

Sticks and Tissue No 61 – December 2011

I'd like to thank all the contributors, without whom this newsletter would not be possible.

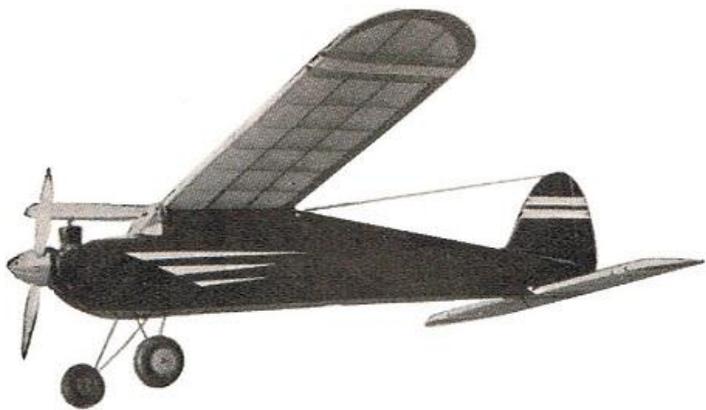
If you can contribute any articles, wish to make your point of view known etc please send to or phone 01202 625825 JamesIParry@talktalk.net

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



Christmas wouldn't be Christmas without Mike Cumming's Raynes Park card. This year a Mam's selle



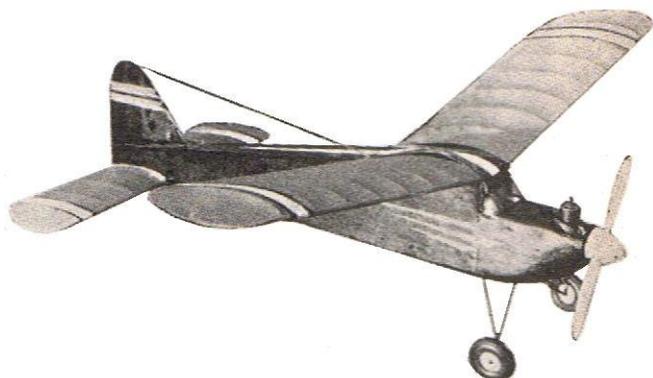
Vic Smeed's Band Boy a 36" simpleton for Sunday session sport flying with or without radio-control. From Aero Modeller January 1961

For the chap looking for a small, handy sized, second radio model to take along as a "spare", Bandboy fills the bill admirably. If you want a model to do upward inverted tail-first flick half-rolls there are other designs which might make a better showing, as the combination of dihedral, wing and tail sections, moments and areas used in

Bandboy add up to an easily trimmed (but lively) sport flying model—in fact, it makes a rugged little sportster for free flight if you are no radio fancier.

Empty weight of the completed model is nearly 16 ozs., and it is suggested that radio weight, if carried, is limited to 8 ozs., giving a wing loading of approximately 16 ozs/ sq. ft. Half a pound of radio covers the Reptone unit, and this is about as small a model as will comfortably carry this one-piece outfit. Alternative installations are shown on the plan, and those with a little experience will soon find that the trapezoid fuselage cross section will obligingly accommodate quite sizeable equipment, always remembering the advisability of keeping a weight limit, while still retaining apparently slim lines.

There is little unusual in construction. The fuselage sides are cut from 3/32 by 4 in. medium hardish sheet—



no need to use rock-hard material, as local reinforcement by doublers etc. can be used round areas of stress. Bind the undercarriage in place on F2 and F3 before assembling the fuselage; double cement all joints—it's silly to attempt to prevent the structure breaking only to have the joints give. If you are fitting radio, plan out the installation and carry out as much work as possible inside before sheeting the bottom. If you wish to follow the Reptone style of installation, cement the in. square strips and inner skins in place, sand flush, and sheet the bottom with fairly hard 3/32 in., grain across. A scrap of silk or nylon reinforcement

cemented round the corner will prevent the bottom falling out in any but the heaviest landing. An alternative means of access is to make a tapered tray fitting up into the bottom of the fuselage, dowelling it in place. In this case reinforce the insides of the body with 1/32 in. ply or celluloid so that the dowels will not tear out. After sheeting in the bottom, make and fix the fin. Cement the spar and ribs to one sheet, add the tape, then position the other side and clamp with clothes pegs till dry. Cement securely in place and complete the rudder hook-up details, dowels, etc., before sheeting the top fuselage. For a free flight model the fin and rudder can be made in one piece with the top inch or so of the rudder hinged on soft wire for a trim tab. The nose of the model is almost entirely block, the sides being 3/4in. sheet, which allows a shapely nose to be carved. Use very soft block to keep weight down. Cut the top cowl to suit the motor to be used; there is plenty of room for a large tank, but if more space is needed the tank or polythene bottle can pass through F2. Sand fuselage all over and tissue cover; finish in the normal way. Make sure the nose blocks are adequately proofed against soaking up fuel.

Wing and tail are conventional; for hard usage spruce may be used for the wing mainspars. Similarly, for free flight only one main dihedral brace need be used. Sand thoroughly and tissue cover; nylon chiffon could be used if you're installing a fairly perky motor.

Pack the radio in with foam rubber, not forgetting a wad over the set to prevent it buffing the wing in a nose-over. Provided the balance point is as shown initial radio flights can be made under low power. Free fighters should try test glides first; increase wing incidence by packing the leading edge if the glide tends to be too steep, add a little weight to the nose if a tendency to stall appears. Use a little right tab for first power flights while you feel your way.

Part 2 of Jim Newman's anecdotes



Taken at RAF Cranwell North 'drome, 1952. All of us were RAF Apprentices in the radio/electronics skills.

Rear row L to R:

Myself with o.d. high thrust line ff model. George Caple.
Ed Howey

Front row L to R:

"Willy" Wilmore. Can't recall his name, but he was a wee Scot!

The model that I am holding is my TROLLEYBUS mk 1 with an Elfin 2.49 cc. Span was 55 inches and it was extremely successful in Open contests. Modified with a

lighter and more refined fuselage, my plan and article were published in the February 1955 MODEL AIRCRAFT, under the editorship of George M. Lewis and Managing Editor the well known Eddie Cosh. This was when that I realised that I was not the despair of my English teacher at Chippenham (Wilts) Grammar School and so I carried in writing even to this day! I still am in touch with George Caple and was able to take him full size flying in recent years, here in Michigan.

George was an outstanding designer/modeler....giving much thought to everything that he did. His very attractive canard f/f glider, at the RAF Champs in 1953, broke the British record for the Unorthodox class. It was completely well mannered on tow and flew in a very stable manner every time.

As for Ed Howey...I seem to recall that, at that time, he flew a Keil Kraft Chief glider, which is what he appears to be holding in the photo.



Me doing a little fixin' to my o.d. ED 246 Team racer, 1953, following the RAFMAA Champs.

This little model was designed by an airman serving at RAF Lyneham, but subsequently built and flown by me at RAF Cranwell, circa 1952. Span was 45 inches and powered with a Mills .75 cc diesel.

A beautifully steady and predictable flyer that was ideal for Bowden style events, that it often won against larger models. Originally fitted with a beaten aluminum cowling, but since I periodically nicked my fingers on it I substituted a wooden cowl.



Color was silver with light blue.... and with the Union flag on the fin, so I named it Britannia!

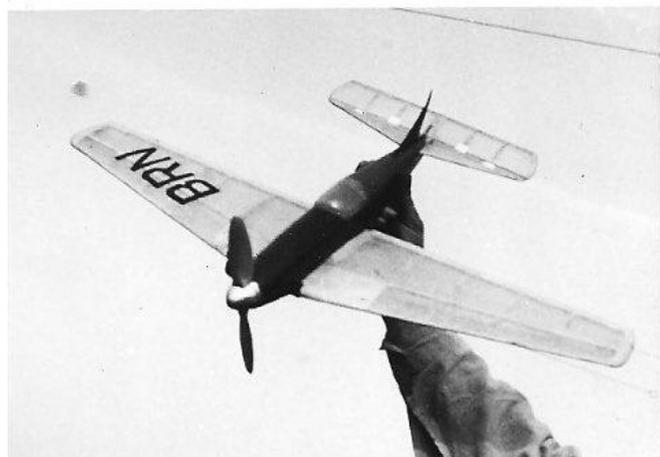
Construction was mostly 1/8" square and so was extremely light. Eventually I converted it to single channel RC.

I still have the wings, tail and undercart AND the original MS wheels (now pretty rotten)!

I recently have been trying to generate a new fuselage plan from this photo, using 3-D

perspective lines and a vanishing point from which to plot. Likely to have electric power to appease the neighbors!

Circa 1950 at RAF Lyneham. Not all of my control line flights were successful! This Keil Kraft Skystreak of 26 inch span left its mark on Wiltshire. Power was an Elfin 1.49 cc. Colors orange and black with clear doped tissue. By the way....I still also have Britannia's MS spinner, too!



No! The lawnmower is not holding down the wing tip. You can see that I still had a lot to learn about photography at age 15!

Shot at RAF Lyneham Married Quarters 1949 (now sold off to civilians...sob), my 60 inch Slingsby T-21b with single channel and interconnected rudder and ailerons.

It is a model of the actual training glider...WB980... in which I was learning to fly as an ATC Cadet with 1304 Sqdn Chippenham (Wilts) ATC at that time. Later than sqdn closed and I was "posted" to 2189 Sqdn at Calne. I flew the model several times above the White Horse, opposite RAF Yatesbury, but it was very tricky to fly. I eventually gave it away. With today's modern RC it would have been very nice and much easier to fly. Cockpit was fully detailed!



Piper J-3 Cub free flight. Span 52 inches. Mills 1.3 cc diesel. Scaled up on the dining room table from 1/72nd 3-views and drawn on the back of brown wrapping paper, 1949.

A similar photo to this appeared in AEROMODELLER for April 1950... and where Fliar Phil made a snide comment regarding the dihedral. On reviewing this enlargement it is pretty obvious that this 15 year old still had a lot to learn about tissue covering!

This was my first attempt at spraying - the entire model being sprayed with cream dope and using one of those mouth sprays, my lungs providing the puff. Needless to say, for nearly a week, my cheeks were quite painful from being distended for so long. The red lettering and trim were hand painted.

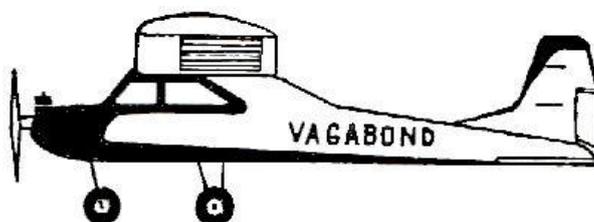
The model was built in the days when f/f scale expert and AEROMODELLER cover artist, C. Rupert Moore, was actively touting pendulum control for the rudder of free flight scale models. The slot for this model's pendulum might just be seen below the tailplane.

The model flew well, even if a little "wallowy", as the pendulum sought to correct the large turning circle. This Cub finally met its end one fine, still, summer's eve at RAF Lyneham. We usually flew off that large, aircraft parking apron, not too far from Lyneham church. On this particular sunset eve the Cub took off as well behaved as it usually did but - for some reason - instead of circling, it flew straight as an arrow, westbound towards Chippenham passing the Control Tower on its way. Then, at the end of its power run, it collided with a Hamilcar glider!

In the days following the war, there were a couple of hundred Spitfires and the hulks of Mk 10 Hamilcars parked around Lyneham...all of the gliders without wings or tail units. In its glide, the Cub took aim at a Hamilcar, then landed unerringly on its rear fuselage, running smoothly up the fuselage towards the cockpit, where it collided with the sword-like radio mast that sheared off everything above the Cub's waist line!

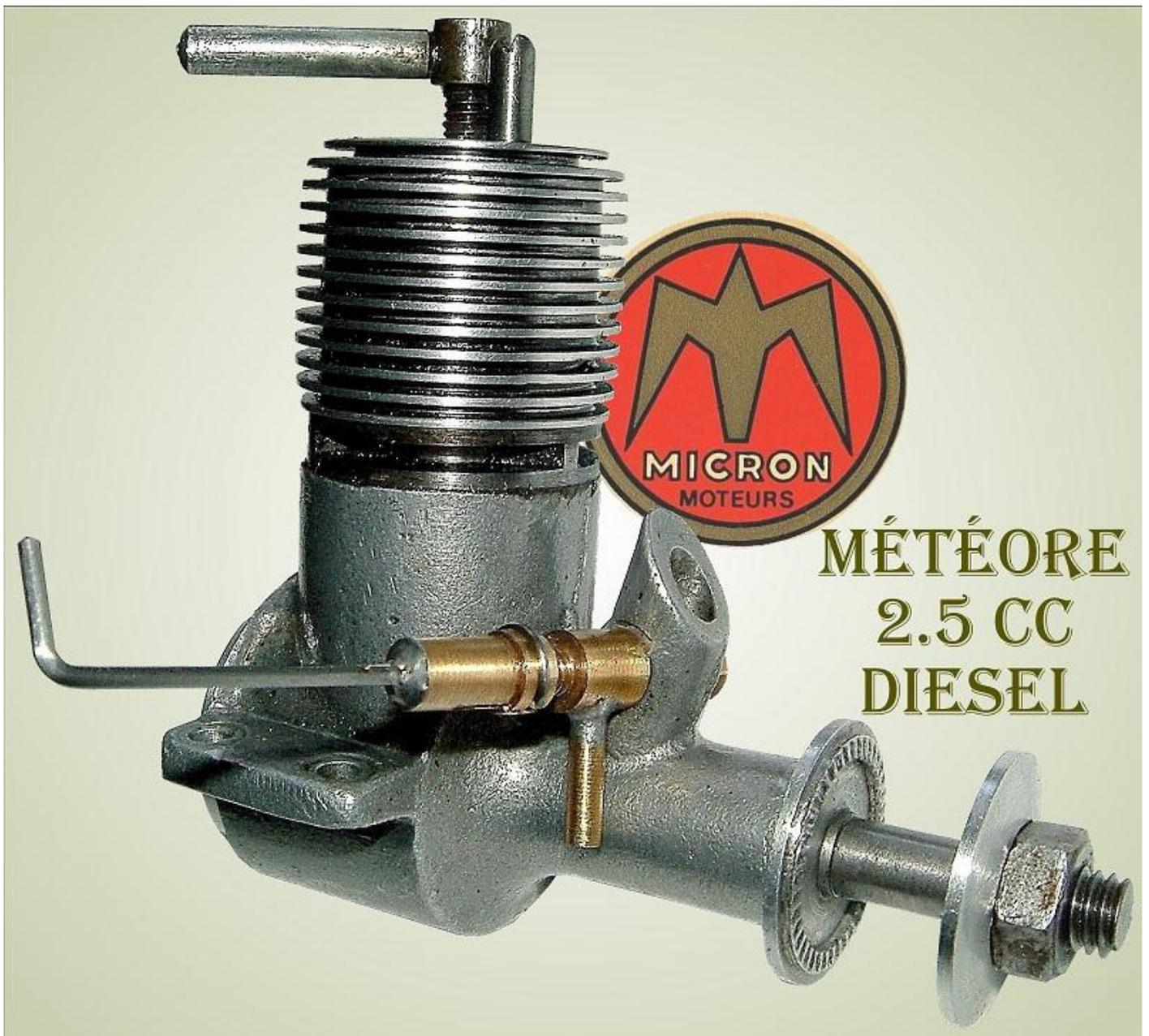


Continues next month



Sad News

I am afraid, Brian Lever phoned me this morning to tell me that Tony Wilson passed away yesterday. Brian will attend the funeral this week and will also pen an obituary for Tony to go in Speaks in the New Year. A sad end to the year. We will miss Tony's enormous enthusiasm for every aeromodelling activity that took his fancy. Ian Lever



More photos from Switzerland thanks to Peter Renggli and Urs Brandt



Hans-Ulrich Wolf and Cessna 180



Karl Petz and Antares



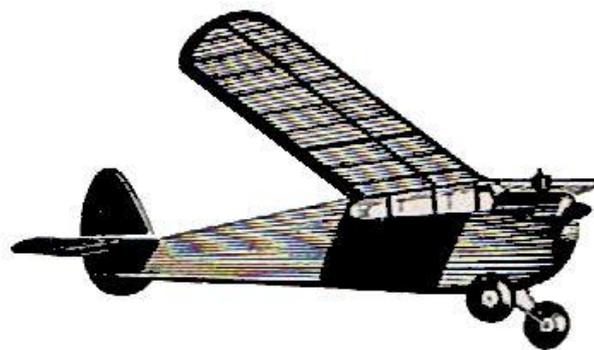
Rudolf Aebi's Amigo 1



Hansjürg Freidling's Amigo 3



Eduard Wymann and Knilch 1,4's





Antares



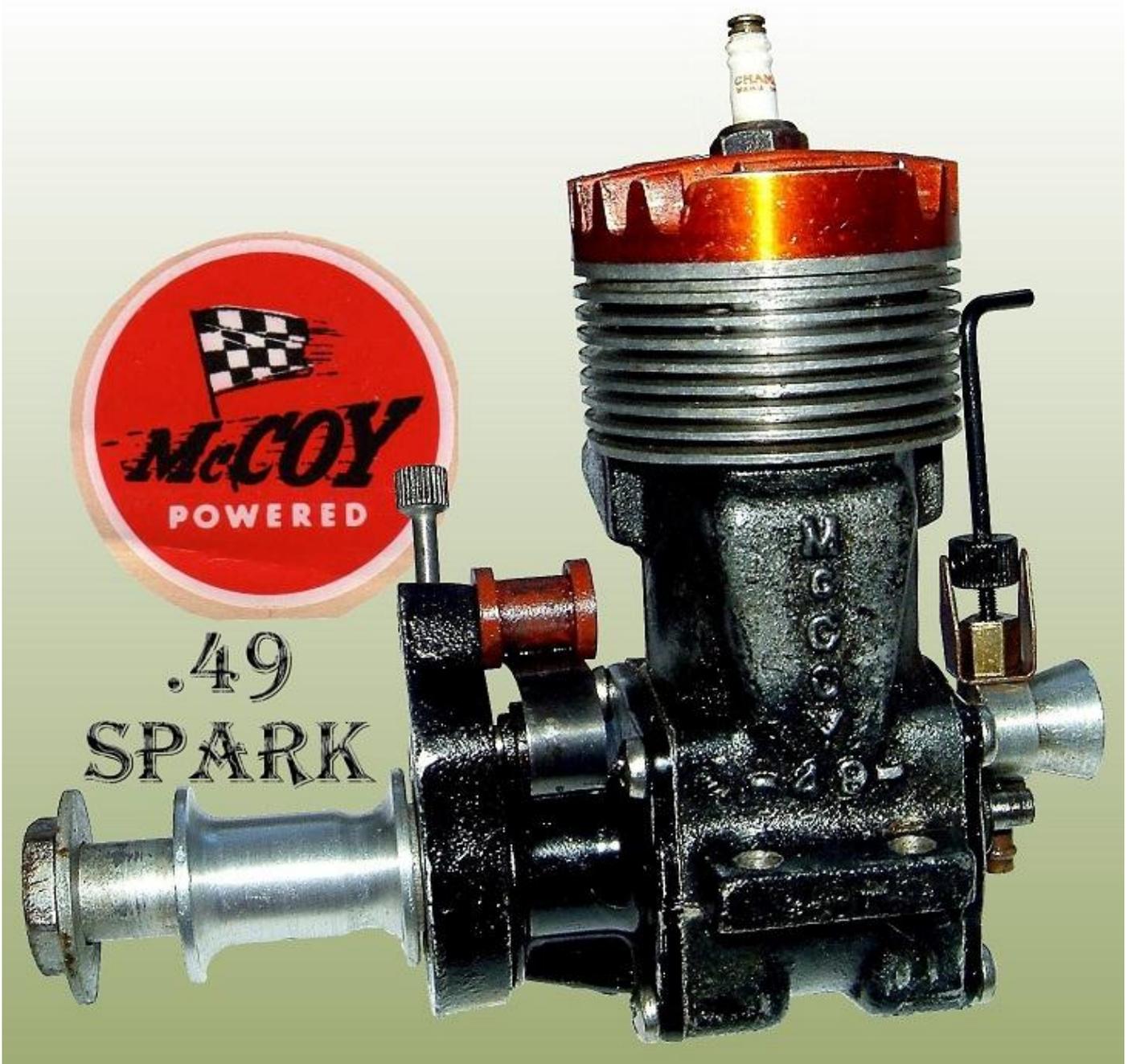
Graupner Kapitän



Hast 5







Eureka “Hottest of them all” In response to universal request – we bring you the fastest climbing of all open Power designs. Only 12 ozs for 2.5 cc by Norman Marcus. October 1958 Aero Modeller

Power modelling is now divided 80 per cent “open” and 20 per cent. F.A.I. if the 1958 entry figures in British contests are any measure, and the demand for fast climbing lightweights is on the upswing. Here we have the “hottest” of them all. Norman Marcus has been out of the contest sphere for a season or so (explained by his marriage on August 9th), but his Eureka design has been making its mark in the hands of John O’Donnell, winner of Power at the Nats.

The design was evolved to improve upon the Jaded Maid which, although successful, had some drawbacks.

It was too fragile, being rather on the large side for its original 12-oz. weight which, made windy weather flying rather a problem. With Eureka it was decided to keep the weight down to about 12 oz. and to reduce

the general size of the model to make a sturdier job.

The wing span was determined by the size of Norman’s

model box! The thrust line was moved upwards and the fuselage was shaped so that the side areas (and side view of the wing) would roughly balance about the thrust line—to equalise the moments of the side forces about the C.G.

Propeller tip position determined the height of the pylon as wing was required to be clear of propeller slipstream, and the tailplane was moved more into the prop blast. The fin was placed behind the tail for convenience with the pop-up tailplane D.T. and also to give extra moment to the fin area. (Fins in front of the tailplane had proved rather disastrous with some of Norman’s earlier models.) This rear fin set a fashion which is now a characteristic of many British power designs. The thought of letting the motor run at full power on such a small, lightweight design was rather frightening; but after a few seconds motor runs Norman chanced his arm and let it go flat out. Much to his amazement and joy Eureka climbed almost vertically, slowly turning in right-hand spirals—and that was how it flew contest after contest.

Unfortunately, the glide proved to be rather inconsistent, with the model “falling out of the sky” on occasions. Reason for this was that when the motor cut, and the model speed reduced suddenly, the laminar flow over the wing broke away at the first spar and did not re-attach itself properly.

A sheeted leading edge version of the model showed considerable improvement in the glide.

Now for the construction of the model. The wing and tailplane are straightforward in their original form, but if it is decided to use geodetic construction, as in the John O’Donnell modification, care should be taken to “build in” the slight warps into the wing (see trimming notes). The tail is flat and quite simple. The fuselage was built in “mid-air”. First the 1/8-in. sheet sides of the body and the 3/8-in. hardwood motor mount should be cut to shape. The mount is glued to the left-hand side of the fuselage and is left to dry. Make the fuel tank from .005-in. tin sheet and cement it in position. Next the 1/2 x 1/4-in. longerons, the spacers, and the 1/2 x 1/4-in. pylon member are added. Then the other 1/8-in. sheet side is cemented in place. The fuselage should be held flat until the glue has dried completely. Add the pylon sheeting, and the hard balsa wing (and tail) mounts.

The fin is built up from pieces of 1/8-in. sheet (it has proved to be completely warp free) and is cemented to the body. Now smooth the fuselage to shape and fill the grain with sealer. Give one coat of coloured dope and then finish with fuel proofer. Norman uses Banana Oil with diesel engines.

Cover the centre portion of the wing with heavyweight Modelspan tissue and the outer panels and tailplane with Jap tissue (or lightweight Modelspan). Give all surfaces three coats of clear dope.

Now for the trimming. It should be emphasised that the method described here is for fast climbing power models of the pylon variety that climb and glide in right hand circles. Norman has used this system on all



his successful models: it was suggested first by Paul Gilliam of Civy Boy fame. The right wing is warped to give about 2 degrees wash-in at the dihedral joint— this is equivalent to about 1/4-in. packing under the L.E. and both the tip panels are washed-out about 1 degree relative to the dihedral joint rib. These warps should be built-in when setting the dihedral before the wing is covered, otherwise trouble will follow with the wing twisting in changing atmospheres. The tailplane is left flat.

Secure the wing and tail to the fuselage. Check the C.G. position is between 70 per cent, and 80 per cent. of the wing chord. The wing and tail incidences are 3 degrees and 1 degree positive respectively. The engine should not have any downthrust or sidethrust.

On low power and using short engine runs (about 5 secs.) adjust the glide. With the rudder straight, tilt the tailplane—right hand side up—until a glide circle of about 50-ft. diameter is achieved. Now increase the engine revs and trim the power turn by means of the rudder tab only. Remember to move the tab in small amounts — about 1/32 in.—especially when the engine is running at full speed. The best arrangement is with the tab about 1/16 in. out to the left-hand side. If the tab is moved sufficient to affect the glide trim, correct this with tailplane tilt or by varying the incidence. It has been found that increasing the tailplane incidence will speed up the climb and will open the RH turn. Decreasing the tail incidence has an opposite effect, so watch for spinning.

When the trim is correct, the model will climb vertically, turning to the right (about 1 turn every 6 to 8 secs.), but rolling to the left. When the motor cuts the model will flick to the right straight into the glide without stalling. The best of the “Eureka” originals climbed to about 500 ft. on a 15 secs. engine run and would glide for another 4 to 4 1/2 min. in evening air.

If a ball-bearing type diesel (weighing about 6 oz.) is used, the engine position should be moved backwards to keep the C.G. about 75 per cent, of the wing chord.

I trust those who build this “potent heap” will have as much fun as I did with it—and exclaim — Eureka !!

Bill Longley originally sent a copy of the plan to me as being a good model for his Tasuma VPD competitions which will be run in 2012 at various venues including Middle Wallop and Wimborne Club. More details of dates and venues will appear in a future issue and of course in SAM Speaks etc.

(When I was at Allendale, Wimborne indoor meeting in November there was an interesting electric model being flown by Alan Bond as a result he has kindly sent in this description JP)

From Alan Bond

THE MODEL

Designed and made by my pal Tony Crollie and loosely styled on the Republic SeaBee seaplane. The fuselage is 5mm Depron which originally continued right up to the tail, the natural floppiness of this thin section being somewhat reduced with a carbon fibre rod. This resulted in the model being christened as "Mr Floppy".

Subsequent accident damage to the tail spar resulted in the current (much stiffer) configuration which uses a piece of thin dowel pushed into the thickness of the depron body, allowing a degree of lateral adjustment for trim purposes. The tailplane is 1mm depron sheet. The wing is a one piece rigid moulded styrene(?) - like a smooth version of the stuff chip shop trays are made of - bought from Flitehook some years ago, but alas no longer available.

The model is powered by a 7mm pager motor directly driving a 80mm GWS prop, powered by a 130mAH Li-Poly battery, the flight profile being determined by a home made timer (see below)

Mr Floppy is heavily battle scarred after some six or seven years of collisions with walls and ceiling lights, but remains a stable, reliable and consistent flyer.

THE TIMER

This is my own design and has evolved over the years. It is both operated and programmed by a single pushbutton with the following features low voltage detection and lock-out to protect Li-Po battery soft-start to avoid damage to motor gearbox (Mr Floppy has used a Falcon geared motor in the past) motor power

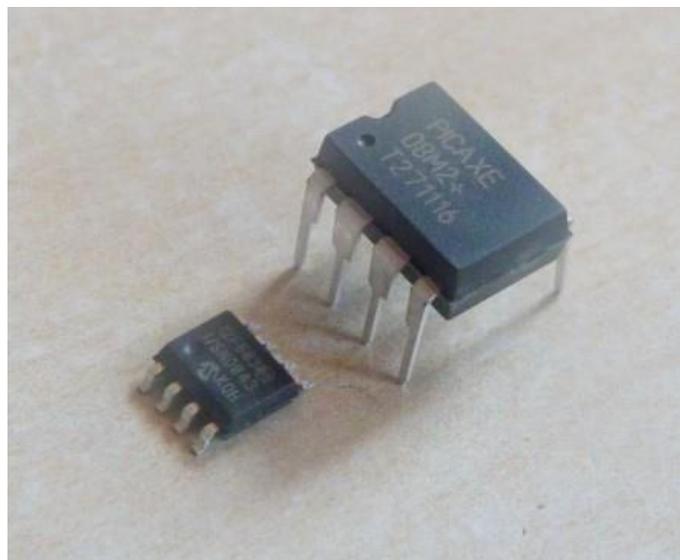
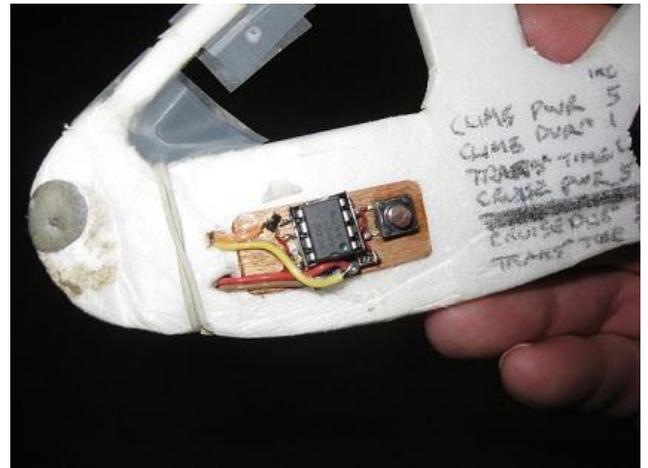
remains constant regardless of slowly declining battery voltage climb power - adjustable in 5% steps (100%=fully charged battery voltage of 4.2v) climb duration - adjustable in 1 second steps smooth ramp down to cruise power - duration adjustable in 1 second steps cruise power - adjustable in 5% steps cruise duration - adjustable in 5 second steps smooth ramp down to zero power - adjustable in 1 second steps immediate power cancellation by pressing button at any time an LED counts off the seconds and flickers for the duration power changes to provide visual feedback

This range of adjustment may seem a bit daunting but allows for full experimentation - it may be possible to simplify things by fixing the duration of the smooth ramp-downs once satisfactory values have been determined, and likewise the cruise power could be fixed to be say 90% of the climb power - thus reducing the number of settings accordingly. However, the method of programming does allow the user to skip values that are satisfactory so for example, just the cruise duration can be adjusted leaving all the other parameters unchanged.

In standby, the LED 'glimmers' to indicate the unit is powered. A short press of the button starts the flight profile. A further press of the button will cancel the flight profile (when model is retrieved following an aerial mishap!)

Holding the button pressed for greater than three seconds activates the programming mode - indicated by the brightly flickering LED. Parameters are adjusted in a strict order, each button press adjusting the power or the duration by the increments stated above. So, to set 50% climb power, press and count 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 and HOLD. After a second or so of hold the LED will flicker again signifying this value has been set.

Release the button, the flicker stops, now repeat the operation to set the climb duration - and so on. If you wish to leave a value unchanged, simply hold the button at the beginning of the appropriate sequence until the LED flickers, release button and move on to next setting.



The clever stuff is all done in software which minimizes the component count. The heart of the timer is a PICAXE 08M2 microcontroller (less than £2) which is the large chip you can see in the photo. Also present (if you know what to look for!) are a surface mount LED and power MOSFET - the latter drives the motor via PWM (pulse width modulation) which allows the power to be adjusted in a lossless fashion (so, for 80% power the MOSFET is on at full power for 80% of the time and off for the remaining 20% of the time and the motor averages this to 80% overall). Thus the MOSFET dissipates very little power. The MOSFET is rated at 3A which comfortably exceeds the normal running current of the motor. A method of detecting a stalled motor - which can happen in a crash - is being considered

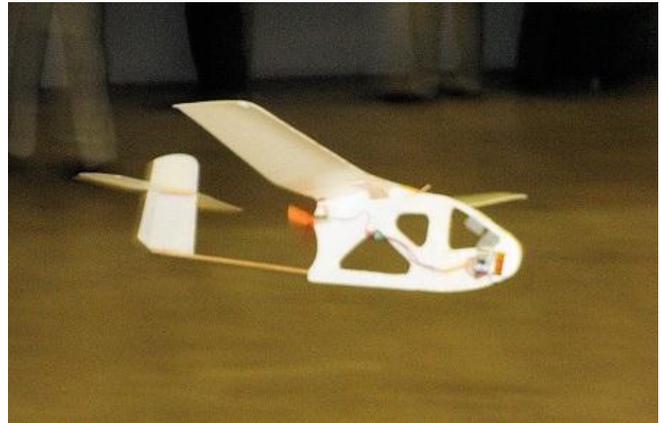
such that the timer can shut down to prevent damage to the motor.

The full size chip has been used such that it can be removed from its socket and re-programmed during development. When the design stabilises a version will be made using a surface mount chip (see the size/weight reduction that will be achieved in the attached picture)

Mr Floppy can be seen in action some years ago with a earlier version of timer on youtube Mr Floppy Your Salisbury pals can also see a video of a bench prototype where I used a 60A MOSFET I had to hand driving a 400 size motor - at that time my Pal Tony lived in Lincolnshire and I didn't have Mr Floppy available for experiment so the principles were bashed out with this high-power breadboard. I would of

course use the push-button programming method now instead of the sizey and weighty potentiometers. high power timer.

I assume your pals are aware of the commercially available timers that drive an ESC and are looking for a simpler option - maybe just to time full power even? (really easy!) OK, hope you find the info useful for your e-zine!



FROG 100 Mk II engine analysis by R H Warring Aero Modeller October 1958



This new engine in the Frog range uses many of the components of the Frog 150 and is basically the same in overall dimensions, although readily identified by the more parallel gold-anodised cylinder jacket. It is intended primarily as a general purpose and beginner's engine, with good handling and starting characteristics, but by careful development an excellent performance has also been realised with a specific output of .1 B.H.P. per c.c., peak power being achieved at circa 15,500 r.p.m. In this respect it is something of an anomaly—a beginner's engine which peaks at quite a high r.p.m., where its performance makes it suitable for

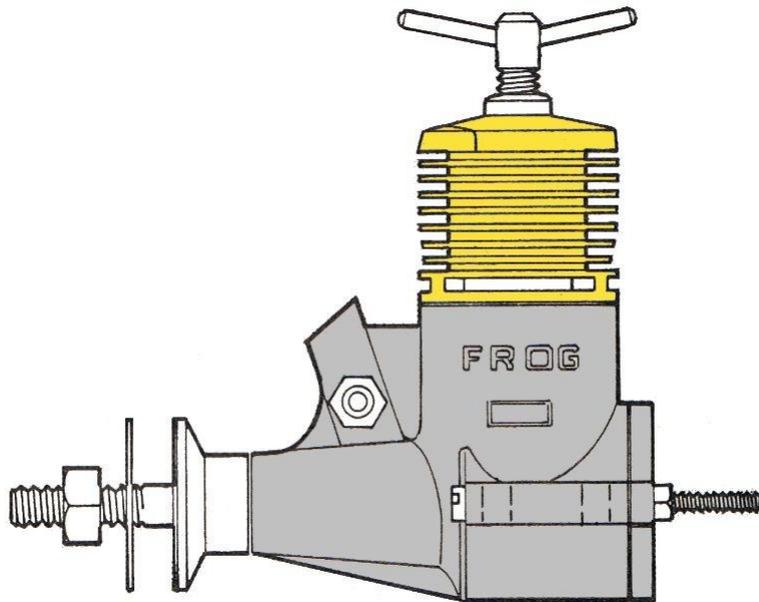


contest work (although of 1.5 size and weight). This has been achieved without any marked deterioration at the lower speeds, although the output is moderate in the range 8-12,000 r.p.m. The manufacturers recommend an 8 x 6 nylon propeller for "sports" use, which is equivalent to a static r.p.m. figure of only 6,000. At this speed the needle valve setting is absolutely non-critical and can be opened or closed more than a turn either way without affecting running. It becomes, in fact, a very docile engine. When hot, the "100" will re-start first or second flick with both the compression and needle valve settings left at running position by turning the propeller to block the exhausts with the piston and then squirting fuel into the exhaust openings. We found, also, that the "100" has excellent low- speed running characteristics and can be throttled right down by opening the needle valve and reducing the compression until it is barely ticking over. It is also capable of developing good torque under load at such speeds. The "100", for example, handles a 13 x 6 propeller quite readily,

PROPELLER—r.p.m. FIGURES	
<i>Propeller dia. x pitch</i>	<i>r.p.m.</i>
8 x 6 (Frog nylon)	6,000
8 x 4 (Frog nylon)	7,000
7 x 4 (Frog nylon)	12,400
6 x 4 (Frog nylon)	16,000plus
8 x 3½ (Tiger)	11,000
8 x 4 (Tiger)	9,800
8 x 4 (Stant)	9,600
7 x 4 (Stant)	10,500
6 x 6 (Stant)	10,500
6 x 4 (Stant)	13,400
7 x 5 (Trucut)	9,000
7 x 4 (Trucut)	11,400
7 x 3 (Trucut)	13,000
6 x 4 (Trucut)	12,500
6 x 3 (Trucut)	13,600
5 x 3 (Trucut)	16,500

turning it at 2,500 r.p.m., and a 12 x 4 propeller at 3,500 r.p.m. Starting is just about foolproof with such large propeller sizes, provided the cylinder is well primed, due to the large “flywheel” effect and running is extremely smooth and quite quiet.

Undoubtedly, too, enough thrust is produced with these large propeller sizes to fly a model. For control line, free flight, or R/C work a 7 x 4 nylon propeller gives about the optimum performance, and the tested engine has been flying an aerobatic 34-oz. R/C model most satisfactorily on this size. Main difference between the 150 “R” and the “100” lies in the cylinder, which is entirely new. This is of conventional steel construction, screwing into the crankcase. The bottom cylinder below the flange is, however, very thick (approx. 1/8-in. walls), externally threaded. This serves the purpose of matching the overall diameter to that of the 150 cylinder so that it will fit the same crankcase.



The transfer passages consist of six 3/32-in. diameter holes (in pairs) drilled upwards through the bottom cylinder wall, opening into a deep undercut below the flange. Transfer

ports are milled through the cylinder wall immediately below the flange (and below the respective exhaust port openings), leaving the upper part of the cylinder carried on three small pillars. The “100” retains the short piston design introduced on the 150 “R”, again producing substantial sub-piston induction. The piston is even shorter than the 150, however (.300 in. as against .331 in.), so that for the same stroke the top of the piston can come lower to open the transfer. Compared with the 150 cylinder the exhaust ports are also lowered to prevent too early opening and are shallower in depth. This latter feature also means that the sub-piston induction does not extend over such a large crank angle as in the case of the “150”.

The cylinder is of leaded steel, machined, hardened, ground and honed to finish. The contra piston is also steel whilst the piston is of cast iron, machined to a simple shape leaving just enough internal clearance for the con, rod little end. The gudgeon pin is 1/8 in. diameter silver steel and is a floating fit in the piston. The connecting rod is a standard “150” size light alloy forging with a 5/32-in. dia, big end bearing matching a standard 150 crankshaft. The steel contra piston does represent a disadvantage in that if the “100” is allowed to overheat the contra will tend to stick. This was particularly marked on the static rig using a propeller shield which virtually eliminated cooling airflow past the cylinder. The sticking tendency was appreciably less noticeable on normal bench running with proper air cooling. Thus it appears entirely a matter of cylinder temperature whether or not the compression control is free or tight and only likely to be troublesome in establishing optimum settings for very high speed running.

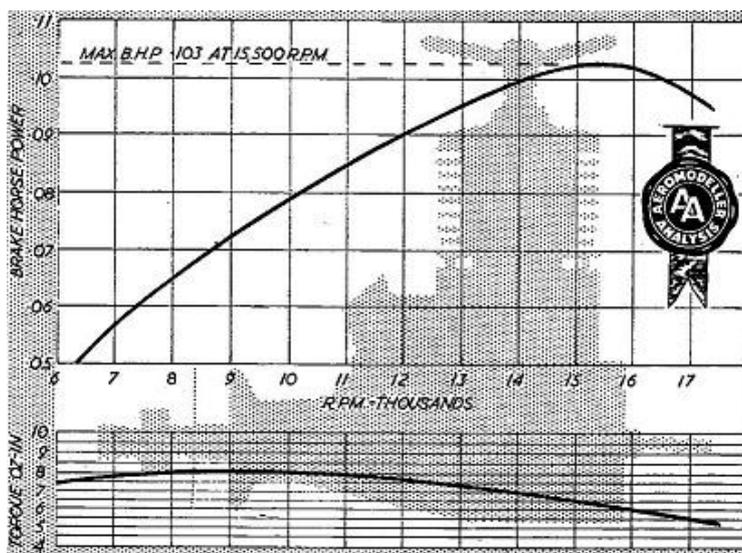
The crankshaft is of leaded steel case hardened and then taken back by heat treatment until the surface is again relatively soft—it can just be marked with a file. Shaft diameter is 9/32in. tapering outside the bearing to a 2 BA threaded length for the propeller nut (or spinner). The thicker crank web and larger crankpin



diameter of the later 150s is standard on the “100”. The induction timing is slightly amended by increasing the size of the hole and moving it round in the direction of rotation so that the port closes at the same time but opens slightly earlier. This retains the easy choking characteristics of the “150” by virtue of the fact that the ‘induction port closes around top dead centre and thus there is little or no blow-back.

The main bearing is a sintered (Vandervell) bronze sleeve reamed to finish size and with the characteristic slack fit of all current Frog engines.

Summarising the potentialities of the new Frog - “100” as an engine we can only repeat that it is very easy to handle, extremely flexible and has most of the required characteristics of a beginner’s engine, whilst achieving a remarkably high standard of performance. Its power output at peak r.p.m., in fact, is comparable with many of the best of I c.c. diesels.



SPECIFICATION

Displacement: 1025 c.c. (.0625 cu. in.)

Bore: 416 m. Stroke: 460 in.

Bore/stroke ratio: 09

Bare weight: 3 ounces (less tank and spinner) 3 ounces (with tank, spinner and prop)

Max. B.H.P.: 103 at 15,500 r.p.m.

Max. torque: 82 ounce-inches at 9,000 r.p.m.

Power rating: 01 B.H.P. per c.c.

Power/weight ratio: 034 B.H.P./ounce

Material specification:

Cylinder: leaded steel, hardened

Piston: cast iron Contra piston: mild steel

Crankcase: light alloy pressure diecasting

Crankshaft: leaded steel, case hardened and stress relieved

Connecting rod: light alloy forging

Cylinder jacket: dural (anodised gold)

Main bearing: Vandervell sintered bronze sleeve

Spinner: light alloy (anodised blue)

Spraybar: brass

Propeller nut: 2B.A.

Tank :moulded nylon

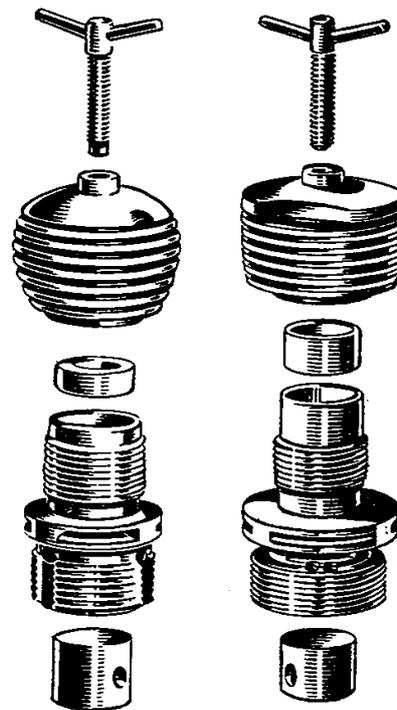
Manufacturers:

International Model Aircraft Ltd.,

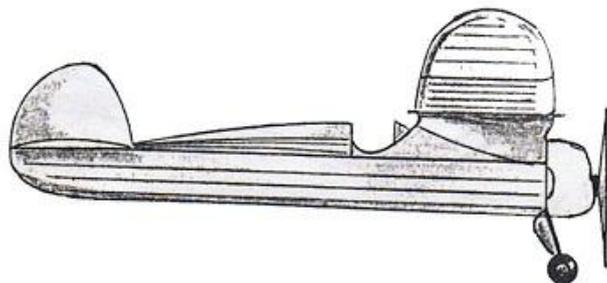
Retail Price: Bare engine 55s

Presentation set 65s. 4d

(Thanks to Tony Tomlin for a photo of his Frog 100 JP)



Manufacturer’s sketches show salient differences between 150 (left) and 100 Mk II (right)



Frank Earnest Smith from John Taylor

One time secretary of Northampton M.A.C. Frank Smith was a contemporary of Howard Boys, Ted Evans and Roy Chesterton all of whom he flew with just after the war. At that time he favoured Wakes and power models. His large free flight Aeronca Sedan / Stentor? featured on the front cover of Aeromodeller. In his later years Frank started making small I.C. and electric models made from corrugated and brown wrapping paper, very cheap but they did carry a weight penalty, still, with only small fields to fly from low wing loading was not his priority.

He told of the group in the club who, at the time of 'The Jaguar' revolution were each making parts of the model that they excelled in, pooling and swapping their proceeds on Friday nights at the club and thereby producing and flying more models in competitions, just look at the entries and successes of the time, hey, was there a Builder of the model rule then? Frank always insisted in calling it 'The Jaguar' and not just 'Jaguar', as that was the name on the plan. Frank was the prop carver and wireman and always insisted that it was one of his 'big' props that won Roy The Wakefield Cup at Akron U.S.A in 1948, the last time incidentally that the cup was won by Great Britain, others of course claimed it was their wings, their tail plane, their fin or their fuselage that won the cup!

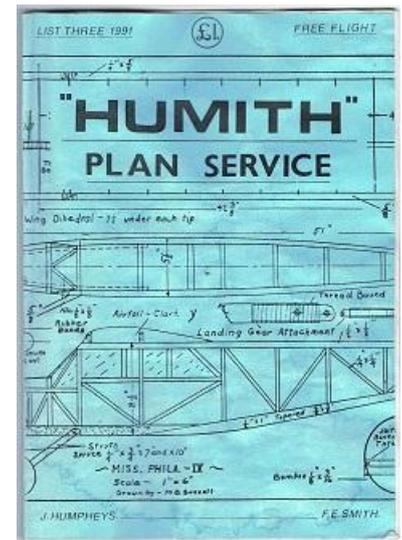
Frank and another club member, Jack Humphreys, teamed up to form 'HUMITH' Plan Service. This booklet was inspired by db when he moved to Northampton in the late eighties and his influence is shown by the list of 50 models, these being mainly free flight - and American. Frank's own design 'Smiffy', in two sizes, and Jack's 'Sporty' - also published in Aeromodeller are included. Some models mentioned are suitable for simple electric conversion.

All these original tracings were acquired by db in early '93 so are possibly now under the care of Roger Newman. Frank died on July 10th 2003, a day before his 81st birthday.

db was David Baker the originator of the SAM movement in England.

Some of the plans in the booklet are available through the David Baker Heritage Library where several thousand plans can be accessed, see SAM1066.com.

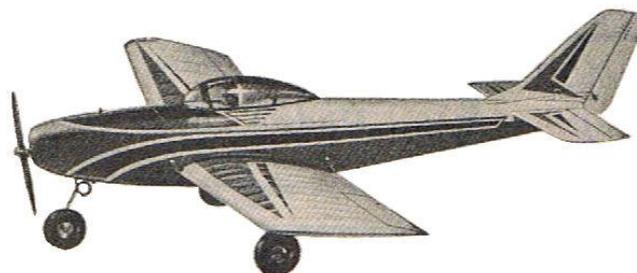
(Some of the line drawings from this plans book are included in S&T JP)



Miss Philadelphia Mk IV

When David Baker, who was the founder of the Vintage movement in this country died recently, his vast collection of models was distributed to various vintage modellers. I was given the original 60" span free flight version which was built by Frank Smith [Humith Plans] in 1990. The original design by Maxwell Basset was around 9ft span and powered by a Brown Junior petrol motor. Frank's model was powered by a 540 buggy motor with a home made 2:1 reduction gear. With a total weight of 2Lbs it flew successfully as reported by Frank in his 1991 plans catalogue. After some repair work around the cabin and making a new U/C I fitted a Brushless motor driving a 9"x6" plastic prop. The motor runs at 7000 rpm producing 90 watts drawing 7 amps. A 7 cell NiMh 2200 MaH although heavy puts the CG just right. Guidance is by an old 35 Meg radio providing rudder, elevator and throttle. With an all up weight now 2lbs2oz the model will take off and climb gently providing all of those who watch with a nostalgic view of a beautiful old design. Best flight to date is 39mins 50secs with some thermal help. The following information about Frank Smith was kindly provided by Peter Tomlinson, a fellow Northampton member.

John Taylor. Bournemouth.





John's Ping Pong Pete

Here's some "gen" on the model piloted by " PingPongpete"
Free plan from Q&EF called VSM [Very short model].
36" Span 9" Chord 41/2" Moment Arm. 180 Watt Brushless Motor .1000Kv.from 4Max.

James, here are a couple of photos for possible inclusion in a Stick & Tissue issue from Mike Myers.

Allan Laycock of Australia came up to my home in Glendale California preparatory to flying in the 2011 SAM Champs on El Dorado Dry Lake outside Las Vegas. (He's the fellow in the striped shirt.)

London born but Philadelphia resident Dave Harding (he's the fellow in the blue shirt) frequently comes out to visit his daughter in Southern California. Dave and I like to fly electric old timers together on the Rose Bowl lawn at Pasadena. Dave came out a few days before the SAM Champs, and the plan was that Dave, Allan and I would do some flying together in Southern California before heading on up to Las Vegas and the Champs.

Laycock is a demon fast builder. He arrived a week before the SAM Champs. His original idea was that we would all order Blackhawk "Musciano style" 1/2 A control line ships and build them during that week. We'd paint them before we left for the SAM Champs, and the paint would be sufficiently dry and cured to let us fly the models after we came back. I had a stash of old 1/2 A engines, and we'd use those engines for the models.

Well the best laid plans and all that. Dave and I were worried enough about having our SAM ships trimmed and fettled before the Champs--so we weren't eager to get involved in that Musciano project.

But you can't hold an Aussie down. If Dave and Mike weren't going to build, why Allan would build three! When he arrived in Los Angeles he had precut parts for three 1/2 A control line models in his bags. He had decided to do profile kits of the 1930's racers "Ike, Mike & Pete". He had also brought along precut vinyl lettering for the scale aircraft numbers and logos. Whilst Mike worked in his garage workshop preparing for the SAM Champs (with a generous assist in completing the Champs models from Allan) Allan whipped up, and painted Ike Mike & Pete. As I said, Laycock is a demon fast builder. The models were left for the paint to "cure" whilst the trio went off to the SAM Champs.

Back from the SAM Champs, the trio lined up for a photo op in Mike's front yard in Glendale. [Laycock, Myers & Harding, left to right].

Then it was out to the Sepulveda Basin flying field and the control line circles there. While Dave Harding made up a set of 35 foot 1/2 A control lines, Allan Laycock ran the engines on Ike, Mike & Pete. One photo shows Mike leaning back and kibitzing while Allan peaks the Cox reed valve engine on "Mike". The conditions were windy--, but Laycock and Harding managed to put up several flights each on "Ike" and "Mike". Laycock flew creditably well in the wind. Harding had a big grin on his face---it had been donkey's years since he'd flown control line as a lad in London--but he got several nice flights in. As for Myers--whose last adventure with a control line ship had been in 1964--discretion was the better part of valor. The control line circles at Sepulveda Basin are hard and unforgiving asphalt. He'll wait for a less windy day, and a grass field.

Laycock has returned to Australia; Harding has gone home to Philadelphia. Ike, Mike and Pete nestle in their Glendale "hangar" awaiting a subsequent reunion of the three intrepid aviators for another "international U control meet".



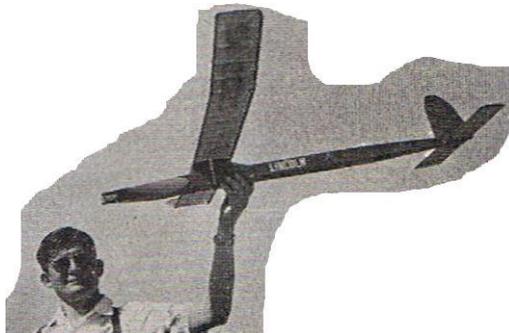
International UC meet in LA



Allan Peaks and Mike Peaks

Pandora One of Britain's top Wakefield designs.... By Lou Roberts from Aero Modeller April 1960

The first Pandora was completed on the evening before the first Team Selection Trials in 1958. It was trimmed in the early morning before the contest and recorded 13:45 to place 8th. Same model recorded 10:38 in the 2nd in Trials of that year and this gave a final position of 12th in the Team Selection list. About



this time another version was built. This incorporated several modifications, i.e. longer motor tube, a thicker fuz and some structural mods. This version was left to age until March '59 before being trimmed out. About this time the two designs were extensively tested in evening conditions on identical motors. On this showing the revised version was putting up time of 15 and 20 secs. per flight improvement on the prototype. The prototype was flown in the '59 Gutteridge Trophy—(very rough conditions) to top event with 13:04. This same model was also flown in the 2nd Eliminator to score 10:36 using old motors.

At the 1st Centralised Trials the five flight total was 13:02. At the 2nd trials this same model scored 14:36 to place 2nd overall, so gaining a team place. It also placed 2nd in the Muxlow Memorial 1959 with a five flight total of 13:00.

Design requirements

(1) Consistency, (2) Durability. (3) Ease of Packing.

This called for stability; a good power/prop combination coupled with a good glide performance. Stability was to be achieved by (a) Lightweight flying surfaces. (b) Generous dihedral.

It can be generally accepted that the most important part of a "Wake" or for that matter any rubber powered model, is the quality of rubber and the actual shape, pitch, diameter etc., i.e. design of prop. Since many successful "Wakes" had employed the N.A.C.A. 6409 this section was selected for the wing coupled with a moderately thick Clark Y section on the tailplane. This set-up, with CG at 75 per cent., gave an outstanding glide performance, particularly in rough conditions. It was decided to break the design down into as many separate parts as was practical. A two piece strut braced wing was adopted. This type of wing fixing has

downward deflection (from the root) but no upward deflection.

Since a fuselage was required to withstand motor breakage a two piece fuselage was desirable, these halves being detachable from each other. This enabled the easy removal of broken motors. A simple hinge was designed for the fuselage halves, this to facilitate d/t requirements.

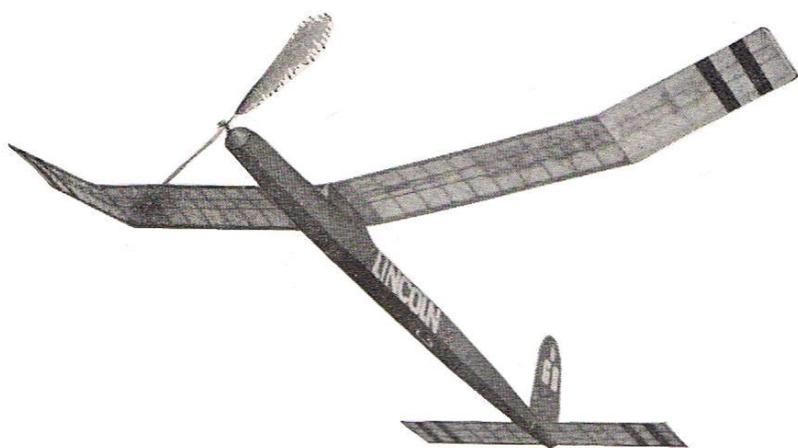
Construction

Fuselage sides are cut from medium 1/8in. sheet. The top and bottom are also cut from 1/8 in. sheet and are

1/4in. less in width than the sides. One side and the bottom piece are joined along their straight portions. The remaining two fuselage pieces are treated in the same manner. Care should be taken in squaring these fuselage half shells. Nose portions of these half shells are drawn in and fastened along their edges to form the nose taper. The soft lengths of 5/16 in. are then cemented into the taper corners. The insides of the two shells are then silk covered leaving a 1/8 in edge free of silk to enable the joining of the two halves. This joining operation is then carried out. The rear anchorage ply discs, the circular nose disc and the rear ply facing are then cemented in place. The boom is built in the usual manner.

The motor tube and boom are lined up and the positions of the hinge and locating pegs are marked. The pegs are then securely fastened.

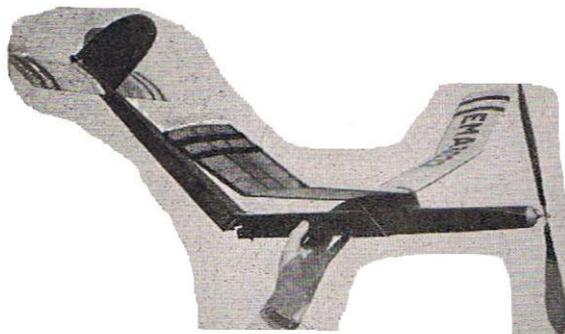
A fin profile is cut from 1/8in, sheet (this profile to the inner fin shape) 3 strips of 1/32 in softish sheet are



wrapped around the profile in a cemented lamination. The solid symmetrical base rib is added upon the removal of the profile. The tapering spars are then added. Finally add the “indoor” type ribs. This structure gives an immensely strong and warp-free framework.

Construct the wings in the usual way, laying out leading and trailing edges. Fit ribs except tip dihedral rib which is fitted after setting dihedral and cement in all the spars, and gussets. Fill in the root, top and bottom with medium 1/32 in. sheet. Cement the strut attachment hook, and 1/32 in. ply facing root rib. Complete the structure by fitting diagonal bracing. This type of tailplane structure was adopted because of the very light and rigid structure. After notching the trailing edge lay out L.E. and T.E. Cement in 1/16 in x 1/16 in. bottom ribs. The top ribs are then cemented.

The rear of these ribs require trimming to give a good area of seat. The spars are slid into place between the ribs and set in their correct position. Finally fill in centre bay top and bottom and cap end ribs. The fuselage pylon sides are cut from 1/16 in. medium sheet, pylon formers are cut from 1/16 in. sheet, the top of these formers are j in. wide and open out at the base to conform to the dihedral angle. These formers are cemented into position. The sides are then fitted. Complete by building front of pylon and copping piece, not forgetting 1/32 in. ply facing and wing pegs. Pylon installation must wait until the model is balanced complete with motor and prop assembly.

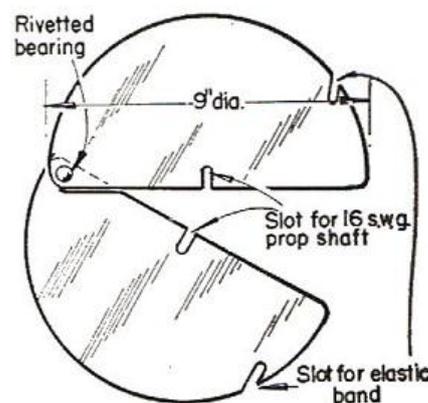


The prop is of the 2 blade folding type as used on lightweight open jobs (see article by D. Morley in this issue). The pitch was set at 25 1/2 in. and the diameter 20 in. The width of the blades at end near the root are kept narrow so as to keep draft to a minimum. Working portion of the prop. is carved to a max. thickness of 3/32 in. with 3/32 in. undercamber. Small hooks are cemented to the rear of the blade hubs and an elastic band assists folding.

Motors

For top performance it is absolutely essential to obtain good rubber. Arrange in 12 strands, to give 50 gm motors. Lubricate with soft soap and castor oil, and give a preliminary wind up to half turns once only. After one contest wind up these motors are unreliable and it is recommended that they be thoroughly examined before being used again.

After experiences (not to be forgotten) Lou Roberts has a 16 s.w.g. alloy disc, inspired by Joe Bilgri, to protect his prop. blades in the event of a motor blowing on full turns (or less). It fits between prop and noseblock.



From Warren Kelley, Clarkson, Ontario, Canada.

I build and fly SAM R C Assist (my primary interest), F F Rubber Power and R C Sailplane. I am a long time member of SAM 54, also belong to Hamilton Tigertown Flying Aces Squadron #40 and SOGGI (Southern Ontario Glider Group Inc. (Incorrigible I think).

Regarding S&T-Lola Special Issue. I was pleased and surprised to see the 'Fifteen' and Alec Burns article. Alec and I started flying together about 1946 and have sporadically kept in touch over the years. Alec hasn't been building or flying for a number of years, but he has maintained his interest in the hobby and keeps up to date with a subscription to one of the Brit magazines (AMI I believe). Alec and Gladys enjoy good health and lead an active life. Alec is not on the internet (rumour has it that 21 other Ontarians are in the same boat). I photo copied the article and snail mailed it to Alec which resulted in a rather long and enjoyable telecon. Apparently Alec is aware of some 'Fifteen' activity in N. Z. and Australia, (maybe some of these people can respond). Alec volunteered to send me a response to your article which i will e-mail to

you when it comes.

Please keep up what i know to be a considerable investment in time and effort on behalf of us 'Old Timers', it brings us great pleasure. I have attached 8 pictures which you may use if any of them are of suitable quality.



*Warren age 15 in 1948 'Zuess'
A Gas FF, Arden 19, Model designed by
Canadian Gordon Hockin and Ziac 'Floater'.*



*1946 my 1st gas model. 'Soarhead' by Charles
Lauber from June 1943 Flying Aces Magazine
one of the 1st Ohlsson 23's in Canada after WW2,
still have it and the 06/43 F. A. Mag.*



Warren and Earl Stahl Hurricane



Warren and Senator picture credit Jim Mosley



1/2A Texico 'Alert' Scaled 80%. (RC Assist)



1995 'Dragonfly' by Elmer Powell from Aug 1946 Model Airplane News at Genesco



'Senator' at Geneseo.



Recent Jimmie Allen 'B A Cabin' (Also named 'Skokie').

From Bill Wells

It all seemed a bold jump from Airfix models to a model that actually flew. I had persuaded my father to buy me a DC Merlin (my first engine) so the next problem was a model. As I did not have pocket money as such, getting the money together was a problem and to be truthful it was so long ago I don't remember

exactly how I achieved my goal. I do remember where the model came from it was Allsports shop only a few yards up the road from our house. The shop was run by a couple of ladies so advice on model aircraft was somewhat limited. Amidst fishing rods, football, cricket and golf paraphernalia there were model aircraft bits and pieces. The KK Champ looked as though it would be ideal to learn on and it was the cheapest powered model they had in stock, at something like 12/9 (63.75P) in early 1961.

There was no one locally to show me how to fly a model so yes you guessed it the first flight did not last very long! I made all the usual mistakes taking off into wind line tension lost in the first quarter of the circle, model pointing directly at me etc. That was the first of many rebuilds. Eventually I gave up on the undercarriage and made one that actually worked! I used one piece of piano wire bent to fit underneath the engine bearer and held in place with two small aluminium brackets and two 8BA bolts. For 35 years I used a variety of engines a DC Merlin, Spitfire, Sabre, PAW 1.49, PAW 09, MK16 and one flight with a McCoy 35!! Well yes the McCoy 35 was a bit nutty which even I had to admit. With extra wooden bearers sandwiched over and under the existing ones the McCoy was mounted much further back sidewinder fashion with lots of side thrust it was just incredible that it flew at all. I kept the original fuel tank to ensure the flight was going to be short. With my home made undercarriage the model had plenty of prop clearance. It took off like a rocket and I just hoped the lines didn't snap. There was only about two laps then the engine stopped and the model went down like a doodlebug. It was quite an extensive rebuild. The PAW 1.49 was used on this model for years, what an easy starter even if left for months between flights. Anyway in 1996 I went a bit crazy and fitted a Fox 15! The Fox 15 is a very light weight engine for its capacity even lighter than a PAW 1.49. With all the previous engines (except the McCoy 35) the maximum ever speed was 44 mph. On the 2nd Feb 1996 the first flight with the Fox 15 returned a speed of 64 mph. I then modified the model to use the Crackerjack drop off undercarriage, the speed got as high as 72.7 mph. More recent speed checks are a little lower at 63 up to 69.1 mph

I also made a Second Champ which was supposed to benefit from all the rebuilds from the first Champ. Apart from having to mend the fuselage this model has amazing remained intact for about forty five years. It has had a DC Sabre and two different DC Spitfires in it. In total I have recorded 52 speeds for it, the last one was this year at 33.3 mph. With an overall Speed range of 25 to 41.7 mph. The present motor is a very well worn DC Spitfire Blue Head. My daughter tried flying this model and was doing well until I suggested she was flying it a bit high. The ensuing stuka dive was into very wet mossy patch of ground. When I got to the model it was stuck in the ground at an angle of about 70 degrees. To get it out of the ground was like pulling out a sink plunger. Unbelievably the model held together, the undercarriage taking the worst of it. The impact didn't even break the propeller! I had to rinse the mud off the engine and take it apart and flush out the fuel tank. I checked the model over and the only damage was the connecting piece of balsa between the elevator halves had snapped!

I then persuaded my daughter to build her own Champ. I put a Gilbert 11 in it and got a speed of 45.45mph. My daughter said that was too fast so I put a Gilbert 07 in it. This was reduced the speeds range from between 30 to 36.6 mph.

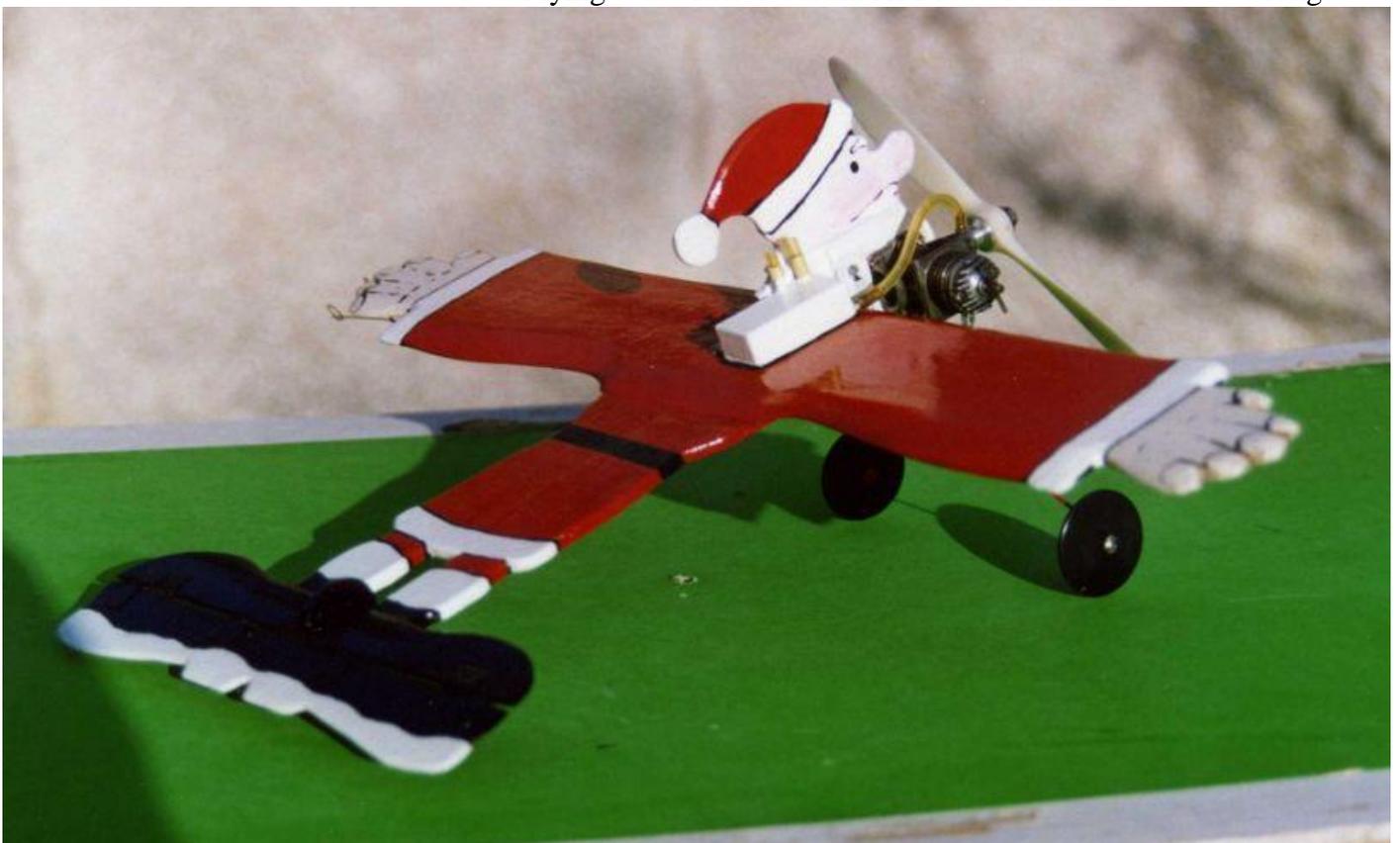
As control line models go a KK Champ is a bit tame but as a model to sling in the car and fly when the radio flyers (including me) have stopped flying it is ideal. All Control line models are great fun from the flyers point of view and don't you let anyone tell you different!!

Merry Christmas To One and All





Two Flying Santa Pictures from AM 1959 I think! I could be wrong!



Old School Model Aeroplane Factory

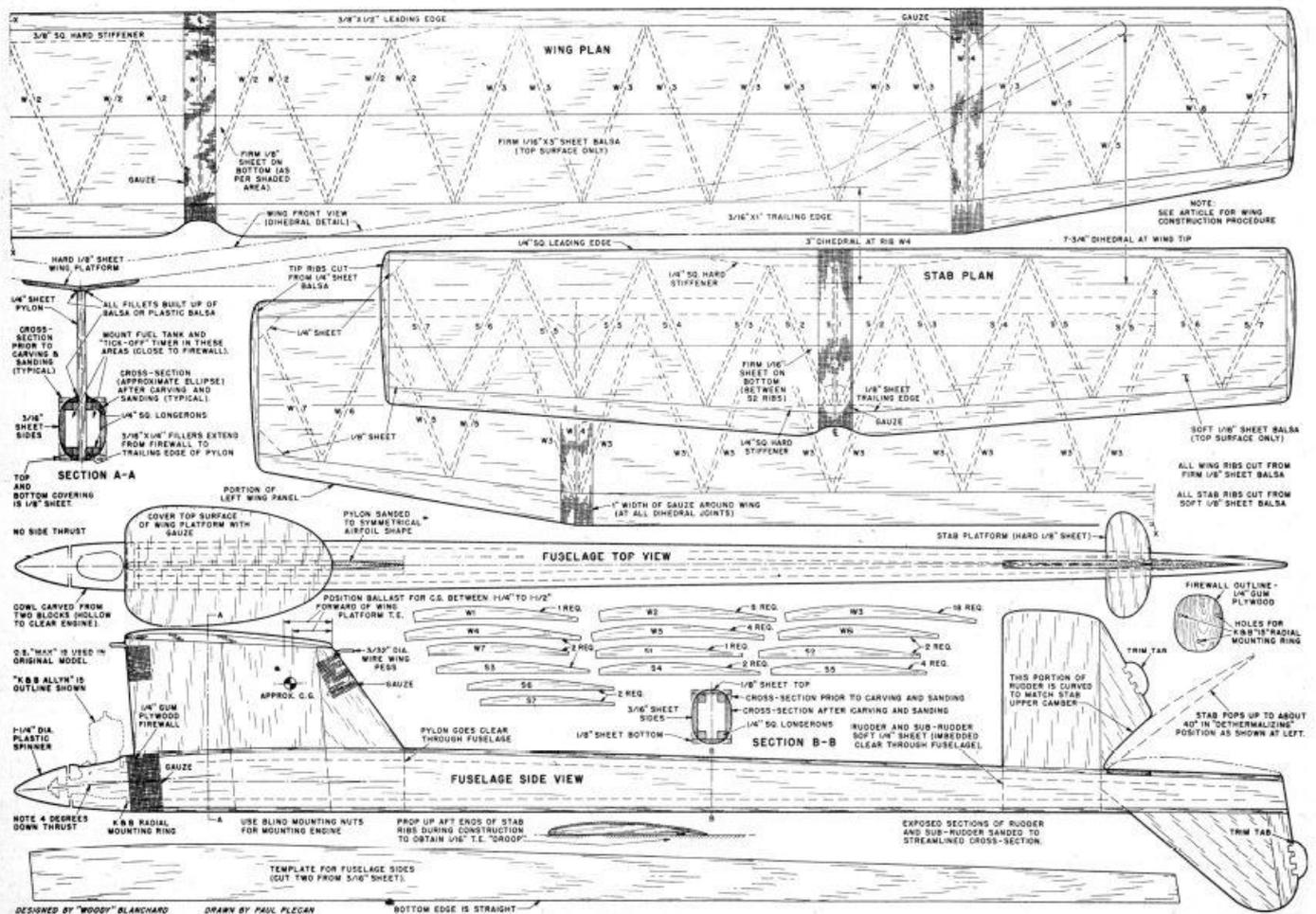
I called off to see Derek Foxwell last week and am pleased to say he is home and starting to recover from his heart attack. I guess it will be a while before he recovers completely so customers of his fine products will have a little longer to wait before the stock is built up and new kits released. I daresay we all know someone who has a similar problem and how long it takes to get back into things.

Bill Longley emailed regarding possible dates for his power duration comps as follows. These are provisional at time of typing Bill can be emailed tasuma@btconnect.com

POSSIBLE 2012 VPD COMPETITION VENUE & DATES

DATE	VENUE
April 8/9	Middle Wallop SAM GALA & 1066
May 6	Middle Wallop
May 13	Cashmoor Wimborne MAC
June 2/3/4	Barkston Nationals
June 17	Cocklebarrow SAM 35 or 17 Odiham Southern Gala
July 21/22	Sculthorpe East Anglia Gala
August 12	Cocklebarrow SAM 35
August 26	Middle Wallop SAM 1066
September 23	Middle Wallop
October 7	Cocklebarrow SAM 35
October 28	North Luffenham Midland Gala

(Bill also sent a plan of the Americano he is building plus a couple of photos of wing under construction JP)





Dens Model Supplies

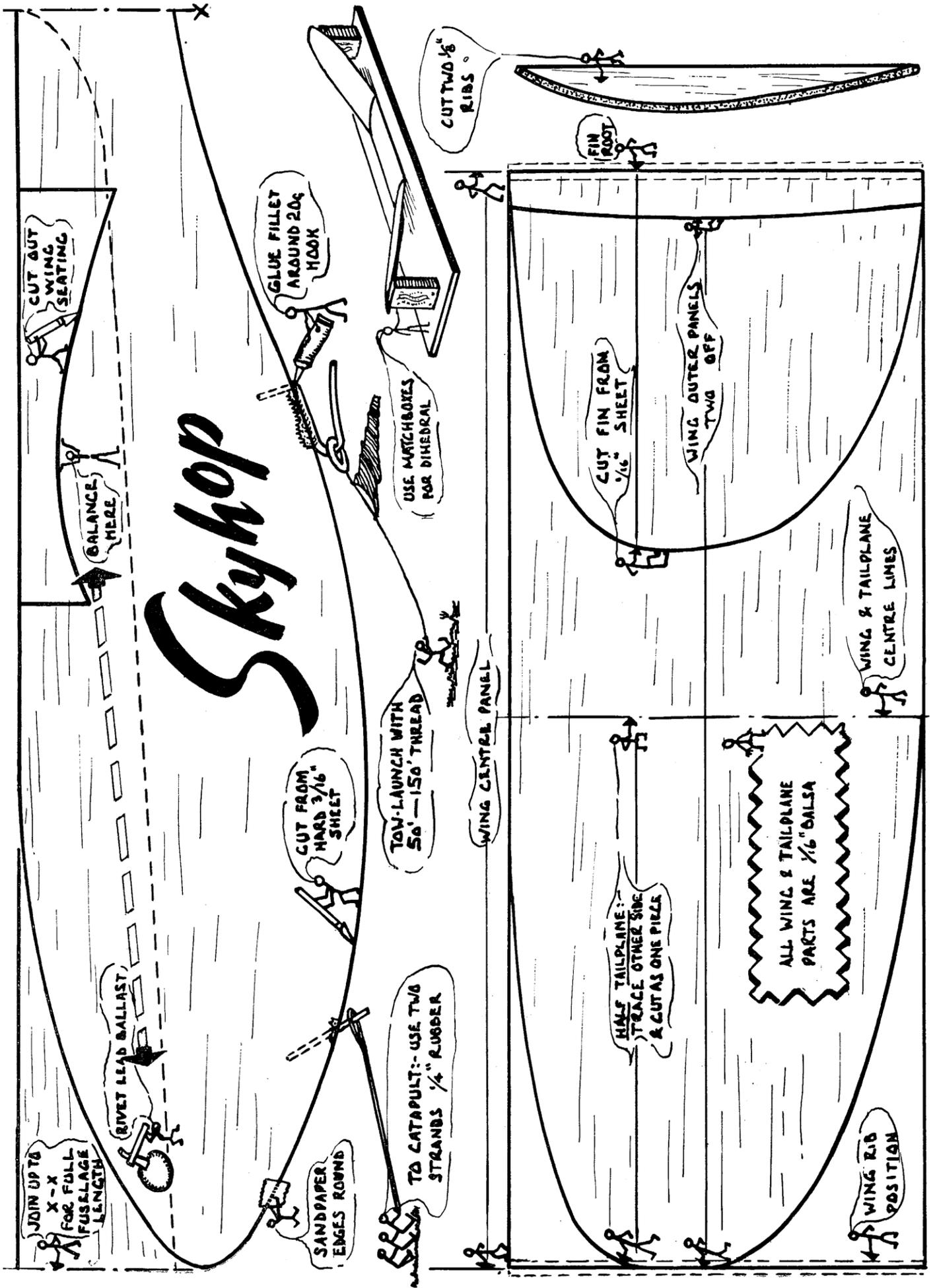


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Skyhop

CUT OUT WING SEATING

BALANCE HERE

GLUE FILLET AROUND 20g HOOK

USE MATCHBOXES FOR DIHEDRAL

CUT TWO 1/8" RIBS

FIN ROOT

CUT FIN FROM 1/16" SHEET

WING OUTER PANELS TWO OFF

WING & TAILPLANE CENTRE LINES

TOW-LAUNCH WITH 50' - 150' THREAD

WING CENTER PANEL

CUT FROM HARD 3/16" SHEET

HALF TAILPLANE: TRACE OTHER SIDE & CUT AS ONE PIECE

ALL WING & TAILPLANE PARTS ARE 1/16" Balsa

TO CATAPULT: USE TWO STRANDS 1/4" RUBBER

WING RIB POSITION

JOIN UP TO X-X FOR FULL FUSELAGE LENGTH

RIVET LEAD BALLAST

SANDPAPER EDGES ROUND

Skyhop a 23 ins. Sheet balsa towline trainer by Y J. Roderick from Aero Modeller May 1954

This is primarily a beginners model, and as such, is intended for newcomers to the hobby and to those who have yet to try tow-line gliders. We make no elaborate claims for duration, but performance is good and all up cost is less than three shillings. It can be built in an evening and should last just as long as you avoid treading on it! Choose rock hard 3/16 in. balsa for the fuselage and medium 1/16 in. for flying surfaces. You will also require a few inches of 20 s.w.g. piano wire and a small tube of cement. Trace patterns on to the wood, and cut out (a fretsaw or a hacksaw blade is a help with the fuselage, which is traced in two stages to

cover its full length). Round off all corners of the fuselage, with the exception of wing and tail positions and then cut out the wing seat. Sand the wing, fin and tail smooth, and cement the fin upright to the centre line of the tailplane, then put aside to dry.

Take up the two wing ribs and draw a pencil line on the upper surface from L.E. to T.E. dividing the rib in two. Fix the ribs upright on the building board by means of pins driven through the outer half of the ribs. Smear cement on the inner half of the ribs, place the wing centre panel over them and pin down. When this is dry the dihedralled tips may be attached by cementing the root of the wing tip to the rib and the end of the

wing centre panel. At the same time, prop up the wing tips 2 1/4 in. from the building board with

match-boxes standing on end. Now cement the wing

to the fuselage using the wing centre line as a guide. Add the tail assembly and the cut out fuselage part.

Turn the model upside-down, so that it rests on wing and fin-tips, and check for alignment.

When you are satisfied that everything is true, fillet all wood-to-wood joints with a line of cement.

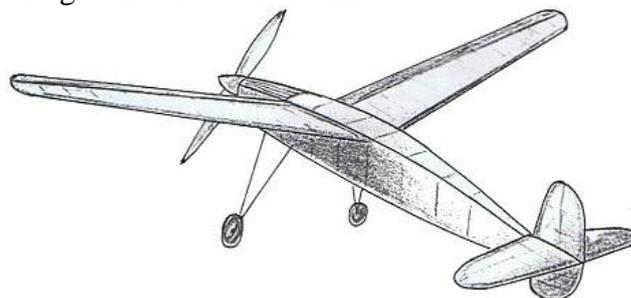
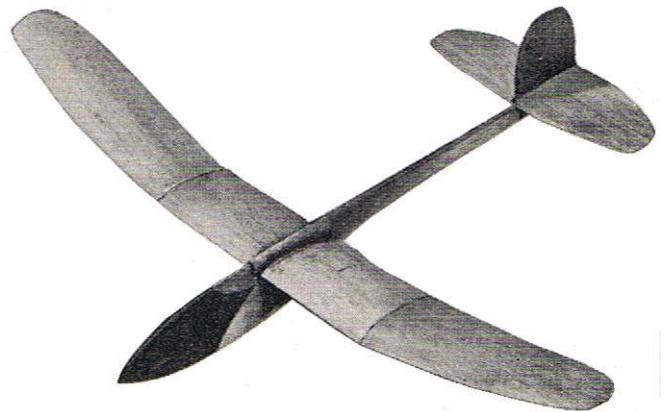
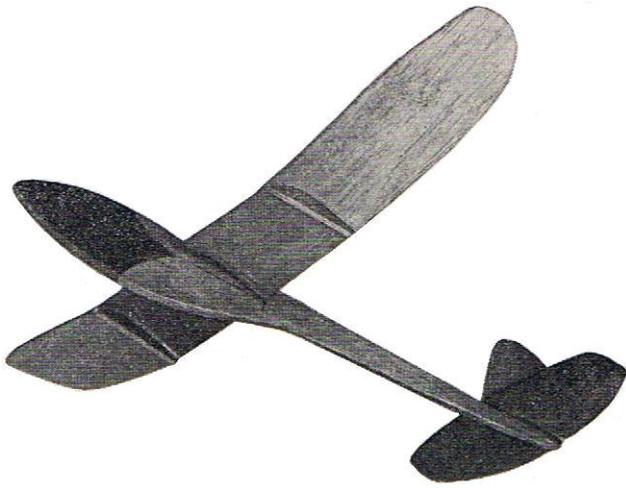
Bend the tow and catapult hooks from 20 s.w.g. and push them into the fuselage where shown, cementing around them for strength.

Give the model a coat of clear dope, and sand well. Any desired decoration can be applied around the nose portion. To achieve proper balance, cut a small slot in the nose of the fuselage and push in lead ballast until the model balances at one third of the chord back from the L.E. Now test glide with hand launches. Warp the tail trailing edge upwards if the model dives, and downward if it should stall. Turn is obtained by bending the fin T.E. in the desired direction; but don't try for a tight turn, it will only result in towing instability.

Start towing tests using a 50 ft. line of strong carpet thread with a small brass curtain ring attached

Slip the ring on to the towhook, get an assistant to help launch and give a running tow into wind.

Skyhop will quickly rise kite fashion and the running tow is reduced to walking pace as maximum height is reached. Slacken the line and the model is "on its own," free to glide in 50 ft. circles for durations of up to 90 seconds with as much as 150 ft. of tow line. For catapult launch use two strands of 1/4 x 1/24 in. rubber, 6 ft. long, attached to a peg in the ground and 50 ft. of line.





David Kinsella's Column

A Top Model

The Platz-designed Fokker DVII remains a firm favourite, Norman Butcher with five or more to his credit. So effective over the Western Front that it was named in the

Treaty of Versailles, they appeared in old movies, stand in museums and fly in replica form in the USA and elsewhere, a few with DB or the better BMW engine. A welder first, Platz chose steel tube for the DVII, a distinctive feature being the thickness of the upper wing at midpoint. An airline pilot who built, and flies his own DVII managed to source a proper engine and bolts of the original maker's lozenge fabric.



Yes Minister

Some may remember a B movie called Carlton Brown of the FO. Beyond my dreams when I saw the Foreign Office last summer, among the fine pictures and marble columns spread around the two acre site was a stuffed 20ft snake, brought home long ago from a distant land coloured pink.

Cub Required

Ages ago Frog in South Wimbledon produced a natty half-A racer (remember sidewinder Cream Puff?). The Frog makes up well but cries out for a proper motor to make it go! I decided on Oliver Cubs (1.5cc) for my pair. Wheels and spinners of Robinson quality set off Alan Walker's skills to perfection. I collected them at the now defunct Watford show, sporting my boater for ease of recognition. Terry McDonald spotted me at once, questioning my choice of tifter in mid-winter! Always enjoyed, now much missed, Watford was the easy—to—get—to perfect spot where like enthusiasts lifted the spirits when the trees were bare. For the benefit of our overseas readers, Biggles was a flyer of fiction written up by RFC Captain W E Johns and Beano is a comic dating back to the 1930's with heroes like Gorky the cat desperate Dan and Biffa the Bear (a Beano history exists, large pages and many pictures telling the whole story).



Memorable

A treat to see that fine ship in September's S&T. Laid down at John Brown in 1915, she's battlecruiser Repulse (15in guns, 38,300 tons full load) in pre reconstruction form. With her sister Renown modified in the 1920s and 1930s and good for 32mph from her turbines, Repulse and Prince of Wales (43,790 tons, younger and in the famous Hood action in May 1941) sailed as Force Z in December 1941 — but without a scrap of vital air cover. Modern warfare — sometimes conducted from keyboards thousands of miles off — no longer has a need for battleships, but in their day they were brave and magnificent and memorable.

Pigeon Power

With a store of corn, trained pigeons were dropped in baskets into key areas of Europe, their mission to return to the UK with information from spies and undercover groups. The RAF did the job often at night, and one of our feathered friends is credited with bringing home early news of the supersonic V2 rocket. Vital to the early Moon programme, the V2 at the Imperial War Museum is worth a peep when Lambeth way. Leaders of the Rocket Team lived in Wimbledon before heading off to the USA. Here von Braun and a delta model stands with Walt Disney.



Backfire

In service grey and complete with torpedo tubes on deck, MTB 102 lead a flotilla of cabin cruisers of the type used at Dunkirk, soldiers and sailors aboard waving to folk along the Thames at Kingston. Of layered

wood build, sleek and strong, a friend who served in these boats confirmed that they were good for 70mph over liat water, well above their listed top speed. He also told me of a cabbage that, stuffed up an exhaust as a prank emerged like a cannonball after a few revolutions of the great engine.

Bang !

Hardly a day passes without reference to bankers, the Euro and sums of giant size. And sometimes in the mix, even now, is Big Bang. It happened on 27 October 1986, much Dickensian stuff swept aside as the Stock Exchange was computerised and the market was opened up to outsiders. Strangers arrived and bought up old broking and jobbing firms (one UK bank bought five!), owners amazed at the sums offered. Trading floors of vast size, Docklands expansion (the old City was really a village), Gordon Gecko types in big braces strode about, Champagne flowed and outfits of world reach worked around the clock (sleeping under the desk developed). Apart from the Bank Rate Tribunal of long ago little happened in those pre Big Bang days, but size and computers soon meant that those at the top didn't understand what was going on at the bottom. And it's still a problem twenty-five years after the big event. Oh for those leather—bound ledger days and Quink ink.

CDMC Thrives

Founded in 1975 for all enthusiasts of cast models, Coventry Diecast Model Club (024 7649 1383) publishes Wheelspin magazine, is linked to other clubs and has members far and wide. Trips are arranged (S&T No 56) and special models are sometimes produced. Grand Prix Legends of Guildford stock all the top brands such as CMC, Minichamps, Mattel and Sun Star (very good on buses). In London GPL is near Leicester Square (0207 497 8157). And if you're in London and stuck for balsa, head for Modelzone at 282 High Holborn where a good stock is maintained.



Dragon Saver

Passing a disused Midlands airport in 1971, Keith Fordyce of BBC and ITV fame saw a DH Dragon Rapide rotting in the long grass. He restored it in his back garden and later founded the Torbay Aircraft Museum, one of only three self—supporting air museums in Britain and featuring his collection. Really a lawyer, Fordyce drifted into radio during National Service and went on to front Ready Steady Go, Easy Beat, Saturday Club and much more. Here he is with two of the Fab Four and Helen Shapiro.



Stolen!

Guards officers in mufti wore bowlers and carried tightly rolled umbrellas, achieved by repeated rolling using sheets of brown paper until the item resembled a rapier. The broolly was never opened, only once by an officer to insert a slip of paper which stated that ' This umbrella was stolen from Lt Col A P Wintle'.

Artists Choice

Scores of pictures hung at the Guild Exhibition in London proved that matters biplane are the thing. If a step away from the DH Tiger Moth is preferred for winter building, then RC Model Flyer offer the similar Bower's Fly Baby at 54in as an alternative. Pictured with designer Mike Conrad and hauled by a 90 4-stroke, rigging and fat rubber wheels make Fly Baby perfect for show or go. The 2—sheet plan is clear and detailed and can be ordered from RC Model Flyer (01525 222573) for £29.95 plus £3 postage. Chocks away



Barton's Bullet

On the cover of Circle Talk (Barton MFC esteemed journal edited by Peter Branigan) F2A World Speed Record holder Ken Morrissey smiles at us with his trophy and his 191mph model (2.5 Halman Special giving 2.5bhp at 40,000). TV and radio coverage too, I'm sure many S&T readers around the world would

appreciate a detailed account of man, model and mot-r involved in this great achievement. The Barton Boys do it again!

Action Art

Wisely the RAF chose Roger Middlebrook to create their calendar for 2012. A dozen of Roger's best pictures match the months and the GAvA best—of—show picture (DH9a attacked by a DVII) graces the cover.

Perfect for den or office and a treat at £9.95, a call to 0800 297 1940 will send one on its way. The

item code is 720642. It's standout stuff for spiffing chaps. Here Roger gives us the epic battle between Werner Voss and 56 Squadron RFC.



Drums, Discs, Desmos

Scion of King's of Oxford, Michael Bailey Hailwood enjoyed top flight bikes and a fine workshop at the family mansion on his way to the top. A friend who rode on the Isle of Man said it was a treat to be passed by him, the flying Hailwood soon a speck in the distance. I exchanged a few words with Mike in a bar at Monza at the end of practice for the Grand Prix seeing Agostini in a Ferrari preceded by a green van with his MV aboard. Soon the Duce's concrete stands were filled with the sounds of the Count's latest creation. The ACU at Rugby CV12 2YX offer a fine picture of Mike aboard the Honda six and there's a super model of Mike's out—of-retirement Ducati of 1976. Prepared by a Manchester enthusiast, Mike came back from New Zealand and astride the discs and desmo-valved Ducati did it all over again! Try 0844 887 8888.



Dogs Remembered

By pier 88 in Manhattan the luxury art deco liner Normandie was being turned inoh the troop carrier Lafayette. On 9 February 1942 sparks started a huge fire which caused the upper parts of the 83,400 ton. ship to be flooded with water from NY's fire servicers, eventually causing the Atlantic record holder to fall over on her port side. Finally cut up after many months, the 37mph masterpiece was scrap and history. Her third funnel, by the way, featured a posh dog kennel with a walking area complete with a New York fire hydrant and a Paris lamppost for canine relief. Liners sometimes trailed by fellows in aeroplanes, Normandie had a biplane land on her foredeck when a stunt misfired.

Bill 's Deed

Nicely showcased by Bill Wells, August saw us enjoying his red Veron Minibuster. A Phil Smith design to the old wing area, the little racer always looked active and attractive in Veron's publicity material. So much so that I had to have one! Linking my models with the times in which they first flew, more or less, I chose the name Just Jake for this one. Always in full hunting pink complete with topper, Just Jake was a character in the run of strip cartoons in the Daily Mirror of long ago when Fleet Street was the place to be and when titles such as Reynold's News, Star, Sketch, Chronicle and others were read aboard train chuffing away from Liverpool Sheet and other fume-filled temples to steam. Again Alan Walker built this one for me installed an Oliver Tiger and stood it on Robinson wheels. For those who sail, the Chronicle lives on in the blue-sailed Enterprise, numbers up to 20,000 or so.

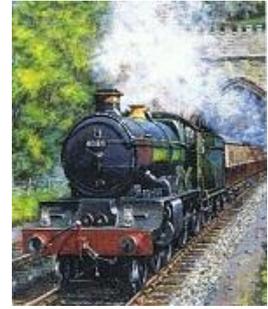


Space High

Daily we are reminded of debt. To get a handle on it but to save blushes, one country alone would have to build a stack of 100-unit notes 8,600 miles high to equal the sum it owes in bond debt. (IOUs). And as a note is only a few thou thick.....

Flyer Power

Here's 4080 Powderham Castle running near Bath in early BR days. Selected Castles — such as 5006 Tregenna Castle and Rhudland Castle and driven by top men such as Quality Street — hauled the world famous Cheltenham Flyer on her 7—coach sprint to Paddington, Swindon to London being the fast bit.



Woodley nearby (where Douglas Bader had his Bulldog crash) a few GWR drivers were treated to DH Dragon trips to see the Flyer at 100mph in Sonning Cutting and spot Maurice Earley with his tripod and camera. Collett copper and brass—trimmed Castles have been modelled since they first appeared ninety years ago and these days Ace, Aster, Hornby and kit manufacturers have just the one for you. Chum Mike, who actually restored a Castle at Swindon works and wrote a book on it, ran The Smokebox book shop near Kingston station. C B Collet was buried in Wimbledon but a number of his Castles and Kings live on at sites around the UK and run on the main, line.

Strange Times

In this volatile world of business riven by opposing views as to the best way forward (Keynes y Hayek for a start) it's curious that big outfits on the brink hold more power than those in good shape and better run! How crazy is that? Then, add a dash of jiggery-pokery and things get really interesting.

A Treat

Praising the wonderful array of classic engines in S&T, there on page 3 was a super Eta 29 complete with its famous logo. This wonderful show in the many editions reminded me of my first sighting of Ken Bedford's device when one appeared at Belfairs MAC in the hands of a good fellow known as Duckweed. Then at the ED Bee stage, I never forgot its looks or sound - or smell! Some years later Harry in Gordon Street, Luton, ordered mine from Ken just a few miles away. Heaven!

Onward

Staffed by enthusiasts and ever expanding, H& H Classics (08458 334433) can offer anything from a rare collection of watches (clockwork, of course!) to a Hawker Demon or a NSU Renmax (Racemax). Bentley Boy and Le Mans winner, RAF officer too, Woolf Barnato's 1929 Bentley and a Le Mans cup were sold recently. Astons and Bugs listed, Cadillac and Packard V12s also appear, not to mention a tasty Brough Superior and a 500 MV Agusta.



From Kiel

Little known now, an important job for C in C Portsmouth was to get crews to the Baltic to collect several Windfalls, in fact a hundred or so from 7 tons to a couple of 60 tons measuring 80ft. These Windfalls were yachts once used by the German services, a number by Goering's air force (rapidly expanded by the block drafting of cadets from the navy). Dartmouth had some for training purpose and others were sailed by clubs in the services. In time the Windfalls found their way around the world, to Canada, New Zealand and the Caribbean. A number remain in the UK, at least one on the Thames where she serves as a houseboat. Up to the 1970s one or two sailed in the Fastnet and other tough events. A leading light of the Kiel Yacht Club saw HMS Hood explode and was in Prince Eugen during the epic Channel Dash as described in S&T No 30. Close air cover, tight formation, it was amazing.

A New Express

The Gauge One Aster for 2012 will be a Southern Railways Merchant Navy. Clan Line as pictured and perhaps Port Line too, 3-cylinders and to Aster's stunning quality. The Pound against the Yen puts the cost at £5,300, but an easing could be achieved by selling those Games tickets! The beautiful Aster will linger longer...



Iron Duke Lifted

Fifty years ago a taxi driver made off with Goya's picture of the Duke of Wellington. Within months 007 Bond in Dr No (1962) sees the picture in Dr No's HQ. With help from the National Gallery the set copy was painted by that great movie designer Sir Ken Adam, the ex RAF pilot who gave us Ipcress and Strangelove and many more. As Flt Lt Adam he flew with 609 Squadron supporting USAF bombers and fired rockets from his Typhoon at Falaise Gap. Ken was extra brave in that he had been born, in Berlin, his father a Prussian cavalryman. A tight spot for Kenneth had he been captured.

Boats Beautiful

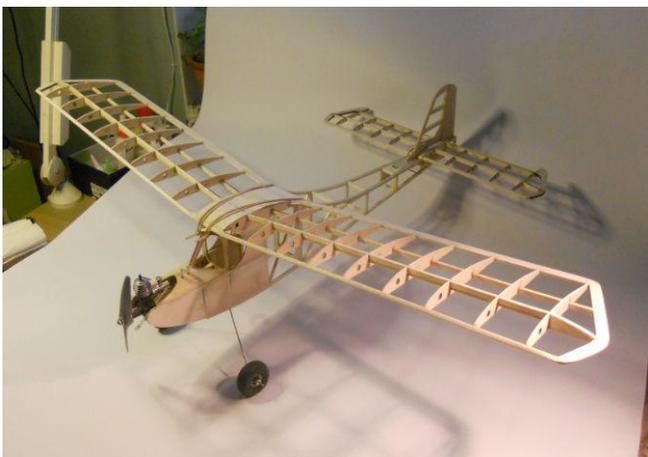
Take an angle north east through Sacramento from San Francisco and you will arrive at beautiful Lake Tahoe, a pine-fringed Alpine lake where sailing activities are cared for by the Tahoe Yacht Club increasing since the 1970s and these days numbering a hundred or more, classic power boats such as Gar Woods, Chris-Crafts and Rivas race in classes and are polished for concours events. Nearby a 63,000 sq ft storage facility keeps these wooden racers warm and dry. Pictured is 27ft Baby Skipalong, a 1924 Nevis design. Commodore Garfield Wood's ultimate was a four V12 monster called Miss America X.

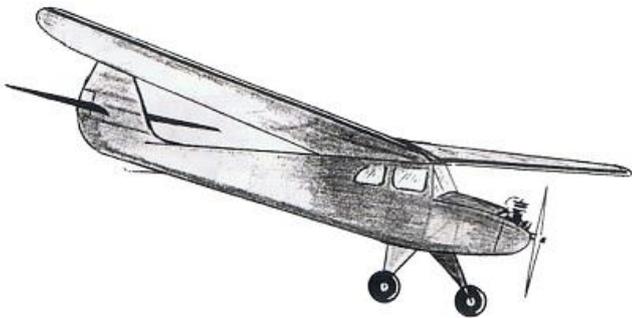


From Jörgen Daug

Hi James sending you a couple of pic,s of this autum and early winters building projekts the Ballerina and the Lola both from Old School and also my new Oliver 0,5 from Barton model products . I had hope to use it in the coming Chatterbox .

I will wish you an happy Cristmas and a Happy new year. By mistake the Tomboy on floats tag along from last winter.





From Leon at Belair

Just a note to say we are maintaining the price of the Zoot Suit for 2012 to help support the forthcoming events. Jeff Fellowes mentioned that you were running an event, we hope they go well.

<http://www.belairkits.com/Productdetail.asp?Id=609>



Zoot Suit by George Fuller - Parts Set

Price £26.00

Take the labour out of your next project with a laser cut parts set which includes ribs, stabiliser/fin components, stab ribs. Just add strip and sheet. Plan available from Mike Woodhouse directly.

Thank you to Geoff Kent for the photo of George Fuller with a Zoot Suit made from a Belair Kit.

Wessex League events

I'm banging on again about two new events to be run in the Wessex League those being the George Fuller RC power duration and control line Spitfire Scramble. Both these events are so simple and straightforward using easy to build models, who hasn't built a Stomper, Zoot Suit or Dixielander in the past or wanted to have a go at a Spitfire? Now's the chance to rekindle the past and aspirations, best thing is with the GF comp you can see the models perform as they should and with a blip here and there have them land at your feet or nearby at least. For those who join in they will be really good enjoyable events for spectators as well.

The other events we (Chris Hague being 50% of the we) run are now becoming established and they really are good fun and great flying, added to which is the banter and appreciation when a model is flown well. Simple events and not causing too much strain on the noggin or wallet and visiting different clubs where we meet other aeromodellers, what could be better.

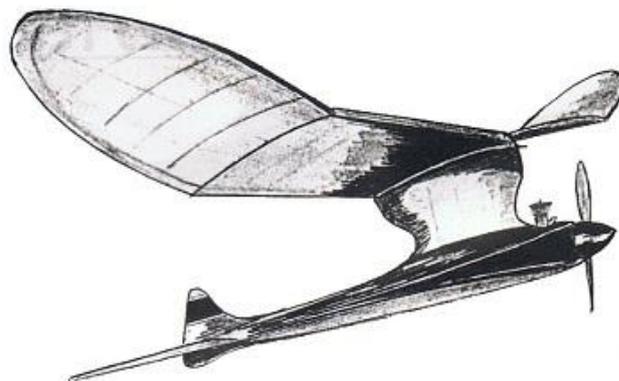
The full range of activities is on the website www.wessexaml.co.uk

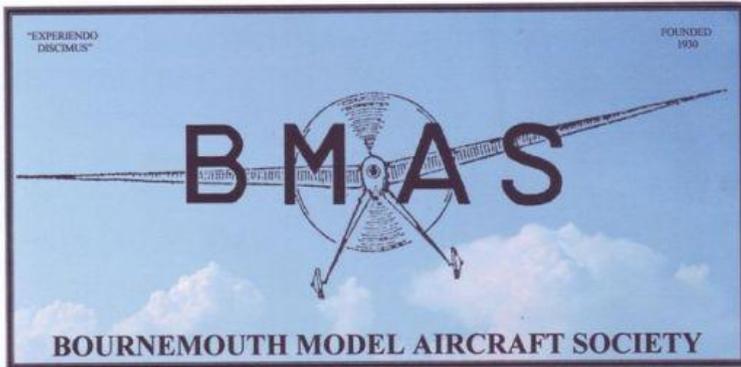
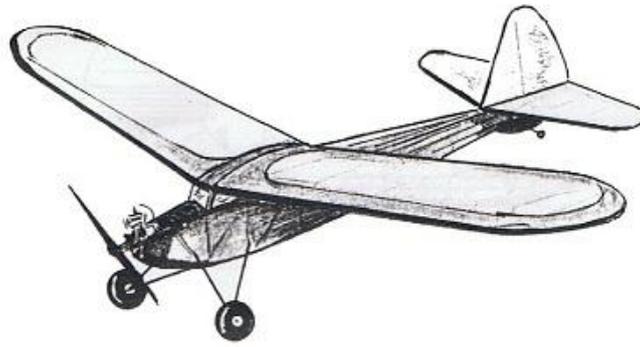
If you live in driving distance or are willing to go a bit further from home to join in you'll be more than welcome.

For those interested here is a provisional list of those events at Wimborne MAC at Cashmoor in 2012
Any questions to me James Parry

Wimborne MAC events at Cashmoor 2012 Dated 24.12.2011 provisional dates at moment

1 April	Sunday	Tomboy League Round 1
15 April	Sunday	Control line
22 April	Sunday	600RES league Round 1
13 May	Sunday	RC vintage
19/20 May	weekend	IMAC
24 June	Sunday	Scale /aerotow
14 July	Saturday	Outrageous and unorthodox
12 August	Sunday	Classic 1955 – 75 day
16 September	Sunday	Scale / aerotow
29 / 30 September		Tomboy / 600 spare date in case of weather problems at previous events although may be held where event was initially planned for
6 October		Tomboy / 600 spare date in case of weather problems at previous events although may be held where event was initially planned for
14 October	Sunday	Control line
20 October	Saturday	Ducted fan and jet





INDOOR FLYING

TUESDAY 24TH JANUARY 2012

TUESDAY 28TH FEBRUARY 2012

TUESDAY 27TH MARCH 2012

7pm to 10pm

ALLENDALE CENTRE, HANHAM RD, WIMBORNE BH21 1AS

FREE CAR PARKING IN PUBLIC CAR PARK IN ALLENDALE RD

FREE FLIGHT ONLY

COMPETITIONS incl GYMINNIE CRICKET LEAGUE

ALL FLYERS MUST HAVE BMFA INSURANCE FLITEHOOK NORMALLY IN ATTENDANCE

Adult Flyers £4 Accompanied Juniors & Spectators £1.50

CONTACTS: JOHN TAYLOR TEL.No 01202 511502

ROY TILLER e-mail roy.tiller@ntlworld.com



Line up for the Gyminnie Cricket competition in December at Allendale

From Karl Gies

Rubber Model Propellers Mike Woodhouse et. al. A SUPERB BOOK!

A couple of evenings ago I got out the above book, 66 pages, and re-read most of it. No matter what level of expertise you possess in the art of carving propellers you will gain more knowledge by owning and reading this book. It is the best publication in regards to making model airplane propellers/airscrews that you will ever read. It covers basic layout to the appendices, 29 chapters including single bladed folders, propellers from laminated sheet etc. All the instructions are clear and informative, the illustrations superb and buy a copy before it is not available. This is just a jewel of a book. I was lucky to get to know Clarence Mather who came up to Lewistown, Montana several times staying with me for several days of fly fishing. After fishing I attended the Clarence Mather propeller carving school. Clarence really emphasized thin, stiff propeller blades as does Mike and they really make a difference in performance. I always carve to a line somewhat back of where I finally want it, say an 1/8" of an inch. Clarence taught me to get the last bit of excess balsa off with rough sandpaper and this is good advice. Mike gives the advice to use garnet paper rather than sandpaper as garnet paper cuts the wood away much more easily without the risk of compressing the fibres. Sandpaper clogs and tends to compress the fibres. Mike is absolutely correct in this bit of advice on page 8 of the book. I have more and more went to laminated blocks and carving very thin, stiff blades. I like finishing the prop with 1/4 ounce fiberglass cloth as this really stiffens the prop blades. This book is for all levels of expertise in propeller carving. Keep in mind that the worst prop you carve will be better than any prop you ever buy. It is very satisfying to have someone look a prop you carved and finished and go "Ooooh." Maslow's list of "satisfiers" is spot on and peer group approval is way at the top of the list.

GOTO Mikes website: <http://www.freeflightsupplies.co.uk/> and the book can be found under "**HOW TO DO IT" PUBLICATIONS**"

THAT'S IT FOR 2011 AND A GREAT MANY THANKS TO ALL THOSE WHO HAVE SPENT TIME AND EFFORT IN SENDING IN PHOTOS / ARTICLES THAT WE CAN ALL SHARE IN. THOSE WHO HAVEN'T IT IS TIME TO FEEL GUILTY AND DO SOMETHING ABOUT IT! WHATEVER YOU DO HAVE AN ENJOYABLE 2012.