

## Sticks and Tissue No 91 – June 2014

If you can contribute any articles, wish to make your point of view known etc please send to or phone 01202 625825 [JamesIParry@talktalk.net](mailto:JamesIParry@talktalk.net)

The content does not follow any logical order or set out, it's "as I put it in and receive".

Thanks to Mark Venter back issues are available for download from <http://www.cmac.net.nz>

Writings and opinions expressed are the opinion of the writer but not necessarily the compiler/publisher of Sticks and Tissue.



*Derek Collin photo, see his article regarding Hallam engines*

# From Otto Rodenburg – Netherlands

## How I grew up and came to be a model builder.

Not many people my age (69) can claim that they grew up breathing balsa dust in their youth. My father was a bookkeeper and firmly believed that in order to relax from work properly you had to exert yourself doing something completely different. So instead of working with numbers he indulged in building boats, aeromodels and even furniture in his spare time.

Don't get me wrong, he never overdid it. I vividly remember him carving away on a four foot mast for a sailing boat, while lying in a garden chair, taking a sip of coffee every now and then, while peering along the mast to check it for straightness. It took weeks before he was satisfied with the result. The mast is still on the boat and it's straight as ever.

He didn't need fancy tools, all of the carving was done with a knife, made of a steel saw-blade, wrapped with cotton and tied with string. He honed it on the cement doorstep of our barn which subsequently took on a hollow curve in the course of time.

He had a keen eye too, one day he decided he was going to build a scalemodel of the sailing boat we rented every now and then in our holidays. This was a very popular standard type of sailing boat, commonly known as the 'BM'. Whenever he came across a measurement he had overseen, he would cycle to the lakeside, some 6 km. from where we lived to make sketches of the various species of BM's sailing to and fro.

When he realized that in this way he could never get the shape of the keel right he went to a marina where they just gave him the complete drawing of his subject. Then he found out that he had all the estimated figures just right!

As a kid he had built kites in the shape of aeroplanes, his introduction into the world of aeromodels. It's quite possible that those were scalemodels too, as in those days most aeroplanes looked like kites anyway (he was born in 1907).

When I entered the picture he was involved in building a glider called 'Libelle' which is Dutch for Dragonfly. It was a typical (spruce) stick and tissue design, boxshaped fuselage with a straight balsa back on which the wing was held with rubberbands. Quite common, you might say but these bands went around the fuselage holding the wingplatform which protruded from the centersection aft and forward. There was no fixed position, finding the right CG position simply was a matter of moving the wing back and forth until the glide was satisfactory. To be fair, the latter hardly ever occurred.

The wing had a full height spar over which strips of plywood were to be bent and cemented to the trailing- and leading edge. As the quality of the available material was not very constant, to say the least, this method yielded very different sections and my dad sensed that this was to be avoided. So he built a jig with the right curvature and steamed every strip until it fitted the jig perfectly. Only then it was to take its place in the wing.

Things went serious when he took up building the 'Monty'. This was a glider, designed by Loek Suls, who operated a modelairplaneshop in The Hague. In 1955 it was a fairly common design, but it was huge! Imagine a one-piece polyhedral wing spanning 220 cm's with a chord of 30 cm. Tailplane had some 10° dihedral with endplates as fins.

The wing was set on a high neck on a fuselage with an almost circular section schanging to octagonal aft of the wing and then through square section into a triangled tailboom. All this was achieved by spruce stringers and plywood bulkheads.

I was allowed to take part in the building process, which usually took place on Saturday afternoon, after work. The dining room table would be cleared, the sliding doors between dining and living room shut. Meanwhile my mother would sit in the living room reading and knitting (at the same time) which was her expertise.

My job was to saw some of the bulkheads which my father had drawn on 1/8" plywood; I would clamp the support on the table edge and started to jigsaw away.

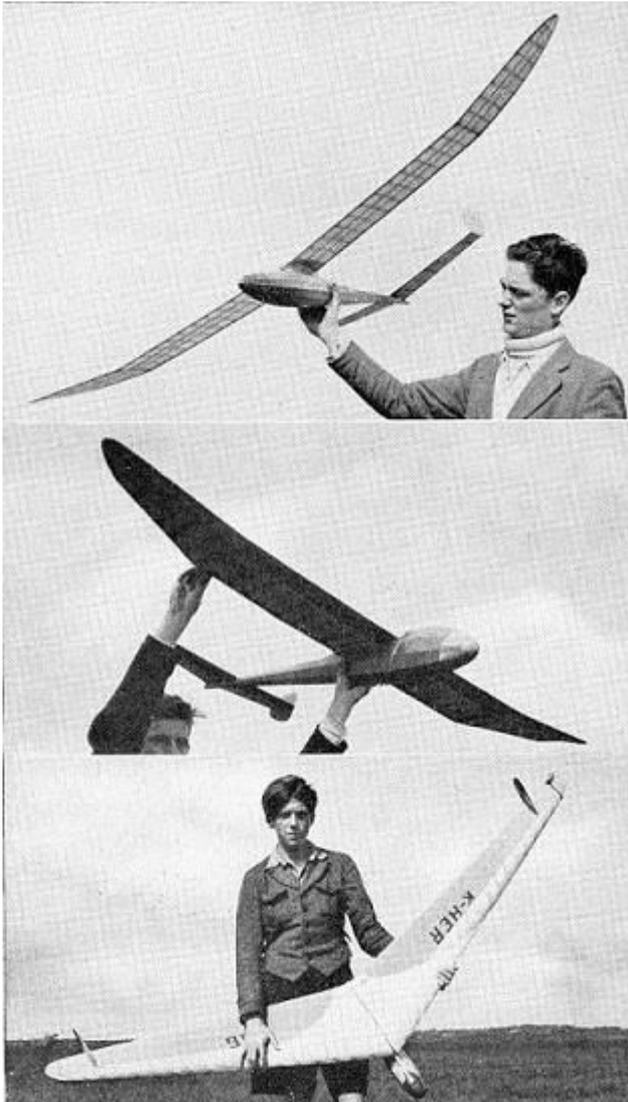
Afterwards the result was carefully checked (and sometimes corrected) before it was admitted as part of the airplane to be.

Due to the shape of the fuselage (not a straight line in sight) it was built like a boat but in two halves, each one upside down to be jointed together later.

The wing was too complicated for me to participate in, that privilege befell my oldest brother. Wingsection was the then very famous MVA301/75 cut out in BIG ribs. Here is where the balsa came in.

The wing was covered in rather thick yellow tissue, the fuselage in a thinner variety in red. This too was done in the same room! We did air the room after every building session however.

Depicted below is a page from a book by J. van Hattum, published in 1945 showing Monty in the top. The flyer is unknown to me. I must admit it doesn't seem to be as huge as I remember it, but then, I was a lot smaller myself.



Flying (or attempting to) took place in a field on walking distance, adjacent to the railwaystation and one day Monty actually landed on the track, just near the platform in front of astounded passengers. The train wasn't due yet, luckily.

The wing was held on the neck of the fuselage with rubber bands again over pins fore and aft, but one day we ignored the plural and fitted it with just one sturdy band. Murphy's law prevailing this band naturally snapped when it was on top of the towing line. The wing happily fluttered downwards and landed gently on the meadow, the fuselage went down like a bomb and stood straight in it. Although we had to pull it out of the ground, it was unscathed. It speaks for the quality of building that no gluejoint had given way and that no stick was broken. I suspect that that beautiful nosecone, carved from solid beechwood, played its part in preventing serious damage. The covering however was torn all over.

When the perils of the railway overshadowed the advantage of nearby flying, we took to the open field, some 3 km. away from the village, by bicycle.

My father would carry the wing under his arm, my oldest brother held the fuselage in a likewise manner and I followed suit with the stabilizer. I wasn't big enough for anything else. We only went flying in dead calm circumstances, not just

because of the flying, but to prevent my father being blown off the track with that enormous wing.

I don't know what happened to Monty, but it was still there when I left home. Every now and then I ponder the options of building one myself, but then, there are so many things I'd like to do. Life is all about choices, isn't it?

It wouldn't surprise anyone that I took up aeromodeling myself. At the age of twelve I spent part of my pocketmoney on a chuck glider, assuming that you had to start small. That wasn't the last mistake I made. I can't remember if it ever flew at all, must have suppressed it.

Nevertheless I then bought and built the Keil Kraft Elf and it flew! But the virus really hit me

with the KK Pixy, which gave me many hours of flying pleasure, even if it hardly managed more than a full round but what a round! Thirty seconds can seem an eternity when your creation gently moves through the air.

Then came the Senator, again from KK. I was fourteen by then and still operated on my own. No club, no fellow hobbyists. My father had turned to furniture by then and didn't know the first thing about rubber flying anyway, so no help from there.

I did build the plane and I did manage to carve a reasonable freewheeling propellor but how to handle that amount of rubber? 6 Strands were required and to me that meant 3 loops. The shop owner, selling me the rubber wasn't very helpful either so I started on cutting 3 strands, glueing them into loops with rubber glue like we used on our bicycle tyres to fix punctures. I did bind the gluejoints with wool thread because I had read something to that effect somewhere. I was beginning to read 'Aeromodeler' by then but hardly mastered the English language yet.

You can imagine what happened when I first wound up the motor. The loops exploded when I was about half way winding and removed all of the covering on the fuselage quite effectively. It is a small miracle that I got the Senator to fly at all for I persisted in this way for quite some time. Because I was very cautious in winding the motor, Senator never flew more than 30 seconds but it did so graciously. Much later someone told me that one long strand with one knot would do the same job but less damaging...

At the age of sixteen I came down with jaundice and had to spend many weeks in bed. My father arranged for an old drawing board to be fixed over my bed so I could draw up my first own design sportsplane, spanning 120 centimeters and to be powered by an .8 cc. Albon Merlin. After the drawing was done dad and my oldest brother set out on the bike towards The Hague to buy the materials I needed. A 45 km ride, one way.

In the following weeks I built 'Joekel' (whopper) on the same board over my bed. Can you imagine: cutting, sawing, sanding in a sickbay. It took me 3 months to recover fully and by then Joekel was finished. It didn't fly very well, however, but it taught me a lot.

In the years to come I spent a lot of time on oldtimer designs we acquired when a former aeromodeler passed away. His widow knew about my interest but I suspect she was glad to get rid of it, anyway I inherited a lot of sticks & tissue (yeah!) and drawings.

One of those is still in my possession but I'm reluctant to build it. As it turned out the designer was a leader in the nazi youth movement and the plane is called 'Stormvogel' which is quite appropriate.

After an 8 years career at sea I picked up aeromodelling again, first building some small stuff for the kids, then a series of simple gliders for a youth club and a beautiful A1 glider. When I had to leave the latter behind in the highest spruce tree imaginable I turned to RC so I could at least keep things near me.

Gliders always held my fancy, although I flirted with small rubber, like a Coupe d'Hiver and a P30, both own designs. Small rubber took me a bit further when I entered the world of indoor. That kept me busy for some twenty years. I made it to 5 times national champion in F1D, an 11th. place at the WC in Cardington, when I was part of the most succesful Dutch team ever in 1986 where we secured second place in the team ranking. An 8th place in the EC in Wroclaw, Poland rounded things of neatly.

I then suffered from some sort of modeling burn-out, went into full-size gliding for some years and only returned to the sport again after my retirement. Since then I've been busy designing and building gliders, nothing competitive anymore, just the sheer happiness of sharing a thermal with a buzzard or a stork for that matter.

My gliders are built traditionally in balsa, plywood and foil covering but there's a lot of carbon inside, like on the spars and tailboom. Mark Drela is my guru here.

Especially my Pica (Magpie), spanning only 2 metres is a wonderful flyer, agile and yet very easy to handle and equally at home in thermals or on the slope.



Ardea, depicted at the left is named after my indoor models, but operates at a somewhat larger scale (span varies from 265 cm. to 300). The endplates on the wing can be exchanged for elongated tips for still-air conditions. Nosepart of the fuselage is detachable for transportation. (I have a small car). It still needs some fine-tuning but is very promising.

High on my to-do list is rebuilding the Pixy again, maybe a tick larger than the original and electric powered.

No more rubber? No thank you.

On my website <http://orodenbu.home.xs4all.nl> you'll find more stuff but mostly in Dutch. However, pictures do tell a lot.

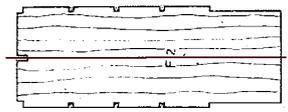
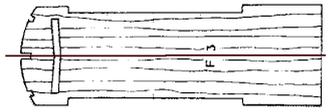
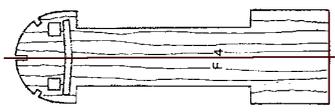
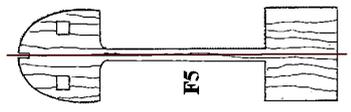
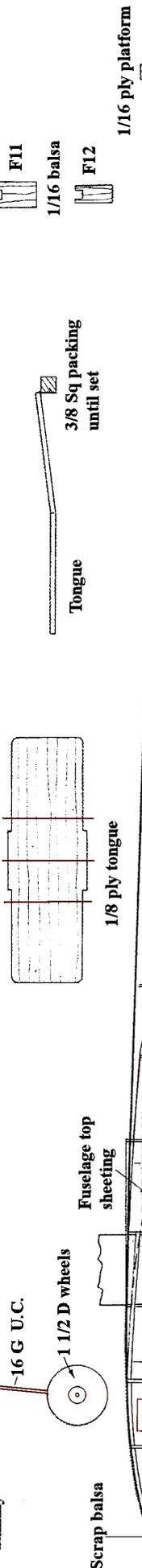
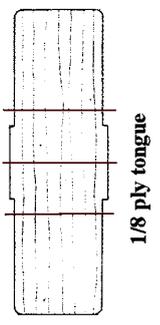
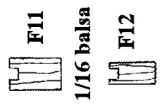
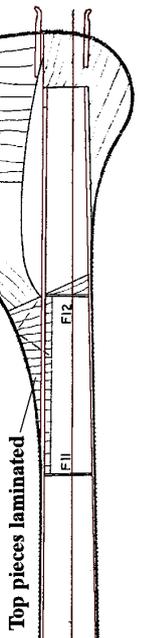
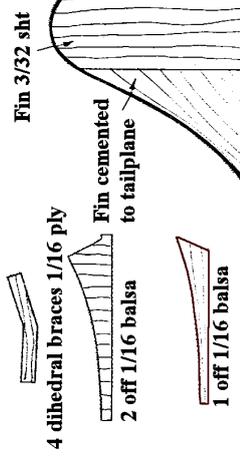
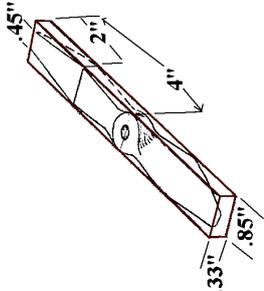
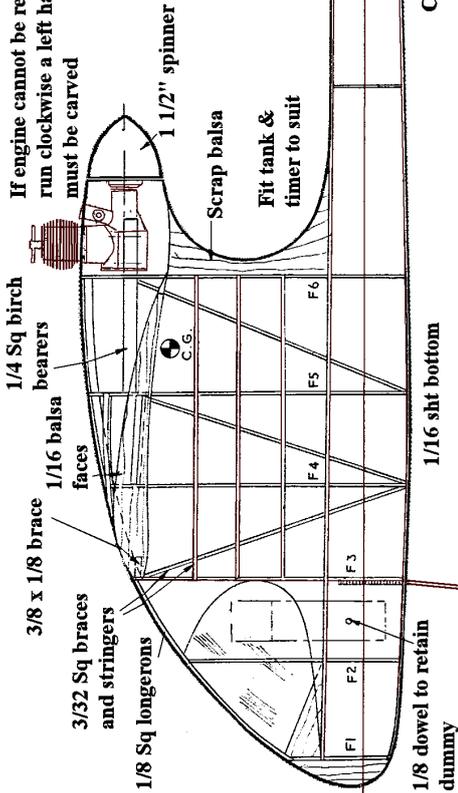
Otto Rodenburg  
Wijhe, june 6, 2014

[otto.rodensburg@xs4all.nl](mailto:otto.rodensburg@xs4all.nl)

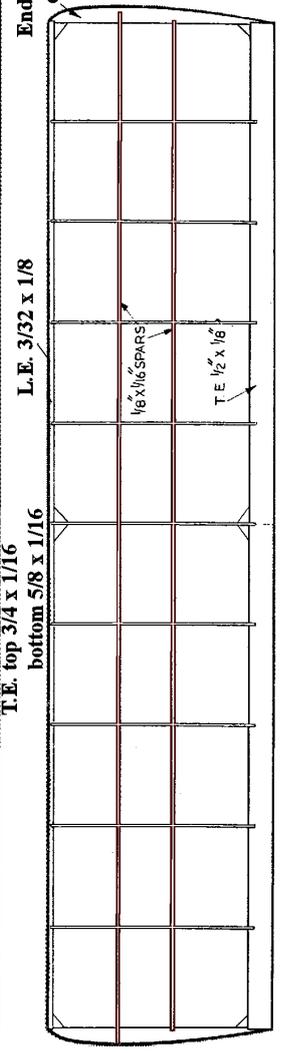
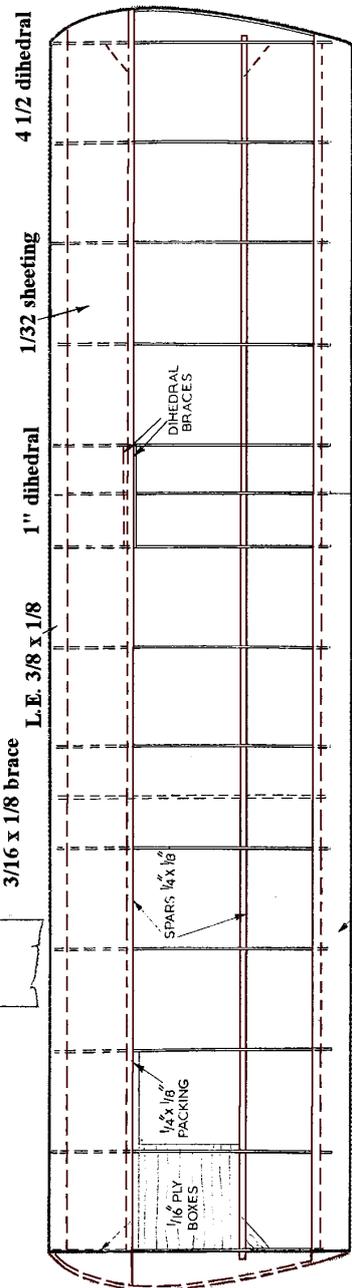
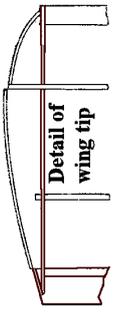
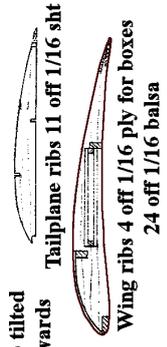
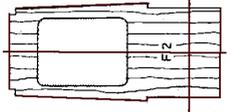
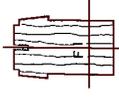
## From Marcel Lavoie

Re John Barker Would you happen to have john Barker's email address? Thanks in advance *Can anyone help please let me know James Parry jamesiparry@talktalk.net*

If engine cannot be reversed to run clockwise a left hand prop must be carved



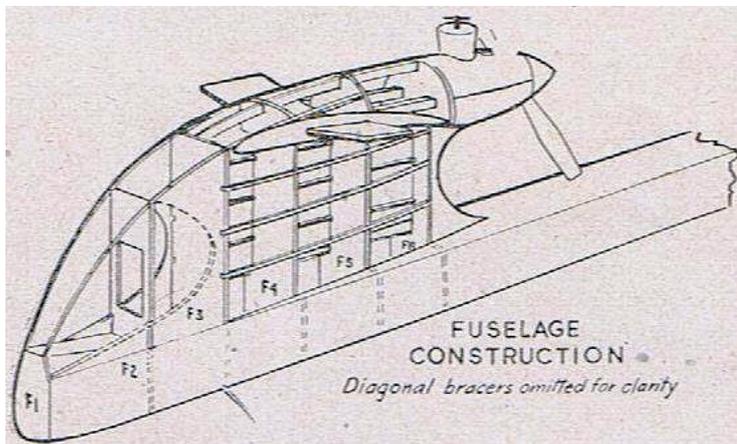
Formers from 1/16 balsa



**KONKERER**  
M.A. A. J. LONGSTAFFE  
163 SPAN 49" LENGTH 38" 5/6  
COPYRIGHT MODEL AIRCRAFT  
19-20 NOEL ST. LONDON W.1

## Konkerer from Model Aircraft 1953

An out of the rut design for 1.5cc P.A.A. load model. When the P.A.A. Load specification first appeared I began, as many modellers did, by modifying existing models to conform to the rules; odd windows cut into the front and sides of pylons., bubble cockpits, “greenhouses “—all were tried but with little success. The loading of the model inevitably went up and a complete change in behaviour occurred. If serious competition in the P.A.A. load class is your aim, the only way is to start from scratch with a model designed for the rules. I had been experimenting for some months with the high thrust line layout and naturally thought of its possibilities with the P.A.A. load model. However, with the engine up near the leading edge the dummy had to be near the c.g. and under the wing. The further limitation of providing windows to front and sides of the pilot gave rise to a hideous looking fuselage! Then the present layout occurred to me. The pusher engine still gave a high thrust-line and now enabled the dummy to be placed in a neat cabin up front. C.G. position comes at about the usual 70 per cent. to 80 per cent, even with the long tail moment. The first model on the new layout was built for an Amco 3.5 and weighed 32 ozs -3 ozs over minimum all-up weight. Performance was satisfactory but the model was very loth to r.o.g. The half-buried nose-wheel was replaced with a longer undercarriage and the snag remedied. When the latest class for up to 1 1/2 c.c. engines with 4 oz. “half-size” dummy was announced, Konkeror was put on the hoard. Though designed and built round an Elfin 1.49 c.c. it could, of course, be powered equally well by any of the 1.5 cc units on the market and would not be lacking in power even with an E.D. “Bee.”



### Fuselage

Cut the bottom of the fuselage from 1/16-in, sheet. Assemble the bearers and wing tongue in formers , 4,5 and 6, and cement firmly in position on the fuselage bottom using gussets. It is essential that these parts be cut and assembled accurately as incidence and thrust angles depend on them. Insert the 3/32 in. square bracing struts and add formers 1, 2, and 3 (with undercarriage wire-bound on) together with the 1/8 in. sq. longerons. Cement the sides on and add remaining formers. Fix the / t guide pieces to their formers and then cut and cement the top

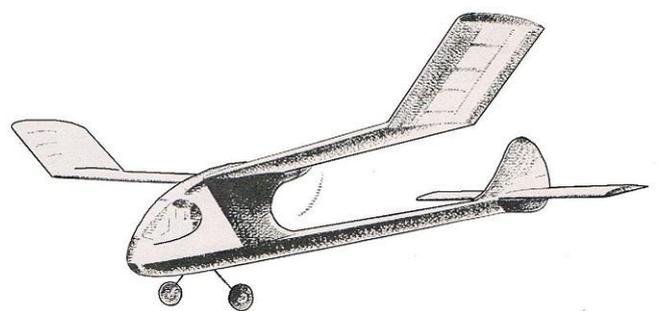
sheeting to complete the basic fuselage. Add details as shown on the plan and build up the engine layout; most modellers have their own ideas on tanks, timers, etc., so no layout is given. Anyway there is ample room in the nacelle. Remember though that, the tank should be low down otherwise you will get gravity feed on the climb. If your engine will not run clockwise then you will, like me, have to carve your own left-handed propellers. However, once you have carved one you are not likely to break it.

### Wings and Tail

Quite straightforward construction is used which is obvious from the plan. Extra care should be used in cutting the ply root ribs and tongue boxes:

### Assembly

The whole model is covered in lightweight Modelspan with fuel proofing on the fuselage only. Assemble the model with dummy in place and check the c.g. position which can be varied slightly by moving the dummy backward or forward, and also by raking the undercarriage. Having checked incidences. etc., add your name and address and a d/t fuse, and good hunting! Soon, perhaps you too will be able to tell people the time !



## BOURNEMOUTH CLUB CLASSIC RUBBER - Middle Wallop May 2014

Report by Martyn Pressnell



**Peter Jackson launches the winning flight**

This was the first of our two annual Club Classic events in 2014 and I am pleased to say the weather was very good to us. A modest wind from the North West carried models across a long stretch of the airfield, well containing flights to the 2 minute maximum set. One should not complain but the grass was long, awaiting mowing that made walking a bit tiring for some older legs. The sun progressively warmed the day and thermals were in evidence most of the time.

There were nine entrants this time and the models consisted of 4 Urchins, 2 Last Resorts and one each: Trip Stick, Flip Flop and a Late Night Special. This confirms Urchins as the favourite again although several other types have won over the years.

Four entrants made the fly-off to compete in the final D/T limited flight set at 2 minutes. The winner for the second time was *Peter Jackson* with his Urchin, followed very closely by previous winner *John Andrews* with his Last Resort. The longest flight was recorded by *Mike Gilham* from CVA but because of a D/T mishap he recorded a negative fly-off. Yours truly was last, but very pleased to be flying again.

Our next Club Classic event at Middle Wallop will be in August, so please have those models ready again for the splendid weather that is predicted (by me).



**John Andrews**



**Ron Marking**



**Bob Taylor**

**John Lancaster**

Results	Model	Score	Fly-Off	
1	Peter Jackson	Urchin	6.00	2.11
2	John Andrews	Last Resort	6.00	2.09
3	Ron Marking	Urchin	6.00	1.24
4	Mike Gilham	Late Night Special	6.00	-
5	Bob Taylor	Urchin	5.51	
6	John Lancaster	Urchin	5.46	
7	Robin Kimber	Trip Stick	5.24	
8	Ted Stevens	Flip Flop	5.23	
9	Martyn Pressnell	Last Resort	4.17	

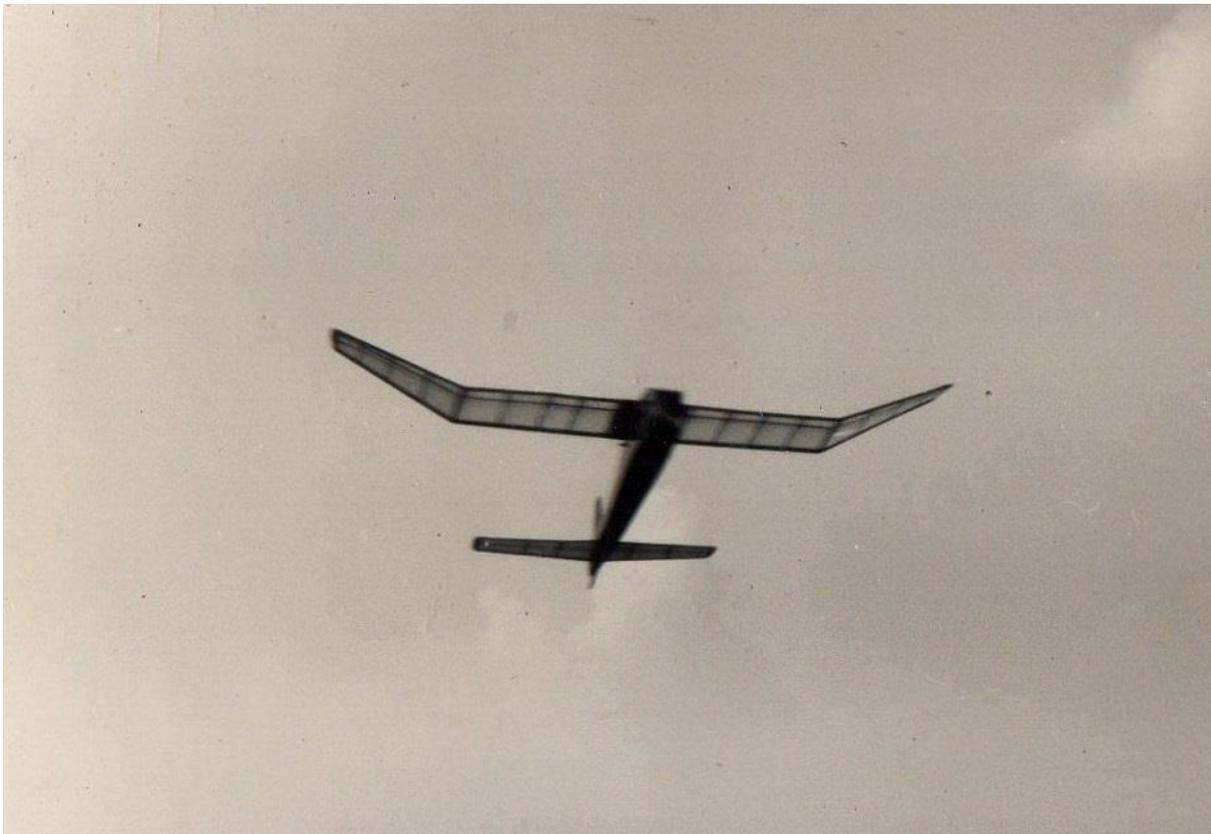
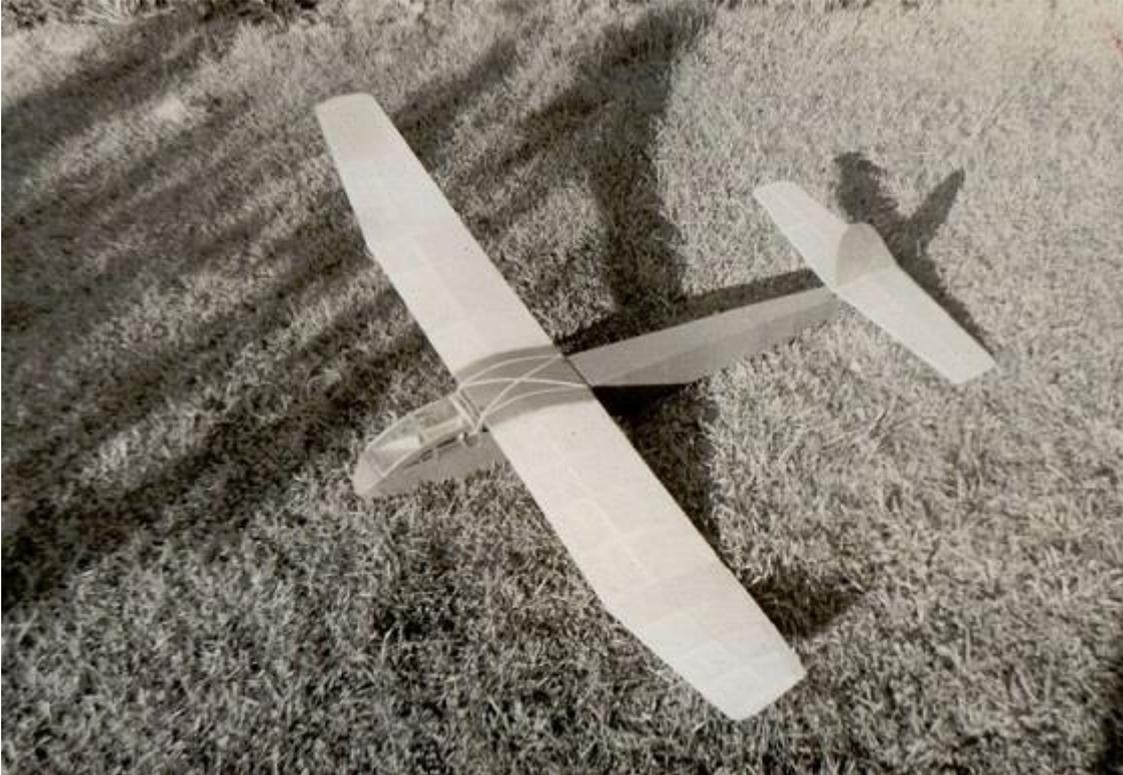
# RC VINTAGE EVENT

13 July Open Vintage, Ilminster / SAM 35 Merrifield. Contact [david@dibailey.fsnet.co.uk](mailto:david@dibailey.fsnet.co.uk)

*This should be a really good event so do your best to attend*

## From Bob Pickernell

Hello James. I've just received S&T 90 pt1 and was interested to see how often the KK Dolphin has come in for the enlargement treatment. There must be something about certain designs that cries out enlarge me. Anyway I have attached a couple of photos of my 1962 vintage double size Dolphin. The inflight flying site is now under a huge housing development, c'est la vie!



## George R.Vale Update on his Dolphjin

The evening of Friday 16th. May brought a light westerly breeze, and a burning desire to fly my Dolphin. Even more pressing, there was the new wing extension to try out, which turns Dolly the Dolphin into Porpoise, aka `Polly'. How could I square a gliding session with the demands of the better half and the rumbling of my tum as dinnertime approached? In an unusual display of flexibility, the Boss suggested I eat first and fly later; so by 7.30pm I was on my way, albeit with galloping indigestion.

Arriving at the field I ran into a snag in the form of Stuart, who was just packing up his new power model after an unsuccessful session in the flat field at the foot of the slope. I had to make my salutations, commiserations, suggestions etc. as brief as I decently could, so as to get off up the slope and make the most of the light.

Finally at ten past eight Polly sailed off into the setting sun. I remembered to bung in the 2oz. extra nose weight which the longer wing calls for, so she was as stable as a house.

The extra wing area seemed to make very little difference to the handling. She is incredibly easy to fly, and can be left to her own devices upwind for quite long periods. We did lots of loops, ragged stall turns and some failed spin attempts, as I'd done last month with the Dolphin. Thinks -- must try and wangle a bit more rudder travel. There was no shortage of stay-uppability in the light breeze, and the only safe way I could lose height was by flying back into the no-lift area behind the slope.

Eventually the light was fading as the sun approached the horizon, so I cut short my flight and made a soft landing at a quarter to nine: 35 minutes of delight.

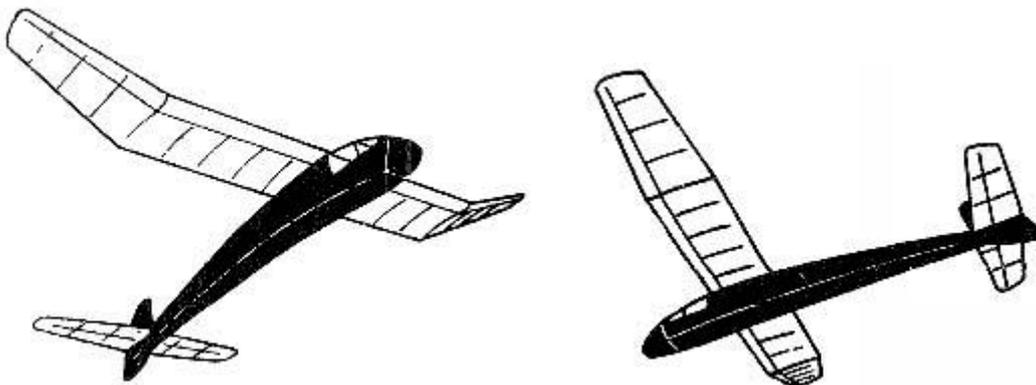
Last night, 3d. June brought another light westerly and the opportunity for gentle soaring. Not quite as light a breeze as before, so Dolly flew with 72" wing this time, no extra nose weight and some increase of rudder throw. We managed a full hour's flight including lots of loops and stall turns, spin attempts (she still won't), and brief inverted spells off the top of loops. This latter required lots of down elevator, so perhaps the CG could go still further back.

For what it's worth I bought the basic Dolphin plan for £2.99 as a download from The Vintage Model Co. My first attempt at scaling up by 2.4 times came out at about 73½" span, which seemed odd. An e-mail conversation with the gent at the VMC was none too fruitful, except that he offered a set of laser-cut parts at 2x scale. This would have made the model 60 or 61" span (see below) with a chord of only 7½". That seemed a bit weeny for slope soaring, so I declined his offer.

Some time later I found that mid-sixties adverts for the Dolphin gave its span as 30½", rather than 30" as it used to be when I were a lad. It looks to me rather as if someone re-mastered the plan back then, and got the size slightly wrong. Accordingly my enlargement factor had to be about 2.36 rather than 2.4.

If my ramblings have tempted anyone into thinking of making a 72" Dolphin for themselves, I may be able to shed light on some of the details. Contact me via the Editor.

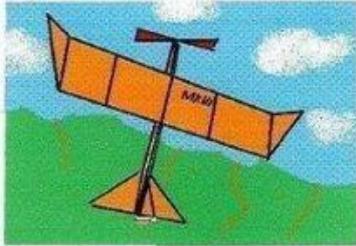
George R.Vale



## From Neil Dennis

Here is the first page of the instructions, let's see if the fix worked

### Read the directions before you start - works better that way



Paper tab for rudder  
Cut out and glue to side  
of rudder at rear  
This can be bent to make  
model fly in a circle.

#### Tools required

Single edge razor blade or model knife  
Wood glue (Duco or white glue) or super glue  
Glue stick to assemble sticks to paper  
Fine sandpaper or emery board

#### Materials

3 pcs 1/16" x 3/32" x 36" balsa strip  
A 5" or 6" plastic propeller  
1/8" x 3/8" x 12" motor stick  
1/8" square by 5" long balsa stick  
8" to 10" loop of 3/32" rubber for motor

The paper of the plan may shrink in hot weather and warp the wing, so if you want you can wad it up into a ball (careful and don't tear it), then smooth it out with a clothes iron set to cotton. This will break the fibers so that it won't warp. Have something flat like an old ceiling tile or side of a cardboard box to build on. Put a bit of glue (or glue stick) on each corner of the plan on the face side (With that side up you can read the printing). Then lay the sheet face side down on the building board, smooth it out but don't stretch it and press the corners down. (If you are using "super glue" put some wax paper under the plan.) Now (be careful and cut to the right length), cut the sticks to fit on the lines of the plan. Wipe the glue stick carefully on the wide side of the stick and press it in place with a finger tip. I'd start with the front (long side) of the wing, then do the cross piece and back side and tips. Do the same for the Stabilizer and Rudder. The best way I've found to make the glue joints is to put a few drops of glue on a plastic bottle cap, then dip the end (or ends) of the stick in the glue before pressing it in place. NOTE: Do not glue the joints marked "X" or "Y" If you use super glue put a sheet of wax paper or film like Saran wrap under the tissue, if you don't you may have the plan stuck to the table.

After all sticks are glued in place let the glue dry for a few moments, then using the razor blade carefully cut around the outside of each part, if you leave extra tissue you can sand it off.

If you don't have the 1/8" x 3/8" motor stick, you can make one from a 36" piece of 1/8" square balsa. Cut one each of 12", 12", and 10" pieces from it, wipe a thin layer of glue on one side of each piece and glue together being careful to keep one end even. Then taper the back end starting at 5" from the back and ending at the end of the 12" piece, this is needed for the model to fly. If you have the 3/8" piece, taper one end starting at 5" from the end and tapering down to 7/32" at the end.

To finish the wing, cut part way thru at the "X" points and crack that point so the wing tip will bend down. Lay the center section on something 1 in. thick, make sure the wingtips are both down to the board surface and glue the "X" and "Y" joints. You can put a bit of thread or paper on these joints to strengthen them. glue the 5" piece of 1/8" square at the center on the stick side so it is sticking out from both front and back (this is the wing mount).

Now to assemble the model, put the stabilizer paper side down (sticks up) on the board, put some glue on the middle strip and put the tapered side of the motor stick on (the "slanty side" goes down) making sure it contacts at both front and rear of the stabilizer. Make sure the motor stick is square with the stabilizer, use something like a small lamp to hold it. Glue the rudder on the top of the motor stick, be sure it is square and straight. Put a small tab made from stiff paper on the back of the rudder (look on the plan for the place and shape) Find and mark the "CG (center of gravity or balance point) as it shows on the plan. Slide the two small (orthodontic) rubber bands on the motor stick then if the bands are small you may want to use 2 at each end of the wing mount stick put the wing mount on the top of the stick and use the bands to hold the wing in place with the CG marks lined up

When making the motor, for the first flights cut a strip just a bit longer than twice the rear hook to prop distance, tie the loop using either a square knot or an overhand knot, wet the knot with saliva before pulling tight, be sure to pull on all 4 strands equally and pull really tight. Be sure to lubricate the motor before trying to wind, baby oil or liquid detergent will work. Whichever you use will have to be cleaned off after flying, then redone next time. I use a vinyl cleaner called "sun-of-a-gun", that doesn't have to be cleaned off. The motor will take about 500 turns without stretching, if stretched while winding about 800.

This is one I made for some Canadian friends, just in case the first try didn't go as I'm having some confuser problems.



# GEORGE FRENCH 1925-2014

With sadness we learn that George passed away peacefully in April 2014 at the age of 89 years. He will be well remembered in the UK and by many overseas flyers, as a pioneer in the 1960's of the Variable Incidence Tail. He proved its success through his model's performance in national and international competition. This note is not strictly an obituary, but records some details of his model, the Night Train. This is the Mk II 1960 FAI model produced as a plan in 2005. This note is offered now in his memory by Martyn Pressnell.

## NIGHT TRAIN MkII

### GEORGE FRENCH'S 1960 FAI POWER DURATION MODEL



*George with Night Train Mk II in 2005 on the farm where he regularly runs his engines.*

In looking for the most outstanding power model of the Classic era there are many to choose from, taking account of performance, elegance and consistent achievement. My choice is the *Night Train*, one of the first designs to break away from the traditional diesel approach and to introduce the new variable incidence tail-plane concept to tame the more powerful glow-ignition engines. Additionally, I counted its designer, George French, as a good friend and club-mate and watched his rise to international esteem with his *Night Train* series.

At that time power flying had become very popular, with entries in British competitions often counted in hundreds. In the 1950's Great Britain had won the individual World Championship three times: Barry Wheeler in 1952, Mike Gaster in 1955 and Ron Draper in 1956. On the last occasion under the rules, three were declared joint winners; Draper, Posner and Conover, but in a fly-off to decide who should hold the cup, Draper won. On two of these occasions GB also took the Team Power Championship. For the 1958 season the FAI rules for international competition changed, introducing an increase in weight per cc of engine capacity. Thus a 2.5 cc engine required an AUW of 750 gm (26.5 oz) and a total maximum area of 37.5 dcm<sup>2</sup> (581 in<sup>2</sup>). The *Night Train Mk I* was designed to these new rules, but it had taken a lengthy period of continuous development for George to perfect the model. A de-ballasted and lightened version became known as the *Open Train* and the small ½ *A Train* was introduced in 1962, both flying very well without VIT.

George French was born in 1925, the older son of a farming family of Laindon, Essex. His secondary education was completed in 1943 at the Palmers Endowed School for Boys at Grays. In 1943 he volunteered for aircrew and joined the RAFVR, via what was then known as a University Short Course taken at King's College, Cambridge, entering the service proper in 1944. Having achieved just 12½ hours selection training on Tiger Moths, he was sent to the USA in early 1945 for pilot training. The end of the war prevented this taking place and by 1946 he was a civilian again.

His interest in model flying was stimulated after the war years when he formed the Laindon Prop Spinners model club with friends who flew their models on the farm. It was some time before he became interested in competition flying and his first recorded success was with an *Eliminator* in 1954. George farmed with his brother Bert, who sometimes came to model flying

events. George and his wife Margaret lived in their chalet bungalow close to the farm, his workshop being situated in a large heated shed at the farm. He would work into the small hours, when the only outside noise was that of steam trains speeding through the night on the mainline to London running through Laindon. This is where the *Night Train* name originated, a fitting and memorable name indeed.

George was a modest and friendly person, a perfectionist by nature, polite and correct in manner. His models were always immaculate and built with precision. He depended much upon Margaret, for her encouragement and dedicated help. He was considered to be rather well turned out for model flying, sometimes sporting a bow tie. It reflected his attention to detail and his general outlook. In due course he was encouraged to join the larger and successful 'Anglia' club (later 'Essex'), absorbing the free flight elements of the Chelmsford Club and the 'Thameside' club from Southend-on-Sea. These were a jolly bunch of friends who enjoyed George's and Margaret's hospitality, talking about design and model flying over farmhouse suppers.

George had prepared an elegant new model for the Spitalgate Trials in 1956, using an Oliver Tiger engine. This was based upon the *Eliminator* scaled up for the 2.5 cc engine size and having rounded wing tips and a rolled balsa fuselage. Unfortunately he fluffed the launch of his fifth flight and the crash fractured the fuselage. Following field repairs he had to be content with seventh place. This was an important step on the learning curve, but in this highly competitive sport it was difficult for a newcomer to catch the leaders. However new design thoughts were emerging.

A comment about these times written by George for Model Airplane News said,

*'Just competing in such company and watching their scores build up until the climaxing round which decided who were to represent Great Britain at the World Champs, gave me the sort of excitement which no other flying had provided before. I knew that FAI power flying was for me. Building and flying FAI specification models appealed to me as a more challenging exercise than handling our open class models, much as I enjoyed this, and success would mean the highest of awards, a place on the National World Championships team.'*  
GRF.

He tried the 'Amazoom' high thrust line design from the USA without much success. In 1957 George conceived and built a development model known as the 'Nightmare' the first of his models to use a variable incidence tail-plane (VIT). It ended its days on the railway at Laindon where it was hit by a train, precipitating the change of name. George had become well aware of the need for separate trim conditions to suit the power and glide phases of flight. Whilst he modestly does not claim to have originated the VIT principle, there is indeed evidence that it was being developed independently by others at the same time. However his system was almost certainly the first to be seen in the U.K.

For reference, the 1958 Aeromodeller Annual article by Hans Neelmeijer mentioned the use of a variable incidence wing on his 1956 Championship winning model. At much the same time Hank Cole in the USA was experimenting with a flapped model, and so was Andy Anderton in the UK, which exhibited the facility to pitch nose down into the glide phase, years before the 'bunt' became the norm with VIT. Vladimir Hajek of Czechoslovakia flew his model, Raketa 5a, into 4<sup>th</sup> position in the 1955 World Championship using some unknown form of VIT. In 1959, using his model called Kasperek he became European Champion, the tail-plane sitting upon a rocking lever mechanism. See Aeromodeller Annual 1960.

In retrospect, the rule change for the 1958 season had the effect of bringing everyone to the starting line again and George was ready with a new model, the *Night Train Mk I* using a Super Tigre G 20, it being virtually the same as the 'Nightmare'. Having developed the model quietly at home, its public performance brought immediate admiration. No longer with a tight spiral climb, the *Night Train* shot straight upwards for fifteen seconds with an almost instant motor stop, to flip off the top into a steady glide. This kind of flight path became the norm for power duration models, but we were seeing it for the first time and it was impressive. 'Night Train Mk I' was used in the Wigsley Trials of 1959 and went on to win the Queen Elizabeth Cup of 1960. A mechanical failure and premature D/T operation left George unplaced at the 1960 Trials, causing some wry amusement to those lacking his innovative foresight. The World Championships flown at Cranfield in 1960 was remarkable in that five competitors were placed equal first, having made 17 consecutive maximum flights, significantly none of these used VIT systems.

In readiness for the 1960 Trials the 'Night Train Mk II' was prepared, but the trials were postponed until 1961 due to unavailability of an airfield. His performance at the 1961 Barkston Heath trials was a highlight, where he romped into first place without needing to make his final flight. Unfortunately the *Night Train Mk I* was lost in standing crops in the first of these trials, recovered only after it had met a combine harvester, but the very successful 'Night Train Mk II' came into its own. George wants to record his undying gratitude to the late Peter Chinn, whose efforts to supply him with the OS Max Specials, the first of these very powerful engines to be seen in the U.K., made a very significant contribution to his early success with Night Train. They were fitted with a remote needle valve years before the company introduced it as standard.

The model was sleek and well proportioned, the wing tips and tail-plane being covered in checker-board silk. Later versions used the Cox 15 Special engine, and eventually the Super Tigre G15. The mechanical system with its unique single lever tail-trigger, bent up from wire, allowing the tail plane to pivot about its leading edge, was now fully developed. Two separate timers were used, one provided pressure dump to cut the engine, auto-rudder, and VIT concurrently, whilst the second operated the dethermaliser (D/T) function, (multi-function timers were not available at that time). Uniquely pressure dump alone was sufficient

to stop the O.S.Max-15 engine, but when the Cox TD 15 was introduced a further function, to strangle the fuel supply, was found to be necessary and was introduced.

It was in the 1960/61 season that George became really established attaining his first international high placing at Leutkirch, W. Germany in 1961. He began travelling far and wide at home and abroad to the most important events, where he seemed guaranteed to win or place highly. He possessed a range of equally potent *Ramrods*, a design by Ron St Jean in the USA, for open and ½A events. An *Inchworm* A2 glider was also flown occasionally. A listing of George's national places and international results, given below, makes impressive reading. It was not until the 1963 World Championships that a VIT equipped model was the winner, being the '*Taltos*' design of Erno Frigyes of Hungary. This was followed in 1965 by Albert Dall'Oglio of Italy with his '*A17*' design to firmly establish the VIT principle. The top model in the German trials of 1965 by Karlheinz Rieke was also reported as using VIT, reference Frank Zaic's 1964-65 Year Book.

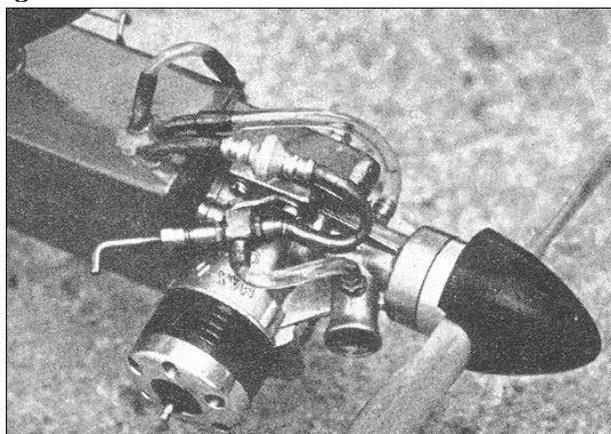
The zenith of George's model flying came then in the 1960's when he flew for Great Britain in four World Championships, achieving top British place on each occasion. At Wienna-Neustadt in 1963 his model was credited with being '*.....the highest climbing model on the field*'. For these events the engine run was now limited to ten seconds. The performance of *Night Train* improved at each World Championships, 9<sup>th</sup> in 1961, 6<sup>th</sup> in 1963 and 1965, and 2<sup>nd</sup> in 1967. In this latter event *Night Train Mk VII* was used, equipped with a Super Tigre G15 mounted in an aluminium pan, the motor specially tuned by Kevin Lindsey, the international C/L speed record holder. It used a multi-function Seelig timer. In fact George conceded the World Championship to Hans Seelig of W. Germany having dropped just 20 seconds in the second fly-off aiming for 5 minutes. The combined performances of French, Monks and Savini secured the Team World Championship for Great Britain in 1967. In the Team Trials of 1968 tuned pipes were in evidence in FAI power for the first time, but after a gallant effort George failed to qualify for the 1969 team (pipes were discontinued in 1970 and standard FAI fuel introduced). Throughout this period George shaped his own very thin propellers starting from Tru-Flite or Super-Aero wooden blanks. These were used up at a savage rate, but he maintains that the effort was vital to his successes. He always started his engines by hand, without a glove or a chicken stick. Often all that was necessary was to bounce the engine against the cylinder pressure, when it would fire and start.

George continued to fly the *Night Trains* through to 1970 without further international success. Competing on the final occasion at Zell-am-See his model flew into the town and collided with power cables. In 1968 he had become attracted to full-size flying, gaining his PPL at Biggin Hill. Inevitably it seems, George's interest in competitive model flying began to wane, and he acquired a *Jodel* light aircraft. This was followed by the addition of a *De Havilland Tiger Moth* subsequently replaced by a *B.A.Swallow*, one of only a few airworthy machines in the country. He hangared these at the farm and was flying until recently from his private airstrip, lavishing the same care and attention on these historic aircraft that he had given to his models. George suffered a grievous bereavement when Margaret died in 1987. He retired from active business in 1993.

Now at the age of eighty he has suffered from a heart condition, and has become resigned to not being able to fly his light aircraft again. Nevertheless he has taken up model flying once more in the radio-control field, building the attractive vintage *Buccaneer 'B' Special*. The final accolade and honour was bestowed upon George when *Night Train Mk VII* was chosen as FAI Power Model of the Year in 1971, by the National Free-Flight Symposium of America.

In retrospect, power flying in the 1960's was the golden years of the sport, with good numbers of national entrées into the events. It was a period which bridged from the spiral climbing diesel powered models to the high powered flight paths we see today, a period of intense development. Following that period interest levels began to decline. Notwithstanding the introduction of even higher powered engines with brakes, high aspect ratio machines built from carbon composites, the five second motor run with electronic timing and bunt transitions, and the geared motors of 2000 onwards, the decline has continued. But interest is reverting to models of the Classic era of the 1950's and in a class known as Slow Open Power (SLOP), flown without mechanical gadgetry, also in R/C power duration events.

#### ***At the 1961 Trials below, OS Max II-15 installation right***



## Night Train Plans

Aeromodeller of October 1961 published a good dimensioned sketch of *Night Train Mk II*. The Model Airplane News article of August 1969, by George, offers the best historical record of the long and painstaking development of the *Night Train* series, together with the plan of *Night Train Mk VII* drawn by Chris Foss. The intention was to produce a plan based on the dimensioned sketch published by Aeromodeller. However in discussion with George, it was learned that he produced a plan of '*Night Train Mk II*' himself, to meet the many requests he received after the 1961 World Championships. This proved of considerable help in producing an authentic plan of this Classic power model. The early *Night Trains Mk I and Mk II* had identical airframes, differing in their engines and the details of their respective mechanical systems, so that *Night Train Mk II* built in 1960 can be claimed as a 1958 design, and indeed it relates closely to *Nightmare* of 1957, all firmly based in the Classic era of model flying.

*Night Train Mk II* was a very fitting climax to that era, heralding the route into the popular but demanding period through the 1960's, with international success for Great Britain and the *Night Train*. The plan illustrated here shows the original form of the engine and VIT mechanical systems because of their historical interest, recognising that today's builders may wish to update these. *Night Train Mk II* makes an attractive model for Classic power duration events, and suitably powered it could still cause eyebrows to be raised in Open Power and SLOP contests today. Two *Night Train* models, a Ramrod and others remained in George's loft until his recent passing. Now the *Night Train* is in the hands of Jim Wright, who is campaigning on behalf of the BMFA to establish a collection of historic models in the U.K. Plan reference: [www.msp-plans.blogspot.com](http://www.msp-plans.blogspot.com)



*Modified engine timer with fuel strangler lever*



*VIT and auto-rudder mechanism*

## References

1956 Team Trials, Model Aircraft August 1956 (*photo Night Train precursor*)  
OS Max-II 15, Model Aircraft October 1958  
Designing for the New Power Rules, Hans Neelmeijer, Aeromodeller Annual 1958

Top Four Contest Designs, Night Train Mk II, Aeromodeller October 1961 (*dimensioned sketch*)  
Triple World Championships, Leutkirch, Aeromodeller November 1961  
World Championships, Leutkirch, Model Aircraft November 1961 (*photograph*)  
Free Flight Trials, Model Aircraft September 1961 (*cover photograph*)

Notes on Power models, George French - East Anglian Area News March/April 1962  
Roving Report, Model Aircraft September 1963 (*photograph*)  
World Championships, Wienna-Neustadt 1963, Model Aircraft October 1963 (*photograph*)  
World Championship Results, Wienna-Neustadt 1963, Aeromodeller Annual 1964-65

World Championship Results, Kauhava, Aeromodeller Annual 1965-66  
Free Flight Championships, Kauhava, Model Aircraft September 1965 (*photograph*)  
Aeromodeller May 1967 (*cover photograph*)  
1967 Team trials, Aeromodeller July 1967 (*photograph*)  
World Championships, Sazena, Aeromodeller November 1967 (*photograph*)

Championship Technicalities, Aeromodeller March 1968 (*dimensioned sketch*)  
Night Train Mk VII, Model Airplane News August 1968 (*Definitive article and plan by George French*)  
½ A Train, Aeromodeller January 1969 (*full plan*)  
Night Train Mk VII (MAN 82A) plan, Aeromodeller November 1969 (*advertised plan*)

NFFS Symposium Report 1971, Night Train Mk VII chosen as FAI Power Model of the Year

## Competitions: National Places and International Results

1<sup>st</sup> De Havilland Cup, Langley Airfield 1954 (*Eliminator*)  
7<sup>th</sup> Team Trials 1956, RAF Spitalgate (*Oliver Tiger modified*)  
1<sup>st</sup> Sir John Shelley Trophy, Nationals May 1959, RAF Scampton (*Ramrod 440*)  
2<sup>nd</sup> Sir John Shelley Trophy, Nationals June 1960, RAF Scampton (*Ramrod 600*)

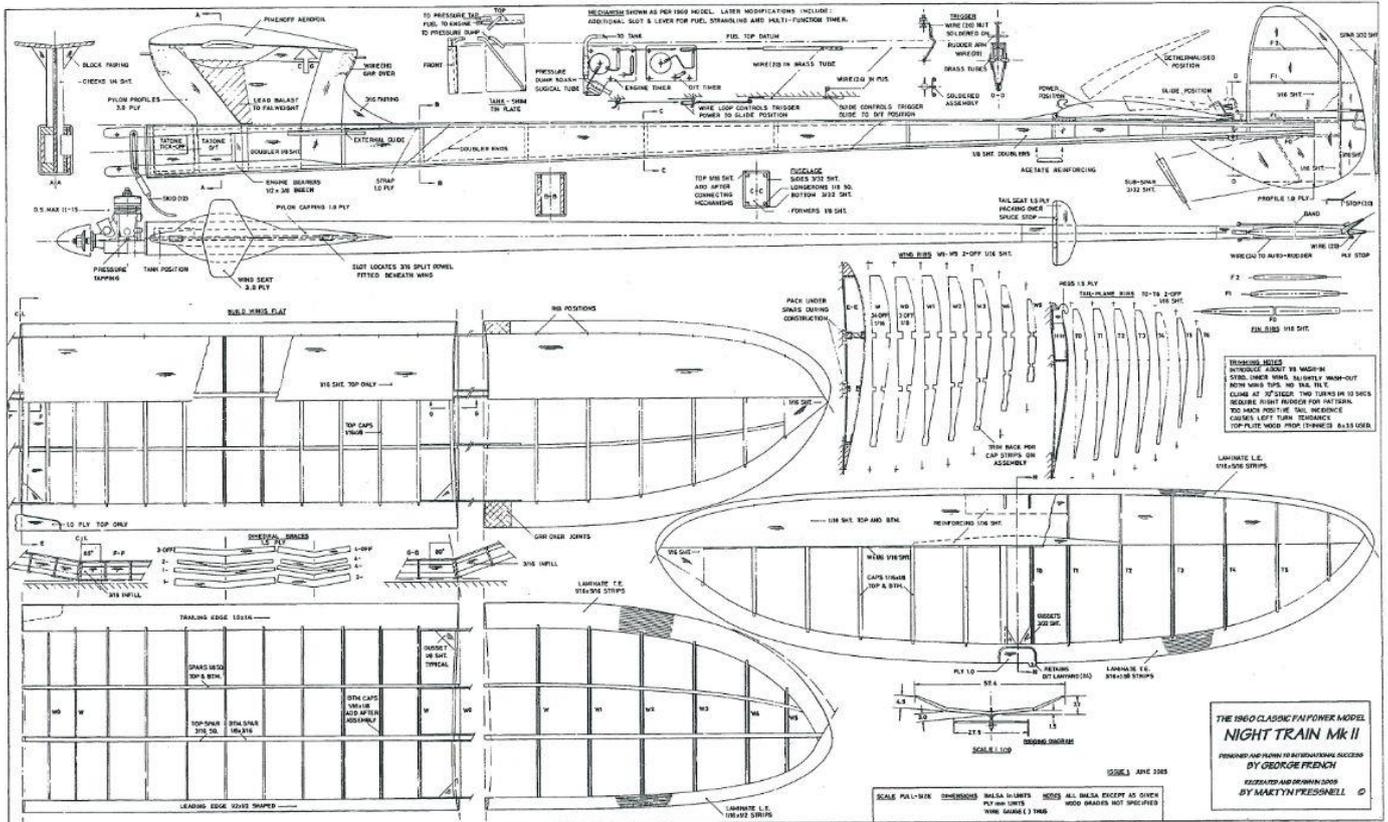
1<sup>st</sup> Queen Elizabeth Cup, Northern Heights Gala, June 1960 RAF Halton (*Night Train Mk I, Oliver Tiger*)  
 1<sup>st</sup> 2<sup>nd</sup> Team Trials, RAF Barkston Heath, July 1961 (*Night Train MkII, OS Special 15*)  
 9<sup>th</sup> **World Championships September 1961, Leutkirch, W. Germany (Night Train MkII, OS Special 15)**  
 1<sup>st</sup> Northern Area FAI, RAF Rufforth, October 1961

7<sup>th</sup> Sir John Shelly Trophy, Nationals June 1962, RAF Barkston Heath (*Ramrod 750*)  
 3<sup>rd</sup> ½ A Power, Northern Heights Gala, July 1962  
 3<sup>rd</sup> Open Power Hornchurch Rally, Chobham Common 1962  
 2<sup>nd</sup> S. Midland Rally, Cranfield, Septemeber 1962  
 1<sup>st</sup> Hayes Rally, Chobham Common, October 1962  
 3<sup>rd</sup> Northern Area FAI, Elvington, October 1962

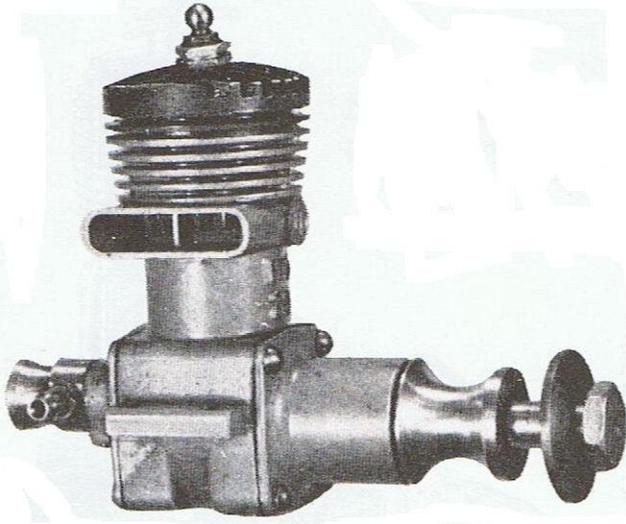
1<sup>st</sup> Astral Trophy, April 1963, Area de-centralised  
 3<sup>rd</sup> 2<sup>nd</sup> Team Trials, RAF Barkston Heath, July 1963 (*Night Train MkIII*)  
 6<sup>th</sup> **World Championships August 1963, Wienna-Neustadt, Austria (Night Train MkII, Cox 15 Special)**  
 1<sup>st</sup> ½ A South Coast Gala, Chobham Common 1963  
 1<sup>st</sup> Open Power Hornchurch Rally, Chobham Common 1963  
 1<sup>st</sup> St Albans Rally, Chobham Common 1963  
 1<sup>st</sup> Frog Senior Cup, September 1963, Area de-centralised (*Ramrod 750*)  
 1<sup>st</sup> Northern Area FAI, RAF Elvington, October 1963  
 1<sup>st</sup> 1/2A Surbiton Gala, Chobham Common October 1963

1<sup>st</sup> N.W. Area Easter Meeting, RAF Tern Hill 1964  
 2<sup>nd</sup> Thurston Cup (Open Glider) Nationals May 1964, RAF Barkston Heath  
 1<sup>st</sup> East Anglian Area Gala, RAF Molesworth June 1964 (*Open Train*)  
 3<sup>rd</sup> Open International, Wels, Austria 1964  
 1<sup>st</sup> 1/2A South Midland Rally, Cranfield, September 1964  
 5<sup>th</sup> 2<sup>nd</sup> Team Trials September 1964, RAF Hemswell (*Night Train MkIV, Super Tigre G15*)  
 6<sup>th</sup> **World Championships July 1965, Kauhava, Finland (Night Train MkIV and MkVI, S.T.G15)**  
 1<sup>st</sup> Northern Area FAI Gala, October 1965, RAF Topcliffe

8<sup>th</sup> Sir John Shelley Trophy, Nationals May 1966, RAF Hullavington  
 5<sup>th</sup> Open International April 1967, Alpine Cup, Zell-am-See, Austria  
 3<sup>rd</sup> 2<sup>nd</sup> Team Trials, RAF Odiham, May 1967 (*Night Train MkIV and MkVI, S.T.G15*)  
 2<sup>nd</sup> **World Championships November 1967, Sazena, Czechoslovakia (Night Train MkVII, Super Tigre G15)**  
 8<sup>th</sup> Team Trials October 1968, RAF Barkston Heath (*pipd ST G15*)  
 2<sup>nd</sup> U.S National Championships July 1969, Philadelphia, (*Night Train of Lee Cleveland*)



## ETA 29 from Aeromodeller September 1949



Since the introduction of glowplug ignition, and spurred by the efficiency of American engines. British manufacturers have during the past twelve months concentrated more and more on this type. As is only natural, American designs have been closely copied, although it would be wrong to assume that this is a sign that British designers lack of originality, it is an axiom of engineering practice that advantage be taken of the experience of others; in fact, very little progress would be made in any branch of mechanics if every designer started from scratch and gathered his knowledge by painful experiment. For this reason we now have several British engines which not only resemble each other but

which closely follow an American prototype; although the British engines may have subtle differences in design based on the experiments of the manufacturers. Such an engine is the "Eta 29," and the result has been a really hot-stuff engine, with a performance which would not have been thought possible a few years ago. From the viewpoint of performance, and the remarkable power-weight ratio, the Eta "29" is a very creditable British effort.

As in most other spheres of human activity however, increased speed and efficiency bring their own problems; in the case of small engines these are usually structural, and some little time is necessary before the design settles down. With the particular "Eta" engine tested, the component which does not seem to have kept pace with the performance is the connecting-rod, as it was found necessary to replace this twice during the tests. The connecting-rod is a diecasting in a duralumin alloy, and at the higher speeds this became badly bent, and delayed the tests considerably. Apart from this, the engine performed well, and no other troubles became evident. Starting was good, and the engine ran evenly and consistently over a wide range of speeds.

Induction is by rotary disc valve situated on the rear coverplate of the crankcase, and this places the controls at the rear of the engine so that the fingers are well away from the airscrew.

Apart from the running characteristics, the "Eta" is of pleasing appearance, due mainly to the use of diecastings, and characteristic matt finish. Following modern trends, the bore is larger than the stroke, and this results in an engine with an overall height, excluding the plug, of only 3 inches. It is probably this short stroke which accounts for the connecting-rod failures as short stroke engines are particularly liable to "thump." due to the sudden and frequent reversal of strains as the components reciprocate, it must be admitted, however, that no signs of this "thump" are evident in the running of the "Eta," as the balance seems to have been well cared for.

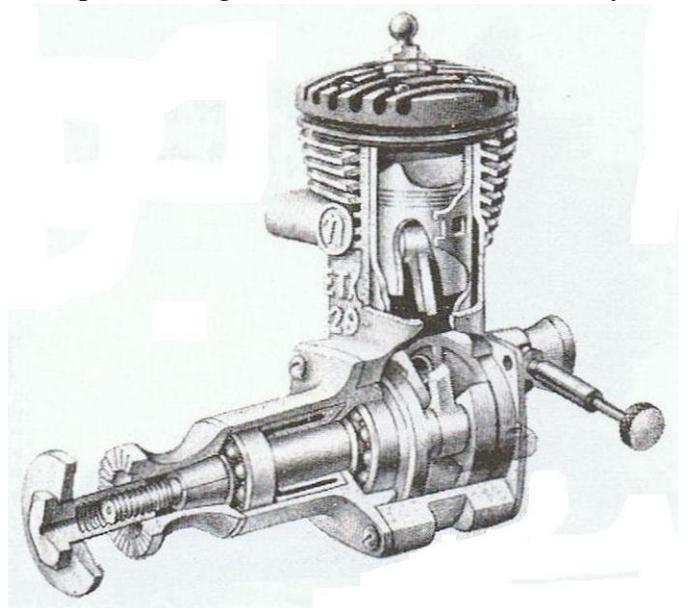
### TEST

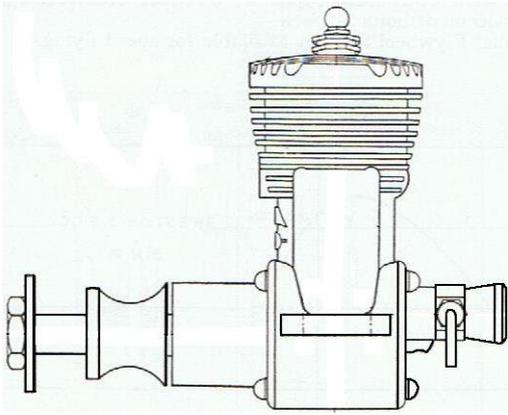
Engine: "Eta 29," 296 cubic inches (approx. 5 cc).

Fuel : Maker's recommended.

Starting : Pulley and cord starting was used for convenience during the tests, but the engine was frequently started by hand, experimentally, to determine the response under various conditions of heat and load. No trouble was experienced at any time, and the engine is extremely free from fussiness of throttle control.

Running : The engine ran smoothly and well at all speeds except those at the very low range. In spite of the unusual bore to stroke ratio no hardness was evident, due to good internal balance. No cut-out is fitted.





B.H.P. : Although the manufacturers figures could not be approached, the performance obtained as truly exceptional for an engine of this capacity, as no less than .370 h.h.p. was obtained at 11,600 r.p.m. The curve is exceptionally flat, as between 8.600 r.p.m. and 12,750 r.p.m. the drop in b.hp. from maximum is only .07. Between 10,000 r.p.m. and about 12.300 r.p.m. the drop is only about two-hundredths of a horse power, so that it may be said for all practical purposes that the maximum efficiency may be obtained at any speed between these two. This is a particularly good characteristic for actual flight conditions.  
Checked Weight : 7.25 ozs.

Power/Weight Ratio : .815 bhp / lb.

Remarks : This engine is noteworthy by reason of the extremely high power weight ratio. (The power weight ratio obtained from the manufacturer's figures is 1.35 b.h.p. lb, !) This ratio has not been obtained by an undue skimping of materials: the crankshaft, for instance, running on rather heavy ballraces. The connecting rod, however. Certainly does need attention, and suitable materials should be more fully explored.

#### GENERAL CONSTRUCTIONAL DATA

Name: "Eta 29." G.P. Unit Model" A."

Manufacturers : Eta Instruments, Ltd. (Miniature Engine Division),

Bypass, \Watford, Herts.

Retail Price : £5. 19s. 6d.

Delivery: Ex Stock.

Spares: Complete service.

Type : Glowplug ignition high performance racing engine.

Specified Fuel : 70% Methyl Alcohol, 30% Castrol R. Capacity: 4.85 cubic centimetres, .296 cubic inches.

Weight: 6.5 ozs.

Compression Ratio: 9 /1 approx.

Mounting: Beam, upright or inverted.

Recommended Airscrews : Free flight 10 x 5 in., stunt 9 x 6 in.. speed 8x9 in.

Recommended Flyw heel: Two types supplied by manufacturers.

Tank: None supplied. Install for Suction feed—not gravity.

Bore: .750m.

Stroke: .672 in.

Cylinder: One piece with crankcase Pressure diecasting with integral fins and exhaust duct. Large volume transfer duct. Two port design.

Cylinder Liner: Meehanite, shrunk in; ground externally and internally, bored and honed. 9 rectangular ports.

Cylinder Head: Pressure die casting, multi-finned. Special combustion chamber design for high speed efficiency. Treated black. Lapped joint face, 6 studs.

Front Housing : Pressure diecasting. lightweight design, fully enclosed ballraces. Retained by 4 studs.

Crankcase: See cylinder.

Piston : Pressure die casting. ultra lightweight deflector pattern. Twin lapped extra low pressure rings.

Connecting Rod : Light alloy bronze hushes both ends.

Rear Cover : Pressure diecasting. Friction free design for rotary valve seal, retained by 4 studs.

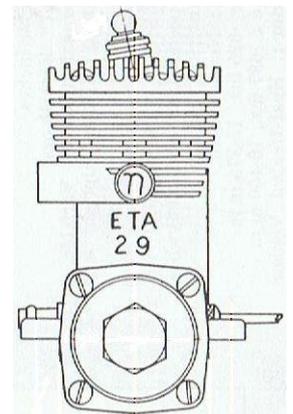
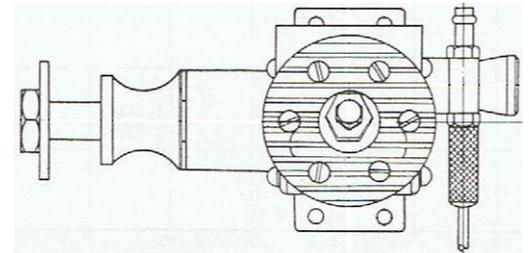
Crankshaft: Heat-treated nickel chrome alloy steel, ground on all working diameters.

Main Bearing: One 1/4 in. and one 3/8 in. selected grade high speed ballraces fully enclosed.

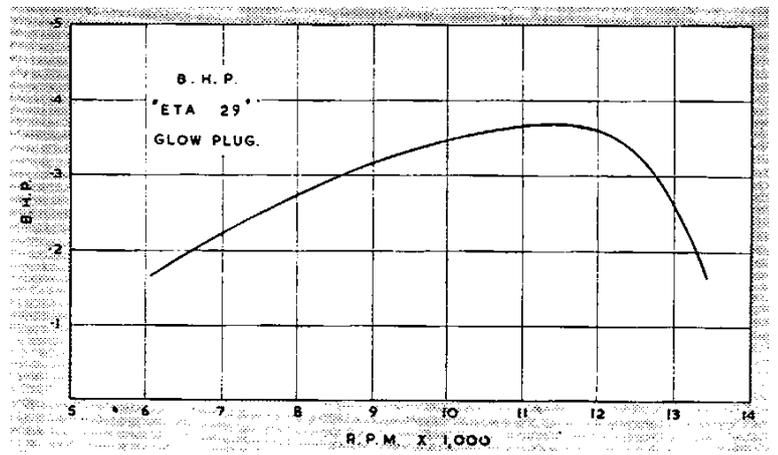
Gudgeon Pin: Tubular high strength alloy. Ground and fitted end pads.

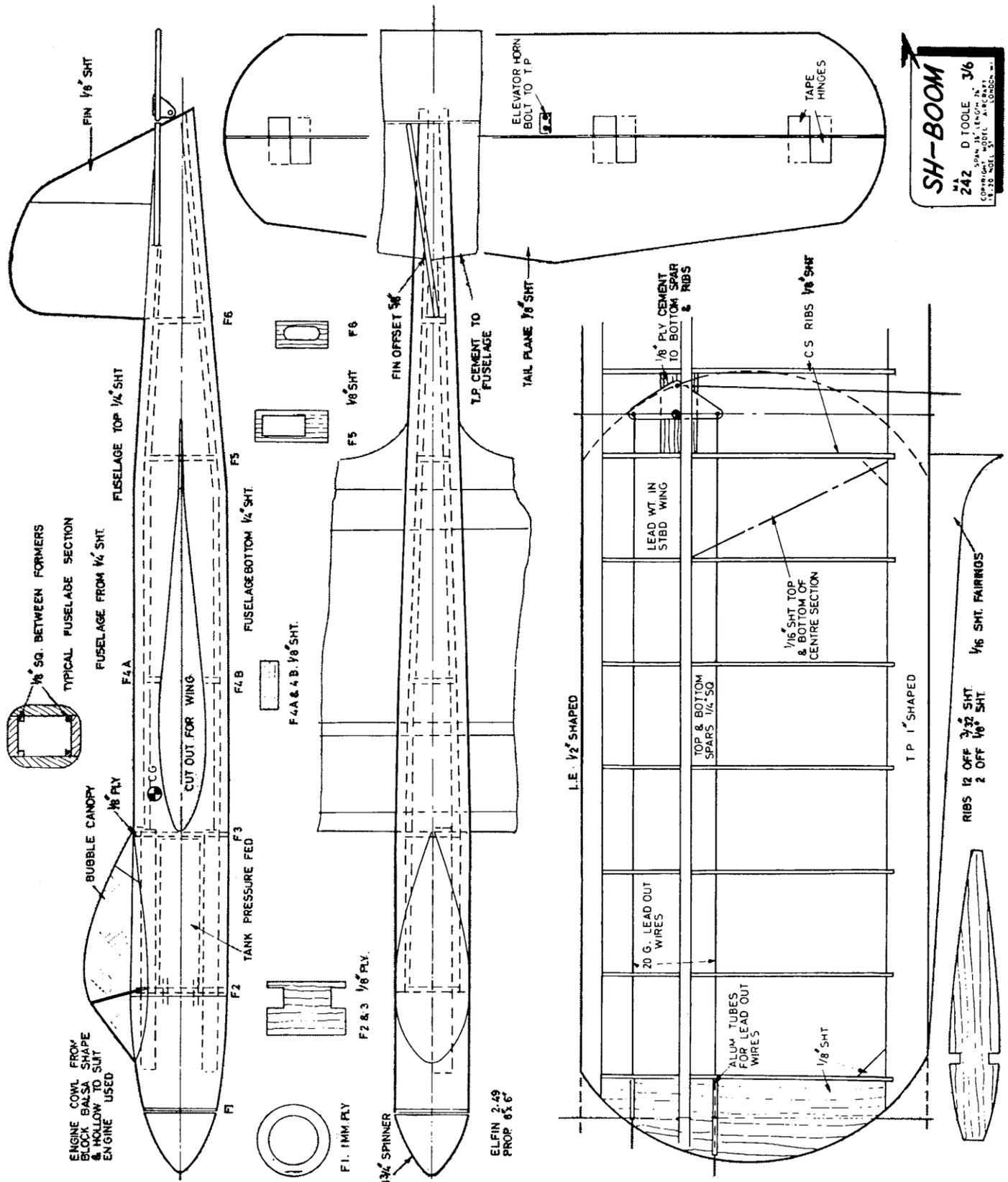
Valve : Disc type. Lightweight pressure casting, bronze bushed. Large bore venturi and discharge port.

Ignition: Glowplug. Plug : K.L.G. ' Miniglow,' . 1 /32 in.



Special Features : Extreme compactness for reduced frontal area. All light alloy parts of specially selected Hiduminium alloys. All locating and seal faces fully machined. Non-slip collet drive hub nut and washer anti-rust coated. Hub nut tapped 6 B.A. for spinner fittings. ETA matt standard finish, with bright dural and brass fittings.





Sh-Boom by D Toole from Model Aircraft July 1956. A high performance easy to build stunt model designed for motors 2.5 – 3.5cc



The modern stunt model is far removed from the early “Box Car” designs, and with Sh-Boom the designer has presented an easy to build, good looking stunt model, that lives up to the traditions for performance established by the West Essex Club, of which D. Toole is a member.

#### Fuselage

Shape the sides from 1/4 in. sheet and cut out the section for the wing; then cut out the formers. Take the engine bearers and cement them to F2 and F3 which are of 1/8in. ply. When dry, cement to one fuselage side, install fuel tank, and slide the wing into position. Next cement F2 and F3 onto the other

fuselage side and after cutting out the tank vent holes add F4A, F4B, F5 and F6. Now cement the wing into position. Add

upper and lower 1/4 in. sheet to the fuselage and leave to dry, then carve and sand to the correct section.

The cowling is constructed from scrap sheet and block, carved away to suit the engine used and faired into a 1 3/4- in. spinner (after engine is installed).

#### Wing

Start by cutting out 12 ribs from 3/32 in. sheet and two from 1/8- in. sheet. Next pin to the plan the ready shaped L.E. and T.E., also the lower 1/4- in. X 1/4 in. spar. Add ribs and top spar, also 1/8in. sheet tips. Next install the bellcrank complete with lead-outs and push rod and cover the centre section with 1/16- in. balsa.

#### Tailplane and Fin

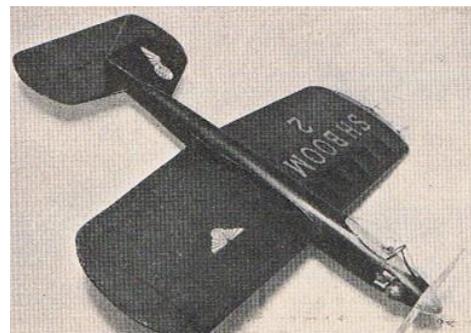
These are constructed from fairly hard 1/8 in. sheet. Sand to section and add elevator hinges and horn to tailplane, then connect the horn to pushrod and cement tailplane to fuselage. Cement fin to top of fuselage and add the 1/16in. wing trailing edge fairings.

#### Finishing and Covering

Sand the whole model with fine sandpaper. Cover the fuselage and fin with lightweight Modelspan, giving them one or two coats of clear dope. Then sand lightly and add one or two coats of colour dope. When dry, cement the cockpit cover in place. The wings are covered with heavyweight Modelspan and given two or three coats of glider dope. Finally colour as required.

Although no U/C is shown on the plan, one can be fitted for competition either by fixing to the engine bearers or by installing an U/C box between F3 and the L.E. of the wing, raking the wheels forward to about 3in. in front of the C.G. Flying

Lines between 40 and 60 ft. can be used according to the engine; the best props being either 8 in. X 6 in. for 2.5 c.c. or 9 in. x 6 in. for 3.5 c.c. The model is very smooth to fly due to the long nose.



## From Derek Collin

Dear James, some waffle that may be of interest for S& T. re Hallam engines:

#### Comments on Hallam engines.

It was suggested in a previous S&T that Hallam engines are not worth bothering with. ( sorry, but I have lost the reference ). I must admit that I shared this view for many years based on their rather agricultural appearance and the strange vertical split line of the crankcase on some models. Also there were many casting kits sold which can result in some pretty strange creations produced by struggling model engineers.

I was recently given a factory made pre-war 5.8cc Hallam Nipper ( page 90 in Clanford, but marked as 1942 ) It had good compression and after making a few bits for it I found it started easily and ran quite

well. I was surprised to find it had design features that were really quite advanced compared with other engines of that era, the bore and stroke are nearly square, the cylinder and crankcase compression ratios are high, the port dimensions and timing periods are quite generous. The castings were very good with a consistently thin wall thickness and a good finish. The adverse design features, which were corrected in later models, were the two bolt head attachment, the lazy opening contact breaker and a close fitting hardened steel piston running in a hardened steel cylinder liner. As pistons, even in model engines, run hotter than the liners it is inevitable that this arrangement will tend to tighten up and lose power as the engine runs. The solution is to loosen clearances or fit a cast iron piston.

Tom Crompton provided me with a lot of useful information on Hallam engines. It seems that J Hallam and sons, Hamworthy, Poole, Dorset were a well established engineering firm that made inboard engines for Admiralty launches. They must have had good design and manufacturing ability to do this. *Newnes practical mechanics* Sept 1938 show some elegant models made by J T Hallam fitted with 2.5 and 1.0cc engines. I guess he was one of the sons; anyone in the Poole area know more about the firm and its owners?

My Nipper was fitted into a Kanga Kub and flew earlier this year. On a windless day a bit more power was needed to compensate for my vintage legs. I did not want to extensively rework an original and rather fragile vintage motor so I made a replica of a later version of the Nipper and fitted that to the Kub. This flew on that wonderful windless day at Middle Wallop on 1st June. The attached photographs by John Hoyle show it in action. As a sympathetic bystander observed; “ if you fit the ugliest engine into the ugliest airframe, by the reverse Sod’s law, it is bound to fly well “ Derek Collin



## From Bill Wells

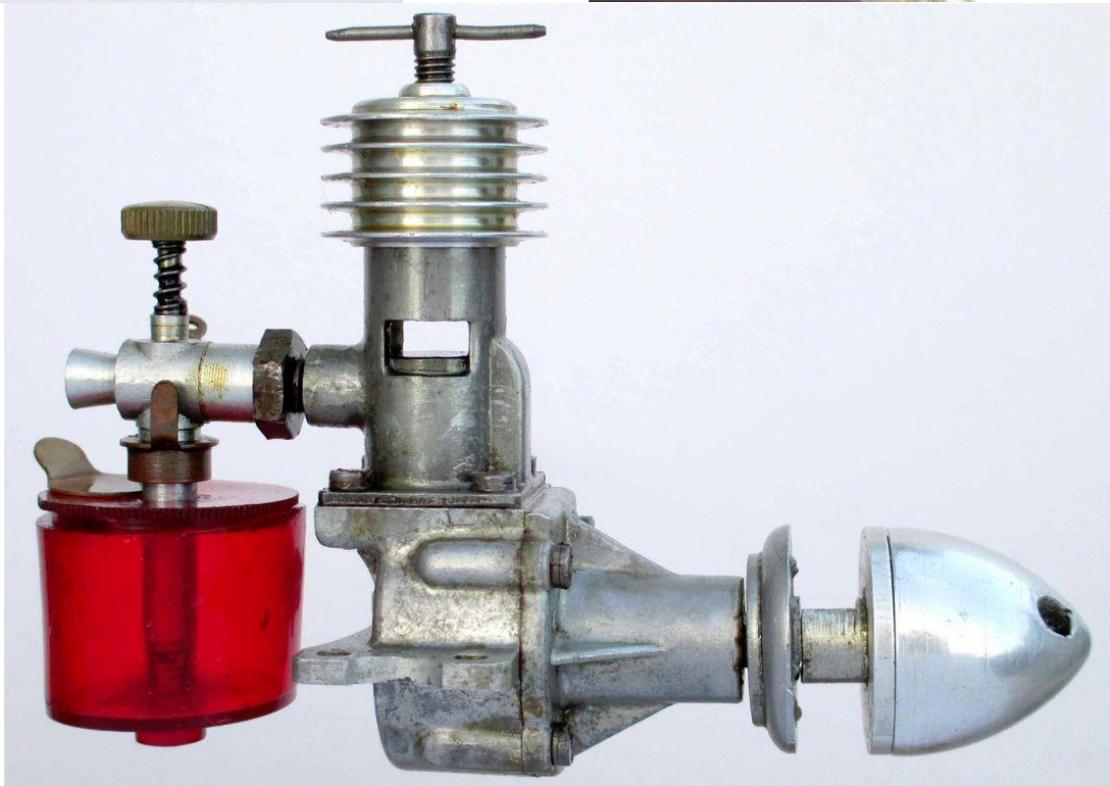
When I turned up at the local club with my ancient 3 channel revamped Dazzler 54 there was some concern that because it was not the easiest of models to fly it would be to my advantage to buy a modern trainer to learn on! So I looked around and after a while settled on the old style of Thunder Tiger Trainer. The wooden back one as opposed to the plastic version. I modified the nose wheel by deleting the steering and added much bigger wheels so as to cope on the rough field. Although I had acquired a few engines none them were suitable to power this model, so I forked out for a brand new Leo 37. If you use a fuel with about 10% nitro

for its weight this engine chucks out the power. However I had just lashed out on a transmitter, a buddy box and a new model so was feeling a bit de-bullionised. I had plenty of methanol so I made my own straight fuel. The Leo started OK on this fuel but it just would not pick up. Put some nitro in the fuel and the Leo came to life but it took a while for the penny to drop. Like a lot of people starting out on RC flying everything was fine while the model was going away from me but 'Oh dear' coming towards me or at an angle towards me it wasn't easy. The buddy box saved the model many times. I was getting the hang of it one day so my Instructor was relaxing while I showed him my wobbly landings. Unfortunately I brought the model in a bit fast, hit the ground which stopped the engine, then ballooned the model, lost directional control and while turning left it hit a steel goal post with the right wing. There wasn't a lot left of the right wing but the rest of the model was untouched. I was advised that the quickest way to get the model up and running was to order a foam wing from the local model shop. So I ordered a wing and as nothing had happened after week I made another right wing and grafted it onto the left wing. I was soon flying the model on my own and sneaked down to the model (council) field between club days and did nothing except circuits till I felt comfortable with flying the model. OK, I would lie if I said this all went like clockwork because I did try and reconfigure the surface of the field a few times. During a rebuild of the front end I found out how mean the manufacturer (that little oriental lady) had been with her tube of glue on one side of the engine firewall! Amazingly the wing didn't come to any further harm during my attempts to destroy the model and I was getting better at repairing the fuselage which was much stronger than when originally made!! A couple of months went by, when the model shop phoned to say that my new wing bits were ready to pick up!!! I was hoping they had forgotten but there you go I had a foam wing to put together. I held the finished wing in store for when I smashed the trainer wing! Despite many attempts to destroy the Thunder Tiger Trainer, a year or so later it was still intact and I still had a spare wing for it. Being a scrooge I reckoned if I knocked up a fuselage I would have another model. But thinking about it, did I really want another Trainer? So what could I make for that spare wing that was not a trainer? At some time I had changed the Leo in the trainer for an Irvine 40 and had then acquired a few more 40 R/C size engines. How about a model that could be used as a flying test bed to try out different engines? The fuselage had to be made in such a way that engine changes were easy and getting inside it to move bits around was a must! Lastly with the different engines there would most probably be the inevitable forced landings. So some thought would have to be given to the type of undercarriage!

#### Thunder Tiger Trainer Specifications

Wing Span 60 inches Chord 113/16 inches Length 49<sup>3</sup>/<sub>4</sub> inches weight 5 lbs 15<sup>1</sup>/<sub>2</sub> ozs Power Irvine 40 Red Head previous engine Leo 37

I like to see other peoples models, the photos in S & T are great. I can also appreciate the widespread use of diesel and even petrol engines to add authenticity to older designs. A fifty year old engine for a model of that vintage! I was flying my SunDuster the other day when I returned to the pits I found a Cox Babe Bee complete with three bladed prop on my kneeling pad. 'Thought you might like it', said Brian, 'it's no use to me!' Thanks Brian. It was a fairly early 'Product' version with a white plastic back plate and alloy needle valve. 'Product' means these engines were sold attached to a variety of plastic ready to fly control line models. There were many adaptations to suit the individual models but basically most of these engines only had one transfer port, there is a number '2' stamped on the edge of an exhaust port and they have sub piston induction. Now the interesting bit is these 'Product' engines were made for various models from 1961 to 1978. Which if I have got my maths right that is up to 53 years ago. So why not use them in models of that vintage? The engine I was given was easy to clean and runs very well. As with all these reed valve engines it pays to check and clean the reed valve but take great care as the beryllium copper reeds are very delicate and must not be creased. If the engine has not been run for sometime the reed will be stuck to the valve seat with decomposed fuel. I used cellulose thinners to clean the reed. If the reed is corroded, pitted or creased replace it with new one, modern spares are still obtainable (see Den's models). Not in this case but please be careful if you find a seized Babe Bee. If the piston is locked up with decomposed fuel and you try and to pull it down the cylinder by turning the crankshaft you will pull the ball joint out of the piston and that is very bad news! Lastly you may ask about the funny set of dots on the side of the cylinder? This particular engine had a wire mesh tacked welded around the cylinder which probably prevented damage over the years. However the area under the mesh has suffered light rust damage.





## From Jörgen Daun

James sending you some pic,s of my Falcon Galahad.



## The Fate of Four Flippers. By Stephen Winkworth

I was delighted to see, in a recent S&T, that George Stringwell has made an original-size 'Flipper' biplane for electric power. In keeping with his usual standards of construction and artistically apt finish, it looks a real beauty. When Vic Smeed's tiny 'Flipper' was published as a full-sized plan insert in 'Radio Control Models and Electronics' magazine, in March 1965, I was living in Barnes, west London, working for the publishers Chapman & Hall. Flying was for weekends only. I happened to have a Cox Pee Wee, and had recently purchased one of the new all-transistorized miniature radios, the 'Otarion', so a few days of feverish evening work resulted in my very own version making its maiden flights in the fields at the back of my grandmother's house in Walton-on-the-Hill. Rather to my surprise, the little screaming beastie took to the air and actually responded to radio signals. With a rubber-powered sequential escapement control could never be called smooth or accurate, but you could impose limits on the flight pattern (provided you kept keying away and observing the response so you never forgot whether 'right' or 'left' was coming up next). With ordinary luck the creature would land somewhere in the field, not too far away.

All very satisfactory, and I was getting quite fond of the little thing, so one calm foggy day I took it to a patch of heathland I was exploring in the constant quest for new flying sites. Visibility was pretty poor, but I reasoned that I should still be able to keep it in view for the duration of one small tankfull of fuel – besides, the high-pitched whine of the engine should make it easy to locate. So I started the motor, launched, and up she climbed into the fog, quite audible, but almost immediately disappearing from sight. I think I heard the engine cut – but that was it. I never saw it again. So if any of our readers found a 'Flipper' biplane somewhere on Borough Heath in the year 1965 – it's mine, and I'd like it back please!

The following year my job at Chapman & Hall came to an end when the firm was put into mothballs following a takeover. My wife was a native of Rome, and I got a job there working for the FAO. One of the perks was that one could import duty-free items from the USA. I had been reading about the new all-transistorized 'proportional' radio equipment first produced in the mid 1960's by Bonner and Micro-Avionics. This would have been far beyond my purse back in England, but was now suddenly within my reach. I opted for the Micro-Avionics, which was more modern and slightly less bulky. When I say less bulky it was still huge by comparison with today's electronics. I still retain the green-anodized aluminium case of the Micro-Avionics receiver, which measures 2.8x6.3x5.4 cm. The servos were similarly massive.

Nostalgic for the original 'Flipper' I thought it would be amusing to see how small a version could be made to carry the Micro-Avionics equipment. Somehow I managed it at one and a half times original size, and I built Flipper Mark2 for a Heron 1cc diesel. Painted black and nicknamed 'Blatta' (beetle), I think it achieved flight, but as I didn't keep logbooks back then I can't be sure.

Many years went by. One day late in 2004, finding some old copies of RCM&E in the workroom, the whole 'Flipper' saga came back, and I found myself building a new one, from plans photographically enlarged to 1.6x – again for the same Heron diesel, but for 2004 equipment. I had been experimenting with folding flying surfaces for a number of small models, and I decided to make the tailplane fold upwards, to fit the model in a small purpose-built box.



On a grey, raw and chilly day in February 2005 'Flipper 1.6' made its maiden flight. Despite a marked left turn all went well, though on the second flight the home-made throttle failed to slow the motor enough for a landing, necessitating a lot of stooing around at low level before it finally cut. I noted that at full speed the climb was fast but noisy on a 7x3 prop, the glide good.

During subsequent outings I tried fitting those lovely miniature silencers made specially by Marown Engineering for the Heron and Snipe diesels. These worked well, but oil build-up around the inverted engine became a real nuisance, and the power was barely adequate for some of the higher altitude sites (mainly over 1100m) I was now flying at. So I found I was flying the model less and less, despite its extreme convenience of assembly and operation. I did however stow it in the back of the car on a visit to the UK later that year, and one of its last flights before retirement was at Epsom Downs late in June 2005. (The engine is now the tractor motor in my Fisher Ionosphere 21.)



Here is the log entry for that memorable day on the Downs:

*'V.hot day, light-mod S wind. 2 gd flts of Flip, happier at this altitude. Lunch at Derby Arms with Clive C and John D. Met Brian (?) who recognized me from the old days. Group of free-flight modellers with Vic Smeed models and David Banks engines – half-size ED Bees and Millses. Good nostalgic outing. On to Worthing to buy diesel fuel at SMC.'*

On to more recent times. I could not bear to see that neat purpose built box sitting there,



with the fuel-soaked fuselage of Flip 1.6 and a pair of perfectly good wings inside it, so I thought 'why not make a new, slimmer, lighter fuselage for micro-servos and electric power'. The results may be



seen in the photos. By the way, that left turn under power – right on the glide – is still there, and a good deal of right sidethrust seems to make little difference. Could it be something to do with the propwash on the fin?



### **D.M.F.G. Vintage day Sunday 22 June 2014**

Glorious weather the strip cut, BBQ on, Bedouin tent up and cars turning up full of modellers and their models, what more could you want. A low key day but word seems to have got around as there were 40 people during the day of which 31 were flying over the course of the day. Whilst it was vintage there were a few scale models and providing you don't have the aerobatic type scale but those which are flown like a vintage type then the two mix very well. We'll probably do more of that. The only competitions were Bill Longley running his VPD and Tony Tomlin the National Tomboy. It was really nice to see so many faces especially a some had driven in excess of 100 miles to be there. We utilised two fields to fly in one with the RC and other for CL. Best flight of the day was Spike Spencer flying a Spook with engine off at 450 ft he thermalled up to 2,000+ and stayed thus aloft for 1 ¼ hours! I took some photos early on before things really got started and due to the perfect conditions, BBQ and pear cider didn't get around to taking more so here's what I took.

I of course was only able to fly electric as the Friday before we had bit of a gourmet BBQ etc etc etc and I managed to stick me pingies in the prop being swung by an OS15! Idiot!



*The Caulkheads and CL models and one FF model perched on top*





*The Bedouin camp where shade and refreshment was found all through the day*



*Two Dynam electric scale models*





*Tony Tomlin's models*



*John Mellor's Fly Baby*



*John Laird starting up his Courtesan*



*John Mellor's RC version of the CL Skystreak and Astro Hog*



*Phil Beard's Playboy*



*About time the hay was cut!*



*Tony Tomlin's Wee Snifter*



*Four on the strip*



*Kamco Kavalier*



*Trying out the newly acquired mower seems comfortable and can cut at a fair old pace!*

On a separate note on my way home via St Marys Airport I saw these hanging up, I suppose they give passengers that extra bit of confidence!



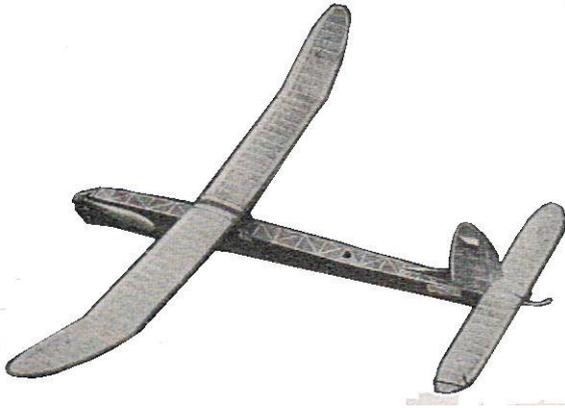
*Spook at an airport*



*My lift from Scilly Isles to Exeter, bloomin brilliant ride as well!*



**XL-56b by R Cizek from Aero Modeller April 1958. A new rule Wakefield with an outstanding pedigree and remarkably simple construction.**



The well-worn saying that “when an aeroplane looks right, it will perform right” is very true, and when we referred to Radoslav Cizek’s Wakefield in our report of the 1956 Contest at Hoganas, Sweden, saying that his XL56b was one of the best proportioned machines at the contest, we were by no means mistaken. The design dates back to early 1954 when Cizek was selected to be the sole Wakefield representative in that most exacting of all model contests, the “People’s Democracies International”, then held in Moscow.

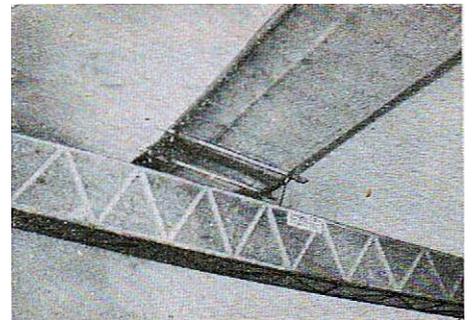
At that time the wing was mounted directly onto the fuselage and a slightly modified version was flown by Radoslav in the 1955 World Champion ships at Finthen in Germany. A

sheeted fuselage variation was taken to represent Czechoslovakia in the 1956 “People’s Democracies” contest in Budapest, placing first with a perfect 900 seconds score. Modifications were applied to strengthen the wing, experiments were made with turbulators and at the 1956 World Championships, using the 80 gramme motor to the rear peg, it placed 16th with a total of 760 secs. This was the last of the 80- gramme

Wakefield events, and immediately after its conclusion, speculating on a change of rules, Cizek began flying with 50 grammes of rubber finding very little change in trim apart from the necessity to move the wing forward. At the moment, his 1958 version with the fuselage covered in 1/16 sheet and wing mounted on to a built-up sheet pylon (details of which are incorporated in the A.P.S. drawing) stands a good chance of being in the 1958 Championships representing Czechoslovakia at Cranfield in August.

#### 50-Gramme Experience

Although the drawing gives earlier undercarriage details, it will be realised that this is not necessary for either International or home contests. With more than eighteen months of experience of flying with the 50-gramme motor, Radoslav’s design provides the opportunity for those without any Wakefield experience to get started straight away on the right lines with a model capable of breaking the 3-minute maximum figure.



Construction is easy and does not employ thin fiddly material as have so many other high performance designs in the past. Use of close rib spacing provides a warp-free structure within anyone’s capabilities and with dual purpose arrangements of wing and motor peg positions it can still be used

for both open and the 50-gramme Wakefield events, a rare combination which goes to prove the point in our opening sentence.

## From Dave Bishop

Once again I have been going through my many hundreds of pictures taken over the years at shows I have mostly presented and here are a few more with the first being of the annual South East Area BMFA meeting at the huge K2 indoor at Crawley free flight event. There are just a few radio models. (Mind you they do not encourage the flying of radio control models there.)

Also as the nights are now drawing in, I thought I would present a few others taken at some of the August Bank holiday National R/C championships held at Grantham, plus a few taken at the one of the Jane Stephenson's shows, Wings & Wheels at North Weald aerodrome. Also we picture can travel back some 40 plus years ago when the Sevenoaks club won the single Channel R/C Spot Landing Ripmax trophy at Detling airfield, in competition with six other South Eastern clubs. Then there is a picture of the team of some 46 DB Sounders at one of the Family Model & Craft shows at Plumpton Racecourse. All that plus the group that took part in the Saturday evening's Electric Glide duration event in 1996. Finally there is a memory from way back with not one but two pulse jets from Holland stopping the Weston Park Show this year at Telford. One of the pilots was just 13 years old.

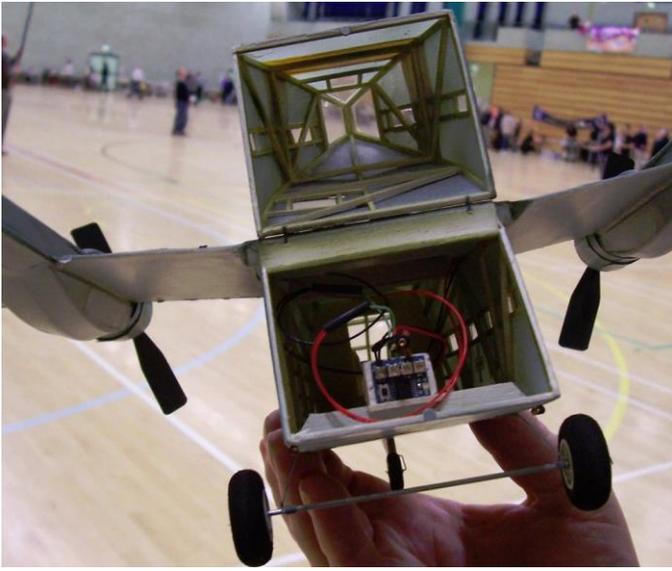
Just a reminder that this year is proving to be an extra busy one for shows with your scribe being kindly invited to be the presenter. One place in particular and a "the place to go" is Old Warden at Biggleswade on July 19 - 20 where the theme is the 100th anniversary of the World War One. All sorts of models will be welcome but the more World War One models present, the better. There will be a special Shuttelworth trophy awarded to any model that is a copy of any full size aeroplane in the Collection. There will be a special launch, at one particular time, to get as many WW1 aeroplanes in the air at the same time. All one needs to participate is a BMFA B certificate and a guaranteed friendly atmosphere will be yours. There is a super restaurant that does a cracking "full English" breakfast, a superb library and shop, and there is full camping available. There will be a long line of traders as well so come along and meet the best in the business. It is run by ADH publications and once there you will be greeted by Ken and Sheila Sheppard of R/C Model flyer magazine and Mike and Joan Reynolds. See you there.

Note. I have just come back home after presenting what must be the 20th biggest airshow in the country (if not in Europe?) at Weston Park run by Steve Bishop and Peter Whitehead. Visitors come to fly there from all over the world with many from Germany, America and also Holland. One of the German flyers was hoping to see Leon Cole of Belair and I told him that he would possibly be at Old Warden in July 19 - 20. It would be nice to see if he (the German) can make it.

Pictures as follows;



*K2 at Crawley, German Arado 232.*



*K2 at Crawley - Electric Arado 232 showing the rear "innards".*



*K2 at Crawley and a stunning beautifully made Tiger Moth*



*K2 at Crawley - A Gotha 150 twin Sports aeroplane.*



*K2 at Crawley and a Heinkel 111 twin.*



*Barkstone Heath and British National and World champion Ian Richardson (Mr Perma Grit) with his winning Scale Sabre jet turbine.*



*British Nationals and John Kliszat, the boss of Overlander Batteries, poses with an electric powered BAC Hawk.*



*British R/C Nationals at Grantham last year in August and my favourite view of the whole show is the scale line. John Carpenter does a good job as presenter.*



*A sneaky look by yours truly inside the judging tent at the "Nats" with a peek at a superb Sopwith Tri-plane being statically judged.*



*Three years ago and a picture of a full size Yak on its belly at the Jane Stephenson show Wings & Wheels at North Weald. The aeroplane had just been flown in to land on its acceptance flight after just having a full complete service. The undercarriage collapsed on landing and the pilot wasn't best pleased.*



*Going back now almost 50 years with a single channel spot landing competition being run at Detling aerodrome. There were six clubs from the South East area SMAE and the eventual winners being Sevenoaks club. Here I am receiving the trophy on behalf of the club from the late Ron Finnis, who was then the owner of the Model Shop at Maidstone.*



*I'm proud to say that my Family Model & Craft show at Plumpton Racecourse was considered to be the best value and most enjoyable of them all which ran for 20 years. Here are some of the 43 DB Sounders relaxed after a hard day's work with Les Eagles Scale winning aeroplane in the foreground.*



*Just a part of the Saturday evening's entertainment at the Plumpton show which was looked forward to by so many competitors which was the electric duration glider people. This shot in 1996 was no exception.*



*The Dutch Pulse jets are back in the UK again and here they are just having been performing at Weston Park airshow in 2014. They can be heard from many miles away and one of the two pilots was just 13 years old.*

All the best, Dave Bishop. Email [davebishop\\_dbound@yahoo.co.uk](mailto:davebishop_dbound@yahoo.co.uk)

## David Kinsella's Column

### The ED Story - X

Better and cheaper Merlins made by Packard and Ford, Boeing paring away and improving thanks to the power of work study, in the UK of sixty years ago our smaller firms had hardly heard of it, as Gordon Cornell found when he arrived at ED. Much last to the big fire in 1962 we may never know how things were at ED but Gordon found that practices had hardly changed in ten years (wooden benches, shirtsleeves, caps). Gordon's work on the 1.46cc Fury where a move to alloy cases saved money (many magnesium cases were duds), was followed by a Bee uprate which impressed Peter Chinn in Model Aircraft. A full time-and-motion study was rejected by ED management and their advertising lacked attack, failing with the new Bee. An unusual step to build the 0.8cc Pep, in part at a works in Brentford, Gordon little consulted, resulted in Gordon having to sort it out (venturi to big, port timing wrong). A loss to ED when Gordon Cornell left to build the dinky Dynamic diesel (rear induction, TBR etc) George Fletcher arrived from. IMA at South Wimbledon.

### A Sight In SW3

Nothing like the great wen, as Cobbett called London. Recently and within a few feet of each other I saw a rough sleeper stretched out on the pavement. Had he been awake he could have touched the brooding black shape of a Bugatti Veyron cooling at the kerb (8 litre 16 cylinder of 1200 horse power firing the two-seater to 270mph). A battery of phones took snaps of the two, EB on the tail and even the famous red badge not registering with some. For sure this Bug is VW's masterpiece genius poured into the quad-turbo device that requires £1 million plus to put it on the road. Diecast Legends (0844 8878888) have a model waiting for you.



### Hermann Cared

Blue Max in place and studded baton. to hand, Hermann Goering inspects one of the several yachts enjoyed by the Luftwaffe. Yawls of 60 tons were included in the fleets those not damaged by war finding their way to the UK and elsewhere as Windfalls. Many still sail today, famous Nordwind in cracking form after a two-year restoration and regular slipping and polishing.



### Plans

Don't forget the full listing of plans in S&T 86. There's loads of them and Phil Smith's son Colin will set you on the right path (07747722724). [csmithbmth@gmail.com](mailto:csmithbmth@gmail.com) The Phil Smith story was covered a while back in S&T.

### Air Mail Special

Movie star Steve McQueen learned to fly in a Stearman. Job done and ambition fired McQueen bought the last flyable Pitcairn Mailwing, a biplane from the days of mailbag-flying over the vastness of North America. Harold Pitcairn won several mail routes - New York to Atlanta, then to Miami - and decided that Only a biplane to his design would do. With U.S.MAIL along the sides and NC10753 across the silver wings, a radial engine completes the package for an interesting Scale project. Chums seeking plans or 3-views should search for a Pitcairn. PA-8 Mailwing.

### That Badge

A direct link with the 1914-18 War and an uber brand worth millions today, Ferrari's black horse set on the yellow shield of Modena is perfect stuff for the Scale enthusiast wishing to hook up with derring-do combat above the fields of France. Here we see the great Italian ace Baracca at Padua airfield in April 1918. His SPAD XIII in shades of buff and green sports the Italian roundel in green, white and red. The serial number is



probably 2445. A year earlier the logo was aboard Baracca's silver Nieuport I7 one view being that it was originally cut from the fuselage of a downed German machine. Enzo Ferrari wearing the design on his racing Alfa Romeo, taking it with him to Maranello and the start of the Ferrari brand. Maserati has the trident and. Lancia the lance. Baracca's score was 34.

### Pictures For All

Aviation art at its best at the Mall Galleries this year will feature several scenes of Great War combat. Indeed the GAvA's poster sports a 56 Squadron SE5a closing on an Albatros of the feared Red Noses (Jasat 18). Star Roger H Middlebrook will be there, his Hawker Hunters possibly alongside a Voss DrI Triplane taking on seven or eight from 56. Great stuff just minutes from Trafalgar Square.

### Golden Oldie

Good to see the Alien VTR in S&T at the start of the year, our ED Racer and 249s from FROG and AM suggested. A real model aeroplane built old style before rare materials moved in and shapes changed, it's how things were sixty years ago (unsurfaced engine bearers, bog standard tank exposed leadouts instructions basic, no mention of weights). Turn, to Gordon Rae's big book on air racers and within we find many more. But it was a time of high activity and little restriction, parks, playgrounds, car parks and fields just waiting for the lines to be run out. North of London the expanse of Handley Page welcomed lads at weekends as did several RAF stations, Cosford a case in point. New to all this? David Finch tells you how in the latest SAM 35 yearbook. In short proper VTRs - but built correctly to win!

### Gutsy Growl

Petrolheads delight in the music from a Maserati's four pipes. Thanks must go to the guys down the road because Ferrari build the engines. All part of Fiat these days, beauties fielded by Maserati include the 2-door Ghibli (V6 3 litre engine mated to an 8-speed gearbox, turbo available). Crisp action sees 180mph on the clock. If the crimson Ferrari is the all-out charge across the drawbridge, the black Maserati is of the night, the cloaked poinard ready to strike home with sure effect. A truly magnificent machine.



### Radio Days

The above store at Waterloo (0207 928 0800) is stacked with all things of the 1950s and before: clothes mags records, sheet music radios even shoes. LPs secured head across the road to Ian Allan and the wonderful world of model railways. Lower Marsh is the place.



### Telegraph Terry

More famous for his railway scenes, Terence Cuneo was a war artist of note. A colour spread in the Telegraph featured the fading scene of the Battle of Knightsbridge in 1942 when Panzer attacks virtually wiped out the South Notts Hussars. Firing the last shot of the action, Ray Ellis was captured but in later years wrote Once a Hussar. The Cuneo book from New Cavendish features the best of Terry's huge output. his 9ft statue stands above the steps at Waterloo Station. He was the Coronation artist in 1953.

### Top Club Action

Meets at Raynes Park MAC are busy, fun and noisy! Going full blast, every chair taken, some standing, others outside on the decking Keith, Barry, Mike, Tony, Tom, Geoff, Ian and many more revell in the Vintage scene, walls hung with its hardware and a special message from Sir Stirling Moss OBE. Plans and books are examined motors too, and indoor helicopter flights come via a minute 4-motor RC job the size of a fag packet. News of Epsom Downs and Peter Michel and chums drifts in and weekend flying plans are firmed up. Yep, RPMAC is well fit and going places - as it's done since the 1960s.

### Super SAM

Month after month Ron Knight prepared his publication for our enjoyment. A mere glance confirms the hours of work he put in, so much below the surface confirming that it's an iceberg operation. Stout fellows such as Peter Michel deliver good copy (remember his many SAM Yearbooks that date from the 19890s) but Speaks is still a mountain to be climbed a dozen times a year. Good luck, Ron.

### Sucking In

London grows by the year, King's Cross soon the site of Google Europe as digging and building rattles the rails to France nearby. City action edges East as the world's forex giant. It's a fact that any lines built North will benefit Londinium more than those at the other end. HST is no exception.

### Stone Eagle

Discovered in London last September, a magnificent eagle from Roman times is on display at the Barbican. Mint but 1900 years old, did soldiers of the 9th Hispana or 16th Gallica glance its way as they marched north to St Albans when Rome was the centre of the world?

### Keel Ways

Water ballast and lead move around on the modern racing yacht. Here we see a fin and bulb weight moved across by inboard rams to counter pressure from above. One of the rudders is exposed and no space is lost to advertising. These days big stuff skids across water rather than through it.



## NOT S&T

### **From Mike Burke**

Hi James thought you might like my depron foamie free download parkjets USA cost £10 to build cost more to paint





## THE NORTH COTSWOLD MODEL AERO CLUB

BMFA MID-WEST 166

# 'FLY FOR FUN' EVENT 2014

Celebrating the club's  
**65TH ANNIVERSARY**

**AUGUST 9th & 10th**

at FAR HEATH FARM

**MORETON-IN-MARSH**

GLOUCESTERSHIRE



Signposted off the A44 Moreton to Chipping Norton road

**TWO DAYS OF MODEL AIRCRAFT  
FLYING, FEATURING:  
RADIO CONTROL SPORT, SCALE,  
VINTAGE, AEROBATICS,  
GLIDERS, ELECTRICS, ETC.  
ALSO-  
CONTROL LINE  
AND  
SMALL FIELD FREEFLIGHT**

**RC FLYING 'OFF THE PEG' ALL  
WEEKEND  
(PILOT'S PROOF OF INSURANCE  
REQUIRED.)**

**SPECTATORS AND FLYERS  
WELCOME,  
COME AND JOIN IN THE FUN.  
CAMPSITE FOR CARAVANS &  
TENTS WITH ON-SITE TOILETS &  
WATER**

For details, e-mail:  
northcotswoldmac@gmail.com

### REGULAR ATTRACTIONS:

#### MODELLERS' BRING & BUY SALE

Come and pick up some real  
bargains or bring your own  
models/equipment to sell.

#### CIRCLE FOR CONTROL LINE MODELS

No engine size limit.  
Max line length 60 feet.

#### **NEW** DESIGNER'S EVENT FOR MODEL DESIGNS BY THE LATE **DERECK WOODWARD**

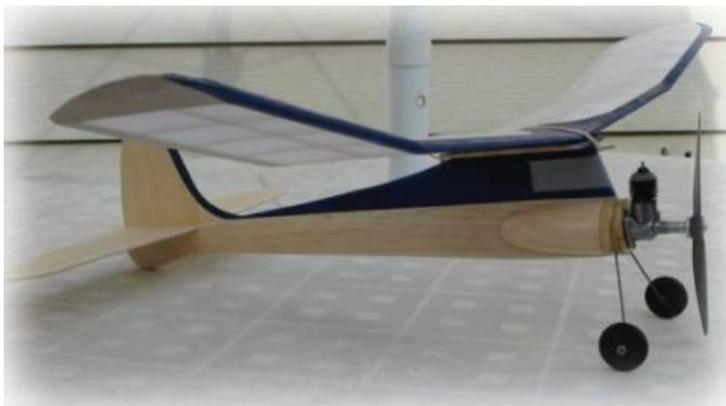


A GATHERING IN HONOUR OF THE ORIGINAL  
**'WEEKEND PILOT'**  
ANY DESIGN BY DERECK IS WELCOME  
INFORMAL JUDGING & PRIZES

Website: <https://sites.google.com/site/northcotswoldmac/home>

# Dens Model Supplies

**Stockist of traditional, all balsa, CL, FF & RC Kits from BHM ...Cox 049 Engines & Spares...CL Accessories.....Merlin Glow Plugs**



**BHM Kits and Cox 049 Engines from under £20....Great value, high quality Glow Plugs from Merlin....hard to find CL accessories at sensible prices**

**On Line shop at [www.densmodelsupplies.co.uk](http://www.densmodelsupplies.co.uk)  
Or phone Den on 01983 616603 for traditional service**

