

Sticks and Tissue No 57 – August 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/>

Writings and opinions expressed are the opinion of the writer but not necessarily the compiler/publisher of Sticks and Tissue. The content does not follow any logical order or set out, it's "as I receive and put in".



George Stringwell's Bantam more in article somewhere following

From Stephen Winkworth

A couple of items in the latest issue really rang bells for me. I too have a Keil Kraft Ladybird, also, like David Danvers's model, PAW powered, but by a .55 BB R/C, which is quite powerful enough. It started life with a Heron 1.0cc, which was too heavy and too powerful. With the 0.55 our (whippet-cross) dog 'Dodo' could just about follow it round the flying field. So I slightly renamed it - the 'Lazydodo'.

I'm sorry to see Danvers has added a separate elevator - this is

is design which cries out for an all-moving tail, based on the original geometry. You don't have to change anything! However mine does have a removable undercarriage, to enable the whole thing to fit in a carrying box. By the way, that's a fine garden bench you have there, David.



You also published a reproduction of an ad for the Halifax 'Hermes'. This settled a long-running dispute in my mind. I have one of these, but was under the impression for a long time that it was a 'Mercury No. 1'. Did Mercury acquire the rights to the kit from Halifax? Who were Halifax, and why didn't they have an 'i' where you'd expect to see one?

My 'Hermes' is the only model I have that I didn't build. I wonder what happened to the builder, who used occasionally to appear on

Epsom Downs. He told me, when I bought the Hermes from him in July 1991, that he had originally built the model for electric power. The radio he fitted was about the lightest thing you could find in those days. It came from a Japanese ready-built electric model, and I bought a spare receiver unit, (see photo), which I ended up never using. 27 MHz - I still operate mine with the McGregor tranny in the photo - it must be 40 years old at least, but it still works, so why change anything? The carrying box is my own idea, and was intended to resemble the kind of box keen modellers used to strap on their backs when cycling to the Downs.

Happy Flying! Stephen



There have been weeks of intensive study (mainly looking at the model and then looking out of the window and deciding conditions would really be better for walking the dog). Meticulous engineering refinements have been effected (see below). Static tests have been held (holding SWAG in winds of various strengths and noting that the rotors do actually seem to revolve in the intended directions, making gratifyingly fluttery sounds). Now, at last, the SWAG team has succeeded in achieving controlled flight.

Setting out this morning with SWAG-1b sitting on a bag of tip-bound rubbish on the front seat, relegating Dolly the dog to the back seat, the team proceeded to the Bar-sur-Loup Club field. Bright sun, a light and variable wind, and absence of other humans all encouraged optimism. A few practice flights with the dog-

exerciser model went according to plan, and Dolly, as chief witness, was duly installed in a shady spot, securely clipped to her Harrods lead.

There was not enough wind to get the rotors spinning, so they were given a bit of a push (lower clockwise, upper anti-clock), and SWAG-1b was released onto the tarmac, the propellor of the Anzani revolving in a leisurely fashion.

A burst of throttle, and she starts to move into the light breeze, rotors continuing to revolve. Advancing the throttle, she picks up speed. Dispelling fears of a torque-induced tip-over, she continues at a fair pace, and with throttle all the way forward, is suddenly airborne (total run less than half the 150m of runway). The climb-out is initially alarmingly steep, so forgetting every warning about the dire influence of negative 'G' on autogiros, a touch of 'down' elevator is given, and she levels off with no ill effects. Initiate left turn using rudder. Smooth left turn results. Pleasant whirring sound from rotors. Straighten up, reduce throttle - finally a more horizontal flight. We are now well above the tops of the neighbouring trees, turning sharply to port. Definitely more airworthy than the Bleriot, but there is something a little unfamiliar about the way she moves. Reduce rudder throw, she straightens up crisply. It is time to begin the downwind leg.

She flies, for Chrissake! Loud confirmatory barks from witness Dolly.

This is so good, let's not risk anything. Reduce throttle further, gentle descent. Slow turn to port, overshoot a touch, straighten up and head for runway. Runway in sight. Reduce throttle a touch more. She's dead centre. Moment of confusion about correct method of landing autogiros (do they need a burst of throttle as they touch down? - damn, too late) - she's down, a trifle sharply, but nothing to trouble that elaborate undercarriage. Rotors still revolving, but for some reason Anzani has stopped dead. Ah, might be something to do with the transmitter throttle being hard back at 'Stop'.

There she sits, in the middle of the runway, airworthiness proven and totally intact. Need to digest all this: she's too pretty to risk anything hasty.

The main modifications since first trials (January 18 - shame, shame....) are:

- (1) Installation of John Downie engineered rotor hubs: see photo
- (2) Increase of rotor blade area - from 26x4cm to 30x5.3cm per blade
- (3) Removal of 6mm from top of fin as new rotors now risk hitting it
- (4) Rudders offset in the following manner:

To counteract torque:

Tip rudders (which are sharply dihedralled) - port rudder 4mm to left (down); starbd rudder 6mm left (up).

To address left turn apparent in first 'crash' flight:

Central rudder (main flight control): neutral is offset 6mm to right.

- (5) Elevator neutral raised 2mm from flat.

That about sums it up. Celebratory lunch with spouse and 93-year-old mother of absent friends in shady garden of local posh restaurant, starting with glass of chilled vin rose... but you don't need to hear the rest of the menu. Whoopee!!!

Photo of SWAG-1b and revamped Delta 167 follows in next email.





Please note important refinement to Delta: the laser-grid heat dissipator of the fusion engine can be seen in this picture, still emitting waves of incandescent muon particles.

From Jim Wood, Augusta, Maine, USA

Today, Sunday August 31st was my club The Kennebec Valley Model Aviators Annual Picnic And fly in. It was held at our field in Sidney, Maine. It was sunny 85 degrees/29.5 Celsius, calm winds and unlimited visibility. Many fights were made, Good food, and a good time was had by all. You can visit us at www.modelaviators.org



Flight line





For the rotor heads



Glider tug



Solar powered charge station



Stunt wing



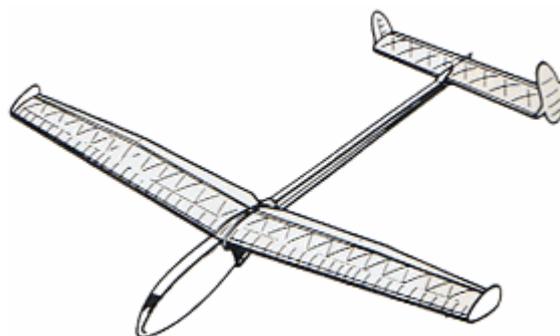
Tug and passenger



Up and away



WWI



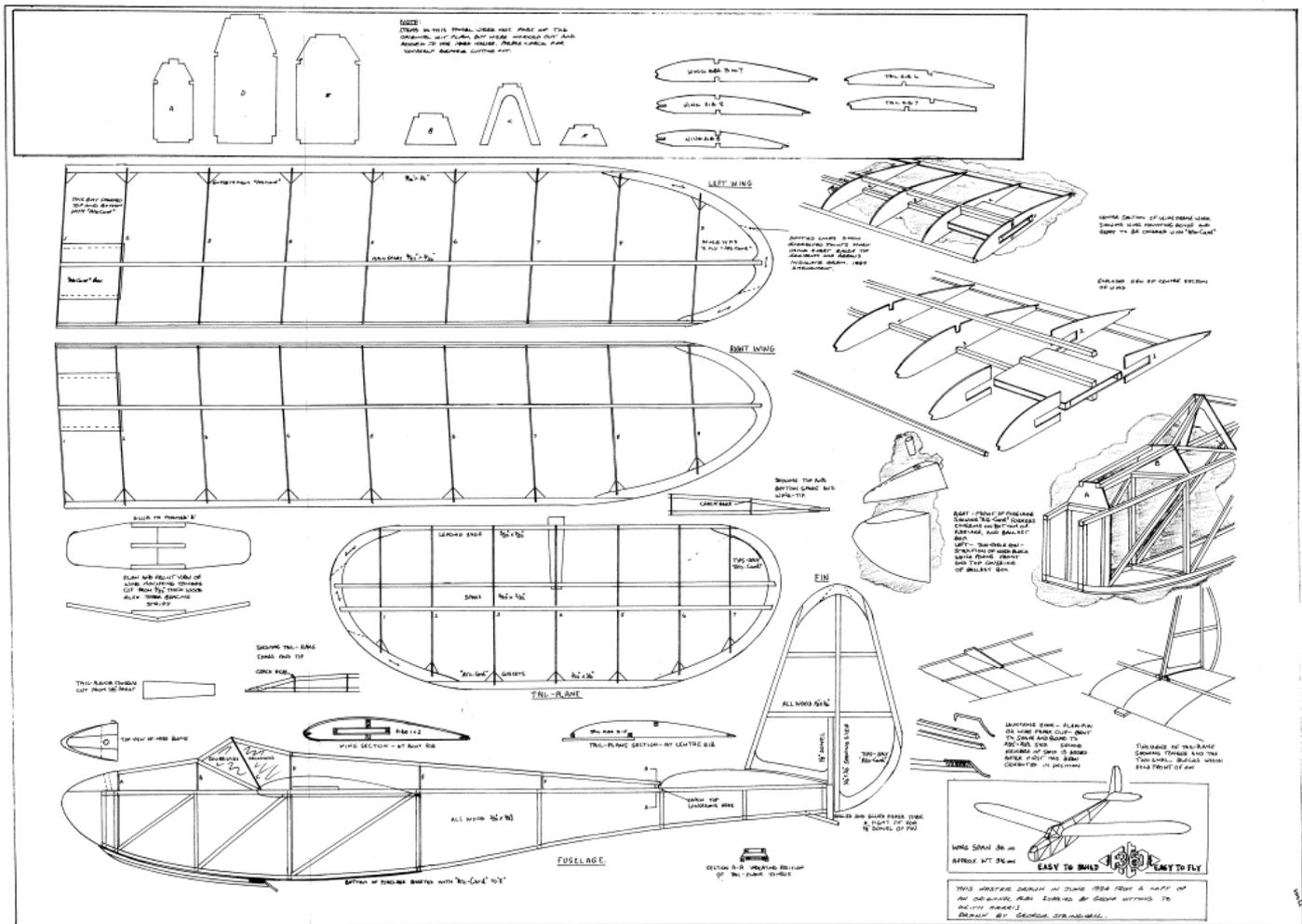
From George Stringwell

Coincidence or what? I see that you had an illustration of the ATO36 glider in the latest Sticks and Tissue. A few days ago I was moved to dig out the one I built in 1994 from the plan I had just traced to produce a dyeline master when someone on the Ezone posted a query about the model. Mine had been languishing in a model box in the barn since we moved to France in 2006. I took some photos to post on the forum, and thought you might like a couple for S&T. As a result mine has had a couple of hand-glide outings which show it to be still in good trim, but there are too many trees around here to risk it on tow!

Also attached are a couple of flying shots that Ali, my wife, took yesterday of my Tomboy wearing it's water boots. I have yet to fly it off water as I am still not QUITE satisfied with the handling and am tweaking the CG and producing a new fin/rudder with more area and a smaller rudder percentage.

The latest creation, an Albert E Hatfull KK "Bantam" (or "Anzac") is almost complete, so I will hopefully send you a photo of that before the next issue.





Subsequent email from George

Regarding the ATO you might like to add this URL:

<http://www.rcgroups.com/forums/showthread.php?t=1475750>

where more information and some close up photos can be found.

Finished the KK Bantam this weekend and flew it. It is probably the best flying radio/electric conversion of a free-flight model I have flown, handling is delightful, it even does excellent consecutive loops and a half

decent barrel roll. Performance with the 90 watt BRC outrunner is perfect, with an 800 2S lipo giving 12 minute flights with



enough reserve for a couple of overshoots on the landing, total cost of motor, ESC and lipo being less than £25 - can't be bad. Few pictures attached for you to choose from.



From Dave Acton, White Plains, New York

Here are some photos that might be of some interest. The Tom Boy on floats was flown At the U.S. Free Flight Championship (NATS)

in Muncie Indiana. Flown just for fun, what better way to test the "pond" that I had just helped to erect. Here is a link to a short video <http://www.youtube.com/watch?v=2rXVzyfQ1Yc> with a quick DT while under power.

The other shots are of my newly completed S-4 Shrimpo for 1/2A Texaco (Canadian rules allow diesels). It is powered by a Polednik

.75 from Flitehook in the UK. It flies like a well trimmed free flight, left under power and right in the glide. The only inputs from me are to keep it on the field and flair the landing.



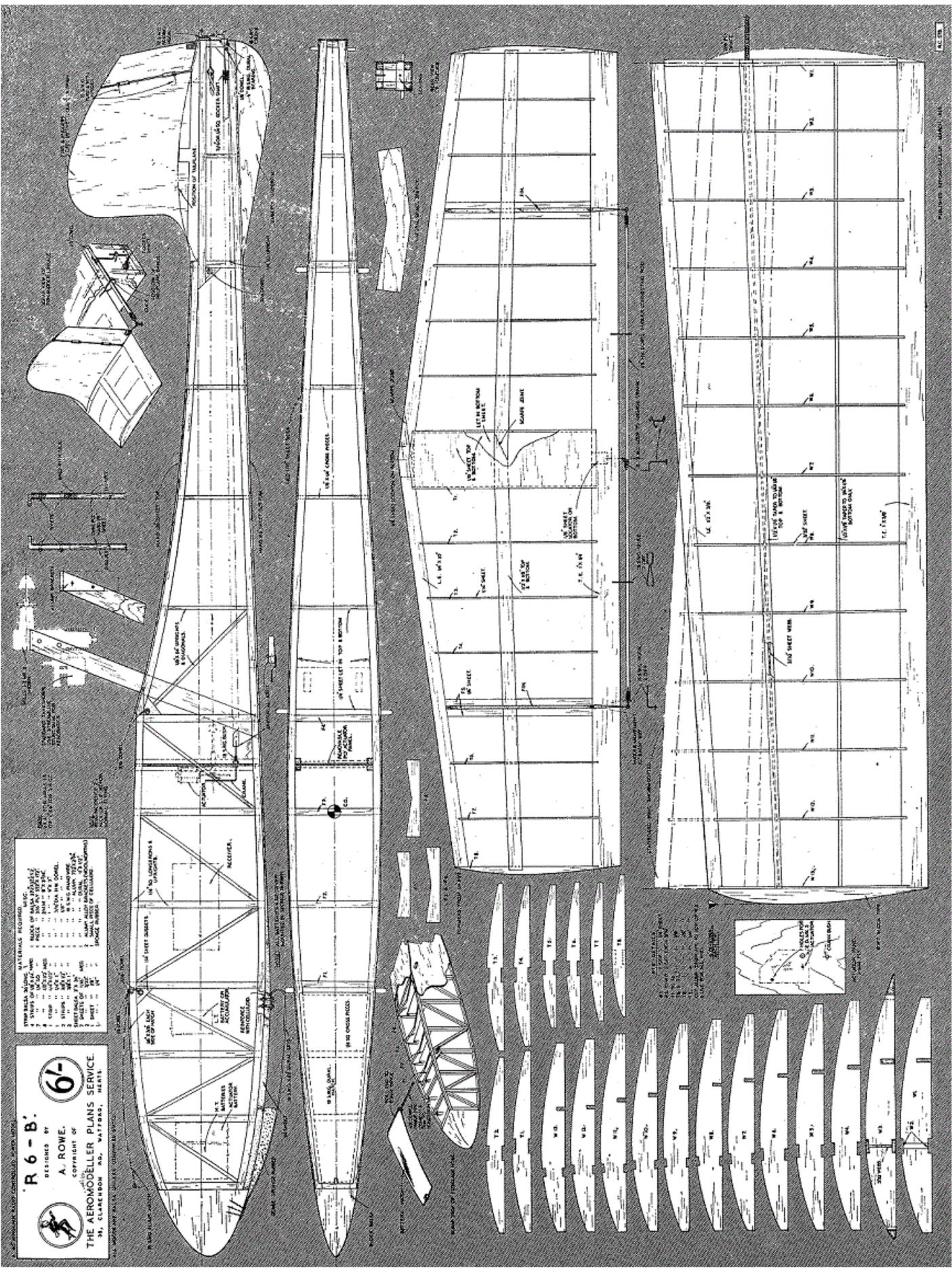
Dave at the pond





OHLSSON
.33
SPARK





MATERIALS REQUIRED

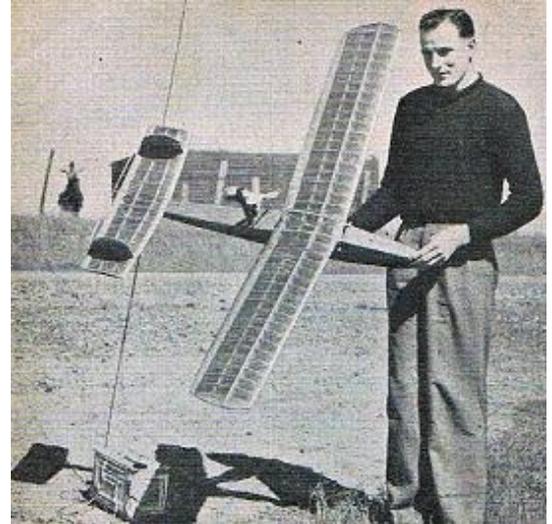
1	1/2" x 1/2" x 1/2" Balsa	1	1/2" x 1/2" x 1/2" Balsa
2	1/4" x 1/4" x 1/4" Balsa	2	1/4" x 1/4" x 1/4" Balsa
3	1/8" x 1/8" x 1/8" Balsa	3	1/8" x 1/8" x 1/8" Balsa
4	1/16" x 1/16" x 1/16" Balsa	4	1/16" x 1/16" x 1/16" Balsa
5	1/32" x 1/32" x 1/32" Balsa	5	1/32" x 1/32" x 1/32" Balsa
6	1/64" x 1/64" x 1/64" Balsa	6	1/64" x 1/64" x 1/64" Balsa
7	1/128" x 1/128" x 1/128" Balsa	7	1/128" x 1/128" x 1/128" Balsa
8	1/256" x 1/256" x 1/256" Balsa	8	1/256" x 1/256" x 1/256" Balsa
9	1/512" x 1/512" x 1/512" Balsa	9	1/512" x 1/512" x 1/512" Balsa
10	1/1024" x 1/1024" x 1/1024" Balsa	10	1/1024" x 1/1024" x 1/1024" Balsa
11	1/2048" x 1/2048" x 1/2048" Balsa	11	1/2048" x 1/2048" x 1/2048" Balsa
12	1/4096" x 1/4096" x 1/4096" Balsa	12	1/4096" x 1/4096" x 1/4096" Balsa
13	1/8192" x 1/8192" x 1/8192" Balsa	13	1/8192" x 1/8192" x 1/8192" Balsa
14	1/16384" x 1/16384" x 1/16384" Balsa	14	1/16384" x 1/16384" x 1/16384" Balsa
15	1/32768" x 1/32768" x 1/32768" Balsa	15	1/32768" x 1/32768" x 1/32768" Balsa
16	1/65536" x 1/65536" x 1/65536" Balsa	16	1/65536" x 1/65536" x 1/65536" Balsa
17	1/131072" x 1/131072" x 1/131072" Balsa	17	1/131072" x 1/131072" x 1/131072" Balsa
18	1/262144" x 1/262144" x 1/262144" Balsa	18	1/262144" x 1/262144" x 1/262144" Balsa
19	1/524288" x 1/524288" x 1/524288" Balsa	19	1/524288" x 1/524288" x 1/524288" Balsa
20	1/1048576" x 1/1048576" x 1/1048576" Balsa	20	1/1048576" x 1/1048576" x 1/1048576" Balsa

R 6 - B'
 DESIGNED BY
A. ROWE,
 CONSULTANT OF
THE AEROMODELLER PLANS SERVICE,
 94, CLAREBORO' RD., WATFORD, HERTS.

R6-B a 5ft span Functional Radio control design for motors 1.3 cc to 2.5 cc by Allen Rowe from Aeromodeller March 1955

The most popular model design, flown by the majority of New Zealanders is Allan Rowe's R6-B., or variants thereof. Main feature is the mounting of the motor above and behind the trailing edge of the wing. The advantages of such a setup we leave to Allan himself to explain in the article that follows, and state without hesitation that it is the most intelligent and practical approach to radio-control model design that we have yet seen. Over to Allan then:—

This ship, Mark 2 of a sixth series of R/C designs, was built around the new H.M.V. radio-control equipment and was intended as a general purpose and unashamedly functional aeroplane. It will do everything required of a single control R/C model. It will fly sedately and with precision—it will penetrate in gusty conditions—at ground level it will give precise control-line type stunting—with more altitude and a bigger motor it will do every aerobatic manoeuvre required, including consecutive barrel rolls—it will outmanoeuvre conventional ships in R/C combat flying—it will not break propellers—it will not get messy with oil from the exhaust—it cannot stall under power. It is an excellent beginner's model and yet a spectacular expert's model—and if any English Aeromodeller has his doubts, I'm prepared to come over with the original model and prove it—(provided he pays my fare!). I have no hesitation in stating these



facts because I think it reasonable that any aeroplane designed without left over free flight inhibitions and specifically for general purpose radio-controlled flying, should have this performance. I do not claim that R6-B is the answer to such a specification but it is one answer that has proved successful and as such will perhaps serve to stimulate others to get out of the rut worn by our free-flight ancestors.

In the design stage, the whole conception of a satisfactory aeroplane centred around the need for utterly reliable radio equipment without which the more spectacular varieties of flying could not be attempted. This was provided by the new H.M.V. gear which after six months of hard concentrated flying has not yet been inspected since its original installation in the model. The only servicing it has received has been the replacement of batteries as required and the winding of the "Relaytor" rubber. The model, now six months old, has been in the air every week-end as well as frequently during lunch hours and in the evenings after work.

The need for a strictly functional machine, simple of construction, repair and maintenance influenced amongst other things the placing of the motor and the absence of conventional undercarriage. It seemed both an unnecessary and expensive bow to convention to place a valuable engine in the nose which is normally the point of impact in the event of pilot miscalculation. Furthermore, such a position apart from ensuring an aeroplane continually messy with exhaust oil, precluded the use of a highly efficient air-screw (paper-thin highly polished blades are hard work and break easily), increased fuselage drag due to slip stream velocity, introduced undesirable twisting forces requiring critical thrust-line adjustments and prevented a clean entry at the most aerodynamically important point of the fuselage. Possible alternative placings for the motor included the rear of the fuselage and the top of the fin, but the arrangement shown was finally adopted. Specifically, the advantages of this engine position in actual practice are:

1. The angle at which the motor is set is immaterial because the slipstream has no intruding surface on which to react. Hence no critical adjustment of thrust-line is required and it is sufficient to line up the motor by eye.
2. All exhaust oil is blown clear of the model passing over the tailplane and between the fins. As a result, the model lands in a perfectly clean condition after 30-40 minute flights.
3. Because the slipstream does not have to create drag pushing past obstacles such as wings, fuselage, engine, etc., all the available thrust is used for its proper purpose. Consequently, big results are obtained with small capacity engines with a resultant economy of operation. When several hours flying are packed

into each afternoon outing, this question of fuel consumption becomes a very real consideration and the efficient use of a small capacity engine is a useful contribution to overall economy.

As most of our flying in this country is carried out from rough fields, the only justification for the retention of a conventional undercarriage has been its value (doubtful) as a propeller protector on landing. The skid finally adopted for R6-B fulfills its function as a landing device but its replacement by a bicycle undercarriage with wheels inset and the rear wheel say ½” forward of the C.G. would permit take-off from reasonable ground. R6-B was originally flown with an inverted Mills 1.3 (thinned and polished narrow blade 9’ x 4’) fitted with a 20 minute streamlined tank. In this form and with moderate rudder movement precision manoeuvres may be carried out with flat skidding turns.

With the same motor, but with maximum rudder deflection, the model becomes moderately acrobatic, instantaneous control response (and recovery) permitting “ground attack” methods with perfect safety particularly in view of the model’s non-stall characteristic. In this trop tight turns as low as 3-4 feet from the ground may be safely performed by the key blipping method (micro switch essential) and recoveries from wing overs at the same height are also O.K. in reasonable weather. In this trim also, the model has quite a useful rate of climb and can be used for combat flying or just flying for fun—thermal hunting for the free-flight boys, cloud chasing, etc. The model’s biggest advantage in combat flying is its ability to “hang on the prop” in a vertical climb and gradually ease off to its regular climb angle without any stall as speed diminishes to normal. Thus from a position alongside an opponent a peel off and climb under his tail is possible without any penalty of lost flying speed.

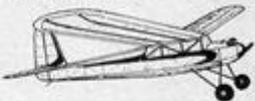
With full rudder deflection and fitted with an inverted gravity fed FROG 250 (thinned and polished wide blade 10 x 7), the model is fast, with a rapid rate of climb and is highly aerobic. For continuous aerobatics a model must combine a rapid rate of climb with a dean plunging spiral dive which initiates immediately control is applied and is as near a straight vertical plunge as possible. A tight fluttering spiral or a slow developing spiral is useless. R6-B combines these desired characteristics and as the gravity fed FROG runs steadily in all positions, smooth non-Stop aerobatics are possible. A dive of approximately 100—150 feet gives sufficient speed for consecutive barrel rolls but one turn of spiral dive is usually sufficient for all other manoeuvres possible by remote control. Combat flying in this trim is not recommended in view of the increased collision risk due to greater speed and the violent effects of momentary - over control, but if you like it that way—well go to it.

Prokit-A brief history From Gary I. Davie

Prokit Products first started in 1978 , operating from my father’s model shop Arts.Crafts & Models,Castleford, West Yorkshire.

I was then 19 and started to manufacture a small range of antique flying models starting with the Buzzard Bombshell, Dallaire Sportster and other well known classic American models.

Interest in the kits was good enough for me to advertise. Response was only fair at best but gradually the word spread, sales increased and subsequently I gained considerable interest from other related magazines in Europe and the USA.

<h1>Vintage R/C Aircraft Kits</h1>		
1940 Buzzard Bombshell	PROKIT PRODUCTS The Butlers Flat, Womersley Hall, Womersley, Nr. Doncaster, Yorks. Tel: Pontefract (0977) 620670	DALLAIRE SPORTSTER FOR 60-90 MOTORS
	<small>We offer a fast world wide plane service — composite kits made to suit any plan, in our service. Very comprehensive catalogue with plans listings, kits, accessories & hardware, coupled with a scale model research service is available at £1.50 + 20p post. Good deals for kits with radios and engines are readily available. All our kits can be made available professionally built, covered or uncovered on request. Personal scale kits and plans service available send 50p & SAE for list. Access & Visa orders welcome.</small>	
<small>For 2-3 function radio control. Engines from 25-40 cu.ins. Kit offers graceful fuselage & jolly parts. Shaped ribs. Perfected landing gear. 2 sheet plans. Complete hardware package. Adhesives & rugged excellent performing model look 1st, 3rd & 5th places at 1940 US Nationals with a winning free flight time of 43m 20s. Wing span 77" Wing cord 12" Price £44.50</small>	<small>CATALOGUE CONTAINS £1 VOUCHER REFUNDABLE ON ORDERS OVER £12</small>	<small>108" WINGSPAN KIT PRICE £85.50 + £3.00 P&P PLANS SET £13.00 inc. postage WING RIB AND FORMER SET £26.00 + 50p postage 2 PIECE PLUG ON WINGS</small>

I wasn’t long before I was approached by Ripmax, Irvine, Harry Brooks and others to supply on a wholesale basis. I declined.

Prokit was featured on a number of occasions in Flying Models, RCM Magazine and WW1 Aero. A later magazine article was featured in Radio Modeler sometime during 1983 which featured the Grumman Duck I produced.

Response from these articles was considerable, so much so that I had model builders coming to the shop from all over the country and in particular off the ferry at Hull from Sweden, Norway and Denmark. These particular modelers always sent letters or phoned in advance to obtain particular supplies in addition to the kit of their choice.

Mail would arrive from the four corners of the earth sometimes by the dozens, often with International Money Orders or just Visa Numbers in payment. Many inquiries contained plans, photographs of models built in the 1930's and the builders experiences with his creation.

By 1985 sales from Prokit were easily outstripping the shop retail sales. This combined with the early 1980's recession and miners strike prompted me to move on and continue Prokit as a full time concern.

Prokit Products was then set up at Womersley Hall, Womersley, Nr Doncaster. Manufacturing continued full time. Kits were manufactured in batches of 10 or 20 of one design at a time and sent worldwide.

However the logistics of operating a full time business of this nature was at times insurmountable.

I remember sending kits to very remote locations in South Africa, Australia, Sri Lanka, Hong Kong. I also remember sending 2 GHQ Sportsters to Rorkes Drift in South Africa to The Reverend Bob Lowe. He described the model as being so ugly it was beautiful.

 <p>Connecticut Yankee £55.00 + £2.50 p&p</p> <p>FOR FREE FLIGHT OR 3 FUNCTION R/C Wing Span 60" Power 20 cu/ins.</p>	
<p>WING SPAN... 12" POWER... 30-40cu/ins</p> <p>£57.50 + £2.50 p&p</p> <p>PROKIT PRODUCTS ENGLAND</p>	<p>'THE LANCER 72' 1940 Vintage</p> <p>HIGH PERFORMANCE STREAMLINE CABIN MODEL ENGINEERED FOR THE SPORT & CONTEST BUILDER & FLYER</p> <p>KIT CONTAINS PRECUT SALON AND PIN FORMERS, SHAPED AND UNDER ARMED WING, REAR FISHBONE WIRE, LANDING GEAR, 2 SHEET PLANS FURNISHED FROM ORIGINAL COPIES. FITTINGS ARE INCLUDED FOR 3 FUNCTION R/C OR FREE FLIGHT COILING & WING AIR REMOVABLE</p>
<p>Fine quality vintage R/C & rubber powered aircraft kits, for novice or enthusiast. Faithfully reproduced from original plans by famous designers and manufacturers of the 30's and 40's. For illustrated catalogue of R/C kits both vintage and scale, free flight, CO2-.020, coupled with plans list and accessories send £1.90 in postal orders. All kits contain precision cut parts throughout.</p>	
<p>SPECIAL OFFER. TRANSMITTER NICADS SIDE BY SIDE. SHRINK WRAPPED (EX PLUG) 12+ £12.00 + .80p p&p</p>	
<p>PROKIT PRODUCTS  </p> <p>Womersley Hall, (Butler's Flat) Womersley, Nr. Doncaster, Yorkshire, DN6 9BH, England Tel: 0977 620670, between 9 - 5.30 please</p>	
<p>LONDON AREA HERTFORD HOBBIES 2 Butler's Green, Herts Tel: 0992 355582 AVAILABLE OVERSEAS FROM: AERODYNE c/o Keener's Yard 1725 Monrovia Stn No. 14 Costa Mesa, 92627 U.S.A. CHRISTENSEN P.O. Box 53042 Jeppetown 2043 Johannesburg, South Africa NATANS HOBBY Box 17 +4524 Yimbucka Sweden ITALY - DEALER URGENTLY REQUIRED.</p>	

Prokit Products ceased production in 1989 or 1990 and the entire business was mothballed so to speak. However due to the possibilities of CNC and laser cutting I am now just starting to resurrect the business under the name ModelKraft.

I have met and corresponded with some fantastic people over those years and sometimes still do. In those early days I often visited the late David Baker at Muswell Hill who always gave me a great deal of advice. I gained considerable experience at the 1986 SAM Champs whilst staying with Sal and Nan Taibi. More importantly what always amazed me is the sense of friendship and comradeship I experienced within the world of Antique flying models.

In the words of the late Jim Adams. "The world would be a much better place if more people around the world took up this hobby today".

If anyone is interested in acquiring any of the old Prokit range of kits please do not hesitate to get in touch. I still have thousands of parts remaining.

Tel: 07535 449700 or email: modelkraft@gmail.com

Temporary Web Site: microrcmodel.co.uk



From Michael Burke

REIHER 1/4 scale weight 20lb electric use bungee to lift off to save battery



From Bill Wells

My third control line model that survived from the early sixties is the Veron Minibuster. A what? Yes a most peculiar model nowadays but in its time it must have been the Bee's Knees. Each day I walked back from school I would look in the window of a little sweet, come odds and ends shop at the Veron Minibuster box plus the odd ED Bee and odd bits aero modelling stuff like tissue, glue, dope and brushes. How I wanted that model but there seemed little chance because it cost 19/6 or 97½ Pence in new money. Pocket money was a bit hit and miss, being I suspect dependent upon how well the family business was doing. I saved my money and just hoped the kit wasn't sold in the meantime. Eventually I was able to boldly go into the shop and purchase this fantastic but even then dated kit. Back home I realised that I was going to have to develop new skills to build this model. After many happy hours spent with a single sided razor blade and balsa cement the model had grown from a heap of balsa wood to something that actually looked a bit like the model on the box. The wings were tissue covered. I spent hours on an elaborate colour scheme if I remember correctly mainly orange and a turquoise blue with red cheat lines. During the construction I followed the plans and this was my downfall. The two halves of the elevator were glued to a piece of dowel a hole was drilled through the dowel and a wire horn passed through the hole and was bent and bound to the dowel. I never did like this arrangement as the dowel was a bit too free to flex and it was weakened by the hole if you follow my drift. The only engine I had at the time that could cope with this big model (it seemed that way at the time) was a DC Sabre with a homemade extended compression screw. The great day came

and the first flight was really nasty the model being almost uncontrollable in pitch. It was either the second or third flight that it all went wrong and there was a lot of rebuilding to do. The wire horn was flexing the dowel too much making the elevator movement very slow to take affect then when it did it over cooked it. The colour scheme was altered to all red and the elevator horn drastically altered. This alteration to the elevator worked and I recorded a speed of 33 mph. Other projects took over for a while then I swapped the Sabre for an ED Super Fury. This improved the speed which then ranged from 37.2 to 47.6 mph. The Minibuster then became an attic queen till I pulled it out of hibernation and put a Frog 150R in it. Although it still had a cowling this wouldn't fit over the 150R so I flew it without the cowling with speeds ranging from 37.5 to 44.11 mph. Some years ago a friend said he had a Veron model and produced an unfinished Pinto (in think the name was) the solid wing version of a Minibuster. No doubt if I have the name wrong someone out there will put me right!!



From Bill Grimsley.

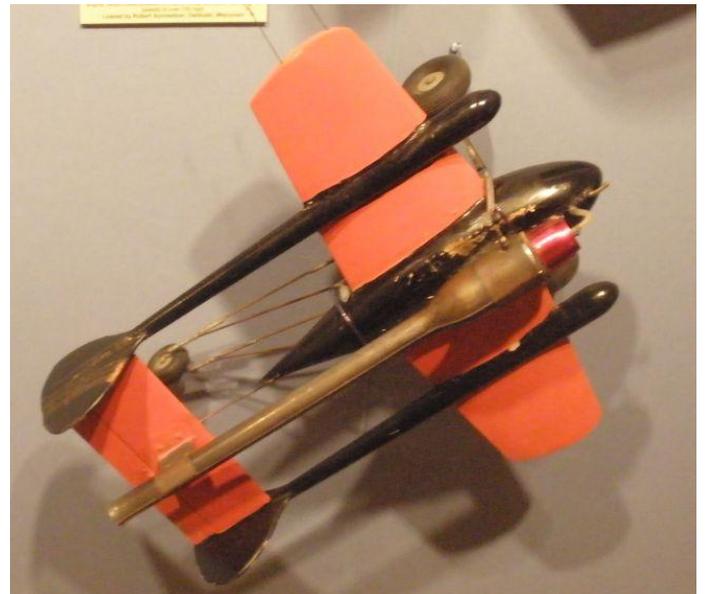
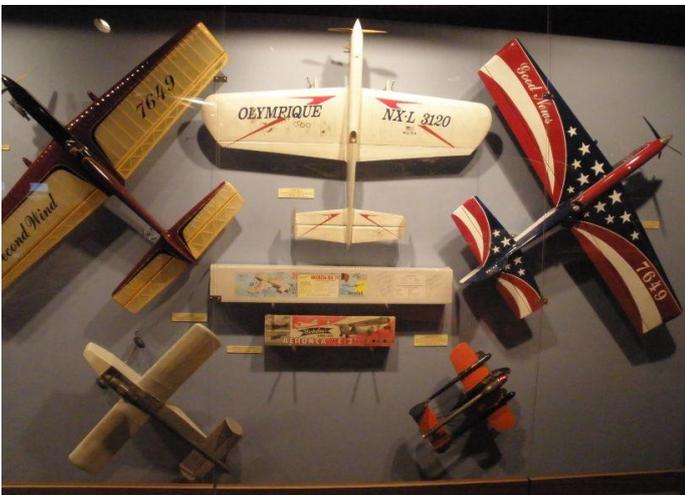
I had the good fortune to go to Oshkosh last year and saw the opening off the new model section in the Museum.

It's full of model aircraft from the very early days right up to the present.

As you know, Oshkosh is the home of the Experimental Aircraft Association, and as was said, all the full size aircraft builders started building with models. Hence the reason for the Model Museum.

The Museum is fantastic and is ramjam full of historic aircraft, to many to mention and including as you noted, the Bugatti.

The Airshow its self was attended by by an estimated 17000 aircraft and by day five, I was aeroplaned out!! What an experience, I would recommend going to everybody.



From Bob Pickernell

A couple of snaps of my latest project, a Veron Streaker. According to the plan title block it is of 1948 vintage, designed by P.L.S, which I assume is Phil Smith. I only had the building plan so had to reproduce the print wood/dye cut bits.(anyone know if the kit was printwood or dye cut?) This was quite straight forward, I used Profili Pro to draw the ribs and the fuselage is circular in section so the frames were no problem. It took a little while to get the stringer positions drawn in on the largest frame. I then scaled the other frames on a library photo copier. At 5p a throw it was well worth avoiding the bother of drawing up the bits by hand!

Initial trimming was very encouraging but I have yet to use full power. The relatively small size, light weight and power available from a mills 75 should make for an interesting performance.



Sculthorpe Sunday 24 July 2011

I'd never been to Sculthorpe or even Norfolk for that matter so it was all of a coincidence when booking a break I found out about the meet from Bill Longley. It happened that Sculthorpe was just a few miles away from where we were staying. So the Sunday morning of this two day event I appeared on the scene. Immediately I recognised a few faces such as David Beales, Martin Dilly and of course Bill Longley. Not much was flying as there was a strong NW wind so I took a few photos and departed for some sightseeing. I believe that flying did get underway later on with the Bowden comp certainly being flown. Daresay there will be more info in SAM Speaks or Clarion.

What a fantastic site for flying FF a large area no shortage of room, in fact miles of it. I felt a bit sorry for the BMFA team on the entrance gate out in the wind and away from the action if it wasn't for such volunteers these events would not happen so a big thank you.



General gist of the line up



A small fraction of the flying area.



The control tower of this ex US Airbase



Trevor Grey getting ready and off





Brian Lever's Lula with two wings one for windy and other for calm conditions



A LIGHTWEIGHT OPEN CLASS SAILPLANE by W. P. Woodrow from Model Aircraft January 1956 48" span

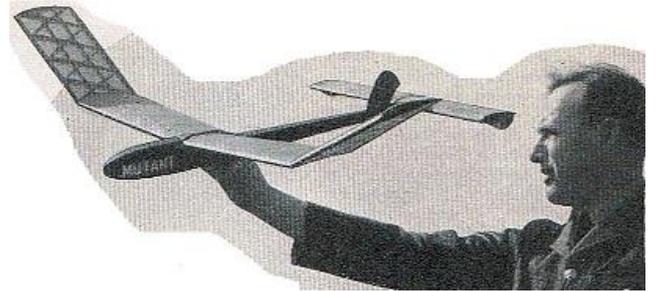
Sailplanes are popular at the R.A.F. Northolt club because many of the members, who are National Servicemen, cannot afford to fly power models. But on the whole they were building their gliders too heavily until I demonstrated by designing the Mutant that strength need not be associated with weight and can be obtained by constructional methods.

Fuselage

Start by cutting K1 from 1/4in. sheet and by binding to it the tow hook. Then cut out formers F1 to F4 and cement in position to K1. All joints must be pre-cemented to give additional strength. Now cut out F5 and F6 and join together by the lengths of 1/4in x 1/8in. Make up the auto-rudder mechanism as shown and cement in position on the struts joining F5 and F6. Cement the whole assembly to K1. Cut out the fuselage sides from 1/16 in. sheet, taking care only to cut the auto-rudder slot in the port side only. Cut F11 from 1/4 in. sq. Now cement the sides to F1-F6 and the tail ends to F11. Cut out the fin from 1/8 in. sheet; build up underfin and rudder from two laminations of 1/16 in.

sheet and sandwich the linen hinge between them. Fit the 1/16 in. ply rudder horn to the rudder. Cut three lengths of 1/8 in. dowel as shown for wing and tailplane rubber bands, and cement in position. With strong twine, tie the auto-rudder line to the lever and cement the knot. Thread the line down the fuselage and through the slot on the port side of the fuselage. Cement F7-F10.

Next, cover the top and bottom of fuselage with 1/16 sheet and fit the tail and mainplane platforms, ensuring that the grain of the wood runs as shown on the plan. Cement the fin into the slots in the top of the fuselage and set in position the under fin and rudder. Connect up the auto-rudder line temporarily and check for freedom of movement. From a pin make the hook to take the auto-rudder return band, and cement in place. Carve the nose block roughly from hard balsa and cement in place and when thoroughly set, finish. Finally, make the dethermaliser peg and cement into F11.



Wings

Cut out 28 ribs W2, and four to the dotted line, also make six of W1. Start by building the centre section. Shape and pin in position the 1/8in. x 1/2 in. trailing edge. Make up the laminated leading edge from two strips of 1/8 in. X 3/8 in. and also pin into position. Now cement R1 and R2 in position, ensuring that the four ribs cut to the dotted line are in the middle of the centre section. Now thoroughly cement in position the 1/16 in. ply dihedral braces at each end of the centre section. When the whole assembly has set, remove from plane and in a similar manner build up the outer sections ensuring that the inboard rib R1 is set at the required dihedral angle. When the three sections are completed, once again pin down the centre section and cement the outer sections to their respective ends and fit the 1/8 in. sheet gussets as shown.

Tailplane

Cut out two ribs T1 from 1/16 in. sheet and ten ribs T2 from 1/32 in. sheet. Shape the 1/8 in. X 3/8 in. trailing edge and pin into place, also the 3/16 in. x 1/4 in. leading edge. Cement the ribs in the positions as shown and add the tips made from 1/4 in. sheet, and the 1/8 in. sq. spar. Cut out the tip under-fins, but do not fix them into position at this stage. When the tailplane has set, remove from plan and shape the leading edge and tips. Then fit the dethermaliser peg.

Covering and Assembly

Cover the entire model with light weight Modelspan, giving the fuselage three coats of clear dope and after water shrinking the main and tail-plane surfaces, apply two coats of clear dope. Now cement in position the tailplane tip underfins. Connect the auto-rudder line to the rudder horn and adjust the line so that the rudder is in neutral when the auto-rudder lever is fully forward. Thread a rubber band through a length of neoprene tubing of sufficient length to prevent the rubber band from turning the rudder from the neutral position when the lever is fully to the rear. Now hook the rubber band to the hook on the starboard side of the fuselage, thread it through the neoprene tubing, and secure with thread to the rudder horn.

To get the required turn on the model just cut off pieces of tubing. Fit the tailplane by a rubber band from one end of the dowel, round the tailplane dethermaliser peg and back to the other end of the dowel, and

check the D/T action, and finally secure with a small rubber band around the two D/T pegs. The wings are held in the usual manner by two strong rubber bands.

Flying

Add weight to the nose between formers F1 and F2 until the c.g., as shown on the plan, is correct. On a calm day hand launch the model into wind, and a long slow flat glide should be obtained. If the model shows a tendency to be nose heavy, put packing under the trailing edge of the tailplane until it is corrected.

No more than 1/16 in. will be required. When satisfied with the glide, shorten the neoprene tubing until a very slight turn to the right is achieved. If a turn is present when the rudder is in neutral, this must be corrected by either shortening the auto-rudder line if the turn is to the right, or, if to the left, by lengthening the line and shortening the neoprene tubing until a straight glide is obtained.

Ken de Bomford's "Incubus" flies again! Chris Rowe in Oz

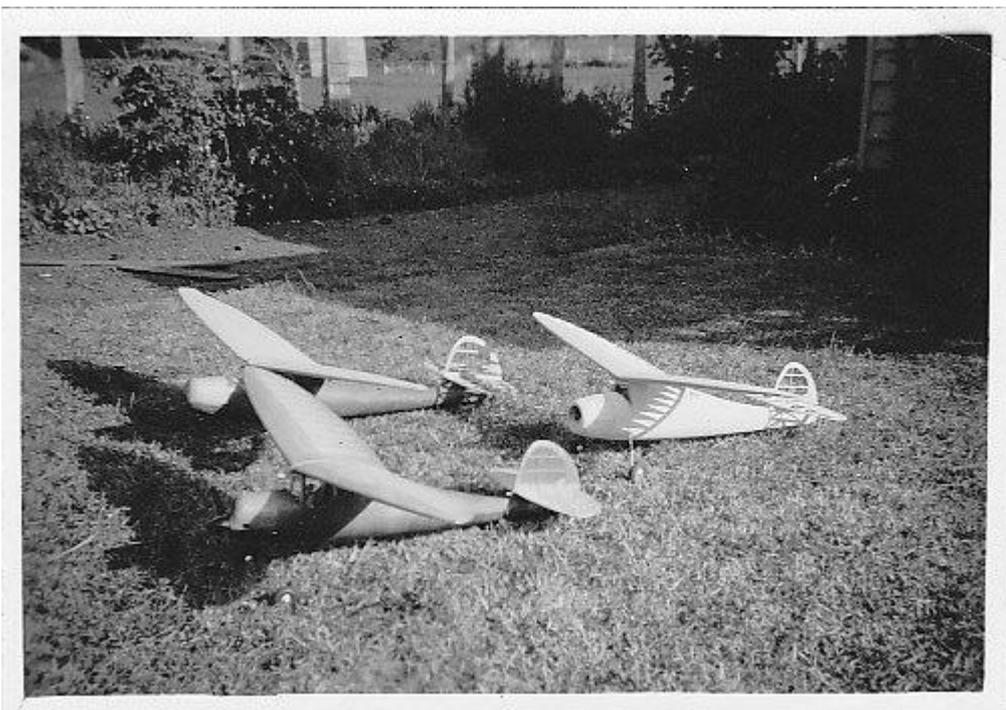
How it all began!

In mid 2009 Ken de Bomford, my old friend and mentor in the dark arts of aeromodelling, surprised me with an unexpected gift. It was the Incubus, a beautiful free flight model that was flown by Ken in the Power Scrambles at the 1957/58 and 1958/59 Australian National Championships.

The Incubus was the last of a series of three similar models that Ken designed and built in the mid 1950's, and all three reflected Ken's lifelong fascination with the sheer beauty, and aerodynamic efficiency of elliptical wings. Regardless of the efficiency of its wings however, the Incubus with a span of 40" and an all up weight of 16oz would most certainly have tested the efficiency of its original Mills 0.75 engine! Perhaps this was the very reason that Ken chose to fly the model in the Power Scrambles, because the last thing that you needed in such events, was a model that insisted on flying too high, or too far away!

Ken explained that the model had only ever been flown on these two occasions and, following the 1958/59 event, he put the model away in his large model transit box where it had remained ever since! Although somewhat dusty, the model was complete with its original Mills 0.75 engine and custom twin exhaust manifold, and remained in remarkably good condition. I had no real idea what I might ultimately do with it, but a very careful clean up was obviously a good place to start, and the result was real surprise. Thus it was that, some months later the Incubus, together with an even older example of Ken's unique modelling skills, a

63 year old twin engine rubber powered flying boat, took pride of place at a local Model Engineering and Hobbies Exhibition.



Three elliptical models built by Ken in 1956, with Incubus at the rear

The Incubus - 52 years after being stored away!

The original yellow doped Japanese silk that still covered the flying surfaces, was inevitably both dirty and

discoloured, and had long since lost its original tensile strength. The underlying wing, tailplane and fin structures however, whilst somewhat dry and brittle, remained completely undamaged and as true and solid as the day they were originally constructed.

The fuselage, a masterpiece of true monocoque construction, with its 1/16" balsa planking meticulously shaped and glued over no less than 14 elliptical formers remained, with the exception of a couple of small cracks, remained completely undamaged and virtually in original condition. Also covered in yellow Japanese silk, albeit somewhat faded, the clear doped upper half of the fuselage clearly revealed the extraordinary craftsmanship evident in the underlying balsa structure. More surprisingly perhaps, when carefully cleaned of a generous coating of accumulated "gunk", the lower half of the fuselage was transformed, with the black and red cellulose automotive lacquer once again recovering its original glossy lustre.

Last but not least, the engine! As Ken had explained, the little Mills had been purchased specifically for the Incubus, and the model had only ever been flown in the two Nationals events. It was of course an original Mills 0.75, that had been barely run in 52 years ago and never started since! I just couldn't resist; the engine was carefully cleaned, mounted on a test bench and, with half a dozen flicks, away it went! It reminded me of that special moment almost 60 years ago, when I started my original Mills 0.75 for the very first time. It had been ordered from England to replace my ED Bee, which had unfortunately gone missing, some months previously, whilst mounted in yet another beautiful model built by Ken. That model, a converted sailplane, had eventually disappeared out of sight in the clouds whilst gliding upwards in endless circles, locked in a strong Scottsdale thermal. But that of course is another story!

It's a beautiful old model, but what should I do with it?

Ken was clearly interested in the possibility of the Incubus being restored to flying condition and fitted with radio control, even suggesting that a change to electric power might be worth considering! For my part, whilst the possibility of seeing the Incubus fly again certainly intrigued me, I couldn't help feeling that such a model should perhaps be treasured in its original state rather than messed about with! After considerable discussion we eventually agreed however, that because of the obvious technical difficulties, returning the model to flying condition really did not appear to be a very practical proposition:

- At 16onz all up weight (AUW), the original model would most certainly have tested the capacity of the Mills 0.75 to lift it into the sky. The addition of radio gear would add at least another 4oz and necessitate the fitting of a more powerful engine, fuel tank and exhaust assembly, all of which would add a further 3onz or so, resulting in a seriously overweight model with an impossible C/G problem as well!
- The tail end of the model presented its own unique difficulties. The original tailplane and upper fin, complete with trim tab were attached with rubber bands, not to the top of the rear fuselage but, to a mounting plate located a quarter of the way up the fin. The lower part of the fin, constructed of 1/4" balsa and strengthened with a King Billy pine spar that extended downwards to form an integral element of the fuselage structure. It was obviously going to be difficult, to say the least, to create a rudder large enough to control the model, if the removable elliptical tailplane and elliptical upper fin assembly were to be preserved in anything approaching their original form!
- A more serious complication was that the fully planked fuselage provided no points of internal access other than, the removable upper half of the cowling and a 30mm circular hole in the top of the fuselage under the wing. How could modified tail surfaces incorporating elevators and rudder be connected to servos inside the fuselage, without permanently fixing the tail surfaces in place and operating the control surfaces with ugly exposed push rods or cables?
- Finally, how could a receiver, battery and two servos be successfully installed inside a 55 year old fully planked fuselage, if internal access to the fuselage was to remain the single existing circular hole under the wing; a hole hardly big enough to allow you to get two fingers inside?

Somewhat reluctantly, I packed the model away in yet another box, and there it remained for the next 9 months whilst I thought about it!

In October 2010, some six months after Ken's death, I reopened the box; leaving such a lovely model hidden

away unseen was most definitely NOT the right way to treat it. I knew that Ken would have loved to have seen the Incubus restored once more to flying condition and this, I now resolved, was what I was going to do.

If the Incubus was to be restored and modified for radio control, she was obviously going to need a rudder and elevators, and all of the flying surfaces would have to be re-covered. Clearly she was no longer going to look 52 years old but more like she might have done in 1959, if after the Nationals Ken himself had decided to modify the model for radio control. Suitable single channel equipment was certainly available at that time, and control of both rudder and elevators might also have been possible, had Ken decided to opt for a "Galloping Ghost" system! Finally I knew what I wanted to achieve, and somehow the problems no longer seemed insurmountable!

I knew what I wanted to do, but how could it be done?

The model had to have a bigger engine or it simply wouldn't fly, and deep in the dark recesses of my workshop was a Frog 1.49 *Vibramatic* diesel that I had purchased new in 1956. Coincidentally, like Ken's Mills 0.75, it had also remained unused for the last 50 years or so! If the Frog engine, tank and battery, could all be successfully installed within the original removable upper cowling, the significant increase in weight forward of the C/G, might perhaps be balanced by installing a micro receiver and servos inside the removable tailplane and fin structure. Such an arrangement would, in a single stroke, virtually eliminate the various problems arising from the limited access available to the fuselage, by reducing the internal R/C requirements to a single lead and switch that would connect the battery at one end, with the receiver and servos at the other!

With some trepidation I dug out my old Frog engine and compared it with the Mills; I could hardly believe the result! Not only was it exactly the same height as the Mills but, more significantly, the width of the lower crankcase was also identical. This meant of course, that the larger Frog engine could be mounted straight into the original engine bearers, with structural modification being limited to minor changes to the various openings in the upper cowl!

In a state of mounting enthusiasm, I noted that a new tank could certainly be fitted into the space available behind the engine; but where on earth could I put the battery? Once again a solution magically appeared! The bottom half of the radial cowl was formed from a solid block of balsa, and my battery pack just happened to be a sliding fit between the engine bearers; the battery could be neatly hidden away in a cavity that I could excavate underneath the engine and tank!

I now had a practical solution for the front end of the model, but could the servos and receiver be fitted inside the removable tailplane? Examination of the structure confirmed that it had a flat under surface, and a cambered upper surface approximately 3/8" deep at the centre line. If the structure could be thickened by about 3mm in the centre section area, it would clearly be possible for two Hitec HS-55 servos and a micro receiver to be mounted within it; but where would the Incubus balance after such modifications?

After measuring the critical nose and tail moments of the model, and weighing the original engine, the new engine, and the various components of the R/C system, a simple calculation confirmed that the Incubus should once again balance correctly; just as long as the tail surfaces could be modified and re-covered without any significant increase in their weight. Difficult, but not impossible!

The only remaining problem was a niggling concern that the inevitable increase in AUW might seriously compromise the flight characteristics of the restored model. Whilst there appeared to be no obvious solution, it occurred to me that whilst the original wheels looked much the same as their modern equivalents, it was just possible that they were in fact somewhat heavier. A quick de-soldering job followed by another weighing confirmed, much to my surprise, that by replacing the originals with a pair of Du-Bro Super Lite wheels, the AUW would be reduced by almost 2onz!

What I actually did!

The front end of the fuselage

First, an old fashioned free flight tank was made up to sit on the bearers behind the engine. Although tiny, the tank contains enough fuel for a two minute engine run; more than enough for a model that will be flown only on very special occasions. Next, the hole was excavated between the engine bearers to accommodate the receiver battery, and two indentations in the side of the lower cowling through which the original exhaust

pipes had protruded, were filled with scrap balsa. Finally a battery lead was inserted through the firewall into the cabin area, where it was connected to a new R/C switch mounted high on the fuselage below the wing seat.

The next step was to modify the removable upper cowl to fit the Frog engine. With the exception of the opening for the Mills cylinder head, which was simply enlarged to the required new diameter, the various holes in the cowl were simply filled with scrap balsa and carefully finished to blend with the original cowl surfaces, both inside and out. New reinforced holes were then provided for the needle valve, tank filling tube and finger access to the rear induction air intake. This left only the vexed question of how on earth the exhaust gasses, emitted in all directions from the annular ports of the Frog engine, might be persuaded to exit the upper cowling in a more orderly fashion!

In my free flight days, diesel engines were almost always left exposed to the elements in order to facilitate both starting and cooling. This model however had a smart radial cowl with the Mills being equipped with a custom manifold and twin exhaust pipes! If Ken had managed it in 1957 with the Mills, I felt obliged to do the same with the Frog engine, but its annular exhaust ports created a real problem, and a workable solution eluded me for weeks, if not months!

Finally it dawned on me that an exhaust manifold, in the form of a flat rectangular tube, could be made up from two identical short lengths of aluminium angle. When assembled, it would attach to the engine, and convert the engine's annular outlets into a horizontally opposed twin exhaust system, rather like the standard Frog annular exhaust collector ring available in the 50's.

Ultimately, it proved quite simple to make. The lower section was drilled for a tight fit on the engine's exhaust stack immediately above the crank case gasket; the upper section was similarly drilled, but with a smaller diameter hole to fit the threaded upper cylinder barrel before being retained by the cylinder head. After checking for size, shape and fit, the two sections were then placed on the engine with the mating edges smeared with epoxy, and locked into position by screwing down the cylinder head. Once the epoxy had cured, and before removal from the engine, the two parts of the manifold were finally joined mechanically by drilling small holes through each corner and driving in four slightly oversize steel pins. After being removed, cleaned up and polished, I had a removable twin port exhaust manifold that looks, and even performs, just like an original part of the engine!

For the upper cowl to remain removable, it was of course necessary for the new manifold to fit completely inside the cowl. The next step therefore, was to make up two aluminium exhaust stubs that would butt against the ends of the manifold and pass through the walls of the cowl on each side. The stubs were made up somewhat over length and, in fixing them into the cowl walls, they obviously had to be carefully aligned with the central manifold. This somewhat challenging task, was eventually achieved by inserting lengths of soft balsa through the exhaust stubs to lodge in the manifold on each side of the engine. Then with the engine, upper cowl and exhaust components all temporarily locked in their correct positions, the stubs were finally epoxied into place.

The tail end of the fuselage

Ultimately, the whole success of the project now hinged on my being able to successfully insert a twin core battery lead, down through the ply tailplane mount and solid balsa sub-fin; up through the rear fuselage structure; and out into the cabin area. The visible formers in the cabin area all had large elliptical lightening holes cut in them, but there was no way of knowing if Ken had followed the same practice with all seven formers hidden deep inside the rear fuselage. In truth, the only way to find out was to drill the required hole in the tail end, and hope that he had!

Accordingly, a 1/8" hole was first drilled VERY CAREFULLY, at a 45 degree angle, down through the original ply tailplane support and the 1/4" balsa sub-fin structure which supported it, to exit in what I desperately hoped was an open fuselage structure forward of that point! There followed a lengthy and extremely frustrating process, at the end of which I had finally managed to insert a length of very thin piano wire down through the hole I had drilled - around the unavoidable bend into the fuselage - and up into the cabin area through the seven weight saving holes that Ken had indeed laboriously cut out some 55 years ago. With that task accomplished, a long battery lead was simply soldered to the tail end of the piano wire and pulled through into the cabin area, where it was connected to the switch to complete the wiring harness.

Structural modifications to the rear fuselage were now completed with the removal of small sections of the

tailplane mount and supporting sub-fin, to provide clearance for the new elevators and rudder, and relocation of the tailplane retaining dowel to a position forward of the elevator hinge line.

The flying surfaces

The next step in the project was to remove the fin from its position on top of the tailplane, so that the original transfers on the model could be scanned for subsequent reproduction; there was simply no way in which the originals could have been saved for re-use. With the original silk removed from the wings, it was immediately obvious that no structural alterations or repairs would be necessary and, following a light sanding, they were stored away to await re-covering. The fin and tailplane were going to require significant modification however, and with this in mind accurate plans of the original structures were prepared as the essential basis for designing the necessary modifications.

The decision as to where the tailplane and fin should be truncated to create the new hinge lines for the rudder and elevators was more difficult than expected. The original fin, in classic de Bomford fashion, was fitted with a neat little screw adjustable trim tab, and the obvious solution was to simply extend the original hinge line downwards to create a larger rudder. Unfortunately that would have resulted in a rudder too small to provide effective primary control of the model. Accordingly, a completely new hinge line had to be selected, and a new rear spar inserted into the old structure, suitably reinforced with gussets that matched the style of the original.

The original trim tab was made up from three laminations of 1/16" balsa, and my replacement rudder just had to be built the same way! I decided however, that with an engine double the capacity of the original Mills, it would be prudent to also increase the area of the fin; the original in my view, being already somewhat on the small size. Accordingly I decided to increase the fin area by about 15%, by simply extending the original elliptical outline, and structure, downwards to increase both the height and area of that part of the fin and rudder that were mounted above the tailplane.

Having already determined the position of the new elevator hinge line, the original tailplane structure was pinned down on my scratch plan, and the central and adjacent ribs removed together with the section of original trailing edge that was to be replaced by the elevators. The outboard ribs were shortened and a new rear spar inserted on the hinge line, together with strengthening gussets. The centre section was rebuilt with ribs of increased height to accommodate the two servos to be mounted flush with the lower tailplane surface. The original K/B spar was of course retained, but the height was increased by adding balsa packing to its top edge. The new centre section was then sheeted top and bottom with 1/16" balsa, and balsa packing strips were also glued to the tops of all outboard ribs and spar to systematically increase their height. When dry the balsa packing was carefully sanded back to result in a rebuilt tailplane some 3mm thicker at the centre section tapering uniformly to the original thickness around the elliptical leading and trailing edges. As in the case of the rudder, the new elevators were fabricated from three laminations of 1/16" balsa, and attached with standard micro hinges.

Underneath the tailplane, a compartment in front of the spar was created to accommodate the micro receiver, which is retained in place with a press fit balsa cover. Behind the spar, balsa mounting blocks glued between the top and bottom sheeting, provide for retention of the two servos. A simply push fit into place, the servos are retained in position in flight by the rubber bands that hold the fin and tailplane assembly in place on the original ply tailplane support. Two small dowels in the underside of the tailplane, lock into corresponding holes in the tailplane seat to ensure continued alignment of the fin and rudder.

Covering and finishing

With the structural modifications completed, it remained to recover the flying surfaces and touch up the paintwork as necessary. Before re-covering however, I decided to wipe over the open balsa structures with a rag soaked in a Baltic Pine coloured water based wood stain. This resulted in both the old and new balsa elements immediately assuming a satisfyingly uniform pale golden colour with absolutely no increase in weight, whilst providing a perfect colour base for the yellow Lite Span that I had decided to use.

This was the first time that I had used Lite Span, and the end result was better than I could possibly have hoped for. Fortuitously, yellow Lite Span turned out to be virtually identical in colour, and texture, to an unused sheet of the original Japanese silk that Ken had also carefully put away and kept in his workshop for more than 50 years! Better still, the trick with the Baltic Pine wood stain has worked a treat, by rendering the

various alterations that have been made to the fin and tailplane, largely indistinguishable from the adjacent original structure. The last step was of course to apply the new transfers, reproduced from my digital images of the originals by Signfast Pty Ltd in Hobart.

Finishing the fuselage was not a big task! The black engine bay and surrounding cowl were re-finished with enamel that closely matched the adjacent original black laquer on the fuselage; and a couple of tiny cracks in the red area were touched up, using a \$2 bottle of perfectly matching nail varnish that I just happened to notice at my local chemist shop one day.

Finally the Incubus was ready to fly again!

The Incubus flies again!

Flying any model for the first time is a somewhat nerve racking business, but the prospect of flying this particular model for the first time simply terrified me! Of course I could have been sensible, and asked someone with more flying experience to handle the test flight, but somehow I felt that I owed it to Ken to do the whole thing myself. So it was that in perfect weather conditions, on 7 April 2011, I finally plucked up the courage to fly the Incubus for the first time.

The first flight was almost, but not quite, as difficult as I had imagined it might have been! After the hand launch, the Incubus soared away but immediately demonstrated a barely controllable tendency to turn sharply to the left and drop her wing as an obvious consequence of the increased power and torque of the Frog engine. Unfortunately, with no engine control, I had no choice but to spend most of the flight desperately trying to avert disaster, whilst fervently hoping that the engine would stop immediately, if not sooner! Finally she transitioned into a nice flat glide and, with a sense of considerable relief I was able to land her safely back in the centre of the grass strip!

Back on the workbench I was fortunate in being able to increase the engine side thrust without any need for structural alteration, and the model was next flown on 27 May 2011 with Peter Ralph in attendance with his camera to do justice to the occasion. This time the model behaved impeccably, as may clearly be seen in Peter's superb shots of the model in flight.

Conclusion

This project proved both uniquely challenging and immensely satisfying in that I finally achieved exactly what I had hoped for. The Incubus now appears just as she might have done in 1959, had Ken himself modified her for radio control. Most importantly however, whenever and wherever she may be flown in the future, she will I am sure continue to provide an appropriate reminder of the truly unique contribution that Ken de Bomford made to aeromodelling in Australia.



Safe and steady



After 52 years, the Incubus flies again!



Chris Rowe with the restored Incubus



Everything in place but the upper cowling

Frog 1.49 with its new three part exhaust manifold and modified upper cow



Just perfect!

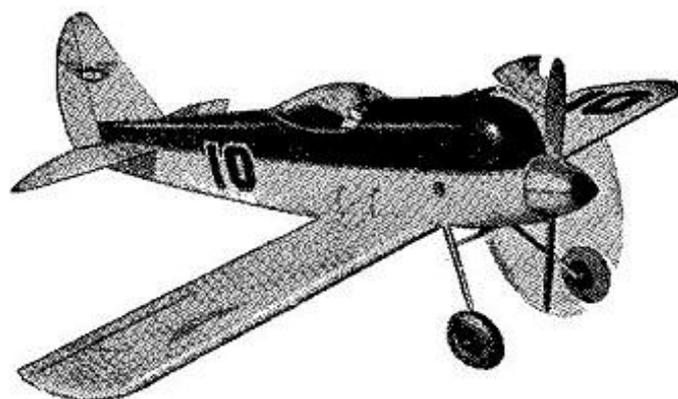


Model & Engineers Exhibition 005

Poll de Bomford with the restored Incubus



Receiver and two servos installed in strengthened tailplane structure



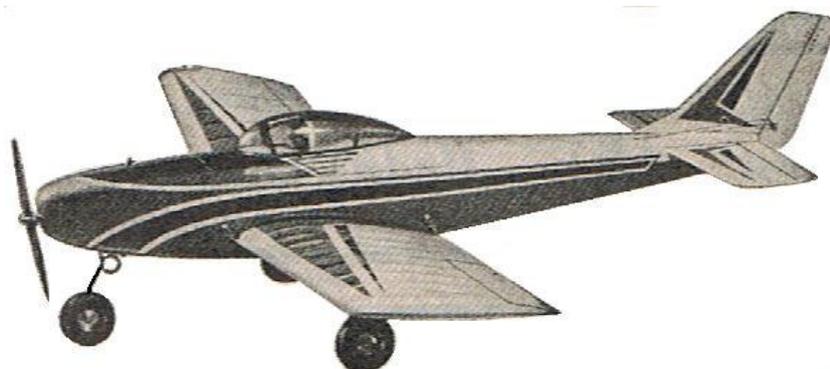
Half Tone from John Mellor

Pictures show plans and the real thing which has turned out to be a great flyer like all Dave Platt's designs. This one was a model aircraft plan in November 1961 and I scaled it up to 54" span (about x 1.4 times). I initially had problems getting a plan (I have now found it's in the X-plan list) but put an advert in the SAM Mag and within 2 or 3 days of publication had several offers - of plans! - and Andy Sephton e-mailed me both the plan and original build instructions.

I was looking for a vintage (that's what I call 1961) model that would be aerobatic on Rudder / Elevator and motor to replace my Vic Smeed Debutante (not aerobatic) and it certainly achieves that. It took 3 weeks to build, really two as I was away on hold during the period, and is fitted with a Hacker A30-12M motor and Hacker X-40 speed controller and I have flown it with both 2100 and 1300 3 cell LiPos. The outline is as per the original and the only real changes I made were to beef up some of the wood sizes to take account of increased weight / stress, use spruce spars and increase the rudder area. One feature Dave Platt made big play of was the symmetrical section tailplane which I retained. The model weighed in at 1150 grams (2.5 lbs) with the 2100 LiPo which was my target weight.

The first flight was totally undramatic with the model lifting off on three-quarter throttle and showing great slow passes on low throttle and rapid climb with loops, stall turns and wingovers with throttle increased. Most flights are between 10 and 12 minutes.

Now I'm semi-retired I am having great fun re-making all those great planes I tried - with varying success - to fly in the late 60's and early 70's and Dave Platt's designs were always good looking reliable flyers. Indeed as well as building a standard size Half Tone for, I think, Macgregor single channel I learned to fly reeds on one of his Executors with a Veco 19 and RCS 6 channel and also a Fleetwing for RCS proportional and these two models are also earmarked as possible future builds.



Half Tone. Dave Platt's really practical R/C design for 0.8 cc motors. From Model Aircraft November 1961

Just once in a while every modeller builds a model which, by its sheer simplicity, lack of fuss and expense, and real flyability, proves that sometimes the simple things of life are best.

After a whole series of R/C models, some with fancy engines and exotic R/C gear, some of which few flew really well and even less justified their time and cost, this little model was made in an honest attempt to return to essentials. The reasoning went like this—if I could make a model for a 0.8 c.c. engine (Baby Bee) to carry a Unitone Rx and compound escapement, which would fly in a reasonable wind, then what more could I need? The old adage "Simplify and add more lightness" was borne in mind in the design stage, with the happy result that the little job was completed in a week—without burning any midnight oil. Further, the cost was so low as to be laughable and the designed all-up weight of 20 ozs was exactly met. No grey hairs here! The following construction notes are just as brief as the model warrants, only the points of special importance being mentioned.



Wing

Build one half, then prop this up at correct dihedral (don't increase the angle) and build the other half on to it. Use medium to hard balsa for the L.E. and spars, soft or very light wood for the T.E. and ribs, but the centre braces must be of the hardest balsa you've ever seen. Build the wings with a parallel chord and, when built, trim the taper into the tips, sanding the bottoms of the last two ribs to give a little wash-out at the tips. Total weight, completely finished, should be 3 oz. Use coloured tissue doped on for any decoration.

Tailplane

Sheet tailplanes are all the vogue for 1/2A R/C, but symmetrical sections are better. Don't alter this one—it

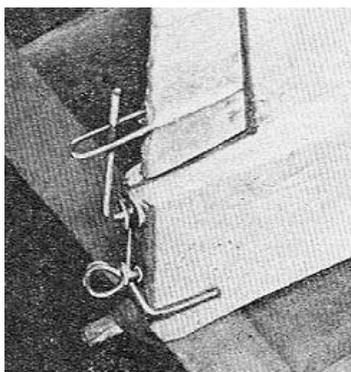
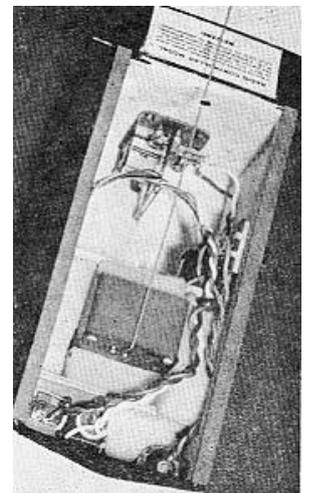
doesn't take long to make. Using light wood throughout, weight is less than 1/2oz.

Fuselage

Cut out all the formers and mount the engine, U/C, 7-pin socket and escapement on to their respective ones.

Make up a basic assembly of the fuselage sides and all formers, then install the escapement torque rod, rubber motor, etc. After the circuit wiring is installed, the rest of the fuselage can be put together quite simply. Use light wood only, as strength will be ample. There is adequate width to accommodate beam mounted motors, with suitable modification at the front end to take the bearers. Cover with heavyweight

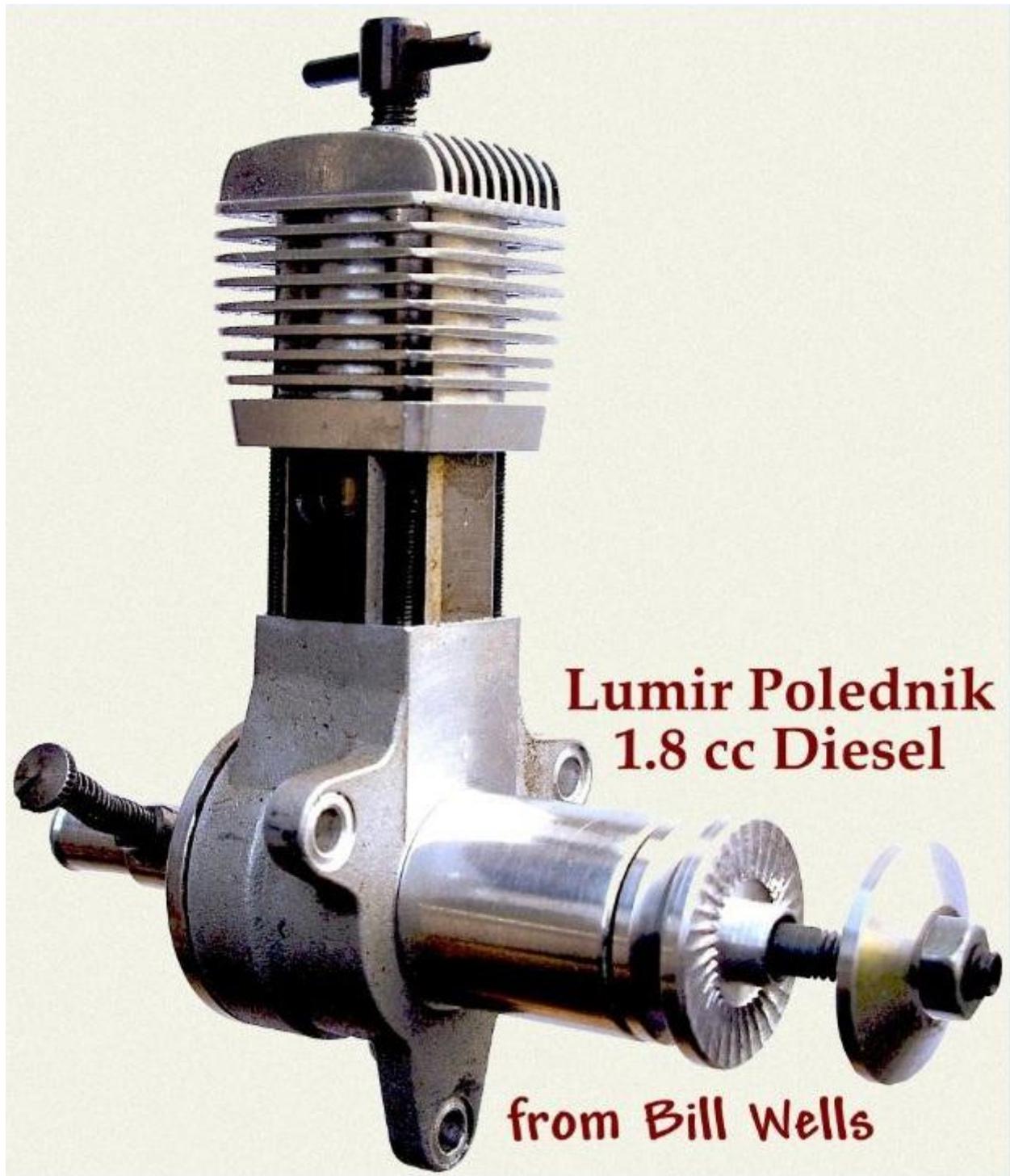
Modelspan. The weight of the fuselage complete and finished should be about 16 oz. Arrange for about 1/8 in. of rudder movement. You can increase this later when you get used to flying the model, but in any case, she is quite lively on this amount.

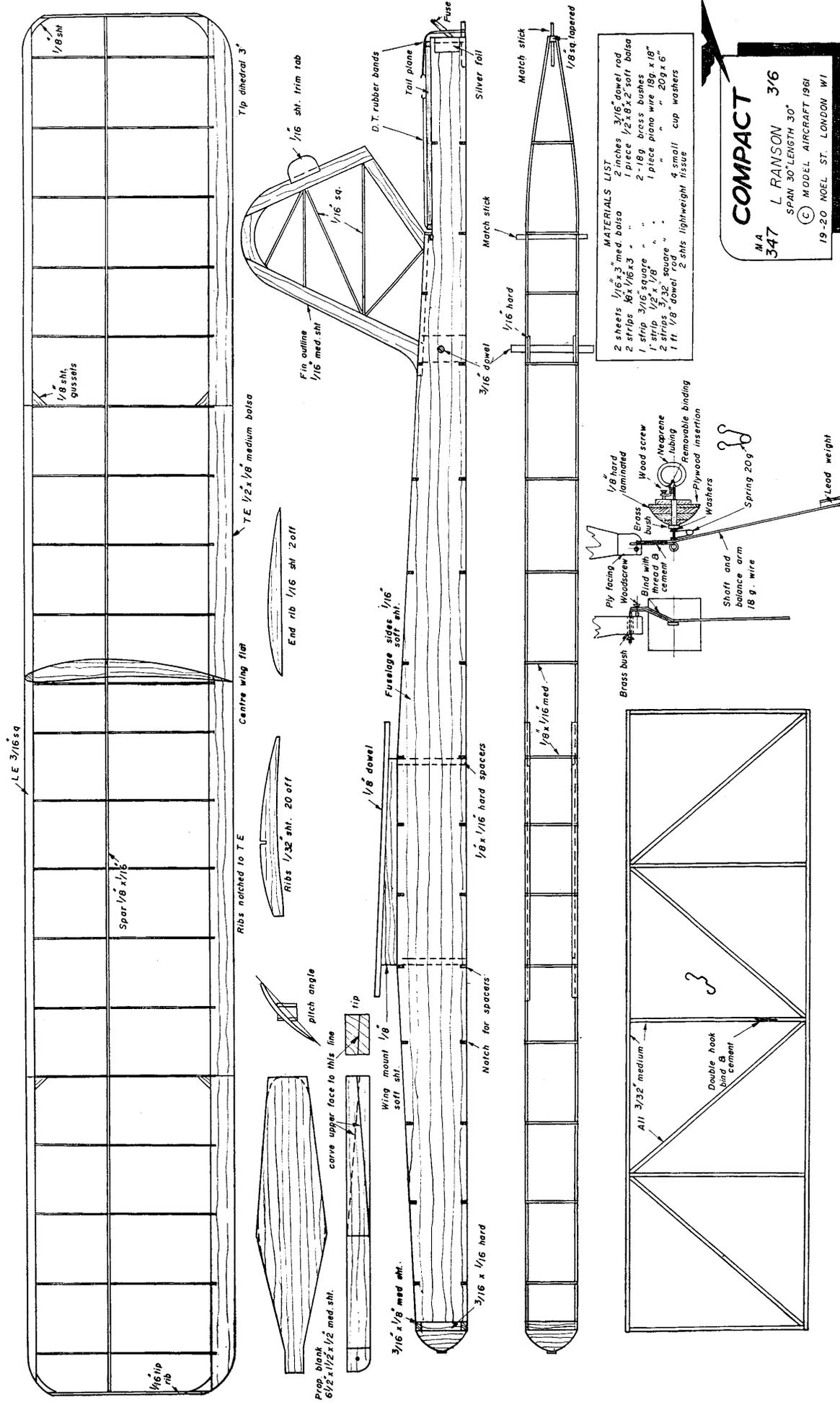


Flying

This is where the pay-off comes. Hand glide and remove any trace of natural turn with the rudder. Now, provided that the c.g. and incidences are as shown on the plan and the R/C is working 100 per cent., you can fire up the engine, adjust for full revs, and launch. Don't be too gentle here—a good fling is needed. Wait a little while before keying and watch what she does. Is there a turn? If so, get rid of it when she lands, before making another flight. When a turn is started by the rudder, the model will normally complete a 360° circle before straightening up. A quick touch of opposite rudder will straighten her up before, if this is required.

Manoeuvres are fast and thrilling, one full circle of applied rudder gives quite enough speed for a crisp loop when neutralised. Opposite rudder in the zoom gives a nice barrel roll—or two ! When you take her home, after flying from early morning until dusk, and using only about half-a-pint of fuel, as I did recently, if you can honestly say you ever had a model that gave more for less, then you're either gifted or lucky.





Copcompact a simple rugged, but essentially ‘flyable’ rubber design for the not so expert modeller by Len Ranson 30” span from Model Aircraft May 1961

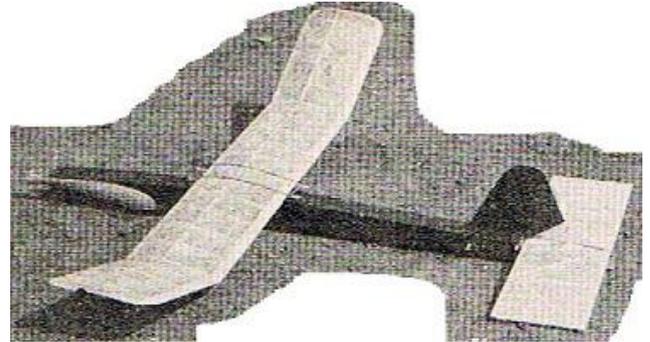
For the not-so-expert modeller looking for a simple to build, high performance rubber model, Compact should be an ideal choice. Specially designed to bridge that difficult gap between the elementary beginners’ model and the advanced contest machine, it combines a lively, easy to trim, performance with a rugged ability to survive the heartiest prang.

Some modellers might find the sheet sided fuselage an unusual feature in a small lightweight, but the net increase in weight is of a negligible order, partly because of the small cross section this type of construction allows. On the credit side it gives a virtually crashproof structure with robust handling qualities. All other components, including the folding prop assembly, are equally rugged and uncomplicated, and, provided your model is carefully built, it should give you many strenuous hours of flying field pleasure—if you don’t forget the D/T.

Fuselage

Choose a softish sheet of balsa for the fuselage sides.

The grade should be just firm enough to be cut cleanly without crushing. And, remember, for soft balsa a really sharp cutting tool is necessary. Prepare one side from the plan by lightly pasting a tracing over the balsa, then use this completed side as a template for the other.



Notch as shown and glue in the vertical braces and motor peg strengtheners, not forgetting to cross grain the latter to the fuselage. The spacers can now be inserted, working from the centre section outwards with constant reference to the plan for alignment. Finally add the wing mount, the supports of which are of 3/32 in. sheet, with the upper edges slightly concaved to take the 1/8 in. dowel runners.

Wing

Prepare a rib template from thin plywood or metal, noting that each rib is notched into the trailing edge. Build the wing in one piece by pinning down the leading and trailing edges over the plan, with a 1/32 in. packing under the front of the T.E. After inserting the ribs fit the centre spar, then cut the outer panels free. The spar ends can now be cut to the 3 in. dihedral angle required, and the panels propped up and firmly cemented in place. Finish off the wing with careful sandpapering.

Propeller Assembly

The noseblock laminations can be cut either from very hard sheet, or from somewhat lighter stock if thin plywood facings are used on the face of the plug and between the noseblock and the plug. Drill to give a slight degree of right thrust. The hole should be just wide enough to allow the bush to be screwed tightly through. Shape the propeller blank from medium 1/2 in. sheet. Mark cutting lines along the edge of blank and carve the upper face first. Now remove the surplus from the underside to give a thin undercambered section. To form the hub, mark off the pitch angle on the plan diagram. The thickness of the hub should be 3/8 in. including the two 1/16 in. plywood facings. Insert a brass bush to complete.

Don’t stint on wire wastage in making up the 18 s.w.g. shaft. It may take you several attempts to get it right, but a little perseverance here is well rewarded. Attach the propeller and secure, either with a soldered washer or a blob of solder, on to a few turns of fuse wire. Balance propeller, fit tensioning spring, then insert assembly in fuselage to get the correct folding position, which should be on the left-hand side of the fuselage. Use a small screw as a stop, embedded well into the noseblock.

Covering

Do not over-paste the fuselage sides, otherwise the sheet may distort. Cover the fin and tailplane on one side only. It is advisable to cover the prop blade to give added strength. Lightly water-spray all surfaces with the exception of the fin and tailplane which are left untreated. Add 50 per cent. Thinners to the dope as full strength dope is liable to cause had distortion.

Flying

Gently hand launch over softish ground. Alter the wing position (a slight degree of movement is possible) for a flat glide. If this proves insufficient, pack up the T.E. of the tailplane to cure a nosedive, and add ballast to the nose if the model stalls (positive packing of the tailplane may make the model difficult to trim).

Now try a “power on” flight with some 200 turns. Carefully note behaviour both on power and glide. For correct trim the model should turn to the right, in a fairly tight circle under power, widening out on the glide. The original model flew quite happily on six strands of 1/4 in. flat rubber, 27 in. long, but, if you find this power insufficient, try an eight-strand, 30 in. motor. The original Compact had a 2 min.-plus performance under varying conditions. Its last recorded flight was 2 min. 15 secs at nine o’clock in the evening.

Cocklebarrow Farm Vintage R/C by Tony Tomlin

The R/C Vintage meeting held at Cocklebarrow Farm on Sunday, 14th August was the second of three being held at this popular Cotswold site in 2011. As before the meeting was smoothly run by Paul and Val Howkins, for what is now their 21st year, with invaluable help from Mervyn Tilbury and friends. There was also the 7th round of the hotly contested R/C Tomboy competitions for the 36” and 48” Tomboys, organised by Tony and Pam Tomlin. The weather was not ideal with, at times, a gusty wind and only occasional glimpses of the sun. This did little to curb the enthusiasm of the vintage fliers with around 55 signing in during the day.

There was a varied selection of about 90 models, some old, [some very old!], but also a few new models not seen before making their debut. There was a Fillons Champion built by John Bowring, built for electric power, which looked superb with the prop assembly blending in seamlessly with the nose. Mervyn Tilbury had one of the two 1938, Charles Williams designed, 84” Dragonflies, his powered with a Laser 70 while the other nearly identical model was flown by Dave Bell. These were both built from a plan supplied by Paul Howkins. A number of Frog designs were to be seen with the Frog Fireflies of Chris Hughes and Rob Smith flying regularly. Models ranged from the smallest, a Sharkface and a couple of Wee Snifters, Matadors, Galahads and Junior Sixtys, Radio Queens and Princesses, Cloud Airmaster, Great News, Scorpion and many others up to the largest, the Mercury of Garth Pierce. Crashes were few but the large Ranger of Bob Stanley crashed heavily after a control malfunction!

Tomboy 3

After the poor year we have had weatherwise, the entries in the Tomboy Competitions in 2011 have been a little down on previous years [the meetings started by David Boddington are now in their 6th year]. So it was a pleasant surprise to have 16 models booked in for the Mills .75 powered Tomboy 3 event. A number it appears had been built from the kits produced by Derek Foxwell of the Old School Model Aeroplane Company. To date he has supplied over 350 of these kits [both 36” and 48”] worldwide and the demand shows little sign of falling off.

Two flights of 4 minutes or more were required to qualify for the mass launch flyoff. Unfortunately Derek Collin and Colin Shepherd had trimming problems and were unable to make the flyoff. The majority of the competitors were regulars although we welcomed Steven Roberts and Chris Bishop to their first event and Derek Etheridge back for his second attempt at Tomboy 3s. Derek flew at the last Cocklebarrow Farm meeting in June and lost his model downwind. His day started well as, on arriving at the meeting, he discovered the model had been returned undamaged that morning by a local farmer who had rescued it from the jaws of a Combined Harvester !

At 14.00 hrs the 14 competitors lined up for the 90 second start up time plus the normal 15 seconds no fueling, hold time. The sound of 14 fast revving engines heightened the excitement of what was to come. Nick Skyrme was the starter and as the start board was lowered the sky was immediately full of Tomboys all successfully avoiding each other and all pushing into the breeze as they climbed away. Steven Roberts was soon down having, in the excitement of his first event, not topped his tank up in the allowed 90 secs. Most of the engines stopped around 2 minutes and Bob Young, George Ford, Derek Etheridge and Brian Brundell were all in sink and were down in under 5 minutes. James Collis landed at 5 mins 20 secs to be followed by Paul Netton, Chris Bishop and John Strutt all in the same minute. Of the remaining five, Brian Ball was next to land, followed by Stephen Powell, with Tom Airey claiming 3rd place at 5 seconds over 7 minutes, the three landing all within the same 20 seconds. Tony Tomlin had found some slope lift and after being ‘parked’ in the sky for most of the flight slowly descended, landing smoothly a little under half a minute after Tom. This left Jeff Fellows, who was still at an eye straining height, to glide in, a convincing winner.

He was down in 10 mins 39 secs to the applause of the other competitors and the many interested spectators.

Tomboy 3 results

1. Jeff Fellows 10 min 39 sec, 2. Tony Tomlin 7 min 32 sec, 3 Tom Airey 7 min 05 sec, 4 Stephen Powell 6 min 57 sec 5. Brian Ball 6 min 45 sec 6 John Strutt 6 min 27 sec 7 Chris Bishop 6 min 13 secs 8. Paul Netton 5 mins 45 sec, 9 James Collis 5 min 20 sec 10 Brian Brundell 4 min 51 sec 11 Derek Etheridge 4 min 04 sec 12 George Ford 4 min 00s 13. Bob Young 3 min 29 secs 14. Steven Roberts 0 min 38 secs.

Tomboy Senior

After the excitement of the busy Tomboy 3 competition the Tomboy Senior competition had only seven models making the flyoff with both Chris Shepherd and Stephen Powell failing to qualify. Stephen was very unfortunate with a transmitter programming problem leading to a crash that left him with a badly damaged fuselage. The other fliers were the regulars with John Strutt from Billericay, Essex hoping to carry on his winning streak from the last event, and George Ford flying again for the first time this year.

The wind speed had noticeably increased from the Tomboy 3 event and there were a couple of fliers seen packing under the trailing edge of their Tomboy wings to improve penetration. The rules and start up were the same as for the Tomboy 3s. The launch was considerably less frantic with the sound of the slower revving Mills 1.3s and of course a smaller field. All of the models climbed away, appearing to be flying much more slowly due to their greater size. George Ford was soon in trouble with a short engine run and was down in just under 2 mins. Derek Collin was doing well but missed out on the available lift, landing after a little over 6mins, a reasonable time, whilst the other five models all climbed to a good height, estimated at around 700ft. Brian Ball had suddenly broken away from the pack with a control problem, spiralling down and landing just out of the field. The only damage was a broken prop! Tom Airey had found good lift and was still climbing, Tony Tomlin, Andrew Fellows and John Strutt were descending, all down within 30 seconds of each other, John claiming 2nd place and Andrew 3rd. Tom Airey then did his very controlled dive back down, landing smoothly in the centre of the strip at 10 mins 31secs, receiving a well deserved round of applause.

Tomboy Senior Results

1. Tom Airey 10 mins 31 secs 2. John Strutt 9 mins 34 secs 3. Andrew Fellows 9 mins 20 secs
4 Tony Tomlin 9 mins 01 secs 5. Derek Collin 6 mins 20secs 6. George Ford 1 min 59 secs 7.
Brian Ball Landed out

The awards and certificates were presented by Val Howkins. Thanks again Paul and Val for a very nice day









Derek Foxwell of Old School Modelaeroplane Factory talking to Barry Collis





Mervyn Tilbury looking pleased

Cloudtramp 2011at Epsom Downs Tony Tomlin

Saturday, August 6th was the date for the Cloud Tramp mass launch on Epsom Downs. The Cloud Tramp plan was first published in the Model Aeroplane News in 1954. This simple all sheet, rubber powered model was designed by the American, Charles Grant to encourage the youth of the day to become aeromodellers. Over the years this has become an international event with a mass launch of these models each year at exactly the same time and date worldwide. So when the models are launched at 5pm BST at Epsom Downs, in America, for example it will be 8am and 6am in Australia [The models are launched under flood lights in the dark].

This year at Epsom Downs 32 fliers lined up for the launch. It was a dull day but luckily without the rain that often seems to dog the event. As always there was the normal good natured banter between fliers as the clock ticked towards launch time. Ted Horne was the starter and after the group photos were taken, motors were wound and a ragged line of fliers formed. Spot on time Ted sounded the starting whistle and all the models soared away, with some appreciative comment [even some clapping] by a few members of the public who had wandered over to see who these bunch of eccentrics were! Some models flew for only a few seconds but others climbed well and were soon drifting downwind followed by the “fetchermite” [or to be more correct “fetchergrandfathers”!]. The photographs tell it all.

Middle Wallop Sunday 28 August 2011

You don't need a calendar or other traditional devices to know when it is time to go flying at Middle Wallop the fool proof way is to look out the window and if all trees are bending over at 45 degrees or more you know an event is on. For FF a plastic bag ripped from a dustbin and reaching 5,000 ft is also a sign to get out the Wakefield. Better still if there is a light drizzle as well. Sunday reached the expected criteria. This was a three day event with FF all three days and R/C and CL on the Sunday.

There were about 25 signed on for R/C and a handful flying CL. Trouble is this event always clashes with The Nationals thus numbers on the CL side are reduced. Still I suspect TT will do a report but in meantime here's a few photos.



Garth Pearce and Mercury IV



David Ashenden with his Utility



Colin Smith, he supplies Phil's plans





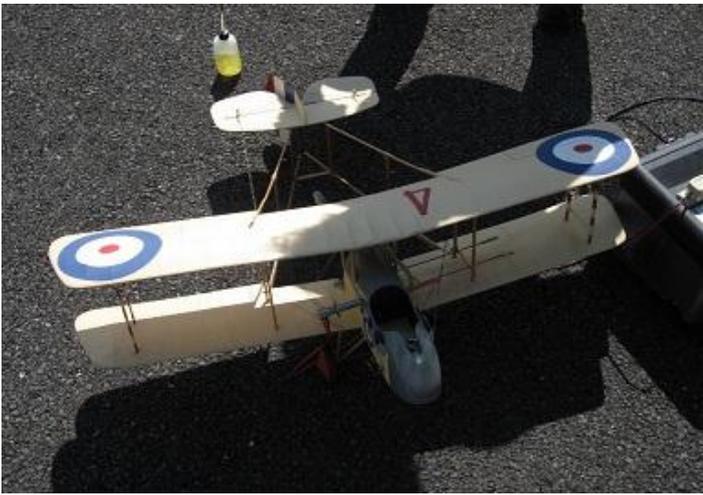
Gus Hague flying a Japanese marked OS 35 powered stunt model



John Goldsmith over from France with an Unlimited and Rascal, below



The Caulkheads always turn up and put a lot into control line here is Bill's scale model



Jeff Fellows Tomboy



Ken Baker starting his Frog 150R powered mini speed model





Bob Baker looking pleased



A scaled up Peter Fisher Noctule



John Taylor getting ready







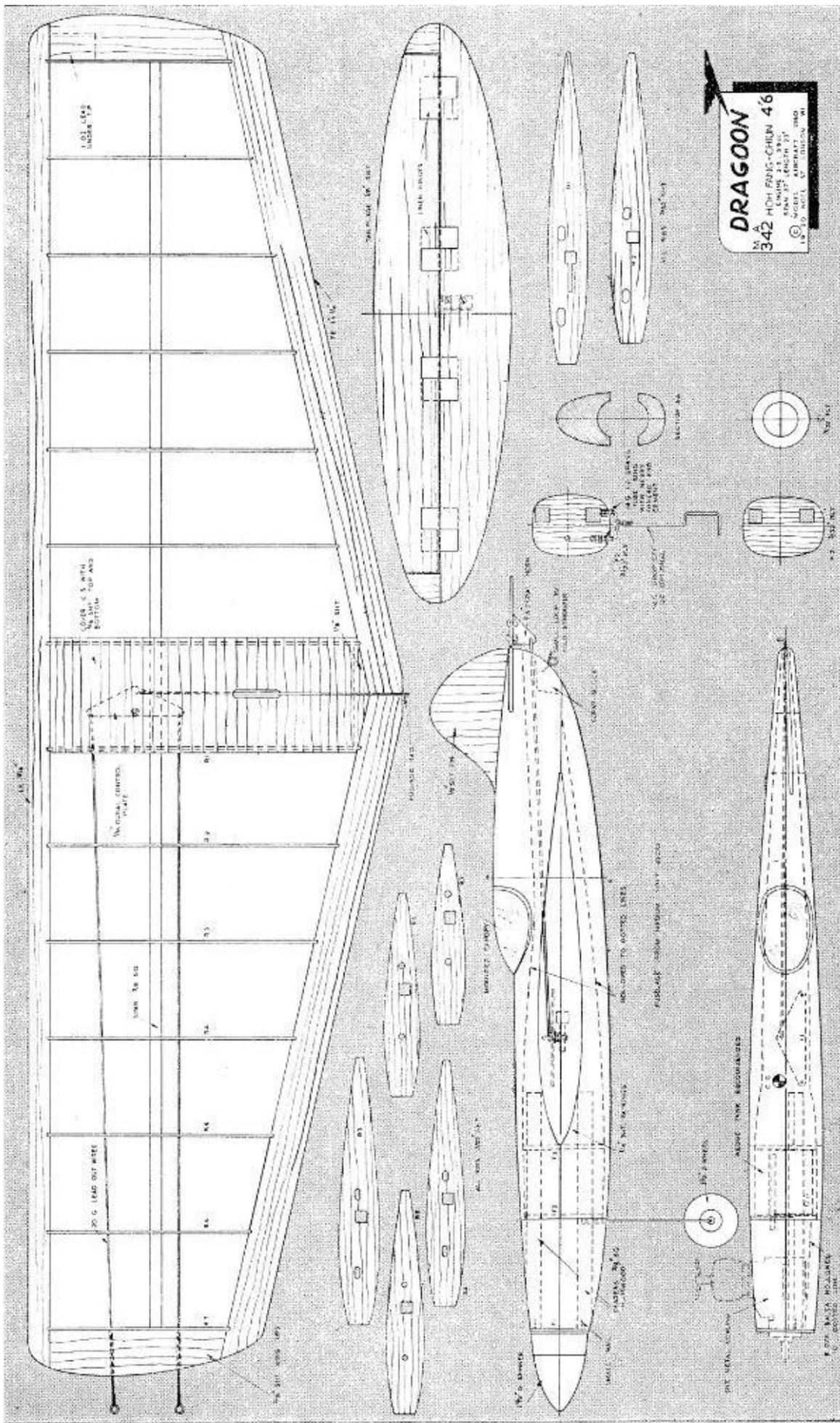
National Tomboy League results to 28 August 2011 from Tony Tomlin

Tomboy 3

1	Jeff Fellows	46pts
2	Tom Airey	43
3	Tony Tomlin	37
4	Stephen Powell	27
5	Dave Stock	22
6	Brian Ball	20
7	Paul Netton	17
8	James Collis	16
9	Brian Brundell	10
10	Chris Bishop	8
11	George Ford	6
12	Tony Overton	5
12	Derek Collin	5
14	Derek Etheridge	4
15	Steven Roberts	3
16	Bob Young	2
17	Dave Stock	1

Tomboy Senior

1	Andrew Fellows	28pts
1	Tom Airey	28
3	John Strutt	17
4	Derek Collin	14
5	Tony Tomlin	11
6	Stephen Powell	9
7	Brian Ball	8
8	Tony Overton	3
8	James Parry	3
10	George Ford	2



Dragoon a sleek stunt / combat model for 2.5 – 3.5 cc motors by Hoh Fang-Chiun. From Model Aircraft February 1961

When “Combat” was first introduced the models flown were usually old stunters retrieved from the scrap box. However, in a very short time, this new branch of the sport rapidly gained in popularity, and specialist combat models were produced with a stunt performance but simplified construction. As the mortality rate of models increased, the emphasis was more and more on ease of building until, today, a combat model is the simplest and often the ugliest of contest models! In an attempt to get away from this rut, I have designed Dragoon, in which I have tried to combine a slick, manoeuvrable stunt model, with a fast, easy-to-build combat job. Powered by a well-broken-in Taifun “Tornado” 2.5 c.c. diesel, the prototype flies at an average speed of 60 m.p.h., and with a line length of 55 ft. it is capable of doing the most advanced manoeuvres.

Construction

Build the entire mainplane first, by first joining up the 9/16 in. sq. leading edge and 3/8 in. sq. hard balsa main- spar. Cut all the ribs from 1/16 in. medium balsa, not forgetting to cut slots in the port wing ribs for the lead-out wires. Slide and cement the ribs onto the mainspar and check that they line up correctly. Note that the 3 mm plywood bellcrank mount has to be cemented in place before the ribs are added. Cut notches for the ribs in the leading and trailing edges and cement these in place. Add the 1/8 in. sheet balsa tips and insert the 14 s.w.g. tubes through the port tip for the lead-outs. Don't forget to fix a 1oz. lead weight in the



starboard wing tip. Before sheet covering the centre part of the mainplane, cement the 1/8 in. balsa reinforcement at the trailing edge joint and bolt the complete bellcrank assembly in place.

The entire fuselage is hollowed from balsa block except for the engine compartment which is built first. Cut the three plywood formers (F1-F3) and the hardwood engine mounts. If you wish to install a drop-off undercarriage, cement and bind the two 14 s.w.g. brass tubes to the firewall at this stage. Now install the fuel tank between formers F2 and F3 and cement these to the bearers.

When dry, cut away (if necessary) the wood on the inside of the bearers to suit your engine. To mount the engine, use nuts and bolts—never use wood screws for this purpose. While the engine is bolted in place, fix the ring former F1 in position by means of two small nails.

In order to obtain a strong and straight joint between the nose assembly and the mainplane, the two 1/4 in. balsa webs must be cemented in position. Join the nose assembly to the mainplane with plenty of cement.

For the main fuselage, select two medium-soft balsa blocks and cut these roughly to the required size.

Commence to shape the blocks by sawing out the mainplane slot, then pin the blocks together and trace the fuselage top view directly on the block and saw it to shape. The fuselage side view is transferred in the same way, always keeping the two blocks pinned firmly together. Before separating the blocks, sand them to the correct section. Now separate the blocks and hollow them out to the dotted lines shown on the plan. Cement the blocks to the mainplane, add the nose block and balsa fillet at the tail, and give the whole fuselage a final sanding.

The tailplane and the fin, which are from 1/8 in. hard balsa, can now be cemented in place, but check that there is enough elevator movement (about 30 deg. up and down is sufficient). Note that the fin has a lifting section and is slightly offset. Complete the model by fitting the canopy—a commercial one can be used—and install a small pilot for added realism.

Before covering the model give all outside balsa surfaces two coats of thin clear dope. Cover the mainplane with either silk or heavyweight tissue, but be sure that the grain of the covering material runs spanwise to minimise “sag,” between the ribs. Cover the rest of the model with lightweight tissue. Apply four coats of clear dope, sanding lightly between each coat. The model is now ready for colouring, but don't forget to protect the transparent canopy with Sellotape during the process. The engine cowling can be made of thin sheet metal (aluminium or brass) or moulded in sheet acetate. It is held in place with four small wood screws. Bend the drop-off under carriage if required, and check that it drops freely.

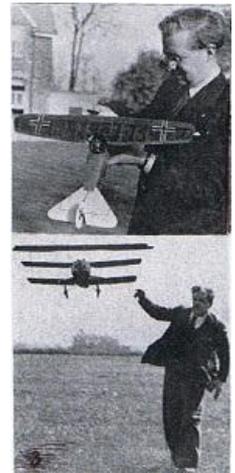
Before you go out to fly, check that the model balances correctly, and that there is no warp in the main-

plane. The length of the lines will depend on weather conditions varying from 35ft. in windy, to 50 ft. in calm weather. Always make the take-off down wind and if you use the drop-off u/c, apply slight up-elevator. When hand-launching the model hold the elevator in neutral, and let your helper launch the model with the nose slightly up. When flying your model over a concrete surface, be sure to put a wire skid under the fuselage, or hold on the drop-off : u/c with rubber bands in order to minimise damage upon landing.

David Kinsella's Column

Gem Extracts

And here's Ran Moulton with his Fokker DVIII, one of the several free plans to be found in *Aeromodeller*. At 22in span it flew well with an ED Baby, either on its own or RTP. From another page of Ron's *Flying Scale Models*' (1956) we have Percy Norman getting the Red Baron away on another sortie over Epsom Downs. From an age when hooks were built to last - solid board, linen, sets of pages sewn in, long lasting adhesives - the mint copy found by chance is as good in 2011 as it was when it left Argus Press 55 years ago, Carrick's stooping DVII as crisp as ever.



Awaiting Treasures

When at Hendon be sure to scan the new second-hand book section in their gift shop. Expanding rapidly and a good idea, I spotted a first edition by Ernst Udet and several written in the 1930s. Not to be rushed, leg-work required., hunting down elusive volumes takes effort. And with Hendon you can tour the large and impressive collection of RFC and RAF' machines plus one or two civil aeroplanes of note. Free and a great day out. The FE bomber (S&T Sept—Nov 2010) now carries detailed construction notes.

Another Good Man

Taking over from Lord Northesk, Robert was president of the Gauge One Model Railway Association and saw it expand 10-fold, the ample grounds and track by his house attracting visitors from old Rhodesia and New Zealand during open days. A marine who served in the battleship *Malaya* and won his Military Cross in the furious fighting of the Dieppe Raid (Operation Jubilee 1942) Major-General Dyer Houghton CBE MC DL oversaw the pioneering use of helicopters in commando raids. A memorable host and enthusiast of modelling, Robert died this year aged 98.

Uber Aces

Rall (275 victories), Streib (66), Nowotny (258) and Prince Wittgenstein on a Prussian estate in 1943. Higher still were Hartman (352) and Barkhorn (301) but unique are the achievements of Hans Rudel: 2530 missions, 500 tanks and a battleship destroyed along with 800 vehicles and 70 landing craft, much achieved with a device made by his mechanics to replace a leg lost in combat His Knights Cross document sold for £20,000 in 1984. The Stuka pilot who sank the battleship *Marat* died in 1982.



Crikey!

An AC in hairy blue looked up to see a V-formation of 72 Meteors on low approach at Biggin Hill. At the centre came 24 Sabres in line astern followed by another V of 72 - 312 jet engines roaring away. Days later he saw it again. Planned as the Coronation Fly Past of 1953, the risk of low cloud as the huge formation broke up west of The Mall lead to its cancellation in favour of a more modest display. Did anyone take a picture?

Chance Meeting

Bumped into Andrew Roberts in the sunshine by the Garrick, he on a quick visit from the US. A leading historian of the modern period, his acclaimed life of Salisbury and other works place the young Englishman squarely in the front rank. A treat to hear him on Any Questions when he is over here.

Great Idea

By his deeds, designs and words Ron Moulton was the great enthusiast of control line flying. He wrote the standard work on it and even in Scale Flying Models (1956) he devotes eleven pages to it. Now David Finch's idea for a non Oliver VTR series for a cup or shield in the name of RGM is spot on, a great idea and really a must in celebrating the many achievements of our departed chief. Well done, David! Hopefully much traction will be gained by 2012 and I'd be honoured to make a contribution to the cup or shield fund.

Brighton Winner

And the above leads us nicely into Phil Smith, Ted Martin and the Veron Midget Mustang (Ameo 3.5) that won the UK's first Team Race in 1950 (another Phil Smith design doing it again at VTR2000). Phil's life covered recently in Sticks & Tissue (June to December 2009), Ted Martin was a huge enthusiast of live steam model railways, a layout of cuttings, tunnels, stations and engine sheds covering his three acre garden. Ted designed model aero engines, worked for GM in Canada then joined MG to work on the Twin Cam project, raced at Brands, designed for Ford, sold other designs to French manufacturers and then retired - at 43.



Blofield's Base

Command centres in volcanos and war rooms of Reagan approval were the work of Ken Adam. Fleeing Germany in 1934 he flew in the RAF, aware that he would be seen as a traitor if he survived a crash in that country. After UCL Ken entered the movie industry as a draughtsman, later creating ideas for sets rather than sticking to facts. Dr Strangelove's antics in the impressive war room made the movie (1963), President Reagan surprised that the America's reality was not up to Adam's invention. Here Lewis Gilbert (Bader movie) is on the Bond sub-and-tanker-set designed by the pilot who flew Typhoons over Falaise Gap. Largest set in Europe, it was opened by PM Harold Wilson.



Twanky Man?

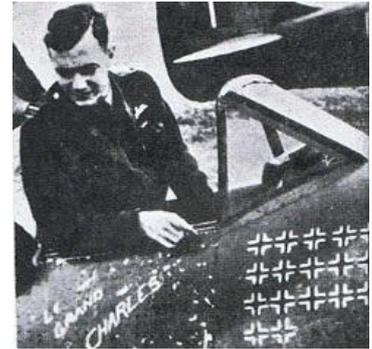
One of Ian Fleming's jobs as a Wavy Navy (RNVR) officer working in the Admiralty was to think up schemes. The enemy codes vital to reduce shipping losses, Operation Ruthless provided for a captured German bomber to ditch in the sea. The English crew fluent in German would then radio for help. Taken aboard a rescue boat or submarine, our boys would take over and return with the vital code books. Papers exist, one or two signed F. Was it F for Fleming or F for Frank Birch? Birch was involved and in his spare time wrote panto scripts for Widdow Twanky.

0-Level Info

Over from Portugal for Ron's Day, I had a chat with Julio by the VTR circles. Touching on the Lines of Torres Veras (by Wellington near Lisbon) I heard a nearby modeller say to another: "You certainly get a good education, here".

Brave Pierre

Busy with my Skyleada Typhoon an age ago Peter Shearman told me to read The Big Show. Selling 3 million, copies and first published in. 1951, Tempest ace Pierre Closterman DSO DFC OdG aboard Le Grand Charles pictured here tells us of tangles with FW190s and jet 262s, hitting ammo trains and nil feet blasts along the Dortmund canal. Trained in Los Angeles and on the RAF's most powerful fighter, Closterman hit VI sites, ships and factories and swept the skies above Normandy. Always a big-game fisherman, the dashing Frenchman retired to the Pyrenees. An add-on comes from a letter written by a RAF officer in which he tells me of Closterman's arrival at a dance. An Errol Flynn type and famous, he swept a girl off her feet and headed for London. Years later the officer married the girl.



Doing The Continental

With its famous swoopy rear and cast aluminium frames, the Bentley R-Type Continental was the one to waft across France to the Med. A big strider when 100mph was still the grail, the sleek R-Type was an essential for those with large yachts and private, aeroplanes and a castle or two. Grand Prix Legends will sell 1:18 models in their new shop near Leicester Square (Cecil Court) and front Guildford HQ (0844 887 8888). GFL stocks the best of the best)



Oliver's Scribe

John Goodall and son Paul are great enthusiasts. John gave us the first and only book on Oliver engines, many fine editions of his Model Engine World and maintained an impressive stock of motors for those in need, prompt and top notch service his famous brand. These days Paul is at the helm, John on the blower telling me about his fun fettling and firing up Classic bikes for hill and track, even part way through an ohc conversion, of his own design (drawn up when we had all that snow!). Model aeroplanes not neglected, here's John with a Mk 2 Ranger ex Campbell and a 10cc Nordec Speed job. Early Nordec's were not too powerful but this one really goes, only smallish wings damping mph due to angle of attack. Nordec's (North Downs Engineering Co) of Godstone Road, Whyteleaf, Surrey was really a large garage also making big Roots-type blowers, ifs systems for Fords and even Bugattis, and at least one Nordec sports car. Thanks in part to Nordec superchargers the Candidi Provocatores team of JJ Allards mashed the Trials opposition in the late 1940s and set hill climb records in Europe. Give Paul a ring (01283 713715) and that McCoy 60 or Eta 29 will be on its way. Forget that new carpet, this hardware is essential!



Good Kit

Seen at Old Warden, P S Aeroproducts stock good stuff for control line operators in need of the best: props, tanks, lines, dope, cranks, horns and loads more. Based in Middlesex, Paul Winter (0208 958 6731) awaits to lend a helping hand.

The Flyer

My letter in Classic Boat didn't do it, but possibly the reach of S&T can conjure information on the Flyer. For years a sight off Southend pier was the white roostertail of Flyer, a varnished Speed boat that did her stuff from time to time between Thorpe By and Benfleet. Of the old style, her name in red-edged white letters either side, even at a distance the noise was like a MerlinVI2 in take-off mode. Where is she now? That's the question I'd like answered. And tn. there was the grey MTB off Westcliff....

Big Bucks

A 100 trillion note looks impressive (14 zeros) but it was mine for 85p. Even with the global troubles over the last few years only £3 trillion has been injected so far. Beyond a certain point all paper is useless and the system collapses, which was the idea behind the big white tenner printed in Germany in 1942-44 (S&T No 48) and with white fivers tested over here by secret agents.

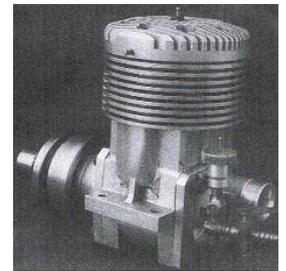


That Extra Mile

As with their two Grand Prix teams, Germany certainly pushed the boat out for the Berlin Olympics of 1936. Massive structures were built and sponsorship arrived from the USA and elsewhere. Movies were shot and camera ace Leni Riefenstahl made sure that all was well. Much of her work fills the 380 large pages of a two-book set designed for special presentations later in the year. To achieve the very best results each picture - and there were so many - was stuck in by hand! At least two books have been published on Riefenstahl, mighty clever and blond wig wearing into advanced old age.

Big Stuff

Class A hydroplane engines must be home-made, between 15 and 30cc and weigh no more than 16ozs. Lionel Lawley made this one and a similar Mk2 on a Myford lathe and has done better than 125mph. As seen in movies at the MEE, tethered hydros certainly tramp on, more so with catapult launches which permit narrower power bands. To encourage steam power (well over the ton too) only the weight limit applies to a homemade engine.



Biker Boys

Lil's, Easy Bee, Morden's Caprice, Manchester's Ten—Ten, the famous Ace. These and many more encouraged the TT-like Cafe. Racer upon which lads in black leather would storm the Kingston bypass, sections of M1 and trail sparks on roundabouts. On a good night 200 bikes were seen at, Lil's. On the Ernie Parrish twin in Morden sits Billy. Wells as chums smile all of fifty years ago. These days a shuffler's pass for sure, but the Triumph is as crisp as ever. Hardly Brando league, I put in a few miles on a Dot, 250 BSA and a New Imperial, regularly passed by a hairy bloke on a Dominator 88.



Modellers Magic

Magnificent Modelzone is five minutes from Holborn station travelling west. At 282 High Holborn a keen staff led by Ken will find just what you need, the large shop offering cast models, plastic kits, wooden kits, model railways, model soldiers, balsa wood and alloy tube, magazines and the Osprey series, radio control cars and aeroplanes, the excellent Corgi models and so much more in this Aladdin's Cave in central London. Once inside it's hard to leave and via the Beattie's name there's a direct link to the great days of Bassett Lowke. Highly recommended. You will enjoy the experience

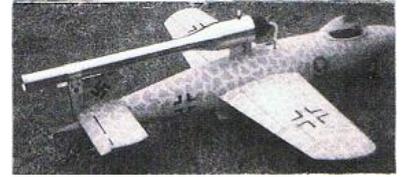
Beautiful Biplanes

Perfectly judged at 1:48 scale - which gives a Fokker DVII or Albatros a tidy span of 7 1/4in - Corgi's Kaiser War series of biplane fighters tick all the boxes: stunning detail yet strong, colourful, accurate, even rigging wires and personal markings. Osprey's No 40 just published - Jasta 18 The Red Noses - pictures the German machines in all their glory: shooting stars, winged swords, battle axes, moons and hunting birds and cavalry branding marks well to the fore. Heavy in metal, props ready to spin, Modelzone has one just for you.



The Noise!

And here's one for Bryan Passey, but because of assured racket in these H&S times a Hangar Queen of interest. Built by Alan Denham to a Junkers EF126 Miniatur jager outline for control line (!) and sporting a BMS unit from Houston, workmanship is top notch. Shufflers may recall the dreaded rumble then silence before an almighty explosion as 1,000lbs of high explosive went off, this our first experience of the pulse-jet A Red Head Dyna-jet bolted to a plank was Alan's early experience with these devils, chums off smartish when it fired up. Hairier still was John Goodall's intro when a lad with cash bought one and to shelter against rain decided to test it in a greenhouse! Soon the vegetable garden was trampled as all fled to get clear of the falling glass. USAF boys sometimes brought one in and Colonel Bowden had one too (a Decojet. See Practical Mechanics for August 1949). Typhoon ace Roland Beamont told me that 'tipping' a pulse-jet VI was not the easy street occupation as written up by scribes in libraries. Until the deed was done the pilot was flying alongside a half-ton bomb!



Get Info

The big A to Z Engine 3ook, packed with scores of pictures, tells you what that unmarked motor is and shows you the rare stuff of ages past. Still in print at £20 plus £5 p&p, a call to 0208 641 3636 will soon have a copy crashing through the letter box. And why not a .46cc motor for that sport flyer you'll build this winter? Mills-like with tank, this 2oz baby comes with a prop at £80 post free.

Blue Max Aces

On a breezy day in 1938 aces of the Kaiser War compare notes, both wearing the Blue Max. Held by many to be one of the finest display and stunt pilots, ever, Ernst Udet (right) flew Albatros, Fokker and lesser known Siemens fighters, all highly decorated as here, and flew in movies in the USA. A passenger I spoke to described how Udet, in the front seat and on final approach, flipped the aeroplane onto its back, held it there, then came right way up again and made a perfect landings An Albatros and Fokker DVII in Udet livery are modelled by Corgi at 7 3/4in span as above. Udet's tally exceeded 60.

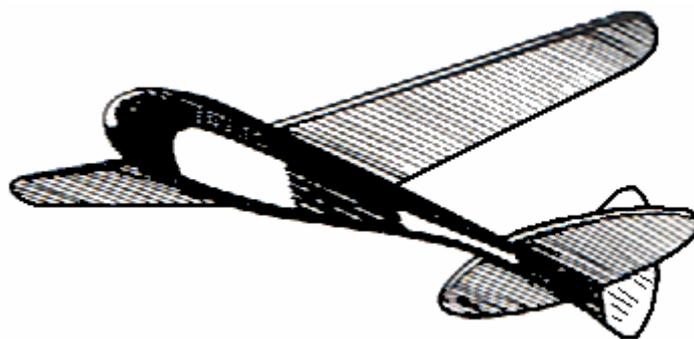


From Geoff Northmore in NZ

I noticed a mention of the Jabbawocky model in David Kinsella's column – big wing page 17 . One of my club mates in the Auckland M.A.C. built one for control line years ago and displayed it at a club night. I remembered the article in the AeroModeller and said I'd like to have a go at enlarging it for R/C as it looked rather toothsome and a challenge - he kindly gave me a photo copy of the plan. I drew up a 44" version to be powered by an ancient O.S. 26 FS. It became apparent that the fuselage would need to be slimmed down. So I reduced its width and height by one inch at its maximum cross section. I also moved the wing below the top longeron instead of having it sitting on it. The rudder and fin areas looked small so they were enlarged too. The model was built without much trouble for 4 channel radio. The plug in wings have a separate aileron servo whilst single acting rudders, elevator and throttle had normal servos. The model was covered in a mixture of polyester and normal tissue. Came the day and I found it difficult to keep the model straight on its T/O. Eventually I managed to get it airborne and the model turned left and entered a shallow dive the I could not correct. Some damage prevented another attempt. Back at home I made repairs and checked all was well with the radio. Another attempt had the same result – more repairs. I then discovered that my wonderful state of the art 2.4 TX had a very short range. A change was made to 35 and this time the model flew but hunted up and down for no apparent reason. I changed the elevator servo and this cured the problem. What a combination dud TX and

servo! Further flying showed a serious lack of power so a change was made to electric and this has made a better performing model. Not a lot of flying has been possible, due to our winter weather, so much more remains to be found out about general handling. Anyway it has been a bit of fun which is the important thing. Geoff Northmore.

P.S. The odd green thing on the wall is my version of the Cekoadon – not very successful as yet.



NUMBER 96a – A LARGE CLASSIC GLIDER



Vic Driscoll's modern Number 96a

Please visit my website: www.martyn.pressnell.btinternet.co.uk

MSP PLANS PRESENTS FOR 2011

GLIDER PLANS

MSP PLANS drawn by Martyn Pressnell, offer a collection of model aircraft designs selected for their aesthetic qualities or unique origins drawn to the highest engineering standard. All drawings are A0 size, some as twin plans. The list below includes Vintage Models generally pre 1951 and Classic Models 1951 to 1961. Photos of most models can be seen on my website.

NEW PLAN JUST PRODUCED

NUMBER 96a 1959 A Classic glider designed by members of the St Albans MAC. This was an 'Open' glider design, larger than A2, at 84 in span. It enjoyed considerable competition success over three or more seasons, being published as a plan in 1962. This is an ideal BMFA Glider, or potential SAM Classic Glider today. It would be an ideal floater for less windy R/C slope soaring.

POPULAR PLANS - £7.00 EACH INCLUDING UK POSTAGE, FOLDED FOR POSTING

ODENMAN'S 1950 NORDIC A2 Swedish Championship glider, placed second in the first World International in 1950. Acknowledged trend setter, probably the best vintage Nordic A2 glider before

the Classic era of 1951. Published in Sweden.

ENGLISH VIKING 1953 A2 GLIDER Designed by Bill Farrance after his experience with the GB Team at the 1952 World Championships in Austria. Capable of a full 4 minutes from the 328 ft towline, an acclaimed glider of proven performance, twice winner of the SAM Radislav Rybach trophy.

CAPRICE 1959 GLIDER The renowned lightweight glider of 51 in span, designed for kitting in 1959 by Neville Willis. The most successful competition glider ever kitted, with innumerable wins to its credit. A favourite with aeromodellers world wide. Twin plan with **GAUCHO** power model.

VAKUSHNA 1959 A2 Designed by Brian Dowling this glider won the 1960 Pilcher Cup along with other successes. It should be regarded as a straightforward and satisfying build, very suited to rough British weather. Accepted for SAM events but not meeting BMFA publication requirements.

Separate lists of Rubber Models, Power Models, Collector's Plans and Other Models are also available.

TO ORDER:

To order plans for UK delivery please write with cheque (£7.00 sterling) made payable to Martyn Pressnell at: 1 Vitre Gardens, Lymington, Hants, SO41 3NA. For overseas delivery of Popular Plans send local bank notes equivalent to £10.00.

Enquiries: please write or email martyn.pressnell@btinternet.com

WANTED

JAGUAR WAKEFIELD of 1948 – This was the model that won the Wakefield Cup for Great Britain in 1948, the last occasion that it was won for GB, being flown by Roy Chesterton in the USA. The model with its unusual belly to accommodate the cross-section area rule, was designed by Ted Evans. The model is required for presentation and display at the **National Aerospace Library** at Farnborough. I am prepared to repair and restore an airframe that is reasonably intact and originally well made. This will complete the collection of Wakefield models on display at the NAL that I have restored. The NAL is open daily for modellers to visit and browse their historic and technical data, including a full set of Aeromodellers and other such material. Please contact me at home in Lymington at: martyn.pressnell@btinternet.com or telephone 01590 677146.

From Derick

I am after the plans for the Keil Kraft Student r/c sport/trainer And Keil Kraft Consort r/c semi scale model
Contact Derick at derkiedotcom@talktalk.net

From Belair

Hope you don't mind, but could you mention our latest Vintage List is now out. If readers would like a free copy, please have them email or call with their details. The list is an A4 brochure and cannot be emailed without reducing the size/quality, however it is available as a download on our site at <http://www.belairkits.com/Pages.asp?id=14>

Regards,

Leon Cole

Belair Kits

Tel: +44 (0)1362 668658

www.belairkits.com

For sale ex Ray Page's aeromodelling items

Both Fleet TX are still available, the other items are:

Indian mills 75

OK cub 049

Ohlson 60 (no tank broken lug good compression)

Delong 30 (no points or tank)

OS pet

ME merlin (in super merlin box)

OS max 10 NIB

Irvine 36 NIB

ask people to phone/email me 01306 881000

geoffgg1@btinternet.com



Radio Assisted Free Flight From Andy Brough Vice Chairman SAM 35

Radio Assisted Free Flight is a form of flying which is very suitable for those still interested in free flight, but who have limited mobility or indeed wish to take up free flight but are not physically able to retrieve.

The arrival of both 2.4GHz radio and micro equipment at very reasonable prices has provided the possibilities to add radio to any type of model and for it to be flown without the need for traditional flight line control. Vintage enthusiasts were quick to see the opportunity to fit the equipment to free flight models

to allow them to be flown on smaller sites and to avoid the long walk to retrieve. The vintage community tend to be at the older end of the general modelling population so this feature is very attractive.

Indeed I'm sure many club sites have a number of such models on their patch flying in circuits along with the 'proper' radio models. However, as vintage modellers like to gather at free flight meetings issues then arise as to what can and can't be done. Clearly, just turning up and flying a radio model in the midst of a group of free flight modellers is not acceptable!

Therefore Sam 35 and the BMFA have come up with a set of guidelines applicable for this type of model flying. The normal guidelines for radio flying are not applicable for two main reasons; you must not fly circuits in front of the flight line and the fact that models drift downwind means modellers will cross the flight line. The guidelines address these issues along with the amount of control allowed and organisation.

Radio Assisted Free Flight Guidelines

1. Models must be free flight models in original design and concept with radio fitted solely to assist in trimming and recovery. Models must be operated in a 'free flight' manner with a clear climb to height followed by a glide phase.
2. Radio assist is limited to rudder plus one other function (which must be either elevator or throttle). Additional channels may be used, but only as a motor cut off and/or to activate a dethermaliser.
3. Only legal 2.4GHz radio equipment to be used.
4. Only fly on sites that are clear with adequate open space in compliance with any local rules or conditions and with due consideration for other people and property.
5. When radio assisted free flight is taking place on a multi use site, it is important that one person is nominated to co-ordinate the activity and liaise with other site users.

Note: where a group of flyers wish to fly assisted free flight one would expect their flight line to be adjacent to the free flight line, a precedent set by the FAIR rocket flyers who also fly assisted rocket launched gliders.

Andy Brough
Vice Chairman SAM 35

Issue 1 25/07/2011