

## Sticks and Tissue No 149 – April 2019

If you can contribute any articles, wish to make your point of view known etc please send to or phone 01202 625825 [JamesIParry@talktalk.net](mailto:JamesIParry@talktalk.net) The content does not follow any logical order or set out, it's "as I put it in and receive".

Thanks to Mark Venter back issues are available for download from <http://sticksandtissue.yolasite.com/>

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



*Peter Zeigler launching at the Antik Flugtag MG-Bern*

## From David Lovegrove

S&T readers might be interested to see my newly-finished, half-size, Ken Willard Gasser. It was built for the PANDAS Single Channel and Vintage event, that will be held up at Pontefract in West Yorkshire on Sunday 19th May. I can recommend it: there's always a huge turnout and there will be well over a hundred models to admire.

Each year, for a bit of extra fun, the organisers decide on a particular "theme". This year it's to build and fly a half-size version of any vintage design. If you think about it, that allows enormous scope. With old American "gas" models ranging up to eight or nine feet, there would be no problem in producing a perfectly flyable replica in reduced size. At the other end of the scale things become a bit more challenging – and interesting.

There were a couple of reasons for choosing the Gasser. First, it's a design that although admittedly not pretty, was certainly influential when I was a youngster and just getting into the hobby. So it has that extra bit of nostalgia attached to it. Second, I always wanted to build one but never got round to it. How often do we say that?

Then by sheer chance Shaun Garrity (one of the Pontefract event organisers), who writes in RCM&E about vintage r/c did a piece in the May edition on the Gasser. The full-size plan was re-printed alongside it. Looking at that broad wing, it immediately struck me that here was the perfect subject for down-sizing. With luck and a following wind, it should be reasonably easy to keep it light too. A win-win situation, I think they call that in modern business-speak.

And I was right. Without compromising strength, the weight of this 20" wingspan model came out at just 4.25 ounces/116 grams, giving a wing loading of 6.4ozs/sq.ft.. A very pleasant surprise. Even better was the performance; the words pocket and rocket come to mind but nonetheless it's extremely benign at all speeds. It copes easily with a bit of breeze and is a delight to fly. Old Ken knew what he was doing!

The motor is a Robotbirds 10g AJ18-17 Brushless Motor, matched to a 4.5" x 3" GWS prop and fuelled by a 300MAh Hyperion Graphene 2S LiPo. The servos (2) are Hobby King 1.7gr. digitals that have plenty of grunt, despite my initial reservations that they might not be man (person?) enough.

All in all, a very pleasing result. Apart from that canopy. Scaled and sized exactly to the plan, laboriously created from a 2 litre bottle of Lidl's finest orange sugar-free fizz, from most angles it looks silly . . .











## Ariel by H E Hervey a 34 ½" span semi scale rubber powered model from Aeromodeller September 1948



The Ariel was one of two rather similar mid-wing mono-planes built during 1935 and early 1936 as a freelance design for a fast single-seater light plane of that period.

Ariel was the second of these two models and after more than twelve years of active flying is still going strong. The model was completely stripped and re-covered for the first time last year after a collision with a car, but apart from new tissue and a section of the mainplane the model is flying with all the original components intact including the airscrew.

Fuselage Construction.

First cut out the fuselage sides from medium weight 1/16 in sheet balsa, sandpaper smooth and mark the position of all cross struts and the holes for the front and rear wire wing fittings, mark the hole positions very carefully so that they are exactly the same on both fuselage sides, otherwise there will be a difference of incidence of the left and right wing when the model is assembled. In order to have a rigid framework when building the fuselage, cut temporary bulkheads from 1/8 in. sheet balsa. One the exact depth of the fuselage sides at the third cross strut from the nose and the exact width between the fuselage sides at this point and a similar bulkhead for the sixth cross strut position. Pin these bulkheads in position between the fuselage sides. Next fit the tail block and No. 1 bulkhead at the nose. When these four pieces are fitted in position the fuselage sides will take a natural curve from nose to tail and the remaining cross struts and formers can be cemented in place. Note that 1/8 x 1/16 cross struts are fitted at all the former positions and the formers cemented on top of them, finally these cross struts are partly cut away to give clearance for the rubber motor.

The engine cowling and fuselage deck fairing from the nose to the rear of the cockpit is cut from one piece of-stiff cartridge paper and the undercarriage leg fairings are made from the same material.

The undercarriage is shaped from one piece of 18 gauge steel wire and is held in position by two pieces of celluloid tubing cemented between two fuselage cross struts, the rubber band shock absorbers are hooked in place with a piece of wire through the open cockpit. Before covering the fuselage sides cement celluloid washers at the points where the wire wing fittings pass through the fuselage.

The nose block is shaped from 1 in. block balsa and is located by two pieces of celluloid tube reinforced with wire cemented into the rear of the block. These projecting tubes fit tightly into corresponding holes in the ply and balsa front bulkhead of the fuselage.

### The Mainplane

The whole of the framework of the left and right sections of the mainplane is cut from 1/16 in. sheet balsa, hard balsa being used for spars and trailing edges. Pin the leading and trailing edge on a flat board and complete the framework before removing from the board. Celluloid tubes to take the 20 gauge steel wire wing fittings are cemented and bound with tissue to cut away portions of the main spars and trailing edges.

The 20 gauge wire fitting for the wing struts are cemented and bound to the front face of the spars.

Shape the wing struts from hard balsa with a reinforcing strip of half-round celluloid cemented to the leading edge. If half-round celluloid is not available use 22 gauge steel wire cemented and lapped with tissue to the struts. The struts are anchored to the mainplane by 1/8 lengths of celluloid tubing cemented to the projected ends of the wire fittings.

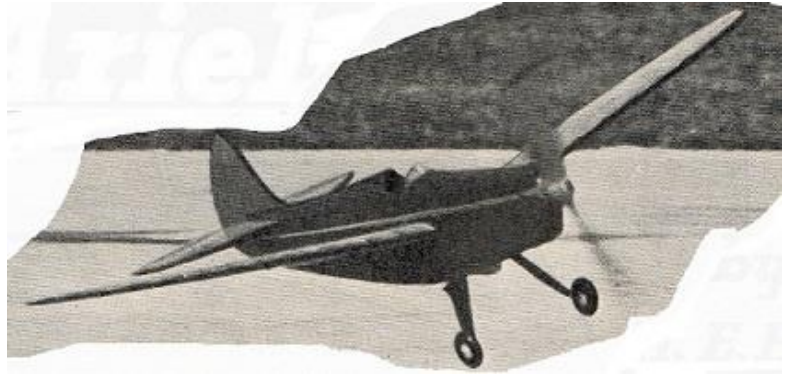
### Tailplane, Fin and Rudder

The tailplane, fin and rudder are simple to construct and should be built up on the plan. The fin and rudder are joined by hinges of thin sheet aluminium pushed through the trailing edge of the fin and leading edge of the rudder and cemented in place. The rudder post is of 1/16 in. celluloid tube reinforced with 20 gauge steel wire lightly cemented into the tube, the tube itself being cemented and bound with tissue to the front face of the fin trailing edge. The rudder post fits into 3/32 in. celluloid cemented and bound to the tail block.



### The Airscrew.

The airscrew is carved from 1 in. hard block balsa and requires downthrust and off setting. In order to keep the undercarriage legs short and still have a large diameter air screw, the airscrew touches the ground when the model is in flying position: this does not affect R.O.G. flights with the model as it has a rapid take-off with the tail down.



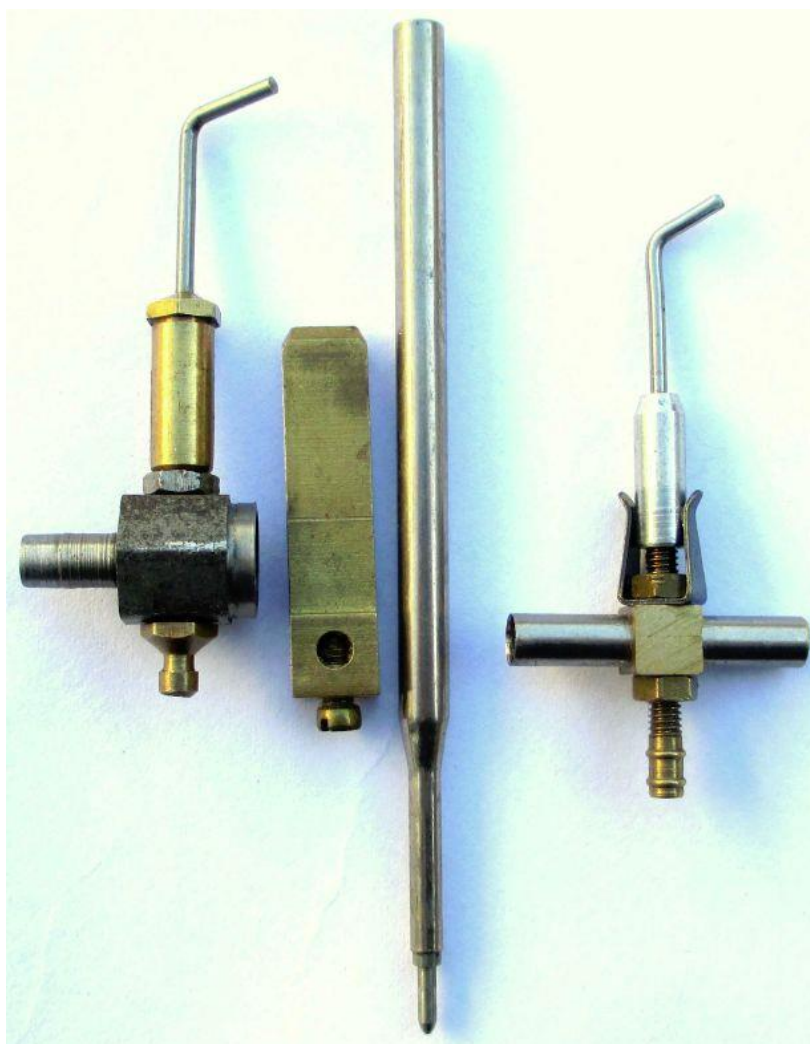
### From Bill Wells

#### ED Bee Glow Engine!

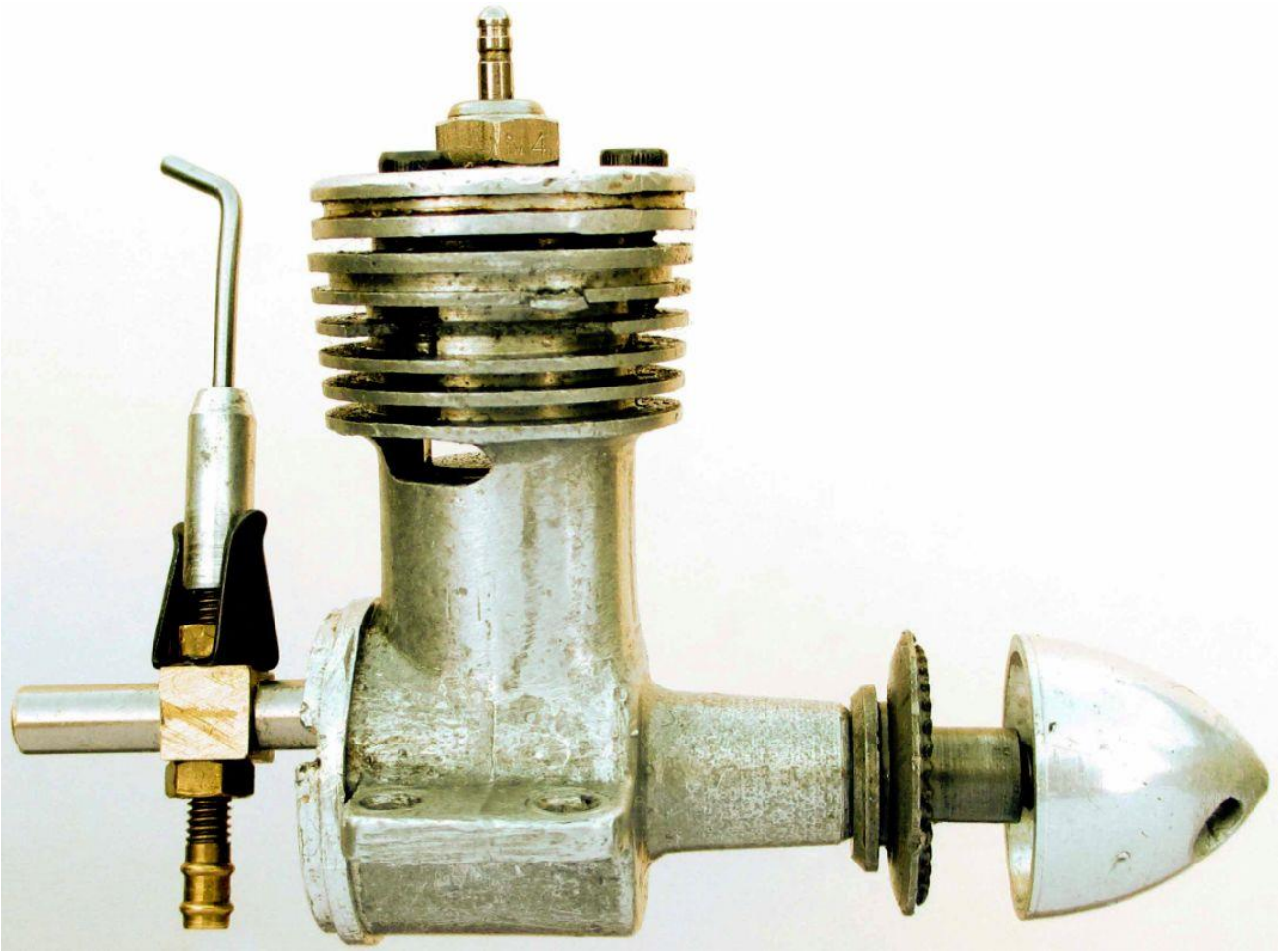
It was well over half a century ago that I tried to convert an old Series II ED Bee with poor compression to glow plug ignition. I obviously got something wrong because I never could get it to run as a glow plug engine. I came across my homemade glow head in a junk box the other day and it brought back memories of my miserable attempts. Some years later I was able to return the engine to a viable diesel using parts from the remains of another engine. So when I saw ED Bee Glow Plug engine on a recent Auction list I decide to bid for it. I was successful getting two engines in the same lot for £25-96. The other engine ran well, so had I wasted nearly £13 on a heap of junk?

The engine came with a homemade bulky 0.43 oz hexagon steel push in venturi and PAW needle valve assembly. The single spray bar hole was almost cut off by the thick wall of the venturi likewise the needle would not screw right in so I doubted if the engine had ever run like this. I gave it a try, the engine would start but wouldn't run because it was too rich even if the needle was fully in. I decided to make a new venturi tube from an old pen refill!! It's a matter of finding a duff pen refill of the right diameter I think the one I had was papermate powerpoint, the bonus is a nice silver shiny exterior. With gentle use of a piercing saw I cut through the tube so that the longest part of the larger diameter could be cleaned using cellulose thinners. If the tube is too big in diameter use emery paper or a very fine file to put a slight taper on the end of the tube. In my case the fit was slightly loose so by wiggling a taper inside the tube I was able to increase the outside diameter just enough to form a tight fit. Remember should you do this DO NOT let the tube in too far, you do not want it to foul the inlet rotor valve.

The draw back with the pen refill is the very thin walls so as I wanted to use a DC Universal Needle valve which makes a fairly large hole that could cause the tube to collapse I needed a reinforcement. Looking around my odds box I found part of an old electrical plug. I enlarged the wire hole to take the tube and extended the threaded hole across the original wire hole, enlarged that for the spray bar and then cut the plug part off. I cross drilled the refill tube with a small drill then an under sized drill from each side before cleaning up and final enlargement of the hole with a round needle file. With the needle valve assembly bolted in place on the reinforcement, the unit weighed 0.18 oz. With this set up the fuel management is positive and the engine starts easily after a exhaust prime the runs steadily at 6,500 rpm on KK 7x4 prop. The engine was made in September 1949, has fin damage as can be seen in the pictures and has definitely been 'USED'!! The fuel I used was 10% Duraglow with an additional 5% Castor Oil. Perhaps tinkering around with the fuel and perhaps even a smaller prop I could have got a higher rpm. In summary I am not advocating converting a diesel to a glow engine but for a very modest outlay it was worth seeing what can be done. Perhaps my pen refill venturi will be helpful for an ED Bee or ED Hornet Restorer.









## DILLY JAP IS BACK

After a bit of a gap since the final 5 yards came off my last bulk roll of Japanese tissue several people have asked if it will be available again, so I've just received my sixth roll. Doing the sums, that means that there's now just under a mile of Dilly Jap covering models all over the world.

Anyhow, since the last roll came in 2015, the price is slightly higher (maybe as a result of you-know-what ...xit and its effect on sterling), but it's still only £13 for a five yard roll a yard wide.

To re-cap on the details, it's 12 gm/M2 and has a strong unidirectional grain. It's white and low absorbency, so remains very light when doped. For those of you old enough to remember, it's identical to the Harry York tissue sold at his South London model shop in the 1950s. I normally sell it in rolls at contests, as it's a shame to fold it for mailing, but I can do that if you prefer. I'm on 0208-7775533 or e-mail: martindilly20@gmail.com.

**From Peter Renggli photos of Antik Flugtag 2018 MG – Bern taken by Peter Ziegler and Urs Brand**



*Ernst Dällenbach Agressor II Os 91 Surpass*



*Thomas Ghisler Royal Rudderbug Saito FA-30*



*Peter Renggli Flamingo USA OS FS 48 mod.*





*Bruno Müller Bergfalke Mü 13e*









*Peter Zegler about to launch*

















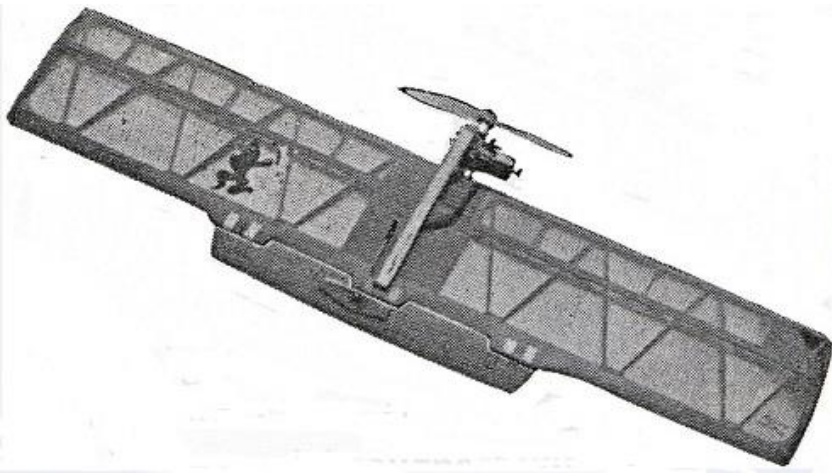












little wood as possible from fuselage to clear engine crankcase and drill engine bolt holes. Pass balsa L.E. and one spruce mainspar through fuselage and glue in place, likewise T.E. Before the glue has set pin and glue ribs 1, 3 and 4 and tip gussets in place, check for alignment everywhere and leave out of harm's way to dry. Cut out the rest of the ribs, (with lead-out holes where necessary) elevator and tip lams. Make bellcrank and pushrod and loops on lead-outs. Glue all other ribs in position except No. 6, chamfering the angled

ones to fit. Pass the other mainspar through fuselage and glue in position, similarly spruce L.E. Add gussets where shown (Everywhere!). Next, install the bellcrank, shape L.E. and elevator and give latter one coat of sanding-sealer and cover with tissue. Glue tips in position (weight in starboard) and carve and sand to shape, drill leadout guide holes in part one and screw pieces of spring curtain-rod (smeared with glue) in place. Insert leadouts, bend ends to pass through bellcrank and solder on cup washers likewise push-rod. Note that rear lead-out washer is beneath bellcrank to prevent it fouling the push-rod. Check for freeness and give a drop of oil at all four holes.



Install tank and rib No. 6 and glue both firmly. (Tank is positioned by hooking vents over L.E. from beneath wing and then sliding upwards into position— it won't go in from the top!) Sheet centre section and add tank fairings.

Sand all parts perfectly smooth and give entire model, including rib edges, two coats of sanding sealer and sand again. Cover model with silk using thick dope as adhesive. Give silk three coats of "Britfix" full strength glider dope thinned a little if desired; when dry fix elevator in position. Give two coats of sanding sealer to all wood parts covered by silk (except rib edges) but do not allow it to run to the panels of silk as this causes cracking after a short while. Sand lightly all over and give entire model a coat of fuel-proofer.

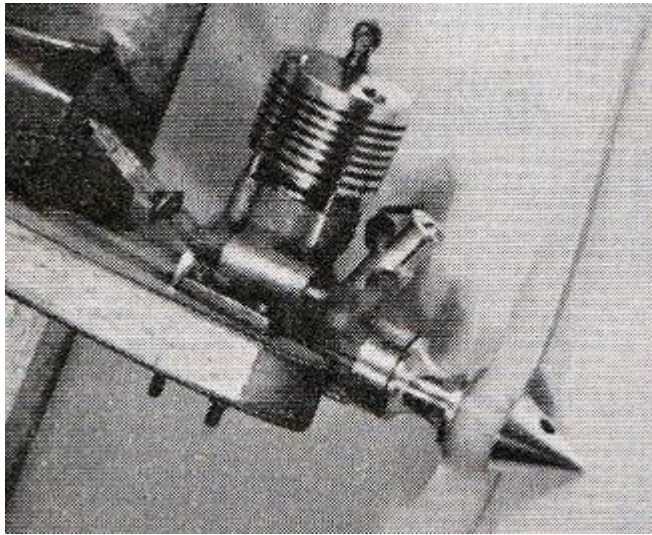
The designer has never found it necessary to cover the fuselage with silk for added strength since most have lasted for several models and are only rejected when they have soaked up too much fuel for glue to take! All up weight should not exceed 16 oz. Most of those in the club are between 13 and 15 oz.

The tank shown will give a consistent run throughout manoeuvres if the needle is at a slightly richer setting than that which gives peak revs, on the ground. Speeds up to 90 m.p.h. have been recorded with tuned Olivers though 85 m.p.h. is more usual with a works tuned motor and a standard unit will do 80 m.p.h.

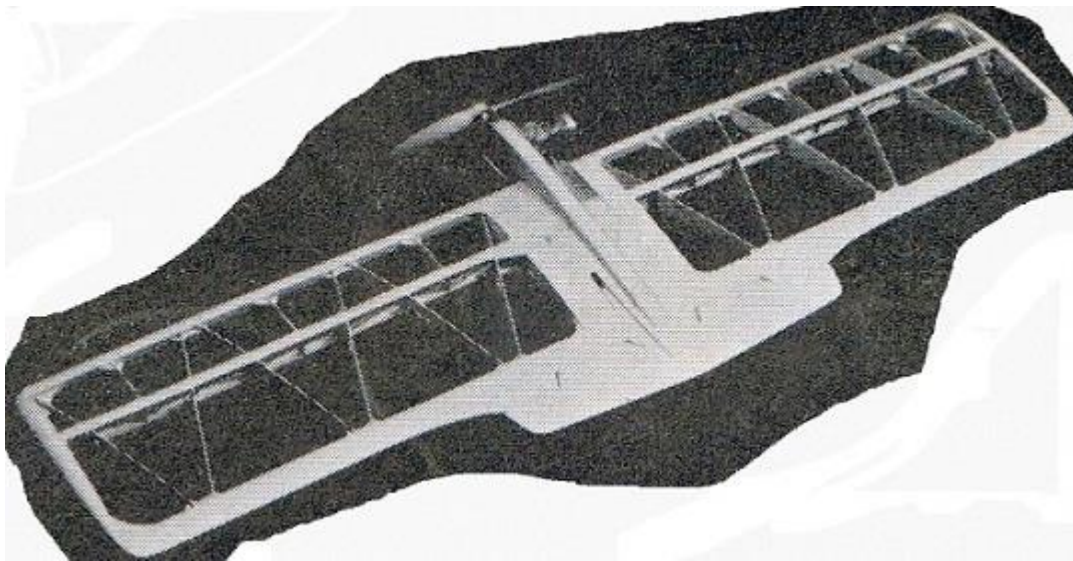
Do not use colour dope on the model; it adds unnecessary weight and makes fabric repairs more difficult. If you want to win competitions, get organised and leave nothing to chance. Check everything before you start. Such points as the following often get overlooked :—

Fuel tubing must be tight at all joints; needle valve must not be loose; control system must be free; squash bottle must contain enough fuel to fill tank several times over since if the fuel tubing does become disconnected in flight, the tank will empty itself in one circuit, even on the glide; complete box of spares must be ready at hand for emergency repairs during a heat; spout on squash bottle must be such that the tank can be filled quickly.

This model will all but fly itself enabling the pilot to keep a close watch on the opponent's model. Once familiar with this design you will find that, even with a stock motor, its high airspeed and manoeuvrability offers a decided advantage over most other models that you can expect to meet in competitions. So sharpen that modelling knife and start building!



*George Copeman's self-modified Oliver Tiger installation with fuel filter in the feed tube from the tank*



*Structural picture illustrates the functional use of anti-warp and strong rib positioning on this remarkably successful flying wing.*

*The designer's model, with Kenton club emblem displayed in due prominence. Note the slotted elevator on this earlier model is of greater span.*





## From Jörgen

Hi James a couple of Pictures from a pretty Cold day at the field first flight of my Miss 35 with the very nice SAM 35 Engine single channel flow right of my hand . Short kit from Belair and my Fledeling with a Red Phin 0,5 tbr two channel second outing performed great and last my Super Scorpion with an OS 25 fp from Ben Buckle also a good flyer its to big for my taste so it has to go to a new owner.











## From Spike Spencer

Here are a few pics of my recently completed Mercury MARVIN E-C/L model. Nothing spectacular about this but the control system may be of interest.

Having rekindled my interest in C/L about 8 years ago with the South Oxford Nostalgistas and latterly flown one of Den's models at Tarrant Hinton, I chose this subject as a simple design from my teenage years as a good medium sized subject for further ECL experiments. I had considered using one of the excellent Forge Electronics timers to control the motor as I had done with the C/L Blue Pants, but really wanted to experiment more with RC control of the throttle mainly so I could stop rotating whenever I wanted rather than to fly continuous horizontal Eights or having to wait for the timer to run down before I actually reached the point of falling over giggling !

The MARVIN plan was downloaded from the Outerzone site and built almost as per. The most significant difference being the large upper deck hatch to allow access for battery changing. Having looked through my stash of assorted outrunners, I rediscovered an ancient 'Bell' motor that I had bought at the Nats some 10 years ago. I had no idea what its actual power level was but it looked about right and swung a suitably sized prop. Nothing ventured, nothing gained.

While Den and Alan had been experimenting with a very effective RC throttle using specialist parts and buried in the handle, I wanted to bypass such experimentation by using something easily obtained off the shelf. I subsequently found a car-type trigger throttle Tx as one of the HobbyKing cheap products [see link below]. This combo of Tx and Rx retails under £20 but did have one minor drawback for ECL use where the trigger is spring-biased to the centre position in order to allow a surface vehicle to perform forward and reverse movement. The Tx case was very easy to open up and a simple modification to the trigger soon changed the Throttle bias to the "closed" position. A quick bench trial seemed to give the desired results with C/L handle in my dominant hand while the Tx was held in the other. Full throttle control was easily obtained and the motor stopped as soon as pressure on the trigger was released. It would be quite easy to turn the whole Tx into a C/L handle as well but I resisted that as a move too far at this stage (Test Flying Rule Number One: Change only ONE thing at a time")

The model and its control system were ready before last Christmas but I had to wait almost until Easter to get a calm day and short grass at our flying site. A set of 35ft lines were laid out, 2S 1300 battery connected and the motor tested. All looked good so I retreated to the handle at the centre of the circle and prepared myself for the first flight. Opening the throttle produced an energetic acceleration and the model was airborne after a very short run so the power level and prop chosen were definitely suitable for this small model. Pitch control felt quite good and it promised quite a lively stunt performance. Unfortunately and largely due to my lack of recent C/L practice, I relaxed trigger pressure a bit too much in the upwind side of the circle and quickly discovered that I cannot run backwards as fast as I used to with the inevitable result of no more flying that day ! Damage was slight and repairs are already complete and waiting for the next flying opportunity.

[https://hobbyking.com/en\\_us/quanum-2-4ghz-3ch-pistol-grip-tx-rx-system.html?wrh\\_pdp=1](https://hobbyking.com/en_us/quanum-2-4ghz-3ch-pistol-grip-tx-rx-system.html?wrh_pdp=1)

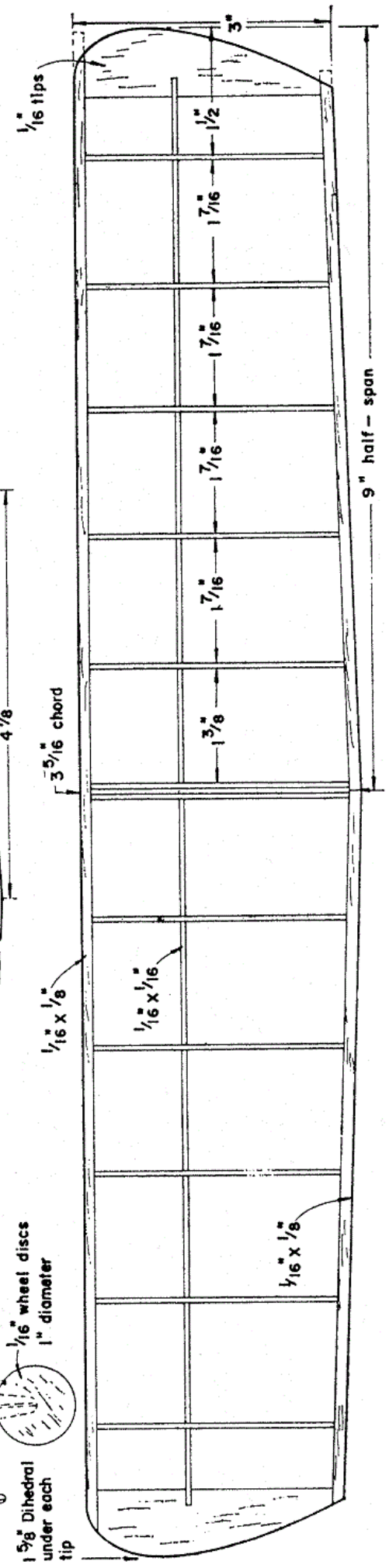
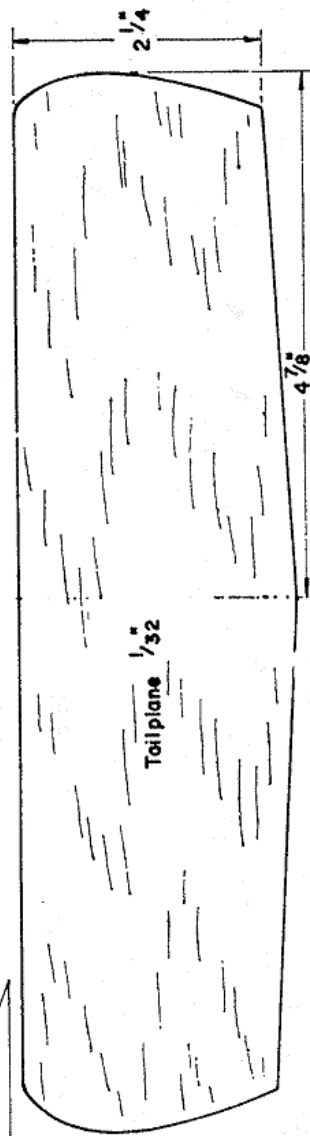
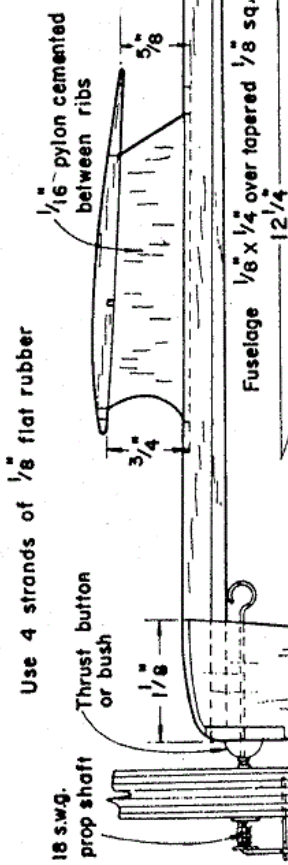
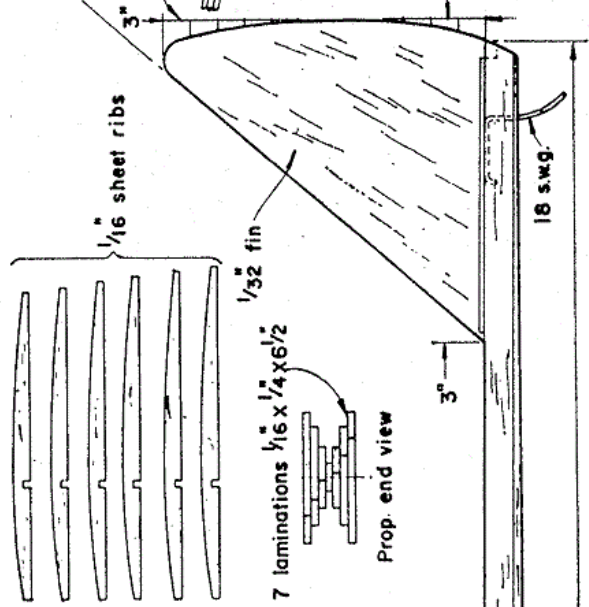
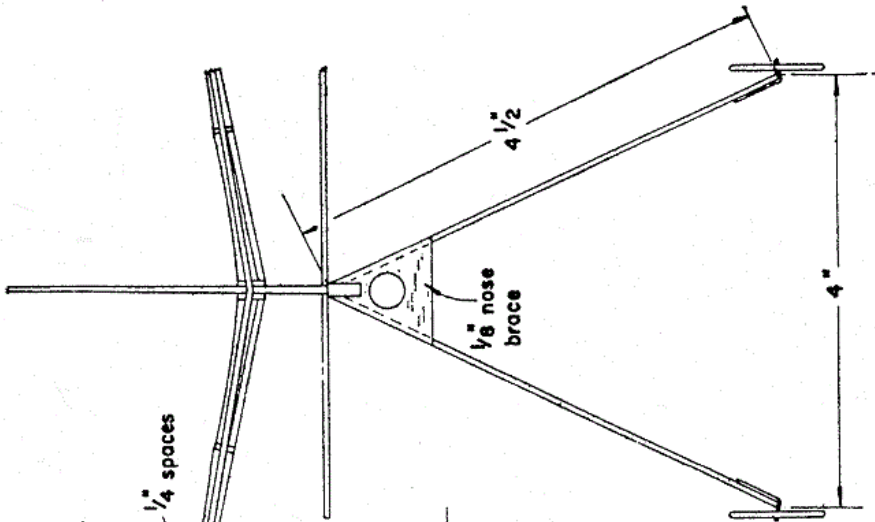
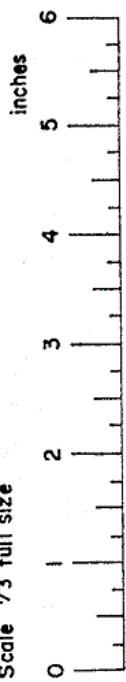






# Flutterbus

Scale  $\frac{1}{3}$  full size

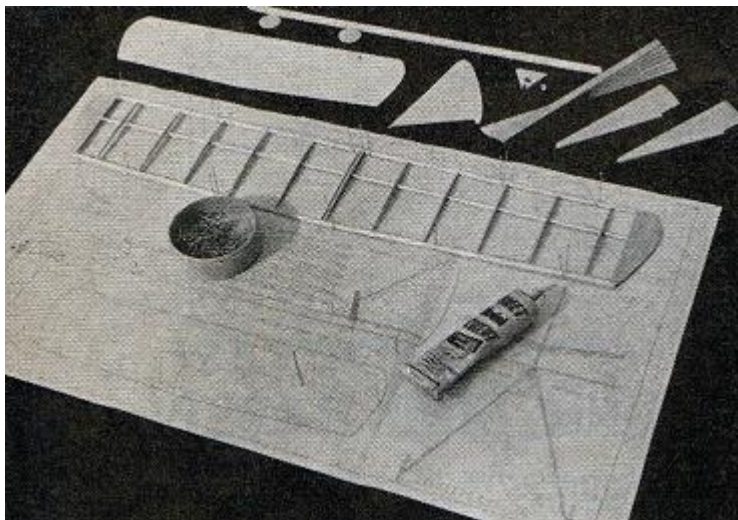




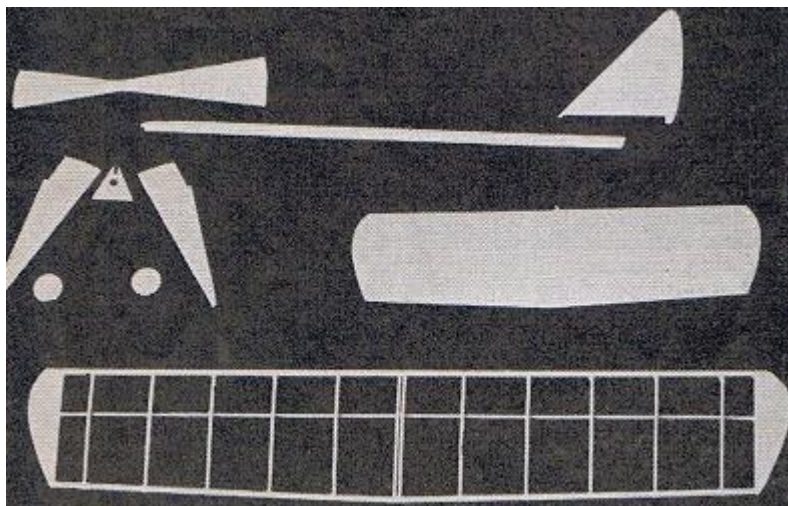
## Flutterbus AM August 1961

Flutterbus is a rubber-powered ROG model of simple design and construction, which will give you the opportunity to learn the tricks of power adjustment— and have a lot of fun at the same time.

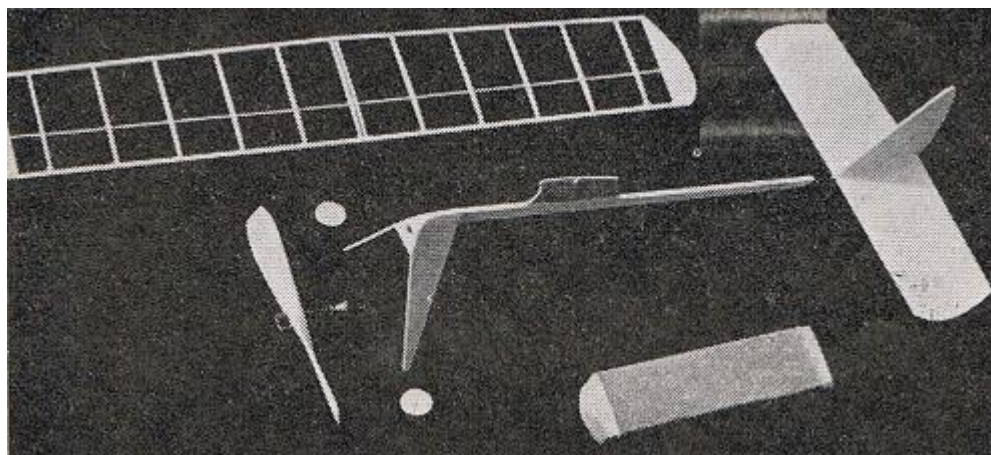
Select hard 1/8 in. x 1/4 in. balsa for the motor stick. Taper a strip of 1/8 in. square and cement to the underside. Cut the triangular nose piece from hard 1/8 in. balsa and notch it to fit over the motor stick. Use a piece of brass tubing to cut the hole for the hardwood thrust button. Cut the landing gear legs from hard 1/16 in. sheet, cement in place then cut the 1/16 in. pylon and make slot in the top of the fuselage to receive it. Cement it lightly in place. Bend the rear motor hook/tail skid from 18 s.w.g. piano wire and fit in place. Cut the tailplane and rudder from soft 1/32 in. balsa, round the edges, dope, sand and cement in place. Cut wheels from hard balsa, insert and bend pins, and cement to landing gear legs. Cut out two each of all ribs from medium 1/16 in. balsa. Place leading edge, trailing edge and spar



on plan, cement in position and add wing tips. While wing structure is drying, cut seven pieces of 1/16 in. x 1/4 in. medium balsa 6 1/2 in. long for the propeller. Stack the strips and insert a pin through the exact centre of the stack. Fan the strips out and apply a liberal coating of cement to both surfaces of each, then position so that each strip overlaps the next by 1/16 in. at the tip. When the cement is dry, use a sharp razor blade or penknife to smooth the surfaces of the propeller. Now bend the 18 s.w.g. piano wire prop hook and insert it through the thrust button, a metal washer, a glass bead, a second metal washer, and the propeller. The propeller should move freely on the shaft.



Add another washer, a short length of coil spring and another washer, then make a right angle bend in the shaft. Solder the front washer to the shaft and insert the pin in the propeller as shown on plan. Now remove

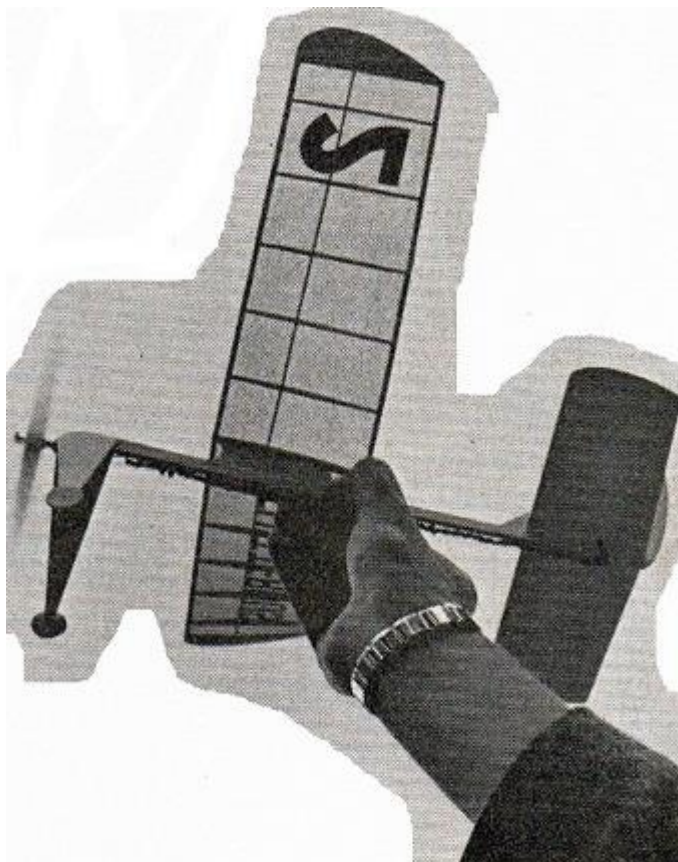
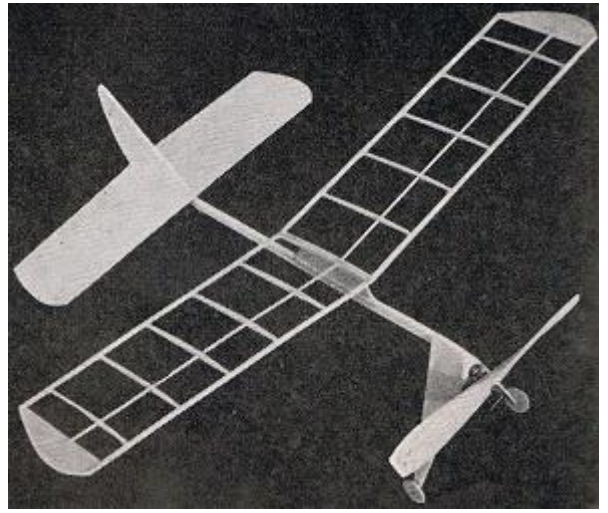


the wing from the plan, use sandpaper to round all edges and smooth joints; then crack on centre line to dihedral angle shown in front view. Cement the leading and trailing edges and spar, where cracked. Cover the top side of the wing only, with lightweight Japanese tissue. Now pin the wing down at the centre only and block up the tips. Wet the paper with water and when dry apply a coat of clear dope. The shrinkage of the paper will tend to bow the wing slightly. This is normal and does

not detract from flying ability. Cement the wing to the pylon, being sure to align all flying surfaces carefully. Cut a 4-ft. length of 1/8 in. flat rubber and tie the ends together. Hook one end of the loop over some convenient projection, attach the propeller to the other and wind backwards 100 turns. Now, holding the centre of the length of rubber, bring the other end up and attach it to the prop hook and allow the propeller to spin. Insert the rubber through the hole in the front of the model and attach to rear hook.

Wait for a calm day for test flights. The model should have a smooth flat glide without stalls. If necessary, shift the pylon forward or back in fuselage slot to correct trim. Cement it firmly when proper position is determined. Try a

short flight with fifty turns. If the model tends to dive in, remove the pylon and trim bottom edge to increase incidence. When smooth power flight is obtained, stretch out the motor, wind to 200 turns, clear the spectators off the flight line, and watch Flutterbus go.



*She flies like a dream! Wings twist a little when the tissue shrinks, but no matter—it helps to delay the stall.*



**Photos taken at the DMFG site and Allendale**



*Roy Williams with his Mambo*



*John Taylor's models one in background is his own design*





*Next three photos taken at BMAS indoor meeting last week*







Following photos taken on Sunday 5 May 2019



*Spike Spencer's Blue Pants converted to RC*







*Spike with his Swanee*



*Andrew squires with dad and Schiffermuller*





*Tony Tomlin messing about with his PAW powered Chatterbox*



*Multiplex Fun Cub landing*





*TT launching*



*John Laird and Vagabond*



*Vagabond taking to the air after a 1m run off*



*John Taylor's Miss Philly*





*A Christchurch Skinny Chipmunk*







*Couple of Caulkhead CL models*







*Den with two new control line models now kitted (contact details in his advert at end of the newsletter). Model on the left is powered by a SAM50 engine model is super smooth and easy to fly with no vices an ideal trainer. The model on the right is aerobatic.*



*David Bintcliffe's Radio Queen*



*Ken Wisker and Tomboy*





*Where the action takes place, eating chatting and sleeping*



*Andrew's Schiffmüller again*



*Andrew's fantastic Novice*





*Andrew with his modified Wee Snifter it is very very light*





*John Laird's Cumulus*

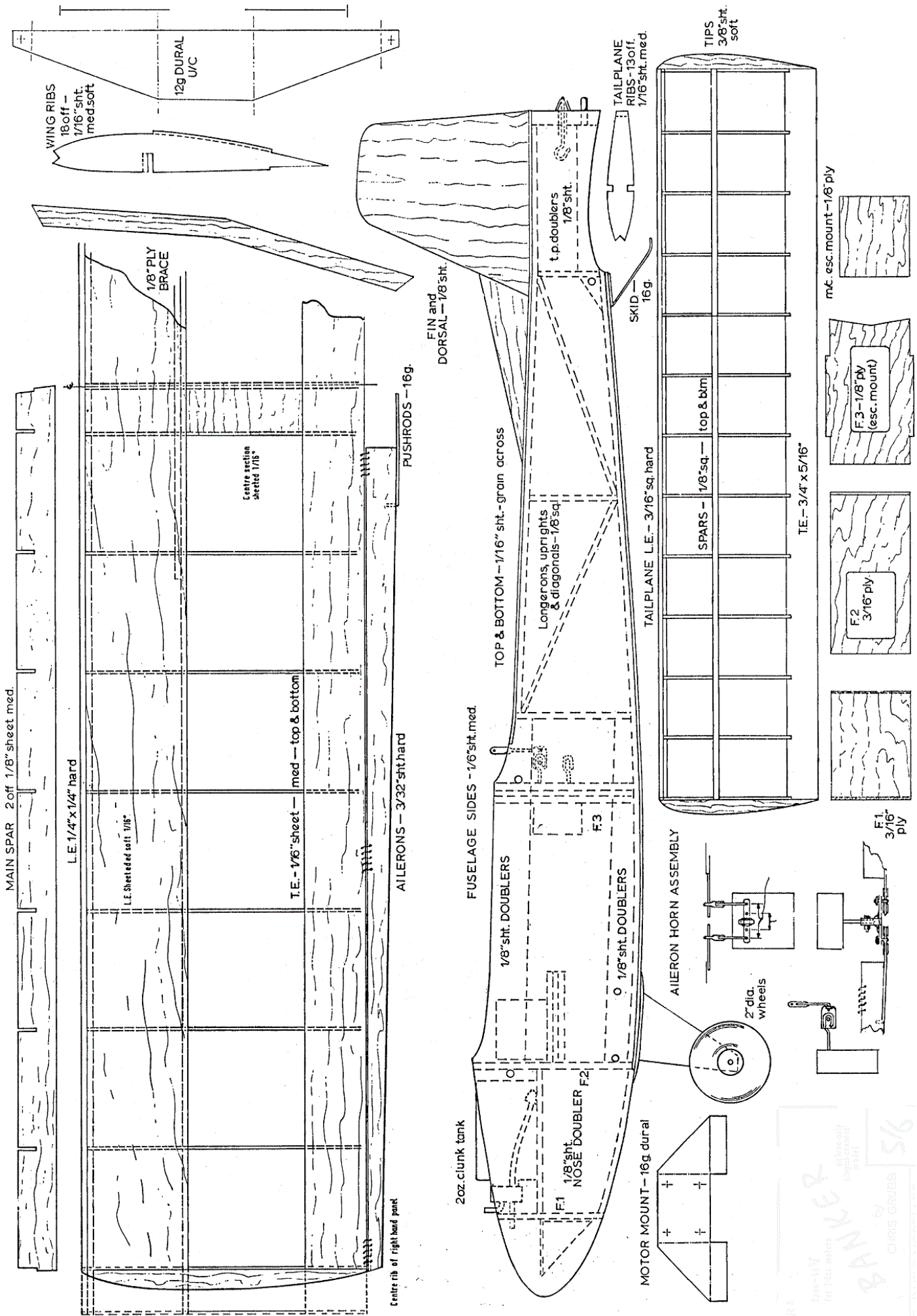




*TT's Tinker and Swanee*

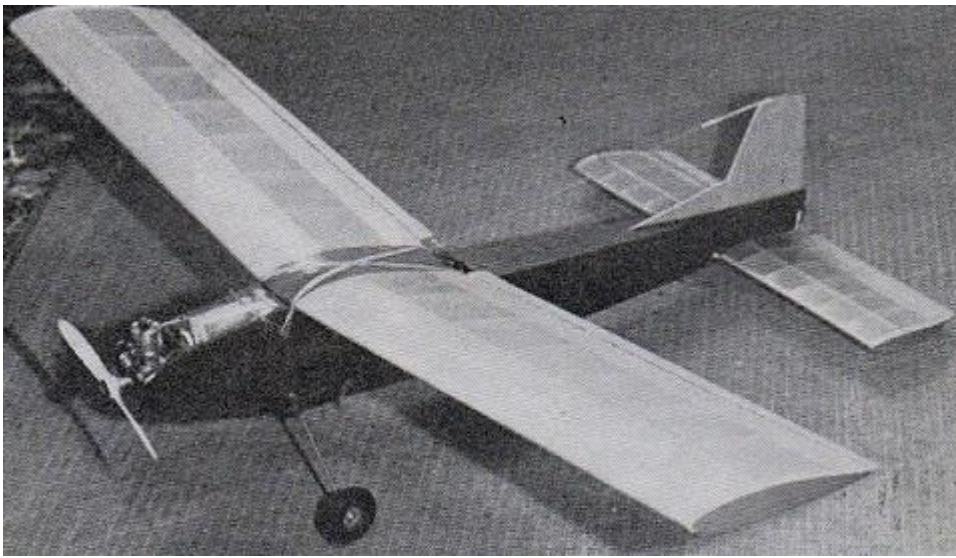






1948-1952  
 for 45c. makes  
 all your  
 equipment  
 needs  
**BANKER**  
 W  
 CURS GRUBBS 56

## Banker by Chris Grubb an ailerons only 45 ½" span RC model from Radio Modeller September 1967



The urge to progress, to improve on one's flying ability and to try out new developments, led to the building of this model, as a determined effort to get out of the rut. Aileron-only control seems to be used a great deal in Japan, so I thought there must be something in it. Now I would not revert to rudder—unless it was to try kick-up elevator again.

You see, the Banker was originally fitted with kick-up elevator and this proved only

partially successful in that, although it would loop and half-roll off the top, it had a nasty habit of pointing its nose up at about 60 degrees every right-hand signal. The Elmic Compact escapement rotates through the "up-elevator" position after each "left" signal and the elevator, therefore, kicks-up just before right-aileron; causing this to happen. I have since removed the elevator function and Banker flies very smoothly indeed. Spiral dives are fairly wide, and the model will loop and roll, etc., using normal "rudder" flying techniques. A low-wing configuration was considered to be a little dodgy for a first try at aileron-only, hence the somewhat stereotyped general layout. Construction was kept simple and the fuselage is wide enough to take most receivers. The wing features a full-depth sheet spar, and wide leading-edge sheeting. The engine used on the original is the OS. Max 10, which gives ample power. Radio gear is a MacGregor Minimac receiver, Elmic Compact escapement, coupled with Fred Rising clockwork actuator for motor-speed control. If the model is to be used without the motor-control or the 225 DEAOs shown, it would be advisable to lengthen the nose by about 3/4in, to keep the centre of gravity in the correct place without ballasting.

### Construction

When choosing your balsa, select the correct grade of wood for each part—e.g. medium-hard for spars, soft, straight-grained for i.e. sheet, and so forth.

### Wing.

This is quite straightforward. Try and make a neat job of cutting the rib slots to ensure a true wing. Slots which are too wide tend to "bow" the spar as the cement dries. Join the spars with the dihedral brace before fitting the ribs, then pin one panel on to the plan, together with the trailing edge. Cement ribs, top t.e. and l.e. Repeat for the other half. When fitting the leading edge sheet, pin the wing panel to the building board with about 2 in. of the i.e. protruding over the edge. Use a P.V.A. adhesive to attach the sheet, as its relatively slow-drying properties will allow time for adjustment. The ailerons must be made from very hard stock, to minimise twisting, and are best covered separately and stitched to the wing after final finishing and fuel proofing.

Fuselage: This needs no special instructions other than a reminder to keep the tail-end light. Box in the right-hand side of the tank bay and slot it for the motor-control push-rod. The bolts for the dural motor mount must be fixed with tinplate straps on the inside of the formers.

Tailplane. This is symmetrical and of quite a thick section. One way of making the ¾ x 5/16in. Trailing edge called for is to cement two strips of 1 x ¼ t.e. section stock together, then trimming off the fore-edge to give 3/4in.—but be careful not to produce a heavy te. in doing this, as the tail must be kept light.

Installation and linkages. First make the aileron yoke and fit it to the escapement. It is made as a removable unit, being retained by means of an 8BA bolt and spring washer. The Deac battery must be in its correct position before spot-cementing the motor control escapement (if used) to the slides. Both motor and aileron



linkages must be absolutely free, with no chance of binding. To obtain motor change on full rubber turns (I prefer 1/4in. strip rubber for driving the Compact), requires a really fast tap on the button (unless you're using the R.M. Combo-Coder, with its electronic quick-blipper!—Eds.), but, as the turns are unwound, motor change becomes progressively easier to attain. When signalling “right-aileron” there must be a sufficiently long pause between the blips to avoid the throttle changing inadvertently, so if you are a fast button-pusher—slow down!

This, of course, does not apply if a simple sequential actuator such as the Elmic Conquest, is used instead of the Compact.

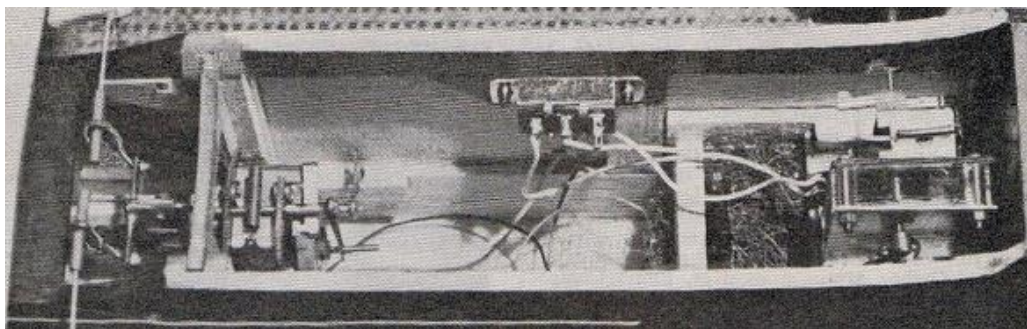
#### Trimming

Before venturing out-doors, check all flying surfaces for warps, and correct, if necessary, either by heat from a radiator or steam from a kettle. Test-glide Banker over long grass. The glide should be fairly fast, flat and, of course, straight. Try first power flights on a 1/4-full tank and half to three-quarters full power. Allow the model to climb to a fair height before trying your first aileron-turns. Aileron takes slightly longer to become effective than rudder (with this model, at any rate), and signal length must therefore be adjusted accordingly, which may take a little trial- and-error practice. Banker responds with smooth, banking turns which can be held on for longer than is possible with rudder, enabling one to empty a full 2 oz. tank with plenty of escapement-turns left for safety.

A little practice will see you able to give commands immediately after hand-launching—and I guarantee that, once you have flown aileron-control, you will not want to use rudder-only again!



*Designer Chris Grubb about to launch ‘Banker’ at the local flying field. This model’s smooth, banking turns are a delight to behold, and—once the knack of aileron\_flying is atquired—manœuverability is probably more precise than with a yaw-turn type rudder control action.*



*This close-up photograph shows the aileron linkage for rubber driven escapements, as well as the position of the clockwork escapement for throttle control. If you use motorised actuators, of course, the linkage shown is not required, and an ordinary “multi-type” set-up can be used.*

## **Subject : Cocklebarrow Vintage R/C Events 2019.**

7 July

18 August

29 September

Cocklebarrow Vintage R/C

Signposted from Aldsworth Glos. on the B4425 between Cirencester/Burford and off the A40 between Northleach and Burford [follow SAM 35 signs].

All types of R/C up to 1969 sport flying no competitions.

BMFA insurance essential [A certs. not required]

Tony Tomlin 02086413505 [pjt2.alt2@btinternet.com](mailto:pjt2.alt2@btinternet.com)

## **North Cotswolds MAC August event from Gray**

I'm pleased to announce that the North Cotswold MAC's Fly For Fun 2019 event will be held on Aug 10th and 11th at Far Heath Farm, Moreton-in-Marsh. This will be a special one, as we will be celebrating the club's 70th anniversary.

We'll be holding two special events alongside our regular programme, with informal judging and prizes - on the Saturday for Vintage and Nostalgia models and on the Sunday, 21st century designs only!

We'd be very grateful if you could give this an early mention in S&T when you can. I'll send further details after the Xmas mayhem has subsided.

## **Shilton flying group 2019 fly in dates**

May bank holiday vintage fly in May 26th + 27th

e soar glider fly in July 13th + 14th

autumn vintage fly in Sept 07th + 08th

*Hope to see you there, regards Boycott and Nick*

Boycott Beale [bealekraft@outlook.com](mailto:bealekraft@outlook.com)

Reminder of the above

Just a reminder of our first event of the year and to say that we as a club now operate with a letter of agreement with R A F Brize Norton to operate to 1400 ft. and 1 kilometre radius so if you can make it come and enjoy a relaxed weekend with some like minded modelers, usual signage and directions will be in place and as before our Sat evening BBQ will be in operation for late stayers and campers,

Hope you can make it, regards Boycott and Nick



# FLITEHOOK

Indoor Free Flight Meeting West Totton Centre, Hazel Farm Road, Totton, Southampton.  
SO40 8WU

Contact: Tel. 02380 861541  
E-mail [flitehook@talktalk.net](mailto:flitehook@talktalk.net)

Café on Site

**Flyers £8**  
**Juniors & Spectators Free**  
**Flyers must be BMFA Members**

**Sundays 10.00a.m. to 4.00p.m.**

## 2019

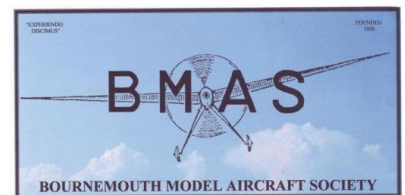
8<sup>th</sup> September 2019  
13<sup>th</sup> October 2019  
10<sup>th</sup> November 2019  
8<sup>th</sup> December 2019  
29<sup>th</sup> December 2019

## 2020

12<sup>th</sup> January 2020  
9<sup>th</sup> February 2020  
8<sup>th</sup> March 2020  
12<sup>th</sup> April 2020

## Possible Alternative Venue for BMAS Indoor Flying Sessions

With ever increasing costs for the hire of the hall at Allendaic and the subsequent financial loss to BMAS, we have been actively searching for an alternative venue that would reduce our outlay but still provide good amenities for flying. We think we may have found one.



### The details are:

**Bournemouth Friends Meeting House**  
**Wharncliffe Road, Boscombe BH5 IAH**

### Hall Dimensions:

Width 34ft

Length 38ft + 11 ft deep stage area

Full Height 6 metres (19.5ft)

(Smooth ceiling with no obstructions)

There is also ample car parking on site.

The Hall Is available on Monday & ednesday evenings.

If the response is positive we will arrange a trial session some time in May (the Allendale session for May

having already been cancelled)  
We would be grateful for your feedback.  
Thanks  
BMAS Committee

**First meeting will be Wednesday 29 May 2019**



## **INDOOR F/F MEETING**

Waltham Chase Aeromodellers, in association with South Hants Indoor Flyers, are pleased to announce the continuation of the Indoor F/F Meetings held at the Main Hall at Wickham Community Centre, Mill Lane, Wickham, Hants PO17 5AL. These meetings will be held on the following dates:

Tuesday, 2nd. October 2018  
Tuesday, 6th. November 2018  
Tuesday, 4th. December 2018  
Tuesday, 8th. January 2019  
Tuesday, 5th. February 2019  
Tuesday, 5th. March 2019  
Tuesday, 2nd. April 2019  
Tuesday, 7th. May 2019  
Tuesday, 4th. June 2019  
Tuesday, 2nd. July 2019

All meetings will run from 7.00 p.m. to 10.00 p.m. The Main Hall at Wickham Community Centre is particularly suitable for indoor free flight models of all types, with a ceiling free of obstructions. Tables and chairs will be available in the hall, the organisers are always grateful for assistance with moving furniture. A hot drinks machine is available on site.

Admission to the meetings will be £5 for fliers and £1 for spectators, whilst accompanied children will be admitted free. Junior fliers will be charged as adult spectators. Fliers will be required to show proof of insurance.

No R/C models may be flown at these events.

Flitehook, who carry a large stock of indoor models and accessories, will attend many of the meetings.

Waltham Chase Aeromodellers look forward to welcoming all indoor F/F fliers to these events.

For further details please contact:

Alan Wallington, "Wrenbeck", Bull Lane, Waltham Chase, Southampton, Hants.  
(Tel. 01489 895157)

(e-mail: [alan@wcaero.co.uk](mailto:alan@wcaero.co.uk))

or see our web site: [www.wcaero.co.uk](http://www.wcaero.co.uk)





### **KK Scorpion - 44" cabin model**

Ref: ot-kkscop

Parts Set for the attractive Keil Kraft Scorpion. Includes all the shaped balsa and plywood parts required to build the basic airframe, including bulkheads, formers, wing ribs, shaped trailing edge for wings and tail. Shaped outlines for fin and rudder, sub fin, cowl cheek sides, dihedral braces, gussets, plus many smaller items.

Builder to add their own stripwood and covering.

Full size plan included.

#### **KK Scorpion Specification**

Wingspan - 44 inches

Suitable for 1.3 to 2.5cc engines or conversion

RRP: £55.00 Inc VAT

Price: £55.00 Inc VAT

60.50 USD | 65.11 EUR

### **Super Scorpion - 66" cabin model Parts Set**

Ref: ot-kksupersco

Parts Set for the attractive Keil Kraft derived Super Scorpion. Includes all the shaped balsa and plywood parts required to build the basic airframe, including bulkheads, formers, wing ribs, shaped trailing edge for wings and tail. Shaped outlines for fin and rudder, sub fin, cowl cheek sides, dihedral braces, gussets, plus many smaller items. Includes plan, which shows RC Assist conversion. Builder to add their own stripwood and covering.



#### **KK Super Scorpion Specification**

Wingspan - 66 inches

Suitable for 3.5cc engines or conversions

Price: £75.00 Inc VAT

82.50 USD | 88.79 EUR



## Air Trails Sportster Cabin Model

Ref: ot-airtrsport

Air Trails Sportster by Ben Shereshaw from Air Trails 1939 - 46in span Cabin model. Parts Set includes all shaped balsa and plywood parts to complete the airframe, such as fuselage sheeting, bulkheads, formers, wing ribs, tip shapes for wing and tail/fin, wing joiner boxes, plus many smaller parts. Includes full size plan

Price: £55.00 Inc VAT  
60.50 USD | 65.11 EUR

## Linnet Parts Set 43" span

Ref: ot-linnpk

Quirky looking design by GR Woollett published in Aeromodeller January 1954

43in span suits 1.3cc size motors. Tricycle undercarriage and low wing, looks semi-scale and makes a pleasant change from the usual high wing cabin job.

Part Set includes all the laser cut balsa and plywood parts, such as cowl cheeks, fuselage sheet, formers, bulkhead, LG mount, shaped gussets, fin outlines, wing and tailplane tips, wing ribs, sub fin, wing seat, plus many smaller items.

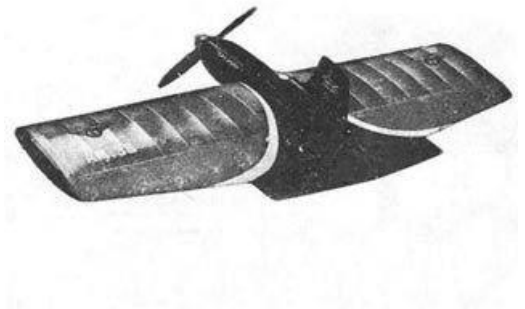
Parts fit original Aeromodeller plan which is not included - shown for reference only. Builder to supply stripwood and covering to complete basic airframe.



## Mercury Toreador CL Parts Set

Ref: ot-kktore

Parts Set for the **Mercury Toreador** model. Suitable for Stunt or Combat. Laser cut parts will save you hours of tedious cutting and include fuselage sides, fuselage top & bottom in one piece 1/2" balsa, bulkheads, formers, fin/rudder, wing tip shapes, wing ribs with additional tab to allow the symmetrical wing to be built on a flat board without packing each rib, bellcrank mount, spinner ring, shaped trailing edge and elevator.



Also includes **full size plan, and canopy, vac-formed in clear plastic.**



**Specifications** Wingspan - 36 inches, weight around 20 oz and suitable for 2.5 to 3.5cc engines (AM35 shown on plan). Builder to supply small amount of stripwood to complete.

Price: £50.00 Inc VAT  
55.00 USD | 59.19 EUR

Regards,  
Leon Cole  
Belair Kits  
Tel: +44 (0)1362 668658

[www.belairkits.com](http://www.belairkits.com)

Follow us on Facebook <https://www.facebook.com/pages/Belair-Kits/1448177428736984>

## Dens Model Supplies



***Traditional CL Kits including the ACE + Plug & Play Electric CL Starter Kit....just add glue and a battery !!***



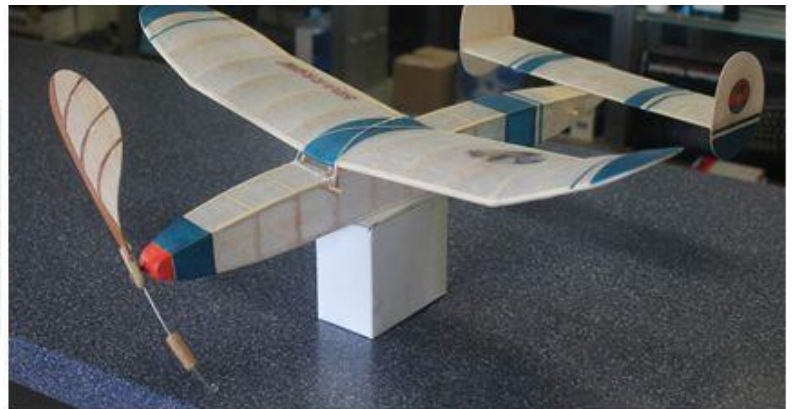
***Tinplate CL tanks....Bellcranks,  
Lines, Handles, Cloth Hinge Tape,  
Leadouts etc***



***Cox Engines & Spares***



***Electronic Timers for CL & FF***



***Laser Cut - High Quality FF & RC Kits***



***On Line shop at  
[www.densmodelsupplies.co.uk](http://www.densmodelsupplies.co.uk)  
Or phone Den on 01983 294182  
for traditional service***