

Sticks and Tissue No 115 – June 2016

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 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://sticksandtissue.yolasite.com/>

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



Photo from Peter Renggli, Urs Brand and Urs Rindisbacher

From Gabriel Kiernan

I have only discovered your magazine on line recently. I was looking for some information on a Veron control line Colt model that I was trying to recreate. When searching the internet for any info on the model, I came across a photo of one in an old issue of Sticks and Tissue. I have been hooked since!

The Veron Colt was the first c/l model I ever had and I never got it to fly. Probably as a result of all the red gloss paint I used on it as well as powering it with a little DC Merlin (all of 0.75cc)! I eventually managed to learn how to fly control line models with the help of some nice people (John Molloy, Enna Healy and the Floods, Gary and Colin) who flew C/L models along the sea front in Booterstown, Dublin. I eventually learned to keep a Peacemaker out of the ground for more that 3 or 4 laps and I was in control line heaven! 35 years later and I still have a Midi Slow and a KK Deamon, powered by 2.5cc PAW diesel, but we have to travel a long way from home to a site where we can fly that. I wanted a simple C/L trainer, which my son could fly in a local park, so an electric version of the Colt seemed a nice idea.

Anyway, one think led to another and thanks to Dens model supplys I am now the proud owner of a (sortof) Veron Colt, but this time for electric power. I didn't have a plan so its not completely accurate. I also has to mess around with the motor and nose length, but eventually we succeeded.

There is a youtube video of it flying at <https://www.youtube.com/watch?v=qhrcgEptPd0>

Next up is to build a second electric C/L model and try some Tame Team Racing!



A "Tiger" in Coalville

Ross King

I never met John Oliver, but he was indirectly responsible for one of those moments I can never forget. Hearing of his death in last month's S&T triggered a trip down memory lane.

The year is 1975, and I am riding my bike toward a Coalville recreation ground in the hope of watching some model flying.

I loved control line with a passion, and knew that every Saturday kindred spirits would also be checking the sky for rain and the tree tops for wind.

When convinced of the absence of both, my pilgrimage to the nearby mining town and its rich seam of fellow model flyers began.

As I pushed my bike the last few yards onto the field bordered by grim council houses, I headed for the kids play area to chain my wheels to the slide.

Nobody here yet! I began to unpack my rucksack full of the only models I could fit in there; a couple of north pacific sleek Streeks and an own design Chuckie. Maybe next week I would dare to bring my 1.CC all sheet trainer, decorated with blue ballpoint pen and lots of dope? Maybe not!

Suddenly from out of nowhere striding to my right in a cloud of players No6 cigarette smoke, was a twenty something chap toting the unmistakable paraphernalia of a dyed in the wool combat flyer!

A dark blue ironmonger was reverently laid on fresh cut grass and laystrate unfurled to receive its battered handle, fragrant diesel fuel was decanted like fine ether wine into a valve spout.

I stood nearby, the only soul in sight wondering where his pitman could be! Part of me wanted to run to the grass covered nearby embankment to watch from a distance, but before I could chicken out I heard myself say "Do you need a launch with that?" "Yes Mate" said the youth.

"Just hold it and let it go when I say, don't chuck it!" Crouching over his Ironmonger he lovingly removed an oily cloth from a handsome smooth finned diesel. Wow! What's this? All I knew in my ignorant youth were Quickstart, Cox, and PAW, this was none of them!

Searching in vain for an intelligent thing to say; I gabbled something like, "Oh don't you use a glow plug engine, aren't they the fastest?" His answer was a snort of disgust! Whoops!

He almost smiled as he turned to gaze at his motor. "A glow?" he said "what would I want a glow for?.....That's an Ollie Tiger that is!"

He proceeded to start and tune that screaming powerhouse of British model engineering, then to carve the Leicestershire air into ribbons in an exquisite mock combat bout!

It goes without saying I had never seen anything like it, and at fifty six years old, I still haven't!

Thanks John, for some great Engines and happy memories.



Cloud Tramp Mass Launch - Robin Willes

Please mention the Mass Launch of Cloud Tramps in Sticks and Tissue, its on the 6th of August at 5pm.

For those who are local, Epsom Downs is the prime venue, you do not have to be an EDMAC member to participate.

David S. Larkin MAAC # 3577L 12th July 1936 – 28th May 2016. From Richard Lyle Barlow

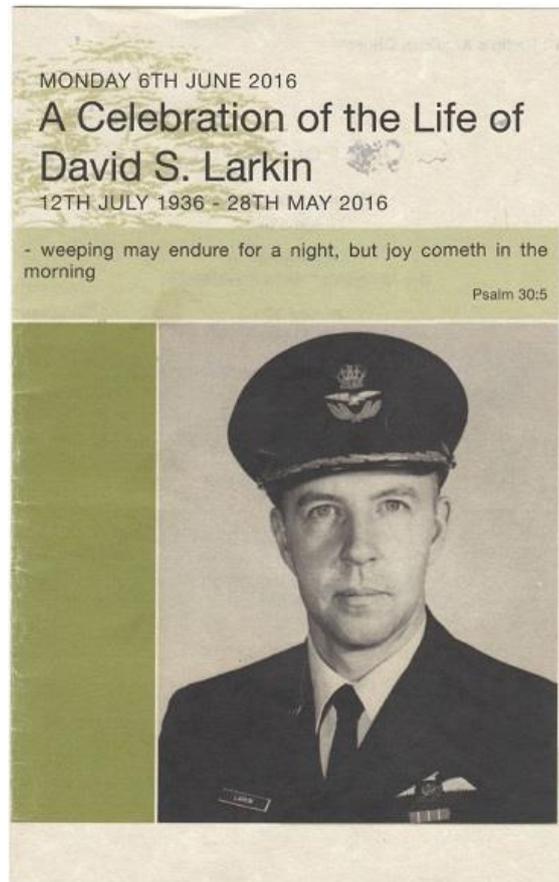
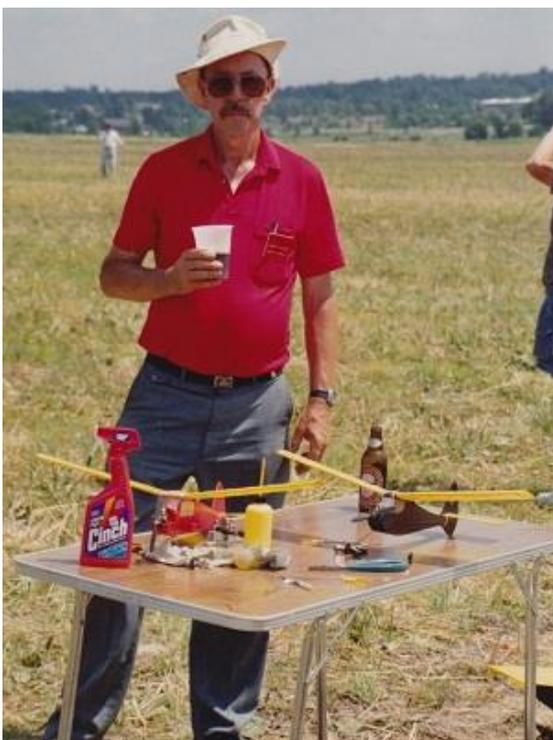
We have lost, in the passing of Dave Larkin, one of the great characters of MAAC. All members who knew him had the highest affection and respect for Dave, and on behalf of all, condolences are extended to his wife Fran, his children Patrick and Alison, his grandchildren and family.

Dave was born in England, spent his childhood in India where his father was in the British Indian Civil Service. Following WWII, the family returned to Britain, where Dave completed his education earning his BA and engineering degrees at Trinity College Dublin. He emigrated to Canada, joined the Royal Canadian Air Force, earned his wings and rose through the military to the rank of Lt. Colonel. He retired with distinction.

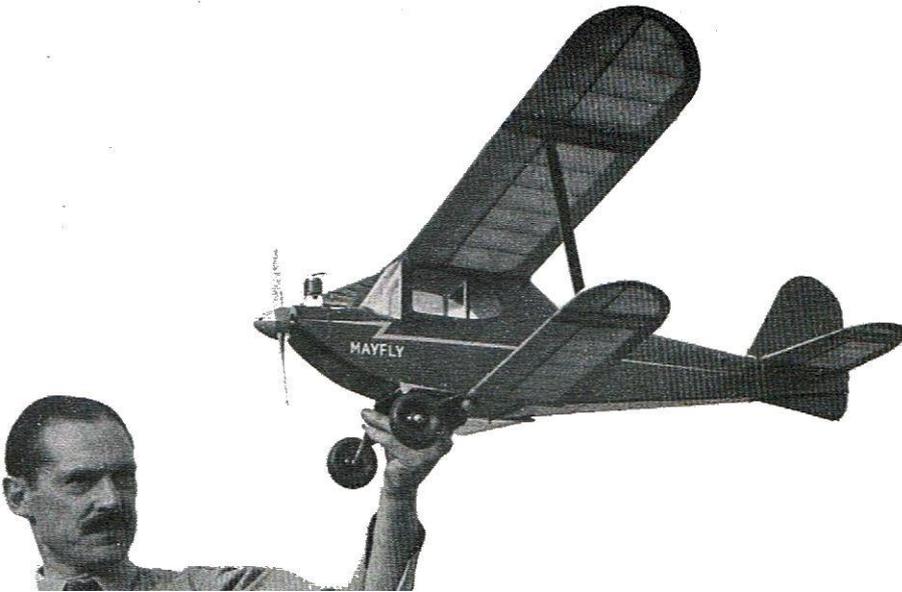
As a modeler, his early years in Britain had him building and flying all of the designs of the fifties. He especially loved FROG kits and engines. He was an engine expert, specializing in diesels, giving many demonstrations and workshops. He bought, sold, imported and collected these, for many years, having a booth at Toledo. He provided very important and useful contacts and introductions to the UK LMA (Large Model Association) when MAAC was formulating the Giant Scale guidelines in the early days of the Giant Scale Committee. He was the importer of Laser engines and Chris Foss kits from the United Kingdom. Although he was a competitive flier, most of his flying was of sports models. Free flight, control line and radio control all featured in his life. Autogyros and other unconventional types formed part of his stable of models. He was an accomplished gourmet cook and had a multitude of other interests.

Dave worked with Cadet and youth groups in Halifax and Ottawa. He served as president of both the Halifax and Ottawa RC clubs and was a founding member of SAM 86, organizing the prizes for the Great Grape Gathering contest in 1980. This contest is still held today. Dave later worked with the Prince Edward R.C Flying Club. He served MAAC as Ottawa Valley Zone Director playing a major role on the MAAC board of Directors. He represented MAAC to the Aero Club of Canada and received the prestigious Tissandier Award from the FAI for his role in resolving a very difficult situation. A long time leader member of MAAC, he personified what leadership is all about.

At Dave's funeral, the church was completely filled with friends, family, MAAC members and well-wishers. A fitting tribute to a remarkable man.



Mayfly a 46" span free flight biplane By A L. Thomas from Model Aircraft May 1951



Mayfly was designed and built primarily with a view to providing a model of pleasing semi-scale lines which would serve well for general sports flying. Things, however, did not altogether work out as planned, as the model ultimately proved itself as possessing a performance closely approaching that of a contest model! Powered by a Mills 1.3 c.c. Mk. I, it has a climb which is quite remarkable for this type of model ; spiral and longitudinal stability of a high order; and a very satisfying glide. The construction is robust and a high degree of "knock-off ability" has been incorporated in the design.

Several times during the last season the model has collided with the usual and ever present obstructions at Fairlop, viz, motor-cars and motor cycles, etc., and has on occasions appeared to disintegrate as a result. Spectators have, however, been astonished to see her in the air again a few minutes later. In almost all weather the model has afforded the writer many hours of delightful flying.

Fuselage

This is built on the usual basic box-frame principle. Build the two sides on plan, separate when dry and cover each fuselage side with the 1/16 in. sheet from top longeron downwards. The cabin can be sheeted after erection of the two sides. Erect the two sides by assembling them on formers 4 and 5. The sides are parallel between their two formers. Complete the rest of the structure in usual way. U/C blocks must be strongly cemented in place. Complete all internal fittings before fixing the 1/8 in. sheet flooring.

Cut slots for lower-wing tongues accurately. The leading edges of the lower wings butt against the front of the mid-cabin upright of the fuselage and the line-up of the slots must be parallel with the appropriate portion of the lower longeron which, in turn, is parallel with the datum line.

Then fixing the fin-dowel block, assemble in place with a length of dowel in the paper tube to ensure that the fin, when assembled will be dead vertical in the block.

Cover all the balsa panelling and decking with plain tissue and the underneath from former 5 with Model-span. Give two coats of clear dope, except the decking which should have one coat. Finish in colour dope as desired.

Undercarriage

Bind and solder the 14-s.w.g. piano wire components, not forgetting the 20-s.w.g. hook for rubber bands across the front legs. Form and solder the components with tise prongs fitted into the tubes to ensure that the prongs fit into tubes when completed. Cement in the balsa fillets then cover the whole unit with calico, using generous liquid glue (not balsa cement) well rubbed into the balsa and round frame edges. one side at a time overlapping to other side. Cover the inside first. Finally, cover with plain tissue overlapping as above, dope and colour dope to match fuselage. 2 1/2" in. Caton airwheels were fitted to prototype.

Upper Wing

First form main-spar and dihedral brace on plan to give 10° dihedral. Then build both centre sections together with tubes and dowels in place. When dry, separate centre-sections and lay one side on plan then build up wing in usual way, fixing trailing-edge dihedral-brace as shown. Note that C/S root-ribs are full-length. Assemble leading edges last. Repeat for other half

Lower Wings

Build on plan as usual. Note that root-rib is full-length. The ply tongues must be positioned accurately to line up with slots in fuselage.

Tail-plane and Fin

Build on plan in usual way. Fin-dowel hole should be lined with paper tube. Build the fin flat on plan as usual.

Covering and Finish

In the prototype all flying surfaces were covered in yellow heavy-weight "Modelspan." Give two coats of clear dope, without water shrinking first. All flying-surfaces were given one coat of proofer (clear).

The fuselage was finished in dark blue and the fin dark blue to match. Light blue flash along fuselage and undercarriage trimming. Blue and yellow triple "Trim-strip" chord-wise across upper and lower wing at junction of interplane struts and across tail-plane tips. Vertical trim-strip on forward part of fin. Interplane struts dark blue. Spinner-light blue.

Assembling

Undercarriage to fuselage with stout rubber bands across hooks. Fit tail-plane and fin. Tail-plane bands round fuselage, over tail-plane and then to rear hook. Fin is held by band round fuselage and front hook and at back by winding two small 1/2-in. rubber bands tightly round rear fin hook and rear fuselage hook, so that fin is tight on C/S of tail. This was found perfectly satisfactory on prototype so long as rear bands are tight to eliminate vibrational movement.

Attach upper wings squarely to fuselage with cross bands round dowels. Insert lower wing tongue into slots, and join upper and lower wings with interplane struts by pushing pipe-cleaner attachments into blocks. Fit rubber bands across bamboo pegs underneath fuselage. Attach "landing wires" and then "flying-wires" last. "Landing wires" should be tensioned a little tighter than "flying wires"!

Power Unit

The prototype was designed for a spare Mills 1.3 c.c. (Mk. I). The disposition of the bearers must, of course, be modified to suit engine selected (1 cc – 1.5cc. but not higher). The shape of the upper cowling has been left to the individual builder to decide. The engine of prototype was mounted upright (the writer dislikes operating inverted diesels !), and the upper cowling was made up with two end formers covered with 1/16-in. sheet and carefully cut out to fit snugly round the Mills.

Flying

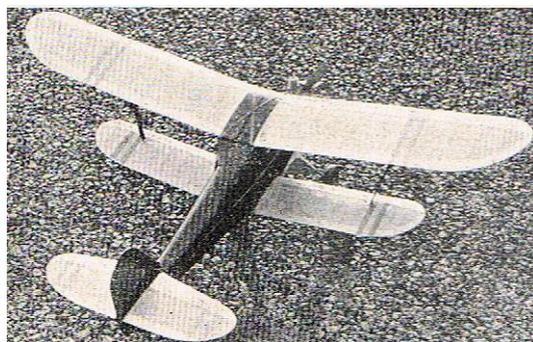
The completed model should balance on the fingers when held under the main spars of the upper wings, preferably slightly nose-down. It should be noted that the c.g. point marked on side-elevation is with the engine upright. With inverted engine or with an upright engine less tall than a Mills 1.3 it will be correspondingly lower. In any case the c.g. must not be allowed to fall above the thrust-line.

Set the fin dead straight, using the division of the centre-section of the upper-wings as a sighting point. Glide over long grass. The correct glide will be fairly fast but flattish, i.e. much flatter than a full biplane of the scale type. For slight alterations, correct by packing up leading or trailing edge of tail-plane. The prototype glided and flew perfectly with 1/16 in. packing underneath leading edge of tail-plane as the only adjustment in trim necessary from the designed rigging. Coarser alterations in trim would probably necessitate altering the incidence of the upper-wings, but on no account alter the setting of the lower wings from zero incidence.

Power



with torque. and the trim was then perfect. By just the right combination of side-thrust and fin, the model flies and glides in a left-hand circle.



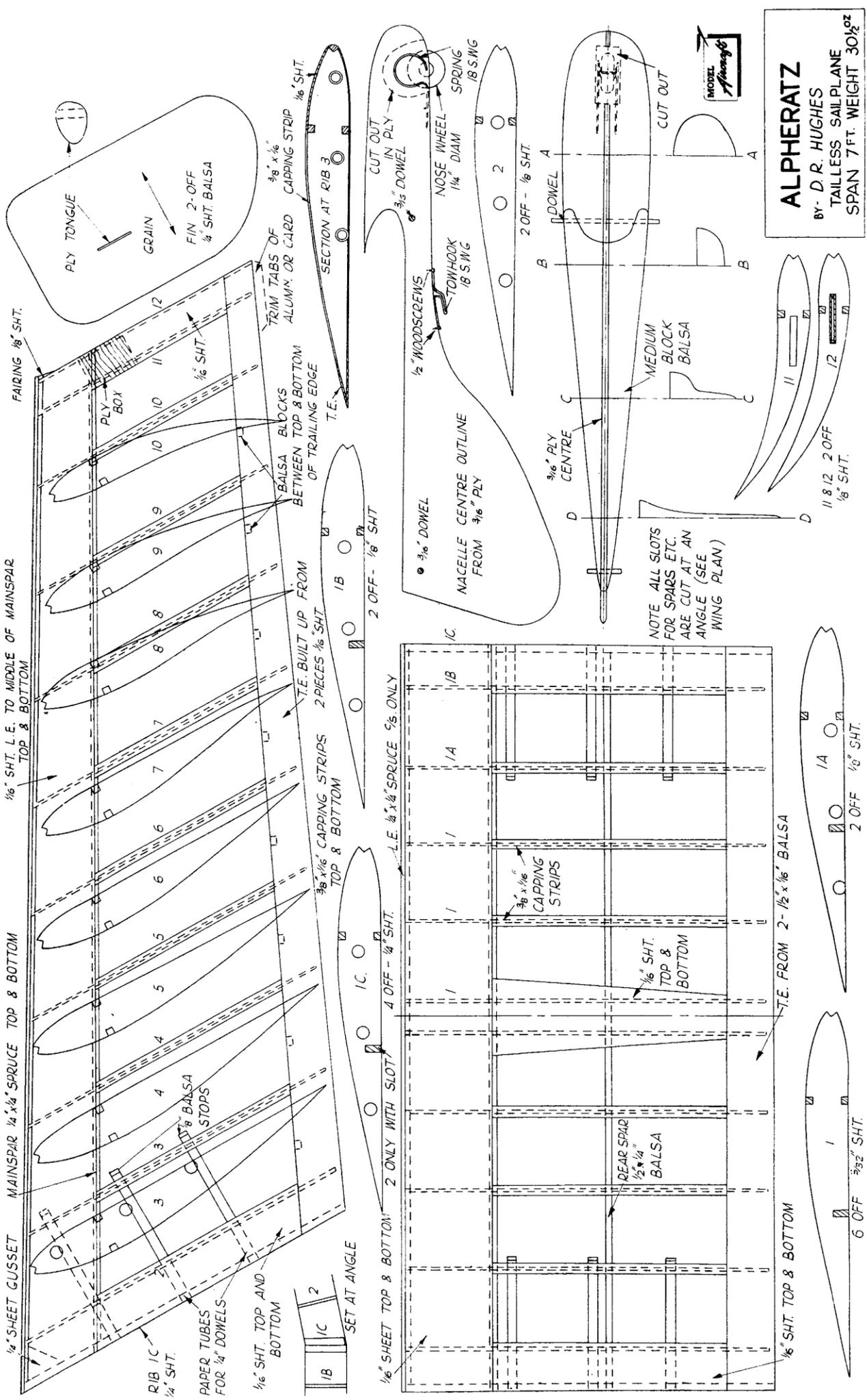
Prototype was flown with a "Stant" 9 in. X 5 in. airscrew. Do not use a higher pitch than a 5 with this diameter. See that engine is mounted to give at least 2° side thrust, but do not use any down-thrust. Keep revs, down to just enough to fly the model. With a straight flight the model was inclined to over-climb and porpoise slightly. The rigging was not altered, however, but a little left-hand fin was applied to produce a gentle turn

From Dick Twomey

Imagine my surprise sitting in front of my laptop in far-away Mauritius (my home for the past 25 years) to see my control-line Mew Gull from 1949 in May 2016 "S & T"! I had been 17 and still at school when this was first built and flown in early 1948, and the text published the next year in Model Aircraft reveals the first of many big mistakes that this then young man has made: Anyone who says that "the future of scale lies in Control line" had obviously never imagined the current development of Scale R/C, had he?!

When I was well into my retirement back in 2004 another Mew Gull was built, but this time with built-up, not solid, wings and electric powered. It hangs among my other aeromodelling wonders in my workshop as I now write to you. Memories indeed!

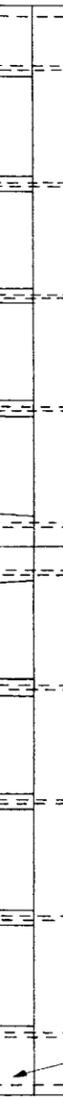
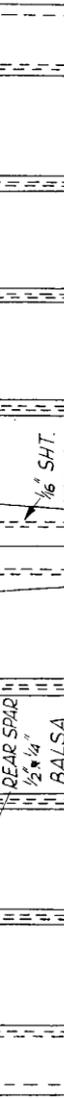
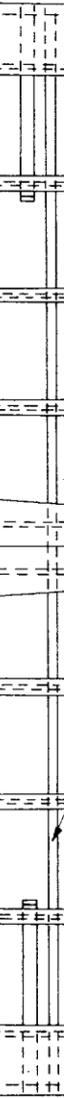
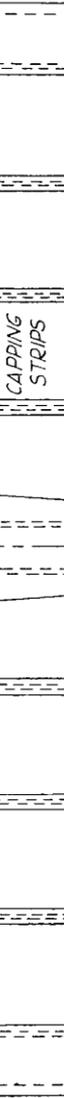
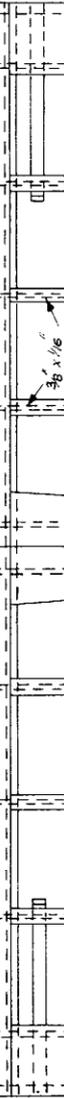
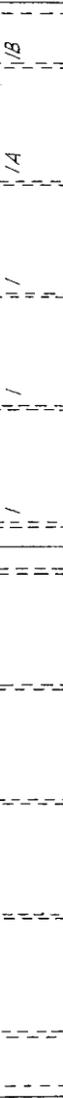
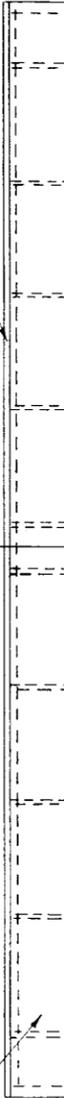
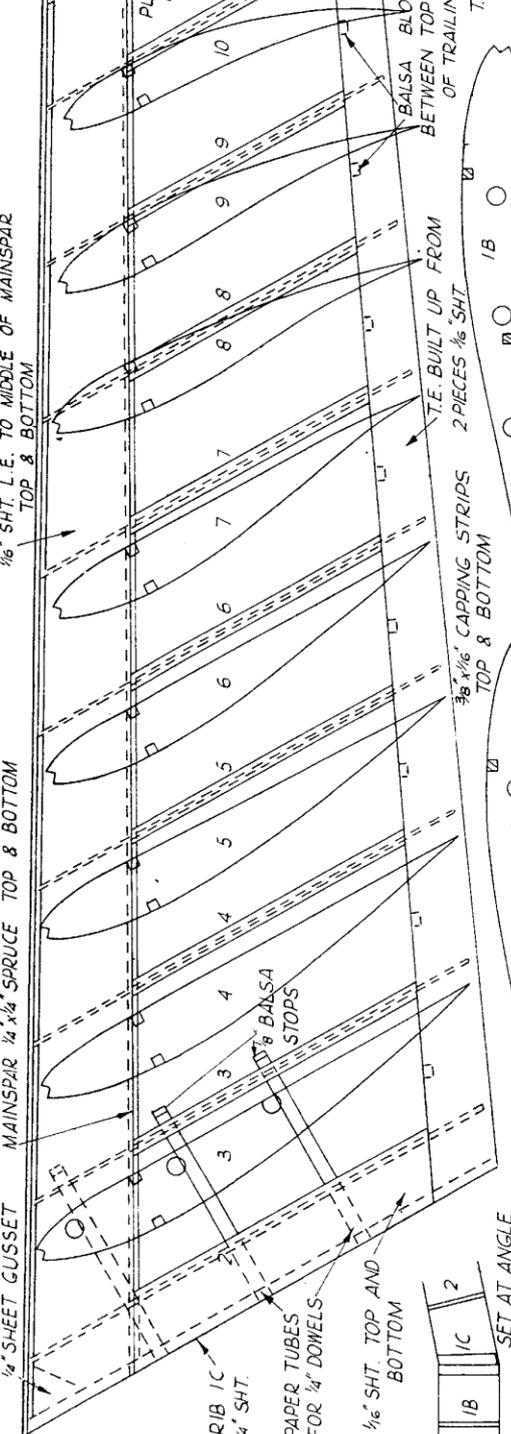
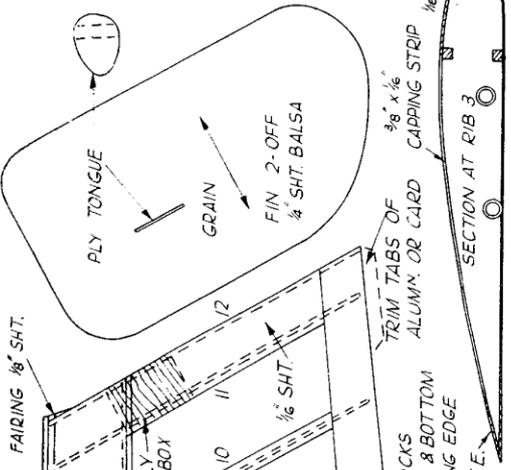
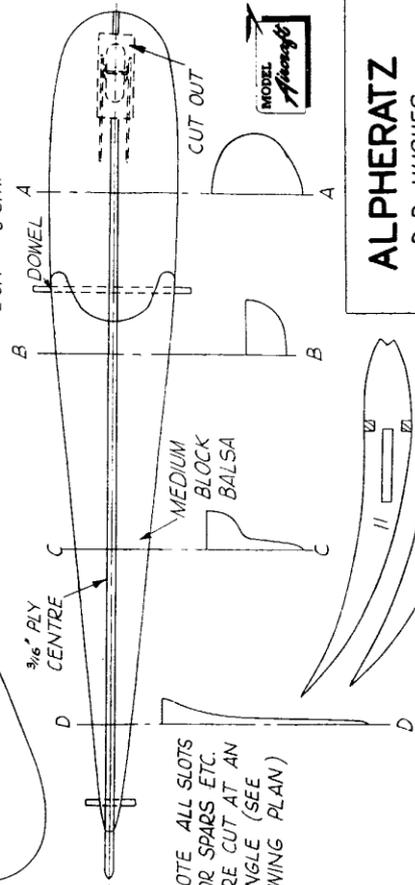
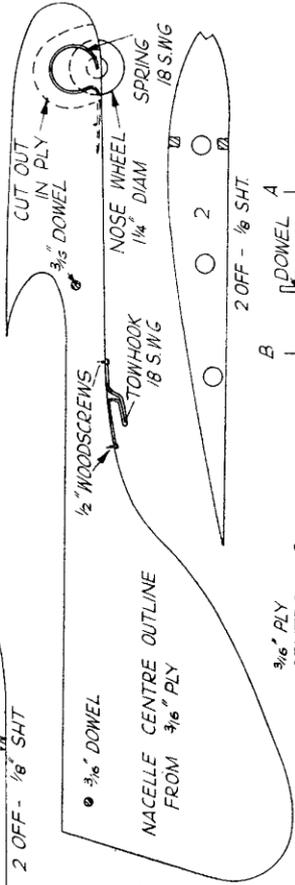
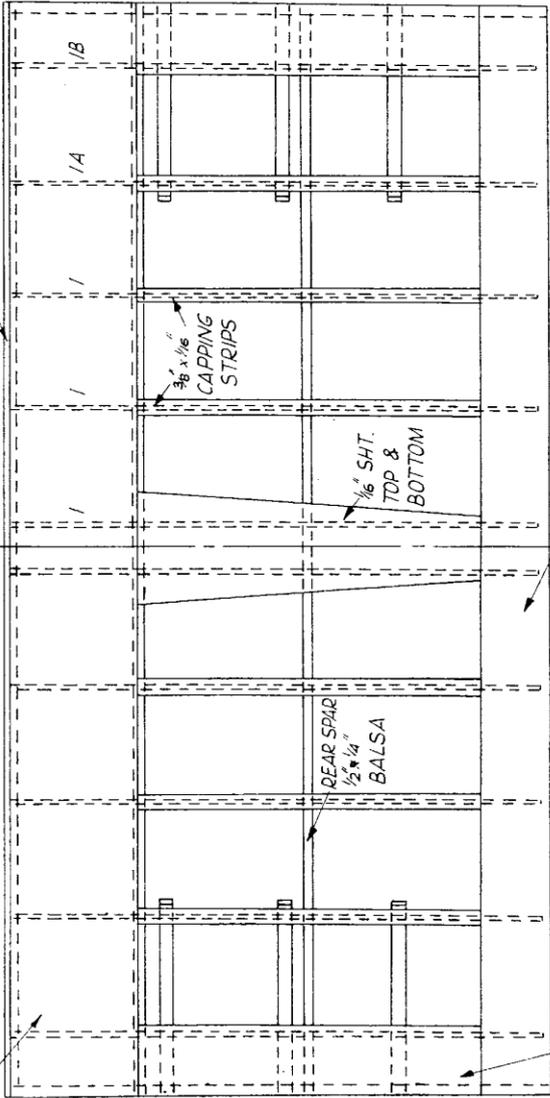
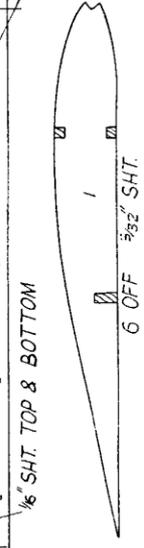
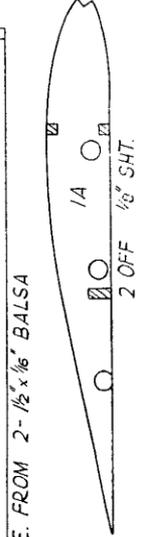
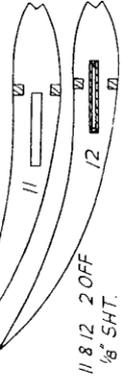




ALPHERATZ
 BY: D. R. HUGHES
 TAILLESS SAILPLANE
 SPAN 7 FT. WEIGHT 30 1/2 oz



NOTE ALL SLOTS FOR SPARS ETC. ARE CUT AT AN ANGLE (SEE WING PLAN)



Alpheratz Sailplane winner of the 1949 Lady Shelley Cup by D R Hughes from Model Aircraft May 1950



This model is the third in a series of tailless models, and it appears to have the optimum performance for this particular layout. First flights were made, hand-launched, at Clwyd Hills in a strong breeze, when it clocked 72 secs. Its winning aggregate in the 1949 Lady Shelley Cup was 5 min. 41 sec. The first flight (2 min. 7 sec.) was only its third tow-launched flight. This speaks well for the model's towline stability, and the designer's decision to use a central underfin has been well rewarded—previous models having a fin atop the

centre-section and being unwieldy on the line.

Now Alpheratz is as stable both on and off the tow-line as anyone could wish and has a performance equal to many "orthodox" sailplanes of similar size.

Nacelle.—This is built "sandwich" fashion, the centre being an outline of 3/16in. ply. To each side of this is cemented block balsa which is afterwards carved and sanded to the sections indicated. The use of an underfin necessitates a nose-wheel. This is 1 1/4 in. diameter solid rubber tyre on a wooden hub with an 18-gauge bush. Make the sprung axle from 18-gauge wire, leaving long ends for pressing into the balsa as indicated on the plan. Drill through for the wing-fixing dowels and cement these in place.

Make a tow-hook from 18-gauge wire and screw this in place, as shown.

Centre—section.—Pin the lower spar in position, rear spar and lower part of trailing edge (which is built up from a "vee" of 1/16- in. sheet). Now add the ribs, leading edge and top spar. Remove from board and fit dowel tubes. Sheet the leading edge up to the middle of the mainspar with 1/16in. sheet, top and bottom. The top half of the trailing edge and the rib capping is now added and the whole well rubbed-down with fine glasspaper.

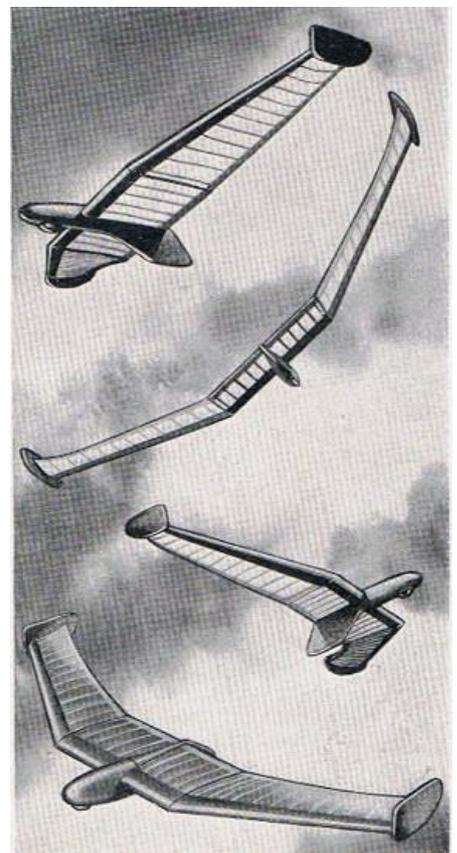
Wings.—As with the centre-section, the mainspar and lower half of trailing edge should be pinned in position first. Cement the ribs in place—making sure that the root rib is at the correct angle for dihedral and that the leading edges line up properly. Now fit leading edge and top spar. When set, gently bend the trailing edge up to meet the ends of the ribs. This will occur from approximately half way along the wing. Coat the lower edges of the ribs with cement where they will join the trailing edge and pack it up so that it touches all these ribs evenly, without holding. If necessary, pin the trailing edge to the ribs while gluing, and leave to set well.

With packing blocks still in place, add the top half of the trailing edge, well cementing and holding in place by means of several spring clips until dry. Remove from board; add dowel-tubes and boxes in wing tips for fin-tongues. Finally, sheet leading edge and add rib cappings.

Tip fins.—These are made from 1/4 in. sheet balsa, sanded to streamline section. Tongues are 1/16- in. ply, and go right through the fins. Cover with tissue.

Covering.—The original is covered with yellow parachute silk, applied wet, with photo paste. Allow 24 hours to dry out, and give three coats of full strength glider dope. Make certain the silk adheres to the top of the outboard ribs where the reflex occurs.

Trimming.—Owing to the relatively short moment arm forward, considerable ballast is required. and it was found more convenient to use external weights for trimming. When the correct trim has been found, a portion of the balsa nacelle is removed and the weight—in as compact a form as possible—stowed



inside permanently.

Getting the longitudinal trim for Alpheratz is very easy, since it is only required to add weight to the nose until the model shows no sign of stalling from a hand launch. Now try a tow-launch on about 100 ft. of line. It will probably be found that more weight is now required, because it is difficult to hand- launch a model of this type at its correct gliding speed and angle.

Having achieved the optimum trim, remove the external ballast and stow inside, as mentioned earlier. (The nacelle may now be coloured and polished.)

The model will almost certainly have an inherent turn, but if it is desired to increase or counteract this, a very small tab may be added, as indicated, on the opposite wing, (i.e., left wing, right turn, right wing, left turn), in the “ up “ position. Only very slight adjustments will be required.

Use a strong line and don't be afraid to pull— the secret of a good launches to get the model going up at a good angle, fast to start with, decreasing speed until model is ready to come off the line.

From Tony Parkinson.

The Rocketeer A was made from a short kit sold by Al Lidberg in the U.S.A. aalmps.com using his plan with a few modifications for electric power and bolt on wing.

I covered it with polyspan and used thinned easy dope to help smooth the surface before spraying with Vallejo airbrush paint. Have only four flights with it so far and needs a bit more right thrust and will try moving the C/G back a little more. Mine weighs 17oz and it is a joy to just cruise around or cut the power and watch as the prop free wheels and the plane glides slowly along. Originally sold as a kit by H&F Model Airplane Co and designed by Maurice Schoenbrun.





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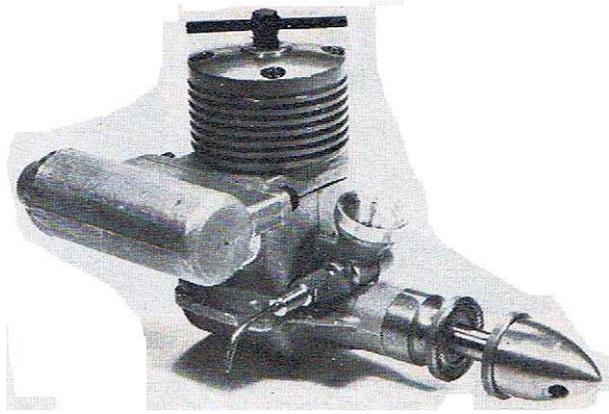
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Air Trails - April 1941

FOK-25 ENGINE TEST By Peter Chinn Latest version of an inexpensive Hungarian 2.5 c.c. engine From Aero Modeller June 1967



Sold in the U.K. as the Ripmax F-25, this 2.5 cc diesel motor is made in Hungary where it is known as the FOK-25, this name being derived from the initials of the manufacturer.

Production of the FOK engines (there are also 1 cc. and 1.5 cc. versions) began in 1963. However, the present motors, particularly the two larger engines, have numerous modifications and, despite outward similarity, are virtually new models. So far as the 2.5 cc. is concerned, the crankcase, crankshaft, cylinder, main bearing, connecting-rod, piston, gudgeon-pin, cylinder jacket and spinner nut have all been modified or replaced by new

parts. It appears that the cylinder modifications have been brought about, primarily, by the need to equip these engines with silencers. To simplify this, the original cylinder porting, consisting of two diametrically opposed exhaust ports, with transfer flutes between them, have been replaced by a single exhaust port on one side and twin transfer flutes on the opposite side. This eliminates the need for twin silencers or for an exhaust collector ring to take gasses to a single silencer.

The silencer fitting used consists of a diecast adaptor which drops over the cylinder liner and is positioned between the top of the crankcase and the bottom of the cylinder jacket, the cylinder screws passing through it. The adaptor has a flange and this is fixed to a diecast silencer with two screws. In general, the design of the F-25 follows orthodox model diesel practice. The main casting embodies the crankcase and main bearing, with air intake and beam mounting lugs, and the cylinder assembly consists of a heavy hardened sleeve and a machined alloy jacket tied to the crankcase with four long screws. The casting differs from that of the original FOK 25 in that a bronze bushing is no longer used. Instead, the crankshaft runs directly in the casting material, with a wide longitudinal oil groove extending to within 5/16 in. of the front end.

The crankshaft has a fairly generously dimensioned journal diameter (9.5 mm.) with a 5.4 mm. bore gas passage and a circular valve port of the same diameter. This latter registers with an elliptical port in the main bearing to give a modest induction period of about 145 degrees of crank-angle, timed to close rather early at approximately 15 deg. ATDC. Beyond the journal length, the shaft is stepped down to a nominal 7 mm., where it is knurled to accept the pressed-on prop driver and, beyond this, is further reduced to 6 mm. for the propshaft section. The prop driver is machined from 17 mm. hard aluminium bar and, like the spinner-nut, cylinder jacket and crankcase back-plate, is colour anodised green.

The cylinder sleeve is located by a narrow annular seat in the crankcase and from here, up to just above the exhaust port, it has an outside diameter of 21 mm., giving a 3 mm. wall thickness to accommodate the transfer flutes. Both transfer and exhaust port area are slightly smaller than on the earlier model FOK 25. The exhaust port is shallower, eliminating the short period of sub piston induction of the older model, but not significantly altering the exhaust port timing which remains at approximately 70—70 deg. either side of bottom-dead centre. The transfer period has been increased, however, to give an exhaust lead of around 8 deg., instead of 14 deg. as originally used.

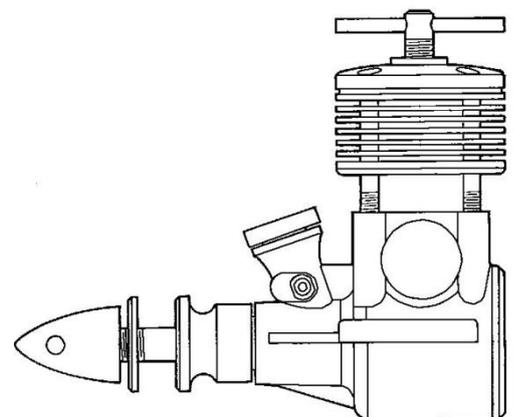
The piston now uses a pressed-in solid gudgeon-pin instead of a fully-floating pin with aluminium pads and the aluminium alloy conrod, formerly a machined component, is now a forging. The piston has a flat crown, but the contra piston has a slightly concave surface to give a more efficient combustion chamber shape. Early models of the FOK 25 had the intake venturi as an integral part of the crankcase but a detachable aluminium insert is now employed instead.

SPECIFICATION

Type: Single cylinder, air cooled, two-stroke cycle compression ignition with single exhaust port and two transfer ports.

Crankshaft type rotary-valve induction.

Bore; 15mm. (0.5905m.). Stroke: 14 mm. (0.5512m.)

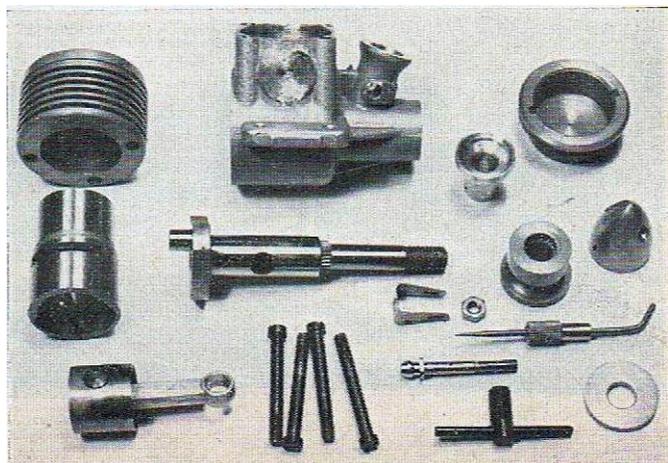


Swept Volume: 2.474 cc. (0.1510 Cu. In.)

Stroke / Bore Ratio: 0.933:1.

Weight: 5oz. (5.7oz. with silencer).

General Structural Data



Gravity diecast aluminium alloy crankcase and front housing With unbushed main bearing.

Counterbalanced

hardened steel crankshaft with 9.5 mm. dia. journal, 5.4 mm. bore gas passage, 5 mm. crankpin and short knurled section for pressed-on machined aluminium alloy prop driver. Shaft end threaded 6 mm. metric for machined aluminium alloy spinner nut. Cast iron piston with pressed-in 5 mm. solid gudgeon-pin. Forged aluminium alloy unbushed connecting-rod. Hardened steel cylinder with cast-iron contra-piston and located by annular seat in crankcase. Machined aluminium alloy finned cylinder jacket encasing upper part of cylinder. Complete cylinder assembly tied to

crankcase with four 3mm. screws. Screw-in machined aluminium alloy crankcase-backplate. Machined aluminium alloy 5.5 mm. bore venturi insert. Spraybar type needle valve assembly. Beam mounting lugs.

TEST CONDITIONS

Running timer prior to test: 2 hours.

Fuel used: ED Super-Zip.

Air temperature: 50 deg. F. (10 deg. C.).

Barometer: 30.10m. Hg.

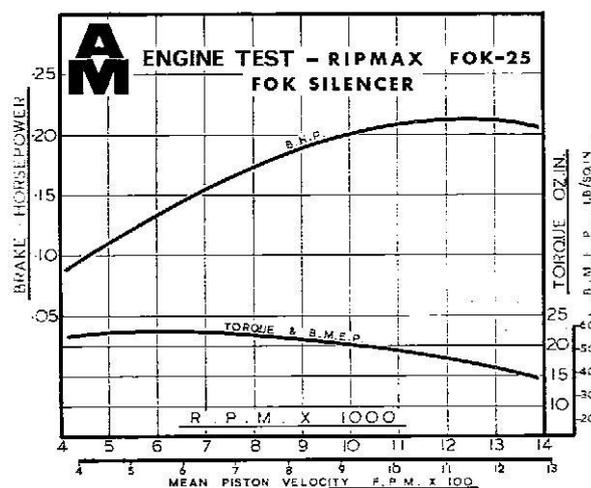
Silencer type: FOK-25 expansion chamber.

Performance

Preliminary tests were conducted with and without the maker's silencer fitted. The silencer is of a simple expansion chamber type and is of moderate size. The method of fitting is quite neat, but (on our engine, at least) the space between the top of the crankcase and the bottom of the cylinder jacket was about .040 in. Deeper than the thickness of the exhaust adaptor. In order to prevent the silencer from vibrating up and down, it was therefore necessary to make suitable gaskets to take up this gap.

We found that, despite its small volume, the silencer caused very little loss of power except at very high rpm. On a 9 x 4 or anything larger, in fact, there was no power loss at all. On an 8 x 4 Top-Flite nylon there was a drop of 200 rpm. with the silencer fitted and not until load was reduced to permit speeds of around 13,000 did the loss exceed 400 rpm.

Typical prop speeds achieved on test, with silencer fitted included 7,100 on a 10 x 6 Top-Hite nylon, 8,750 on a 10 x 3 Top-Flite nylon, 9,700 on a 9 x 4 Top-flite nylon, 10,200 on a 9 x 4 Keilkraft nylon, 11,500 on an 8 x 5 PAW Trucut wood, 11,800 on an S x 4 Top-Flite nylon and 12,200 on a PAW Trucut wood. Maximum torque reached on test was 22.5 oz. in. At around 6,000 rpm. and maximum power recorded was just over 0.21 bhp. at about 12,300 rpm.—the peak of the curve, in fact, being quite flat. All these figures are somewhat lower than the levels reached three years ago with an earlier (unsilenced) model FOK 25, but it is only fair to point out that the present figures—which, in any case, are quite reasonable—were obtained with a perfectly stock specimen supplied by Messrs. Ripmax Ltd., whereas earlier testing was conducted on an example submitted by the exporters in Hungary and this could very well have been a specially selected motor.



Handling qualities of the F-25 were quite good. Starting was easy and, fortunately (since a silencer makes this difficult), port priming was quite unnecessary at any time. For the first start from cold we merely choked the intake for three or four flicks of the prop after the fuel line was full.

There was a good deal of vibration at speeds below 8,000 rpm., but over the most useful operating range and at the highest speeds, the F-25 smoothed out nicely. Both the compression and needle-valve controls were easy to adjust and positive in operation. At 69/6d, the Ripmax F-25 is just about the cheapest 2.5 cc. engine on the U.K. market at the present time. We think it is very good value.

Power/Weight Ratio (as tested—with silencer): 0.60
bhp./lb.

Specific Output (as tested—with silencer): 85 bhp./litre.

Hi James. Jud Bock here from Honey Creek Iowa.

I was perusing the last Sticks and Tissue, and spotted a Cumulus. I spent last winter scratch building a new one myself, and it was a great flyer....for 5 flights. I had radio failure on the 6th, and re-kitted it. I will probably re-build it next winter. Anyway, here are a couple of pics of it. Nice to see that the Brits know a nice Oldtimer when they see it.







Originally intended as a stunt/combat model with a difference, Double Scotch never fails to draw a crowd wherever it is flown, and is thus especially useful for flying at displays etc. Just the sound of two motors 'beating' together is enough to attract attention, and this combined with the speed and manoeuvrability of Double Scotch causes quite a stir!

The fuselage designs were conceived from floats fitted to the Supermarine S 6B, and have proved very sound - the prototype having survived a good deal of rough and tumble in the course of two seasons flying. No undercarriage is fitted, as it has proved to be more of a hindrance than a help with a rough grass flying field, but those with smoother take-off facilities could easily mount a leg to each of the fuselages for a 'tail -dragger'.

When powered by two E.D. Racer 2.46 C.C. engines, fitted with 8 x 6 propellers, the airspeed was in excess of 80 m.p.h. and the line tension quite considerable —hence the use of twin bellcranks for safety! The model will take a wide range of engines, from a pair of 1.5 c.c.'s for the timid, to 3.5 c.c. for the extrovert, but the weight should be kept as low as possible for maximum performance, particularly when

powered by the smaller motors. The original weighed 28 oz.

Commence construction of the model by cutting out a complete set of wingribs from 3/32 medium sheet, remembering to cut holes for the leadout wires in the appropriate ribs. Mark and cut out two bellcrank mounts from 1/8 ply, drill holes for bellcrank mounting bolts and then double cement wingribs W2 in position on the plywood mounts. Fit bellcrank bolts through the holes and after soldering the retaining nuts in position, lay assemblies aside to allow the cement to dry. Pin the plan to the drawing board and then pin the lower - 1/8 x 3/8 spar in position. Cement wing ribs W1 and W3 to the spar. Add bellcrank mount assemblies to the wing before fitting the upper 1/8 x 3/8 spar. Take the 1/4 x 3/4 shaped trailing edge, and mark and cut slots for wingribs. When cementing the trailing edge to the wingribs, take care to support it at intervals with scrap pieces of balsa. Fit 1/8 x 1/8 leading edge in place and set wing aside to allow cement to dry thoroughly.

At this point, it is a good idea to make the fuel tanks. construction being quite straight forward and self explanatory from the plan. Two sizes of tank shown on the drawing, the larger being suitable for 2.5 c.c.-3.5 C.C. motors. Commercial tanks can be installed if so desired.

Continue wing construction by removing the wing from the drawing board and fitting the bellcranks, and soldering retaining nuts in position. Bend and solder leadout wires after threading these through the holes in the ribs, then solder the pushrods in place, leaving the ends of leadout and pushrod wires oversize at present. Cement upper and lower -1/16 leading edge sheet in place, using P.V.A. adhesive or similar. Next add the 1/16 centre section sheeting, leaving slots for the pushrods. Cut and 3/32 x 3/4 trailing edge fairing, double cementing to trailing edge, then spot cement wingtip blocks in place after inserting half ounce wingtip weight and leadout guides (fuel can spouts are ideal) in their respective blocks. Complete wing construction by shaping tip blocks, sanding sheeting, and filleting all joints with cement. With regards to spot cementing the wingtip blocks in position prior to final cementing — it is easier to remove these for final sanding, as the leadout wires otherwise interfere somewhat with the shaping.

Fuselage construction is straightforward, commencing with the engine bearer/tank/bulkhead assembly. Mark and cut out two plywood nose rings and two 1/8 each of formers F2 and F3. Formers with the suffix 'A' are for use with 1.5 c.c. engines —which have narrower crank-cases. Cut engine bearers to length and epoxy to formers F2 and F3, after ensuring that the fuel tank fits snugly in position between the bearers and bulkheads. Lay complete assemblies aside to dry.

Cut four fuselage sides from 3/32 med. hard sheet. noting that the slots for the tailplane and the pushrods are cut out only from the two inner fuselage sides, then trace and cut out the remaining balsa formers F4, 5 and 6, remembering to cut holes in these formers for the pushrods where indicated. Take the two inner balsa

fuselage sides and cut away the portions directly below the wing position, then fit these sides in place on the wing, double cementing, and fit the under wing portions of the fuselage sides in place. (The reason for removing the under wing pieces prior to assembly is simply because the inner fuselage sides cannot be slipped in place over the wing due to the twin pushrods projecting from the bellcranks). The outer fuselage sides are now slipped over the wing and cemented in place, then former F4 is fitted. Cement engine bearer assemblies in position on the fuselages, checking for correct alignment, then slide the remaining fuselage formers F5 and F6 in place over their pushrods and cement to fuselage sides. Now cement and clip fuselage ends together until firmly set, checking for alignment in the process.

Cut the tailplane and the elevators from 1/8 medium hard sheet, then sand to section and fit tape hinges and elevator horns. Cement the tailplane in position and allow to dry thoroughly. Cut fins, rudders and fin fairings from 3/32 balsa. ensuring that the grain of the balsa runs in the direction indicated, then cement fin and rudder laminations together, later sanding to section, and set aside.

The elevators must now be connected to the pushrods as follows: Clip or pin elevators in the neutral position, then check movement of the bellcranks and wedge the wires in the neutral position. Bend the pushrods to shape, then solder retaining cup washers over the ends, check for correct elevator movement i.e. 45° up and down. Cut and fit top and bottom fuselage blocks, then carve and sand to shape prior to cementing fins in place in the slots provided in the top decking. Add both fin and wing root trailing edge fairings, cut from 3/32 balsa. Thin card root fairings running from leading to trailing edge of the wing can now be cut and cemented in place.

Fuselage construction is completed by fitting the 1/8" plywood nose rings and the cowling blocks, carving and sanding these to shape, prior to drilling holes in the bearers to suit the engine mounting holes. Moulded or commercial canopies should now be fitted. Model should be covered with heavyweight Modelspan or Nylon and clear and colour doped to taste. Colour scheme of the prototype was pale cream, black and white. Detachable engine cowls were not fitted to the original version due to the bulk of the exhaust stacks on the E.D. engines, which would have made removal difficult.

The model should balance at, or slightly forward of the C.G. shown, and may be flown on 50-70 ft. lines depending on the sizes of engines used. However, if using 2.5 c.c. or larger engines on 50 ft. lines! then heavy weight Laystrate would be essential and in any case, double loops on the lines are a wise precaution.

From David Lovegrove

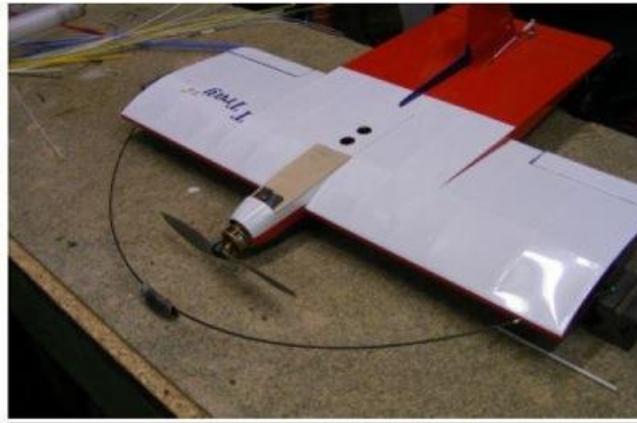
I promised a few words about my Mk.2 T-Tray, which, because it's vastly bigger than the original, I've dubbed the T-Trolley!

Following on Mike Spencer's piece in last month's S&T, where he related the tribulations accompanying the early test flights of his 24" w/s TT, I've just finished this 36.75" w/s version, and test-flown it. So, you ask, how did it go? Read on and all will be revealed . . .

But before we get to that, it should be stated that prior to Mike's "biggie", others had discovered that this little 12" control-liner didn't take at all kindly to conversion to r/c. In fact, it was judged to be impossible to coax anything approaching a normal flight pattern from it!

Mike's efforts confirmed that there were indeed multiple potential difficulties. For starters, there was the crucial question of where to nail down the CG. Then, there's that unusual planform, which has more in common with a control-line combat model than an r/c model. Add to these the stubby little wings grafted onto a long, central wing-cum-body section, and it's easy to see why the TT's aerodynamic qualities are shrouded in mystery.

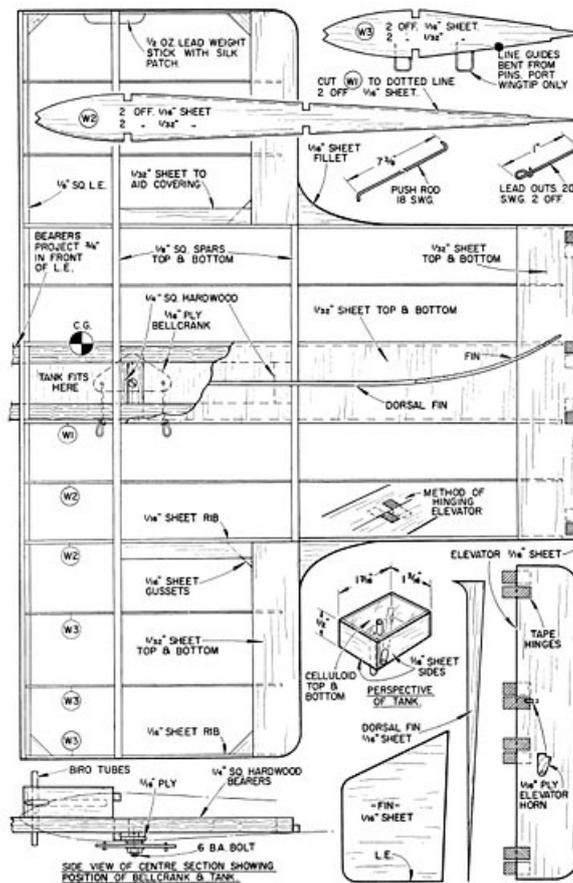
Now if you remember, Mike reported that the roll response was actually quite gentle. But, as originally set up with a "guesstimated" CG position, the model was wildly divergent in pitch, especially at speed. In fact, so much so that he deemed it almost uncontrollable. Almost, but not quite. By experimenting with lead weights hung on a carbon rod fixed as a hoop from wing-tip to wing-tip, he progressively brought the CG forward to a point where the problem was at least predictable and controllable.



Extreme measures for cg adjustment

As Mike alluded to in his article, I'd somehow talked myself into building a 36" version of the T-Tray. And before I could change my mind, he quickly cobbled up a set of laser-cut ribs, so it had to be done. it's worth mentioning at this point that there are one or two caveats accompanying the build, not least the fact that unless you have a very wide "island"- style building surface, manoeuvring around the structure can be very difficult. I soon resorted to chopping off those long ribs behind the front wing, only joining them back on when the front part was completed. Had I not done that, there would have been an awful lot of extremely fragile, unsupported wood overhanging the edge of the bench, just begging to be damaged.

The other big surprise was how long it took to cover the model. There are loads of awkward nooks and crannies, hatches, changes of section, etcetera, such that it took me about three full days to get round it all. But having finished it, I'm pleased with the result. I chose similar colours to Mike's, for exactly the same reason - conspicuity! Wossat? Very simply, the priceless virtue of being able to see and identify, quickly and easily, the orientation of the model in all attitudes. Particularly important for an experimental prototype.





After covering, the last job before test flying was installing and setting up the Spektrum AR635 3-axis stabilising receiver which I'd decided was needed to give me a fighting chance of avoiding the ground. With really small corrections, checking that the control surface corrections were going the right way was tricky, as it was difficult to be sure of what I was seeing. I'm glad I persevered though, as you'll find in a minute.

Power for this beast comes courtesy of an ex-foamy Wot 4 motor; quite pokey and consuming about 300 watts at full chat on the OEM 11" x 8" supplied prop. However, I opted for a 10" x 6" folder to begin with, which gave about 220 watts (obviously every landing was going to be a belly-flop, and no prop-saver would be big enough, or indeed could be trusted to handle that much power).

I'd seen Mike's model flying with authority on a power loading of just 85 watts per pound, and with mine at an AUW of 2.75 lbs, it appeared I'd have a similar ratio with my set-up. It ought to be alright. I used a 2100 MAh, 3-cell LiPo and a 40-Amp Electronic Speed Controller (ESC) and was surprised to note that when tested with my WattMeter, the power consumption was quite modest, at around 22 amps.

Soon after finishing the "Trolley" there arrived a nice sunny day with a light NNW wind of about 8-10 mph, so *carpe diem* to the fore, I grabbed my gear and set off for the flying field. No-one else was present: quite a relief as I wasn't keen for my ineptitude to be witnessed! After range-testing and checking all controls full and free / operating in the right directions, all was well, so before I could change my mind I gave the motor 50% throttle and under-arm launched the model into the breeze.

You all know that moment when you suddenly realise that your creation doesn't seem to have any suicidal tendencies, and it just sails off serenely into the blue? You breathe again; your heart stops pounding; you gradually relax and begin to enjoy the ride. So it was, here. There was still a niggling concern that the dreaded pitch divergence would suddenly manifest itself* but as the flight progressed everything appeared to be okay. True, the Trolley would loop on a sixpence and roll at a blinding rate, but at no time did I feel it was likely to escape.

Credit for this benign behaviour must go to the stabilising receiver. At one point, having climbed to the proverbial three-mistakes-high altitude, I switched off the stabilisation - and back on again, very quickly! As I've said, it was quite blustery, which probably didn't help, but there was enough of a reaction to persuade me that this wasn't the time to investigate that aspect any further.

My decision to raise the elevator 50 mm above the rear of the body was based on nothing more than a hunch that it might improve its effectiveness. In fact, over the course of those first five flights I noticed nothing wrong with the pitch response and I therefore think my decision was vindicated.

I've since reflected that this occasionally challenging project has delivered a very different model; and if I'm honest, one that without encouragement from my mates I probably wouldn't have finished. But now, with our two rather different versions of the old T-Tray to demonstrate, Mike and I will be having fun with them at Cocklebarrow and elsewhere in the coming weeks. Ask us nicely and you might even get a go on the sticks!"

* a sudden, violent reaction to application of elevator, where there'd been none up to then!

More from David

Having made time in my busy(!) schedule to venture 'oop North' to Pontefract a few weeks ago, I thought a brief photo report of the recent PANDAS club's Vintage bash I attended might be of interest to the S&T community.

The first thing to say is the event was blessed with the most glorious weather - wall-to-wall sunshine and virtually flat calm all day. Second, the variety and numbers of models present was stunning; I couldn't begin to list them all. In size they ranged from the venerable "Sharfkace" (and a few even smaller than that) to a huge approximately 3 x "Scorpion". And there were a few weird-and-wonderfuls, like the futuristic "Valkyrie" look-alike canard delta which flew well but proved to have no taste for landing!

There were many highlight models, such as the handsome Vic Smeed Ohm 8 biplane, flying impeccably as Vic's creations always do. Another attractive little model that took my eye was a 38" w/s Swanee, again grooving smoothly about the northern skies on the miniscule power of a 2S LiPo and a wee brushless motor.

Having seen it go, this model was instantly promoted to the top of my must-build list: I downloaded the plan from Outerzone and had a plan printed, ready to start work as soon as my T-Trolley is finished.

On the Galloping Ghost front, a couple of DB Ghost Riders were accompanied by my newly-built but already cherished Veron Robot and the strangely-named Mangled Wot, which I cobbled together to renew my acquaintance with GG after a gap of over half a century. Another GG model by Glyn Turnbull accompanied one of these on a joint sortie, someone pertinently asking when was the last time two GG models had been in the air together! Sometime in the 1960s?

Pete Christie had come up from Far-off Torquay with a bootfull of models and flew them all, including his iconic fixed-pitch Micromold Lark helicopter from way back when.

A few steps from the r/c flightline, a control-line circle was busy all day; there were second-hand bargains (including some tasty collectors' items) on sale in the car park, plus bacon butties and other welcome refreshments available from the chuck tent.

All in all, a superb day out, and I'll be back next year.

These few rubbish photos will give a taste of the occasion, but professionals Andrew Boddington and Alex Whittaker were also present, snapping away, so no doubt there will be a couple of reports in the model press in due course, to do proper justice to this grand occasion. There's a video clip here: https://www.youtube.com/watch?feature=player_embedded&v=bEzMOkCi0VA

Copy and paste the link into your browser for 16 minutes of pure nostalgia!







From Dave Day Microaces Fokker DVII

I first learned of Microaces a couple of years back when their kits were mentioned in a magazine article. They were mainly warbird kits and I was interested in their Fw190. I checked their website and found that all of the kits used brushless motors and two cell Li-Poly batteries. Due to my declining health I am limited to short walks to the local recreation ground with small models, so all my recent builds/purchases have concentrated on single cell models.

Recently, I saw an advert in James Parry's 'Sticks & Tissue' email newsletter (JamesIParry@talktalk.net) for a new range of kits from this manufacturer. They had scrapped the existing range, due to high cost and low profit and started again with a new approach. What attracted me here was that their first kit was for a Fokker DVII, long one of my favourite aircraft. What's more it was single cell and would be available in two colour schemes, one being for Ernst Udet's 'Lo!'. Udet was one of my boyhood hero's. We won't dwell here on why all my early hero's (during WWII and immediately after), were German.

I checked the Microaces website (<http://www.microaces.com/>) and learned that they were speeding development by introducing a Beta version of the new kit, in two colour schemes, which could be purchased in advance of the final version. I was hooked and ordered a kit of 'Lo!'. For those interested, the other scheme is for Wilhelm Hippert's 'Mimmi' (a third scheme has since been added, depicting Rudolph Stark's aircraft).

A glitch with the website meant that my order initially went astray (hope too many more didn't) but we sorted that out and I eventually received a kit.

Its impressive, but different. I do feel that many 'traditional' modellers are going to struggle here. It's rather more like card modelling - but I digress. First you have a sheet of 2mm depron which has the parts of the keel, then a sheet of 1mm depron which has the fuselage outer structure and all of the flying surfaces. Then things start to get different with a sheet of polypropylene which contains all of the struts (including the undercarriage) plus various reinforcing pieces. Finally, we have a sheet of stickers which cover the nose, add a few details and cover various bits of depron. A bonus item in the beta kits is a pilot figure (which clips on D8) and stickers to decorate the propeller.

These last two items deserve more comment (not the bonus items). Polypropylene is a new structural material which formerly has been used only for hinges. It's main characteristic is that it can be bent many times without deforming or fatiguing. The sticker material is unlike any other I've encountered. It will go around sharp corners and remain stuck and isn't affected by being handled.

Its clear that the designer(s) has gone to great lengths to create a kit which doesn't need any painting. The problem here is that any mismatch will produce a very noticeable piece of white depron. From my own point of view, I detest unpainted edges of foam models and it was inevitable that I would have to paint those anyway.





A little paint works wonders

The fuselage structure is quite challenging. There is a keel made from 2mm depron and a 1mm depron skin which is bent around it. The keel is very flexible which makes it difficult to bend the skin around it. The top decking in front and behind the cockpit has to be curved around the formers. To aid this, the inside of the decking has to be scored to a supplied diagram. I found that this didn't really help a great deal. I doubled up on the scoring by adding score lines between those indicated and then rolled the decking around a small diameter tube. I then forced the decking around the formers with the aid of 'UHU Por' but still ended up with steps rather than a curve. If I were doing this again, I would probably try to bend the decking around a heated tube. Despite all my efforts, I ended up with a slight offset on the nose. OK, banana-shaped fuselages are not uncommon! During this operation, I tried using 'foam friendly' CA glue. It doesn't work at all well unless you use an activator. Not only is this messy, but I am allergic to the stuff.

Certain parts of that 1mm skin have to be bevelled on the edges. I wonder how many people can bevel the edge of 1mm material and tell the difference between 45 and 30 degrees? This eighty year old (with corrected eyesight) found it great fun! That's one to the traditional modeller!

The fuselage rear decking really is a challenge. The problem here is that 1mm depron (unlike thicker depron) has a hard skin on each side which makes it difficult to bend or curve. The decking is too long (in the beta kits). I assumed that the decking would butt up against the tailplane, but have since discovered that it is meant to overlap. Having trimmed some from the rear to butt against the tail, I also had to cut pieces from the front to meet the front decking. There is no support for the sides between the formers at the front and rear of the decking. I cut pieces of spare depron to space the sides out to match the fuselage bottom. The centre of the decking appeared to be too wide also. If you are following the recommended assembly

sequence, you glue the fuselage bottom on first and it is difficult to attach the decking to the sides because you have no access from below.

The lower wing is made up on a dihedral jig and then attached to the fuselage. The fuselage bottom from the trailing edge to the nose is then added. This has tabs which have to be folded up to fit the shape of the lower wing. Here I profited from experience and cut the tabs away from the bottom, bevelled the edges and glued them back on. The front of the fuselage bottom has to be bent in two places to make an octagonal shape which matches the nose. It is worth pointing out here that the real aircraft has a gentle three-dimensional curve into the propeller.

I must admit that I had my doubts about the undercarriage, which is basically made from polypropylene with carbon reinforcement. In fact, it works well and will take a surprising amount of punishment. Both wheels are glued to the axle and cannot rotate individually. On my model, this made it difficult to steer on the ground and prone to groundloop.

At this point, I went ahead and made up and fitted the top wing. This was a mistake and I would recommend that this is left until dead last. It will be easier to fit the radio and motor and make up the rest of the nose, if it is out of the way.

The original instructions suggested that the radio should be sited as far back as possible. My model required 4 gram of nose weight so I would suggest as far forward as possible. I ran into an unexpected problem here, because the recommended radio was too wide to fit in the fuselage. There are narrower radios available, but my cure was to fit the radio at an angle. This leaves the receiver too high, so I cut away one side of the tray (D4) so that it would fit lower. I also must admit that I didn't like the thin wire pushrods to the tail surfaces. I would have preferred carbon. I did try this but the formers got in the way, so I decided that I had to try things as intended, otherwise my feedback wouldn't be much use. See later.

The motor/gearbox is fitted to a ply plate, which is the glued in the nose. The gearbox is actually fitted inverted with the propeller shaft at the bottom. I was unsure whether the mounting lugs should go above or below the plate. The videos of the prototypes flying showed a tendency to porpoise, which indicated to me that some downthrust was required. In my case this meant that the lugs must go above the plate, otherwise the propshaft would be too low. The battery is mounted above the motor and a mounting plate is supplied for use with the usual velcro attachment. Velcro simply doesn't work for me and I made up a new tray from plastikard and depron with my usual rubber band retainer.

The upper nose forms a cover for the gearbox and battery. Here again, you have to form 1 mm depron into a curve. I started by actually folding the material along the top of the sides and then scoring between those points. The polypropylene liner merely requires folding as above and will curve quite well without scoring. This assembly is held in place by magnets and this works well.

I ran into all sorts of problems with the top wing, largely of my own making. I started by attaching the interplane struts to the bottom wing. Next I attached the cabane struts to the top wing. I then attached the cabane struts to the fuselage. This was quite difficult, because the wing got in the way. The way the model is designed, all of these fittings fit in place using tabs in slots. Despite this there is some variation possible because of the material used. In my case, the shorter of the cabane struts appeared to be about 1 mm too short and I had to stretch things a little to make it fit (Moral: never MAKE things fit). Finally I glued the interplane struts to the upper wing.

All my initial flying attempts were made at a local indoor meeting (not at all ideal), with an audience. There was a general consensus that the model needed dihedral. They weren't flying it - that was the least of my problems. Flying did not go at all well. The postmortem revealed that while the right wings were nice and straight, the left wings both had pronounced washout. I cut away the interplane struts on the left wing and tried to remedy things. I really thought I had fixed it, but it didn't fly any better. Investigation revealed that

the warp was back. I tried offsetting the ailerons, but that didn't really work. I tried jiggling the model up on a worksurface so I could make some real measurements.

At last, it became clear. The top and bottom wings were not parallel (so much for my making things fit) which was producing the warp. I cut all the cabane struts away from the fuselage (and the left interplane strut from the top wing) and, after fixing the wings parallel to each other, glued the struts back to the fuselage one by one, checking after each. Finally I glued the left interplane strut back to the upper wing. At last, I had a straight aeroplane!

That should have fixed it but it was still difficult to fly. I was getting paranoid by this time until I found that there was a lot of lost movement in the elevator, I cut the bottom the fuselage open (needs must) and found that the flexible wire pushrod, which had to bend around the formers, was changing its shape when pushed and pulled and never returned to straight. I cut away as much of the formers as I could reach and reduced (but not eliminated) the effect. A cure will mean almost total reconstruction of the fuselage. Interestingly, previous Microaces kits have used this flexible wire pushrod, but run in a tube.

At last a calm morning appeared (5am and cold). I was able to make two long flights on the local recreation ground (3:39 and 5:09) which revealed that all was now fine apart from that lost movement in the elevator. I managed to trim the model so that application of 'down' would give the correct trim. Any application of 'up' had to be followed by 'down', but it worked!

Maybe the model is doomed anyway. Early on in the flying stage, the gearbox seized. I had to cut apart the nose of the long suffering model to fix it. The cause was that the propshaft had seized in its bearings. There was some kind of coating on the shaft which I had to scrape off. I've never seen this before. I normally take a new gearbox apart and grease the shaft with silicon grease. I didn't do that in this case (the gearbox came out of another model which had been well flown).

One thing that is really impressive about the finished model is the amount of punishment that it will take. I had my doubts about the polypropylene undercarriage, but it works beautifully. The model has been crashed umpteen times and has now been cut apart four times, but you would never know. It is advisable after every 'arrival' to check that all the cabane struts are still attached to the fuselage. Do the same if you experience any unusual flight characteristics.

The purpose of the beta kit appears to have been achieved, because the final kit has many modifications aimed at addressing the various issues raised by beta kit builders and subsequent kit introductions are going through the same process. The instructions have been rewritten to incorporate all the changes.

Thank you Microaces,

The touching up of various bits of paintwork was done with Humbrol Acrylic paint #60 (Matt Scarlet) with a touch of #33 (Matt Black) added.

Other details:

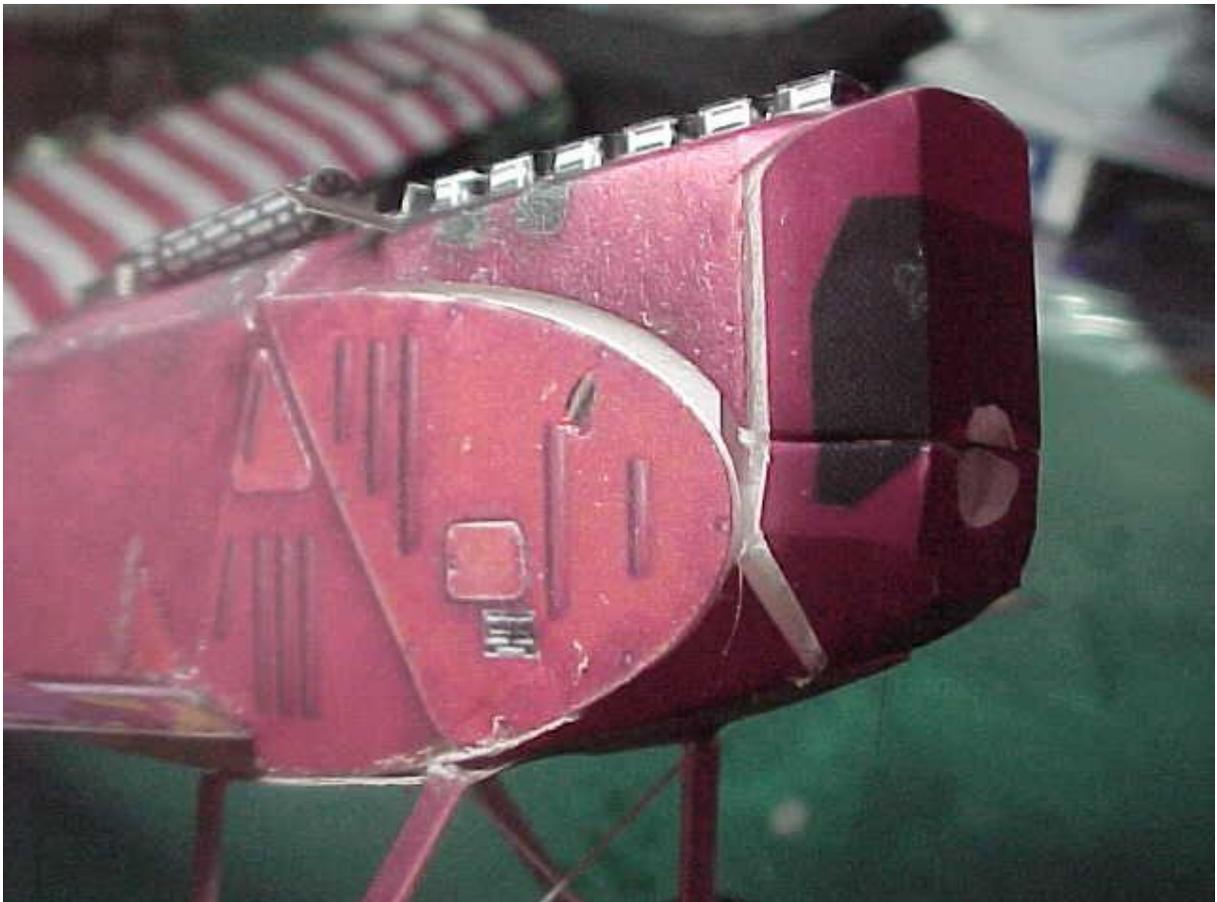
Rudder throw: 90%

Elevator throw: 60%

Flying weight: 40.6 gm



What was I thinking of? You can see here that the wings weren't parallel.



DMFG June events

Three events in June consecutive Saturdays, theory one would be excellent weather, one OK and one awful. Just as well I don't gamble none were particularly good, wind, cold, rain and only fleeting glimpses of the sun. Never mind as I said last year watching the rain fall and trees bending there's always next summer. Here's the photos.

11 June 2016



Bill Longley and Leprechaun with John Taylor and his Thunder King built by Laurie Barr





Geoff Collins launching



Peter Rose and Mike Sims with gliders



David Lovegrove



Catering staff



John Taylor's Lancer



Trevor Hewson's Autogyro



John's Miss Philadelphia IV



John Bainbridge's Dynam Catalina disappearing into the murk



David Ralph and his Wot 4

18 June 2016





Tony Tomlin and twin diesel in his Sparky



Rick Churchill's Pawnee electric power



Ian's Spitfire





Derek Collin with a firm launch of his Tomboy Senior



John Taylors Farman Mustique



Determination launching Chatterbox



Dave Ashenden's Aeronca

Some stats to go with your photos, if you need them.

- Model is now 28 years old, first flew in 1988.*
- built from an original Mercury Kit. Never crashed.*
- engines progressively used over lifetime Merco 35, OS 40 FS, and now an OS 40 FS Surpass*
- No of Flights to date - 164*
- Flying Hours to date - 38.5.*



John Taylor and Westland Widgeon III



Showscene from Dave Bishop of DB Sound.

The year 2106 has started the show season with an abundance of rain and boggy conditions at each event so far. The first of a run of shows presented by yours truly, was at Long Marston and it was run by John Holiday and a colleague. On the Saturday morning I called the pilots for pilots briefing when one of my team Rob Shipton was elected to be the flight line director. The weather there was alright for flying and various displays were made with no particular problems. One thing about Long Marston is that John Holiday always insists on having plenty of regularly and totally cleaned toilets. Altogether the weekend was a success and there was plenty of catching up with the chat by flyers meeting for the first time this year. The second show was at Weston Park and we arrived there on the Wednesday afternoon in pouring rain. The whole place had been drenched in downpours of nonstop continuous rain and the officials said that there was to be no more vehicles allowed on or off the many acres of the massive field. Some vehicles were already up to their axles in deep mud and had to be towed into their marked position on the following day. Luckily the place drains off quite well and by the Friday the ground proved to be firm enough to run the first day of the 3 day event. The shows flight director Rob Shipton in his 3rd year of office, gave his usual excellent pilots briefing and the flying (both full size and model) all started at 10am and went on through to the evening. There was a evening late flying show and a good atmosphere prevailed throughout. Saturday turned out to be sunny and a good days flying was enjoyed by many of the 100 plus pilots attending the show. The evenings very good show was presented by another commentator accompanied by many fireworks and explosives and finished with the magical flying of star Martin Pickering from Spain. His efforts produced a huge round of appreciative applause from a dense crowd. Sunday was another great day for flying and again Rob Shipton did a great job to keep everyone in order. Just a few miles away there was a full size airshow at Cosford that made several "hang ups" happen at Weston Park. There are now new CAA rules in operation regarding airshows after the problems at Shoreham airport last August. For instance there was a 30 minute hold up (everything down) when the Red Arrows were flying on the Sunday which certainly meant that yours truly was quite busy to keep the hundreds of visitors "at the ropes" as we commentators say in the trade. The organisers of the Weston Park show supply their own hired sound system which I am sure can be heard a very long way off. The next show we attended was at North Weald aerodrome and it celebrated 30 years of Jane Stephenson at the helm after she took over the show from three chaps that I had worked for at that venue before Jane arrived on the scene. In the 30 years this time I have never seen such a deluge of rain both before and during his years show. Within 5 minutes of being welcomed at the entrance gate, my van and caravan was bogged down in deep mud and it took the kindness of two 4 wheel driven truckers to tow me in the required position to be ready for the Saturday morning's show start. The usual team once again consisted of Les Eagle who was the flight line director, Dave Hayfield, accompanied by his partner Sheila Bransfield was helped by Greg Hayfield. The flying was varied and of top quality flown by the many pilots appearing there. We were thrilled by the wonderful team of Horizon under its leader Azza Stephens who thrilled the crowds to bits with their brilliant displays. There was another "happening" there when we all were introduced to one of the best aeroplane radio controlled aeroplane offer I have ever witnessed for many years at the many hundreds of shows that I have presented all over the world. It was the Horizon team of Azza Stephens, Sony Millgate, AJ White, Paul Camileri, Dean Coxun and Chris Bull, that introduced a new powered glider called Hobbyzone Conscendo, which is a one part sailplane and one part trainer. It has a 59" wingspan with a panic button recovery button, a brushless motor, 8 - 10 minutes flying time, a 4 channel transmitter, folding propeller, and it instantly returns to smooth flight at the touch of a button. There is a charger for the supplied lipolymer cells and in fact this kit ticks all of the boxes for completeness. All of this lot comes at the marvellous offer price of just £160 from our Paul Gosling of Nexus Modelling supplies.

One other delightful happening was that on the Saturday morning "Mr Overlander Batteries " suddenly appeared at my DB Sound van and said that Overlander were back and trading there at North Weald. His first words to me were " Lovely to see you again and can we help you in anyway?" Now that sort of thing goes down well with me as some traders do not do such pleasantries. Certainly the amount of traders present at North Weald brought me back to the good old days of the Sandown Park Symposium and it should be good for the promised next 30 years that the Wings & Wheels show will continue to run.

All flyers at all of the so far shows are to be congratulated for their keen and brilliant flying including Paul Gray, Shane Harding (who was asked at one time not to fly his Hunter electric jet because of what happened at Shoreham last August), Darren Graham and his wonderful team of Cambria Fun Fighters, the whole TJD group who knocked the "customers" dead with their superb disciplined WW2 fighter displays, the Panic display team from Caterham, the Western UK speedy Velocities, Steve Haughty, Steve Brett, Steve Carr, Callum Setter, Dom Mitchell, Paul Camilleri, David Mordecai, William Filocamo, Mark Hinton, James Gordon, Dave Franks, Neil Tidy and his between the Wars team of super flyers and aeroplanes, Steve Holland and partner Sharon with Richard Rawle. The brilliant Austria Scale WW2 team, The Pulse Jets group, Darren Goule, Callum Setter, Rory Tooley, Gavin Barden and all of the other flying entertainers and helpers from abroad with their wonderful talents. Lastly a great big thank you to everyone for the kind goody bag of lovely presents to yours truly which was a lovely surprise and gratefully received. More about these and other shows in next month's Sticks and Tissue and please come and say hullo at the next Modelair event at Old Warden scale weekend on July 23 -24 run by Ken and Sheila Sheppard. All the best till next month from Dave Bishop of DB Sound.



The

Hunter of Shane Harding which (at first) he was asked not to fly.



A very nice P47 Thunderbolt at North Weald.



Azza Stephens and Sonny Millgate of Horizon who are two of the best show flyers ever.



Young Rory Tooley (and his mate) with his Extra 330.



A very nice David Mordecai with his model flown at enormous speeds.



The Cambria Fun Fighters were so entertaining at all of the shows.



Past winner at Old Warden and his super scale ME 263.



The North Weald of team of Horizon who are "simply the best".



A very nice Mustang on the flightline at North Weald.



A very large Hawk in full military regalia at North Weald.



Show organiser Steve Bishop at his Weston Park show with a R/C Pterodactyl

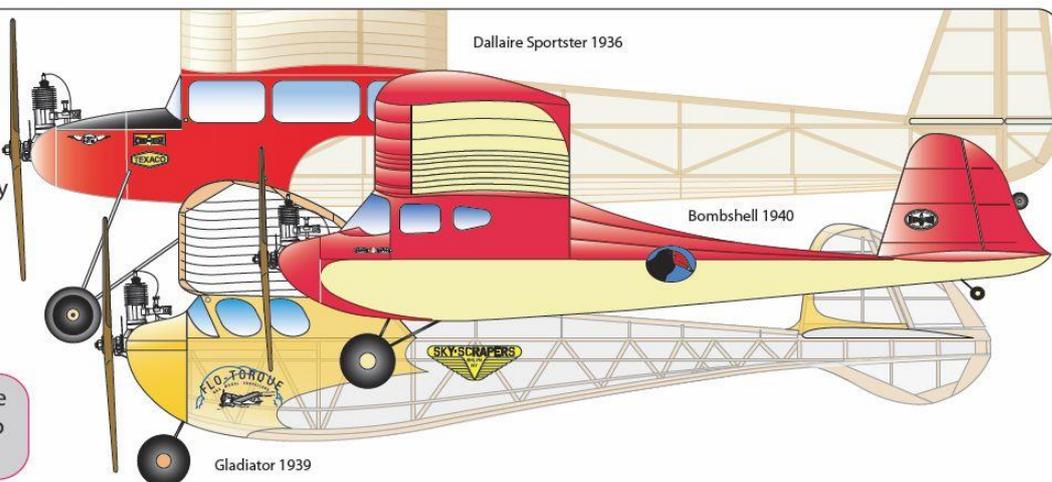
From Gary Davie

I don't know if it's permissible to advertise within S&T in this way. But sending this just in case. I have now setup a complete workshop to produce the attached and much more besides.

Models Anciens

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Dallaire Sportster (1/2A) 54" Span
A Nice Sedate Flyer.

New Kits

I am currently making available a number of new edition kits for the **Dallaire Sportster** and **Red Zephyr**.

The Dallaire Sportster is scaled to 1/2A at 54" wing span. The kits feature laser cut parts, laser cut undercambered wing ribs and formers and numerous pre machined shaped balsa parts. Wings are plugin using T160 alum rod joiner supplied.

Kits are complete with sheet and stripwood with full sized CAD plans & Balloon Wheels, Music wire for U/C.

In addition a set of polyester self adhesive decals are provided.

Designed for 3 channel R/C and brushless motors.

The full sized Dallaire at 108" span can be provided to anyone who wishes to obtain one. Major components only, less sheet and stripwood.

The **Red Zephyr** is scaled to 1/2A at 36 3/4" span. Kits are complete with machined and laser cut parts. Wings are one piece. All components are carefully prepared in order to make an accurate replica of the original.

Kits come complete with full sized cad plans, All sheet and stripwood, a set of polyester self adhesive decals. Balloon Wheels, Wire for U/C, U/C is detachable using wire clips. For 3 Channel R/C and Brushless Motors.

Arriving shortly are the Black Bullet. (40" Span)
The Challenger 68" Span)
Kloud King. (63" Span)

To receive further details please forward your email address to:-
modelkraft@gmail.com

Please note that your details are not shared with any other 3rd party.

Delivery is approx 10 days on all kits. Kits are posted Royal Mail Recorded Delivery. Larger kits by courier. **PAYPAL** no probleme



SHILTON VINTAGE (FLY IN)

BLACKWELL FARM

Saturday 10th and Sunday 11th September 2016

Details and directions for the Shilton Vintage meet on 10th and 11th September 2016.

Flying all day Saturday and Sunday.

Caravans and camping available, water on site and port-a-loo.

BMFA members only. Proof of Insurance required.

The Bar-be-cue will be running on Saturday evening from 7 p.m. Bring your sausages and burgers and enjoy an evening with like-minded people.

ARRIVALS FOR CARAVAN AND CAMPING AFTER 2 P.M. FRIDAY.

You will need to pre-book your pitch as we are limited to 10 caravans only. The site will be well sign posted with **SAM35**. Post code **OX18 4AP**

Caravans/Camping £10.00 for weekend

Flying £5 per pilot.

Local facilities are available in Carterton 3 miles away.

CONTACT: Nick Blackwell Tel: 01285 657610 (evening only)

Email: nick@nickblackwell.co.uk

OR Derek Foxwell Tel: 0208 647 1033

Email: derekefoxwell@btinternet.com

OR Boycote Beale Tel 01993 846690

Email: bealekraft@outlook.com

Directions:

By road from the north:

Follow the A40 to Burford, at roundabout take the A361 toward Swindon, at junction for Cotswold Wildlife Park turn left onto Hen and Chick Lane. Follow lane until it bears left, here turn hard right and take the track until it ends, this is the airfield.

By road from the south

From Swindon take the A361 to Lechlade and Burford. 3 miles before reaching Burford at junction for Cotswold Wildlife Park turn right onto Hen and Chick Lane, then as above.

(When you visit Blackwell Farm – you must try their honey – it's bloody marvellous)

Control line at Wimborne MAC

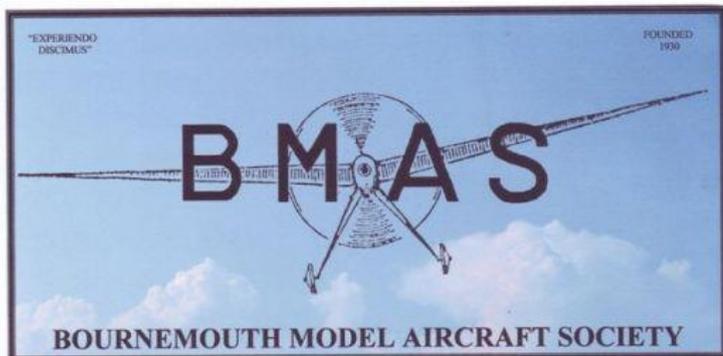
9 October Sunday christopher.hague@ntlworld.com or jamesiparry@talktalk.net

Cocklebarrow

The dates for Cocklebarrow have been confirmed as 10th July; 21st August and 2nd October.

Incorrect Tomboy competition information Due to an oversight the date for the cancellation of the Tomboy event at Cocklebarrow Farm was given as the 10th August. This correct date is 10th July which is the first of the 3 Cocklebarrow events for 2016. The other two meetings are planned to have Tomboy events.

Tony Tomlin.



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Adult Flyers £5 Spectators £1.50

CONTACTS: JOHN TAYLOR 01202 232206

All dates are Tuesdays

26 July

23 August

27 September

25 October

22 November

THE NORTH COTSWOLD MODEL AERO CLUB

BMFA MID-WEST 166

FLY FOR FUN



EVENT 2016

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TWO DESIGNERS' EVENTS

SATURDAY 13TH :

MODELS DESIGNED BY THE LATE

VIC SMEED

SUNDAY 14TH :

**A ONE-DESIGN EVENT FOR SID KING'S
COTSWOLD**

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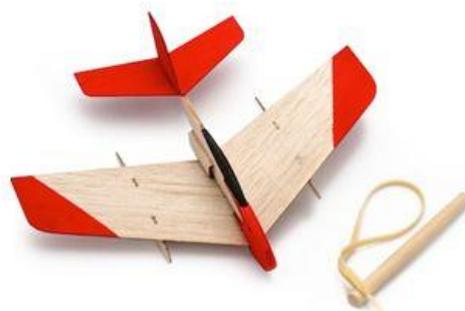
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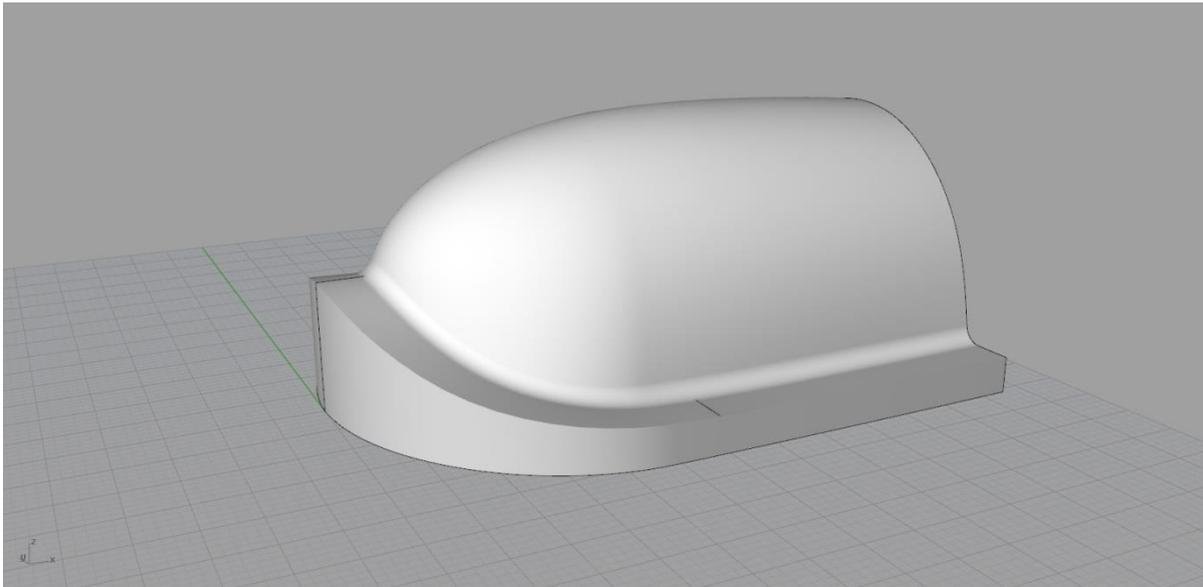
To complement the canopies, we are also producing original style bellcranks for many vintage Control line models.

Our latest list of Vintage designs has also grown and now includes -

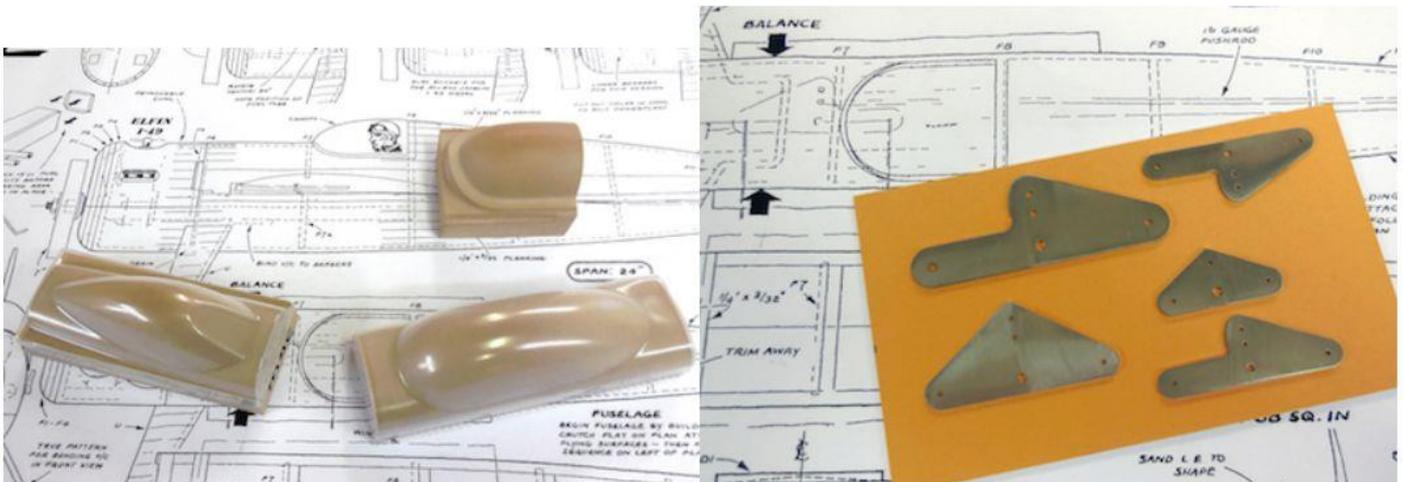
- All American Stunter - De Bolt inc plan
- KK Phantom - later version
- KK Phantom - early version
- KK Phantom Mite - 16"
- Princess
- Blue Pants
- FW-190 Focke Wulf CL 33" span Veron
- Veron Panther 41" span
- Veron CL Stunter MkII 30" span
- Mercury Team Racer MK1
- Philibuster 28" span
- Boogie Woogie AM
- Icarus - Coasby AM
- Peacemaker 46" inc plan
- Ringmaster Profile 42" inc plan
- Rascal
- Senior Monitor
- Supermarine Spitfire Mk XII Parts Set for AM1688
- Taurus - Coasby
- Thunderbolt - Morley
- Veron Nipper
- Vickers Viscount scale model
- Voetsak 1946 - Ron Moulton
- Weatherman - Cyril Shaw Speed CL original
- Weatherman - Clubman profile inc hardwood
- Skiffler - D Platt with canopy
- MiniBuster
- Philbuster
- Veron Combateer
- Peacemaker - Profile and built up with canopy
- Spectre KK
- Chizler
- Time Traveller
- KK Ranger Mk1 & 2 with canopy
- KK Pacer with canopy
- Spitfire 45" Pentland design CL776
- Humongous
- Mercury Mac with canopy

- Ringmaster
- Mercury Midget
- Tucker Special
- Feno
- Chizler Classic Stunter with canopy
- Sukhoi SU-26 profile stunter
- Trojan SAM35 Jasco
- Mercury Combateer with canopy
- KK Bantam
- KK Scorpion
- KK Super Scorpion

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Computer image shows the 3D development of the Keil Kraft Ranger Mk1 canopy.



Regards,

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