

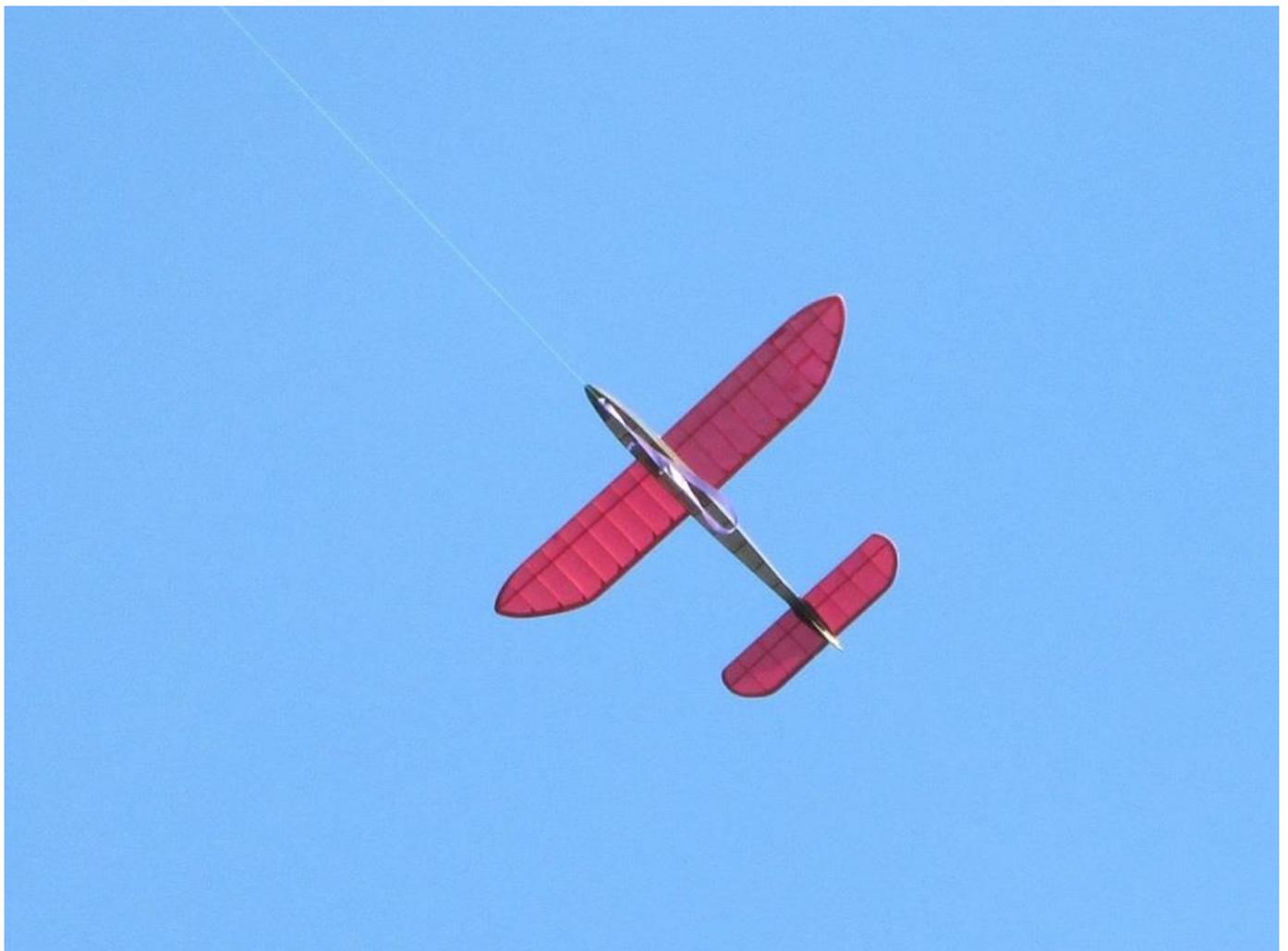
Sticks and Tissue No 84 – November 2013

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".

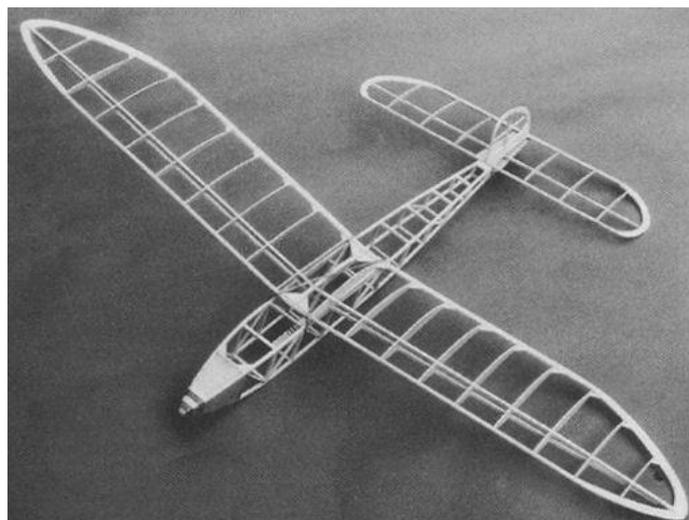
Thanks to Mark Venter back issues are available for download from <http://www.cmac.net.nz>

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John Taylor's 36" span Doofa on the Bungee

From the weight, a length of cotton ran to the wingtip. When the fuse burned through the band; presto! - the weight swung from the wingtip and the model gently spiralled downwards. When the weight reached the ground (am I beginning to sound Hoffnungish?) the tension in the cotton was released and the model

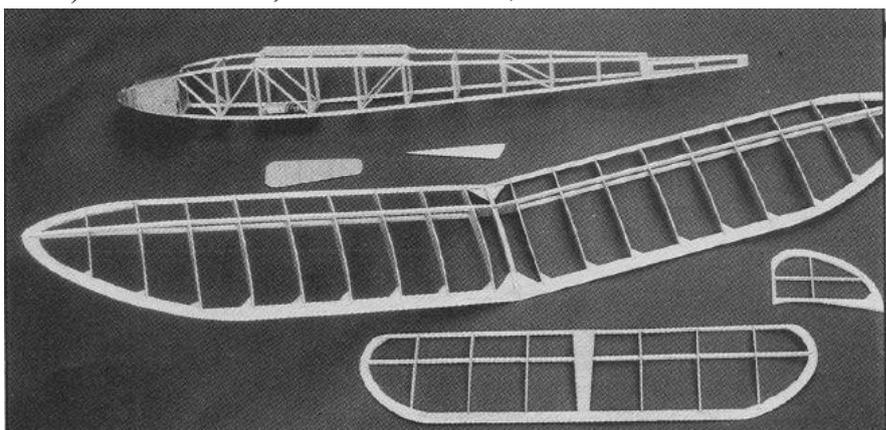


flattened out for landing. This worked quite well a number of times, though the model usually finished up inverted in the grass in a somewhat inelegant fashion. However, the time I'm telling you about, I think the fuse/band/weight assembly must have been moved back on the previous arrival, sliding beyond the piece of mica which was supposed to protect the fins from the fuse, as it were. The flight was a short one due probably to a poor launch - and, on walking leisurely towards the grounded Doofa, smoke was observed. We broke into a run across the airfield but, by the time the crash crew had done their work, all that was left of Doofa V was the proverbial 'two wingtips and a pile of cigar ash'.

Do a Doofa!

This is an ultra-simple model structurally, and all the relevant details appear on the plan. Use light grade 'soft' balsa for all ribs and tips, but longerons should be of fairly hard stock, as should uprights and spacers. On the wings and tailplane of my 1988 replica, I used some white Jap tissue which I bought at Sweeten's of Blackpool back in 1943. (Yes I'm a hoarder!). I didn't know, after all this time, if it would still shrink when water and dope were applied. It did.

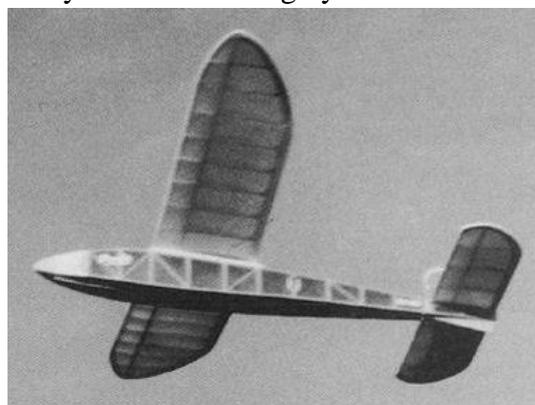
It just went a bit patchy, some parts of the wing being less translucent than others. For the fuselage I used some lightweight Modelspan. (I ran out of coloured jap about twenty years ago). As the tailplane is a pretty light structure, I never used dope on it. Nor even water-shrinking. I preferred a few wrinkles to the sort of thing dope might have done.



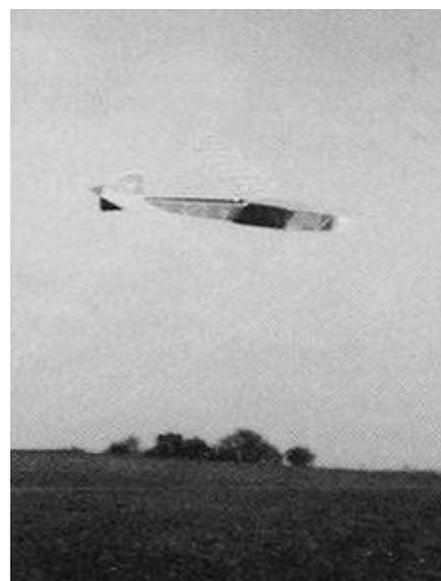
However, if you want to experiment..., another tailplane is easily built.

Flying fun

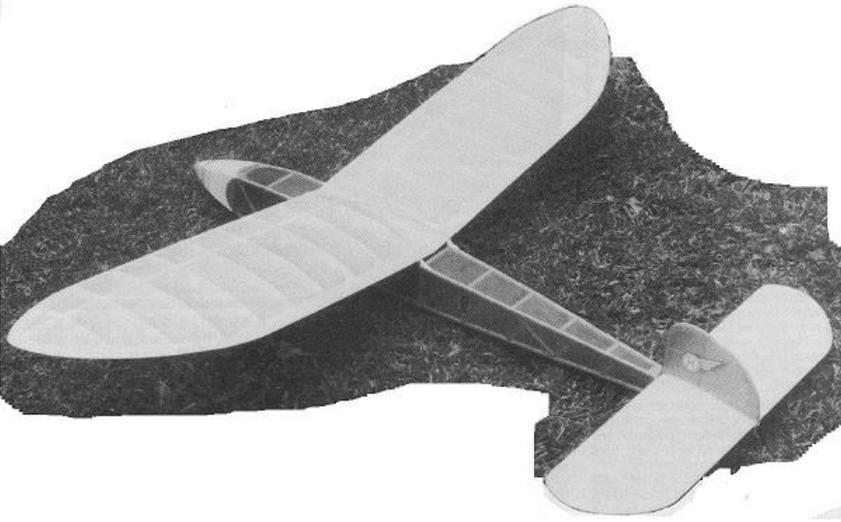
Use the lightest line available. I used to use cotton thread, before everyone started using nylon monofilament. It had the advantage of providing a 'weak link' - if you towed too enthusiastically, or tried flying Doofa in too strong a breeze, the cotton broke before anything else. Today's 'cotton' all seems to be polyester, however, and is probably just as strong as nylon but with more drag! Test-fly Doofa on a calm day. After a few shoulder-



height hand launches, and adding or subtracting small amounts of nose weight for optimum glide angle, a towline launch can be tried. Unless



there is absolutely no wind, there should be no need to run. Just a steady walk. If there is any amount of wind – be careful - it may be necessary to ease the tension by actually walking towards the model.

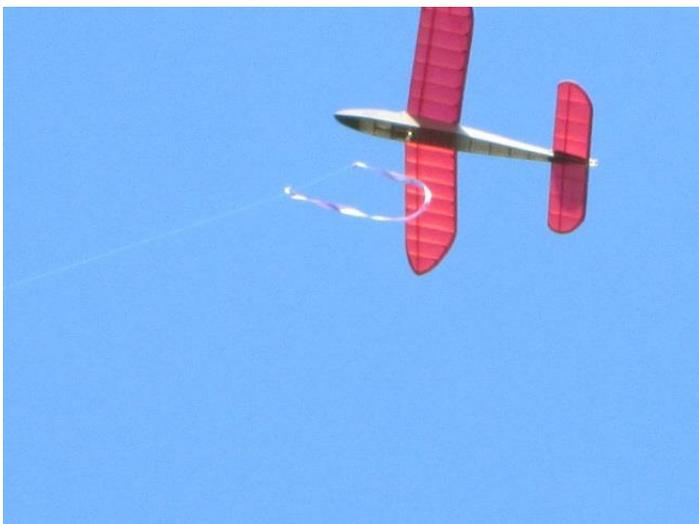


I used to trim my Doofas to ‘wander’ rather than circle (perhaps that’s why I lost ‘em!) but if circling flight pattern is what’s required, then a wingtab works better than offsetting the fin. (This should be angled ‘up’ on the wing inside the turn). With the model balanced as shown, trimming for pitch adjustments - if necessary can be made with 1/3in packing under leading or trailing edge of the tailplane as appropriate.

I often used to self-launch the Doofa, when there was just a whiff of wind drift, suspending the model from a foot or so of towline, and then ‘kiting’ it up, paying out the line from the hand winch as I walked along. Backwards. You’ll probably find you can’t walk too fast backwards...



John and Doofa at D.M.F.G.



A few more shots of John's Doofa

We will be holding a 36" glider meet at Tarrant Hinton in 2014, well several probably and combine with an Ebenezer mass launch. More details will appear in the New Year but that shouldn't stop you building now. JP

From John Hoyle

I wonder if you could help me identify two small FF vintage aircraft I photographed during the Summer at Middle Wallop? I thought the seaplane was a Vic Smeed design but cannot find it; the other one I have no idea about. Any help would be much appreciated, including source of plans! I have trolled the usual sources without success. Should have got more info at the time! *(Please reply to me James Parry)*



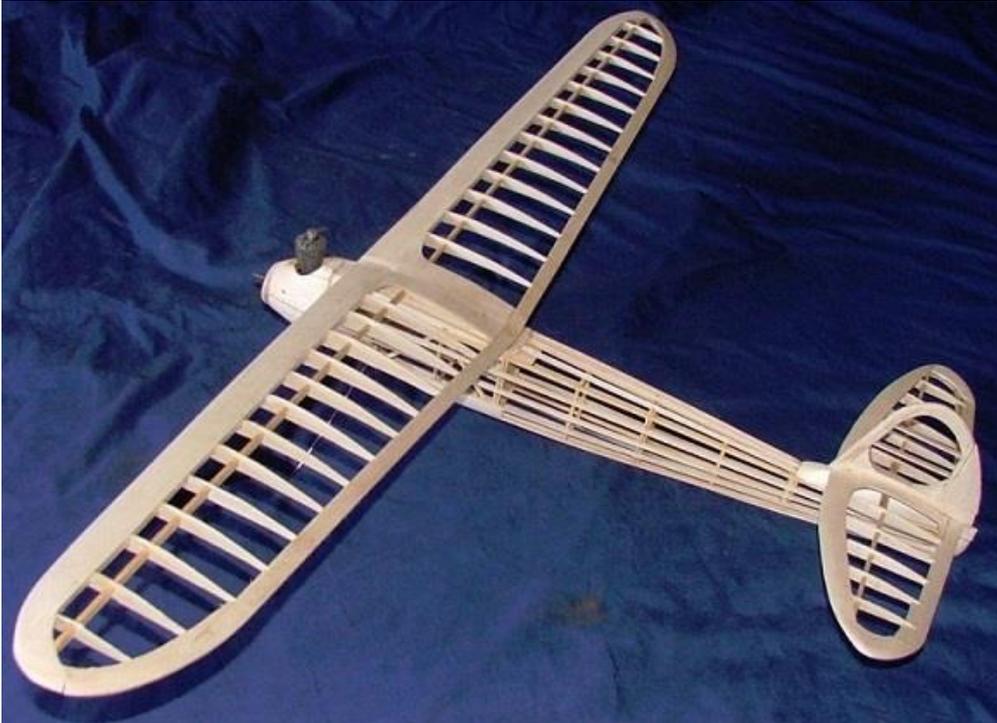
From Graham Crawshaw

Couple of pics of my Frog Heron rubber model double size to 36 inch for brushless power . Traditional balsa and tissue covering has yet to fly as too windy at present.



From Bob Pickernell

I noticed the original artwork drawing of the Frog Janus on page 20 of stick and tissue 83. By coincidence the Janus is my latest project so I thought a couple of pictures of the actual model might be of interest. I have made a couple of alterations, the engine is mounted permanently upright as opposed to being inverted with the mounting bulkhead being held on with rubber bands. I suspect more than a few stovepipe frog 100 engines came to grief when mounted as per the drawings. My model is powered with one of Derek Colin's Frog 100 rebuilds with a new beam mount crank case. The wing and tail are one piece and held on by bands over dowels. I tried the hidden band system of the original Janus and Cirrus on a frog Cirrus that I built some time ago and found it awkward and unreliable. I retro fitted dowels to the Cirrus and did not even try on the Janus. First flights indicated some dockyard work was required and I have not been around on the few decent trimming weather days since I carried out what I hope are the required fixes. Watch this space!



STAGE 1

Butt joint 1/16-th sheet Balsa to make an accurate planform of the wing. Then repeat for the top surface but allow 3/16ths extra width for the curvature. Lay the lower surface on a flat board, bevel the leading and trailing edges (for 1/4") to a sharp edge and stick the ribs in position. Remember to cut out slots in the port wing ribs to allow for control wire movement. Cut a piece of 1/8" plywood 2" x 1", drill a hole in the dead centre (1/8" in diameter), insert this as a bell crank pivot support.

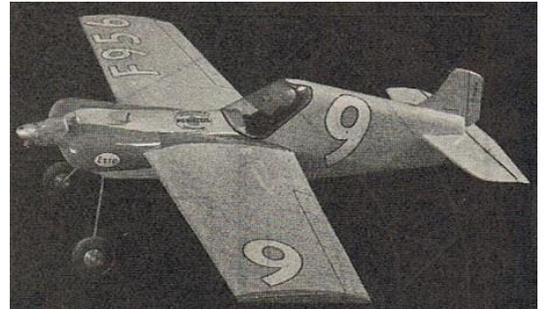
The lower surface must then be lifted from the board and the completed bell crank assembly fitted and soldered. Allow 1 1/2" extra on the push rod to the elevator. The upper surface may now be fitted. Slow drying cement is advisable since all joints, i.e., leading edge, trailing edge and wing ribs, must be made at the same time. Use plenty of pins, or better still strong spring paper clips and make sure that there are no warps. It is easy to correct warps while the cement is tacky by merely sliding the surfaces.

The wing tip ribs can be sanded to shape and the leading and trailing edges given a radius. The hole through which the bell crank bolt projects in the upper surface may be reinforced by balsa cement or a plywood patch. Ensure that full movement of the bell crank bolt is possible and that there is no limitation of the range of movement, by cutting a large clearance slot in the top surface for the push rod. Cover with light weight Modelspan and give one coat of clear dope.

STAGE 2

Cut out the engine bulkhead and the tin plate, then solder the undercarriage and engine bolts to the tin plate. Then fit the engine to the bulkhead and solder the nuts to the engine bolts. This is essential. Make a tank from tin plate and check that it is not more than 30 c.c. capacity. Actually, because it is difficult to solder a flush air vent you will find your tank capacity to be very near the American ounce, i.e., 29.5 c.c.

Cut from hard 1/8" balsa the two fuselage sides and slide each into position over the wing. Cement the engine bulkhead to the fuselage sides and the fuselage sides to the wing, at the same time checking that the thrust line is neutral in plan and side view. Place the tank in position and block with scrap 1/8" balsa. Connect the engine and tank with small diameter non-kink neoprene tubing.



STAGE 3

Whilst the vital engine bulkhead joints are drying, the tail plane and elevator can be cut from 1/8th sheet, sanded to section and joined with linen hinges. Cover with light weight Modelspan and give one coat of clear dope. Fit a fibre elevator horn to the elevator. Bend the push rod at right angles to join up with the elevator horn, lock this joint with soldered cup washer. Cement the tail plane to the fuselage sides, which are pinched together as shown in the plan view. Before the tail plane joint is completely dry slide back and forth to obtain the exact neutral elevator position when the wing tip leadouts are also neutral.

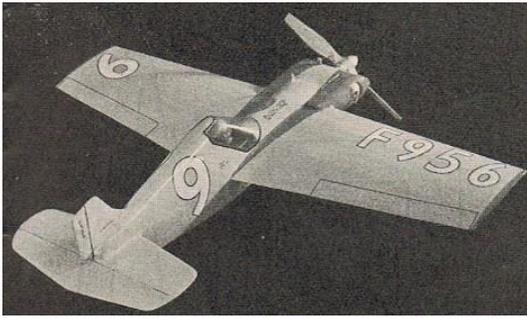
STAGE 4

Cut out the three fuselage formers and fuselage upper sides, fit your pilot to the top wing surface and complete the upper rear fuselage. Bend 18 gauge wire skid and bind tightly to a hard 1/8" balsa block. Then cement into position as shown. Cut from .8 mm. ply (1 mm. is satisfactory but more difficult to work with) the cowling with holes cut for cooling intake, main beating, needle valve and carburettor. Cut from - 3/8" balsa (or thicker if you wish for a deeper cowling top) the cowling tops and cement these into position on the leading edge of the wing. Remove the engine nut and driving hub and cement the cowling into place making sure of a good joint at the engine bulkhead. Plank the fuselage top surface back to the cockpit. Fit the fin and finally cover the fuselage bottom with 1/8th sheet and solder the mwheels to the undercarriage.

FINISHING STAGE

Sand with 3/O garnet paper to a reasonable surface. Then cover the entire fuselage and fin with light weight Modelspan and give one coat of clear dope. It is not necessary to cover the plywood cowl. Apply successive coats of sanding sealer (we used 3 ozs.) until you are satisfied that you will get a good finish. Leave for 24 hours and then sand with wet abrasive paper, using soapy water or petrol to clean the paper. Dust the job down with a soft rag and apply 2 Coats of the desired base colour (ours was yellow). Cement wind shield

into position and trim with the decorative colour (ours was red) and add transfers. We applied the racing number in the Goodyear fashion on either side of the fuselage on the port upper and starboard lower wings with our insurance number on the opposite wing panel. To mark in the ailerons and rudder use Indian ink and a ruling pen over a surface dusted with anything from boracic powder to French chalk. Apply one coat of fuel proofer to the entire model, but not until you have made sure that the transfers are completely free of water, otherwise they will wrinkle. It takes at least 12 hours for the transfers to completely dry.



Use an 8 x 8 propeller, 52' 6" of .011" control line wire and you will find the Battler as simple as an elementary trainer to fly. It meets SAME regulations for Team racers and with the addition of a fuel cut out will conform to the 1950 All-Herts Rally Rules. A shut off valve can be fitted between the tank and the tin plate

with a connection to the push rod. The tank must be moved 5/16" aft to accommodate the cut out.

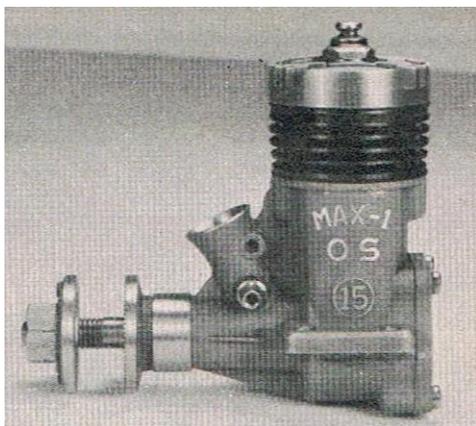
From Ronald - Oostende, Belgium

Here come a few pics of two planes of my fleet: the Radio Queen, Laser 70 powered and the Ludd Bug 7, designed by Geoff Northmore NZ, here with an OS .10 FP up front.









O.S. Max-1 From Model Aircraft December 1955

With the recent F.A.I. decision to adopt the 2.5 c.c. class engine as the official International class for all models (i.e. not merely F/F power. duration as previously), there is bound to be a further increase in the attention being paid to this already popular sized engine. We may expect to see renewed efforts by manufacturers to further improve performance, and competition-minded modellers in all countries will doubtless be eager to learn of the latest 2.5 engines from abroad and to be informed of their capabilities. During the past two or three years, that is, during the time that the 2.5 c.c. class has become widely adopted internationally, the "M.A." Engine Tests

have included all the most successful 2.5 cc Units, both British and foreign and it will be our policy to continue to give emphasis to the International class in future tests. In the past we have dealt with 2.5 cc. engines from Great Britain, Italy, the U.S.A., Holland, Norway, Australia and Germany. This month, for the first time, we are dealing with a Japanese international class engine. This is the new O.S. Max-1 0.15 glowplug unit, built by the Ogawa Model Mfg. Co. Ltd., of Osaka, and which is now being exported to the U.S.A. and other countries and may, therefore, be seen in future international competitions.

The Max-1 0.15 is the best 2.5 cc engine being manufactured in Japan at the present time. The Ogawa Model Mfg. Co. are old-established model engine manufacturers, having built their first engines nearly 20 years ago and their present products, particularly the Max-1 series of engines which are at present available in three different Capacities, are modern designs, soundly made and of good performance. In general, the design of the Max-1 follows current American practice, but with some differences. For instance, somewhat more conservative cylinder porting is used, than is to be found on some of the more extreme examples of loop-scavenged high speed glowplug engines. On the other hand, the rotary-valve timing is more generous and the extra large main bearing port gives a total induction period of over 200 deg. of crank angle. Constructionally, the engine is pleasing, with excellent diecastings, matt finished and with polished edges.

The integral cylinder fins are blued in order to provide a certain amount of protection against rusting. The beautifully diecast cylinder head is retained by six Phillips head screws, two of which pass through into the crankcase castings to secure the entire cylinder assembly. As on most Japanese glowplug engines, a cast-in threaded bronze bush is used for the glowplug hole. Also bronze bushed is the connecting rod big-end (an unusual feature on a relatively small engine) and the crankshaft main bearing. Incidentally, all bushings on Japanese engines appear to be of a rather yellow bronze and, presumably, the alloy used is of a lower copper Content than the normal bearing bronzes employed in British, American and most other engines.

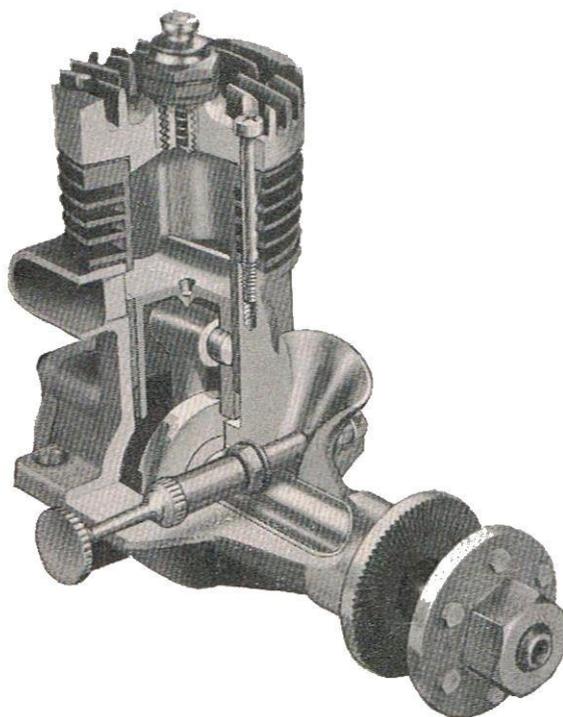
As delivered, the Max-1 is equipped with a 5.5 mm. choke tube and this was retained during our tests. With the choke tube removed, the venturi diameter is increased to 6.5 mm. which, provided that the cylinder porting proves adequate, may be expected to extend the top end performance of the engine.

Despite its solid appearance, the Max-1 0.15 is of notably moderate weight and this helps to give it one of the best power-to-weight ratios yet realised on the 2.5 cc. class.

Specification

Type: Single-cylinder, air-cooled, loop-scavenged two-stroke cycle, glowplug-ignition. Shaft type rotary valve induction. No supplementary air induction. Lapped piston with baffle.

Swept Volwne: 2.47 cc (0.151 cu.in.)



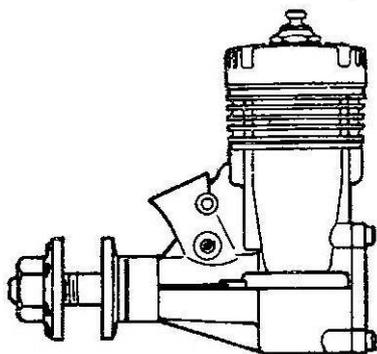
Bore: 15mm. Stroke: 14 mm.

Stroke/Bore Ratio: 0.933 : 1.

Weight: 3.5 oz.

General Structural Data

Diecast aluminium alloy crankcase and main bearing housing with integral carburettor intake and mounting lugs. Diecast rear cover secured with four Phillips head machine screws. Counterbalanced alloy steel crankshaft with rectangular induction port and running in bronze main bearing. Fully machined steel cylinder with integral cooling fins blued against corrosion. Lightweight lapped piston. Forged connecting rod, with bronze big end bearing. Brass end-pads on gudgeon pin. Diecast aluminium alloy cylinder head contoured to suit piston deflector and with central plug location. Aluminium alloy prop driver keyed to flat on shaft. Brass spraybar type needle-valve assembly. Provision made for installation of second needle-valve for two-speed operation. Beam type mounting lugs.



Test Engine Data

Running time prior to test: 1 1/2 hours.

Fuel used: 50 per cent. Blending Methanol, 25 per cent. B.D.H.

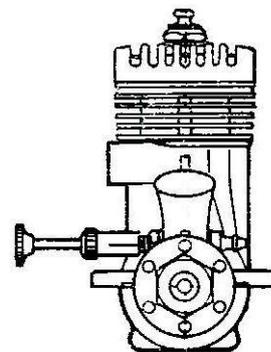
Nitromethane, 25 per cent. Duckham's Racing Castor-Oil.

Ignition equipment used: O.K. long-reach glowplug. 1.6 volts used to start.

Performance

The Max-1 is a pleasant engine to handle. It starts well, using the standard glowplug engine procedure of an exhaust prime when starting

from cold and a choked preliminary flick when restarting hot. It is not fussy about the sort of fuel it consumes and will run on economical methanol/castor mixes as well as on the more potent nitro paraffin-doped blends. The best performances are obtained at r.p.m. well into the 'teens and there is little point in loading the engine for anything less than a five figure speed. However, the Max-1 is relatively flexible and delivers useful torque figures at the more moderate revolutions as well as running quite evenly when four-stroking at reduced speed on a rich mixture. Thus, the provision for an extra needle-valve, suggesting R/C use for this normally high-



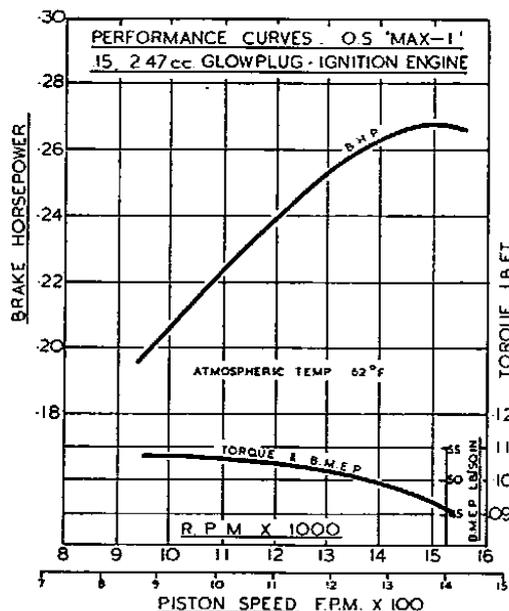
speed engine, is by no means incongruous and the unit should prove quite tractable in its two-speed version.

The maximum torque delivered was very good, being the equivalent of a b.m.e.p. of 53 Lb./sq. in. at 10,000 r.p.m., which is above average for the glowplug engine of under 0.2 Cu. in. capacity. The torque curve declines steadily as r.p.m. are increased, but b.m.e.p. does not drop below 50 lb./sq. in. until 14,000 r.p.m. are approached, so that the peak

output is realised in the region of 15,000 r.p.m. Actual maximum b.h.p. obtained on test was slightly under 0.27 which, of course, is very good.

One feature we would like to see changed (not only on this engine but on others using similar methods) is the manner in which the alloy prop driver is hinged to a flat on the crankshaft. Invariably, in time, the hole in the driver becomes enlarged and gives rise to backlash. A preferred system is the use of mating tapers. There is, however, very little else about the Max-1 0.15 with which one can find legitimate cause for complaint.

Power/weight ratio (as tested): 1.23 b.h.p./lb. Specific output (as tested): 108 b.h.p./Litre.



From Bill Wells

Around 2005 a friend who was a modeller invited me around to see his models I think there was also some problem with a blocked carburettor which he wanted guidance on but as he is an engineer it did not take too long to fix. Anyway while in his garage he said, 'you can have that', pointing upwards, 'a friend of mine gave it to me!' He then proceeded to pull a rather dirty heap of balsa and wire roughly resembling a fuselage out of the garage loft storage space, followed by a damaged wing. It was a nose wheel job of some sort and had quite a bit of frontal damage and fuel logged balsa. Never one to say no to a freebie I brought it back to the shack and discovered it was a very old tired Cambrian Instructor. The wing was a veneer covered affair that had severe leading edge damage almost at the tip. A simple and quick repair for the wing followed by a coat of Japlac and fuel proofer and the job was a goodun. Then came the fuselage! Well with all that front end damage and nowhere to re-attach the nose wheel I decided to turn it into a tail dragger. Putting hard wood blocks in the lower corners of the fuselage meant they would strengthen the fuselage and serve as mounting blocks to screw a conventional undercarriage to. I needed to make the fuselage sides stronger so scraped them down and added 1mm ply. To help the C of G I positioned wooden servo rails as far forward as I could. Unlike most models the area forward of the wing leading edge is an all wetted area which includes the fuel tank. The whole of the top of this area is covered by a one piece plastic moulding which I was able to recover more or less in one piece. Progress on the fuselage was reasonably rapid until I found masses of fuel rot near the tail! That stopped me, had I noticed it earlier I wouldn't have got that far and would have made another fuselage or scrapped the whole project. Some bits of balsa just had to go, replaced with thin plywood and a fibre glass bandage which also secures a wire tail skid. The front end was short so a heavy engine was called for. Well I had just converted an OS 30 Marine engine to Aero and it was the right weight to get a reasonable C of G. The engine had been given to me by model boat enthusiast after I made him a replacement head for an HP40! The water cooled head had rotted away and the big end bearing in the con rod was egg shaped and a lot bigger than the crank pin! Fortunately I had a scrap OS 35 of the same period. So the Carburettor, Silencer and Con Rod got moved over. I bought a second hand air cooled head. I think I found an OS 25 Prop drive fitted OK. I had put together a most delightful easy starting and reasonably cheap engine. Being a mean old scrooge I wondered how to paint the fuselage which was like a patchwork quilt. I decided Hammerite Silver would cover up the wrinkles, looks good, it is easy to touch up and most important feature is it is fuel proof.

The model flies well a bit like an aileron model. It is a bit heavy for it's size and is reasonably fast but surprisingly can be slowed down without stalling. Yes it stalls like any other model but you need to be very clumsy. Loops and sort of rolls are possible but it is such a nice model, looks different just flying it around the patch is a pleasure. A young lad looked at the model and said 'where are the ailerons'. I took him on one side and whispered, 'shush, things like that are only for rich people,' nod, wink. I think he still trying to work that one out! The model does have a fault if the power is put on too quickly, the ground is rough or there is no wind it may ground loop on take off. The landing run is short but directional control may well be lost and sometimes if it is windy it just will not taxi where you want it to!

Specifications Wing Span 57 inches average chord 8 1/8 inches Length 38 1/2 inches Weight 4 lbs 7 ozs
Engine OS Max-S 30

I have acquired another OS 30 marine with leaky head has anyone got an air cooled OS 30 head going cheap?







James,

This month I thought we'd highlight the differences between the two versions of a great engine, that's insufficiently known outside France.

The REA 10cc spark ignition engine was first produced in 1938. It's obviously a copy of the contemporary Brown Junior BUT, it's perhaps the only Brown copy that is objectively better than the Brown (and by quite a margin).

I've just been running this 1938 engine. It's about 1500 rpm better than the Brown on the « standard » Topflite 14 x 6 propeller (a huge difference), and I don't doubt that slightly more could be obtained by fine tuning the fuel mixture, etc.

This was just my first, and only, attempt... The REA is also a lot more robust than a Brown.

In 1938, this must have been one of the world's best model engines. In the USA, it's only equalled or bettered by the Ohlsson Custom and Super Cyclone (1939/40), both of which are later than the REA.

We're also finally documenting the difference between the two versions. All the French documentation that I've seen over the years shows the post-war engine and dates it as 1938... No comment!

Anyway, the first version of the REA (REA N° 22) is running on video, here:

<http://youtu.be/sy4hodtocT4>

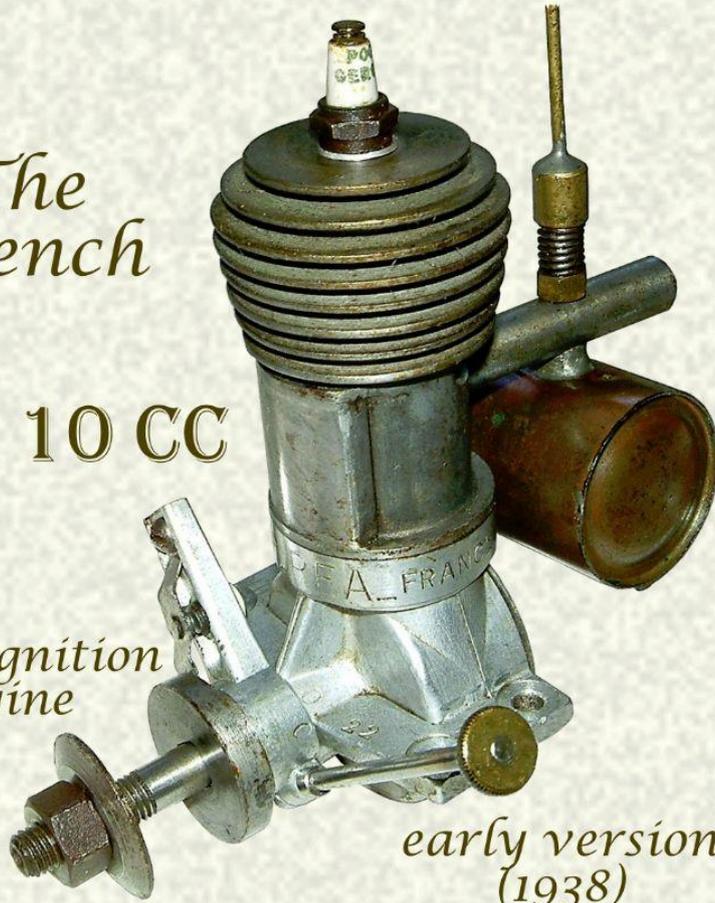
I'm a spark ignition beginner but, clearly, the REA is a great performer.

Brian

*The
French*

REA 10 CC

*spark ignition
engine*



*early version
(1938)*

BC

The

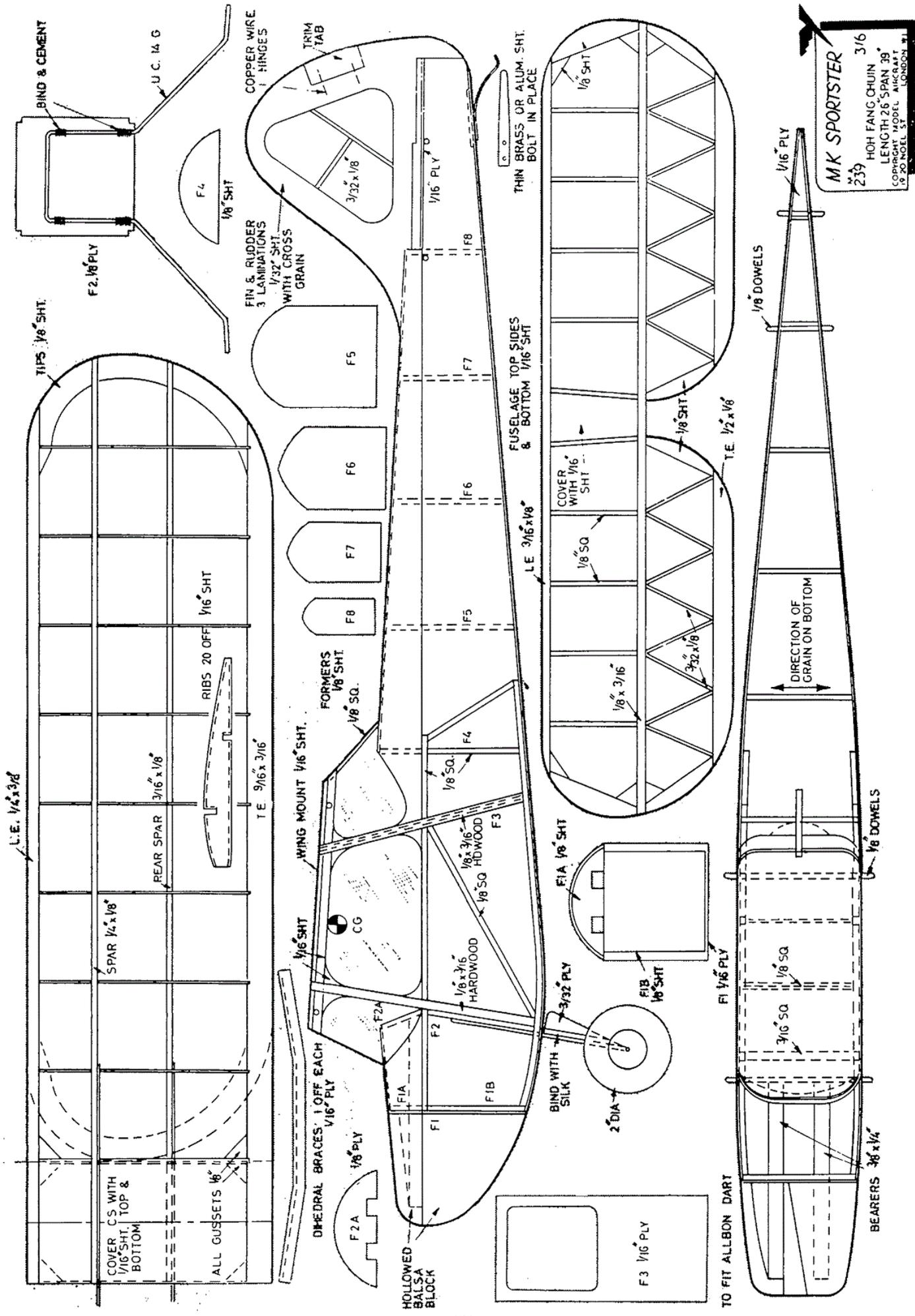
REA 10 CC

*(post-war
version)*



*now with longer crankshaft,
serrated prop driver, etc.*

BC



MK SPORTSTER
 #239
 HOH FANG CHUIN 3/16
 LENGTH 26" SPAN 39"
 COPPER WIRE MODEL AIRCRAFT
 © 2008 L.S. MODEL AIRCRAFT

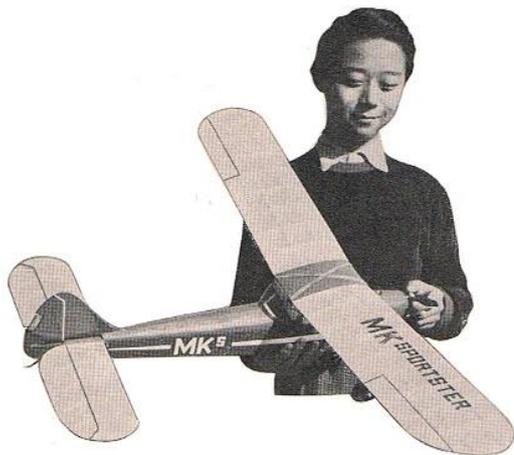
MK Sportster by Hoh Fang Chiun from Model Aircraft June 1956

A pleasing model for .5 – 1cc engines from a Chinese enthusiast.

Intrigued by the name of this model? Designer Hoh Fang Chiun explains it as follows: M.K. =Middle Kingdom and the Chinese call China the Middle Kingdom or Middle Land. Designed for the popular 0.5 cc - 1 c.c. engines, it has a most realistic and stable flight and the large diameter wheels should provide safe take-offs and landings from any reasonable flying field. So if you are interested in precision events such as the Bowden Trophy, or just like a model that can get off the ground in a realistic manner, then this design can be recommended.

Fuselage

Start by building the cabin frame. The frame sides should be built directly over the plan and the cabin uprights should be of hardwood. Now cement the frame sides to fuselage sides, which are of 1/16 in. sheet. After they are dry, join the two fuselage sides with F2 and F3. Note that the U/C must be fixed to F2 before joining the sides. Add the remaining spacers and cover top and bottom of fuselage with 1/16 in. sheet.



The fuselage bottom should be covered with the grain crossed.

Add engine bearers and cement the bolts in place to suit engine.

Add nose blocks and sand to shape. The fuel tank can be placed in this compartment. Leave the cabin uncovered at this stage.

Wing

Pin down the L.E., T.E. and lower spar over the plan. Add ribs, which are cut from 1/16 in. sheet, then

cement the upper spar and the tip in place. The centre section of the wing is covered top and bottom with sheet and the dihedral is 2 3/4 in. measured at each wing tip.

Fin and Tailplane

The fin is made cut from three pieces of 1/32 in. sheet cemented together with grain crossed. Cut the lightning hole and the trim-tab. Now cement the fin to the fuselage and be sure that there is a space for the tailplane. The tailplane has a flat plate section, so the construction is straightforward.

Use hard strips for L.E. and mainspar. The T.E. is shaped before building.

Finishing

The wings and the tailplane can be covered either with lightweight or heavy weight Modelspan. I myself used lightweight Modelspan on my original model. Waterspray and give four coats of clear dope. The wings should have about 1/8 – 3/16in. washout at each tip. Cover the fin with heavyweight Modelspan, also four coats of clear dope. Before covering the fuselage with lightweight Modelspan, it is a good idea to give it a coat of thinned clear dope. Now cover the cabin with thin sheet celluloid. After covering, the original model was given two coats of sanding-sealer, followed by one coat of normal clear dope and two coats of per cent, thinned colour dope. The fuselage should be sanded smooth with fine grained sandpaper after each coat. The original model is finished in a blue and white colour scheme.

Trimming and Flying

With the trim-tab at about 3/8in. to starboard, the model should have a smooth, flat glide when hand launched in still air. No alterations to tailplane incidence were necessary on my original model. Make the first power flight with a 7 in. X 4 in. prop. No alterations to engine thrust line were necessary on the original Dart-powered model. If a 0.8 c.c. or bigger engine is used, then some downthrust will be necessary. The original model, using a 6 in. X 4in. Tru-Flex airscrew, has left-hand power and right-hand glide.



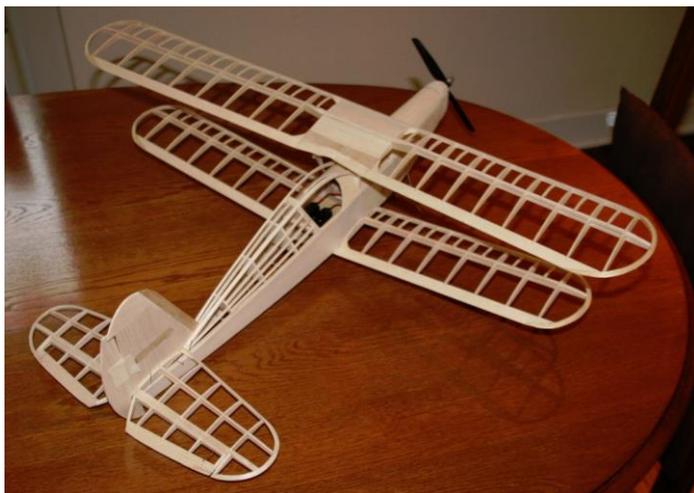
From George Stringwell

Due to one thing and another my building this year has been much slower than usual, but I have finally got going and have completed my latest rubber to electric R/C conversion. This is George Woolls' elegant little "La Paloma" biplane from the fifties Aeromodeller.

I have stuck to the original structure as much as possible, but as I decided that the plug-in braced wings of the original were going to be a bit chancy for R/C, I created a new centre section for the bottom wing and built the top wing in one piece. There are no rubber bands on this model, the top wing is held by the centre section struts which spring into aluminium tubes, whilst the bottom wing is retained by two dowels at the front and two 5mm diameter rare earth magnets at the back. The interplane struts are also fitted with magnets, as are the front cowling and battery hatch, so the model consumed a total of 18 of these invaluable little fittings. The tailplane and fin are as per the original with the exception of the necessary modifications to incorporate rudder and elevator. Motor is a BRC 1811 propped to run at 45 watts turning a GWS 7" x 3.5" prop, battery is a 2S lipo, either a 300 or 450 size and the radio is an Orange 6 channel 2.4 gig Rx driving a 12 amp BRC ESC and two 7.5 gram servos. Rudder drive is closed loop and the elevator drive is a 1/16" carbon rod running in a plastic tube.

Covering is my usual Esaki Liteflite tissue over 10 micron mylar finished with nitrate clear dope. All the colour on the model (contrasting upper and lower schemes) is tissue, the only paint is on the small front motor cowling. All up weight is a little more than I wanted at 245 grams, just under 9 ounces but this still gives sensible wing and power loadings. Here are a few photos.

The weather here has been awful for the last 10 days - rain, wind and more rain - and is forecast to continue like this for the next week, so when it will get flown I don't know; however, when it has flown I will send you some flying photos.



I'm pleased to say the weather relented here today and presented a perfect opportunity to both fly and photograph the La Paloma. I had to make a couple of tweaks, increasing the top wing incidence and adding a couple of degrees of right thrust after which it flew perfectly and I was able to present it for my wife Ali's camera, some of the results herewith. It has had three flights today and accumulated 24 minutes of air time, so is now passed fully fit to take it's place alongside the rest of the stable.







G'day James from Rob Smith

I have now completed the Number Nine as you can see from the pictures.

I covered the flying surfaces in polyspan from good old Flitehook and the fuselage in heavyweight tissue. The pilot is one of Dave Banks Pilots, what superb pieces of workmanship they are too, good crisp reproduction, good range of types and sizes, very lightweight and very reasonably priced. Check them out (No, I'm not on commission).

I had intended to test her out at Middle Wallop October meet but even the birds were grounded that weekend. However I did decide to have a go at running the motor as it looked as if it could be a little tricky flicking a small three bladed prop in a fairly restricted space. I duly topped up with diesel (what a lovely smelling perfume that is) and set about trying to remove the skin from my right index finger. I was quite successful as well. Half an hour later, nursing a sore and slightly shredded pinkey I was seriously considering using my starter motor on the Dart. By this time it was being called lots of things other than Dart.

At this point I can imagine you electric flight aficionados smiling indulgently - 'should have gone electric' (aficionados is Spanish for smug b's). Come on, all they do is plug in a battery and fly. Where's the sense of achievement in that? Answers please on a postcard to James Parry Esq.

Anyway the threat of using the starter on it seemed to do the trick as the Dart suddenly burst into life avoiding my throbbing prodger (finger for those of dubious mind set) and continued to run as sweet as a nut. I guess we've all been there.

As Middle Wallop was a few weeks ahead and the weather was set fair on the lucky 13th I decided to try her out at our club field. Several test glides looked promising and after injecting 25 gramms of lead in the nose bit the bullet and went for it. Bit of an anticlimax really as she went smoothly away from the hand launch,

went into quite a tight left hand turn without losing height and after two or three circuits the motor cut and she settled, not too gracefully, down in the grass.

Inspired by this I adjusted the trim to open out the turn and went for a second flight. Away she went again banking gently to the left and gaining height. You all know the feeling when your model is flying well and gently drifting downwind - towards trees. Does the motor cut? Does it b---ery Actually it did cut, just before it reached the trees some 30 ft up. A quick phonecall to good friend Ray and he stopped oiling his front door (that's not a euphemism), got in his car and came to my rescue with his 11 metre roach pole (that's not a euphemism either).

Has it all been worthwhile? Of course it has, it's been a lot of fun and surely that's what this great hobby of ours should be.



From Eric Adams

Greetings from Canada! I thought your readers might be interested in a blast from the past that I picked up at an estate sale, as not many people I've spoken to have ever seen or even heard of one of these. It's a Dallaire Pee Wee Speedster, designed in 1939 by Joe Dallaire's older brother Frank, reportedly as a flying test bed for his Pee Wee engine. This particular model has one wing signed by Joe Dallaire himself.

I know most people reading this excellent newsletter will tear their hair out at this sacrilege, but I belong to an electric only club, so out of necessity the original FS-20 has been replaced by a brushless outrunner system. Noise considerations have greatly reduced the number of flying venues available near big cities in

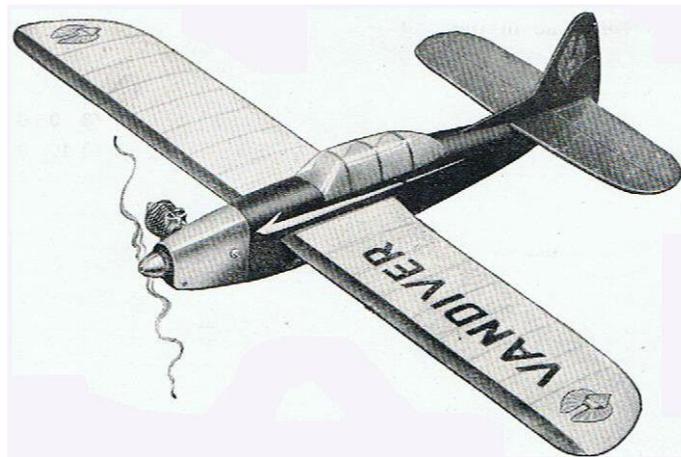
this country (as I'm sure they have in most places) so its either electric flyer or garage hanger queen, take your pick. I choose to commit aviation over all else!

The power system consists of an E-Flite Power 10 outrunner spinning an APC 10 x 5 prop, 36 amp Castle Creations ESC and a 4,000 mah, 3 cell lipo for balance. I expected the overall weight to be much higher, so the Power 10 is complete overkill at 133 watts / lb.. Oh well, that's why God invented throttles.

She's built at 150% over the original design for an overall length of 43" and a wingspan of 80". Its very lightly built with a flying weight of 2 lb., 13 oz., which includes that big, honkin' lipo (11.6 oz). This results in a wing loading of only 8.8 oz/sq ft. and, with its feather weight wing structure, is used exclusively as a climb and glide machine. I'm afraid that any full throttle goonage will inevitably result in that jumping jack, wing clapping overhead thing that we all hate so much.

It flies very stably and sedately at less than 1/2 throttle. Watching it puttering by overhead with the sun shining through that lovely translucent covering, well, it just doesn't get any better than that.





I received a letter from Tony Penhall who was lamenting the loss of two FF sites near to where he lives one being Biggleswade Common. Anyway he has a Model Shop 54" Privateer and is looking for a sparky engine to power it something around 2.5 cc. If anyone has such an engine or preferably a replica Hornet A Lindberg engine or John Maddaford .19 cu in Junior "Brown Junior" they wish to sell please contact Tony also he's looking for a DVD entitled "The Long Flight". Don't forget Tony has quite a few plans he's drawn up of vintage model and for sale via his plan service.

His address is "Brigadoon", 62 Gordon Road, Little Paxton, Cambridgeshire, PE19 6NB

Events

Next Sunday is Middle Wallop 8 December

For 2014 there will be fewer meetings at Middle Wallop 5 days in total April, June August Bank holiday and September. The August Bank holiday being just 2 days Sunday and Monday. The actual dates will appear in SAM Speaks and the 1066 website soon.

David Kinsella's Column

The ED Story Part III

For several years a heady characteristic of Kingston-upon-Thames, ten miles west of London, was the rich pong from the VP Wine works. Impossible to ignore, Jack Ballard and his boys breathed in the aroma of processed grapes as they bent to their tasks in their new factory handily close to a scrap yard offering non-ferrous metals, good steel and even Rolls-Royce Merlin pistons. ED's simple side-port, known as the ED 2cc, was ready in the closing months of 1946, Basil's improvements turning it into the ED Mk II by February 1947 (comp adjustment was by a handy penny applied to a slot in the top and, presto, the tall and elegant ED became the Penny Slot). Jack believed in plenty of advertising, Aero Modellers and Model Aircrafts of the time putting wallop behind the wonders of ED's products. Basil refined yet again and in time for Christmas 1947 Dads around the UK were stumping up four pounds for the Competition Special (what a name) to power their boy's Slicker. The Mk III of 2.46cc was in the shops before Easter 1948 but the famous Mk I the 1cc ED Bee - was held back until December 1948. Although cash was tightish. (spent as soon as it arrived), Electronic Developments (Surrey) Ltd. was now famous and motoring. But ten miles to the east the suits of Westminster had other ideas,...

As Seen On TV

Derek Cattani snapped Christian's life in Chelsea. Bought as a cub from the famous store in Knightsbridge, Christian sometimes slept in a shop window and was a must-see for visitors! Soon very large indeed, Christian was taken to Africa. A year later his late owners Ace and John went to see him - and the great lion, bigger still, bounded over to meet them. At a summer show I met Derek and John, we sitting in the garden of Thomas More's old house (one of the first built in Chelsea, Sir Thomas was executed by Henry VIII).



Mall Gallery Time

Packed on preview day and very hot too, the big show this year was opened by Air Chief Marshal Sir John Allison. Winkle Brown was there and full of great yarns from his vast flying experience, and good to chat with Desmond Penrose who owned the famous Mew Gull campaigned by Alex Henshaw. Colin Ball had five there, his SE5a appropriate because he served in 56 Squadron, as did his relation Albert Ball VC. Masterly was Graham Turner's RE8s getting ready for a sortie on 13 April 1917, tension obvious, and it sold within minutes for £7500. Graham Cooke took us around the paintings, saying that jazz was an interest shared by many of the Guild (a Chris Barber sideman was with us). Young Turner, son of Michael, prefers jousting in plate armour! He paints that too.

Stirling's Style

Here the great Moss has won the Pescara Gran Prix for Vanwall, owner and bearings king Tony pleased with the result. Well to the fore is the Moss-invented metal watch strap made in Monte Carlo, leather not suitable for a hot and oily cockpit. Sir Stirling carries on his great idea today, a steel Chopard Mille Miglia replaced by a gold version for evening wear. Then there's the gold ID bracelet with blood group, address and phone number and sometimes on a gold Albert chain the IWC compass from his Mille Miglia 300 SLR (a great idea when travelling across country or city). Of Brummell quality, suits arrive pronto from Peter at Dino's in Bangkok. Always there is the BRDC lapel badge with gold star and diamond. Now, where have I been going wrong....



Another Agent

Another dip into the files and we discover Raymond, testing his heavy duty quick drilling skills before entering East Germany in the 1950s. Urbane and gentle, Raymond was a master cracksman at ease with high explosives, deep tunnelling and numerous power tools. Leading a big job in the East - that went wrong -



Raymond vanished. Years later a wealthy backer emerged in Hollywood. Remote and holed up in his hotel, long lens shots indicate that the bronzed man with long hair and Bermuda shorts was....Raymond! The bullion was never found.

Eagle - By Jove!

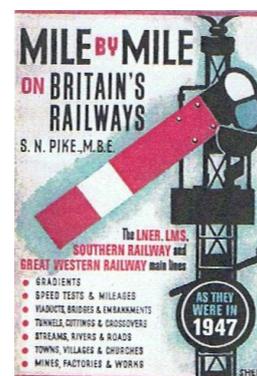
Good of Gerry York to mention the new Dan Dare/Eagle book (S&T 80) It's from Haynes and great value. Adam at Camden keeps me posted and has many books perfect for us (01373 830151). John Haynes MBE, a mighty enthusiast, supported VTR 2000 and kindly published my Allard book (now selling for £70 if you can find one!) Wonderful Old Warden boosts the juices and who better to report on it than delightful Dave Bishop, his Scale piece read with relish (S&T 80 again) and reminding me of trips there on my Viscount 14-gear aeroplane tube lightweight, there to chat with Ron, Vic and Cesare Milani.

What Recession?

Seen gassing up his yacht in Guernsey, a high roller settled the £60,000 fuel bill and cast off. Pre credit card, all boats of distance carried plenty of hard currency, gold and silver to settle for supplies and repairs.

Swift Sorting

To the Postal Museum for a screening of Night Mail (1936). We all know the words by Auden (...Night Mail crossing the border...cheque and the postal order...), metals of the mighty LMS moon-lit all the way from London Euston to Aberdeen 492 miles distant. No sign of water troughs in operation but fine shots of signals and their boxes at work, priority to the Night Mail's long train empty apart from men sorting letters and packets and mail bags going out and coming in. at some forty points along the way (catch-nets used for the express did not stop). Made by Harry Watt and Basil Wright for the GPO Film Unit when your urgent letter for Rugby or Crew could be popped in the train before it left London. Those were the days...If you're into railways Pike's Mile by Mile (1947) is for you.



Prizes

For Phantom Mites next year and for Great War SE5as My piece in SAM 35 Speaks may well have primed the pump, and the idea is for a good showing of Folland's finest at Old Warden's Scale Weekend. Rugged and with great looks, the SE will be fit for hours of fun long after 2014's events have receded into distant memory.

Fireworks

Things within things, at the E&EMRC show I discovered that there's quite a collector interest in classic fireworks! Standard, of course. The appeal is obvious, years ago a whole book appearing on the artwork applied to the items to themselves as well as, to those boxes we all remember. Spiffing fellow Mark

Fleming wrote the book, 210 A4 pages drenched in full colour spreads for the many UK firms that guaranteed our fun on November 5. Firework Art by Mark was published by Rumble of Liverpool in 2005. Standard, Pains, Brocks, Lion, Wessex, Wilders, Astra....Ah yes, I remember them well.



Magnificent Vintage

Classic boats under sail look great, not high tec but beef from acres of sail driving them forward. German yawl Nordwind covered before, here she is in white after a mighty nut-and-bolt restoration lasting many months. Her Fastnet Race of 1939 a record for 26 years, she was regularly skippered by Grand Admiral Karl Donitz before becoming one of many Windfall yachts in 1945. From top quality yards such as Burmester and Aberking & Rasmussen, fine Windfalls such as Marabu (for the Luftwaffe), Wal (Kriegsmarine) and Brunhilde sail on today.



From Martin Dilly

Thanks for the latest S&T. Just a small clarification, particularly in the long Dave Bishop piece from page 39 onwards. The RC club involved is actually the Croydon Airport MFC. The only "Croydon club" I'm aware of is the Croydon and District MAC, of which I've been a member since 1949, and it flies free-flight competition models that don't have any need for radio control! We do occasionally get confused people who've read articles referring to 'the Croydon club' asking what we were doing at an RC display.

On a separate topic, I don't know if S&T would carry a bit of a plug, but here goes anyway.

After the initial print run of Flying North was sold out we've now done a spiral-bound re-print, which is available for £18 in the UK, £20 to Europe and £22 elsewhere. Contact Martin Dilly on 020 8777 5533 or e-mail martindilly@compuserve.com

It seems to have been well received by model flyers worldwide.

“... no other modeller's life and times can ever have been so comprehensively covered”

“I hope it becomes a classic.”

“I am glad I bought Flying North. ... such a huge chunk of nostalgia”

“. am immensely impressed. A splendid effort”

“A fitting memorial to an unforgettable personality. I am sure the book will become an instant classic, treasured by aeromodellers all over the world”

“A very balanced record of Jack's modelling and professional activities”

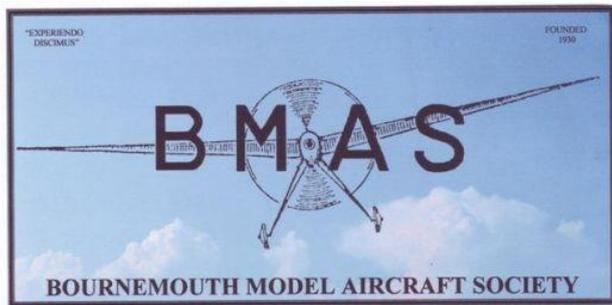
“The best aeromodelling book since the Zaic Yearbooks”.

FLYING NORTH traces the model flying career of Jack North, one of only three people to represent the UK in on all three outdoor free flight teams, - Wakefield, Power and Glider. It covers his flying and models from 1938 onwards and includes no less than 24 of his previously-unpublished designs. It was compiled and edited by two of Jack's Croydon clubmates, David Beales and Martin Dilly, who had access to Jack's extensive notebooks, photographs, drawings and his original models.

FLYING NORTH is a fascinating 163 page book and includes 130 photographs, reminiscences by colleagues, re-prints of all Jack's published plans and articles, including his later extensive work on thermal detection, and an outline of the professional career that also made him such a respected name in high-speed aerodynamics.

FLYING NORTH proceeds go towards the costs of the national teams representing the UK at World and European Free-Flight Championships.

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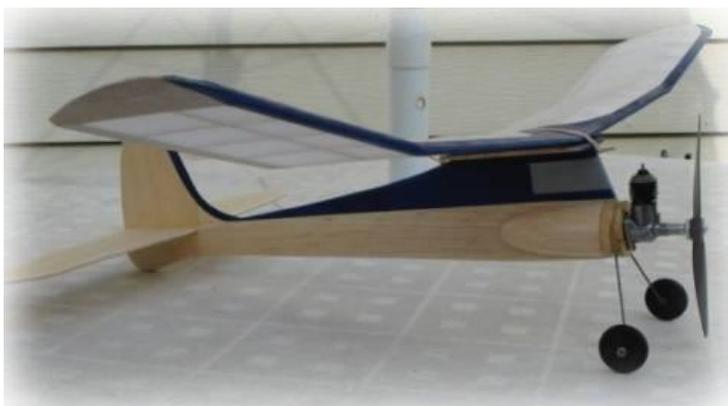
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From Belair



Tomboy CXX - 120" version of the popular Tomboy
Ref: ot-tbcxx

Belair have created this huge Tomboy based on the exact plan and profile views of the original 36" Tomboy, but redesigned the structure to handle the increased loads of RC.

The original one spar wing features 6 spars and a wing joiner box to allow the huge wings to be removed for transport. The center section is fixed and houses the wing joiners. The tail is now removable and is so large the rudder servo fits in the center section. Pushrod lengths are thereby kept to a minimum, as even the twin elevator servos are at the rear of the fuselage.

You will recognise the rest of the construction as pure Tomboy - the fuselage is built from 1/2" sq balsa and has the same characteristic shape as the original.

We powered our Tomboy with an Evolution 26cc which has power in reserve. The Belair parts set includes all the shaped balsa and plywood parts required to build the model, such as formers, bulkheads, cowl cheeks & doublers, fuselage doublers, wing ribs, wing box parts, ply wing joiners, all tip shapes for wings, tail and fin. rudder, sub fin plus many other parts specific to this larger model.

A full size plan is also included. The builder needs to supply stripwood/sheeting to complete the basic airframe.

Specifications: Wingspan: 120", flying weight: 16-18lbs, 26cc petrol or similar. Our model is covered in Solartex and uses an Evolution 26cc engine with Savox standard servos.

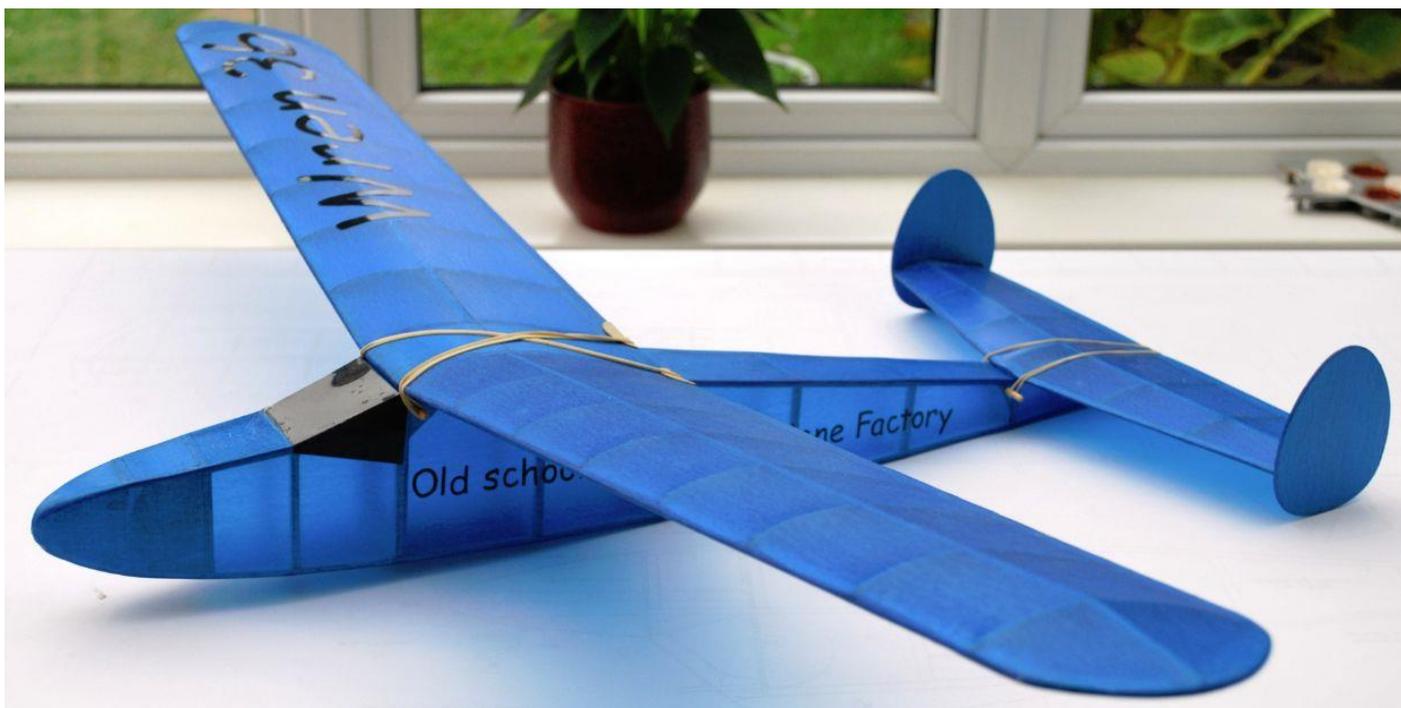
Price: £175.00 Inc VAT
218.75 USD

<http://www.belairkits.com/detail.asp?id=921>

Old School Model Aeroplane factory

Derek has now started cutting two gliders the Frog Wren and Dizzy. Both are nice looking models but the Dizzy I particularly like. The kits includes plan and I believe all the balsa and ply parts. Underneath there are a few photos one showing what you get in the Dizzy box.

In addition the electric Chatterbox is being cut so should be ready very soon. I've flown the prototype at Epsom Downs, as mentioned before, and providing you don't go heavy on the rudder movement it is a lovely model to fly. You can contact Derek for more details on 02086471033 or derekfoxwell@btinternet.com



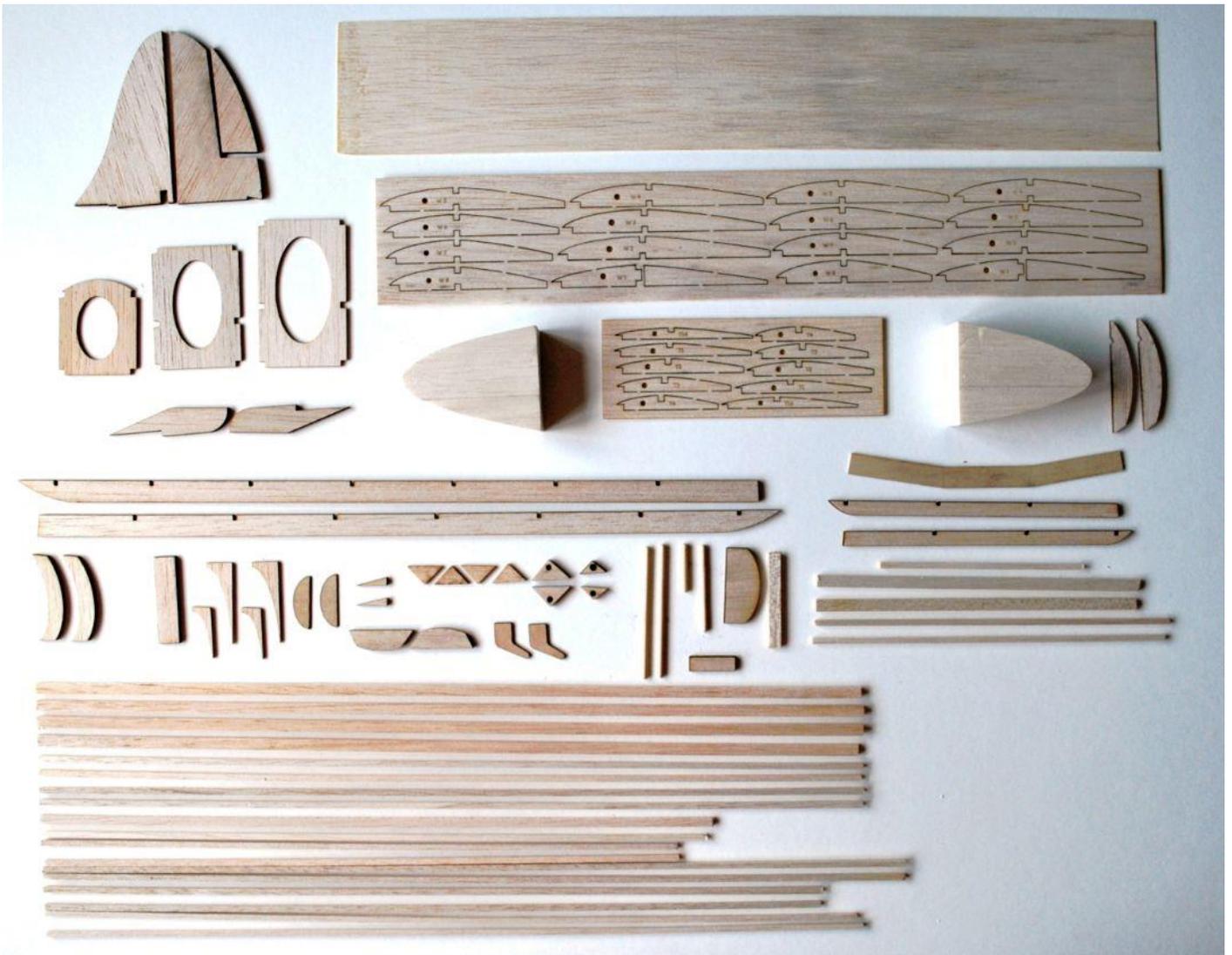
Frog Wren 36" span version



36" span Dizzy



Val Foxwell having an enjoyable afternoon in the cold, wind and drizzle holding onto model for Derek to photo. I've got an idea immediately after the snap was taken the pub gained another two customers.



Dizzy kit all the balsa is there including nose block and ply towhooks.

NOT S&T

From Rick Farrer

Not quite Sticks and Tissue.

At last the Lazy Bee has flown. Mainly Depron. Straight off the ground like a homesick angel. No trimming required.

Flies at nought miles an hour. Flares perfectly into a 3 point landing. Stupidly aerobic. What an incredible design! Some pics attached.

After the first flights I have fitted a steerable tailwheel and it now charges around on the ground like a good un.

All up weight 872g.

2300mAh battery

950kV motor

9x6 prop

Draws 13amps 156watts

Flight time way over 15mins depending on throttle opening.
It glides incredibly well - Am thinking of using in 600RES next year.



