—	0	—	0·3	0·7	1·1	1·46	1·6	1·46	0·92	—	0·12



NACA 1-H-15

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	0·5	2·93	3·81	5·17	6·3	7·27	8·91	10·26	11·36	12·21	13·16	13·81	11·45	8·27	3·98	0·53	0·26	0
Lwr.	0·5	-0·88	-1·12	-1·30	-1·36	-1·4	-1·43	-1·45	-1·45	-1·48	-1·56	-1·63	-1·75	-1·76	-1·61	-1·2	-0·79	0



RAF 89

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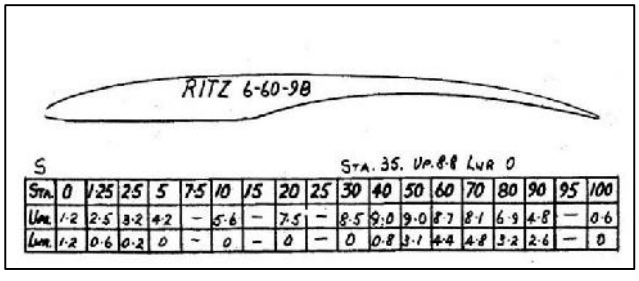
Upr.	0·5	—	5·72	7·98	—	10·49	—	12·33	—	14·29	14·06	13·01	11·12	8·56	5·76	2·91	—	c·01
Lwr.	0·5	—	4·34	6·16	—	8·33	—	10·34	—	10·71	10·24	9·22	7·47	5·67	3·72	1·87	—	0·01



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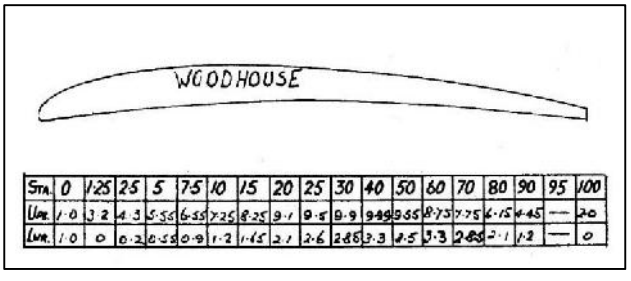
Sta. 35. Upr. 8·8 Lwr 0

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	1·2	2·5	3·2	4·2	—	5·6	—	7·5	—	8·5	9·0	9·0	8·7	8·1	6·9	4·8	—	0·6
Lwr.	1·2	0·6	0·2	0	—	0	—	0	—	0	0·8	3·1	4·4	4·8	3·2	2·6	—	0



WOODHOUSE

Sta.	0	1·25	2·5	5	7·5	10	15	20	25	30	40	50	60	70	80	90	95	100
Upr.	1·0	3·2	4·3	5·55	6·55	7·25	8·25	9·1	9·8	9·9	9·49	9·55	8·75	7·75	6·15	4·45	—	2·0
Lwr.	1·0	0	0·2	0·55	0·9	1·2	1·65	2·1	2·6	2·86	3·3	3·5	3·3	2·85	2·1	1·2	—	0

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Roy Tiller

Clarion Past - John Andrews

Extract form the old paperback Clarion circa 2004

John Andrews at 2004 BMFA Nationals

I travelled to Barkston each day for the three day B.M.F.A. Free-Flight National Championships. As is now my habit, I had made a block entry for all official events. The wife Rachel and I arrived reasonably early on Saturday day one and entered the aerodrome through a maze of traffic cones that were supposed to separate the pre-paid from the masses.
I never did solve the mystery of which lane was which, in fact I never recognised two lanes, but that's by the by. We were there.

O-3, the Authors best open rubber model to date

The wind on that Saturday was quite moderate and blowing from the entrance area so we set up camp, clear of the hanger turbulence and I set about assembling my open rubber job O-3. I had had O-3 out at Warwick Race Course during the week and it appeared to be performing nicely on a 14 x ¼ x 88gm motor. The model is over two years old and has never been flown in anger, in fact it had never had more than 400.turns on test flights. I had a quick check flight with 400 turns and O-3 looked hunky dory. Jumping onto the folding bicycle I was off to the flight control van. Peter Spalding was doing sterling service manning the stall, he booked me in and gave me my flight card. I peddled back to base raring to go

First problem, find a timekeeper. I approached the chap next to me and he promptly offered the services of his wife, solely for timekeeping of course. I consulted my Tan II turns table (Ex Clarion July 1996) and 920 turns was the figure from the table. I find that you can exceed the advice from the table but staying below it keeps the motor strands intact for longer.

I wound on 850 +, so my flight log tells me, then I got the confirmation nod from Kath my timekeeper and I pointed O-3 skywards. Off the model went, vertical at first then rolling into a steep climb. I nervously waited for the probable power stall, it didn't happen and O-3 was away climbing high in reasonable air. I was off down the runway on the bike and O-3 D/T'd still quite high. A comfortable 3-00 minute max. I was on a roll, ecstatic.

Second flight same pattern, but the power stall did occur this time, the model however was already about 100 feet up at the time, so no harm done and max. number two was in the bag.

Third flight, a repeat exercise, and I a full house of maximums in the bag. I retrieved O-3 from the end of the field I gave myself a metaphoric pat on the back, what could go wrong? I'll tell you.

On the way back up the runway on the bike, with O-3 under my arm, I am overtaken by Spencer Willis cycling up the other side of the runway. Unbeknown to Spencer, my cycling time trial experience of the past caused me to swing across the runway to tuck in behind him. Unfortunately, going across the wind, I neglected to keep my model facing into wind and as I tucked in behind Spencer, O-3's wing gave up the struggle and broke into two pieces with one hell of a crack. Spencer not knowing I was behind him screeched to a halt thinking it was his model that had broken. I managed to avoid colliding with him as I was trying to save the bits of my model and Spencer, relieved to find his own model intact cycled on. I can't win can I.

Back at base camp Rachel, the wife, had discovered that our flying neighbours came from Amlwch in Anglesey and were non other than Kath and John Wingate. John and I had had correspondence through one of my articles on indoor round the pole flying. It was good to meet him in the flesh.

I looked at the broken bits of O-3 and decided that a repair on the field was not really on and gave thought as to what approach I would take towards the fly-off. The only other big model I had was O-2, but it was a bit of a mess to look at so embarrassment took hold and I resolved to fly my latest 36 inch model in the fly-off.

That was open rubber out of the way and so on to open power

Author assembles Stomper 2 for open power onslaught

First things first, off to control for my open power flight card. I pick up the card and casually enquire as to the engine run requirements. This throws control into a bit of a panic, but when a copy of the rule book is found, I am advised that the engine run is 7 seconds. This then throws me into a bit of a panic as I'm not sure whether my Stomper will be out of reach in 7 seconds, let alone high enough to do 3 minutes. However, I had paid the money so I was going to give it a whirl.

Back at base camp I assembled the model and set about checking the engine timer for a 7 second run. It did not seem very long to me, but Hey Ho, give it a go. Kath was called in for timing again and after we had a dummy run at split timing with the watch, I was ready to go. Engine starting by hand is a time consuming process and any thoughts of watching mylar streamers for thermal passing is not really on, so my method is to fire it up and chuck it. I did just that and 1-44 later Stomper 2 was back on the ground. Not very high and no lift best describes the flight. I registered the flight at control and decided to rest on my wilting laurels. I was hoping that anyone looking at the results board would think I had dropped a flight by some misfortune and opted out.

The rest of the afternoon was spent in picnic/chit-chat mode, waiting for the open rubber fly-off. Eventually the PA speakers announced the fly-off times and open rubber was really late, about 7-30pm if memory serves. If you recall, I was travelling down each day and had a 70 mile trip to get home, so I resolved to wind 36-4 early and launch as soon as the fly-off hooter went and get away quickly. Any thoughts of my little 36 Inch model staying in sight longer than the huge fly-off jobs of the real contenders were too ridiculous to contemplate.

The hooter goes, and I set the D/T for 6 minutes, that's the laugh of the weekend. Up goes 36-4 into indifferent air and 1-35 later, with me right behind it, 36-4 glides down in crops just off the field. Then comes the real sickener, there's me with my model in hand and there are four of the big fly-off contenders circling overhead with their props still turning. That put me in my place. Back to base camp tail between legs.

Arriving back I find John Wingate clutching a huge trophy, he'd been quietly flying his Northern Arrow in SAM 35's 4oz Wakefield event, filled in his maximums and won the fly-off whilst I, wrapped up in my own little world, knew nothing about it.

After the late night finish on Saturday I was not too keen getting out of bed for the Sunday trip so we were a little late arriving at Barkston. The wind was quite light but was switching about a bit. We managed to find Kath and John again and a little shuffling of cars got us alongside of them again. I had my lucky time keeper.

John Wingate, SAM 35 4oz Wakefield winner 2004 Nationals

Slow Open Power was my first competition of the day, I got my card from control and my Stomper 2 was made ready for the fray. SLOP gives me a 12 second engine run, so I was a little more confident of a better performance than that of my open power attempt on Saturday.

My confidence was soon dispelled. I still stuck to my start it and chuck it method and I very soon had a full house of failures on record, namely 2-03, 2-37 & 2.13 not very awe inspiring.

I think I've got to look at the Stomper's trim and open up the power turn with a little left side thrust for a straighter climb. My Stomper's current rolley poley climb, although a safe trim, robs it of altitude and in this game there aint no substitute for altitude.

Sunday then really fell apart at the seams, the wind had veered and we had to move camp. Then the thunder clouds rolled up and, in very short order, the heavens opened up as we all dived for cover into our cars. After a while, with the rain still falling, we heard the chilling announcement over the PA system that Pete Harris had been struck by lightning and taken to hospital. We all waited for what seemed hours, then finally came the tragic announcement that Pete had died. That was the end of Sunday, the rain eased and we all wandered aimlessly about whilst various authorities investigated the circumstances of the accident. Finally, at the conclusion of the investigations, we were allowed to leave and I, like many others I'm sure, headed home with a heavy heart.

Monday, late again, and we missed the short memorial service for Pete Harris that was held to start the day.

The wind was light and we started the day down by the compound. I had left Rachel at home and my old flying buddy Ian Lomas was with me. We found the Wingates again and set up camp. Out came the old Hep-cat, which I had repaired and de-warped after my modest success at the BMFA 3rd area do at Luffenham.

After a check flight or two to re-trim I was ready to go. The drift had been switching about and finally John Wingate and I decided we were in the wrong place, so we ups sticks and moved off back to the hanger end.

The maximum in the mini vintage event was only 2 minutes, so 850 conservative turns on the motor and I duly recorded my requirement of three maximums. John boy had really come of age, two consecutive fly-offs for the good old Hep-cat. Ian made the observation that each successive flight was slightly shorter than the preceding one but that was academic as far as I was concerned, over 2 minutes was over 2 minutes and I was in a mini vintage fly-off yet again.

We filled the rest of the afternoon playing with the bitsa glider I had put together recently and the first tow looked really good, straight up, no weaving, release was a bit sticky and the glide was stally but all in all OK.

I had built a simple fuselage using a ½ inch square balsa boom behind a 3/32nd inch sheet front end. All the bits and bobs were external and the model had the look of some sea fishing rod on the one side with eyes all down the boom for the auto-rudder wire and the D/T line. I had used one of Spencer Willis's timers to which I had added a stop lever. This gave the front end the look of a rubber band store, one band to pull the stop off, one band to hold it on, one band to hold the auto-rudder and another for the D/T. Two pairs of hoops held a piano wire pin, to which the towline was attached. This pin was supposed to pull out on release to start the D/T timer and set the auto-rudder.

Second tow up started off well but, on release, the piano wire pin would not pull out and this left me with the model still on tow but with a much further forward towing point. The line tension disappeared and there was I running about with a soggy towline and gliding glider still attached. It wasn't until the model was almost down that it finally turned away downwind and I managed to jerk the line free just before the glider hit the floor.

We made an emergency rehash of system using only one pair of hoops and the pin released better so we managed to get a few flights in to trim the glide.

Mini vintage fly-off, 900+ turns and I waited to feel a little warmer air come through. I was labouring under the mistaken impression that I was now a recogniser of thermals. I didn't have my lucky timekeeper Kath as she was timing husband John Wingate so Ian was on the watch for me. "That feels a bit warmer" says I and nodding to Ian I release the Hep-Cat. The model climbed away but I think the dumb Hep-Cat still thought it was on 2 min maximums, and only did 2.05. John Wingate beat me by 39 seconds but we were over 6 minutes behind the winner.

Still, better than previous years.

John Andrews

By S. E. CAPPS

THOUGH possibly not so well known as airscrew drives employing gear-wheels, the crank-driven airscrew using cranks instead of gear wheels is not a new idea. The crank being one of the oldest known mechanical motions, it is surprising that more use has not been made of it in model aircraft work when considered from its simplicity and the fact that a number of cranks coupled together with a common link ensure all of them revolving in the same direction, thereby enabling multi-skein rubber motors to be applied to the airscrew spindle without much trouble.

The writer has tried many different types of crank drives for his models, and the few illustrated here are among those that have shown improvement in performance over other types of geared heads used, and it is thought that a few remarks about crank construction will be of interest to some and possibly of help to others.

Firstly let it be clearly understood that in all straightforward designs of crank-driven units the twist of the rubber motors is all the same way, and in consequence the fuselage should be strong enough to withstand the strain. Most modern machines use a single-skein motor of any weight up to 4 oz. of rubber, and as the fuselages of these stand the twist of these motors exceptionally well we need not worry that with the use of crank-driven heads we shall have to increase the structural strength, as the twist of any of those shown has never been greater than the single motor.

From this it will be seen that no alteration to the fuselage need be contemplated or attempted, but the covering should always be doped with a good quality dope and not the cheap shrinking dopes that are available. This will ensure almost complete freedom from distortion.

The crank sets fitted to the writer's machines have caused no trouble in this direction. It was rather the high cost of geared heads and the difficulty of their construction that led the writer in the first place to try the units described here. Construction of a crank-driven head was soon found to be on building the first set, not only simple, but the making of the frame parts and the link much easier than the construction of a gear-driven head.

There are, of course, certain little details that must be considered, and the most important is the number of cranks it is decided to employ. It should be stated here to prevent any unfortunate encountering trouble that nothing less than three cranks should be contemplated. Two will work, but it is absolutely essential that both skeins should be exactly the same weight and cross-section area, and wound up singly or both together with a double winder to ensure the exact number of turns on each. This will also have to be done from the rear. If any attempt is made to wind a twin-crank set from the front end by the airscrew it will soon be found that while the crank connected to the airscrew will wind up the motor on its hook the other crank will only oscillate backwards and forwards, and not revolve completely.

When considered with the performance of the triple-crank unit the vast difference in ease of manipulation will be apparent, and twin-crank units should be avoided.

In operation it will be at once noticeable that when correctly-made crank sets run absolutely silent, and when compared with the whir and shriek of toothed gear-wheels under strain of the motors, the difference has to be heard to be appreciated. Another and very prevalent trouble with gears is the breaking of the soldered joint between the gear-wheel and the shaft: this cannot happen with cranks, as the crank throw and the motor hook are made on the same shaft, and no soldering is necessary.

The construction of these crank sets requires no elaborate tools other than a good wheel-drill brace, some good sharp drills, a small file, etc., a quantity of $\frac{3}{16}$ in. × 1 mm., or $\frac{1}{4}$ in. × $\frac{1}{16}$ in. steel or brass strip.

Duraluminium can be used for very small units where the rubber load is not heavy. Most of this equipment can be found in the average aero modeller's workshop.

The procedure adopted will be clearly seen in the sketches, and does not require a lengthy explanation, but certain details should be given good consideration. One of these is not to use too heavy material for the framework and link; another is, make sure that the frame parts do not move while drilling the holes for screws or crankshafts. The method of securing gear-wheels while drilling spindle holes, published in THE AERO-MODELLER recently, will be found to be equally

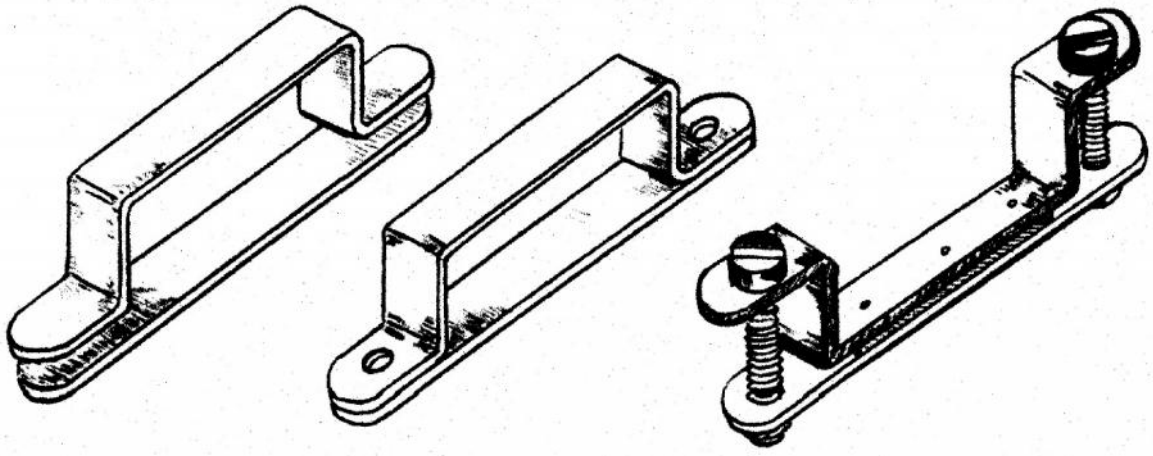
applicable to the construction of the framework of these crank sets. A third point to be watched is to take care that all the cranks are bent the same.

As will be seen, the frame is made from two main members, one of which is shaped as at A, Fig. 1, by bending with a good pair of pliers, or bent round in the vice. The other is simply cut off the length required. The link is cut from the same material, and should be long enough to take the number of cranks it is desired to use. The frame and plate are now arranged as at B, Fig. 1, and the side-holes are drilled to take the clamping screws. When these are correctly fitted the frame is complete. The writer's method of fitting these screws is to drill the holes in the formed part of the frame clearance for the screws and to cut a thread to suit them in the flat plate. This excludes the use of a nut, but is more difficult than drilling the holes clear in both plates and using a screw and nut to tighten them together with. This way would probably be favoured by most in view of its simplicity.

Next the link and the frame parts should be clamped together as at C, Fig. 1. Making use of the side-screws, mark carefully the position of the crankshaft holes. Drill these slowly and carefully with a sharp drill the size to fit the gauge of wire used for the shaft. The largest size shafts the writer used were 18 s.w.g., with a throw of $\frac{1}{16}$ in. These should stand the greatest strain required for all normal size models. The position of the holes will depend on the number of cranks in use, and this will depend on the space available in the nose of the model. If space is limited a twin-hook drive with the centre shaft cut off short will be more

same, as should any one be badly formed in the throw a distinct knock will result in a noisy and inefficient unit which will not work long before fracturing. A good pair of pliers are all that is required to make these cranks correctly. When these have been shaped they can be assembled in the frame, which can now be tightened up by the side-screws. The whole should revolve freely, but should there be any stiffness (which there may be) the holes can be enlarged on the inside of the frame. This can be done best with small taper reamer, and should not be overdone, as a slack-fitting shaft will also cause trouble. However, if all the parts have been made correctly when assembled the whole unit should revolve freely on twisting the centre crank. When this part is satisfactory the rubber motor hooks can be formed, and these should not be bent too sharply, as this will interfere with dismantling should it be necessary at any time. Also beware of the sharp cuts that plier jaws can impart to rubber hooks if carelessly formed.

When assembling finally do not forget the small pieces of tube to take the thrust. These can be either steel or brass, but steel is better, as it is harder. Tube that fits the shafts should be used, and tube that is too large avoided. The extending airscrew spindle bush shown in some of the sketches is optional, but the builder is advised to fit them if necessary, but in many units it will not be needed, as the existing bush in the nose-block will serve. In cases where it has to be installed it should be fitted to the frame or plate by threading the hole in the plate and using a screwed bush, or by making a plain bush a tight fit in the centre hole and soldering. In most instances the existing bush will

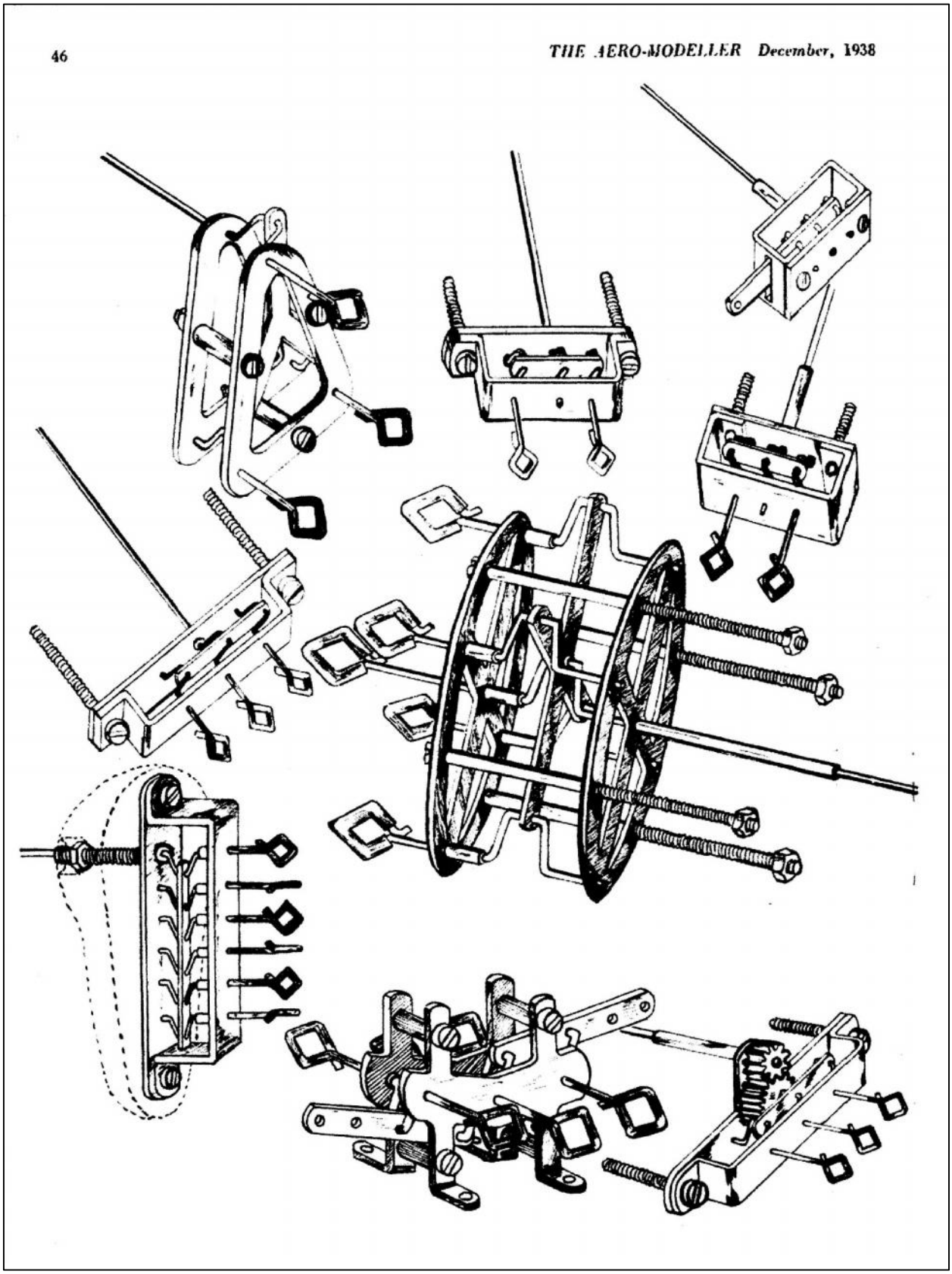


suitable than three. If there is room for the three skeins then the centre can also contribute to the performance of the model. It is as well to make sure on this point that there is sufficient room, as a number of rubber skeins running too close together are apt to wind together and become entangled. Both types of this unit are illustrated, and it is up to the builder to decide for himself just which suits his purpose best.

A big advantage of crank units is that hooks can be positioned just where one wants them, and one is not bound to any particular size of head as is so with gear-wheels. One only has to increase the length of the link to be able to make a large head or shorten it to make a small one. Next form the shaft throws, and again let it be understood that they should be all the

probably be sufficient, and the shaft to take the airscrew can be passed through the complete unit, being secured to the noseblock by the side-screws.

Arrangement of crank-driven units for various positions in model aircraft for the airscrew drives is much simpler than with the equivalent gear-driven heads and units as, for example, in a multi-screw machine employing an airscrew on each wing the location of the main driving unit in the centre of the fuselage will allow motors connected to each end of the crank shafts, and the link ends being in turn connected to smaller units direct, located in the wing edge by means of light arms of suitable length, without recourse being made to bevel gears and revolving spindles. These wing units can be constructed small enough to be enclosed completely in



Editor: I'm sorry it's difficult to read but when I came across the page of drawings I just had to publish. Who would have wanted to use most of these configurations and in what models? I find it also difficult to believe that the cranks would work without soldered washers each side of connecting plates to keep from slipping off crank and locking.

Aeromodeller December 1938

Aeromodellers Departed: Raymon Alban & Robin Kimber

Raymon Alban:

His website: www.vintagemodelairplanes.com States:

On the 14th of November 2020 The wonderful Ramon Alban passed away.
Taken from us by Covid-19 he leaves behind his wife Maureen, 3 children, 6 grandchildren and 6 great grandchildren.
His knowledge and enthusiasm will be greatly missed by many people all over the world in the model flying and Rover communities.
Editor: I do not claim to have known Ray well but I have flown alongside him on many occasions in the past, at the Nationals where we watched the carnage of the Bowden Trophy together one year, also at Old Warden and Wallop.
He was an iconic figure in his heyday, a large framed man in athletic gear, with his customary head band and shorts. Usually seen flying along on a bicycle with some large rubber model under his arm. Ever present at prize presentations picking up some trophy or other.
Another sad loss to the free-flight community. **Editor**

Robin Kimber:

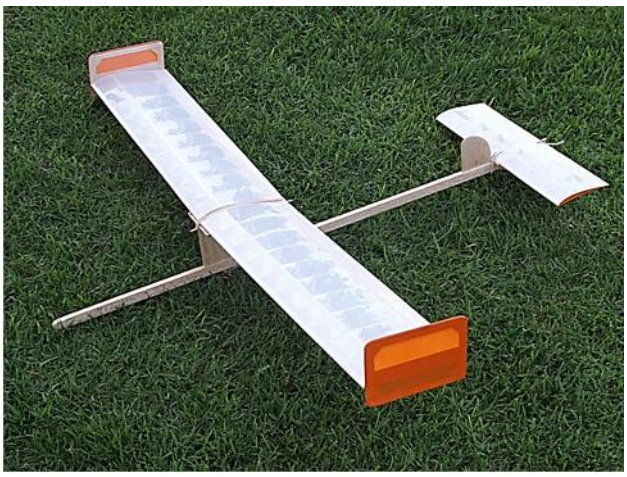
I am sorry to announce that Robin Kimber passed away on the Monday the 14th of December. Robin was born in 1941 He was a successful Quantity Surveyor in his earlier years, working on several major projects including the building of our motorway networks in the 1960's and 70's. Robin always had many interests, including racing in Formula Ford and classic car, as well as sailing. He came back to his childhood love of model flying, building and flying radio control models with his sons Tom and William. He moved on to flying vintage and classic freeflight models in the halcyon days of Middle Wallop.
Robin was a keen flyer in all classes of vintage competition free flight and was a regular contributor to the SAM35 Glider column along with Andrew Crisp, Peter Michele and Rod Audley. He had a great knowledge and love of the history of our hobby, this and his ready wit lead to many an interesting column in Speaks.
He built models pretty much continuously and to a high standard and continued modelling even while seriously ill. Robin became interested in Coupe in his later years and we began to fly together regularly. With Robins help and guidance we developed a systems free modern Coupe that has had some success in the last two to three years of competition before Covid. Robin and I were enlisted after a conversation with Gavin Manion in helping to find and verify new Classic coupes to rival the ever present Etinvere. More than once I would pass on the original rough plans of Gavin's latest Coupe find to Robin to see what he thought of a models potential. While I was still in the process of drawing up a plan to build from, to my amazement Robin would have already built the model and had it flying. This when he was really quite ill!
Robins other love was Classic Glider and he built many of them, including some of the most complex and challenging of the later Nordics, models well above my ability to build. He was a great aeromodelling historian, determined competitor and amazing model builder and will be greatly missed. Yet another loss to Free-Flight
Robin leaves behind his Wife Sue, daughter Chloe and sons Tom and William.

Richard Fryer

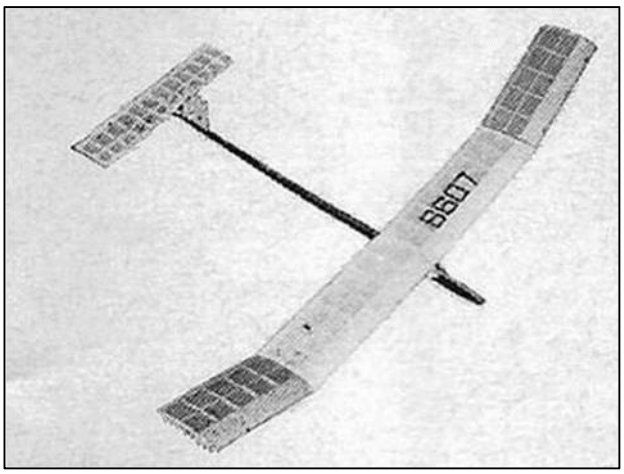
Secretary's Notes for January 2021 - Roger Newman

What a year we have endured. As I write these notes, it's just before yet another Ministerial news broadcast, no doubt to tell us that we are to suffer an even more widespread lockdown. Sadly inevitable, with the rapid growth of Covid-19 infections throughout the country. So no flying over Christmas even if the weather was kind enough to allow. All I can do is wish everyone a happy 2021, with the fond hope that things will eventually get back to a new & nicer normal.

Looking forward to 2021, the FFTC calendar has been released with details of various comps including the Area meetings, optimistically commencing on 28th Feb We have slotted in the annual Croydon/SAM1066 events for Wakefield & Coupe Days plus a much delayed date at RAF Colerne (25th July) for a Cagnarata based day, by kind courtesy of the South Bristol Club. Two Cagnarata comps for rubber & glider for models of 250 grams or under plus Mini-Vintage, E36 & Classic/Vintage HLG/CLG. Couldn't we all do with a day of balmy breezes & warm sunshine! The other interesting topic was the launch of a Classic A1 postal comp for the first half of the year. Now somewhere, I have a really ancient La Mouette. The last time I clapped eyes on it a severe bout of tissue rash was evident, however the framework all looked in good order & it was a good flier many years ago – perhaps a recover with nice new Modelspan could get it to fly again, but the fuse DT would need to be changed. I also have a St Leonards Asteroid in good order, designed by the late Jim Baguley, but I need to research its history to see if it too can qualify. If not, then I have the plan of the Khamseen dating back to Nov 1955. I built one when I lived in a hostel in Malvern during the first year of my apprenticeship & it was eventually hand launched from the roof of the hostel, to disappear into the depths of Great Malvern – lost without trace as there was no name / address label on it! Bit different for its time as it had tip plates on the wing. The hostel is now a set of posh apartments.



Khamseen



Asteroid

What next? Apart from my digital camera going AWOL which prevents any photos on minimal activity & my phone is so old fashioned that it doesn't have a camera, there has been progress in as much as the Red Raider, Humming Bird & Tomboy are now complete & waiting on fine weather for trimming. That has allowed a start to be made on the Ballerina, wing ribs are cut out & the tailplane is on the building board being assembled. Nothing to buy, so further progress can be made during January, particularly as I gather Tier 4 rules are being applied to Hampshire as from 26th Dec!. These rules, coupled with the on-going threat to flying at Beaulieu, will certainly dampen any activity in the initial part of the New Year.

In between times, I had a casual survey of books in my little library & unearthed "The Encyclopaedia of Model Aircraft", published in 1979 & edited by Vic Smeed. It comes across as a good read & gives a very good introduction to the hobby – still available on the web from around £3.50 plus postage. It had got lost, sandwiched between a tome on Classic Motorsport

Routes, an interesting volume on Tupolev – the man & his aircraft & a learned volume on Proteacea in New Zealand Quite how I acquired these is lost in the memories of time but it doesn't matter as I enjoy reading greatly. Books just finished include the trilogy of L T C Rolt, covering his life, which made (for me) fascinating reading. He also authored really good biographies on George & Robert Stevenson, Thomas Telford & Isambard Kingdome Brunel.

January – inevitably – is a period of reflections on what has gone & what is to come. Apart from activities in the garden, which will involve quite a transformation of a side border in the back garden – part of the work has already been done to remove two large clumps of black bamboo necessitating the use of a 4' axe to get the roots out; thoughts do turn to activities in 2021. On the very positive assumption that life must improve at some point in time, I'm planning to get the free flight Nats this year by way of the Car Museum at Gaydon, then a day on the Great Central Railway at Loughborough, followed by another day at the National Tram Museum at Crich, on to Newark Air Museum which is nicely close to RAF Barkston before returning home to recover. At some stage, I also intend to have a day to the Isle of Wight Steam Railway with one of my great grandsons – it's so close & easy to do. Drive to Gosport (4 miles), ferry across the Harbour, Fast Cat to Ryde Pier & on the IoW electric train from the pier to Smallbrook Junction where there is a direct connection to the steam railway – it makes for a good day out.

All Victorian - A1X Terrier & rake of four wheel stock

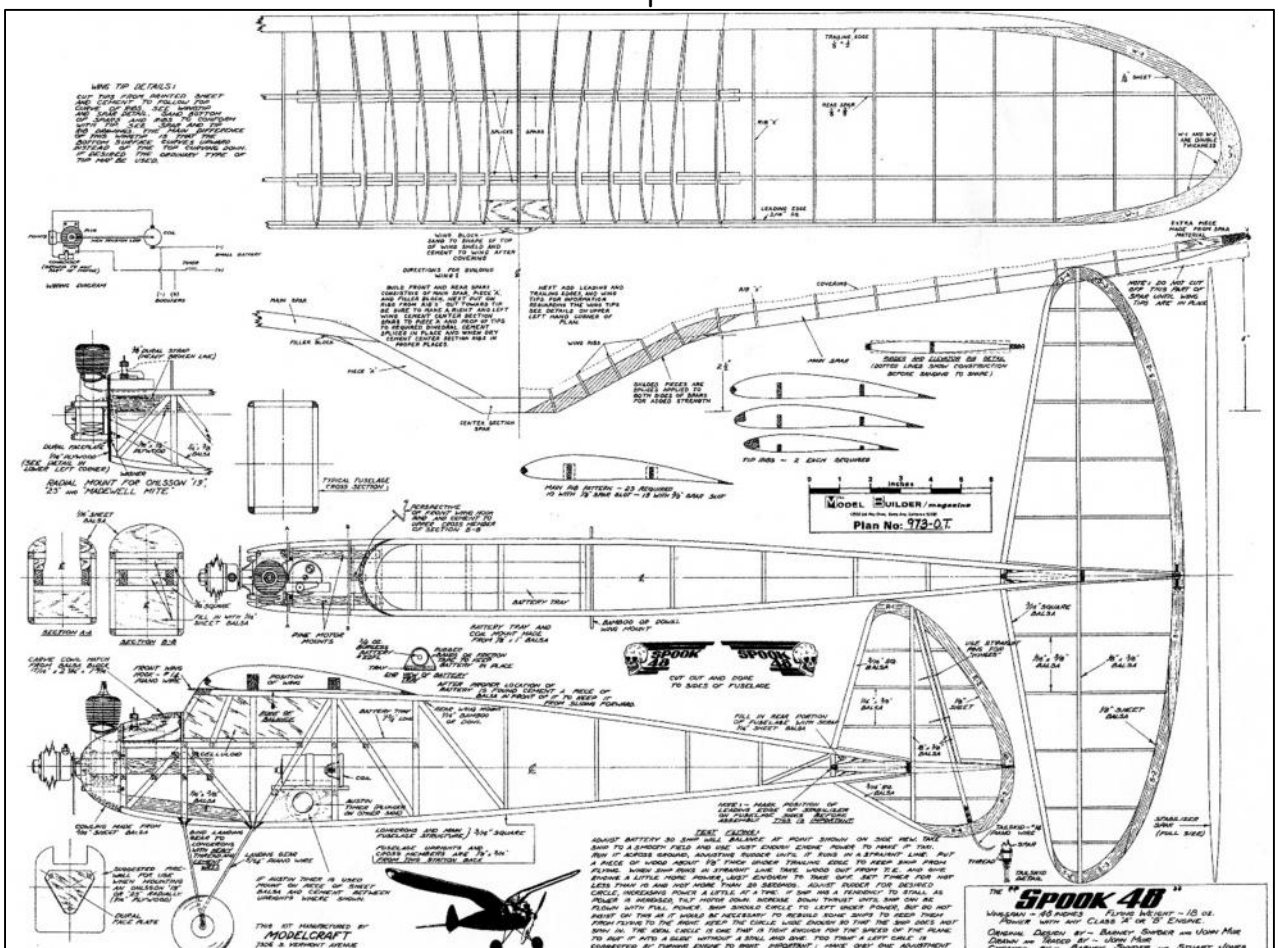
I also took a look at the kits stuffed under my workbench in the model room, where I cast eyes on a Spook 48 which was intended to be an experiment in electric power, all the bits have been purchased but for reasons various it is yet another "haven't got round to it" project – maybe one day! It resides safely with a selection of some other 20 plus kits, most of which I suspect will never see the light of day as complete models.

Mind you, talking to Gianni in Rome, he tells me that he has over forty kits untouched. He should have long retired, but still does work concerning maintenance of a care home near Lake Como in Northern Italy. Doesn't get paid but "acquires bits" for aeromodelling in recompense – his latest addition is to be a small but nice thickness planer for balsa. Why you may ask – well, he still gets his balsa from the UK & likes to ensure that it really is to metric dimensions when he gets round to building something!

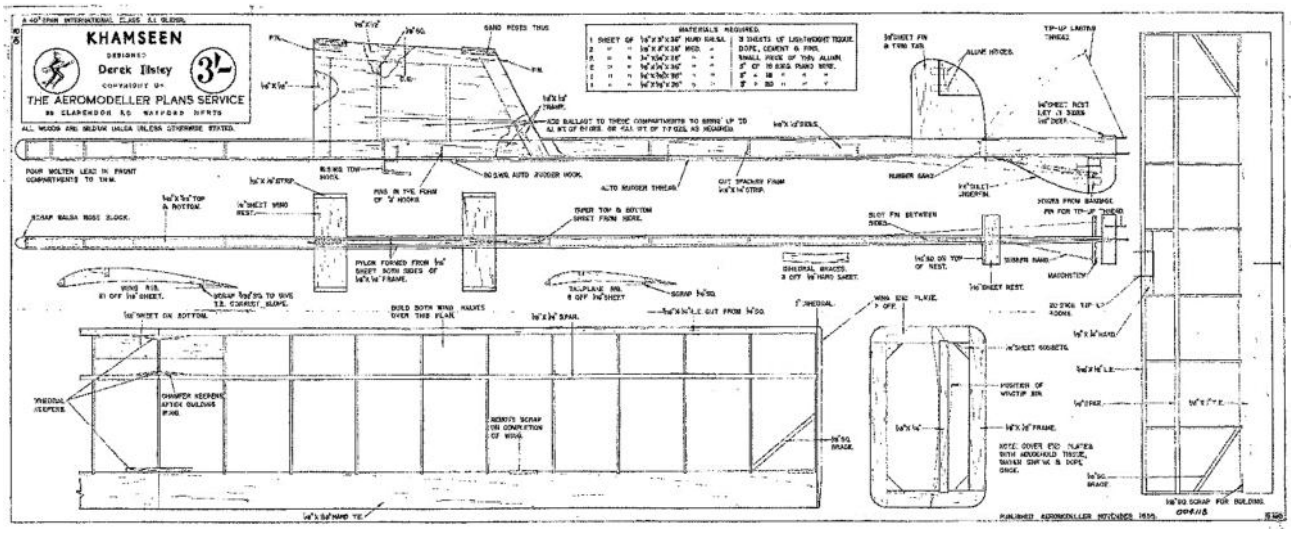
John did ask for material! He has now the fruits of a few rambles of mine into other worlds & activities. Have a good New Year & stay clear of this horrible virus.

Models of the Month

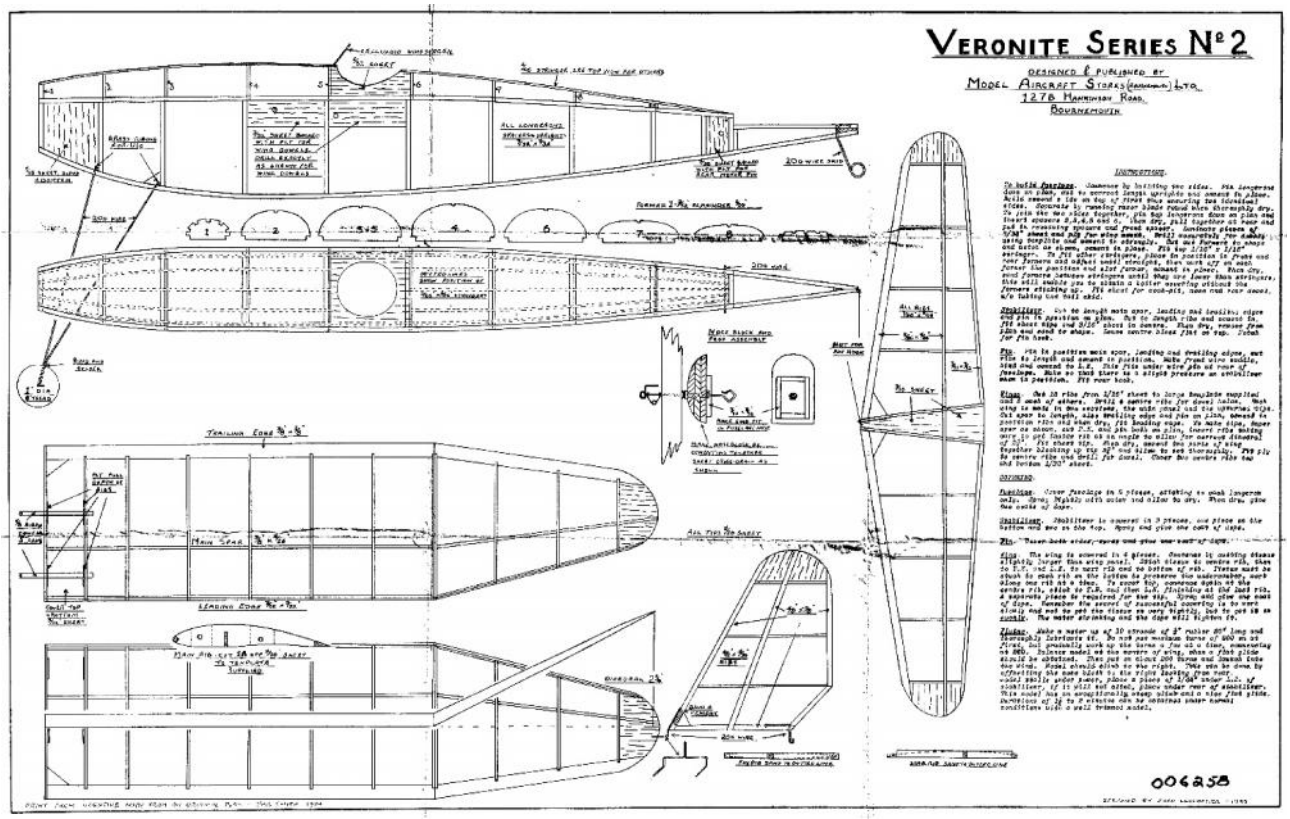
Power: Spook 48



Glider – Khamseen.



Rubber: How about a nice old Model Aircraft Stores model – Veronite Series No2



Roger Newman

Southern Coupe League 2021 - Peter Hall & Roy Vaughn

SOUTHERN COUPE LEAGUE 2021

Round one, La Grande Coupe de Birmingham was cancelled so we hope to get going at the Second Area meeting on March 21st. No doubt the pent up frustration and energy will result in an explosion of creativity with lots of new models, unprecedented entry numbers and fiery commitment. Never has the free - flight community been so oppressed with restrictions piled on regulations. We are being tested but we will fight our way through to the sunlit uplands……. Sorry, but hyperbole is now the norm.
We don't have a date for Oxford yet and of course we may not get the vaccine in time.

PROVISIONAL COUPE LEAGUE FIXTURES 2021

Date	Competition	Location
21 March	Second Area	Area venues
9 May	London Gala	Salisbury Plain
T.B.A.	Oxford gala	Port Meadow
11 July	Fifth Area	Area Venues
15 August	Southern Gala	Salisbury Plain
18 or 19 September* (tbc)	Crookham Gala	Salisbury Plain
9 October	Coupe Europa	Salisbury Plain

Peter Hall & Roy Vaughn

Classic A1 Glider Email International 2021

Eligible Models

A Classic A1 glider is any Free Flight towline glider of total projected surface area not exceeding 18 square decimetres, built in accordance with a design published or kitted between January 1951 and January 1961, as per BMFA Classic Glider rules (https://britishmfa.sharepoint.com/sites/public/Rule Books)

Maximum length of towline 50 metres under 2Kg. tensile load

The Contest

All flights for each entry must be made on the same day between 01 January 2021 and 01 July 2021 inclusive. All flights must comply with local regulations governing model flying and with the guidelines of the national aeromodelling governing body (BMFA, AMA, etc.)

All flights for each entry must be made with the same model. An individual may make up to three separate entries provided that each is made with an entirely different eligible model.

A model may not be used by more than one individual over the age of 16 years. Juniors below this age may fly a model borrowed from another entrant.

The maximum for the first flight of each entry is 30 seconds. If this is achieved, the entrant is permitted a second flight of maximum 60 seconds, and so on, the maximum increasing in increments of 30 seconds until either a max is not achieved ,or flying cannot continue (e.g. because the model is lost or damaged). The score for that entry is the total flight time including the sub- max final flight.

All flights must be timed by a person other than the entrant. Procedure for starts, timing, attempts etc. is per F1H except that a flight aborted by RDT does not qualify for a second attempt, even if less than 20 seconds (in line with BMFA classic rules)

Entry

Entry is free of charge. Once the flights are completed, entry is submitted no later than 07 July 2021 by email to classica1postal@gmail.com by sending the following information;

The name & contact email* of the entrant

The name(s) of the timekeeper(s)

The sore, in seconds, in the form of an addition, e.g.

30+ 60+ 90+ 120+ 124= 424

The name of the model and where it was published

The country and location where the flights were made

If entrants aged 16 or under wish to be eligible for the junior prize they must include their age in years (D.O.B. not required). Juniors are also included in the overall results and are eligible for the other prizes.

In order to qualify for the team prize the entries of all three team members must be submitted in the same email, also stating the name of the team. Entries received in this way will also be included in the individual results.

Information about the flying, the site, etc. plus photographs will be very welcome and will help in reporting the contest in the modelling press.

AREA 8. SALISBURY PLAIN. 2021.

Area 8 has been booked for free flight use, every Saturday/Sunday, plus 3 Bank Holiday Mondays in 2021, subject to final approval on the Friday morning preceding each weekend.

Those wishing to sport fly/trim must hold an annual season ticket. 2020 season tickets remain valid for 2021, with no new tickets being issued, or payment requested in this case. Those not having a 2020 season ticket may obtain one for 2021 via donna@bmfa.org for £20. The terms and conditions remain the same as in previous years, although users are also reminded that when driving they should stick to established tracks and avoid creating new ones.

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

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

You are reminded that the BMFA pay for an annual licence to use the site via the FFTC.

Driving on Salisbury Plain.

We have frequently been reminded by the authorities that allow our access to Area 8 of,

The need to drive and behave safely, as it is a potentially dangerous place.

Respect the environment, as it is a conservation area with numerous vulnerable species.

More recently all users of the Plain have been asked to avoid creating any new vehicle tracks.

The Salisbury Plain Military Lands Byelaws 1983, state that a driver may only leave the road (Public Right of Way), by 15 yards, and then only to park. For practical reasons, the interpretation of this can be somewhat liberal for our purposes.

Three farmers have grazing licences for Area 8, and an annual hay crop is taken from the plateau. Their rights and livelihoods must be respected.

This leads to the conclusion that vehicle movements should be kept to a minimum on grassy areas, and any motorised retrieval should be confined to the well-established tracks.

We never know who is watching our behaviour on any of our few remaining flying sites.

Peter Watson. FFTC Area 8 liaison.

Free Flight Supplies

Michael Woodhouse

mike@freeflightsupplies.co.uk & http://www.freeflightsupplies.co.uk

Free Flight Supplies is still operating. I have made arrangements to both receive and despatch materials. If you need stuff I can supply, it just might take a bit longer to get things to you. Carry on building!

Stay safe and look after yourselves.

We are only posting on an occasional basis. Any calls or e-mails asking "where's my order" will receive a curt load of invective from me or June.
If you get June the reply will leave you stunned!

SAM Speaks USA.

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

E30 Batteries

I have bought some batteries direct from China which are suitable for E30. They are labelled 75mAh. I have so far only had time to test three and I can report that they are all good and in fact give a better performance than any I have previously tried. If you send me £10 I will put four in a Jiffy bag and send them to you.

Ron Marking, Pros Kairon, Pennance Road, Lanner, Redruth TR16 5TF

CARBON BOOMS
For Hand Launched Gliders

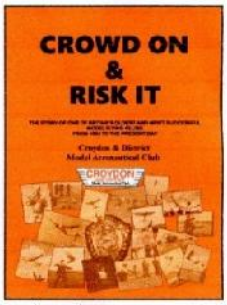
If you need tapered carbon tubes for HLG booms I may have what you want. As supplied they are 99cm long, taper from 5.2mm to 2mm and weigh 6.4gm. As a rough test a 58cm length, suitable for a Yashinskiy type of model, weighs 3gm after a little application of wet-and-dry paper (used wet, of course) and it looks as if there's quite a bit more that can come off. The thin end that's left is good for a catapult glider.

Price is £7.00. In normal times I'd sell direct at contests, but postage and packing would be extra, depending on how many you need.

Contact Martin Dilly to order

Tel: 0208 7775533 or e-mail martindilly20@gmail.com.

CROWD ON & RISK IT

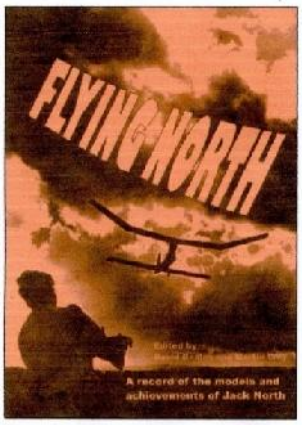


This is the story of one of Britain's oldest and most successful model flying clubs, Croydon & District MAC, from 1936 onwards. The club contributed much to aviation, both model and full-size, and the late Keith Miller compiled its history till around 1960. Now this up-dated 73 page version of the club's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

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

Just £8 by PayPal or cheque.

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



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

Contact: Martin Dilly on 020 8777 5533 or write to: 20, Links road, West Wickham. Kent BR4 OQW or e-mail: martindilly20@gmail.com

The price in the UK is £18; airmail to Europe £20 or to anywhere else £22. Cheques should be payable to BMFA F/F Team Support Fund, in pounds sterling only, and drawn off a bank with a branch in the UK, you may also order by credit card, all proceeds help to fund the expenses of those representing Great Britain at World and European FF Championships

DILLY JAP IS BACK

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

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

To re-cap on the details, it's 12 gm/M^2 and has a strong unidirectional grain. It's white and low absorbency, so remains very light when doped. For those of you old enough to remember, it's identical to the Harry York tissue sold at his South London model shop in the 1950s. I normally sell it in rolls at contests, as it's a shame to fold it for mailing, but I can do that if you prefer.

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

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/sq ft	Avg Ten Str lb	Spec Str lb/gm
9a	Dilly Jap 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!"

FREE FLIGHT FORUM REPORT 2020

Warps - Right way? Wrong way? What way? – Mike Woodhouse;
Moment Arm - A Novel Stability and Control Arrangement - George Seyfang;
How Big Should I Build My Next Coupe? - Alan Brocklehurst;
Scale Matters - Ivan Taylor;
Evgeny Verbitski - An Appreciation - by Mike Fantham, Ken Faux and Peter Watson;
Do Freewheelers Drag? - Spencer Willis;
The Hammer and the Feather - Aram Schlosberg;
The Performance of Rubber Motors - John Gibbings;
Gurney Flaps - George Seyfang;
Gyros in Free Flight Scale - Ivan Taylor;
A Glass Act - Russell Peers;
A Glider for Every Occasion - Stuart Darmon;
A Love Letter to the Free Flight Community - Bernard Guest.

The UK price is £12.00 including postage; to Europe it's £15 and everywhere else £17. Sales of the Forum Reports help to defray the heavy expenses of those representing Great Britain at World and European Free-Flight Championships. Cheques should be payable to 'BMFA F/F Team Support Fund' in pounds sterling, drawn on a bank with a UK branch; you may also order by credit card, which is a lot easier (and cheaper).

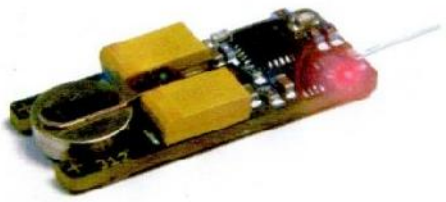
Copies are available from :

Martin Dilly
20, Links Road,
West Wickham,
Kent,
BR4 OQW

or by phone to: (44) + (0)20-8777-5533, or by e-mail to martindilly20@gmail.com .

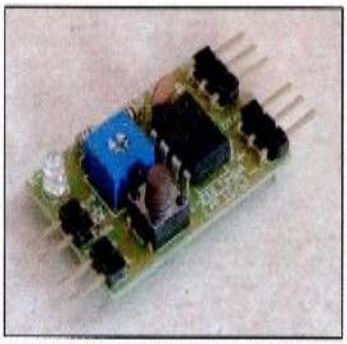
BUGS

Free Flight Model Tracker



£50.00 - each including 6 batteries
Ready to use radio tracker
Suitable for most handheld receivers
Powered by one 312 ZincAir hearing aid battery
27mm long, 11mm wide, 5mm thick 3 grams including battery
Run time around 10 days
Red LED flashes when transmitting
Available in any frequency from 140MHz to 980MHz
Supplied in protective heatshrink
Very quick delivery, often next day
On sale at
http://www.leobodnar.com/shop/index.php?products_id=217
or contact Peter Brown 07871 459291 for options

E-Zee Timers



E-ZEE FF Combined Electric Motor Power and Servo Operated DT Timer Type EFF 1
Cost £15.00 + p & p

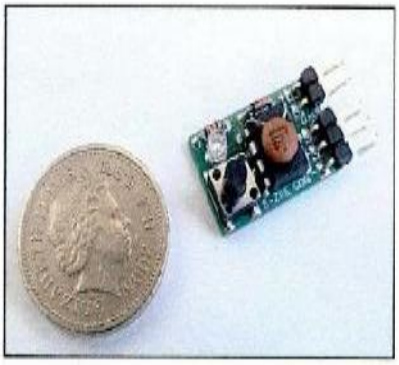
This timer controls electric motor power and run-time (via an ESC) and after a further delay drives a D/T servo to terminate the flight. The motor power is set by a single turn potentiometer and the motor run and D/T periods are set by a simple push button / LED interface

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

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

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

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



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

- d/t duration:-adjustable 10 seconds to 5 minutes, set in 10 second increments
- push button immediately cancels the flight at any time
- duration settings are saved in memory a single button push serves to repeat a flight.

Length 22mm Width 13mm Height 11mm Weight 2gm

Timers are supplied with a comprehensive instruction manual and users guide

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

Dens Model Supplies

On Line shop at www.densmodelsupplies.co.uk
Or phone Den on 01983 294182 for traditional service

BMFA FFTC COVID RULES FOR COMPETITION DAYS

In order to restart the contest programme, it will be necessary to apply the following risk assessed measures to mitigate the spread of the Covid 19 virus. These measures will be monitored and amended as necessary

The following procedures and measures will apply to all BMFA free flight contests and all non BMFA (privately run contests) that take place on sites operated by FFTC, including but not limited to, Barkston Heath, North Luffenham, Salisbury and Sculthorpe

No person shall attend any contest or flying site if they are showing signs of Covtd 19 or have been told to self-isolate or are required to quarantine in a regional lockdown.

All persons who attend the flying site and contest are required to register their contact details and BMFA number at contest control.

Where a site requires a gate, access point to be manned and a sign in is required i.e. Barkston Heath. The attendee must sanitise before and after touching any gates or barriers and use own pen to sign the site tog ,

General

Sites have their own Covid 19 risk assessments and measures in place to mitigate the risk. The following measures are additional and will run alongside any existing site procedures,

- The CD will have available at control suitable hand sanitiser
- The CD will at all times social distance from all persons at control and engage in frequent use of hand cleaning and or wearing of latex/vinyl gloves to reduce the risk of transmission of virus from score sheets etc.
- Competitors should only visit control as necessary for registration, entry, score recording, or information. Avoid forming any groups around contest control
- Travel to and from contest site All contestants and attendees should travel to the contest site in their own vehicles and only carry passengers who are from the same household bubble.,
- Entry to site to be in accordance with site specific rules,
- Parking, all vehicles should be parked to form a line leaving a clear space of 4 metres between adjacent vehicles (This will allow sufficient social distancing when doors are open for access and egress),

Contest entry

All contests for the remainder of 2020 will be free of charge. no entry fee or site fees.

(This will -be reviewed for 2021 along with concessions for season ticket holders)

- Contestants will register with the CD, ensuring at all times a social distance from the control table (Self entry and recording scores Entrant shall only use their own pens)
- NO flight cards will be issued,
- All official flights and attempts will be recorded *by* verbal communication to the CD and or by themselves self-scoring on official score sheets (using own pen).

Flying

- All practice flying, and trimming must be undertaken at a distance from the competitors flying in the contest
- All competitors must position themselves to maintain a social distance of at least 2 metres from other flyers helpers and timekeepers.
- For events and classes where it is required to fly from a line or box The line and box will be of sufficient length and area to enable all flyers, helpers and timekeepers to social distance of at least 2 metres

Handling

Where possible models and equipment should only be handled by the owner and or a member of the same household bubble,

In cases where it is absolutely necessary for another person to handle -models etc THE OWNER MUST FIRST SANITISE THE MODEL AND EQUIPMENT

The handler is advised to wear suitable latex/vinyl gloves and or sanitise hands before and after handling.

Glider (Towline) Specific This class of model generally requires the model to be launched by another person, the following should be adopted .

- flyer mount the model on a self launch devise,
- flyer to operate a self-launch procedure with model in own hands. This procedure is compliant with BMFA rules
- In the event the flyer requires another person to launch the model, preference is that the helper be a person from same household
- If this is not possible then the model should be made ready for flight by the flyer and attached to towline, placed on the floor or other safe place.
- The helper should only pick up and handle the model when a safe social distance is in place between flyer/helper. After handling the model, the model must be sanitised, and the helper must sanitise hands,
- It is essential that the flyer, before collecting the model after the flight, sanitises the model (taking suitable cleansing wipes and or sanitiser on retrieval),

Timekeeping

- The timekeeper must observe a 2-metre social distance from the flyer and others on the site
- Flight scores to be verbally reported or if self-recording use own pen and recorded on official score sheets (avoiding hand contact with score sheets),

ADDITIONAL:

All On Site Should Avoid Forming Groups of more than 6 people in any one location and always social distance.

All persons attending the contest whether they compete or not must sign in at control and provide BMFA number and contact details

ANY person who during a contest day displays symptoms of Covid 19 MUST leave the site immediately and inform the CD

The BMFA and the FFTC are committed to ensuring that all contests take place with the minimum of risk of contacting and spreading the Covid 19 virus

The measures outlined must be followed in full.

Free Flight Technical Committee BMFA August 2020

Provisional Events Calendar 2021

With competitions for Vintage and/or Classic models

All competitions are provisional and Covid restrictions may apply, **Check websites before attending**

A copy of the Covid rules is printed above

February 28th	Sunday	BMFA 1st Area Competitions
March 21st	Sunday	BMFA 2nd Area Competitions
April 2nd	Friday	Northern Gala, Barkston
April 3rd	Saturday	Croydon Wake Day & **SAM1066**, Salisbury Plain
April 25th	Sunday	BMFA 3rd Area Competitions
May 8th / 9th	Sat/Sunday	London Gala, Salisbury Plain
May 29th	Saturday	BMFA Free-flight Nats, Barkston
May 30th	Sunday	BMFA Free-flight Nats, Barkston
May 31st	Monday	BMFA Free-flight Nats, Barkston
June 20th	Sunday	BMFA 4th Area Competitions
July 11th	Sunday	BMFA 5th Area Competitions
July 25th	Sunday	**SAM1066** Cagnarata +, RAF Colerne
July 31st	Saturday	East Anglian Gala, Sculthorpe
August 1st	Sunday	East Anglian Gala, Sculthorpe
August 15th	Sunday	Southern Gala, Salisbury Plain
September 4th	Saturday	Stonehenge Cup, Salisbury Plain
September 5th	Sunday	Equinox Cup, Salisbury Plain
September 12th	Sunday	BMFA 6th Area Competitions
October 3rd	Sunday	BMFA 7th Area Competitions
October 9th	Saturday	Croydon Coupe Day & **SAM1066**, Salisbury Plain
October 17th	Sunday	BMFA 8th Area Competitions
October 30th	Saturday	Midland Gala, North Luffenham

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 the website **www.SAM35.org**

Useful Websites

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

control/left click to go to sites

Are You Getting Yours? - Membership Secretary

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

P.S.

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

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

Your editor

John Andrews

Happy New Year