

Sticks and Tissue No 52 – March 2011

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

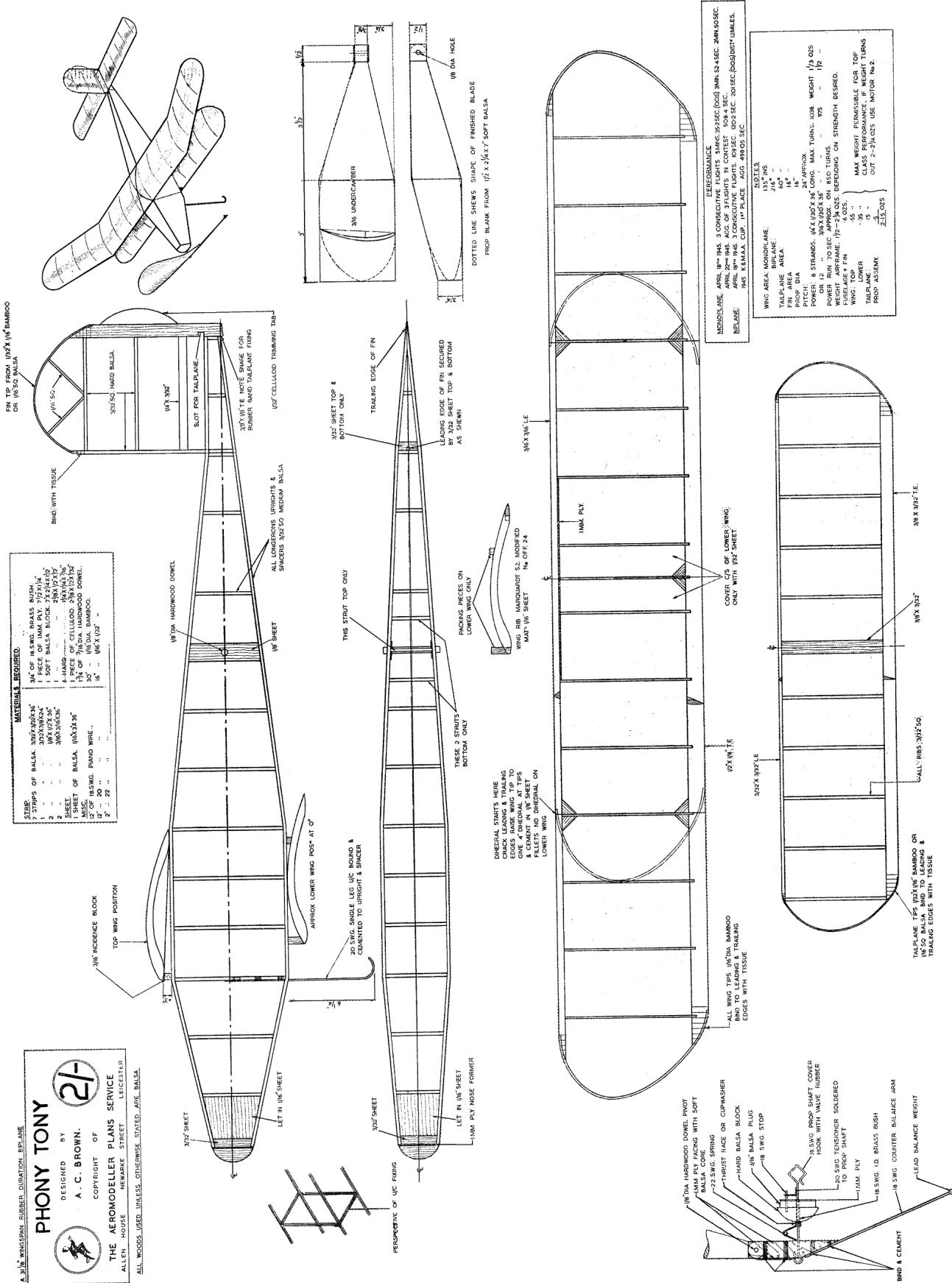
If you can contribute any articles, wish to make your point of view known etc please send to or phone 01202 625825 JamesIParry@talktalk.net

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

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Roy Tiller's Veron Truflite Jodel at Middle Wallop 20 March



Phony Tony Designed by A C Brown from Aeromodeller May 1947

31 1/8 in rubber duration lightweight biplane

THE word "lightweight" automatically brings to any aeromodeller's mind a vision of the notorious paper bag full of rubber, but equally this is thought of as a high-wing or parasol monoplane. Such has been the general run since Mick Farthing pioneered the course. It is interesting, therefore, to find the same principles of structural and aerodynamic design applied to a biplane with equal success. The resulting model, now offered to our readers, proved the winner of that Biplane Classic the K. & M.A.A. Cup in 1945. Phony Tony, A. C. Brown's prodigy put up the impressive aggregate of 498.05 seconds to win the event, and that this was no mere flash in the pan has been proved

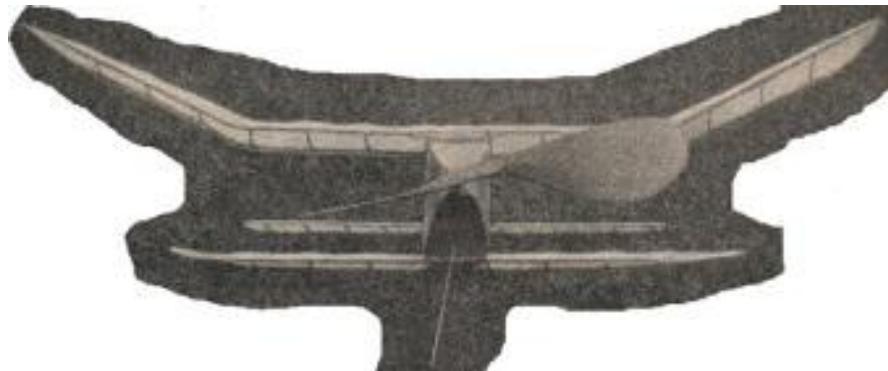
by consistent flying on many occasions since. Consecutive flying times taken from a recent day's flying are tabled as 109.0 secs, 120.2 secs, 201.0 secs . . . from this last flight the model was recovered some 12 miles away.

The cult of the biplane tends to be limited nowadays—less by lack of interest than the entirely erroneous belief that they are "difficult." Phony Tony is the ideal model to dispel such thoughts. Trimming is simplicity itself and will offer no more problems than a normal high wing monoplane, if the builder ignores the lower wing altogether when making adjustments.

Splendid flights are no trouble and fliers will be rewarded not only by their contest placings but also by the attentive crowd that invariably attends the launching of a successful "bipe."

Generally the model follows standard lightweight practice with regard to construction featuring sparless wings and slabside fuselage. Thoroughly in keeping with modern trends is the absence of any undercarriage in the ordinary sense of the word, the

only support for the instantaneous take-off being a thin wire whisker under the fuselage. A single bladed folding prop transfers the power of the rubber motor into suitable "urge." Types with Pot-Hunting aspirations this season can get full size plans of "pot-collector" Phony Tony, price 2/- post free from Aeromodeller Plans Service, Allen House, Newarke Street, Leicester.



From George Stringwell

Living here in the depths of rural France it is nice to keep in touch with the "proper aeromodelling" scene. My activities are exclusively electric R/C these days as, having a big garden and convenient field right next door, but being surrounded by hundreds of trees, it is the sensible way to go. Attached are a few photos showing my recently completed Halifax Spartan (300 watt Turnigy motor and 3S lipo giving rocket like performance at full throttle and 45 minute plus flights) in typical post lift off pose plus a static shot and close-up of the wing art of which I am inordinately proud! It already has 10 hours plus flight time and is a joy to fly, AUW is 36 ounces. Also my similarly electrified and radio-ed Veron "Cardinal" which is another delightful performer at 10 ounces AUW. Both models are covered in Esaki jap tissue over 10 micron mylar, a great way of getting a "proper" vintage finish with a degree of puncture resistance - light too! I noticed your request for engine photos, so just to show I do still have a soft spot for British diesels I also attach a

photo of my cherished Kalper .32, scheduled to be fitted into a Vic Smeed "Cherub" with two function R./C (don't want to lose it!) - it runs like a sewing machine and makes no more noise than an electric.





From Tamas Krasso

Preparing for the Hungarian team in this year's European Championship which will be in Italy Sammarinóban. The photos in the order: Gelencser Kálmán, László Turkish, George Berko. Kalman Gelencser Európabajnok (Erste mit Europa miting!!!)triple. The model 1949 from Sokolov plan!





From Paul Helman, Evanston, IL, USA

Do you happen to know if anyone over there is working with compressed air. For a few years I have been building a series of motors trying to equal the performance of the italien and similar "Air Hog" engines but as yet they are better. It remains a bit of a mystery to me why some of my motors run better than others.

From Bryan Passey

Through the pages of S&T I would like to thank David Kinsella on his words of encouragement in regard to my Dynajet powered control line F86-Sabre.

For those of you who subscribe to that fine magazine Aviation Modeller International, you will find a full description on the build of the Sabre in the January 2011 edition, in the Bernard Seale column "In scale circles".

So what caused me to build a scale jet with a blow lamp inside, and control line?

Well, lets start at the beginning, that would be at the Nationals at Waterbeach in I think 1955. It was my first introduction to pulse jets where as a seventeen year old I witnessed a control line aerobatic model powered by a pulse jet (later to learn it was a Juggernaut rather than the popular Dynajet of the time) The sight and sound of this model stayed with me for a long time after.

At the time I had a pal who was a budding model engineer, and in one of those fanciful moments I suggested that we might have a go at building our own pulse jet motor from the "Braun" plans that were available at the time. This was just the exercise my pal loved and the work was put in hand immediately, and what seemed no time at all we had what resembled a pulse jet engine. Next thing was to see if it would run. A trembler coil arrangement was lashed up for ignition, and an old stirrup pump for air. But we didn't get much further due to our ignition system wiping out every television picture in the immediate area! But it was just as well as the tailpipe had been brazed together and would have fallen apart with the heat generated.

In June of 1956 I joined the RAF to be trained as a airframe mechanic, and it was while stationed at Laarbruch in Germany with the 2nd Tactical Air Force Modification Unit that I met another modeller who shared an interest in pulse jet power, Neil Webb, originally from Wantage now sadly no longer with us. Neil loved the sound of pulse jet motors, models didn't matter, just the sound. I can still picture him with his Dynajet fastened to a plank of wood, running the motor at all hours between the billets, then retiring to the NAFFI as if he had just had some form of "fix". The last time I heard of Neil was to hear of his passing just after some success at a free flight competition in the Netherlands. (Does anyone else remember Neil).

At this time, other than to fly one of Neil's jet speed models from time to time I was flying ETA 29 powered speed models with some success, but scale models of various sorts were taking my interest, and the thought of a scale control-line model for Dynajet power had entered my mind. But not just any scale model, in fact a DH Comet no less, for two Dynajets! Just prior to returning to Blighty, the drawings were complete, and the main spars and engine mountings with the wing ribs were all ready for assembly. Then I realized that I had no way to transport the components back with me, so the parts and drawings were left in the model club building. I often wonder what happened to them.

Now many years and models later, but in recent times my thoughts turned once again to pulse jets, and it was when my good friend Steve Rickett mentioned, that after his remarkable DH Comet he was looking towards something different. How about a twin pulsejet powered R/C model using the powerful Zanin engines that we knew gave lots of thrust. The result is what you can see on youtube under Twin pulse jets. This model was followed by a Sagittario using the later more powerful Zanin. Not being content with either of these models I proposed a three engined model ,Aurora 2. The model was built and all three engines were ran together, but for various reasons the model was never flown, pity really.

This left my ideas of a control line jet model, and since I had a red head Dynajet in the back of the workshop I thought why not go all nostalgic and build an old fashion speed model. The result was what could be termed as a vintage speed model, it looked the part but it would hardly get off its dolly before the engine would stop, and at that point frustration set in. But help was at hand in the form of my friend Richard Grindley who suggested I build an up to date model using modern thinking and correct metering jet sizes ! The resulting model has not yet flown enough to empty the tank, but this years fun fly at Machrihanish should see to that.

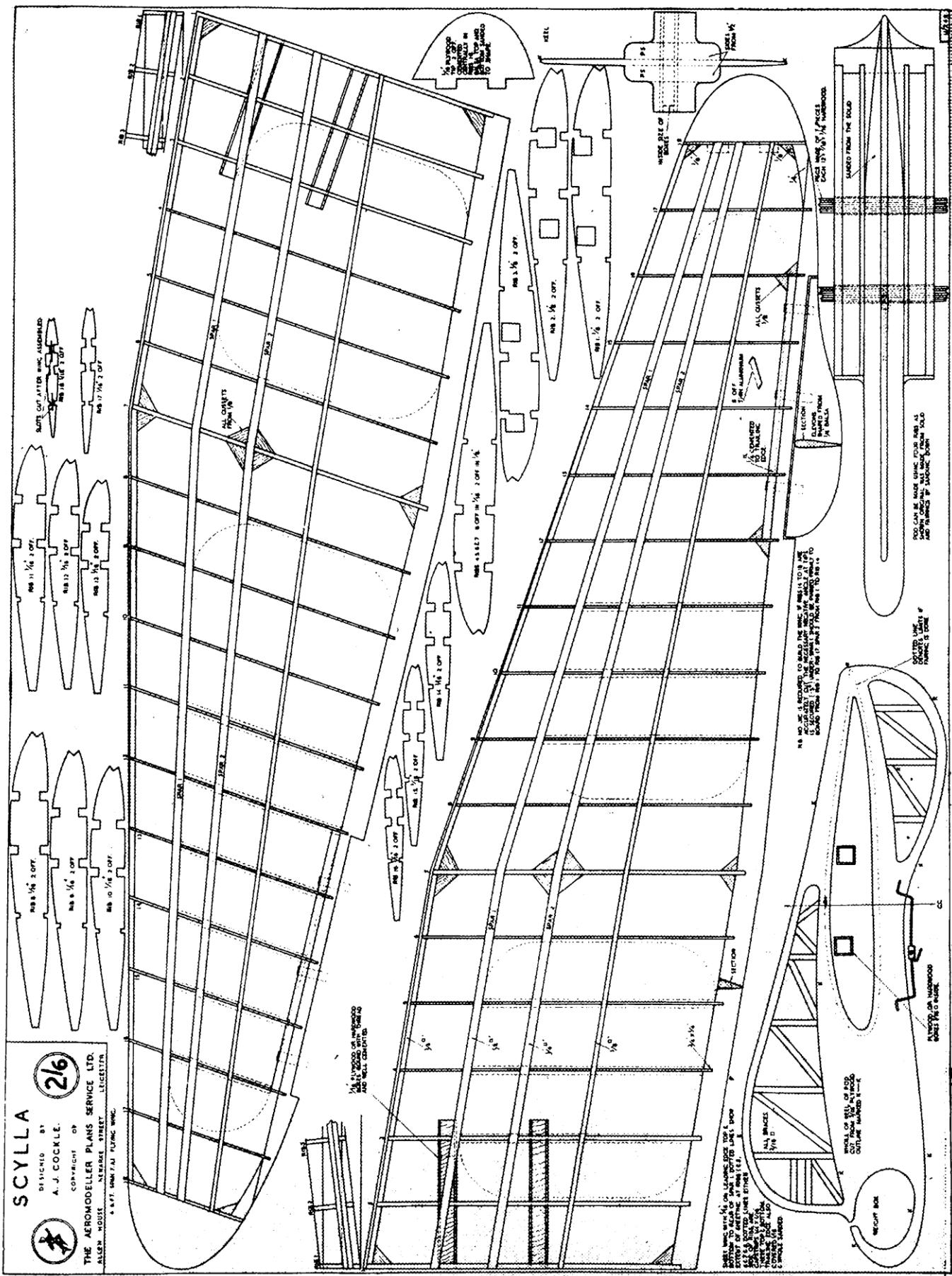
The Sabre is the result of what I have learned along the way, and the desire for something different, to get away from bigger (and more expensive) radio and ARTF models, and to promote the nostalgia within me, a powerful motive at my age.

It has been suggested that the sound of a pulse jet is not in keeping with a scale jet model, but to me that's not the point, it's the way we did it then with what we had and not to forget that sound of raw power, so emotive

Following the success of the Sabre a new scale model is almost complete, which is lighter and promises to be that little bit faster, and it's an eye catcher. Due to be test flown at Machrihanish in May. But more of this model later.

Picture 1 the F-86 Sabre--Picture 2 My first attempt at a modern jet speed model, Picture 3 Steve Rickett and the Zanin powered Sagittario Picture 4 Steve and myself with the original twin pulse jet Aurora. These models are mentioned in the text. I'll offer more on the latest scale jet model anon.





Scylla by A J Cockle Aeromodeller December 1946

Superb all wing sailplane. A 5ft span FAI flying wing

Construction of the Scylla is quite straight forward, the main point requiring careful checking being the 5 degree washout at each wing tip. The Pod. Simple in construction, this can be built in two ways; all solid, using laminations 1/2 in block balsa, or rigged up from extra root ribs and sheet covered. The former is the stronger fairing and is easier to shape. The main keel is cut from 3/16 in, plywood, and the wire carrying an adjustable tow hook is cemented in place. Upper and lower finbraces are next fitted, followed by the two wing fixing boxes Care should be taken to ensure that these are fitted at exact right angles to the keel. The block balsa sides (cut to keep shape minus the upper and lower fins) are next fitted, and root sections added. Shape to streamlined section, leaving final sanding until wing is in position.

The Wing. Pin spar 1 (lower to the board for its whole length, and spar 2 (lower) from rib 1 to rib 14.

Fit ribs, making sure that rib 1 inclines at angle shown. Cement spar 1 (upper) and leading edge noting that the latter does no rise towards the tip. The trailing edge

is steamed into a smooth curve to meet rib 18, which should stand about 1/2 in. from board. Use packing under the trailing edge from rib 14 to 18. Now cement in place spar 2 (upper) and the upper rear spar,

followed by the peg boxes When thoroughly set, remove from board and cement the remaining spar in place. Spars will stand above the ribs from 14—18, and should be trimmed with a sharp chisel rather than a knife or sandpaper. Sand whole wing until smooth. Slot rib 18 and fit ply tip, fairing top and bottom with scrap balsa. Sheet cover from leading edge to rear of spar 1, both top and bottom, also section from ribs 1—2 and 6—8, as indicated by dotted lines. Trailing edge is also sheet covered top and bottom,

and the remainder of the ribs showing are capped with 1/4 in. by 1/16 in. strips. Sand the whole down to about 1/32 in. Cut elevons, and fit to training edge, using thin aluminium hinges. For a "super" finish, dope and sand the whole framework three times before covering. Cover with medium heavy tissue, then dope and colour. Full-size working plans (see 1/4 scale reproduction) can be obtained from AEROMODELLER PLANS SERVICE, Allen House, Newarke Street, Leicester, price 2s. 6d., post free.

**Hoof
Fleetwind .60
Model E-1**



Ionosphere MK21 by Tony Tomlin.

Being a vintage R/C flyer, enjoying models a little different from the norm, and a follower of OFW [Peter] Fisher's sometimes idiosyncratic designs, I was drawn to his twin engine, push-pull flying wing, the Ionosphere MK21. This was one of a long line of Peter's designs that started back in the fifties. I had previously built, amongst others, two of his excellent low wing Meson designs. One was the standard size and the other 1.5 times the original. Both had turned out to be excellent fliers with remarkably flat glides, seemingly floating on for ever when landing. The Ionosphere MK21 was designed as a 60" free flight model, powered with a pair of Mills.75s and unusual, apart from the two stages of sweepback, in having a 4 wheel undercarriage, [literally a wheel at each corner!]. Peter Fisher described, in an Aeromodeller article, how it took a long take off run, finally leaping into the air when hitting a bump!

As my model was to be R/C, I enlarged it by 25%. It was to have elevon and tip rudder control, with a steerable tricycle undercarriage to give ground handling, as the rudders were on the wing tips and a long way from the prop wash. This was certainly a model you could not hand launch due to the proximity of your hand to the rear airscrew. The original free flight version was built as a one piece model and, with the scaling, would certainly not fit in my car. The major change was to have the wing as two piece plugging into the fuselage sides on 10mm tubes. The fuselage sides were changed from balsa to 1/16 ply with doublers at the wing roots. The engines chosen, for what was turning out to be a big model, were an SC30 FS in the nose and an Enya 15 at the rear.

The wing construction was kept as plan with a number of balsa spars replaced with spruce. The wing is designed with 8 spars and was covered in Solartex, so finished up as a very stiff structure [and a bit of a pain to build!]. The fuselage layout was kept as simple as possible with each engine having its own 4oz tank close to the engine. There were two servos for the throttles, a servo for the steerable nosewheel, a centrally mounted RX and the battery under the rear fuel tank.

The wings had servos for each elevon and a servo for each tip rudder. The tip rudders were set to only turn out and were effectively drag rudders. As the model neared completion, it was obvious that the C.G was way out, the model being very nose heavy. The first change was to swap the engines to the opposite ends of the fuselage plus 12oz of lead under the rear engine. This brought the CG to be as shown on the plan.

Setting up the Futaba 2.4GHz T7C transmitter took some time with the channels mixed for elevon control. The tip rudders and nosewheel were also mixed and a servo reverse unit was required so that the nosewheel turned in the correct direction. As the only information I had on setting up the elevons was for the free flight model, I decided to use these settings with the elevons set at 20 degrees reflex.

After setting up the twin engines, which luckily was straightforward, the day came for the first flight, which to say the least, was to be interesting [I think terrifying is a better word!]. After a short run the model climbed slowly away. It soon became apparent that I had very little directional control, as the model was turning left. All the right elevon and trim, plus the drag rudders were used, and luckily, a very sluggish right turn was followed by a surprisingly smooth landing on the strip. The elevon angle was reduced a little and there was a slight improvement. I noted that pitch control was very powerful which did little to improve my confidence. After some more attempts and much head scratching, I increased the elevon travel and up/down differential with 50% more up than down elevon. I went as far as fitting a couple of wing fences at the mid span dihedral break, [desperate times were calling for desperate measures!].

At the same time as I was going through my trimming tribulations I had been in email contact with an aeromodelling friend, Stephen Winkworth. Stephen now lives in the south of France and has also built an Ionosphere MK21 at the 'normal' size, powering it with an ME Heron and Mills .75. [Stephen had actually flown many years ago with Peter Fisher on Epsom Downs]. How pleased I was to get an email from Stephen telling me that he had discovered that the CG on the plan was wrong! This allowed me to remove the majority of the lead from under the rear engine. I also set my elevons at 9 degrees as Stephen had with his model.

A few days later I lined the model up on the strip at Epsom Downs. On opening the throttles the model literally tore down the strip and was airborne in seconds. It had soon climbed to around 200 ft and, after a touch of right and down trim, was flying straight and level. The control response was very good and using just the elevons I was soon flying figure of eights. The speed range on different throttle settings was very marked but, with the engines at idle, the model could be turned tight with no signs of a wing dropping. The

tip mounted, drag rudders were tried and turned the model in an untidy hexagonal pattern. Several flights followed with the only problem being a nose wheel linkage that needed beefing up, as the wheel was turning 90 degrees on landing resulting in a very short landing run.

Since that time I have had many successful flights and found that the model will fly well without trim changes if either engine stops. It was also found that a slight climb could be maintained on the front engine alone which is remarkable, as 2.5 cc is flying a model that weighs close on 7lbs.

Ionosphere MK21 Specification.

Wing Span 78" original model 60"

Root Chord 16"



Weight 6 lb 10 ounces

Engines: Eyna 15 front, SC FS 30 rear.

Controls: Elevons and tip [drag] rudders + steerable nosewheel
Radio Futaba T7C 2.4GHz 7X servos, Futaba/Hitec.



Vic Smeed's Last design?

I mentioned this model last month with photo on front cover promising more. Lola, low wing model of 36" span, with the promise of reasonable weather was taken to Middle Wallop on Sunday 20 March. Test glides went well after couple of minor changes to C of G flat and to the right was achieved. MP Jet burbling away and flight off it went unfortunately I hadn't put in enough side thrust and so it turned left, dropped a wing and hit the grass, I decided not to fly again until I was able to put on a good 3 degrees of side thrust. That has now been done and with work dragging me away tonight (Monday hence S&T being a day early) I will take to Epsom Downs tomorrow (Tuesday) and have another go! Derek Foxwell will also be there with the RC version of the model again with an MP Jet and then I guess on to the electric RC version. However until both are flying properly the kit will not be available.

The following was received from Mike and Trevor of Raynes Park MAC

Pictured is the Vintage Model Workshop stand at the Model Engineering Exhibition at Alexandra Palace in January. The stand was manned heroically by David Kinsella over three days some of the other Raynes Park MAC members having attended Vic Smeed's



funeral on Friday 21st January. Although the model aircraft presence at the Show was small compared to other exhibits, Raynes Park MAC members contributed to the Display which aroused considerable interest along with the C.L.A.P.A. and the BMFA stands.

From Bill Wells

When I sent you the engine pictures and the model aircraft pictures I did not for one moment expect you to put it all in Sticks and Tissue. After all, who is going to interested in my sort of Aeromodelling as it is sort of half way between the new and old. I cannot imagine anyone being interested in small 50 year old control line models anyway. I was just trying to show you with the engine pictures how far I had developed them which does not match those seen in your S&T Special. I like pictures of model engines and model aircraft. Sometimes I will look at a picture and want to know a bit more, others I just pass by. They say a picture is worth a thousand words but if you don't like a picture how quick is it to move onto the next one. Lots of information taken in quickly. However if anyone is interested I made quite a few small control line models in the 1960s and now in my old age I have managed to salvage some and get them flying again. I can add a few words to the pictures if that is what you want.

One of my last pictures was of my Space Patrol Craft. This is a Ray Malmström design taken from the Eagle Book of Spacecraft Models and built before 1966. I just could not control the thing in those days it was just too twitchy in pitch so I cut the elevator down and this made things worse. The model was then put away as there was no one to launch it for me so further attempts to fly it were abandoned. As time went by (years in fact) I made a drop off undercarriage and experiments continued until I smashed the engine bearers. At this point I put a Frog 100 in it instead of a DC Merlin but with a lot of off set and put back a full width elevator. There is so much engine off set the model actually needs a few feet of the initial take off run away from the circle but it can be lifted off and flies quite happily on 25 foot lines.



Space Patrol

The Halifax Spartan was given to me as a crashed model although it had an intact wing. The original undercarriage had been removed and a replacement one screwed onto the underside of the fuselage. I extended the nose to cope with the light weight McCoy 19 R/C with a Chopper exhaust then put a fuel tank where engine had been. Apart from having to take off with a low power setting if the wind is calm it is a very well behaved model. If there is a bit of wind it is fairly easy to keep the model straight on take off. No wind and lots of power early on produces ground loops. Airborne, Loops and Rolls to the Right are easy (rudder and elevator only). A slow speed flick from the vertical at full power can be interesting but spins are sort of a non-event as it just drops into a spiral dive. While I enjoyed the Chopper exhaust the other members were not so keen so after experimenting with a home made silencer settled for the present Enya type arrangement. Skis were made up in a hurry in 2009 and quite a lot of flights have been made off of the snow. It seems better tempered in keeping straight on take off with the skis. To maintain the prop clearance and to make ski fitting a quick process the wheels were left in place. This adds about 4½ ozs to the model and eases the Cof G a bit further forward requiring a bit more up elevator to be available. The first flight off of snow was interesting as I ran out of up

elevator while heading for a line of trees. I had no option but to turn very gently as the model was barely climbing. If I had tried to increase the rate of turn the nose would have dropped uncontrollably as I already had full up elevator applied. That was a bit nerve racking! I got the model overhead and calmed down expecting some excitement on landing which as it happens was a non event. More up elevator solved the problem.

I bought the Sun Bird in 2006 from the Auction of Mr. Ocean Francis William Fisher's, oka Peter (aka Performance Kits) models and engines.



Sun Bird

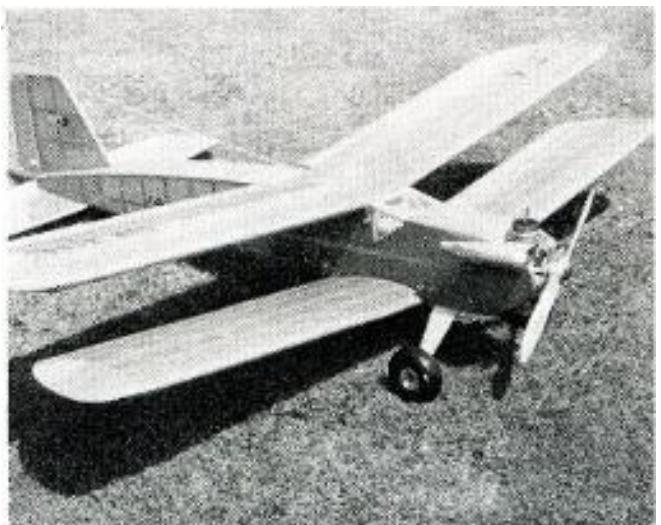
It was lot 2 and described as a Monoplane!! I wanted the engine so the state of the model was not considered it sold for £16-88 (including tax). The model lay for three years up against a wall. I felt a bit sorry for the poor old thing. It had a broken upper wing and the lower wing was missing. To cut a long story short I rebuilt it. I think this model may have been the prototype from which according to Mr. Fisher's book he developed and marketed the Sun Bird as a kit in January 1973. Certainly the radio and servos were about that vintage!! There is a lot more to say about construction of the Sun Bird and how it flies, again if anyone is interested.

I still think pictures will be more popular. The little chubby control liner was made again before 1966 as a convenient size model to be transported by bicycle to the council field where I used to fly it. The photograph

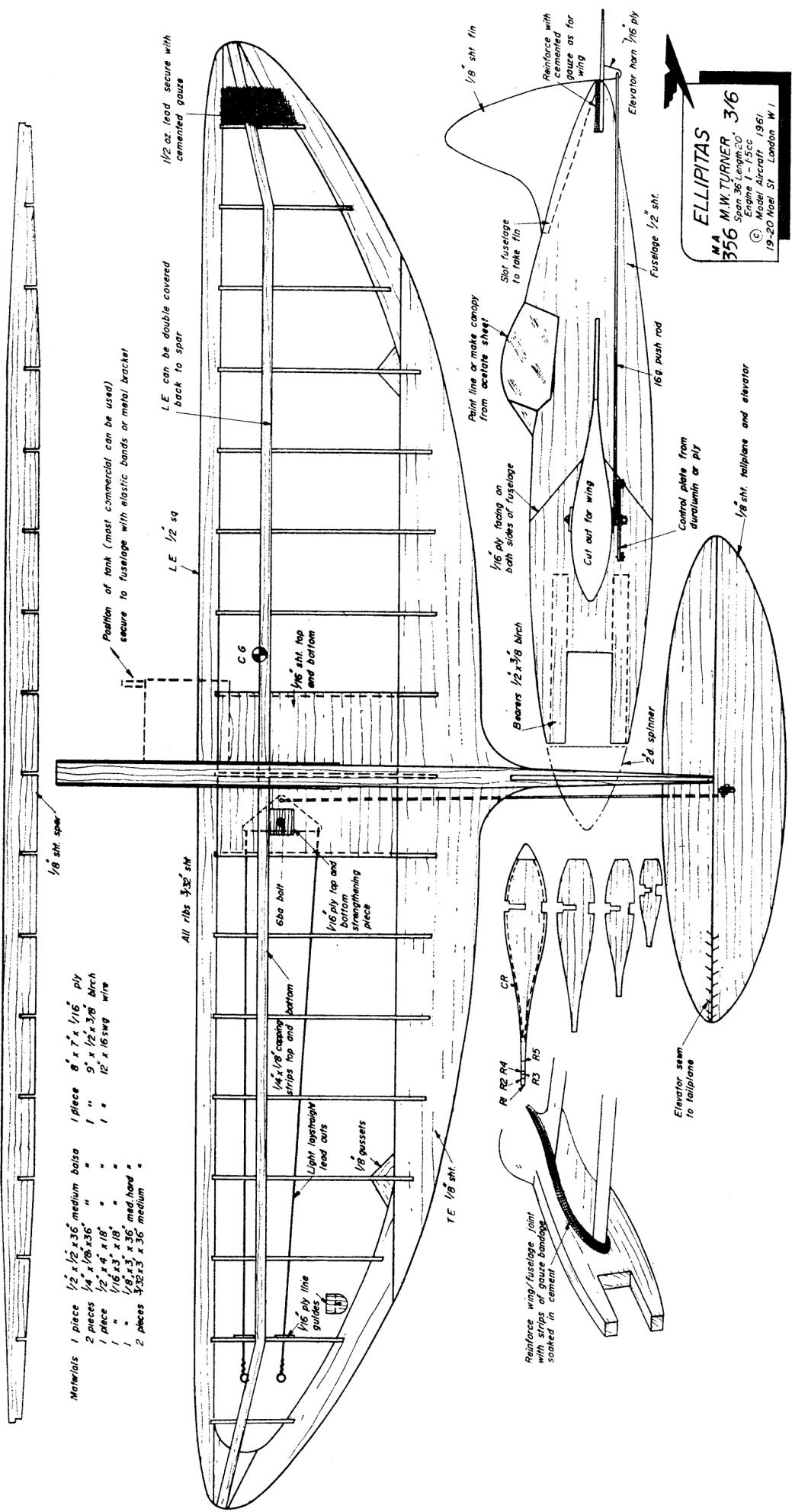


was taken over a single white sheet of A4 paper so the scale can be appreciated. Carrying a war surplus lead acid battery to power the glow plug by bicycle could be a bit hazardous. Much easier to just use a diesel! Span 11½ inches weight just over 7 ozs, speed just over 32 mph. Originally powered by an upright Wen Mac 049 and now by a discarded sidewinder Wen Mac Mk XIII. Never seen a red head 049 Wen Mac? Well that is why the previous owner didn't want the engine. It came without a head. I made a new head and anodised it.

The Hybrid is my own design of flying engine test bed but has turned out to be reasonably aerobatic despite a flat bottomed wing and dihedral. As regards engine pictures I started taking these in 1987 but as better cameras became available I tried to update my pictures which I am still doing. Some pictures are taken with a compact digital camera which tends to bend the engine profile and can distort the picture enlarging things close to the lens and so on. I now have another camera and have developed techniques to reduce distortion. In the fullness of time.







Elliptas by M Turner from October 1961 Model Aircraft

A 36" spanControl line model for 1 – 1.5 cc engines.

In designing Elliptas I wanted a reasonably good looking model which was inexpensive to construct and could be produced quickly, as like most modellers, both my pocket and building time are limited! The design was primarily intended as a Club stunt trainer for the Medway Model Flying Club, and as such it had to be of strong construction and capable of taking hard knocks from our budding stunt pilots!

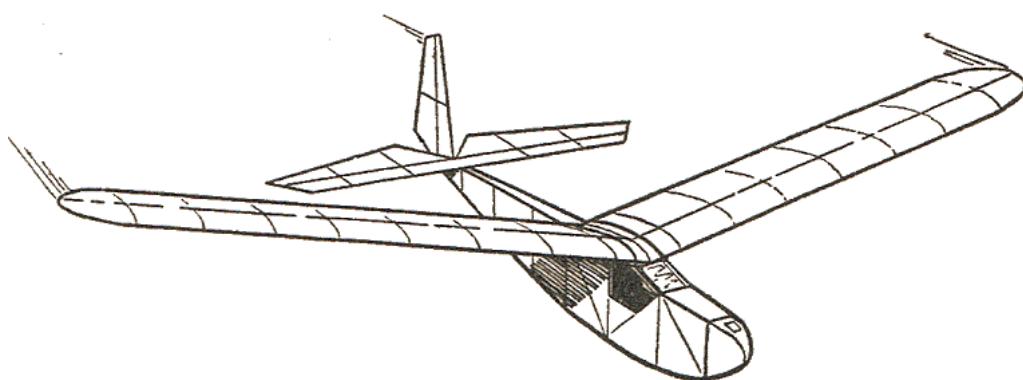
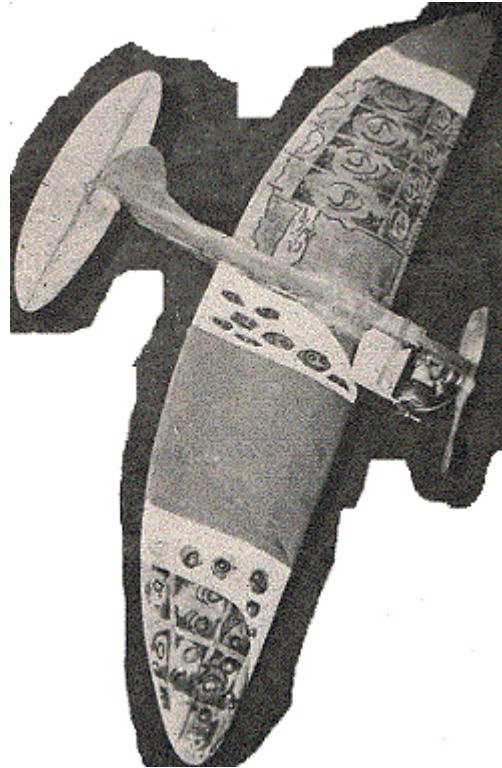
The model can be completely finished in three evenings, for a cash outlay of about 14s., yet despite this basic simplicity, the design has a certain finesse about it, often lacking in some of the quick to build "squared off" stunt/combat designs usually seen. Begin construction by cutting the fuselage outline to shape and then round off all the corners. Cut the slots for the engine bearers after trimming the bearers to length, and then cement them to the fuselage, facing forward part with 1/16in. ply. Now cut the slots to take the tailplane and fin, both of which should be a tight fit.

Finally, cut out the middle of the fuselage to take the wing. Construction of the wing is quite straightforward provided the following sequence is observed. The three trailing edge pieces are cut out slotted, to take the ribs and cemented together; the shaped leading edge is then trimmed to length and slotted for the ribs; the leading and trailing edges are then cemented together at the tips and the ribs cemented in the leading and trailing edge slots. If the slots have been cut accurately the ribs will automatically line up. The full depth mainspar is cut from 1/8 in. sheet, slotted to take the ribs and cemented in position. The capping strips and centre section sheeting are then added.

When the wing assembly is complete, it is pushed through. The fuselage carefully centralised and securely cemented. The wing/fuselage joint is afterwards reinforced with gauze bandage to form a good fillet.

The plywood bell-crank supports are now cemented on to the wing centre section, and the bellcrank bolt is screwed right through the wing. The wing is covered with heavy weight Modelspan and the remainder of the model with lightweight Modelspan. When covering the wing it is best to use cement to attach the covering to the rear (concave) portion of each rib, otherwise the tissue will not adhere to the rib contour.

By the way, I have found that a very lightweight multicoloured finish can be applied to the wing by using ordinary water colour paints before doping. Although the finish is not so brilliant as a colour doped surface, the water paint shows up quite brightly when clear doped - and fuel proofed.

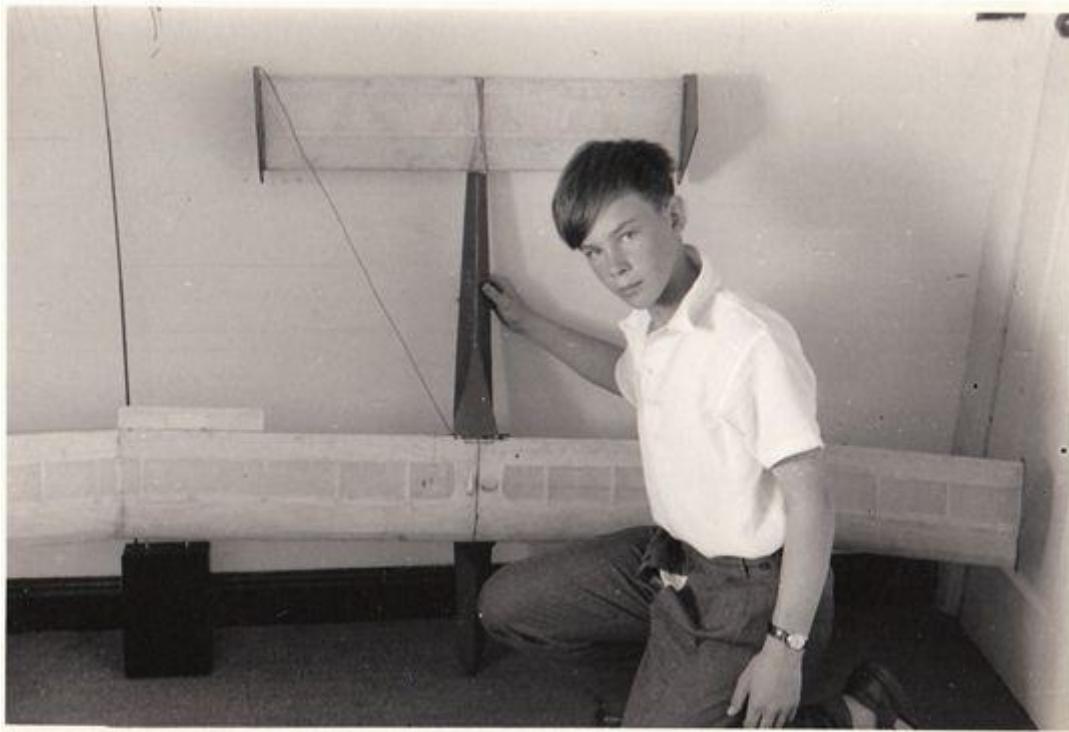


(Stick and Tissue recently asked for some pictures and anecdotes about slope soaring before 1970.)

The model shown here was designed and built by me in 1954, while still at school. Our maths master, Bryan Thwaites, organized gliding tuition at Lasham aerodrome as an alternative to the school cadet corps. Surprisingly few of us took it up, but I leaped at the chance. So I learned to fly under the expert tuition of Derek Piggott. Derek is nearly ninety now, but he still flies sailplanes. When a great deal younger he used also to build model aircraft, a fact I treasured as I embarked on this new sport, since it made him 'one of us'.

I certainly never asked for his advice when building the glider shown here, for if I had it would no doubt have ended up looking very different. You see I had quite failed to grasp how aircraft were turned, and the distinct roles of ailerons, rudder and dihedral in affecting the flight path. What I was learning from my gliding lessons was that most of the work of turning a sailplane was done by those surfaces called ailerons, situated at the trailing edge of the wing. In those days models never had ailerons. Single channel radio-controlled model aeroplanes always seemed to be steered by a rudder, but now I (aged 15) knew better than that. Obviously that was because noone had worked out a way to incorporate a rubber-powered actuator in a wing and cause it to deflect two of those flap-like objects in appropriately opposite directions. So my glider was going to show the way.

The design was influenced by various Keil Kraft models and gliders I had seen in the Aeromodeller – hence the twin fins, diamond fuselage, and generous tip dihedral with endplates. I was quite proud of the ingenious contrivance I came up with, involving cranks and little fairings to allow the actuator arm to revolve within the confines of the rib profile. It would have been too tricky, I decided, to extend the control movement to the dihedralled wingtips, so I stuck the all-sheet ailerons on the end of the flat centre panel, where they appeared to operate reasonably well, provided there were plenty of turns on the actuator rubber. A schoolfellow on the gliding course told me he thought they looked a bit small, but I pointed out that they were much larger than the rudder on my Sky Skooter, and anyway there was plenty of movement, and ailerons are more effective than rudder, aren't they?



Came the day, on a summer holiday in Cornwall, for flying tests. It had ceased raining, and there was no longer a gale blowing. The valley side, not too far from the cottage my parents had rented, and relatively treeless, seemed to be facing into a suitably light breeze for that all important maiden launch. I dressed hastily. Before leaving the house my father insisted on taking a photograph. Absent-minded dad:

I'm fairly sure this was one of his (mother would have ensured I was properly dressed). I think he was proud of his son's progress in gliding and model building - unfamiliar domains to a reclusive art connoisseur.

Grabbing my ECC 1061 Telecommander single-channel transmitter (it can just be seen behind the port wing in the photograph) in my left hand, I heaved the glider off over the slope. It glided quite nicely, and I can still remember it heading out towards the middle of the small, unsuitably 'V'-shaped, river valley. Time to correct the trajectory with a nicely judged pulse of aileron. From some experience of rudder-only radio controlled models, I knew how to make quite sure of giving the correct signal by following the actuator's sequential movement. So I pressed the little plastic button on my trusty 1061 – and nothing happened. Or maybe there was a very gentle movement in the opposite direction to that desired. The flight ended, quite demurely, at the foot of a small bush.

There were a couple more launches before some fairly minor repairs were needed, but at no time did the model show any signs of being controllable. I lost interest in it after that, and there was a distinct pause in my model building activities as other interests took over – poetry and girls, particularly Italian girls, who had the merit of not understanding, while being suitably impressed by, my poetry writing efforts.

What a lot still remained to be learned about slope soaring (and girls – not to mention poetry)! In subsequent years I managed to learn some of the important lessons, one by one. Luckily one of my girl friends used to spend her summer holidays high in the Dolomites. They favoured a chalet-style wooden 'Rifugio-pensione' at the top of a mountain pass – Passo Sella. Below lay a grassy, treeless slope. One rainy day we went down to the old town of Bolzano, where under the arches of a medieval thoroughfare there lurked a model shop. Sheets of balsa wood were selected, and a large tube of something called 'Uhu Hart' which the proprietor assured me was balsa cement (won't be a patch on Britfix I thought).

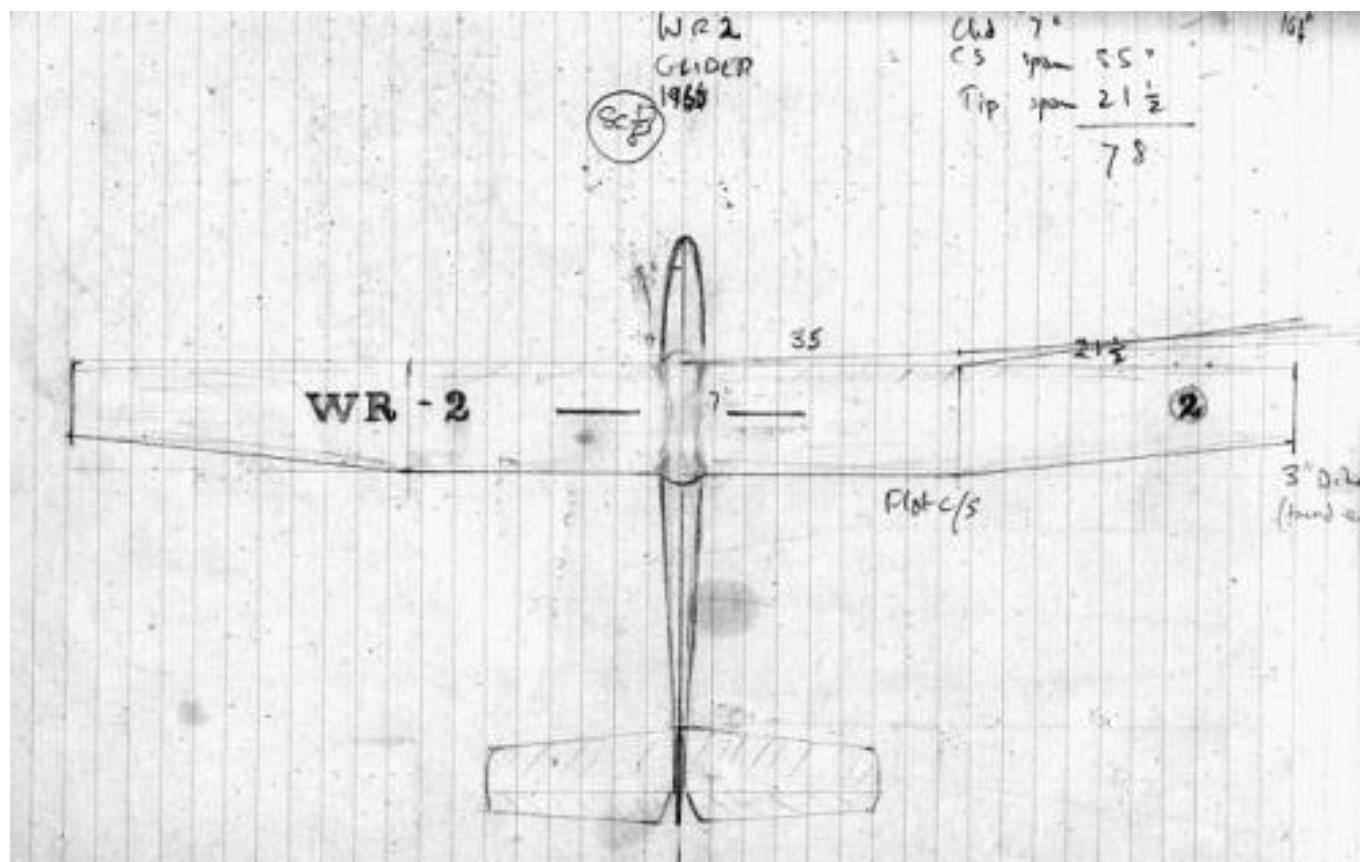
I had seen pictures of magnet-steered gliders from the Austrian Alps, but I felt that might be a touch ambitious. Somewhere I had read about a 'V-tailed' model glider steered into wind by a rocking tailplane. The wings I decided should be solid, with a Jedelsky-section. The 'Uhu Hart' worked surprisingly well, and after a couple of days of slicing, gluing and sitting on the chalet steps in the sun sanding the wing into shape, I proudly demonstrated the results to my Italian friends.

I don't think we ever gave it a name, but the model glided gracefully enough, often apparently held into wind by that rocking tailplane, and would remain in the air for a minute or two, landing on the gentle grass slopes and verges of the road which zig-zagged up to the pass. That road was our undoing, for one of the flights ended on tarmac, and seconds later a car...

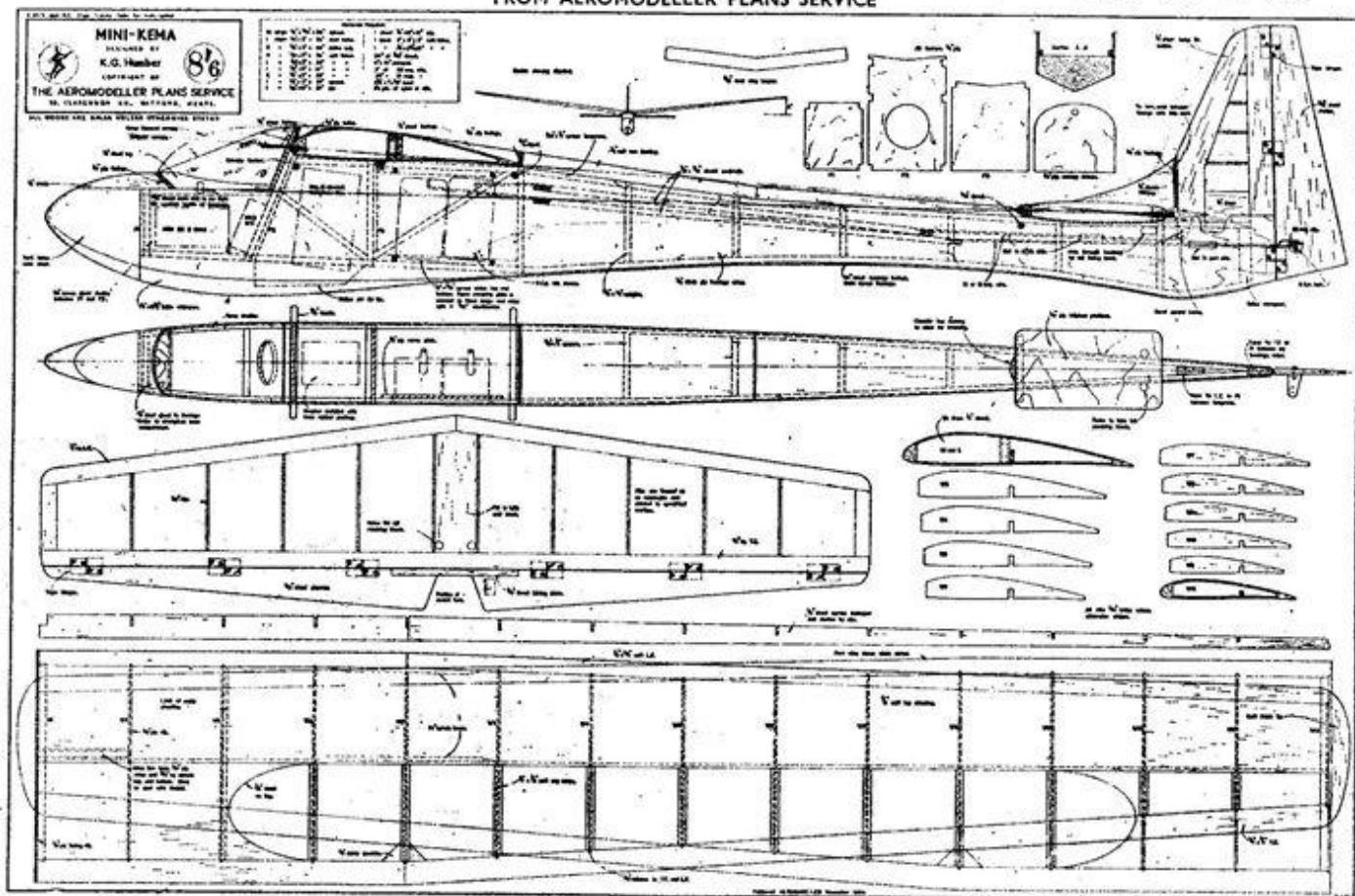
The following year I came equipped with my first radio-controlled glider, Wave Rider 1, for which I had built a special travelling box, and a whole new world of delights began to open.

The idea behind the Wave Rider series was that they should be able to fly in three environments: dry land, water (the waves of the sea) and the waves of air rising over a ridge. Wave Rider 1, a 50-inch span, single channel high-winger, was powered by an Allen-Mercury 25. The twin floats allowed a snappy take-off. Removing the prop and undercarriage it could be flown as a glider, but rarely was, since control was marginal.

Wave Rider 2 was far more successful. The design was based on Keith Humber's 1964 Mini-Kema from the Isle of Wight, but with the latest aerofoil, the Eppler 387, published by Aeromodeller in November 1965. The wing was poly-styrene, in three pieces, with spoilers that popped straight up through slots. There were no ailerons, but with fairly generous dihedral and a large rudder, WR2 turned reasonably well.



FULL SIZE COPIES OF THIS 1/7th SCALE REPRODUCTION ARE AVAILABLE AS PLAN G868, PRICE 8/6d. PLUS 6d. POST FROM AEROMODELLER PLANS SERVICE



(I hope to make this model/plan a full write up in next few months thanks to Roy Tiller supplying scanned pages from Aeromodeller JP)

The spoilers were operated by a small home-made servo which also moved the throttle of the powered version. The fuselage had a removable noseblock, to which an Enya 19 and sprung front wheel could be bolted: there were tubes in the fuselage for a removable undercarriage; alternatively floats could be bolted to the U/C legs. When motorized, a stubbier, aileron-equipped wing was used. The whole thing fitted into my 36"x10"x8" model box, though the power-version wing had to be carried separately.

It was a great success. The glider provided true slope soaring at last. 'Schoen!' said a German lady as Wave Rider 2 soared effortlessly across the north face of the pass. Later, as the Italian holiday moved from the stimulating Dolomites to the relaxing Adriatic, the seaplane version successfully crested the waves of Pescara.

I then discovered Ivinghoe in 1966 and flew WR2 there, mastering slope soaring in the company of John Beer, John Heddle Nash (the famous tenor) and other local stalwarts; however, gliding over the Tintagel cliffs the following August an elevator servo stuck on 'full down', and WR2 disappeared into the breakers below.

WR3 was larger, and had ailerons in both glider and powered version. The powered version had a Super Tigre 35; a special noseblock was also made for an OS15 for use as a powered glider. A rare photo has survived of WR3 flying as a glider over some hills near Fiumicino (before Rome airport was

built there).

She also appears floating offshore on a pair of rather inelegant polythene floats imported from the US. She was definitely a step backwards from WR2: clumsier, more lightly loaded and draggier, more inclined to be damaged by small accidents, and harder to transport.

I then obtained, in June 1968, a Myndair Skylark 4, heavily prefabricated, with state of the art construction – fibreglass fuselage and foam wings. This proved a superb flyer, second only in performance to WR5 (of

which more anon if anyone's interested). This glider still hangs on my workshop wall. I last flew it a couple of years ago.

In the early 1970's, while out slope-soaring at Westbury (before the arrival of those pesky hang-gliders, and paragliders... which I ended up flying myself), I met an older enthusiast, Ken Harrill, who was returning to model flying after many years. We became friends and eventually I gave him the by now rather battered WR3 to practise with.

There was something slightly familiar about Ken's appearance: a distinctive face that I knew I had seen somewhere before. While flipping through the pages of one of my favourite old model books – *The Design and Construction of Flying Model Aircraft* by D.A. Russell (referred to in a previous Stick & Tissue) I suddenly recognized him: there he is on page 96, holding a rubber model which is being wound. 'Yes', he said 'that was me – a few years back'.

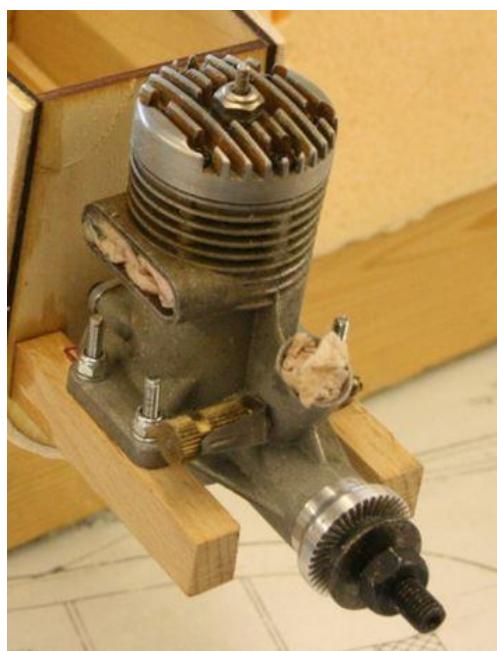
'This photograph' says the caption 'taken on the downs of Sussex, emphasizes an aspect of aero-modelling that is not always thought of, namely, fresh air, sunshine and wide open spaces. No one will deny that it is a healthy pastime.' It is a rather evocative picture: the rolling, chalk-lined meadow, the men in their baggy-trousered suits, with their dogs, and the flimsy-looking model with its rubber motor stretched out, while Ken, a cigarette dangling from his lips, bears, 'a rather tense expression no doubt due to the degree of concentration needed when stretch winding rubber'.

A year later I heard that Ken had died of lung cancer.



Me and Bill From Pete Tindal

I would think that almost every cl modeller in the country would have heard of Bill Morley and appreciate his influence on aerobatics in the early 50s. Bill is now in his early 80s and has just had laser treatment to his eyes and is in really good health. He is still slightly active in model building and gets out to some of the model meetings. I have kept in touch with him over the years and Sandra (my wife) and I visit Bill and Dora from time to time as he lives only about 15 miles from me. During one of our recent visits, Bill presented me with his original (well worn, hence the faded orange head but excellent) 1st week of production Merco 29 that he had been using



throughout the 50s,

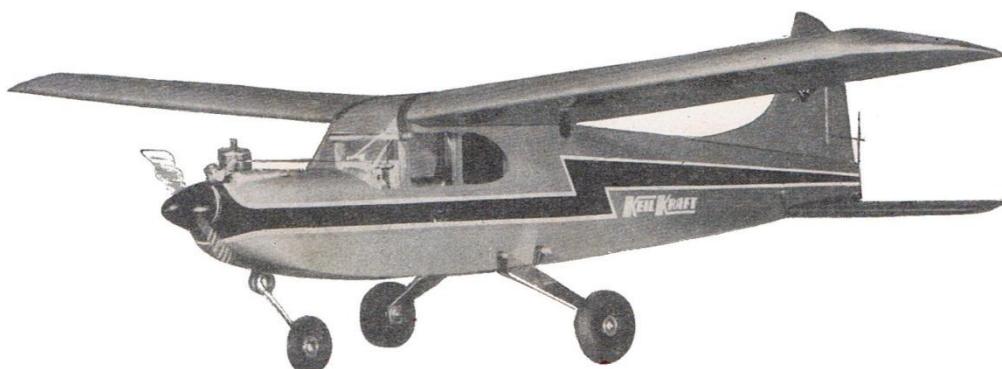


so I said I would build his Thunderbolt design to which he replied, words to the effect, "I have a Old Schoolhouse short kit that I will dig out for next time I see you....." True to his word, the kit materialised and was duly built with the 29 in the front.

When taken to Bills to take some pics (including one that I have turned into a waterside transfer for the wing) his first comment was "it's a lot shorter than I remember but I always thought it



could do with a longer moment arm" my thoughts completely!! I also commented that the control system was very of the date and the model would probably be enhanced by today's mathematics and flying it would prove to be right, however having discussed it with Bill and told him of my intentions, I intend to take the whole of the bottom off and replace all of the controls including the horns, belcrank and reposition the leadouts.....watch this space for future developments but don't hold your breath as it may be a while.....





M.A.S.
Comet
18 cc

Events

April 17 First of the Wessex League 600RES thermal gliding competitions. This is a really great event friendly, plenty of banter and yet competitive with some fantastic own design models along with ARTF's and part kit models etc. See www.wessexaml.co.uk for more info.

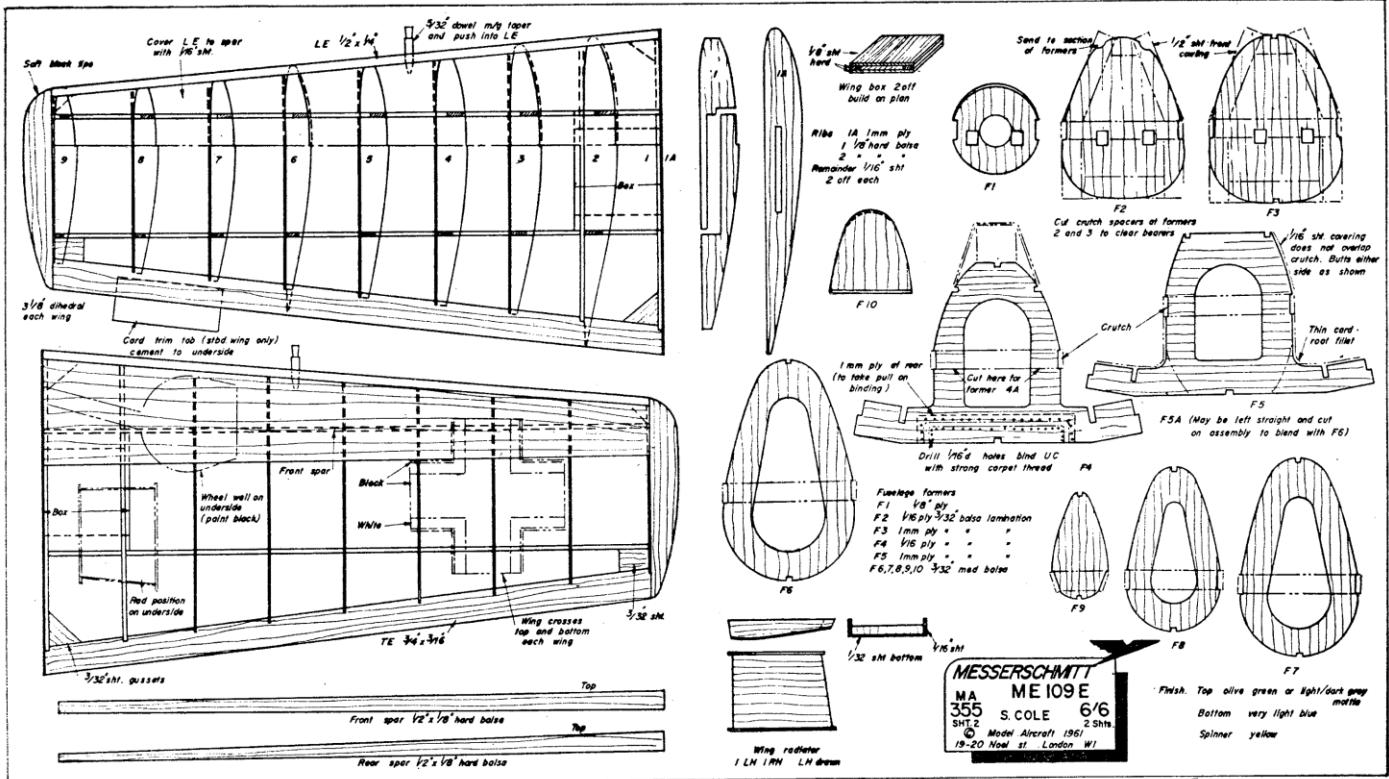
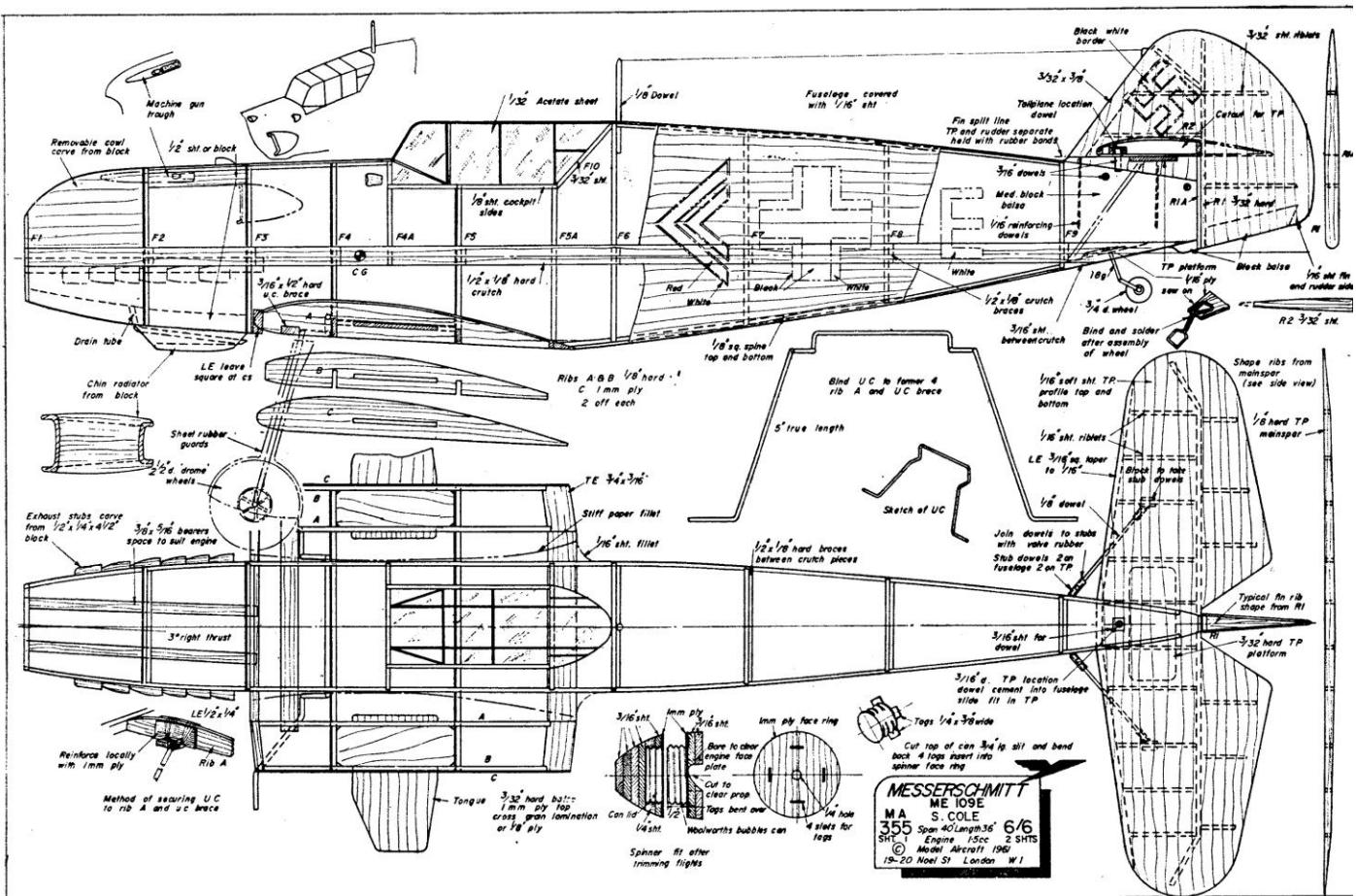


John Taylor and his OD Yelfin

April 23, 24, 25 Middle Wallop Free flight all three days with addition of RC vintage and Control line on the Sunday. Tomboy and power duration will be run. A good turn out of CL models is expected! See below.

May 8 Free flight, RC vintage and Control line. Tomboy and power duration will be run. A good turn out of CL models is expected so get your models out de rust your lines, tie knots in the kite lines do whatever but you must turn up! No arguing or bad excuses.

May 22 RC vintage at Wimborne MAC (Contact me JP for more details).



A free flight Me 109E by Stan Cole. 40" span for 1.5 cc engines from October 1961 Model Aircraft

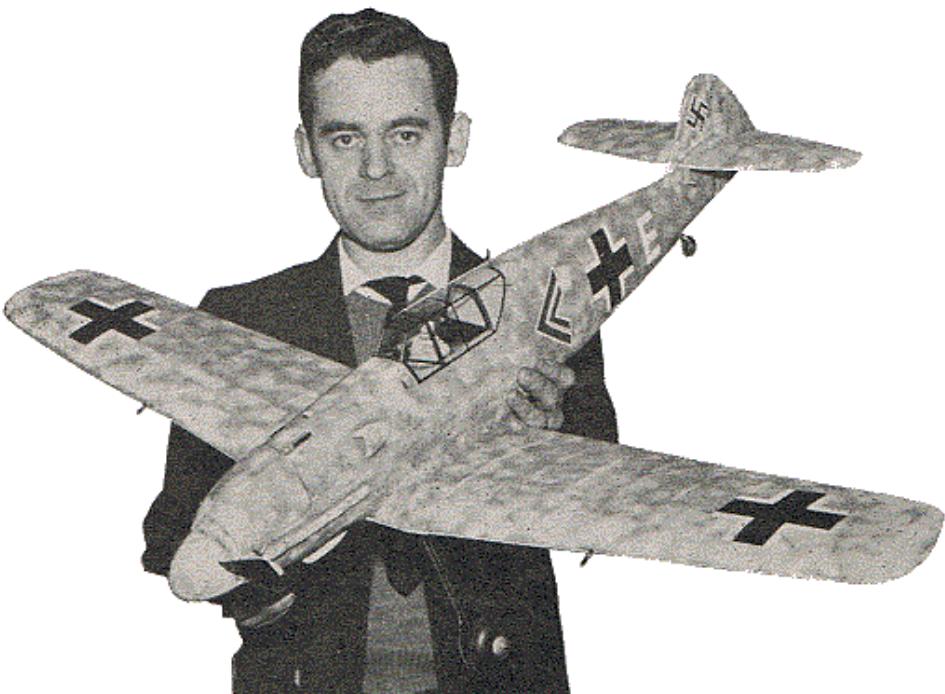
We first saw this model at the Richmond Club's exhibition and we were immediately struck by its obvious practicability. It was tough, of straightforward construction, and obviously built to fly. As a F/F subject the Me. 109 is not often considered, but Stan Cole's very attractive design should soon alter that situation. It is a fine testimony to the design, that a replica has been built from the original drawings by someone who has never previously attempted F/F scale and it flies as well as the original model—need we say more?

Fuselage and Wings Start by building the 1/8 in. X 1/2 in. crutch from hard balsa, flat on the plan. Next cut formers (1) to (9) paying particular attention to accuracy in formers (4) and (5) as these will later determine the wing incidence. Former (4) is predrilled to take the u/c binding. The formers are now cemented into the crutch, checking for squareness from both side and top. Next add the 1/8 in. sq. spines to top and bottom of the formers and block balsa to the front and rear of fuselage, together with tail wheel

assembly, prior to adding the sheeting. This is best done in two separate pieces, cemented along the top line of the crutch. The sheet should be pre-shaped by damping, to curve it over the top half of the fuselage along the entire length between formers (3) and (9). The rear lower half of fuselage is best "planked" with 1/4 in. x 1/16 in. balsa strip, starting from the bottom line of the crutch. At this stage it is essential to assemble ribs A and B—together with wing tongues—"dry" (uncemented) to formers (4) and (5).

The fuselage assembly can now be placed on a flat surface and the completed wing halves (which are of conventional construction) are pushed onto the wing tongues and the wing tips are packed up to give 3 1/8 in. dihedral under each tip. Holding everything in place with suitable weights, the wing tongues are now finally cemented to ribs A and B in situ, this method ensuring accuracy, and equality of dihedral angles. Little instruction is needed on tail and wing construction, as these will be found quite simple to build from the plan. For final "embellishment" add pilot, wing radiators, oil cooler, etc. Colour trim should be light and dark grey mottle on top with very light blue undersides; the spinner is yellow. Standard Luftwaffe markings are shown on the plan, alternatively the entire top sides of the model may be painted olive green with very light blue undersides. Built as per plan, the model is sufficiently robust to withstand any initial trimming "prangs" without damage. "Durofix" was used for all hardwood components, and a strong carpet thread is a must for the u/c binding; 2 1/2 in. balloon type "Drome" wheels also assist greatly in absorbing landing shocks and protecting the u/cart - "solid" type wheels being quite unsuitable, event apart from their unscalish appearance. A departure from true scale has been purposely made in retaining the tail unit with outside rubber bands, since this vulnerable component is now both practical and really crashproof! If desired, the prop (a 9 in. x 5 in. on a 1.5 C.C. engine) may be reversed and the spinner omitted, until characteristics of the model are learned.

Flying



The initial trimming of the model proved that fairly high revs are needed from the start, with about 3 deg. Right side-thrust to counteract torque. The rudder is best left in neutral position with a 10 deg. to 15 deg. "down" trimtab to keep the left wing up on the model's left-hand flight path. With the c.g. as per plan, the prototype needed no down-thrust. Never trim for right-hand circles, but adjust engine right thrust, to obtain wide safe left-band circles. For its size, the model is by no means heavy (all-up flying weight is about 25 oz.), but a smooth "follow-through" launch with power on will give best results. No adjustment was necessary to obtain a flat hand launch glide, which, of course, is best done over long grass in fairly calm weather; however the tailplane is easily adjustable, should this be necessary. Pack up TE. if nose dips and L.E. if the model stalls.



From Ken Croft (*Not aeromodelling but I know will be of interest to some JP*)

Re David Kinsella's column and his comments about the need for a tether car track in the UK. He says that he understands that there are tracks in Germany and the USA capable of 170 to 200mph. I am afraid that he is just a tad out of date. There are tracks all over continental Europe, and I have attended meetings at Kapfenhardt in Germany on several occasions, seeing speeds of over 200 mph regularly achieved by the 10cc cars. In fact the world 10cc record is 214mph. The 1.5cc record for the smallest competitive class is 166mph, these little 1.5 glo engines revving at up to 48,000rpm. There are a small number of uk enthusiasts who regularly attend race meetings in Germany, Switzerland, France and Sweden, and other competitors come from all over Europe including the old soviet countries. Estonia has a comprehensive development program for introducing juniors to the sport, and the Estonians are among the most successful of all the European competitors. Having seen the safety installations on these European tracks, the idea of simply laying a track as somewhere like Old Warden, unsupervised and without adherence to the installation of appropriate safety installations, I believe would be very unwise. If anyone is interested in learning more about the state of tether car racing in Europe they could have a look at <http://www.speedmodelcar.com/>

I have attached a few pics of the car track at Kapfenhardt in the Black Forest area of Germany along with some pictures of modern tether cars. Unlike the 10cc vintage car pictured in David's column, none of today's tether cars use a clutch, they are all push & go!



Kapfenhardt track



Swedish 10 cc



1.5 cc car internals

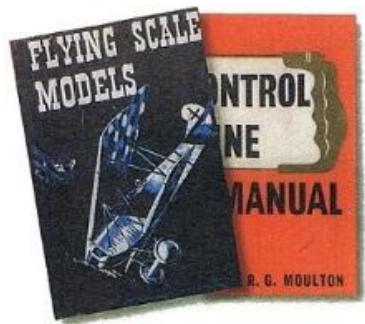


1.5 cc car

David Kinsella's column

Need To Tool Up?

And while you're gearing up for Ron's Day at Old Warden (may be our last chance to be there) take an hour or two with Ron's beautiful books, not forgetting his seminal work on model aero engines. Ideally your copies are in hardback, covers mint, autographed of course, careful handling in all respects preserving their youthful appearance. Worth paying top dollar for a good one, cash matters soon forgotten as the quality and crispness lingers on. Don't they look great? And Ron's Day is 7 May.



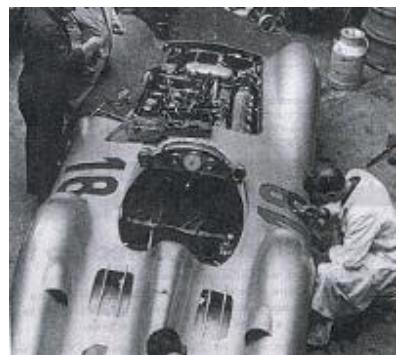
Bats And Hats

Slim as Fred Astaire, the great Don Bradman walks out at Trent Bridge in the 1938 Ashes. Little body armour in those days, Sir Donald George Bradman's record is without equal: 117 centuries, a staggering 334 top score, more than 28,000 runs in all. He captained Australia (1936—1948) and is regarded as being twice as good as the second best. Hammond is by his side.



400 To See

The best in aviation art will be on show in The Mall Galleries in July (18-24). Just five minutes from Trafalgar Square, free entry and refreshments at modest cost; a walk in Green Park, Buckingham Palace and Sir Keith Park's splendid statue are other area possibilities, so why not make a day of it? The Guild of Aviation Artists put on a magnificent show and there's a fine picture for every pocket. Not to be missed



Winner's Mount

Engineers from Unterturkheim ready a Mercedes Grand Prix car. Built to win and regardless of cost, their launch in France in 1954 secured a mighty one two at Rheims, Fangio leading home Kling. Running sports cars too meant an impressive team of drivers and mechanics, Alfred Neubauer having Moss, Lang, Taruffi, Fitch, Levegh and Collins respond to his little flags. Nothing was left to chance and on hand were 100mph transporters and aeroplanes to ferry cars and spares at speed. Denied the disc brake, a surprising innovation was the wing operated by a stalk below the steering wheel. And not trusting valve springs over time, the items were closed as well as opened by cams, the desmo system also employed by Ducatti.

Potting Peter

In one of the Connery Bonds we see 007 charging towards us in a Fairey Marine speed boat, the essential lady at his side. To the left and further back a second boat is chasing hard. In it a villain stands up and fires at Bond, the actor being fighter pilot, test pilot and speed record holder Peter Twiss! Taking several boats, owners and all kit north, the scenes were shot in the Western Isles of Scotland. Good pay too, for each boat owner was paid a thousand a week and expenses and board and it was the 1960s.. Twiss flew the Fairey Delta II, and several Fairey boats were used to race in the famous Daily Express races inspired by Group Captain Sir Max Aitken. Never forgetting his flying days, I met Sir Max twice and he signed a book for me. From Russia With Love was the movie.



Super Falcon

Another fine shot of a Falcon. The owner looks happy, his ex Horwich model flying well thirty years after Eliot's careful construction in Manchester. I was in Manchester for a while, restoring an Allard there in

an old Cotton King's coach house, but did not know that this Keil Kraft enthusiast lived only two miles away. We finally met up ages later at Old Warden.

Signed Sellers

Aircraft Legends is the aeroplane arm of Grand Prix Legends of Guildford. Offering a huge range of hand carved models for the den or desk, some are signed by famous pilots of the time: Gunther Rall (Me 109 with 275 victories) Brigadier General Chuck Yeager, Spitfire ace Johnnie Johnson, etc. Scales vary but an 'Old Crow' Mustang signed by Bud Anderson spans 18ins. Models, especially signed models, sell at speed. Try 0870 460 3456. I have a silver pilot-signed Imperial flying boat.

Best To Dress

Shot down on 21 April 1918, von Richthofen's staggering tally - 80 machines and 123 aircrew (some survived) - is covered in great detail by Messrs Franks, Giblin and McCrery over 224 pages of Under The Guns Of The Red Baron. Sent down in a Nieuport on 25 March 1917, Christopher Guy Gilbert survived to serve in WW2 and later run the Royal Ascot Hotel in Epsom. Up early to escort a FE2b, young Chris took off in his pyjamas — which his captors found very interesting.



Top Tash

The American Civil War (1861—65) concerned the Brits. From Number 10 to the merchants and factory masters of Liverpool and Manchester, King Cotton from the South finally a chunk of our exports once made up. Brits fought on both sides, Sir Henry Percy Wyndham colonel of the 1st New Jersey Cavaliers sporting a stunning moustache which he twiddled when angry.

Books Live!

Basement and four floors packed, a. the wine and pies circulated at Hatchards famous Christmas bash there was little doubt that books that look like books are still the things to have. Front rank authors to talk to or sign title pages, 1 soon realised that 990 pages of fact take effort. Selling books since 1797, there's titles at Hatchards not easily found elsewhere. Ahead from Jackal book and movie days, Frederick Forsyth writes with rare knowledge gained from experience. And he flew jets as a National Service pilot!

LSE Central

To the LSE recently for a celebration of the 1960 Chatterley case. Opened by HM Queen Elizabeth in 2008, the New Academic Building where we gathered has a number of theatres and is an impressive addition to this world-famous college of London University. A QC, as a junior in the case, told me that he was aboard HMS Kelly with Lord Mountbatten. Her fate was replicated by Noel Coward's In Which We Serve (1942). So close to the centre of things, the LSE benefits from silks and bankers, corporate heads and famous visitors able to walk or taxi to Houghton Street. Lord Hailsham arrived on his famous bike!

Sunset Bound

The Dandy and Beano were read cover to cover before changing up to Eagle, but the key characters were never forgotten and I'd peep now and then to see how they were getting on. Never defeated and reinforced with countless cow pies, his forty-five never drawn, it looks as if Desperate Dan is on his way with Korky the Cat and other churms as they make way for real life characters seen on television. But Dan will live on for a good while yet, along with fond memories of bike rides to the flying field, sandwiches and.

pop and first flights with the Senator or Phantom Mite. Mighty different then when the coastline was littered with scores of holiday camp's and the UK still had a full and steam-powered railway network, trips for a few bob! Known in the trade as the Big Five - the Rover, Wizard, Skipper, Hotspur and Adventure emerging between 1921 and 1933 - scores of artists created memorable heroes able to win through no matter what. Drawn by Dudley Dexter Watkins (1907—1969) and others, Desperate Dan is sunset bound as the major revamp approaches. Never known to employ



dirty tricks, able to eat industrial quantities of food, razors would melt rather than tackle that chin. Doubtless Dan will go in style, as did Dudley Watkins that day in August, at his desk leaving a part-drawn Biffo for others to finish.

Don't Understand It

Vic Smeed told me that in trainee biplane days, a young pilot in the front seat, he'd stick out his arm unobserved. Flying gear giving plenty of wind resistance, the aeroplane would slowly swing off course. The puzzled one in front would correct. Minutes later Vic would extend his other arm. Another hasty correction. Then vertically, the machine would start to gain height. On landing not a word was said, even when the trainee paused to check the control surfaces and trim tabs. Vic flew Spitfires and loved them.

DH9a

A new one from Albatross Publications covers the later years of this famous two seater, better than the '4' where the pilot and observer sat far apart. Policing duties over vast deserts where the dunes were thirty feet high, or cruising lengths of the Kyber Pass, the big biplane from Enfield was often seen in silver and strung about with cans of petrol, water, a spare prop, wheel and extra radiator. Loads of info for just £10.90. Try Simon on 01892 539284, Aviation Bookshop the best in Kent.

Master Casting

Max Steiner's sweeping strings, Tara and the Old South behind him, the great Gable is a vaudeville hoofer in MGM's 1939 Idiot's Delight, this rare shot showing The King of Hollywood in action. Along with Reagan, Olivier, Peck and Dietrich, the star who didn't give a damn on screen but cared for his wheels (Duesenberg, XK120, etc) and much more about his clothes joined Ronnie and Larry at Huntsman, in earlier times tailor to the Prince of Wales An actor from 1923, Selsnick's casting of Rhett Butler making The King immortal Gable flew as a gunner in B17s and was part of the Hollywood set entertaining RAF pilots under training on the West Coast. Poolside parties, tennis with Pickford and Fairbanks, cricket with Coleman and Aubrey Smith on imported MCC turf, trips included stunning visits to Hurst Castle on the press baron's 250,000 acre San Simeon estate. Gable was one of the first to own a silver Mercedes 300SL, its chassis design generating the iconic gull wing doors by which it was known. As the Southern belle, Viv Leigh wore custom made undies.



Low Revs

Pictured is the rev counter watched by Campbell as he set a record of 275mph at Daytona in 1933. A 6 in Smith's instrument, the warnings start at 2600 and there's nothing after 3500.....Sir Malcolm Campbell sat behind a blown 36.5 litre Rolls-Royce R V12, following, the black oil streak in Bluebird as the sun blazed down. In S&T a while ago I described Sir Malcolm's extensive workshop and house.



Boy's Own Bentley

Possibly with a nod to Big Henry's armourer, Amherst Villiers set his blower at the front of Sir Henry Tim Birkin's run of 50 original Blowers built with Dorothy Paget's money at the special factory in Welwyn Garden City. Others such as Alfa, Bugatti, Mercedes carried their superchargers along the side of the engine. Out of sight here, twin SU carburettors are on the far side and possibly ingested water from time to time! A flying man with a Tiger Moth, Vincent and a Norton, the owner fitted an aircraft oil cooler and other instruments and levers. These days proper Birkin Blowers with history command mighty money nudging seven figures. Villiers was a Bentley owner, painted, designed and worked for NASA in California. His rare booklet on his Roots-type twin rotor design has not been seen for ages. A link with 007 exists via his portrait of Ian Fleming. Birkin was ex RFC with Notts lace interests.



Taking Plans

Speed and Team Racer plans of the greats of ages past are held by Terry McDonald (01332 510150) I've invested over the years, each drawing of the highest quality and sent pronto with a minimum charge for post and packing. Famous for his mighty Wind In The Wires series in SAM 35 Speaks which told us lots we didn't know, these days Terry runs the Sales and Wants Service in Speaks. Just a few quid and a Red Lightning plan by David Roe is there on the building board. Sixty years of history before your very eyes.

Disc Decoration

Rock and Beatles buffs may care for a model of John's highly decorated Phantom V Rolls-Royce. Delivered in 1965, painted in 1967, it came fitted with a double bed, fridge, television and phone. Moved to the US in 1970 it was used by Dylan, the Stones and the Moody Blues. Size of the model is some 5in . Try 0844 887 8888. Brisk sales are expected.

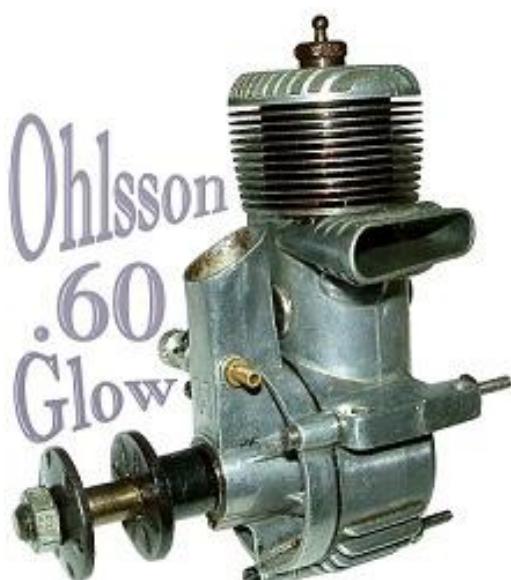


MEE 1

Show supremo Karen Kyte gave us a wonderful corner site and Mike Cummings turned it into a bright showcase for our several models, the Model Engineer Exhibition at Alexandra Palace these days. Traditional models from Malcolm and Ted looked great and attracting keen attention from the boaters was the 48in RAF Crash Tender, all wood and with a glass-like finish. I provided a blue and orange Mercury Toreador. (AM 35) and VTR Bengal lancers (McCoy 29) in blue and yellow, both from the esteemed bench of Alan Walker no less. In my Mexican sombrero and pink jumper (I always dress down for these events) I answered questions on Vintage generally and Raynes Park MAC and Sticks & Tissue in particular. Apart from the BFMA and CLAPA stands we alone stood for aeromodelling as it used to be. Perfect to push the hobby, clubs in the London area should make the effort next year. Wonderful fun!

MEE 2

But thanks to attending chums - Reg, John, Patrick, Keith, Malcolm, Ted, Mike and other RPMAC Regulars - I managed to see the 350lb Tiger tanks, Peter Michel's 4ft Goldberg (Humphreys reminder of OW days), Vic Smeed's huge Vivacity 35cc launch, the silver Coronation running on the GIMRA track, a Nelson-like Metkemijer motor pumping out 4.5hp at 32,000rpm and a super model of the Eldridge FIAT Mephistopheles which full size was road registered and could be heard miles off thanks to its 21.7 litre aero engine. Like Mannock, E A Eldridge was blind in one eye, the right eyepiece of his Paris—made Mayrowitz goggles blanked off. Seen at hill climbs in the UK, this red chain-driver was last inspected at the Fiat Museum in Turin. Tom and Geoff loved this one! And - as they still say in the print - off stone!



Best regards from Sweden, Jörgen.

Hi James sending you some pic,s first one is 24" span Tumbletoot from an AMI plan it has an 0.4 rep. Micro diesel silk and dope. Next is an Scram 36 from Falcon models it has a CS Boddo Mills 05 covered with tissue over mylar I had to practise more on that . next is aFalcon 36 with a Allbon Dart covered with silkspan and aerogloss dope. And last is my little Frog Linnet tissue and dope.



BMAS MIDDLE WALLOP RALLY
SUNDAY 24TH APRIL 2011 courtesy of SAM1066

VERON TRUFLITE IN MEMORY OF PHIL SMITH
ANY OF THE 26 VERON TRUFLITE RUBBER SCALE MODELS
3 FLIGHTS, 1 MINUTE MAX

LIGHTWEIGHT RUBBER

3 FLIGHTS, MAX SET ON DAY, MAX WING SPAN 34"
SAM 35 Rulebook Jan 2001 page 7/8

BOURNEMOUTH CLUB CLASSIC RUBBER
3 FLIGHTS, MAX SET ON DAY

Bournemouth Club Classic Rubber, Rules Dec 2007 & List June 2010

P.30
3 FLIGHTS, 2 MINUTE MAX

VERY SMALL RUBBER
3 FLIGHTS ,1 ½ MINUTE MAX, MAX WING SPAN 25"
SAM 35 Rulebook Jan 2001 page 7/8

A FRAME MASS LAUNCH
VINTAGE MODELS, LONGEST FLIGHT WINS

CABIN POWER (PRECISION)

F/F POWER MODELS WITH A CLEAR GLAZED CABIN OR AN OPEN COCKPIT AND WINDSCREEN.

THE TYPE OF POWER MAY BE ANY FORM OF POWER BUT NOT RUBBER POWER.
3 FLIGHTS, MAY BE HAND LAUNCHED OR R.O.G, TO A TARGET FLIGHT TIME OF 45 SECONDS

THE LOWEST TOTAL ERROR FROM EACH OF THE 3 FLIGHTS SHALL WIN.

VINTAGE OPEN GLIDER
3 FLIGHTS, MAX SET ON DAY

Vintage Open Glider Rules as Published for Rod Audley's Glider Day

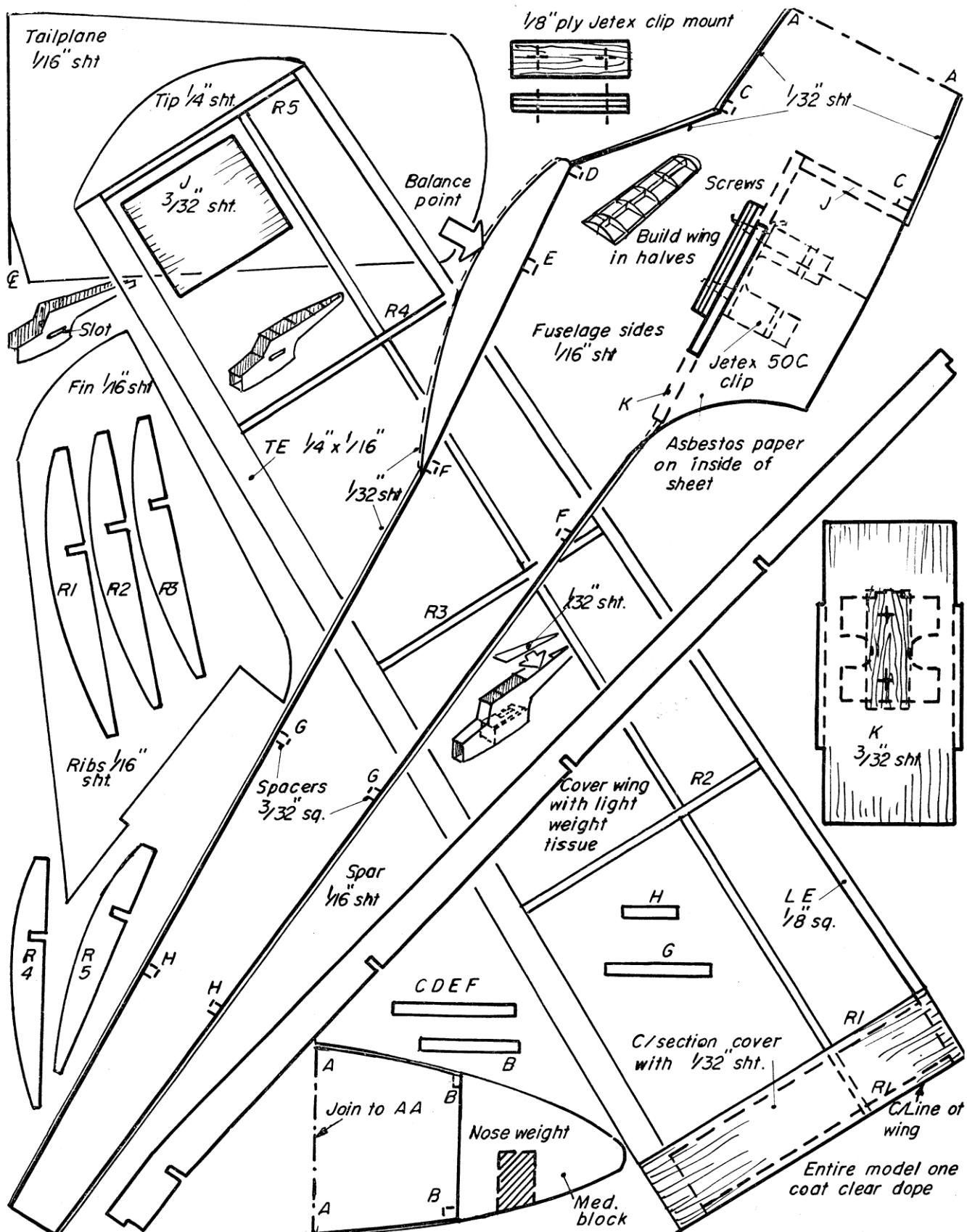
COMBINED CLASSIC OPEN GLIDER
3 FLIGHTS, MAX SET ON DAY

Combined Classic Open Glider Rules as Published for Rod Audley's Glider Day

COMBINED VINTAGE/CLASSIC HLG & CLG
7 FLIGHTS, 1 MINUTE MAX, BEST 5 FLIGHTS TO COUNT

BMFA Free Flight Contest Rules 2010 Apply except where stated.
If you have any questions on the above competitions please contact BMAS Competition Secretary John Taylor 01202 511502. or Roy Tiller e-mail roy.tiller@ntlworld.com
Queries on the competition day should be directed to the BMAS appointed C.D.

Ray Malmstrom's "Model'n Tip"
SILENT FLIGHT from Model Aircraft May 1965



IT seems a great pity that rubber and Jetex type models have almost vanished from the aeromodelling scene in the past few years. Killed by the diesel and glo-engines, the noise of which has threatened the very existence of our great hobby, it is high time rubber and Jetex models returned to our flying fields, and we enjoyed once more the real flying fun and thrills these models can provide. No noise, and therefore no objections from local councils, farmers or the public—so let's start a new and glorious age of aeromodelling—with every exciting kind of rubber or Jetex powered model! On the subject of Jetex models.

Two tips: Never light Jetex unit with a match, use a piece of smouldering balsawood or string, or dethermaliser fuse. Matches usually ignite more than the wick! Secondly always test glide your Jetex model with the motor in position but unloaded. This way you ensure a heart warming glide at the end of the power run.

To get you started in the art of silent flight," we are presenting this month Jetstream, a simple to build jet-model powered with the Jetex 50C motor. Use medium grade balsa throughout, and make sure your fuselage is square, and your flying surfaces free from warps.

As always, balance your model carefully. Test gliding and flying should be over long grass on a calm day.



Paul Helman, Evanston, IL

Do you happen to know if anyone over there is working with compressed air. Fopr a few years I have been building a series of motors trying to equal the performance of the italien and similar "Air Hog" engines but as yet they are better. It remains a bit of a mystery to me why some of my motors run better than others. Regards,

Greetings from N. Mississippi again, Al and Christopher Robinson

FWIW: Our Tomboy 36 is about ready to cover but I had FedEx simulator training last week, needed to study for prep and it interfered with my modelling!! Blast!!

Back on it Sunday and Monday, we got the giant scale Jetco Hawk ("Super Chicken") covered and pretty much finished up because we were not having any luck finding blue silk for the Tomboy from SIG models so we had stopped work on it.. (It's good to have to many irons in the fire !) Anyway, a cool story came of it.. Mr. Ed Hamler, in our emails about joining SAM said he had some blue silk and he sent it right along.. Amazing, I was really touched by this and the color is spectacular, sort of a cobalt blue that will look great when it's finished.. Modelers.. What can I say.. This was pretty special and Christopher and I both appreciated it..

For fun, my daughter Katie and I tried the tissue thru the computer printer trick to get the SAM logo on the Hawks fin.. I had read on the 'net about some of the troubles folks had but this went perfect and looks great.. All we did was position and tape the tissue's leading edge and the 2 sides to the paper and it went right thru with 'nary a hiccup.. No water shrink, it's a little baggy yet but it won't warp and a lite spray coat of Krylon 1301 clear after we covered it and it looks great.. Here's a coupla snap's..



TaaDaa.. Tomboy's all finished but lettering, pic of Katie and Chrsitopher with it below. This was a fun build, we can't wait for the weather to break so we can try it out..
(raining, again)



So what to do..

I am off this week and Tomboy, the British freeflight and the rubber models are all finished up but the weather is still crap this morning.. Humm.. (O445 and no place to go, get crackin')
Next on the "Bucket List".... A low Ar (.75) to explore Hi Alpha.. Since I built enough avionics for 2 systems in the Tomboy and the HiTec transmitter has a built in mixer for elevons.. why not..
Cute as a bug with a nod to Roy Clough of "Zoom Slot" fame.. Nitro front rotor TD .020 .. this thing should be a hoot, I always wanted to do this. (build quick !!)
This thing was a bear to get together and awkward.. Nothing to hold on to plus the front end was a nightmare, balsa does not like "3D" .. Think WW- 1 "Albatross" ply fuselage and you get the picture but she's done.. A few minor touch up's and set the rails for the micro servo's.. a coupla days and it will go like mad..





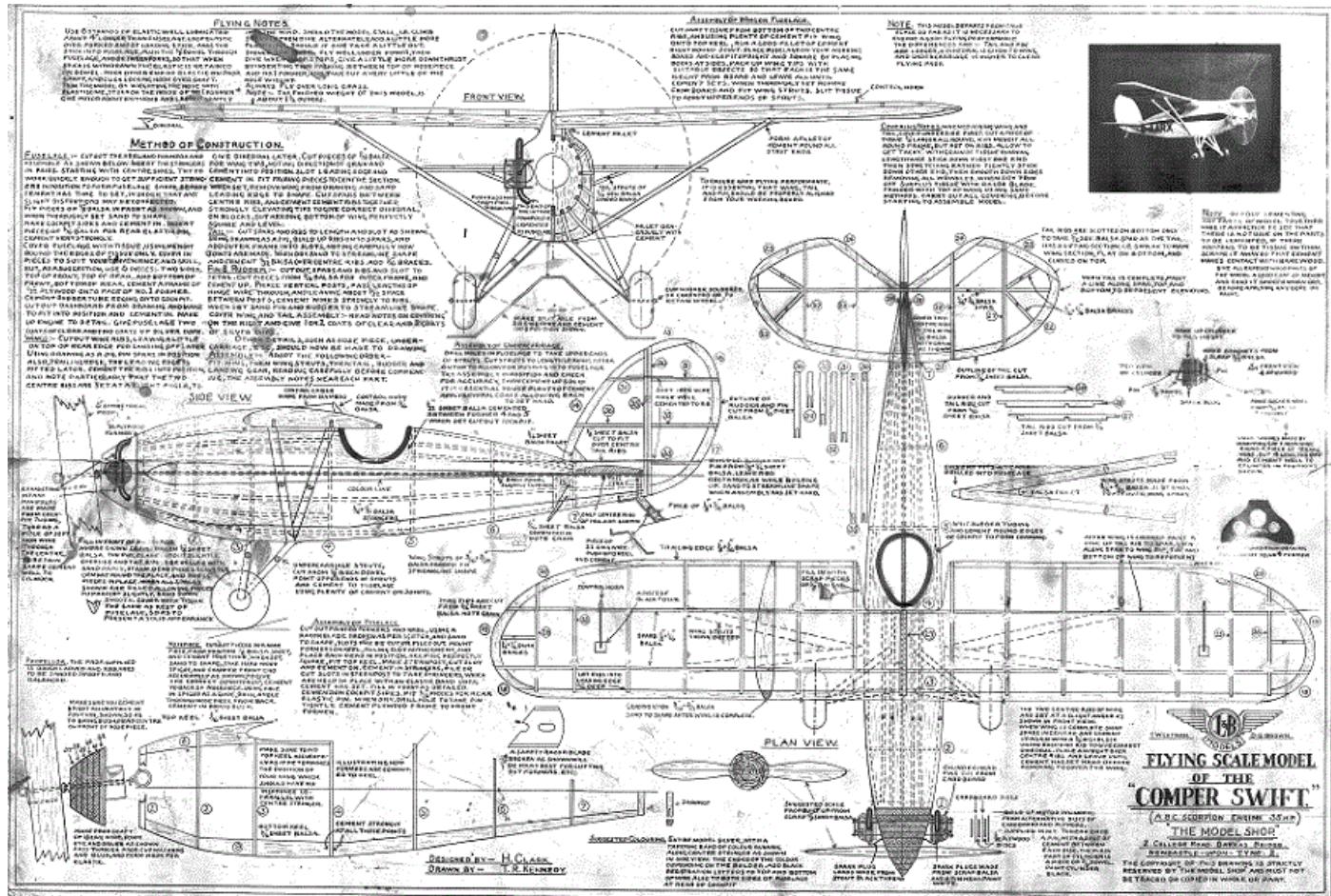
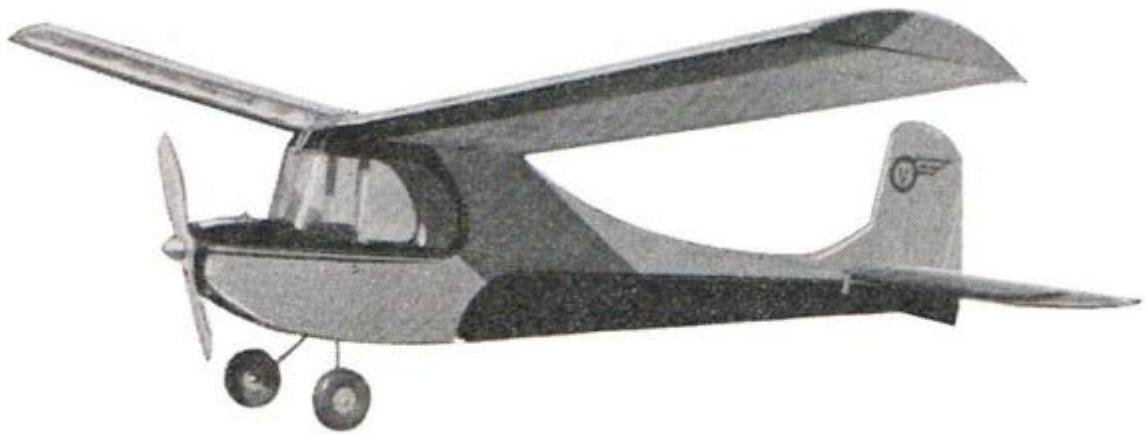
From Stephen Winkworth

Managing, despite unusually nasty weather, to get in a bit of flying. The autogyro has still failed to achieve anything other than heavy landings: I suspect magneto problems with the Anzani.

My favourite models are my largest and my smallest. The huge floater 'Le Baladin' (11ft 6 for under 3kg AUW) needs no more than half the power of its OS30FS (was originally powered by an Oliver Tiger 2.5); meanwhile the Clan 0.2 does a good job of keeping me entertained as it struggles to waft the 24 inch span 'Pirouette' into the still air of the Alpes Maritimes. I sent you a photo of the latter - my first submission to S&T. I am still in love with its delicacy and butterfly-like flight. There is something about Jap tissue: so tender and taught, almost like skin.

But all these activities have somehow to be combined with exercising Dolly the dog.





The plan came to me from a work colleague (not an aeromodeller) who inherited it from his grandfather and wanted know more about it so I thought it would be interesting to 'Sticks & Tissue' readers with perhaps some feedback. A point of interest on the plan is a description of how to break a razor blade correctly to cut out formers etc, not politically correct in today's world!

From Mike Hawkins in Oz

**Repro
Ouragan
3.36 cc**



Tomboy and KK Gipsy from Karl Gies in the USA

Tomboy

My refurbished Tomboy is finally done and waiting for good weather and of course inflating the tires. The fuselage is polystyrene with Japanese tissue over it and the flying surfaces are straight Japanese tissue. I did not

recover these yet, let's see how it flies. When I did the flying surfaces and this is the second covering done back in the 90's I did not know about tissue over mylar. The engine bay is protected by a coat of Hobby Pox (I still have a little left over from an old stash) and the rest has a coat of old stash rattlecan Black Baron fuel proofer. This is the 44" ws version and is a fine flying model. Before it had a Cox Baby Bee .049 installed when the



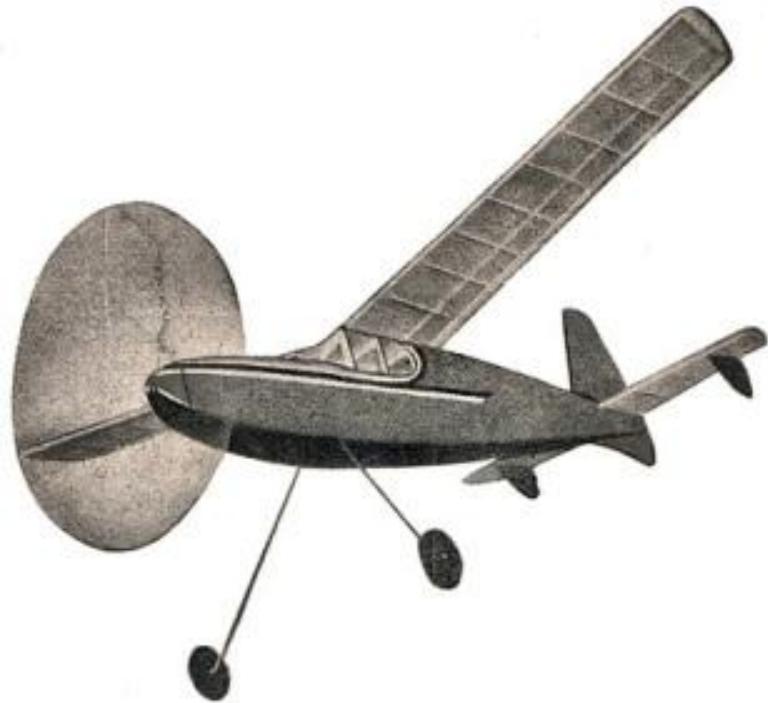
model was built in 1967. I actually wore out a Baby Bee flying this model and it was on its second Baby Bee when I refurbished it. I would guess that this model has at least 300 flights on it with only one crash which broke the starboard wing tip, easily repaired. I will give you a flying report when it is finished. I am now started on building a brand new one. This is one of my all time favorite models. cheers, karl p.s. notice my removable, shock absorber landing gear. You cannot see it but the wing has a span wise warp that gives the wing elliptical dihedral. It seems to be a beneficial warp. I have been told that this span wise warp is common to the 44" Tomboy. It is powered by an MP Jet Classic Letmo .40 diesel. This is the most satisfying power model that I have built.



Tomboy with artistic license

Gipsy

This is the model that I built in 1967 and hit a car with it at the 1991 SAM Champs destroying the fuselage. I kept the remaining parts twenty years later resurrected it. I almost never throw any model stuff away. This model is now almost finished except for bending the free wheeling prop mechanism with tensioner, glueing on the sub rudder and attaching the d.t. fittings. The covering is Japanese tissue over 1/4 mil mylar, The prop is a 17" diameter freewheeler finished with lightweight fiberglass cloth using Z-Poxy and colored with Design Master Floral Spray. I also have a 17" folding prop for it and have yet to make a nose block for this prop. I did this in the spirit of empiricism. I have been told by a couple of expert modelers that it will climb higher with the freewheeler but of course glide better with the folder. Horses for courses. cheers, cccnh p.s. if your are a Gipsy fan contact me with your Gipsy experiences at skyclan@midrivers.com



The Joy of Whittling after a nice Christmas pressy! Dave Bishop

What a nice day it was when the Postie man arrived with a neat box which on its inside was a neatly boxed kit of the Ballerina from my dear old pal and mate of so many years Derek Foxwell. He of the "Old School Model aeroplane Factory" company, and all that jazz!

Now I happen to know that all of the precisely cut bits and bobs inside this very busy box were packed by Derek's other half, Valerie, and I defy anyone in the whole wide world to unpack and then try to get all of the many pieces back inside the box such as it arrived to me. Everything was packed into different sized see through bags and everything was clearly numbered. Unfolding the plan, pinning it out flat on the building board and lying on top of that, a plastic clear film was a joy. Then all of the pieces taken from the box were laid out onto the plan to check if everything that was listed and itemised in great detail, was there. It was totally complete and everything matched with no spare spaces anywhere.

Laser cutting quality.

A special check was made to see if the laser cutting had been such, that the pieces that should have slotted together, did just that. It was a joy to see that it was engineered so well, that no packing was necessary throughout the whole building procedure. Another thing that was brought to my attention was all of the Balsa and plywood that is used, is weighed and measured with a micrometer before any attempt is made to start the laser burning. It must be very time consuming at the manufacturing end but it's the builder that certainly gets the benefit of this pre-kitted set of parts.

Your own Discretion.

The plan gives credit to its original designer the late Vic Smeed and there is one part of the fuselage has a tight tricky bend at the top rear of the cabin area. Derek instructions state that two lengths of balsa are glued together and then bent. I found that there was some "creaking" taking place when I tried to do that so I elected to steam my two top longerons to take in that amount of required sweep. The area around the fuselage centre has really been left up to your own discretion to arrange what sort of layout you desire and I elected to have my Li-Polymer battery box, bottom fed. It will save me from removing the wing every time I replace the Li-Polymer powered source. I then made a thin light tray held in place by a plastic slide bolt bought from Avicraft Model shop at Bromley. My batteries are (as usual) from John the boss of Overlander Batteries, who with his team, has helped me so many times with sudden necessities at airshows with my communications systems in my DB Sound business.

Not a light job.

I think that in all of the many model aeroplanes that I have built over some 70 years of this wonderful hobby of ours, I have only ever built just a few of them as they were designed. Being an engineer, I always build in strength where I think it is needed and my loft will bear proof of some models stacked up there as being built some 50 years ago! I include in that total a (modified) R6B, which was my first radio controlled "multi channel" model. Anyone got one of those? Consequently as a result of strengthening, my models are always overweight, but they certainly last. There are several thoughts on this theory that a light model hits the ground slower than one like mine that as a result of the extra weight, goes a lot faster towards terra firma. I don't care about that theory as my aeroplanes last longer and are much stronger, so there! Good luck to you lightweights.

Tiny thoughts.

Well what do I think of my Ballerina so far bearing in mind that it is almost getting to the covering stage and battery charging and that first flight time. My buddy Derek sits in front of one of the biggest computers in the whole world and designs his models that take many days for each one being carefully CAD drawn with a lot of midnight oil burning as a result. One tiny thing, I didn't like Vic 's leading edge tip that but jointed onto the wing tips. A "pointed thing" will never be very strong when it butts up to a flat surface and I modified that so that there was more contact area to cement together. I did though like his idea of having holes in each perfect wing rib, which allows for heat to dissipate when the covering is being ironed on. I found that the ply nose formers were a little tricky when lining the final assembly together but that could be blamed on my Jan calling out that dinner was ready and I was in a hurry. Look, I had said that I was going to the modelling shed for half an hour at 2pm and she was getting niggled that it was now 7.15pm! But her call came at an awkward building time!

And so on.

I was lucky enough to be with Derek when he test flew the first kitted Ballerina on a perfect day at Epsom Racecourse one Wednesday a few months ago now. I was hooked on how with just one charge on the Li-Polymer cells, it flew gracefully with no vices at all for some 20 minutes mostly on half throttle and it took me back to my dear old Junior (unforgiving) 60 days and over the years I have built three of those.

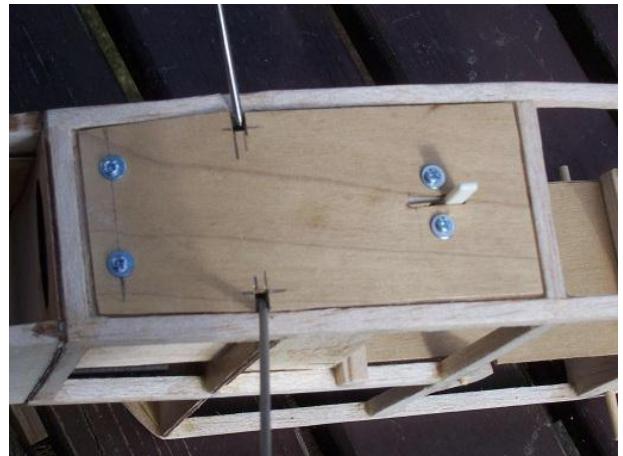
Finally and thanks.

Vic Smeed was a great-dedicated guy and with help from the lovely Mr Tomlin and our compiler James, I now enjoy re-reading through the book "50 years of Aeromodeller" and it kindles memories of "must build"

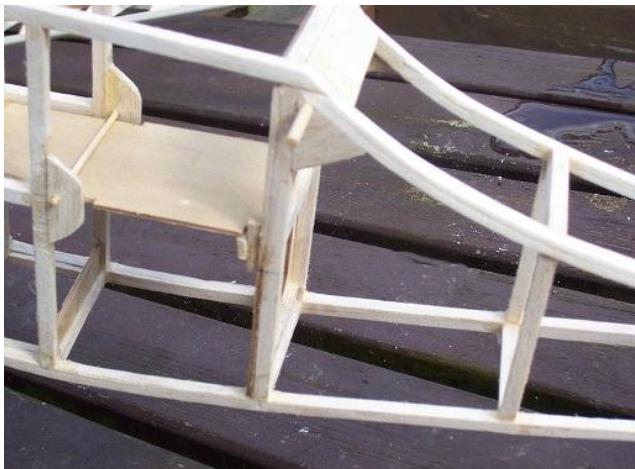
models soon, which is another story. It should be just a few days now when I can go and have some flying fun with my new Christmas present, my electric Ballerina. I believe in the saying that “if it looks right then it’ll fly right”.



Ballerina all in the Nuddie and nearly finished



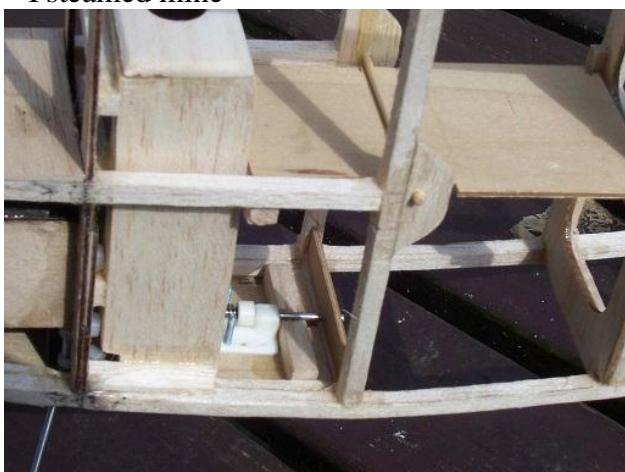
Shows my bottom hatch tray and slide bolt.



Rear Fuselage and that nice longerons curve.
I steamed mine



The holes shown on the wing ribs allowing
for air expansion



Battery box, lower tray clip.

WESSEX TOMBOY LEAGUE 2011

Scores after Round 1 held at Cashmoor on Sunday 27 March 2011 by Chris Hague

The first round of the 2011 Wessex Tomboy League was held by kind invitation of the Wimborne MAC. The weather forecast was good and the flying conditions turned out fine for vintage style models. 13 pilots turned up with Tomboy 36" models and 12 qualified for the fly-off, with flights of over four minutes, during the morning. The early morning haze soon gave way to sunshine and a gentle breeze. The air was buoyant and soon the Tomboys, using only 2cc of fuel, were reaching the limit of clear vision and after a few careful experiments a 30 second delay was decided upon for the fly-off. Models were checked for legality and three models needed some bigger wheels to come up to specification. Nearly all pilots used the increasingly popular MP Jet 040 Classic motor with its standard 2cc ali tank. This motor proved both powerful and easy to start, although one competitor had a very short flight when he launched with the motor running sweetly, but unfortunately, backwards. In the fly-off three pilots, Dave Ashenden, John Myers and Roly Nix failed to get away, James Collis and Paul Netton collided and landed soon after launch, quickly followed by engine guru Derek Collin. John Taylor still using a Mills .75 failed to get his usual decent engine run time and was next to land. Then followed a gap to James Parry and Chris Hague. Third place went to Rick Farrer, who had driven all the way up from south Devon, followed by last years winner Tom Airey. Flying with an MP Jet for the first time, congratulations go to Peter Rose who was the convincing winner with his all black model, with a time of 7 min 12 sec.

Wessex Tomboy 36" span league table

		R1	R2	R3	R4	R5	Total
1	Peter Rose	10					10
2	Tom Airey	9					9
3	Rick Farrer	8					8
4	Chris Hague	7					7
5	James Parry	6					6
6	John Taylor	5					5
7	Derek Collin	4					4
8	James Collis	3					3
=9	Paul Netton	2					2
=9	Dave Ashenden	2					2
=9	John Myers	2					2
=9	Roly Nix	2					2

1st Peter Rose 7 min 12 sec; 2nd Tom Airey 3rd Rick Farrer 4th Chris Hague 5th James Parry
 6th John Taylor 7th Derek Collin; 8th James Collis 9th Paul Netton DNF: Dave Ashenden, John Myers, Roly Nix.

Wessex Tomboy Senior 48" span league table

		R1	R2	R3	R4	R5	Total
1	Tom Airey	10					10
2	Chris Hague	9					9
3	Rick Farrer	8					8
4	Derek Collin	7					7
5	Clive Carpenter	6					6
6	Peter Rose	5					5
7	Bill Longley	4					4

1st Tom Airey 10 min 46 sec; 2nd Chris Hague 3rd Rick Farrer 4th Derek Collin 5th Clive Carpenter 6th Peter Rose 7th Bill Longley.

There were eight entrants in the Tomboy Senior competition with seven qualifying for the fly-off. The event was comprehensively won by Tom Airey, his 48" span Tomboy achieving a massive height with a long but slow climb. The time could have been far longer but when Chris Hague landed after an impressive 10 minute 5 seconds Tom was able to dive for home. Third was Rick Farrer with a new lightweight model, fourth was Derek Collin with his brand new model, flying well on it's first outing. Chips Carpenter, who came fifth, was lucky (or well prepared!) to have a model for the fly-off as he launched earlier in the day

without switching on! However, the model had a tracking device fitted, what great foresight! It was then located in no time at all, by all sorts of electrickery, about 2.5 miles away, none the worse for it free flight. Peter Rose and Bill Longley were the remaining two finishers, both suffering from short engine runs.

Our thanks go to our starter for the day, Phil Coupe and his timekeeper Roger. Also to the host club the Wimborne MAC for allowing the use of their flying field.

Remember it is the best four scores, shown in **bold** type, to count. The next round will be on Sunday 1 May at Templecombe, the site of the Wincanton Falcons. Full details available on our website: www.wessexaml.co.uk



Peter Rose Tomboy 36



Chips Carpenter Tomboy 48



CHART - this time - Control line Peacemaker from Chris Hague

An offer one cannot refuse! A phone call from Derek Foxwell, proprietor of the Old School Model Airplane Factory, asking if I would like to build the prototype Peacemaker he has just developed. Now back in the not so old days they were often flown with the renowned 2.5cc Oliver Tiger. Now Derek must have known that I had an OT just waiting to be flown in a suitable plane.

It was now time to open the box, by the way, even the box is made by the OSMAF. Just how do kit manufacturers manage to get so much in the box? There wasn't a spare inch (cm if you must!) anywhere. Now the wing span is 36.5" and the box is just 21" long, so I was intrigued to see how the full span spars would be formed. I needn't have worried as the joins were staggered and suitably reinforced and together with an ingenious built-up spar the finished wing was both light and strong. A full size plan and instructions are supplied. Wing construction was quick, easy and accurate. This was helped enormously by the tabs on

the lower rear of each wing rib which held the wing level whilst attaching the spars and the leading and trailing edges. It all slotted together easily and even the holes in the wing ribs were in the correct position for the lead out lines. Whilst the wing was undergoing its stages of construction the fuselage, tailplane and fin were built so that everything was ready for sanding at the same time. Three small dowels located the three laminations of the profile fuselage so that the engine bearers and wing slotted in very accurately – very neat. A bit of effort was needed when sanding the wing leading edge (well you have to feel that one has put some effort in to the building process!) but it all lined up nicely with the rib profile and produced a strong but light leading edge.

I prefer to cover the component parts separately, leaving bare any areas that will be glued together, before final assembly, but I do a complete trial assembly first. The fuselage and fin were covered in Litespan and the wing and elevator with Solartex. I use Solartex to hinge the elevator. Two suitably sized pieces of Solartex are placed with their adhesive sides facing each other and then run a line of stitching with the domestic sewing machine up the middle to form the hinge. A method I have been using successfully for over 25 years.

The wing was joined to the fuselage with 30 minute epoxy and then by holding the model at an angle of 45 degrees a neat fillet of epoxy was added around the wing root. Leave wedged at this angle until the epoxy hardens. This is done in turn for each joint thus sealing the joint neatly and preventing fuel getting into the wood.

Having never soldered up a fuel tank before, I enlisted the help of club colleague Phil Beard. As local club members will know Phil is a wizard at any small engineering job. All the necessary parts are supplied and the tank can either be soldered together from the three pieces as shown in the instructions or in two as shown in the photograph. The fuel feed pipe exit was moved back to the middle of the tank to allow clearance to the rear of the engine for the fuel pipe. A coat of water based satin varnish covers the whole plane with a second coat around the front of the model. After leaving to dry for a week the OT and fuel tank were added. The C of G came out exactly as marked on the plan and so it is now ready for its first flight. I wonder how long the lines should be for the first flight? (If you thinking THAT short – you can fly it!) More of that next time in Chris Hague's Aeromodelling Random Thoughts.



Bloomin 'eck I nearly forgot the Middle wallop photos Sunday 20 March 2011



Chris Hague with his 12" and(Banks.,25 Mills)
and 24" (Banks .5 Mills) Tomboyeezers





Derek Collin and Cloud Elf with own built sparky



Another photo of Roy Tiller's Jodel











That's it for this month

(Within 30 seconds I'll start to find the things I've left out by mistake!)