Sticks and Tissue No 83 – October 2013

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://www.cmac.net.nz

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

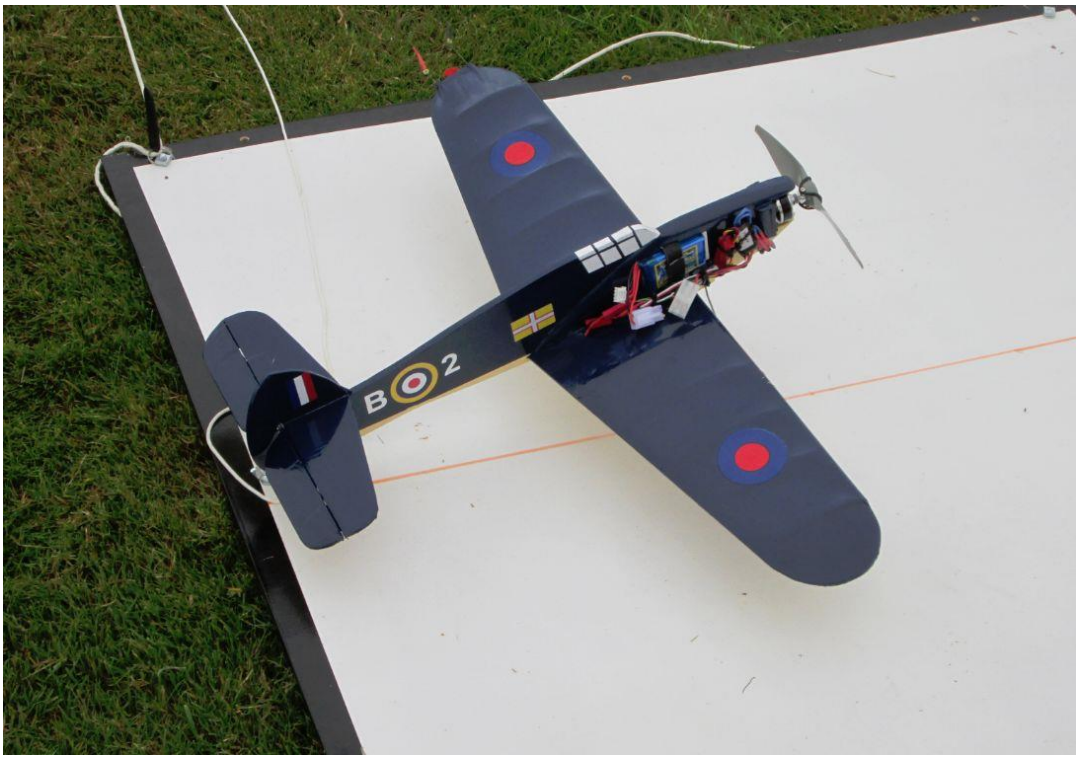
Stewart Hindle's Hurricane leaving the deck at Wimborne MAC control line day 13 October 2013

Wimborne MAC Control line day

Usually this annual event enjoys reasonable weather an on occasions perfection. With horrendous forecasts leading up to the day things did not look good.

However despite being overcast the weather held off until about 13.30 when rain , wind and all things horrible commenced. Still some flying was done, the Caulkheads turned up but with NO models!

Chris Hague preparing



Stewart's electric Hurricane

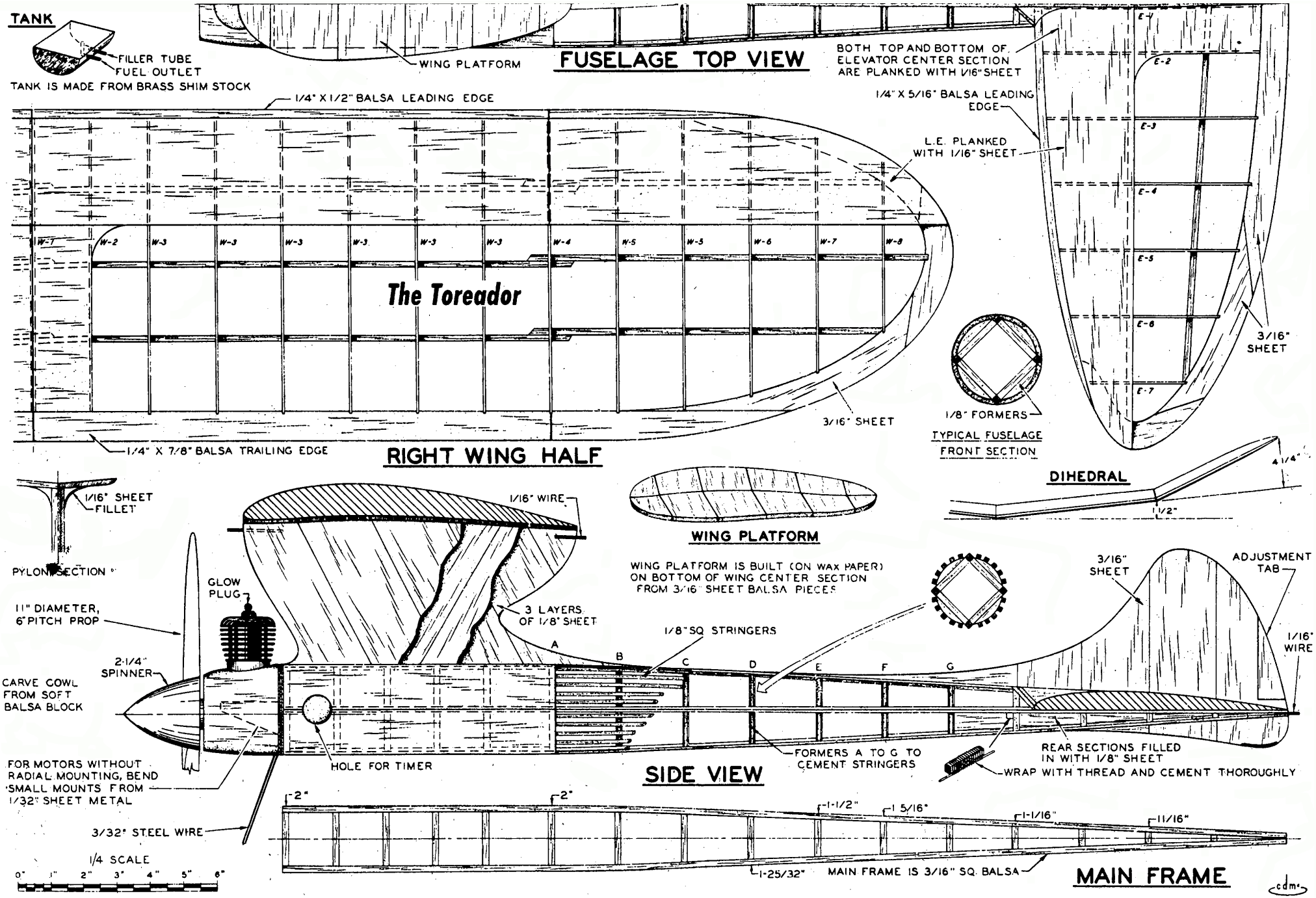
Dave Ashenden's Rascal

Keith Derbyshire's Marquis

Ray Ivey's Phantom

From Ronald in Holland

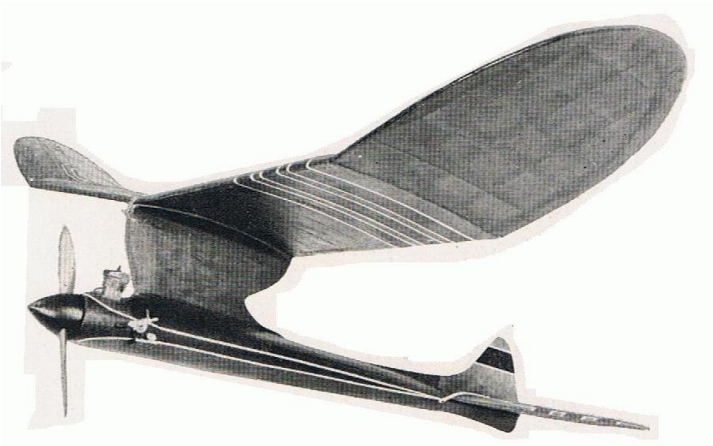
Hi James, here some pictures of my Lanzo Record Breaker. You may use them in S&T, but if you cannot for any reason, that is still ok with me. I hope you enjoy the foto's.


TANK
FILLER TUBE
FUEL OUTLET
TANK IS MADE FROM BRASS SHIM STOCK
WING PLATFORM
FUSELAGE TOP VIEW
BOTH TOP AND BOTTOM OF ELEVATOR CENTER SECTION ARE PLANKED WITH 1/16" SHEET
1/4" X 1/2" BALSA LEADING EDGE
1/4" X 5/16" BALSA LEADING EDGE
L.E. PLANKED WITH 1/16" SHEET
E-1
E-2
E-3
E-4
E-5
E-6
E-7
W-1
W-2
W-3
W-4
W-5
W-6
W-7
W-8
The Toreador
3/16" SHEET
1/8" FORMERS
TYPICAL FUSELAGE FRONT SECTION
1/4" X 7/8" BALSA TRAILING EDGE
RIGHT WING HALF
DIHEDRAL
4 1/4"
1 1/2"
1/16" SHEET FILLET
PYLON SECTION
1/16" WIRE
WING PLATFORM
WING PLATFORM IS BUILT (ON WAX PAPER) ON BOTTOM OF WING CENTER SECTION FROM 3/16" SHEET BALSA PIECES
GLOW PLUG
11" DIAMETER, 6" PITCH PROP
3 LAYERS OF 1/8" SHEET
1/8" SQ STRINGERS
A
B
C
D
E
F
G
2-1/4" SPINNER
CARVE COWL FROM SOFT BALSA BLOCK
HOLE FOR TIMER
FORMERS A TO G TO CEMENT STRINGERS
REAR SECTIONS FILLED IN WITH 1/8" SHEET
WRAP WITH THREAD AND CEMENT THOROUGHLY
FOR MOTORS WITHOUT RADIAL MOUNTING, BEND SMALL MOUNTS FROM 1/32" SHEET METAL
SIDE VIEW
3/32" STEEL WIRE
1/4 SCALE
0" 1" 2" 3" 4" 5" 6"
2"
2"
1-1/2"
1 5/16"
1-1/16"
11/16"
1-25/32"
MAIN FRAME IS 3/16" SQ. BALSA
MAIN FRAME
3/16" SHEET
ADJUSTMENT TAB
1/16" WIRE
cdm

The Toreador by Claude McCullough from Model Aviation Planbook 1949/50

The Toreador is a good example of the 'orthodox" American trend in pylon" design. Fortunately, there are many good British powerplants suitable for this model—including the ETA 29, Yulon 30, AMCO 3.5, Mills 2.4. E. D. Mk. III and Albon 2.8. If the Amco is chosen, use the short airscrew driver (1/2") and move the engine forward about 2" To maintain the correct C.G. position.—The Editors.

When the new American free flight rules first appeared, many modellers predicted an avalanche of super-light "floaters." This was probably a natural first reaction to the complete abolition of wing loading requirements, but there are definite disadvantages as we shall point Out. The floating glide that low wing loading can produce is certainly worth having, but what good does it do you unless you can get a reasonable amount of altitude—which you will never get just by piling on wing area. If the model's structure is to have any strength and you want to carry it around without hiring a moving van—the medium size, lightly loaded design is definitely the answer. The Toreador falls in this category, having an 8 1/2 ounce per square foot wing loading when a .29 cubic inch (5 c.c.) engine is used. The amount of wing area used does not seriously restrict the climb. Motors like the K and B Torpedo will produce a rolling vertical climb and the resulting glide is calculated to stick in even the weakest thermal. The model is strong, durable and of convenient span—the latter on account of a fairly low aspect ratio. One of the main features of this design is the lack of ignition components—made possible by that little wonder the glow plug. One of the new fuel shut-off valves should be used to limit the motor run. Once all the worries attendant to spark ignition are thrown overboard, free flight is much more fun. To cut down on the lengthy processing at Contests, the A.M.A. eliminated the fuselage cross section rule last year. However, those pencil slim fuselages that some modellers now favour, have none of that end-to-end strength that comes in so handy when a model cartwheels over in a high wind. Personally, I go for quite a substantial cross section as a glance at the adjoining plan will show. A detachable landing gear is featured, but only used for contest work. This type of two wheel undercarriage is much more reliable than those one wheel pop-up booby traps that some designs call for. In building the model for a 5 c.c. engine use heavy, hard balsa. For smaller motors use lighter grades of wood, since the lighter versions will have a slower flying and landing speed. In any case, pick good quality wood for such highly stressed components as spars and longerons. Enlarge the drawings by four times to bring them up to full scale or send off for the full size plans. Curved parts are best enlarged by the gridding method —in which scale blocks are ruled on the plan (usually ½" square). These are duplicated on the full size drawing, the corresponding points marked off and the outline completed by connecting the various points which have been plotted on the grid.



WING

The wing is the popular and sturdy multi-spar type. Cut the wing ribs from 1/16" sheet balsa using the patterns which appear full size on the pattern sheet. Slide them over the 3/16" spars, which are cut from sheet balsa stock. Add the ¼ x ½" balsa leading edge and the ¼ x 7/8" trailing edge which is notched to receive the ends of the wing ribs. Cement all joints thoroughly. The wing tip sections are cut from 3/16" sheet balsa and cemented in place. Block up the wing to the indicated amount of dihedral. Note that the centre section spars must be pushed slightly out of line in each direction to make the lap joint. When completely dry, add the 1/16" sheet balsa leading edge planking. The wing centre section is also planked both on top and bottom. With a balsa knife and several grades of sandpaper, bring the trailing and leading edge to aerofoil section and sand very smooth. A little time spent in careful sanding will pay good dividends in appearance.

FUSELAGE

The fuselage is built around a diamond main frame of 3/16" square balsa. Two sides are built on the main frame drawing (one on top of the other for accuracy) and connected with cross pieces to form the necessary

square section. Then the little formers of 1/8” sheet from A to G are added on all four sides of the diamond to form a circular section. Note that all of the formers under the planking are “A” formers.
The pylon is made from three laminations of 1/8” sheet balsa with grain running opposite. Pin and weight down and allow plenty of time for drying. Sand and carve to streamline shape.
Notch the bottom to fit snugly against the top longeron of the diamond mainframe and cement in place.
Plank the front portion of the fuselage with 1/8” sheet which has been well soaked in hot water to make it pliable. It is best to get it formed and warped partially into a curve before applying to the frame. The rest of the fuselage has 1/8” square balsa stringers which are cemented to the formers and brought flush with the diamond frame just in front of the stabilizer.

The wing platform is cemented to the top of the pylon and filleted by 1/16” sheet balsa plugged at both front and rear with small scrap balsa blocks. A similar fillet is applied to the pylon-fuselage juncture. The fuel tank is made from thin brass sheet and permanently fastened within the fuselage directly under the timer (unless you have an engine like the De Long or Forster, with the intake extending behind the engine crankcase— in which case it may be necessary to move it back a section). The fuel outlet of the tank and the filler tube extend through the planking. The tank is filled with a pump can with a piece of neoprene tubing on the spout, which is slipped over the filler tube. This set-up works best with such engines as K & B Torpedo, rotary Ohlsson 23, etc. The tank can then be sealed from the outside with no fuel leakage problem inside the fuselage. Radial mounting also has the advantage of doing away with motor mounts. The fire wall of 3/16” plywood is added last and securely fastened.

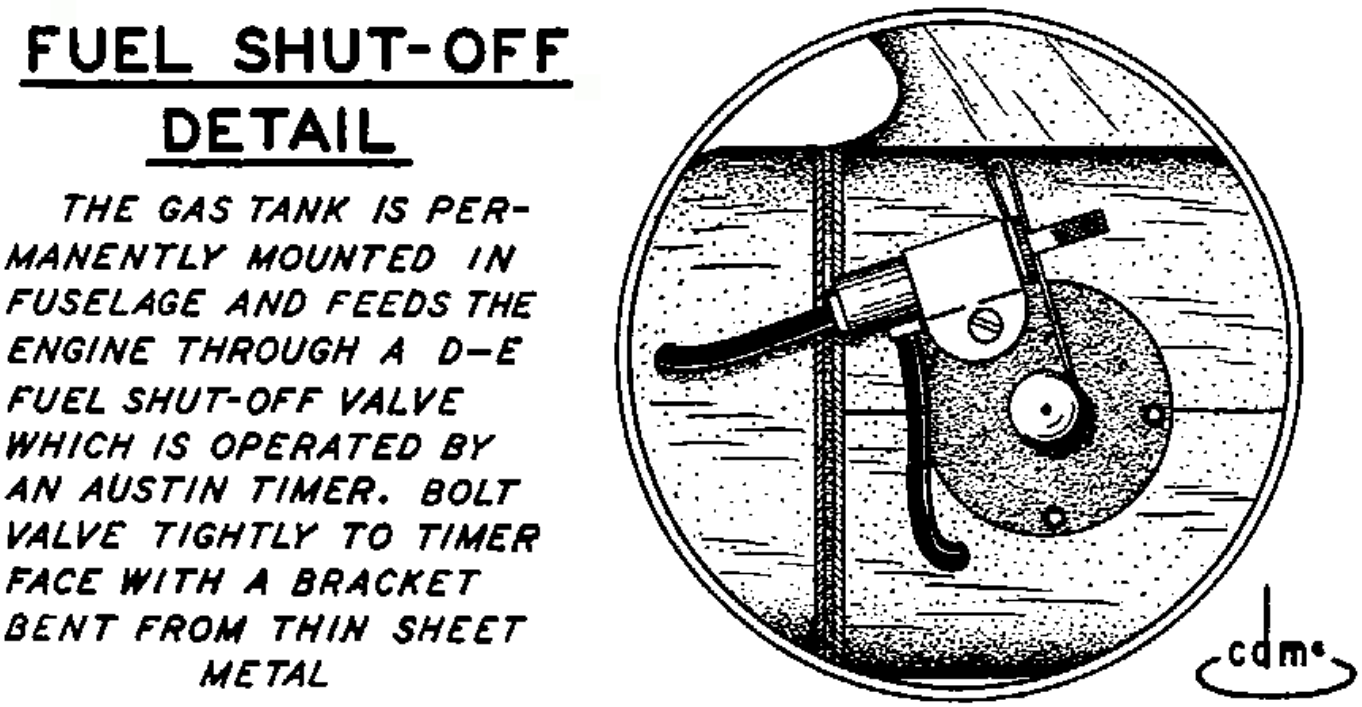
THE TAILPLANE

The tailplane is constructed in the same fashion as the wing. Notice however, that the rear spar of 3/16” square wood is cemented in toward the top of the rib as far as it will go. The small gaps remaining at the bottom of the ribs arefilled in with small pieces of sheet balsa to complete the bottom line. In this way the spar will not touch the bottom covering, helping prevent the uneven pull which causes the tailplane to warp up. The fin is cut from 3/16” sheet balsa, sanded to streamline shape and cemented to the centre of the tailplane before it is planked. An E-1 rib is placed on each side to serve as a ledge to cement the planking to. The leading edge and centre section, top and bottom, are planked with 1/16” balsa. A small fillet forms a smooth juncture with the fuselage. The original Toreador was covered with silk which had been dyed red with ordinary household dye. Trim with black coloured dope with aluminium pin striping. Try to make your decoration distinctive and individual. If you are unable to obtain silk, a double covering of tissue is recommended, with the grain of the two layers opposing. Attach the covering with a mixture of 50 per cent dope, 50 per cent cement. Give about three coats of clear dope before applying colour dope decorations. Because most glow plug fuels are very hard on both clear and coloured dope, it is advisable to use one of the new fuel proofers on the entire plane, particularly around the motor.

FLYING

The really important final touch to a potential contest winner is the adjustment. This cannot be just a matter of turn-the-tab until you have the ship flying around and making safe landings. You’ve got to set your sights on a particular type of flight and test. . . test. . . test until you get it. I’ve flown various pylon designs out in our big meadow (the advantage of being a farmer-modeller !) by the hour, using every type of adjustment. To make a general statement (which isn’t the best thing to do, since every job is an individual problem), pylons generally perform best with a left circle in the glide and a right circle in the climb. This generally requires some right offset of the thrust line. And for top performance, hopping the slightest ground thermal, the glide must not be just left, but definitely left—a very tight circle. To hold up the nose this adjustment requires having the C.G. well back—about 75 per cent. To 80 per cent. from the leading edge. But no exact point can be predetermined—you must balance each force against the other until you get that floating, wheeling glide of small diameter. Many builders make innumerable flights with the motor barely turning over, getting no altitude and just buzzing around. Such tests are inconclusive and prove next to nothing. If you keep your motor run to about 5 seconds, it is rare that a ship of pylon design will get into a

circumstance that will bring it into the ground before the motor cuts.



From Bryan Passey

May I ask you to include this 3D photograph in the next edition of S&T.The photo was taken by my friend John Ralph at a recent "Sams" meeting at Middle Wallop.The picture (s) shows an unknown gentleman and his lovely Keil Kraft Contestor,I would like to discover the identity of this gent,to enable me to ask him a couple of questions in regard to his model as I will be building the Contestor in the near future .I can be contacted on 01546 602918. My recently completed control line Halifax had it's first flight at Machrihanish airfield,but I now know that it will not fly on two of the four AM 15's that power it. Needless to say it did a prolonged fast taxi until one of the pair stopped.
I was encouraged to build the Contestor by the super flights I had with my Mercury Mentor.To see the model climbing into the clear blue sky,the single blade prop folding,and the model going into a long glide, reminded me of my youth and the feeling of achievement at the time.I'm sure many of S&T readers will remember the moment too.

From Bill Wells

The one model I always wanted was a Junior 60, a classic good mannered model designed by Albert E Hatfull. Never one to throw money about, after a 45 year wait I lashed out and rashly bought a kit! Although all the wood was supplied in the kit, I think it would have been more economical to have built it from a plan. I gave some thought to a suitable engine, the original free flight version having a heavy spark plug engine, battery, coil and condenser, so what would my choice be? I thought that a long stroke oversized Mills 1.3 would be ideal and look right. I know the endearing feature of a Junior 60 is its stub nose but I wasn't going to use a heavy Petrol engine or a big Glow Plug engine and or add a pound or two of lead. I hate the idea of lifting a lead weight around just to increase the stalling speed and to waste fuel! So I extended the nose making and virtually finishing the rest of the model before using the engine to balance it and cutting the engine bearers back to suit.

The engine I settled on was a Rustler Lynx 2.5cc R/C long stroke diesel a modern day copy of an Oliver Jaguar, except it has a rear rotary instead of a side port induction. I started off by using an 11x4 Tornado prop which actually worked reasonable well except it flexed rather a lot as the revs changed. After trying loads of different propellers I found the one that worked the best was a Graupner 11x6 Grey Super Nylon. However for a quite a while, just for the hell of it, I copied the American Texaco idea of using 12 inch diameter 5 to 7 inch pitch props for greater endurance. Great care was required when using these large props. I was careful to start the engine with the compression backed off because of the flywheel effect on a flooded engine could cause serious damage. Another problem encountered with the 12 inch diameter props is vibration which will eventually destroy the engine. In Texaco events the carburettor is not adjustable in flight (not an R/C carb). The theory is that a slow running large diameter prop at a constant speed will produce much longer engine runs for a given amount of fuel. Unfortunately these large diameter props will produce nasty vibrations at certain rpms. If the vibration falls around the rpm that the Texaco flyer wants to use they place the prop inline with the cylinder, with the piston at TDC and then paint one prop tip. In other words they try to use the prop to balance the offset throw of the crank. The idea is to move the vibration up or down the rev range so as to avoid their best rpm. With the Lynx the vibration period was just above idle when on the ground, obviously this changed slightly on the unloaded propeller in flight! I had to make guess when throttling back where the avoid throttle (rpm) position was, based on the position that gave most vibration on the ground. Definitely dodgy, so I would keep a high power setting for as long as possible or close the throttle completely. I played around for some time using the 12 inch propellers' and got a flight time of 47 minutes, the engine stopped at 41 minutes! After flying the model for four years (2003-2007) the inevitable happened during a take off run, the prop stopped, suddenly!! The very thin crank web (flange) declared enough was enough and broke showing beach marks indicating a progressive crack failure. As a replacement shaft took months to obtain I put a Rustler Jaguar in the model.

Although the model is heavy by free flight standards at 4 lbs it can fly very slowly but is not grossly overpowered. The RC carburettor is a simple choke type with a fixed bleed air hole. It works well and the engine has a very low tick over, but, yes there is always a but, it takes a while for the revs to build up from tick over to full power. For example if you want to do a 'touch and go landing' from an idle power, put full throttle on as the model starts the flare it will then land before the engine picks up, the power will come on, in its own time, ready for the take off before the roll stops. The model is fairly easy to taxi except in strong winds but if full power is used there is a dwell time before the power returns to a tick over meanwhile the model is moving forwards!!!! Someone realising the problem commented with its spool up and down time it would be good training for operating a jet engine!!!! Hmm!! The engine has a very distinctive note at low revs definitely in keeping with the model. Because the exhaust has four ports around a slightly tapered square casting an exhaust collector or silencer is difficult to make. However there is an enthusiastic owner of a Jaguar that has had the patience to make a very neat Exhaust collector/silencer, so it can be done. I am not that clever so the diesel exhaust sprays and seeps in everywhere. To prevent the exhaust getting into the cabin under the wing I put a piece of cling film around the nose area and hold it in place with the wing bands and a smear of diesel fuel! This means at the end of the day the cling film peels off leaving a perfectly clean dry area underneath.

I thought I might have trouble with a new Noise sensitive Club but even with open exhausts it is well inside the noise limit, due I expect to the large propeller and long stroke type of engine.

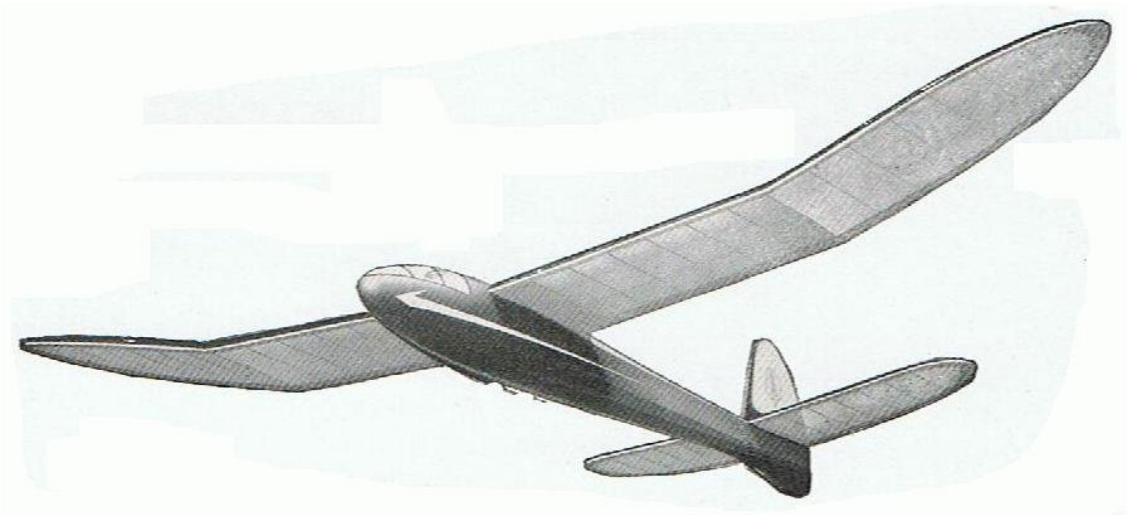
Anyway the onlookers just cannot believe a model (that size) can fly that slow especially flying down the strip with a bit of a headwind. The model will loop (just) but it is fun just doing circuits and bumps or flying low and slow. In the right conditions it will thermal at idle revs and can take forever to glide down from height. I am glad I built it and would build another one, perhaps powered with an electric motor!!! Although the present engine sounds great and does the job it is a real pain cleaning the model after each days flying. I suppose a modern diesel, Enya 15 or a glow motor with silencer might be an alternative. The model covering was originally nylon but the exhaust found its way into the fuselage mainly around the undercarriage so I recovered the fuselage tail plane and fin with Solartex. The wing is still covered in nylon and is well past its best use by date. The model has done a lot of flying in the last ten years putting, up with long sessions of circuits and bumps low flying, soaring under some really nasty looking Cumulus cloud, loops, stalls from vertical to vertical (hammer heads) it is getting a mite bit tatty definitely in need of recovering. The engine has a considerable amount of down and side thrust the former using alloy wedges. The fuel tank is the clunk type made from tinplate. After a year or two the sides of the model around the cabin area could be rocked so I put a cross brace of balsa just behind the front windscreen which has stiffened that area. Before someone asks, I made a cowling for the Lynx engine but because of the higher carburettor of the Jaguar it no longer fits. It was always my intention to put the Lynx back into the model but I have really got to like the Jaguar.

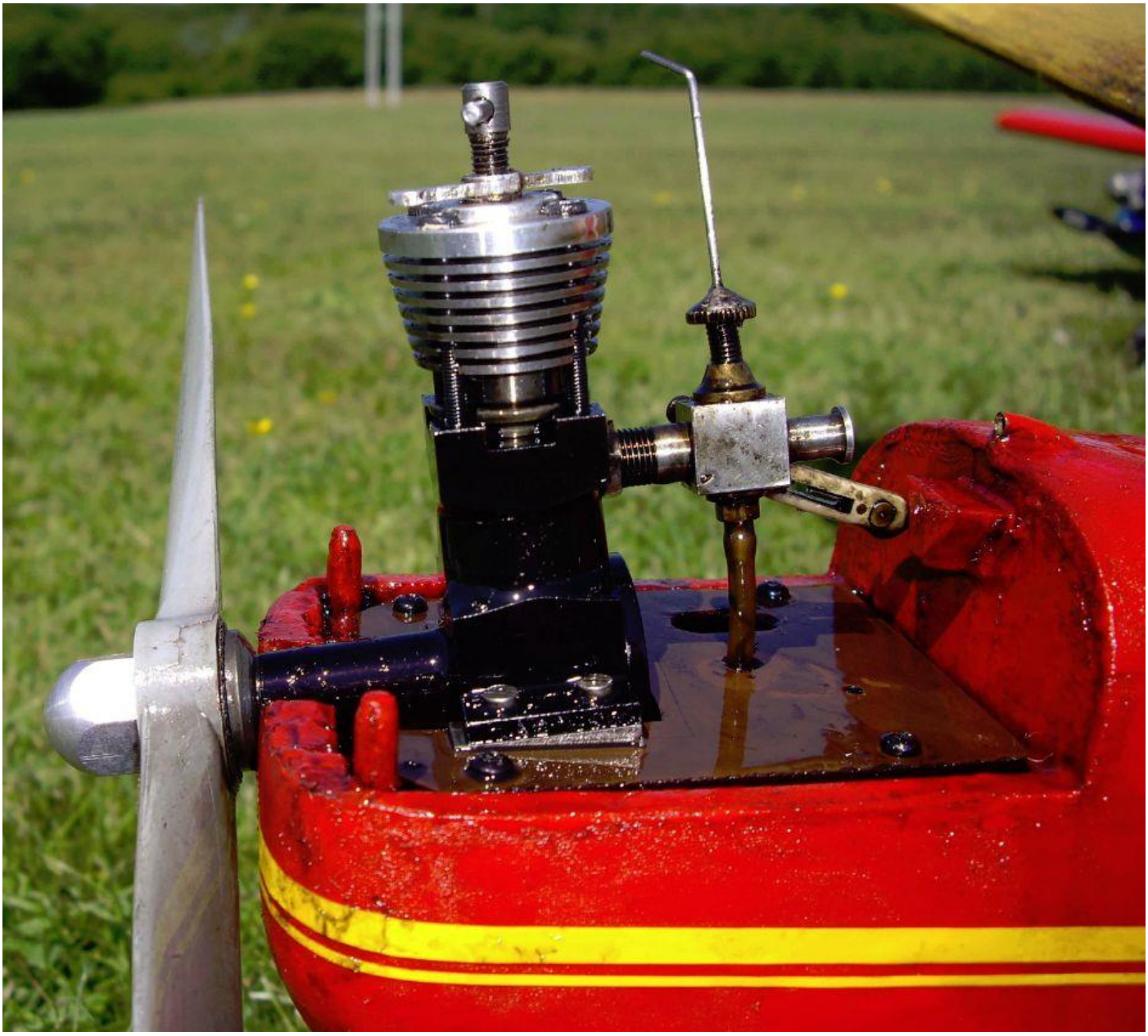
Specification;

Span 61¾ inches chord 10¼ inches weight just under 4lbs Engine Rustler Jaguar Diesel 2.345cc Best Propeller Graupner Grey Super Nylon 11x6

Rustler Jaguar silencer

Lynx crank

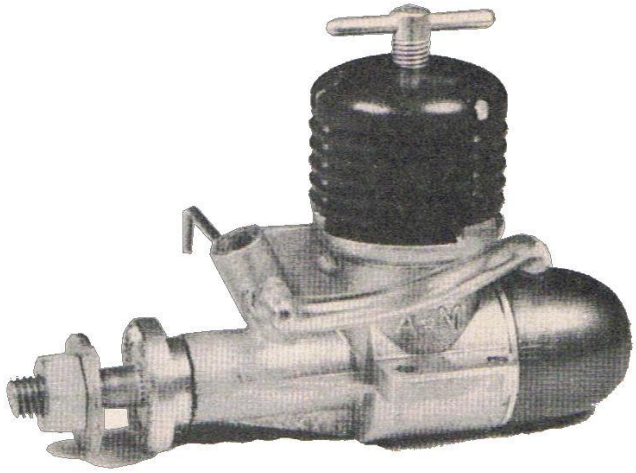




This month's engine photo might actually be of practical use to some readers.
I've been putting off building a KK Falcon for decades, due to (typical) indecision concerning the choice of an interesting engine.
A couple of months ago, this PAW 60 was offered on eBay, brand new. Being a diesel (and PAW) fan, I realised that the Falcon engine solution was staring me in the face...
I gave the engine 40 or 50 minutes of gentle running in (within a couple of hours of receiving it!), and I was very pleased with the result.
I had expected such a big diesel to be a bit « virile », but it's a real pussy cat, dead easy to operate and not vicious at all.
I'd recommend this engine (or similar PAW) to any diesel lover wanting to fly a big vintage RC plane.
Anyway, the engine's second (ever) running session is on video, here:
http://www.youtube.com/watch?v=6xl1HLZADAI

If you like diesels, have a look, it's a superb engine and a really nice surprise for me.
Now I just have to get building... Brian

Allen-Mercury A-M 10 1.00 cc diesel from Model Aircraft July 1956



In general, the model trade is not noted for modesty when advertising its wares. " Undisputed Leader ! The World's Best ! "X Leads the Field ! " shout the manufacturers, until such claims by their sheer extravagance and constant repetition, fail to make the slightest impression on the hardened modeller. Sometimes, too, the claims bear not the slightest resemblance to the products themselves. For example, we have had for test an
engine which we would have been accurate in describing as a mediocrity; yet this, according to the manufacturer's announcements, as quite the finest model motor that had ever been seen. With all this in mind, the experienced enthusiast will probably pay scant attention to the distributor's claim that the new Allen-Mercury "10" has the highest output of any 1 c.c. diesel in production today.

Certainly he cannot be blamed for doing so. Yet, in this instance, he would be completely wrong, for the new A-M " 10" certainly bears out this claim and more.

The maximum power output of our test A-M " to," it will be observed from the accompanying performance curves, reached0.118 bh.p. at 14,000 r.p.m. Students of model engine performance will be quick to realise that this is equal to a specific output of 118 b.h.p./litre and is substantially in excess of anything previously reached with a 1 cc engine, the best of which have not previously exceeded 90 - 95 b.h.p./litre while a typical "popular" 1 cc. model achieves only about 65 b.h.p. litre. It is also one of the highest specific outputs yet realised with any model diesel, irrespective of size. In fact, as the M.A. Engine Tests series has shown, there are only two other model diesels, at the present time, capable of equalling or surpassing this performance, namely the 2.43 c.c. Oliver Tiger III (0.305 b.h.p. or 124 b.h.p. / litre) and the 2.45 c.c. Webra Mach-i (0.295 b.h.p. or 120 b.h.p / litre), both of which are, of course, international class competition engines, recognised as being the best of their type.

It must be mentioned that our test figures for the A-M 10 relate to a single test sample only as submitted by the trade distributors, Messrs. H. J. Nicholls Ltd. However, we are assured by Henry Nicholls that this was, in fact, a perfectly standard "off-the-shelf" model which had had no more than minutes' running and we are further informed that a rough check on the performance of another stock example showed an output of 0.121 b.h.p. The substantial improvement over existing small diesel standards of performance by the A-M " 10" must inevitably raise the question "how has it been achieved? The space allotted to these reports does not allow the inclusion of a detailed design analysis (such analyses, on outstanding engines, are to be found, from time to time, in our other engine features) but we can, at least, sum up. The A-M " 10" is a perfectly normal design in so far as it is a shaft valve, plain bearing, radial port diesel. Its performance comes, not from any one feature, but from an intelligent interpretation of the more desirable features of such a layout, which features have been harmoniously blended to produce a well-balanced design. (Here, incidentally, it is especially refreshing to find that the designer admits the engine has exceeded his own expectations.) Of the many features influencing two-cycle engine design, three factors (to which most others are, in any case, allied) assume prime importance. These are (a) adequate and balanced porting, (b) the prevention of excessive friction in the moving parts and (c) the prevention of overheating and/or thermal distortion.

In the first, the A-M "10" looks no different from many other engines and, like any other, its porting has to be a compromise, but in this case, aided by a slightly higher than average stroke/bore ratio and a suitable cylinder design, the compromise appears to be a particularly well-chosen one. Secondly, the reduction of frictional losses is taken care of by a well-fitted piston and cylinder in which the cylinder bore is convergent towards the head in order to combine good compression seal with reduced piston drag over the major part of the cycle. In addition, bearing surfaces are of adequate area. Finally, the engine is notable for the rigidity of its construction and especially for its quite exceptionally heavy cylinder, which, by its considerable mass,

must greatly improve efficient heat dissipation and eliminate any risk of localised overheating and distortion. The liner is, in fact, of some 5/64 in. wall thickness above the ports.

Specification

Type: Single-cylinder, air-cooled, reverse-flow-scavenged two-stroke cycle, compression-ignition. Shaft type rotary valve induction. Circumferential exhaust and transfer porting. No sub-piston supplementary air induction. Swept Volume: 1.000 c.c. (0.0610 cu. in.). Bore: 27/64 m. Stroke: 7/16in. Compression Ratio: variable. Stroke/Bore Ratio: 1.037 : 1. Weight: 3.0 oz.

General Structural Data

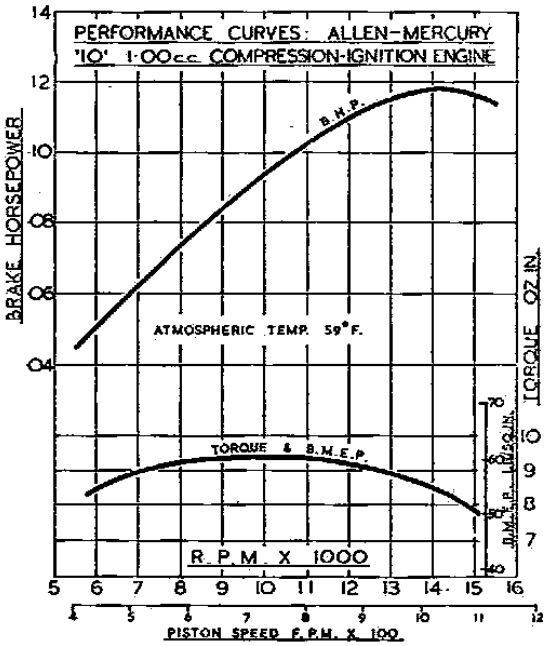
Pressure diecast crankcase and main bearing housing in LAC. 112A alloy. Crankshaft of S.14 steel, case-hardened, with full-disc web and running direct in crankcase material. Splined shaft end for prop driver. Meehanite cylinder liner. Duralumin tinned cylinder barrel. Cylinder assembly clamped axially to crankcase by three long screws passing through cylinder barrel into crankcase. Meehanite piston with full-floating gudgeon pin. Connecting-rod machined from forged dural bar. Spray-bar type needle-valve. Beam mounting lugs.

Test Engine Data

Running time prior to test: 2 hours. Fuel used: 37- per cent. Technical ether BSS.57q. 20 per cent. Shell "Royal Standard" kerosene, 15 per cent, gas oil, 25 per cent. Castrol M, per cent. 2 ½ percent iso-amyl nitrite.

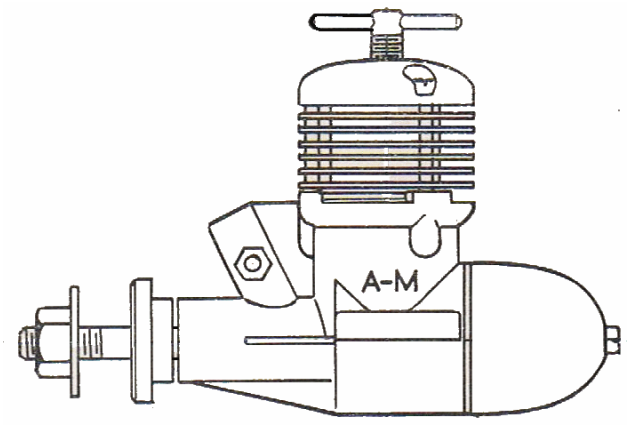
Performance

The high maximum b.h.p. output of the A-M " 10" has already been remarked upon. It remains only to say that a proportionately high level of performance is available at speeds below the peaking speed. In other words, the performance comes not merely from the engine's ability to rev, but from unusually high b.m.e.p. Thus, the maximum torque, which is developed in the region of 10,000 r.p.m., was 9.4 oz. in., equivalent to a b.m.e.p. of slightly over 6o lb./sq. in., which is a much above average figure for model two strokes, irrespcctive of size and type. By way of comparison, the average for seven 1 c.c. engines previously tested in this series was only 47.9 lb.sq. in. Handling characteristics in general were good. We had the engine started for the first time within a few seconds from cold after merely choking the air intake. Restarting the engine when hot was, perhaps, a little less instantaneous. As one might expect, hand starting on small props, allowing static speeds in excess of 13,000 r.p.m., needed to be performed a little more cautiously if" biting" was to be avoided. The engine was responsive to the compression lever, and the contra-piston moved smoothly and with no tendency to seize when hot. The fine thread compression screw was an excellent fit in the head and there was no tendency for the compression adjustment to slacken off at ultra-high speeds.



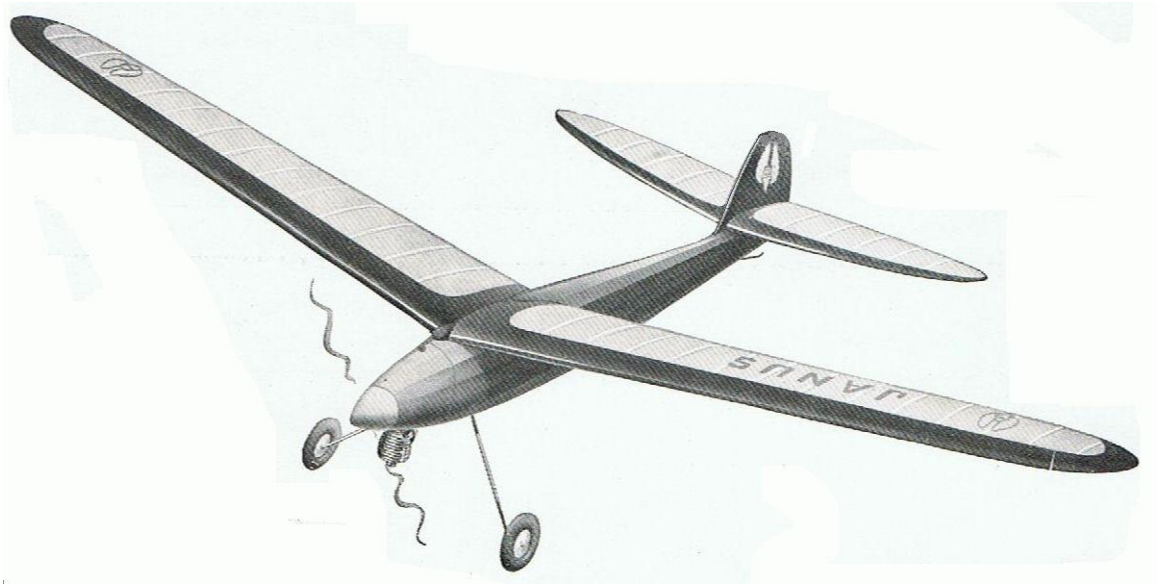
The engine was given a brief check period at 8,ooo r.p.m. and was then loaded for two hours' running at a speed of 10,000, at the end of which period an increase of just under 500 r.p.m. was evident, equivalent to a power increase of nearly 1 per cent. Some trouble was taken to select the best fuel mixture for the particular engine and of several tried, the blend mentioned previously was found to be slightly superior. Having now almost reached the end of this report, we are conscious that we have said very little in criticism of theA-M "10." Therefore, we would mention that the needle- alve is a trifle close to the prop disc, while the engine is, perhaps, heavier than some people consider necessary in a 1 c.c. unit. Yet, against this, we cannot help but point out that the needle-valve, by not being raked back, allows it to be reversed for side or inverted installations, while the weight is by no means excessive and, in any case, is more than compensated by improved performance. In all, this is a fine little engine and one which, should the trend of future International rules favour a smaller type of competition F/F model, will help to place Great Britain in an extremely good position. Power/Weight Ratio (as tested): 0.629 b.h.p./ lb.

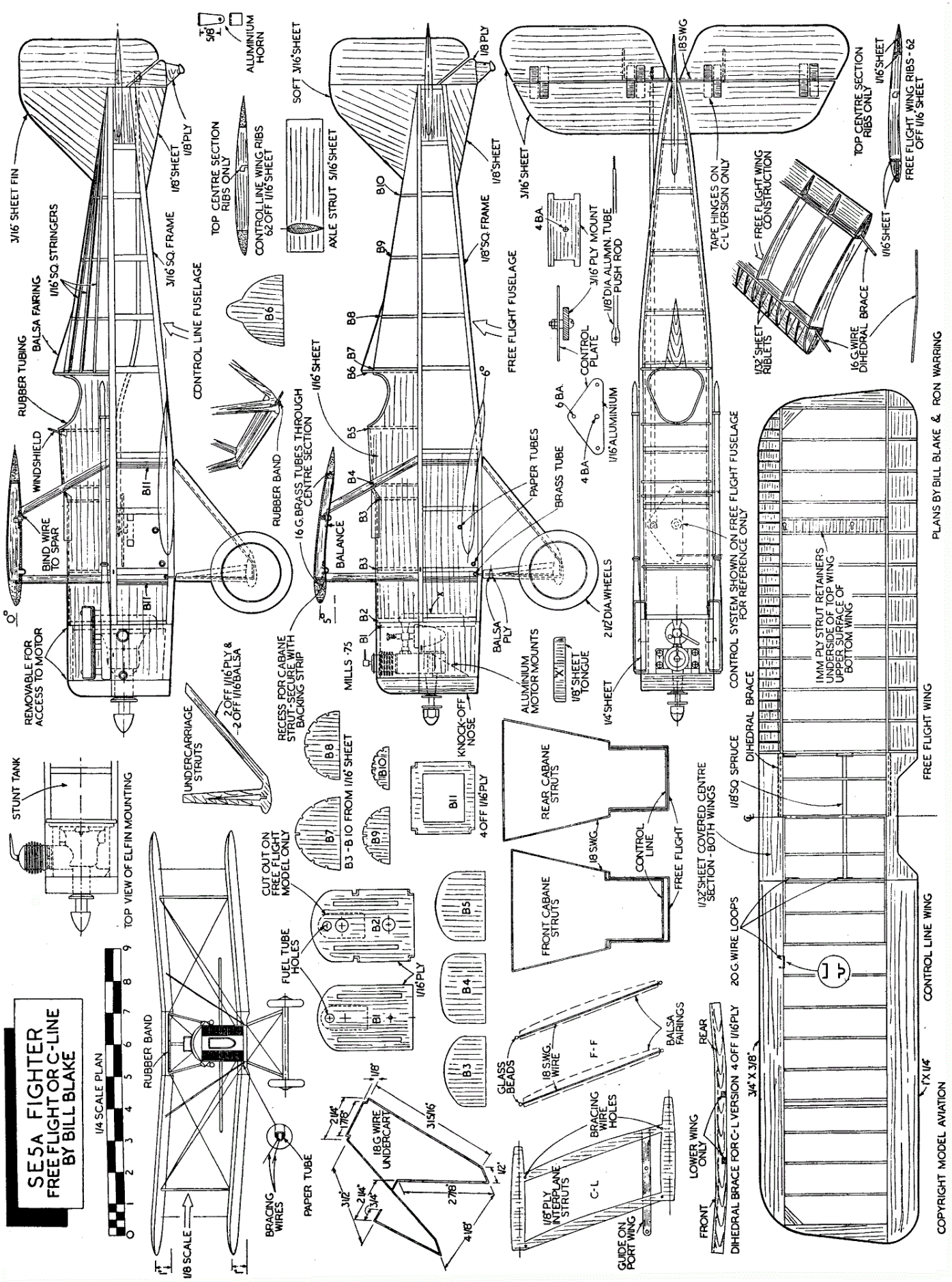
Specific Output (as tested): 118 b.h.p./litre.



From Rob Smith

After a great weekend of free flight at Middle Wallop I was suitably knackered by Sunday evening. I got to thinking that it was about time I built something new for the next meeting in October. After all the Bi Play, Cardinal, Tomboy etc are beginning to show their age although, come to think of it,they were showing their age when I first built them. It's the way I build them!
Somewhere recently I had seen a photo of Doug McHard's Number Nine (could have been in an earlier S & T) and thought "That's for me". X list plans quick before I come to my senses, order on line, painless.
Within a couple of days the plan arrived so I put aside the DB Sport & Scale Gipsy Moth currently on the building bench, pinned down the new plan, rummaged through my balsa offcuts box and started producing a kit of parts. The plan suggested a .75 cc motor but as I had decided to bin the Cardinal I had a spare DC Dart that I hope will be adequate. I won't bore you with the build details as it's pretty straightforward and the only changes I made were to the undercarriage which on the plan is a tandem layout with outrigger wheels on the lower wings. I opted for a tricicle layout. Any other changes were to leave out some of the McHard 'over-engineering' to save a bit of weight.
It's now built as you can see from the pics attached. Will it fly? Which direction will it fly in? Will I never learn?
I'll let you know!


JANUS



SE5 Fighter by Bill Blake from Model Aviation Planbook

The famous S.E.5 single seater fighter was put into production in 1916, the first machine being delivered to No.56 Squadron on March 13th, 1917. This machine was the outcome of years of experimental work, which started as early as 1910, when the canard S.E.1 was built at the Royal Aircraft Factory, Famborough. At about this time, Geoffrey de Havilland joined Farnborough, bringing with him many new ideas and a design of his own—the B.E. 1. As a result of the experience gained with the S.E.1, the B.E.1 was modified— the new machine being designated B.S.1. Powered by a twin row, 10-cylinder Gnome engine, the B.S.1 had a top speed of 95 m.p.h. The designer was later injured in this aircraft when it crashed in 1913.
After this, the design was modified slightly and fitted with the less powerful 80 h.p. Gnome. This version— the S.E.2— actually went into action in France. It was during this period that H. P. Folland joined the design team at Farnborough.
Work was started on a new model and Mr. Folland contributed many brilliant ideas to this, the S.E.4. The per.formance was outstanding at the time—top speed being 135 m.p.h. and the rate of climb 1,600 feet per minute. Disadvantages were the high landing speed of 50 m.p.h. and bad engine overheating.
With the data so far collected and the advent of the new Hispano-Suiza liquid cooled 150 h.p. engine, the S.E.5 was soon developed. During its Service career, the S.E.5 was fitted with various more powerful engines, including the 244 h.p. Hispano-Suiza. Having given this very brief history of what was perhaps the best British fighter of World War 1, we shall carry straight on with building instructions for the scale control line and free flight models. The construction of both models is well detailed on the adjoining I scale plan. Full size ribs, formers and other parts are given at the back of the book. A full size print of the plan is available.

FUSELAGE

The fuselage consists of a basic frame of either 1/8” square for the free flight model, or 3/16” square for the control line version. Apart from the control components in the case of the C/L model, the fuselages are basically the same. Build the box frame in the usual way and add the sheet upper bulkheads. Sheet cover thefuselage from B1 to B6 with 1/32” on top and 1/16 sheet on sides and bottom. Before sheet covering, however, make sure that the wing boxes (B11) are fitted correctly and attach the wire cabane struts in position. Do this by dropping the struts into their boxes and filling with cement.
In both versions, the engine fitting is of the knock-off type —being held in place with rubber bands. Cement the 1/8 sheet tongues (X) into the B1 former. Slots are cut in B2 to receive the tongues. In the stunt version, any suitable commercial fuel tank may be installed in the first section behind the plywood bulkhead. Allow a good length of fuel tubing to avoid its being torn away when the nose is knocked off.
The centre section of the lower wings built integral with the fuselage, the angle of incidence depending on which model is being built.

WINGS

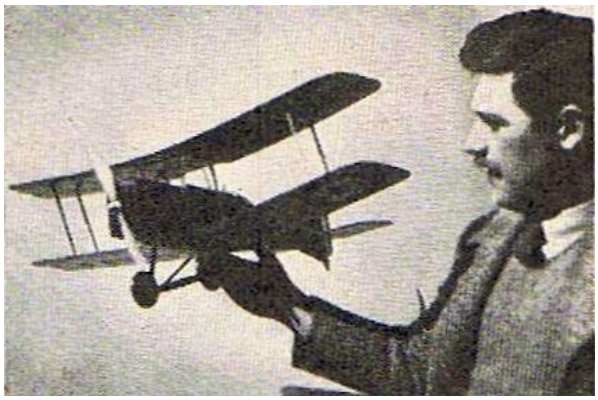
Both upper and lower wings are the same. On the plan, the control line construction is shown on the left and free flight on the right. On the control line model both leading and trailing edges are solid and a near symmetrical wing section is featured. The wing struts fit between the two ribs as shown on the drawing, being glued into position when the model is finally assembled.
On the free flight model, the framework is lighter. In this case, both leading and trailing edges are built up from 1/16”sheet in the form of a “T’ section. Riblets are cemented on the upper and lower sides of the “T” as shown on the plan. The struts consist of 18 gauge wire with balsa fairings added. The beads at the ends are pushed through the holes in the ply retainers (in wings) and then slid inwards into the slot. When the bracing wires are added, the struts are locked in position.

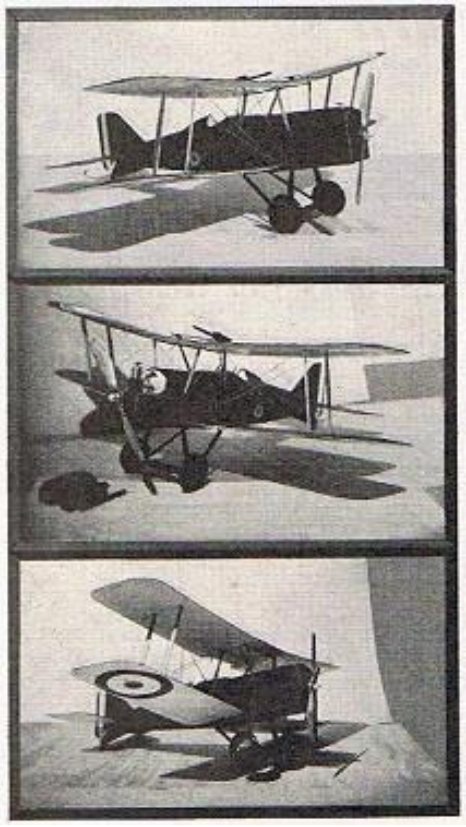
TAIL SURFACES

These are made from 3/16” sheet for both versions. For free flight the tailplane and elevators are cut out in one piece. On the control line model, the usual tape hinges are used. Note the 18 gauge wire elevator joiner which links up the two halves.

UNDERCARRIAGE

Bend the wire frame from one piece of 18 gauge wire and sandwich between the balsa and ply legs (ply on outside). Sandpaper the struts to a streamlined section and bind with strips of silk. The front undercarriage legs now fit into a length of brass tube, which is located in the fuselage. The rear legs are pushed up into the space between the rear B11formers and well cemented in place. Carve the horizontal U/C Strut to shape from a piece of1 1/8” x 5/16” balsa and cement to the ends of the main legs.
The 18 gauge axle drops into the slot shown, being held in place by a rubber band to provide the necessary shock absorption.





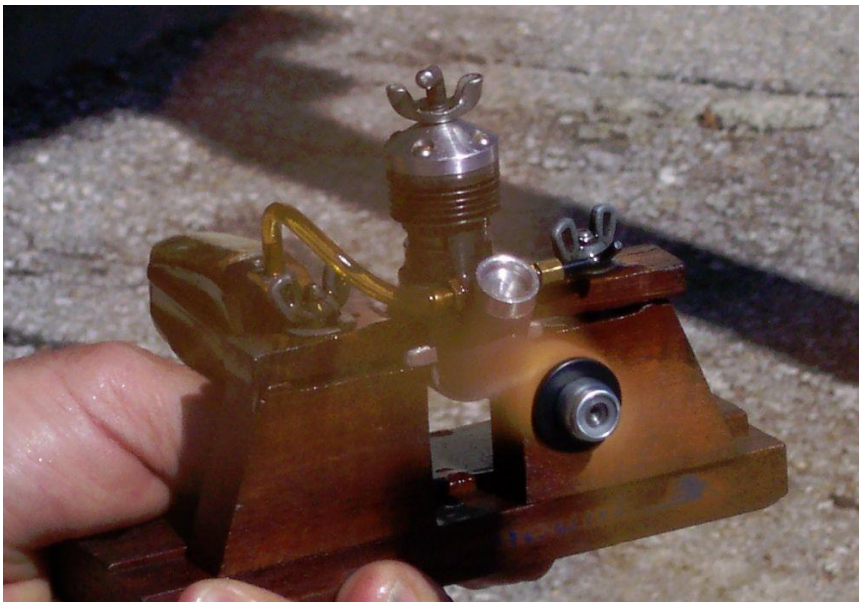
BRACING
We have found Nylon thread to be the ideal material for bracing. Tie to the ends of the outer struts and then
tension with rubber bands passing through the fuselage or under the top centre section. The bracing is clearly
shown on the front view on the drawing.
FLYING
Balance both models as indicated-adding weight if necessary. When powered with the Elfin, the control line
model stunts very easily. The use of a less powerful motor is not recommended unless you are satisfied with just loops and wingovers. The .75 Mills was installed on the original free flight model. Flight tests showed that it was necessary to use slight downthrust. This could be built in, but may vary with individual models. The glide is fast, but steady. Auto rudder was used on the first model, but there seemed to be no apparent advantage. Lastly, a word of warning. With a .75 Mills the rate of climb is on the fast side, so only put a little fuel in the tank for each flight.

From Jim Moseley in Canada

The plan of 'Donald' sent me to the old albums, from which to scan the attached photograph of a version that I built years ago as a diversion from the more usual contest power models.
However, with a new small PAW installed. I proudly surveyed the completed model and then realised with some horror that I had made no provision for a fuel tank. Many years of using pacifiers on the 'real' power models had led me to overlook the installation of a hard tank and there was no way of retro-fitting one without some considerable carving up of the cowl and nose structure.
Therefore the airframe languished for years until, by chance, an acquaintance who dabbled in the dark side .. with R/C ... visited it and took notice. He decided he would like to have it, sans engine, to install suitable gimmickry and a soulless electric motor; on being offered in trade a N.I.B Cox TeeDee .020 I quickly shook his hand and hustled him out before he changed his mind.
I never saw it again or heard if it was indeed converted and flown. Pretty airplane .....

From Jennings Holt in USA

I just rebuilt a Cipolla Jr 149 (.09) that I had converted to diesel in the late '80s...had make a cast iron piston and wrist pin to replace the original setup and a aluminum alloy conrod...used the lathe to break it in before making the contra-piston and new head to replace the glow head...and, it ran fine on the test stand after I finally got it to run...and was running fine till the original crankshaft broke around the crankpin...so, I made a new crankshaft from bolt metal and put a taper on the part in front to accept the drive plate...saved the original drive plate by making a "D" reamer with the same taper and machining out the back of the drive plate where it had spline for the old broken crankshaft...finally go the engine to run last night after flipping the prop for over two hours...used a 10X3 1/2 prop...it turns it but I found a 9X4 prop to try next time...and maybe even down to 8X4 or 8X5...I think the displacement of the engine went up after I bored and lapped the cylinder and made the new cast iron piston...more like .11...next week, I will take the engine back to the machineshop and face some more of the head after I've found out how much of the contra-piston stick out of cylinder top...that way, the recessed well that where the top of the contra-piston won't let it come back out too far and should make it easier to find the original run setting with the compression screw...I'll send pictures after I make the last changes and run it some more...looking for some parts to finish out some ME Herons and Snipes...even broken part would help to get some measurements of crankshaft, cylinders and contra-pistons...or some drawings with measurements)...Jennings Holt...
I finished the diesel head for the Rossi SuperTigre G.11 today...but, one of the bolts has bad thread and one of the backplate bolts is missing...I think they are metric...maybe the RC swapmeet this Saturday might have some...so far the compression seems to be good enough for th engine to run...thanks...Jennings...



Cocklebarrow Farm R/C Vintage 6.10.2013 Tony Tomlin.

The final Cocklebarrow Farm meeting for 2013 took place at this excellent flying site on 6th October. Although the flying area is not vast and is surrounded by Cotswold stone walls, it seems to have, as one flier said, a "Cocklebarrow magic", certainly judging by the large turnout of modellers it aways attracts, this is very true. During the day 62 fliers signed on, many joined by friends. The meeting was run by Val and Paul Howkins with help from their dedicated band of followers, [thank you all].
The day dawned cold and with a thick mist, fliers stood around chatting and waiting for the weather to clear, until around 9.30 the sun broke through, spirits lifted and we settled down to a great days flying.
A walk along the field showed a large variety of models. Seen were designs of Vic Smeed, Sai Taibi, Phil Smith, Albert Hatfull, Walt Good, Colonel Bowden and many more. and. ranging from the smallest, a PAW 80 powered Sharkface, to the largest, the Ben Sheresaw, Super Buccaneer. The Galahad design seems to have made a revival with 3 seen in the air. Electric models are becoming more popular at every vintage event now. Conversations can be overheard of fliers discussing the merits of 2 or 3 cell LiPo batteries, speed controllers, inrunners and outrunners motors etc etc, something unheard of only a few years ago when most were members of the oily hand brigade! A number of rudder only single channel models were flown in the generally calm conditions, including the Madcap of Stephen Powell, which was flying well. An unusual model not seen before was the 1951 Magpie design by John Rogerson and built by Ted Tomlin. This interesting design looked very similar to the much later, American designed, Lazy Bee. David Lovegrove had brought along his Flying Flea that has proved a reliable and stable flier [unlike the full size!!]. There was a good turnout of Tomboys, many to be flown in the last Tomboy competition of the year. In total there were around 120 models signed in.
The mass launch flyoffs for the Tomboy 3 and Senior competitions drew, as usual, a large crowd of watchers, many from the local village. The Tomboy 3 class [Mills .75 36" span Tomboy] had 9 entries and for only the second time in the 7 years and 50+ Tomboy competitions, there was a midair shortly after the launch, when the Tomboys of Colin Shepherd and Ted Tomlin collided. Colin's model gently glided in with a dead engine whilst Ted's model flew an erratic course until some frantic adjustment to the trims settled things down. He was surprised, as after a reasonable flight, he discovered on landing [when the fuselage collapsed] that only the control snakes were holding the fuselage together! Amongst all of this excitement the other fliers climbed away with no other dramas, Brian Ball coming out on top with a time of 8mins 19secs.
This was followed 30 minutes later by the Tomboy Senior Class [Mills 1.3 48" span]. There were 10 entries, and with the slower flying larger models, this was altogether a more gentle affair! All the models got away unscathed, with the exception of Derek Collin who had the misfortune to hit a tree, luckily his model slithered safely down to the ground. Tony Tomlin and Steve Roberts had a 'touch' shortly after launch, Tony continuing with part of his elevator flapping in the slipstream. Steve was lucky to escape with nothing more than a dead engine and landed safely.
Apart from John Strutt and Peter Rose, all the others seemed unable to find decent lift and were descending, however Roger Briggs was the most successful of the group, claiming 3rd place a little under 7 minutes. John Strutt was 2nd, with Peter Rose a clear winner, landing a little over 2minutes after John, at 12mins 12secs.

Tomboy results

Tomboy3 1/ Brian Ball 8min 19secs. 2/ John Strutt 6min 18secs.
3/ Brian Brundell 5min 46secs. 4/ Bob Young 4min 37secs
5/ Tony Tomlin 4min 27secs. 6/ James Collis 4min 02secs.
7/ Ted Tomlin 3min 29secs. 8/ Stephen Powell 3min 16secs.
9/ Colin Shepherd 0min 15secs [Mid air].

Tomboy Senior
1/ Peter Rose 12min 12secs. 2/ John Strutt 9min 35secs.
3/ Roger Briggs 6min 52secs. 4/ Brian Ball 5min48secs

5/ Barrie Collis 5min 37secs 6/Tony Tomlin 5min 08secs.
7/ Ted Tomlin 4min 17secs. 8/ Bob Young 3min 36secs
9 /Steve Roberts 0min 16secs [Mid air]. 10/ Derek Collin 0min 10secs.

After what can only be considered another excellent Cocklebarrow meeting enjoyed by all, the fliers raffle was drawn and Val Howkins presented the Tomboy awards.
After the presentation, whilst everyone was still together, Val talked about the future of the Cocklebarrow meetings, which she has run with Paul for 23 [or more] years. Val explained that at present they are willing to continue to run the events. However, if their circumstances change due, for instance to ill health, they hope that a person or a group would step in to run this prodigious event. Paul and Val would, of course, be available to give advice as required. For further information please contact Val or Paul Howkins
Tel: 02476405126 email: valerie@jhowkins.plus.com .

John Mellor's Astro Hog and Top Dawg


Bob Young with timekeeper Chris Haddow
4th place Tomboy 3

Sabrina by John Ashby


Line up mid-morning

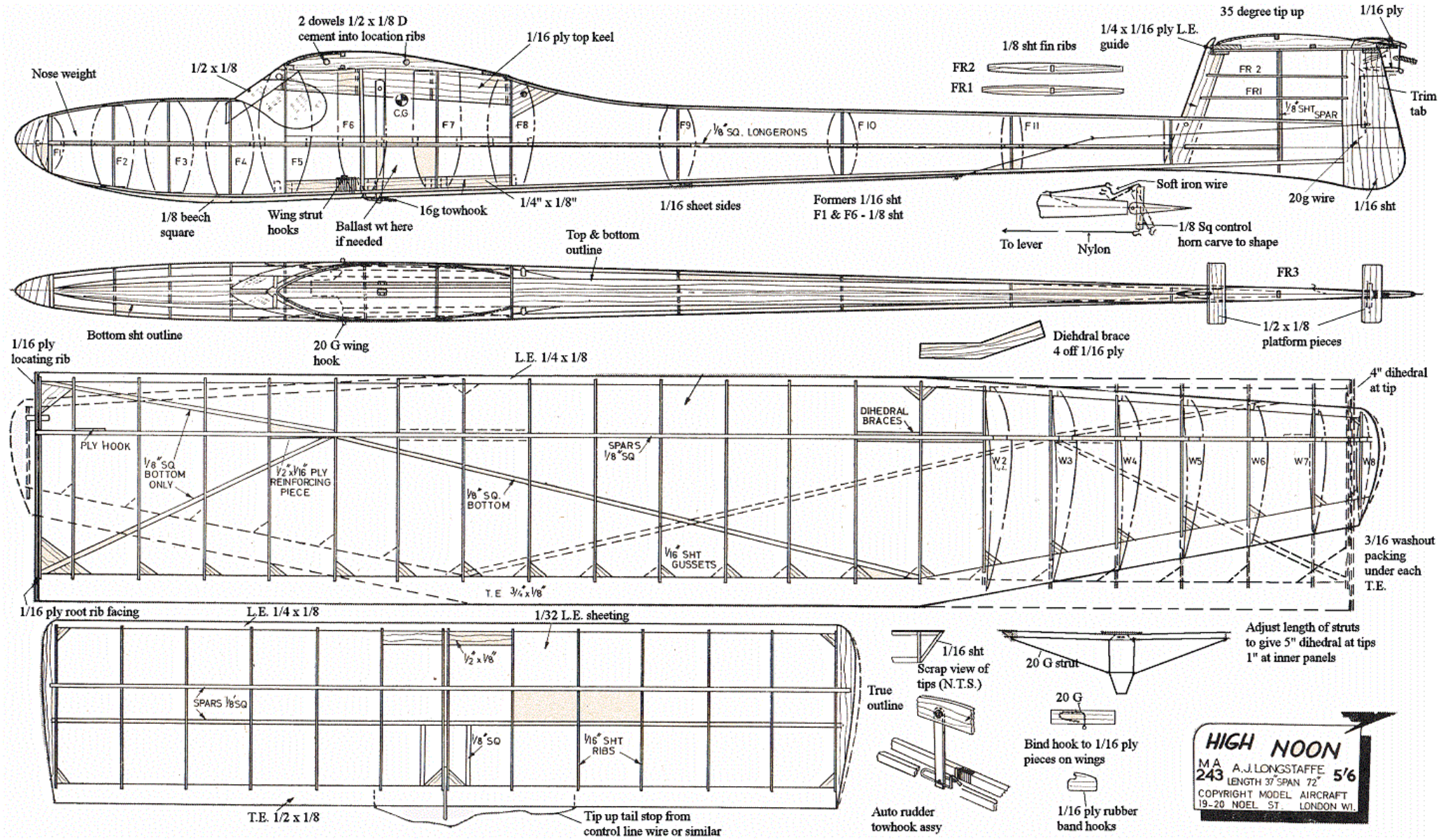
Ted Tomlin with 'The Magpie' By John Rogerson 1951

Stephen Powell with S/C Madcap

Ironsides S/C designed by B Cracknell, MP jet .6

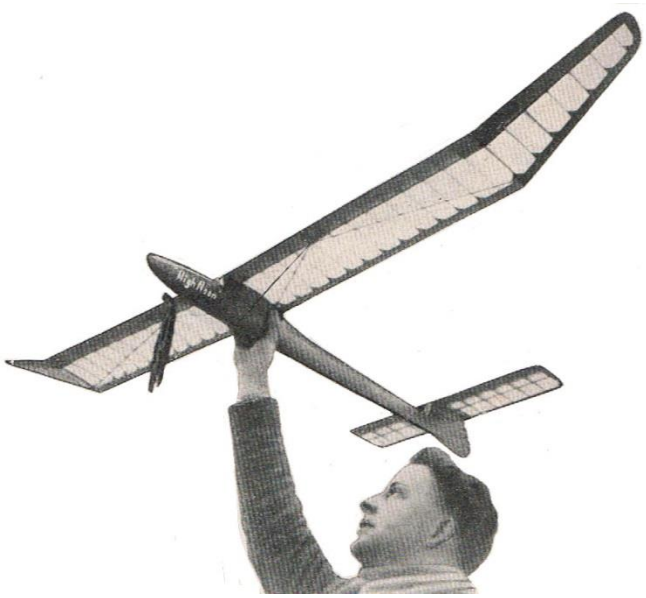
Single Channel Madcap. flew well

Flight Line always busy


2 dowels 1/2 x 1/8 D cement into location ribs
1/16 ply top keel
Nose weight
1/2 x 1/8
C.G
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
1/8" SQ. LONGERONS
1/8 beech square
Wing strut hooks
Ballast wt here if needed
16g towhook
1/4" x 1/8"
1/16 sheet sides
Formers 1/16 sht
F1 & F6 - 1/8 sht
Top & bottom outline
1/8 sht fin ribs
FR2
FR1
1/4 x 1/16 ply L.E. guide
35 degree tip up
1/16 ply
FR 2
FR1
1/8" SHT SPAR
Trim tab
Soft iron wire
20g wire
1/16 sht
To lever
Nylon
1/8 Sq control horn carve to shape
FR3
Bottom sht outline
20 G wing hook
1/2 x 1/8 platform pieces
Diehdral brace 4 off 1/16 ply
1/16 ply locating rib
L.E. 1/4 x 1/8
4" dihedral at tip
DIHEDRAL BRACES
PLY HOOK
1/8" SQ BOTTOM ONLY
1/2" x 1/16" PLY REINFORCING PIECE
1/8" SQ. BOTTOM
SPARS 1/8" SQ
W2
W3
W4
W5
W6
W7
W8
1/16" SHT GUSSETS
3/16 washout packing under each T.E.
T.E 3/4" x 1/8"
1/16 ply root rib facing
L.E. 1/4 x 1/8
1/32 L.E. sheeting
1/2" x 1/8"
SPARS 1/8" SQ
1/8" SQ
1/16" SHT RIBS
T.E. 1/2 x 1/8
Tip up tail stop from control line wire or similar
1/16 sht
Scrap view of tips (N.T.S.)
True outline
Auto rudder towhook assy
20 G strut
20 G
Bind hook to 1/16 ply pieces on wings
1/16 ply rubber band hooks
Adjust length of struts to give 5" dihedral at tips 1" at inner panels
HIGH NOON
MA 243
A.J. LONGSTAFFE
LENGTH 37" SPAN 72"
5/6
COPYRIGHT MODEL AIRCRAFT
19-20 NOEL ST. LONDON W1.

Hign Noon an A/2 glider by A Longstaffe from Model Aircraft July 1956

This model, High Noon, is the outcome of a development of A/2 gliders since the class gained international popularity in 1949. A high aspect ratio wing with 25 per Cent. tailplane was used to achieve a reliably low sinking speed, the tailplane being mounted high out of the wing wash to give it maximum effectiveness with a normal length fuselage. Ample side area gives the model trouble free towline stability in a wind. Apart from minor changes to construction and aerofoil section the flying surfaces have remained unchanged from those on the original model. The wire bracing struts and the attachment of wing to fuselage provide great strength on the towline as well as being reasonably crash-proof when trees or buildings obstruct the model's approach. The fuselage has been progressively streamlined and improved in detail and the present structure is surprisingly rigid for its weight—curving the 1/16 in. sheet sides results in greater stiffness than with flat 3/32 in.



Structural weight at 12 oz gives ample strength and with ballast at the ecg. makes for stability by reducing inertia effects.

Fuselage

Bind the towhook and wing strut hook securely to the 1/4in. X 1/8 in. balsa bottom beams. Fix the auto-rudder lever to the port side of the ply top keel. Cement formers F5 to F8 to the towhook beams and cement the ply keel in the top. Fit the 1/8in. sq. short longerons, carefully check the whole alignment, and leave the unit to set. Cement the 1/8in. sq. longerons in place and fix the ends together at the rear having cut them to length and tapered them as shown on the plan. Cement all remaining formers in, checking that no bowing of the fuselage occurs; also fit cabin pillar. Cut the sides, slightly oversize, and cement firmly to the longerons and the flat sides of F6 and F7. Cut the top and bottom pieces and cement these to the formers and towhook beams. Finally, applying Cement with thin slivers of wood to the formers, mould the sides over the formers and seal off along the edges of the top and bottom sheeting. Cut slots for the fin leading edge and spar, fit the ribs and the shaped 1/8in. sheet rudder piece. Fit all details: nose-block, dowels, skid, platforms, etc., and cover with lightweight tissue.

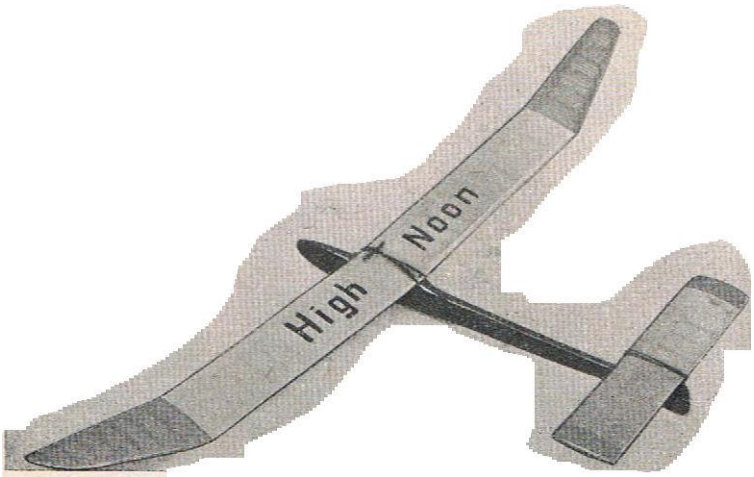
Wing and tail

Construction of the flying surfaces follows orthodox practice, the 1/8 in. sq. bracing being let into the ribs after the wings are otherwise complete. Note the wash out on each tip—most essential!

The inboard wing panels are covered with heavyweight Modelspan, and the wing tips and tailplane with lightweight—red is the best for visibility!

Trimming

If built and rigged true to the plan the model should need little trimming. It has proved amply stable on the towline and trimming by short towline flights is much more reliable than hand launches. The designer's technique is to trim for a slight stall when circling openly to the right, then tighten the circle by adjustment until the stall disappears. The high aspect ratio, washed out wings give the model a surprisingly tight but stable circle which seems to aid thermal hunting.



From George R.Vale

I was v. interested to see someone was building an `Ace of Diamonds.' I built one of these at 1.5x scale, 54" span, for r/c with .40 power. In evidence I'll attach a couple of blurry pictures a pal took.
I wrote up the whole story which was accepted for publication by RCM&E, but they had a change of Editor & it somehow fell though the cracks. The article was rather long at 3,500 words + 11 pictures, covering origin, design, construction & flying.
The model still clutters my workshop, since it was very awkward to rig and to fly. If you would like a sight of said article please say; I can't guarantee to find all the photos though. If not suitable for you, your contributor might be interested to see it.

David Kinsella's Column

The ED Story II

Basil, Flo and their son lived off Ruxley Lane, West Ewell, Surrey. Unlike other houses along Gatley Avenue, the abode of ED ace Basil Miles boasted a very large workshop with all the machinery one would expect of an engineer who was seriously hands an, designing, making, even patterns (I have a bucket full) for sand casting purposes. I knew Basil and family from the late 1970s, visited as often as I could, exchanged Christmas cards and with sadness wrote his obituary for SAM 35 twenty years ago.. Top models of all kinds and the engines for them — even a supercharged twin — were passions persued, even a Bluebird-type test model, in prop-rider form for Donald Campbell. Really big stuff emerged with ample beef ta power Godzilla, one of two motor bikes put together by Basil and extended up and down A3 leading to London (smaller than Godzilla, the other Miles lives restored near Birmingham). On the ED front, the 5cc engine was listed as the Miles Special (my example inspected by Basil) and the classic ED Racer - campaigned by Edmonds and a Speed record holder in Wright's Gook - was our Basil Miles at his best. A valued private customer was a knight of the Bird's Custard family, Christmas cards highly impressive and well remembered.

Another Train

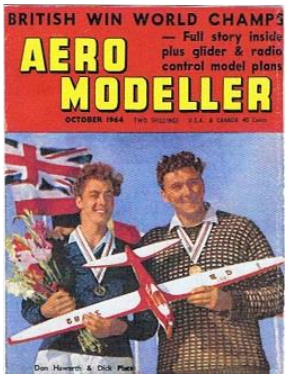
Thanks to Martyn Pressnell we now have a very good account of George French and his Night Train FAI power duration models (S&T No 79), trains in the night on their way to London an inspiration. But there is another Night Train, a twelve-bar blues of the late 1930s, the famous opening riff recorded by Johnny Hodges 73 years ago, Cornelius 'Johnny' or 'Rabitt' Hodge (alto and soprano sax) was a Duke Ellington sideman for ages but worked elsewhere too. There's various sets of lyrics, and over the years Count Basie, Duke Ellington, Louis Prima, James Brown, Oscar Peterson, Georgie Fame and many more have found Night Train impossible to resist. As with aviation (Flying Home, Airmail Special and Sky-Liner), the world's railroads have inspired many, including Czech composer Dvorak. Key man Hodges died at his New York dentist but Ellingtan carried on as here in 1970 recording.

Save It

The tune was written for the follow up to Irma La Duce (1963). It didn't happen and wisely Monty Norman popped it in the trunk — just in. case. Bond was on his way with Dr No (1962) and a hot intro was vital. More Asian at first, Monty split the notes and the famous theme was born. Maurice Binder shot the inside of a gun barrel with a pin-hole camera as another essential, stuntman Bob Simmonds walks the walk, turns and draws....and the rest is history. John Barry recorded the James Bond Theme and scored the first four magnificently. Mr & Mrs Norman received their promised trip to Jamaica. Ex RAF fighter pilot Ken Adam delivered stunning sets. The billion dollar industry was in.gear and motoring.

Vic's Licks

And the man of the John Barry Seven who delivered the heavy guitar sound was Vic Flick. An acoustic Clifford Essex Paragon Deluxe with, a DeArmond pickup and a Vox 15 amplifier - plus a Senior Service packet folded behind the strings - did the trick for Bond, various open mikes around the studio giving a roam effect and boosting ambience.



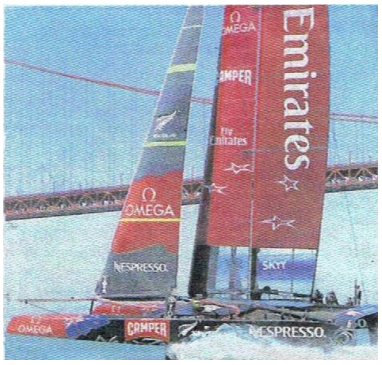
World Champions

Mentioned last month when covering David Finch's red-cased Oliver, here's the shot that says it all. Winning Super Nova held by Don Haworth and Don Place and good for 96mph, those beautiful wings stretch out to a full 45in. Seven pages. and many photographs cover the World Control Line Championships of 1964 the K&B Wart and Pink Lady of Bill Wisniewski to the fore as Champions in Speed (again a large

model at almost 22in in a field of 49). Within there's our boys again with Super Nova in a half-page from ETA Instruments Ltd, Ken Bedford a very happy man. Truly, one of the great results in the long history of aeromodelling.

On The Money

Before the sale at Goodwood I hinted that the Fangio W196 racer would go for serious money. In the event the new owner parted with a world record £19.6 million, close to my-final estimate of £20 million. Built to win and driven by a stellar team which included Moss, Taruffi, King, Lang, Fitch and Collins as well as the great Fangio, the silver cars from Stuttgart were a sensation. Already the new owner feels that he's got a bargain.



Big And Hairy

At speed along the Golden gate, the powerful but dangerous cat shows her paces as she is prepared for the pre America's Cup races for the Louis Vuitton Cup. Taking part costs around £70 million, the eitht-man crew at the limit to keep control at 50 mph and more. Too big for the picture, the towering rig scrapes the sky as the ETNZ entry scorches on. Crikey!

Prancing Horse

Able to do so in the 1970s I spent happy weeks in Italy. Great for famous cars and no need to name them, things were much more relaxed then and items of interest less shut away. On the road from Modena to Maranello - I'd walk it in the sunshine for the pleasure of seeing a spot of testing!- my intro written in French would let me turn, left and enter Enzo's factory. Saturday mornings were best, then across the road to the ristorante for a bite. Many famous names have vanished from the Grand Prix scene - BRM, Bugatti, Alfa, Cooper, Maserati, Jaguar and so on - but Ferrari soldiers on, even pre war when Ferrari drove for Alfa Romeo with Nuvolari and Guidotti and singing Campari. More later perhaps.

A Hot One

No need to question construction here. All is right, reliable and tried and tested. It's David Finch's super VTR Class B, the Walker/Tuthill Eleven. Power is a John Oliver/Tom Ridley 19 diesel which gives 78 laps per tank at Glow motor speed. That's motoring! Built very light at 550 grams (that famed Year Book feature tells us how) David says the W/T is the best B ever. As I know myself, those Robinson wheels are excellent. Mad on VTRs, Gordon Rae's big book offers a huge selection of 3-views to get the juices flowing. New to it? Stick a toe in the water and get going.

Movie Mysteries

Fantasy on the silver screen may not end when the credits roll. Rules and regs demand that names are given. For a variety of reasons inventions such as Allen Smithee appear as a director but there is no such man. A turkey on a CV is always to be avoided and so camouflage is the answer. An early screening bombing badly, script doctors rush in and deft recutting can haul a hit from a wreck. Whole musical scores have been dumped without a word and various endings shot and tested, titles too. We may know about cotton wool in the Don's mouth and that tiny trampoline to boost leaps into the saddle, but delving into the making of any movie seldom fails to deliver delightful surprises - and some that are less so. Here William Faulkner has escaped Mississippi and the grind of novels for scripting in California.

Rockin' Roller

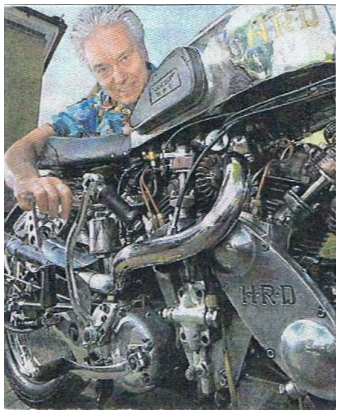
With the owner's permission I had a close look at the latest Rolls-Royce Ghost, basic price £171,000. Within, acres of leather, wood, cloth and carpet, soothing, smells and total silence too, keep the rude world at a distance. Like Bentley's Flying Spur (200mph from its twin-turbo V12) the Rolls-Royce Ghost has mighty muscle to fling it along the autobahn at any speed you want as a torrent of power surges through the eight-speed box. But like the vast majority of owners, you're in the back amid the art deco as uniformed Hermann wafts you to your destination, be it 5 or 500 miles away. It's Great Gatsby stuff.

Books Etc

Great fun at Waterstone's, me in company with bunny Sarah. Books of course, but signings, lectures and special events as here are all part of the super experience that is Waterstone's. Bright and keen, all staff deliver quick and excellent service. It's all about proper books for good chaps plus delightful extras.

Prizes About

With. memorials being cleaned and the media ready with plans for next year, our editor James Parry and others have in mind a Great War model for 2014. For sure there's several excellent designs. In SAM 35 Speaks I'm covering H P Folland's SE5/SE5a, the great V8-powered fighter that made ace's of young men we still remember. For good SE5 as at Old Warden next year I'll be there with prizes for the best three. And do remember that the dainty Keil Kraft MkI Phantom Mite will be celebrated too, the prize fund at £200 so far.

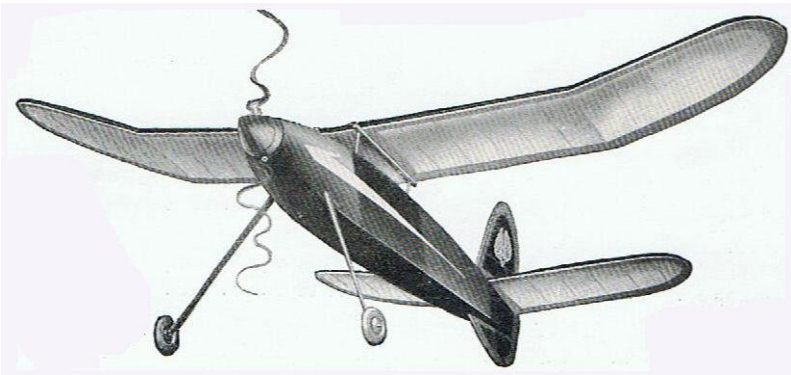


Boxed Then Mint

In bits in tea chests for 45 years, John Lumley left the 1937 Vincent HRD to friend Brian Hill. Hard work over eight months and £10,000 invested, the big twin roars again - as does its value at £225,000! Big and hairy like the Brugh Superior, campaigned by George Brown and Harold Brierly despite a lost leg, the mighty Vincent is an Everest among the foothills of lesser bikes. In the USA kitchen king John Edgar had the first to cross the pond. Here Brian Hill prepares his beauty for a blast.

Silted Port No More

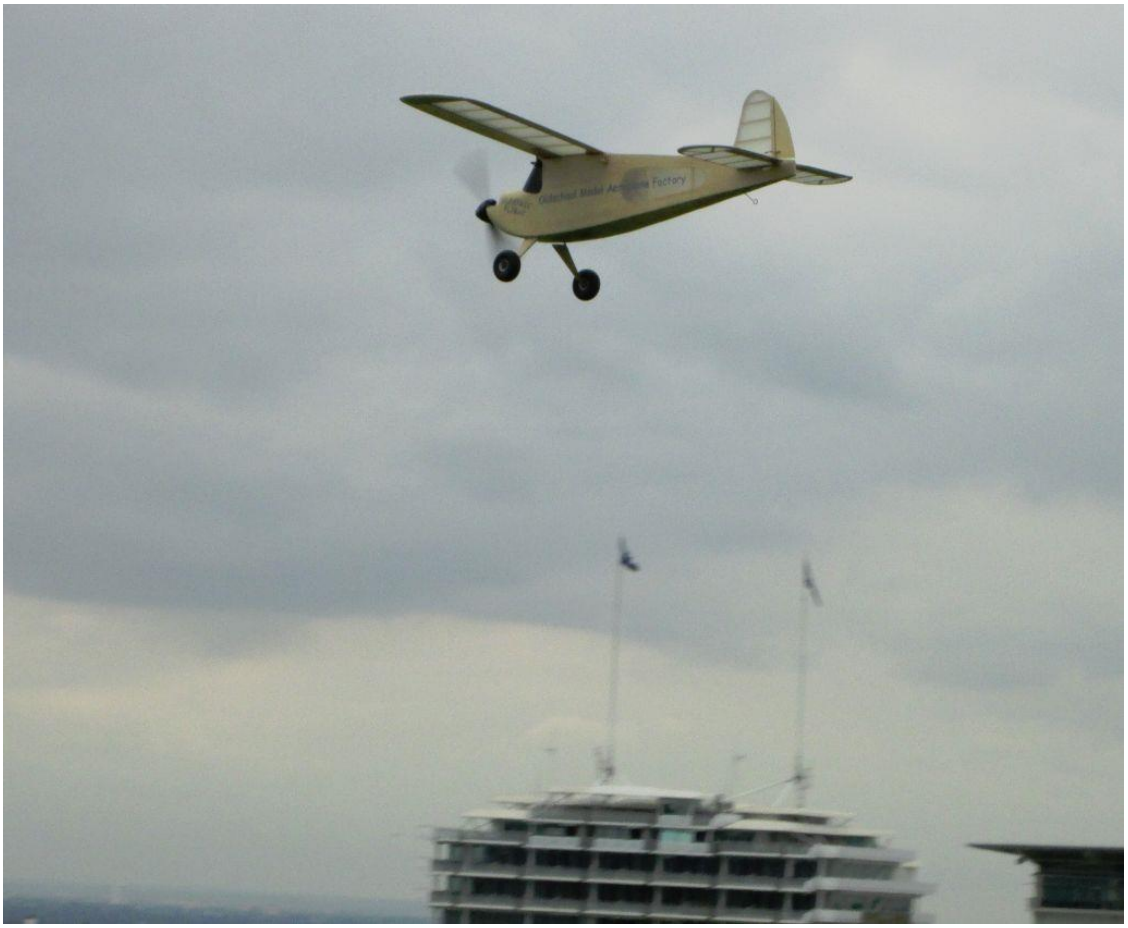
These days the world's high rollers rush for a spot on the Pearl River west of Hong Kong. It's Macao, where the living in luxury hotels is free as long as 1.5 million dollars a day a risked at the tables. China's Ferrari-owning class head there rather than Vegas although. US outfits run much of the action Profits are naturally vast. A friend was staggered by what he saw.



From Old School Model Aeroplane Factory – Derek Foxwell

Tomboy 48 electric version. These are now in stock at £42.75 for the short kit the components are in photo below. Additional items therefore will be required to complete the model including the recommended 1000Kv bell motors 1300 3S li-po and 20 amp esc. 9x4 E prop. Motors are from 4 Max as are the esc and batteries they do a combo pack. http://www.4-max.co.uk/

Back in September I met Derek Foxwell and Tony Tomlin at Epsom Downs for an afternoon flying and took the following photos of the OSMAF Tomboy 48E and Chatterbox E. The tomboy flew exceedingly well as did the Chatterbox. I was amazed how little rudder movement is needed to turn the Chatterbox, too much and it will want to return to earth but with little movement it was beautiful. If you build one start off with only a little stick movement for the rudder until you are confident.



Chatterbox over the Downs

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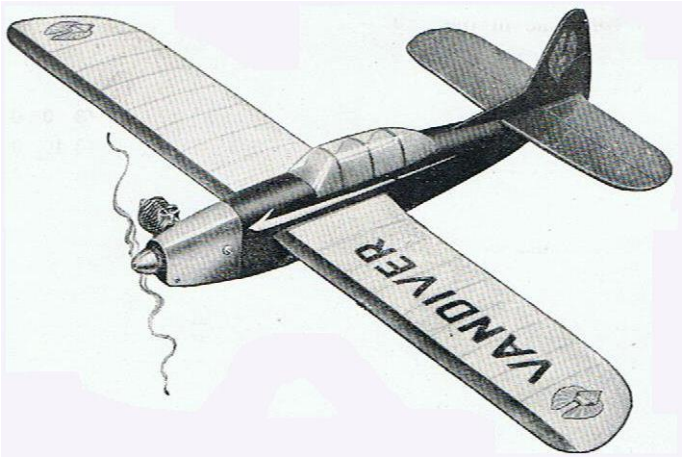
ALL FLYERS MUST HAVE BMFA INSURANCE
FLITEHOOK NORMALLY IN ATTENDANCE

Adult Flyers £4 Accompanied Juniors & Spectators £1.50 CONTACTS:JOHN TAYLOR TEL.No 01202 511502 ROY TILLER e-mail roy.tiller@ntlworld.com



NOT S&T

The Southern Airshow - Headcorn - September 14/15 - 2013. From Dave Bishop

A Bit of History.
The Croydon Model Flying Club has been running a very successful airshow at the Hop Farm near to Paddock Wood, Sevenoaks, using the header "the Southern Model Airshow" for some 7 years. The attendance increased every year. The latest event was due to take place last year on the same September weekend as in the past. But due to new Hop Farm management, a wrong decision had been made by them to run another "rave" show in the field adjacent to the normal airstrip the club had been flying from since the show started. It meant that some 7,000 people would be positioned just behind the row of tress opposite the take -off area. Keeping in mind the necessity of safety first the Croydon Clubs committee took the only decision available to them, which was to cancel the forthcoming show planned for the following weekend. That was September last year.
Enter Synergy Events.

The Croydon club benefitted input from the unflappable and talented chairman, Roger Godley and it was largely due to him and his wife Teresa, that the Southern model show turned out to be the success. That was until they decided that they had had enough of living where they were and moved south-eastwards to the seaside. This meant that businessman Roger withdrew from the chairmanship of the Croydon Club and handed the reins over to a new engineer chairman, Jim Beagley. Around last Christmas/New year time at the Croydon clubs party we Club members met a team of agreeable, friendly, professional people, who ran airshows under the name Heritage Events. This group invited the Croydon club to go for a deal of sharing the Southern Model show to be staged at Headcorn aerodrome with some of the Croydon clubs back - up money. The Croydon clubs committee decided against that proposal, but the new chairman Peter Royall, asked if the club could run a Bring and Buy stall at the Headcorn using the name the Southern Model show. This was agreed. (Long standing popular member Peter Royall was by now the new chairman as business and family reasons had forced Jim Beagley to relinquish his position.) The date was set for the 73rd Battle of Britain weekend - September 14/ 15 - 2013 Southern Model show at Headcorn.

Enter Steve Bishop.

The first show of this year's season was at Long Marsdon in May, and the top radio controlled model flying acts of the country were there. One of the top display items were the duo Red Arrows jets of Steve and Matthew Bishop. Their quarter scale, ten feet wingspan, 16 servo'd - 27 kilo weight - Hawks, are perfect in every detail and took many hundreds of hours to build by their company of "Bishop Aviation" at Telford. They run the largest attended UK family model show is now in its 21st year at Western Park in Telford, Shropshire. The Bishop team (along with Peter Whitehead) of family and friends run the Western Park show from the Friday till the following Monday over the Father's Day weekend. Appearing at the show this year were some of the Heritage team who asked me to introduce them to the crowds and traders with my microphone. This I did and it was seen that they were drumming up trade for the Headcorn show in September. Steve Bishop is the "Cecil B DeMille" of the aeroplane show scene and he along with his son Mathew, are always being invited to attend airshow's all over the world with their Red Arrows models. They are Jet Cat 200 powered for a ten minute show stopping display that costs £100 in costs for each aeroplane. In their world wide travels the pair have witnessed the very best of radio controlled aeroplanes anywhere and in past years have received incredible hospitality (and expenses) that more than anyone in this country has ever dreamed of, or experienced. If ever there was such a thing as a "gong" to be awarded by HM Queen to a modeller, this man Steve Bishop would be top of the list. Sadly such things do not happen to aeromodellers no matter how much we are publically proud of being British. Through many years of attending shows worldwide Steve has seen and associated with the very best and those of you that attended the last Telford show will bear witness to that statement. His guest list of invited R/C flyers from home and all over Europe performed with such excellence, that the crowds were left breathless with what they saw. That is this sort of people that Steve Bishop mixes with almost every weekend and that is why he is the top man at presenting flying in this country. I have been proud to present him and his son to hundreds and thousands of attendees both at home and abroad.

Steve emailed me early on in the year to say that he had been contracted to run the Southern Model show at Headcorn in September for the next three years.

Came the week of Headcorn.

On the Monday of the Headcorn show the weather forecast was for a wash-out for the coming Saturday and a blow - out for the Sunday. On both days there would be very strong winds. I was glad that I wasn't still running the Plumpton Family Show always held on the third weekend of August! My team were all packed up and ready to go on the Friday lunchtime with the DB Sound Transit van towing the caravan. The rain was hammering down so it seemed that the Michael Fish's forecasters were spot on- weather wise. On arrival we were met by a smiley Steve Bishop (as he always does meet his team) and we settled for an early night's sleep complete with ear plugs fully stuffed into our "hear holes". The rain stopped it's tick-tacking on the caravan's roof at one - ten am, on Saturday morning.

Show Saturday.

The weather turned out to be overcast and a coldish 15 mph was wind blowing straight along the runway, with no rain. Pilots and helpers briefing was called for on the PA system at 0945 and a large group of well known show of experienced display pilots faces appeared. Steve, with a radio microphone, thanked everyone for coming and then explained that the weekend was going to be interrupted by a team of

parachutists who were going to be taken up to 7,000 feet in an Islander aeroplane and dropped on the airfield, every half hour. This would mean a complete special look out for their coming and going. Later on that day, Steve told me that he thought that the parachuting was dangerous for the show and it was welcomed when it terminated early on in the morning. As well as that, there were some large balloons ready to be inflated should the weather improve and if the wind speed decreased to allow this to happen. Other things available to the many attendees was a generous long and well laid out set of traders including the BMFA team. Near to them was a large boating pool and cars were being catered for as well. To give credit where it is due the organisers Heritage team of Colin Hitchin's, Andy Pawsey, "Chris" and the gate crew were so helpful and understanding and were always on hand to deal straight away with any problems. The "private" toilet by the control van was a great boon and help to the organsiers, staff and "workers" and me!. The weather improved throughout the day and the strong wind gradually decreased in strength so in the event, the weather forecast proved to be completely wrong, which was good.

The Displayers on Saturday Morning.

The flightline control team consisted of Gary, Klaus, Paul, Stuart and Tristan. Most slots were ten minutes long with well known traders like Paul Bardoe of PB Models and his fastest I/C propeller powered model of the show, Shane Harding of Opti-Power, Western UK with Steve Sales, Jason Eldridge and Mike Donnelly), Evolution Models, DB Sport and Scale with Neil and James Gordon, Jo Kenella, Paul Gray and his Wren powered Hawk, and "Don" with his superb Eurosport fighter. John Eldridge and his F15 Eagle- with a Wren Supersport turbine, Paul Smith and his Futura, Steve and Matt with their Red Arrows Hawks and Greg Hayfield and his 87% Pitts Python with a 650cc Hirth 65HP flat twin engine. TJD Models with Mike and his Dauntless, Danny and a P40 and Greg Veasey and his Zero, a P51 Mustang was flown by John Mason and John Veasey flew a prototype Hurricane at 104" wingspan soon to be kitted by Tony Nijhuis. Horizon Hobbies was there flying with Perry and James along with John Lambert. The Futura a Jet Cat 160 power and Power Box smoke system, show stopper flown by Mike Donnelly, Craig Bavery and his Krill 330 extra, Rob Gardener and a Yak 55, Nigel L'anson with a P47 Thunderbolt - 5 cylinder Moki 4 stroke and 12 servos. The E-Flight Blenick at 4.2 meters span and a jet cat P160 on top was a corker. The helicopter lovers were treated to a superb team demonstrating their models including the current British champion Ben Jones. There was a young 9 years old Luke Bishop flying his Boomerang jet and his pal Josh (12). There was another new show stopping heli-flyer youngster on the block named "Heli Harry" also 12 years old all of part of the Kaos R/C team who showed some beautiful scale helicopters. Steve Holland after an absence of two years at the shows and now with two medals, was another special guest. He was piloting a superb 38% scale Bronco of Tony Nijhuis with two 62cc Zenoah engines and 15 servos. The ASK 21 of Mike Donnelly at 23 feet wingspan was brilliant. There was a super Hanger 9 display team with a Piper Pawnee and Extra 330. Next was a Yak 55 by Dave Franks and an Extra 260 by Steve Sales that did some super aerobatics. The editor of R/C Model Flying magazine Ken Sheppard is the only one "boss writer" who flies many aeroplanes at the shows and it was a joy to see him on the flight line with his usual helper Sheila (his wife) flying both scale and sport models. There was super slot by the team of 14 Caterham/ Croydon and Sevenoaks members all flying Panic biplanes under the Panic Team label all rechristened "Dave". During their slot a scale model of the DB Sound Transit van was driven amongst the flyers and surrounded in smoke that made the long flight line of visitors laugh loudly.

Afternoon Flyers.

The "Dave" Panic team of flyers also gave a super display of unbreakable flying wing streamer chasing "Zagi" aeroplanes, which the crowds enjoyed and very entertaining. The afternoon's entertainment was highlighted with the Battle of Britain re-enactment and a huge amount of "volunteer" aeroplanes took part in bombing the many targets on the far side of the airfield filled with explosives. With the wind decreasing in strength along came the duo slot of Chris Burkett piloting his full size Extra 300 and twinned up with Mike Williams and his 40% model of the full size Extra 300 giving a faultless side by side display with smoke that made the crowd roar with approval. The ground liaison of these two flyers was completed by Gary Beavan. (This demonstration was described fully in last month's Sticks & Tissue free Internet download edited by James Parry). When they landed an invitation was given to anyone who wished to take a picture of the two pilots to come onto the flying field. Many people took up the offer and in some nice welcome sunshine, took pictures of the two "stars" relaxing by their aeroplanes. Steve Bishop decided that that was enough for the

days entertainment and Bye-Bye Blues was played on the PA and the flight line closed until later on that evening at 8pm.

Saturday Evening.

By 8pm the wind had dropped right off to next to nothing and with a super starry night and a large moon shining, a series of flying radio controlled all lit up models took to the air in turn. Attached to most of the display aeroplanes and helicopters were assorted rockets and fireworks fountains that had an enormous crowd of spectators applauding with great gusto. It was a fantastic show and afterwards it was suggested by a member of the public that the Jane Stephenson show next year at North Weald aerodrome could be improved with the same event. It was pointed out to that person that all evening flying at North Weald is not allowed by the CAA as Dave Hayfield had pointed out at the recent show when he an official there on the flight line. The North Weald airfield is (apparently) a standby for emergency landings of aeroplane should Stanstead airfield have any problems, so with that rule in operation, evening flying next year is out of the question. After the models had finished their displays (I) Dave Bishop, gave the microphone to a lady for her to commentate on the colourful balloons which were being inflated by the light of a number of cars with their headlights illuminating the scene. This was an event, which was still going on an hour later with a single seated spectator Ali Machinchy of Al's Hobbies observing what was going on. Most other people had gone to the bar for a drink and catch-up chat with many friends whilst Gary Webb played music on his new disco equipment bought from eBay.

Sunday Morning at 8am.

After a good night's sleep, we awoke to a ten tenths fog with the sun doing its best to peep through the blanket. There was not a breath of the promised wind and eventually the fog slowly dispersed with the wind starting to increase in strength. The met forecast was for some 30 mph winds by midday and throughout the morning it looked like "they" might be right. At 8am, I took a walk along the long traders line saying hullo's to many friends all of which had done good business the previous day, which was good. Eventually I reached the ADH stand and met the editor of R/C Model flyer magazine Ken Sheppard. Amongst other things we discussed was the sad news that the 12 year old "Heli Harry" had had all of his three demonstration helicopters stolen from the marquee by a thief who had slashed a hole in the canvas to steal them. The odd thing was that there was security people on duty all night (in the marquee) who hadn't heard or seen anything. Harry's father had worked hard to buy those helicopters for his talented son and he was devastated.

The Sunday's flying.

By 0945 Pilots briefing time the wind was now increasing in strength and was off centre of the runway and although many of the models performed brilliantly it was obvious that the forecast of 30mph winds plus at midday was right. By the time that Mike Williams and Chris Burkett "did their thing" with their Extras Mike was having to work like the clappers to stop his model sliding across to Chris as witnessed by their smoke systems. (It certainly kept Gary Beavan busy!) The second Battle of Britain slot was brought well forward again which was a very much enjoyed slot. Many models were destroyed as well as the targets by huge explosions. Most pilots flew their aeroplanes but by 2pm Steve decided that it was getting too dangerous and it wasn't fair on the pilots to risk damaging their models to ask them to fly anymore. The second day's flying was terminated for safety at 2.30pm with a goodbye to everyone and the traders, Bye Bye Blues completed the first model show at Headcorn airfield.

Summary.

Many thanks must be given to everyone who worked together so hard to make the show a success and afterwards at a small debrief the question was put by one attendee " DB Sound commented about the costs of some of the aeroplanes that flew with the estimated prices of several thousands of pounds." The questioner went further " What about the new kid on the block and a "normal" wage earner who wanted to start aeromodelling as a hobby? At the prices quoted there would be no encouragement at all for any youngster to start aeromodelling let alone radio controlled aeromodelling!"

All of which begs the question. What can be done at airshows for the "ordinary people" with such ambitions. It's a question that needs an answer, from who though?

Peoples Generosity.

During the morning of the show, two ladies from Steve's team went around shaking buckets to raise some money for "Heli Harry". With the crowds superb generosity, £500 was raised in cash for him to take home back to Bristol which (at least) gave him some recompense for his loss.

Some models were destroyed in the Battle of Britain slot.

The Eurosport of Don's.

The DB Sound Transit van under attack during the Battle of Britain slot.

Mike Williams with DB Sound and Chris Burkett after their display.

Another shot of Mike Williams and Chris Burkett with their aeroplanes.

The two show stopping Red Arrows hawks of Steve and Mathew Bishop.

Looking forward to a good day are Dave Bishop, Grahame Ashby, Alistair Newman of Avicraft, "Bunny" Newman, legend VIP visitor to the show, Ken Sheppard editor of R/C Model Flyer magazine and Steve Bishop who ran the show at Headcorn.

Heli Harry with his father being presented with a cash sum of £500 at the end of the show by Colin Hitchin's.

Dave Bishop of DB Sound, 17 The Square, Tatsfield, Near Westerham, KENT. TN16 2AS. Tel No 01959 577550. Mob 07813 472633.

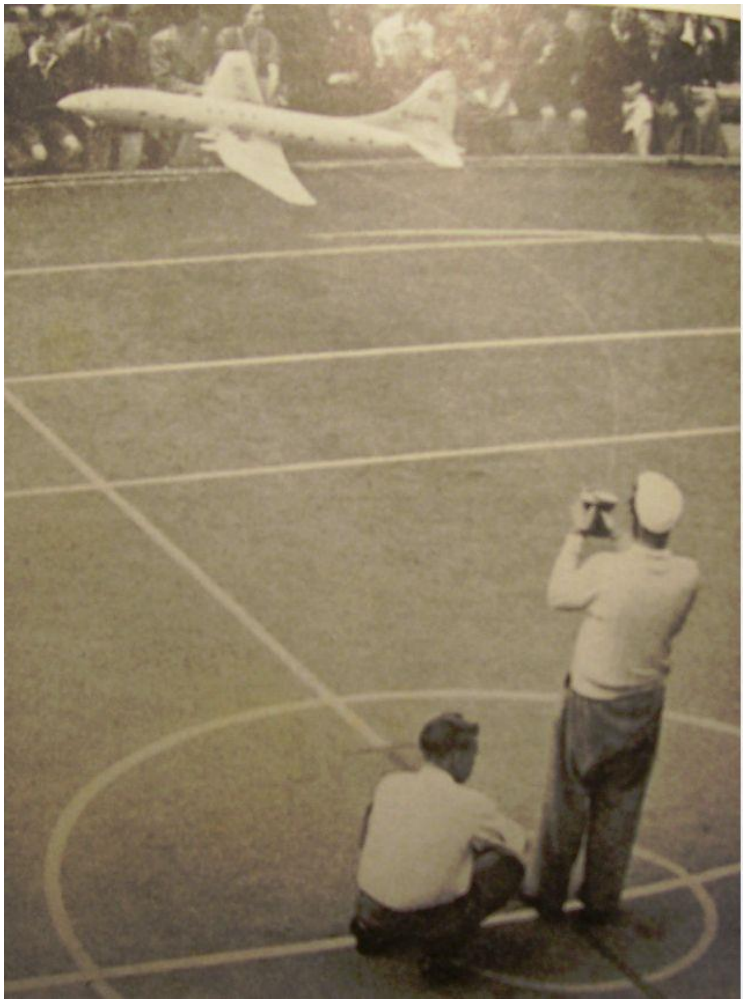
I have been looking through some of the many photographs I have accumulated and thought you might like to "have a nose "

My model electric Tomboy with "Boddo's" name and an Italian girl who lives nearby.

The best ever "helpers" are these two British champions, and the Avicraft model shop owners at Bromley, Robert and his brother, Alistair Newman.

My Big Boy (a 60" wingspan much modified Tomboy) as designed by Mike Reynolds with yours truly on the day he passed his "A" test with it. (It will be kitted by Belair)

Half Scale Bleriot being fuelled up ready for a successful Channel crossing.



Can anyone remember these two control line flyers at the Festival of Britain in 1951 and the Brabazon.

Brian Rice and his superb scratch built DH60 Shuttelworth Moth.

Dave Boddington and his floatplane at Calshott Spit in 1981

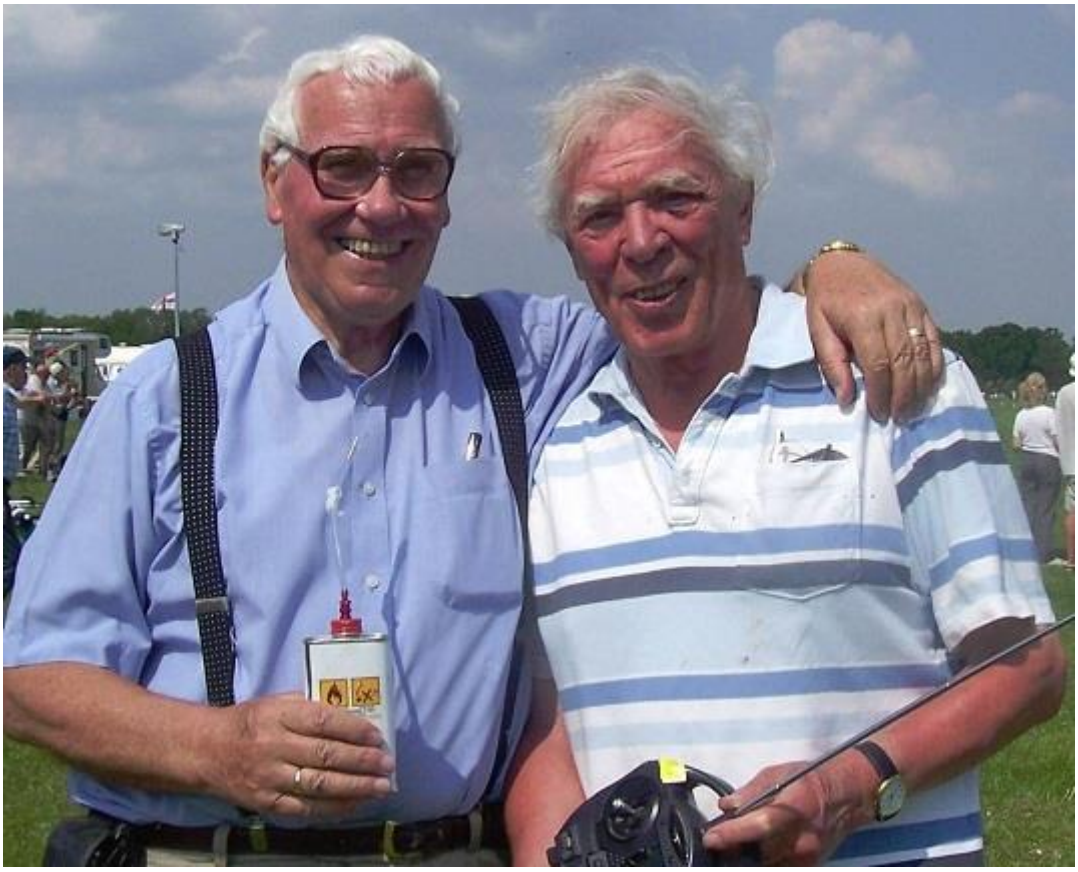
The Two Red Arrows with Steve and Matt Bishop and two Red Arrows pilots at Dunsfold.

Golden Cross (Sussex) in the late 1960's. Alan Mann and HJ Towner are seen judging the scale models there.

"Wing Co" Ken Wallis and his Little Nellie at the Family Model & Craft Show at Plumpton Racecourse in 1999.

Mike Williams and Chris Burnett at Headcorn in September 2013 with their Extra 300's.

Old Warden and the Belair Tomboy in 2013.



Old Warden and a superb miniature jet modeller in July 2013.

A 30 year old Hurricane with a geared motor and James Gordon built by his late father.