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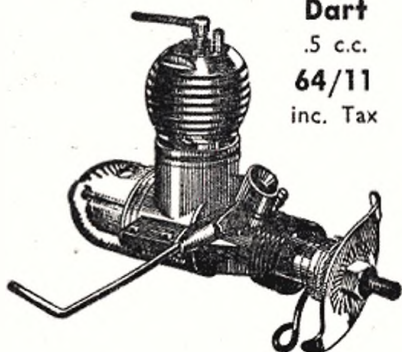
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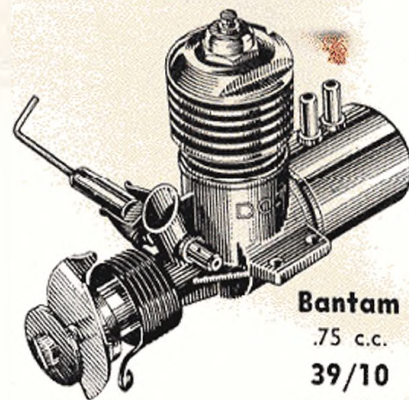
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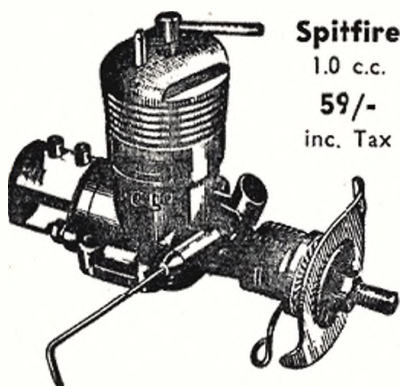
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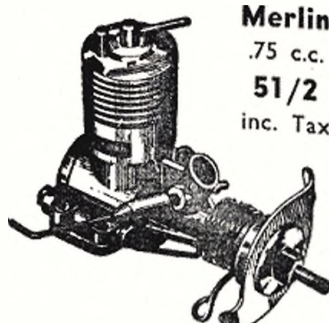
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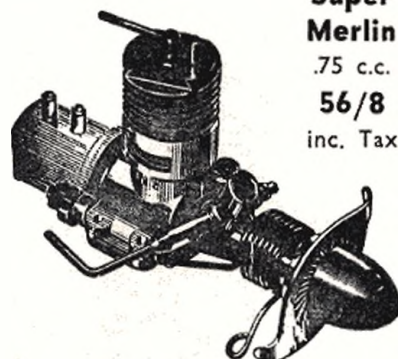
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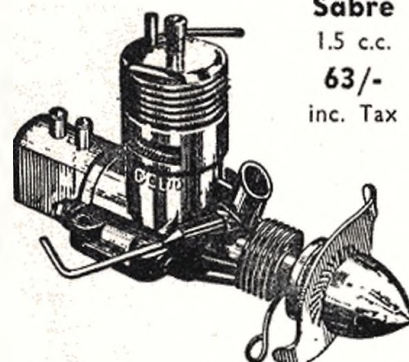


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AERO MODELLER



HOBBY MAGAZINE

May 1965

VOLUME XXX No. 352

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cover

Being made ready on its home aerodrome at Old Warden, Biggleswade, Beds, is the Bristol F-2b Fighter belonging to the Shuttleworth Collection. This aircraft was stored by Mr. C. P. B. Ogilvie for many years in a garage close to the editorial offices and renovated in the '50s by the Bristol Aeroplane Co. The Rolls-Royce Falcon engine makes a simply wonderful sound and flight of this well preserved veteran is an inspiration to all scale modellers. More details of the collection will be found on page 227 of this issue.

next month . . .

1965 sees the 25th anniversary of the "Battle of Britain". Since we have already produced features on the famous Hawker Hurricane and Supermarine Spitfire as well as the Focke-Wulf 190, it is only natural that we should now turn our attention to the famous Messerschmitt Bf 109E. Doug Carrick, noted specialist on the type, has prepared a drawing which is the result of thousands of hours of research. Direct measurements taken off remaining aircraft and information from maintenance manuals enabled him to establish the true shape of this aeroplane in every respect. Sketch details will cover many hitherto little understood features. Slope soaring is becoming more and more popular. As the summer season gets under way, we introduce a special feature on the subject in general together with drawings for a quite simple but very good 36 in. span solid wood slope soaring design. New silencers are about to be introduced and a survey together with test appraisal will make interesting reading. So, too, will the latest book reviews, contest designs and general features for all modellers in our June edition on sale May 21st.

other modelling angles . . .

Model Cars May issue is a special Mercedes number with write-ups on M.R.R.C. and Airfix Mercedes kits, reports on other Mercedes models plus a Mercedes Plan-book which can be taken out of the mag and folded separately or just left in according to taste. There is a full report on new items seen at Nuremberg Toy Fair, plus Lotus 24 in plan-form, plus some tiny little cars in 1/96th scale of Brooklands Outer Circuit cars, plus Chopping Miniatures devoted to Rally Minis, with gen hitherto unpublished.

May issue of R.C.M. & E. covers a wide field; including a robot! The designer of this model has managed to obtain 14 different "robotic" movements from an 8-channel radio system. Whether one is interested in robots or other unusual devices, the control system offers many possibilities. A sophisticated approach to aerial photography by radio control with results illustrated show how effective it is. Flying types should enjoy the easy to make full-sized plan for a flying wing single channel model by Eric Clutton and boat enthusiasts should gather valuable information from the neat installation in a scale "Swordsman" which forms the subject of the series on fast electrics. Subject of the test report is a British proportional system, the "Flight Link".

May issue of Model Maker sets out to cater for growing interest by having a greater than usual yachting content. First among the features is a free 16-page booklet on "How to Tune a Model Yacht", the expression tuning being used in the sailing world to cover the basic principles of sailing as well as working a boat up to maximum efficiency. Supporting articles include a new 36 in. yacht of simple construction.

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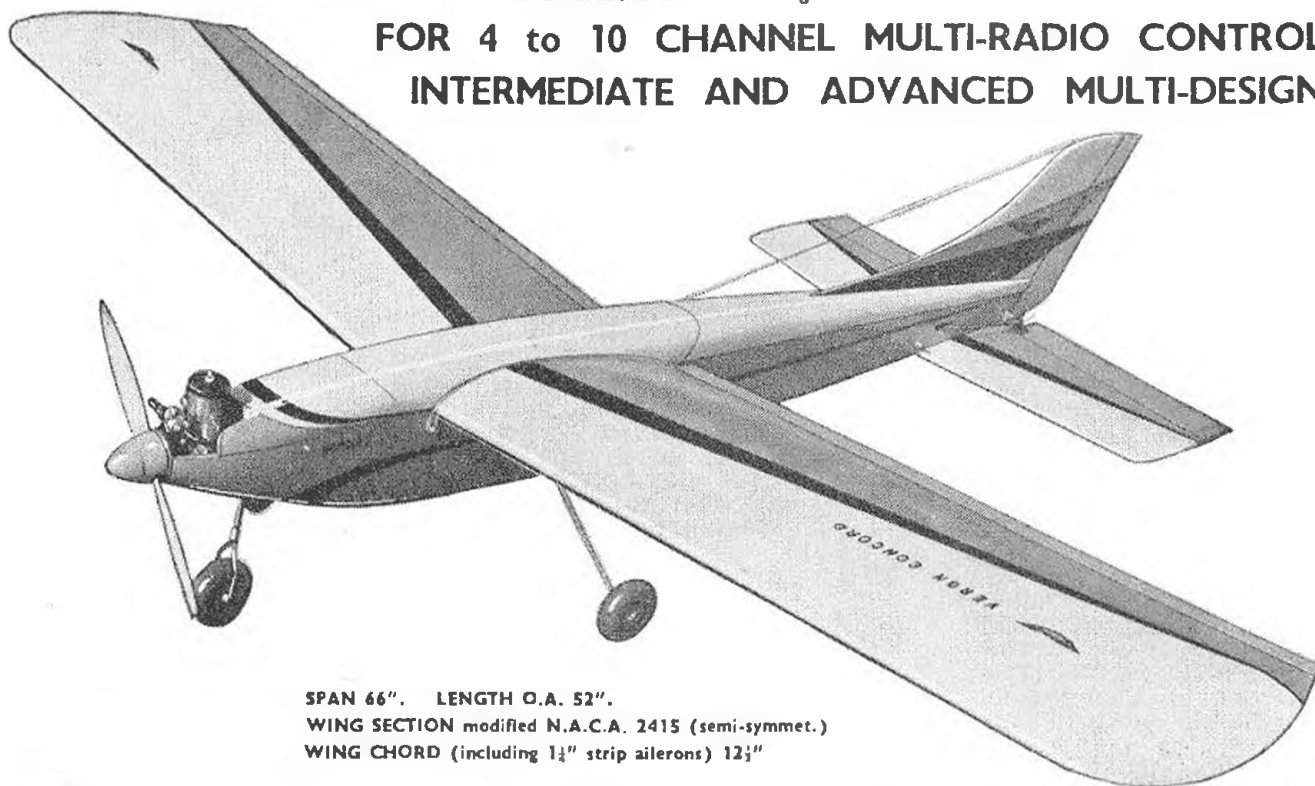
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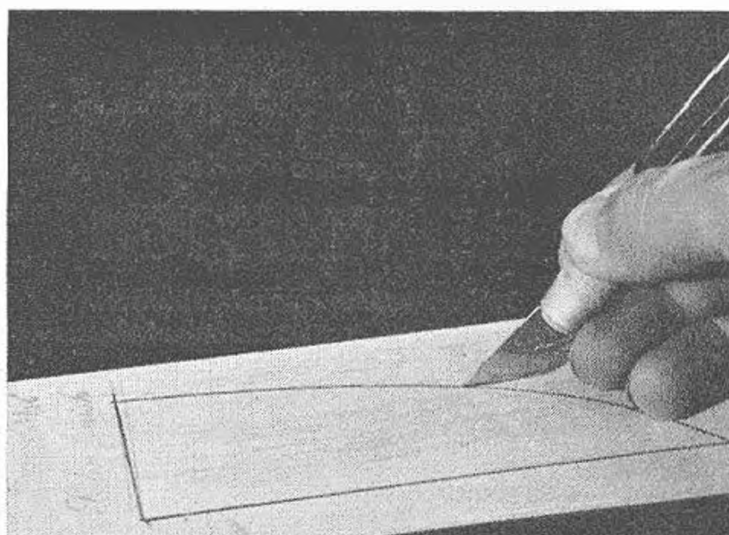
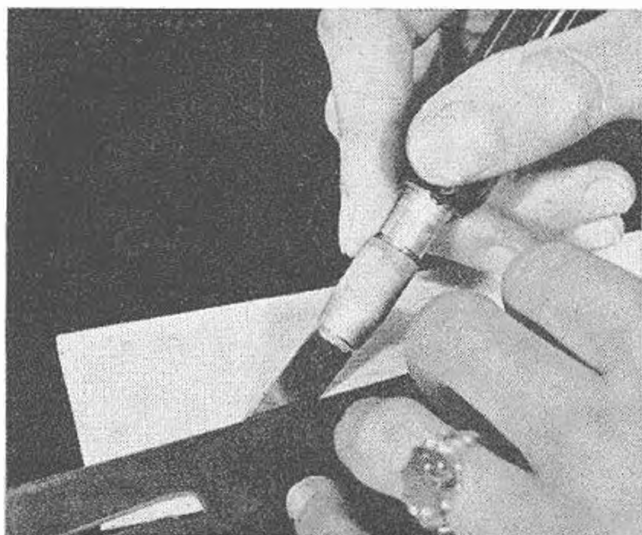
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TIPS FOR CUTTING SHEET BalsaWOOD

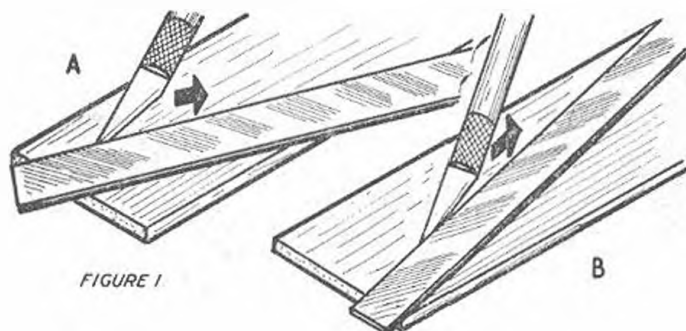


FIGURE 1

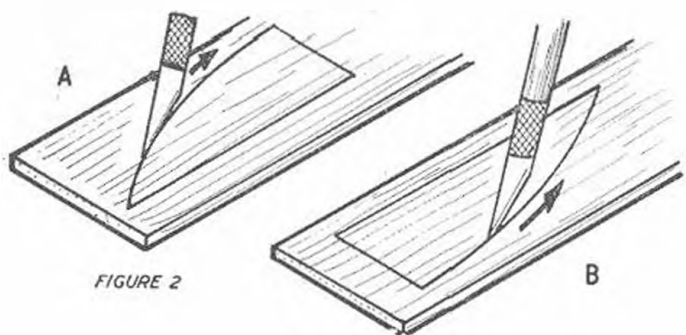


FIGURE 2

For making straight cuts in sheet balsa wood the modelling knife should be drawn along a suitable straightedge, such as a steel rule—not a wooden ruler or celluloid set square, as otherwise you will invariably nick the edge with the knife blade. There is a right and wrong direction for cutting, too. If the cut is to be made at an angle to the grain, cutting in the direction shown in A (Figure 1) will most likely result in the knife running off the cut line with the grain. Reverse the direction of cutting as in B, so that the grain tends to pull the blade onto the straightedge all the time.

For freehand cutting of sheet balsa wood, just the opposite applies. If you make the cut in the direction shown in A (Figure 2) the grain will be tending to pull the knife inside the correct line for cutting all the time. Make the cut in the reverse direction, as shown in B. The worse that can happen then is that the cut runs off the correct line, and you can always trim this back to the correct shape, as necessary. Remember, too, that for good, clean cuts, you need a really sharp blade in your modelling knife and the sheet should be properly supported by resting on a smooth, hard surface, such as a piece of hardboard.

There's another tip, too, which is important for getting best results. Always select SOLARBO BalsaWOOD for your aeromodelling jobs, then you can be sure of starting right with the best balsa there is—Balsa specially selected and graded for aeromodelling.

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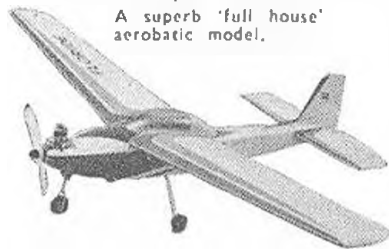
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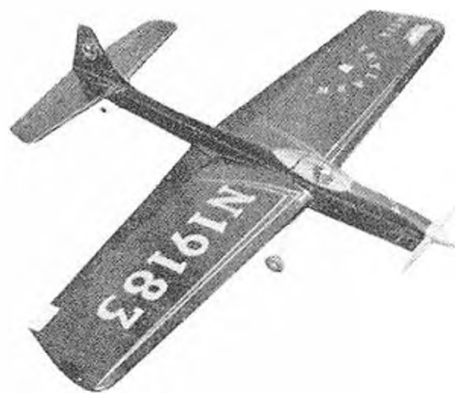
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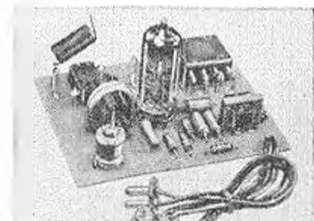
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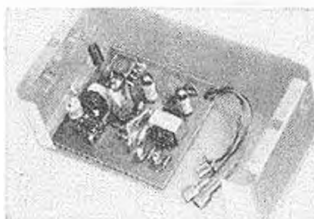
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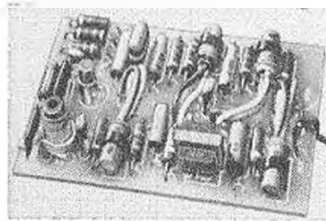
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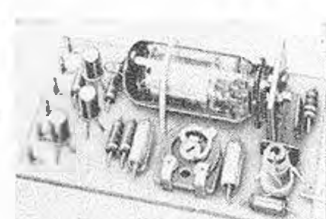
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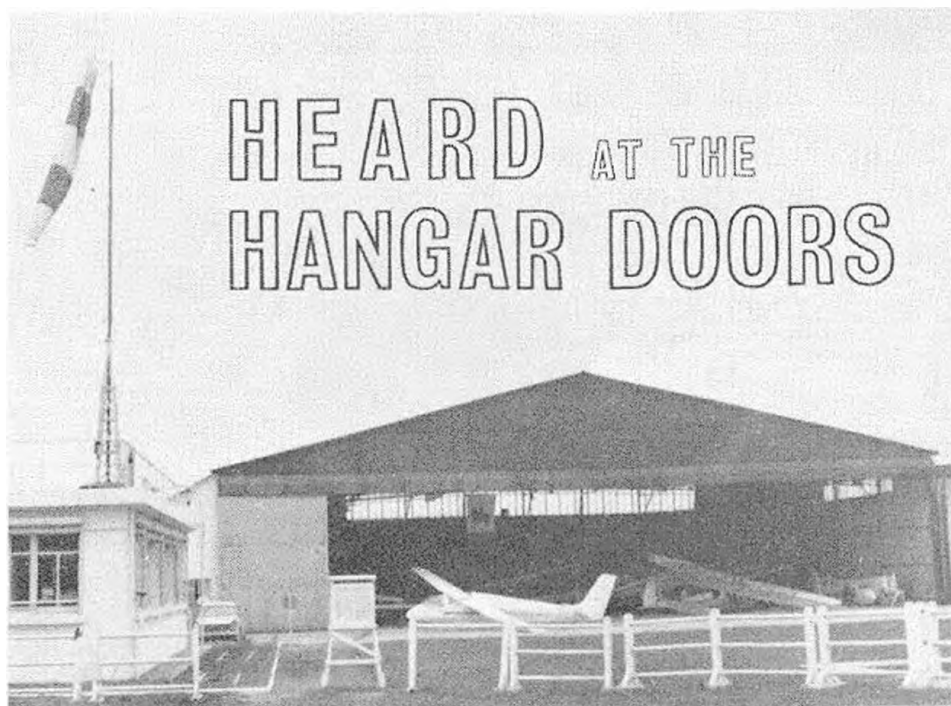
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A drooping windsock confirms how February 28th was such a wonderful day for Aeromodelling throughout most of Europe. The open hangar and grounded gliders at Chavenay near Paris, scene of the Coupe d'Hiver Anglo/French challenge reported on pages 221/223 of this issue capture an atmosphere of stillness and Spring-like conditions. We wonder if this perhaps heralds a good year of aeromodelling weather?

Modelling Centre

The spacious grounds of Woburn Abbey, residence of the Duke of Bedford will, after April 16th contain a special area set aside for the use of radio control models. To be officially opened by the Duke of Bedford, the facility was arranged and will be maintained by Radio Control Specialists Ltd. A $\frac{1}{2}$ acre site has been fenced off close to the coach park and this incorporates one of the conveniently shallow lakes for the use of radio control boats. There will be a large exhibition tent, facilities for supply of model accessories and the static exhibits are to include a full size aircraft. Initial displays by model boat radio control experts and control-line flyers should launch this venture off to a most successful Easter start. Use of an efficient silencer and 3rd party insurance coverage is a requirement for all participants. Day tickets costing 5/- each will be issued to anyone wishing to fly.

Rallies are scheduled to be held in the summer months, the first being one for intermediate (rudder and elevator control) Radio Control aircraft on July 18th with generous prizes donated by Messrs R.C.S.

The centre will be open from 11 a.m. to sunset each day through to the end of September.

British Nationals

To be held at R.A.F. Ouston approximately 14 miles west of Newcastle-on-Tyne on Whit Sunday/Monday, June 6th and 7th, the British National Championships promise to be one of the best ever for ground organization. A listing of the events will be found in *Contest Calendar*. Contests start each day at 10 a.m., finishing at 7 p.m. on June 6th and 4.45 p.m. on June 7th. Altogether there will be 14 events and pre-entries should be made prior to May 17th and submitted on the official form which has been distributed to clubs, to the competition secretary, S.M.A.E. Ltd., 10 Storer Road, Loughborough, Leics. A stamped addressed envelope *must* be in-

cluded for the return of competition badges, etc. Pre-entry is advised, particularly in team racing, combat, C/L stunt and R/C multi-channel which may have to be numerically restricted.

A camping site will be available which with a charge of 5/- per head for the period of the meeting. The site will be open from Friday, June 4th at 6 p.m. until Monday night when the airfield *must* be cleared. Special arrangements will be made for those who have to stay overnight. Test flying will be permitted throughout Saturday, June 5th, but no engine running will be allowed between the hours of 9 p.m. to 9 a.m. Full camp site amenities have been arranged including visits by local tradesmen with food stocks, etc.

For those who do not wish to enjoy camping at this annual jamboree, a comprehensive list of hotels has been compiled and details are available from the London office of the S.M.A.E. at 10A Electric Ave., Brixton. The envelope should be marked "Nats Hotels".

For those who find the 300 mile distance between Ouston and the London area creates transport difficulties a special train is being arranged to leave London at 9 a.m. June 5th and returns from Newcastle at 7 p.m. on June 7th taking approximately 4½ hours for the journey. The cost would be the £6.16.0d. normal return fare on this "special" but it will enable modellers to return at a convenient hour on the Monday, after the contests have finished and the Society will have to guarantee a reasonable number of seats. Clubs wishing to take advantage of this arrangement should immediately write to the S.M.A.E. London office so that the number of passengers can be registered. Special bus transport will be organised for the connection to the airfield from Newcastle.

Photo Skills

The hobby of aeromodelling is often associated with diversionary hobbies and among them, perhaps

the most common of all is that of photography. Most modellers like to preserve a photographic record of their efforts and this often develops into a degree of photographic skill so that a large number of modellers have become expert amateur photographers.

However, it is not very often that we can inform our readers of a national success in this field. We congratulate one of our oldest supporters and most certainly one of the most respected model shop proprietors in the country Mr. Bud Morgan of Cardiff on winning a £1,000 holiday photographic competition. Bud has had a string of successes with his portrait work and it was a photograph of his 12 year old son which won him this large first prize. A significant statement by Bud made to a newspaper reporter was that although he owns three cameras and goes in extensively for colour photography, he says that, "I still win competitions with a camera which I bought for £7". Truly it is not what you have, but the way that you use it!

Magnificent Flying Machines

Arrangements have now been made for the first two contests for models of the 12 film aircraft featured in our March edition in connection with 20th Century Fox's film *Those Magnificent Men in Their Flying Machines*. First of these takes place on May 9th at R.A.F. Hemswell, north of Lincoln and will be incorporated in the S.M.A.E. all-scale meeting.

This meeting is somewhat of an experiment being the first of its kind but we are sure it will not be the last. Scale enthusiasts have long complained that they have been the orphans of the contest world and this is their opportunity to turn up and show their keenness. Even if you are not actually taking part in the events for control-line, free-flight or single channel radio control scale, modellers are invited to take along their scale aircraft for a grand day of getting together and exchanging information. The generous cash prizes offered by 20th Century Fox Films for their special contest are an added stimulant.

Second of the events will be purely for "TMMITEM" types and due to the lack of a tarmac area, control-line will not be possible unless modellers wish to fly over rough grass. This will be held at the home of the Shuttleworth Collection at Old Warden Aerodrome, Biggleswade, Bedfordshire, on June 27th. The Shuttleworth Collection has also offered a special prize of five guineas for the highest scoring model of a Shuttleworth aeroplane in the entries. Eligible types would be a Blackburn, Deperdussin or Bleriot. Here is an ideal opportunity of combining a competition with a most pleasant opportunity of seeing one of the most interesting Air Museums in the country.

Meanwhile details have now been released of the World Premiere of the 20th Century Fox Film. This is to be on Thursday, June 3rd, at the "Astoria" cinema, Charing Cross Road, London, and will be attended by H.R.H. Prince Philip, Duke of Edinburgh. All proceeds will be in aid of the Royal Air Force Association, the Royal Air Force Benevolent Fund and the Guild of Air Pilots and Air Navigators Benevolent Fund. Seats are bookable through these organizations. The film will continue to be shown at the "Astoria" on a reserved seat basis from Friday, June 4th, and will then be issued to eight city centres throughout the country where there are facilities for 70 mm. projection.



Silencers

New silencer designs continue to arrive and we hope to report an appraisal with photographic details of some of them in our next issue. The increasingly obvious advantages of using a silencer which were not initially apparent are in the economical side of operation and already we are hearing of serious prospects of non-stop 100 lap performances with F.A.I. team racers. At a recent radio control competition, another advantage was shown up against the clear blue sky when the condensed smoke trail from the tubular exhausts showed clearly the pattern for each manoeuvre. Although mistakes become obvious this way and make observation easier for the judges it is also an opportunity for the modeller to "track" his model and come nearer to achieving perfection.

In the U.S.A. there have been further developments in the establishment of a silencer testing programme commencing in April by D. Lindley and C. Donke at Crown Point, Indiana. This promises to be a most thorough test programme undertaken and will analyse noise effects from every possible aspect, stressing the measurement of annoyance factors.

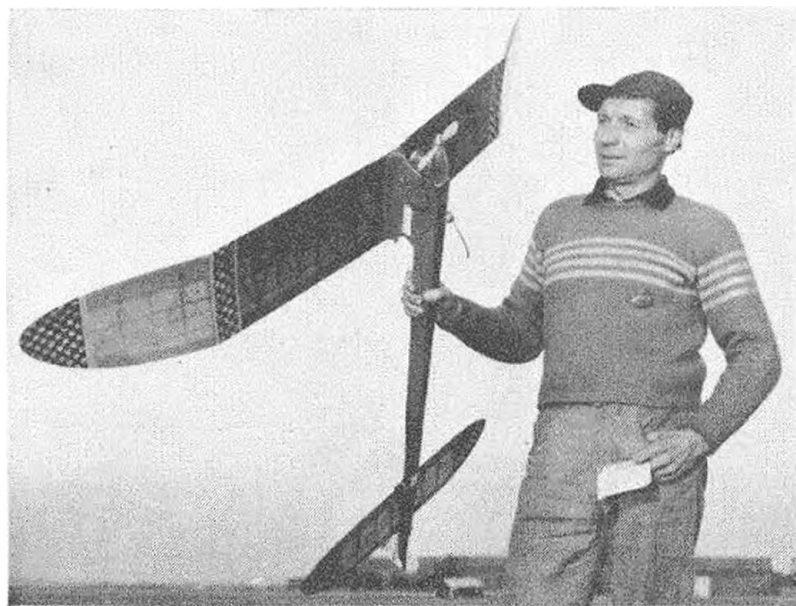
Story of the Month

as related by Harold Warner in N.A.A. Scale "News & Views" March edition 1965.

"While frantically trimming my latest and most obscure aircraft at Sepulveda Basin, I struck up a conversation with a young chap obviously new to the area. Noticing my clay (Plasticine) encrusted cowl, he mused that he had once done some rather unorthodox balancing himself. He then related a tale of woe, the likes of which makes modelling one of the craziest sports going.

"One day while trimming his rather large free-flight power "Kiwi" in his native West Virginia he decided that the model needed a C.G. shift to remove a pronounced stalling tendency. Because the flying field was many miles from home, he had naturally forgotten Plasticine, and it was too far to drive just to get some. Then it dawned on him—his car keys were just about the right weight! Clipping them to the fuel tank, he launched a beautiful flight right into a booming thermal. His expression of rapture soon changed to one of horror, however, as he noticed a small, smoking caterpillar of a dethermaliser fuse which had fallen off on take-off!

"The worst part came, he told me, when, exhausted from the long, long walk home, he had to explain to his dad the whereabouts of the family car".



FAITAL

MARK V

**Winner of many
power contests in
Austria, Italy
and Great Britain
as designed and
flown by
Sergio (Joe) Savini**

THIS F.A.I. POWER model design began as a flat bottom airfoil, straight tapered tips, Oliver Tiger 2.5 diesel powered job with a long nose, 3 deg. decalage and was tissue covered. Its best effort was a third at the Woodford Rally.

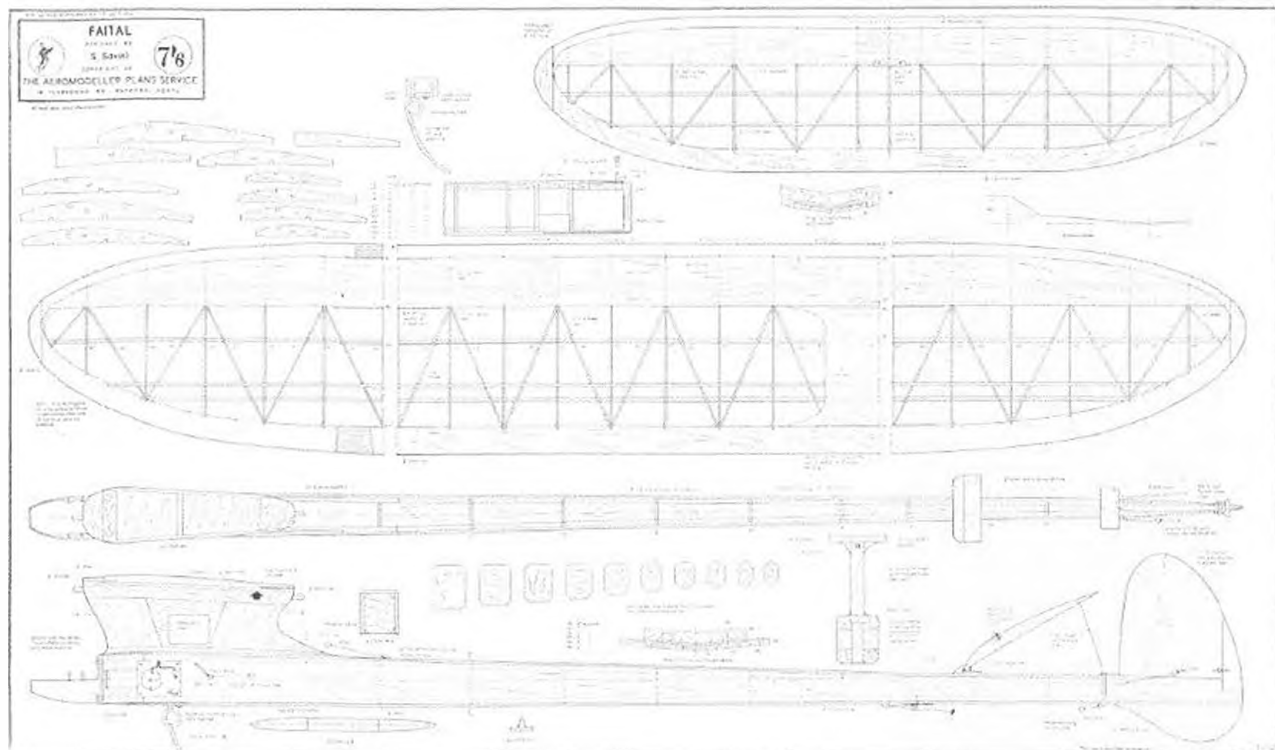
The pull out wasn't very good, so the next design had an autorudder incorporated and a shorter nose. Duration was less satisfactory. This one was built in Italy and came second at the Coppa Sperandini. To improve duration, an under-cambered section was used on the next one which was the first of the 'Faital' series. The new section was a blend of NACA

6409 and the flat bottomed airfoil used previously which, incidentally, was that of Alan Carter's "Incinerator".

Faital I and *II* each had flat bottom section tail-planes. These rated sixth place in the 1963 team trials, but as one was lost owing to dethermaliser timer failure the next model incorporated a double D.T. arrangement as shown in the plan.

When investigating the reason for persistent stalling in *Faital II*, it was found that the left hand centre panel had acquired $\frac{1}{4}$ in. wash-in which of course increased the overall decalage (difference be-

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tween wing and tail angles). The reason for the $\frac{1}{2}$ in. wash-out in the left centre panel is therefore to prevent that panel becoming washed-in with ageing.

Other modifications in *Faital II* were: elliptical wing tips and tailplane. These seemed to improve consistency in the climb pattern. Engine timers were modified Autoknips. Decalage now stood at 2 deg. with 4.5 deg. positive for the wings and 2.5 deg. positive at the tailplane. Just as many others did. Joe found that when changing from diesels to glow motors the climb pattern would change drastically. The old 9 x 4 in. props seemed to have much more effect on the pylon, and this, coupled with the extra power given by latest glow engines made the *Faital* go up too straight on the climb, and pull out badly. On *Faital III* a larger fin was used, the fin itself was lowered (i.e., some of it became an underfin) also side thrust and down thrust were used.

When trimming this model Joe discovered something interesting for that time. By using a $3\frac{1}{2}$ pitch prop (as opposed to 4 in. pitch). He was operating an r.p.m. range where the torque curve was rapidly falling off and of course less torque gave the right turn he wanted without need of side and downthrust. (Combination of which incidentally gave the 'plane a very shallow climb for the first 2-3 seconds.) In consequence he retrimmed all his models as follows: The prop was $7\frac{1}{4}$ in. x $3\frac{1}{2}$ in. and rigging: 2.5 deg. on wings 0.5 for the tail (this was achieved by packing wing and tailplane trailing edges), down and sidethrust were eliminated.

After retrimming, *Faital III* became more docile and would take more kindly to hand launching. The angle of climb was constant from the launch.

Next improvement (*Faital IV*) was the use of an undercambered tailplane which became the cure for all the stalling problems. The modification which definitely improved duration was the different tailplane position relative to wing downwash. Whereas before, the top of the fuselage was straight, on *Faital IV*, on 'Mark V' it is tapered. This positions the tailplane about $\frac{1}{2}$ in. lower, and directly on the engine thrust line.

Faital V saw the introduction of an upright mounted engine and use of a cast alloy pan: all stress points which had appeared in previous models were put right. It was trimmed within five flights at the N.W.A. Easter meeting, flown in the contest, the next Sunday and won at Wells (Austria) two weeks later.

Although a little right sidethrust was used at the beginning, this was later eliminated in fact when the engine was changed from a G20 (and 8 x $3\frac{1}{2}$) to a G15 and $7\frac{1}{2}$ x $3\frac{1}{2}$ wooden prop. Joe then used a small amount of left thrust.

Only special technique needed for trimming is: very slight right rudder and no human errors. Joe always maintains that he is the biggest handicap for an otherwise good model. The only reason he says he has "got away with it" in the past is that *Faital* has a very good reserve stability and always manages to get high. None of the *Faital* series has ever crashed. Joe still has in fact, *Faitals II* and *III*. Anybody can build it, the only secret of success is flying, and more flying to gain familiarity.

Construction. Cut fuselage sides and add bottom longerons. Formers, pylon, tank and bearers are

glued to the left side, then the right side (with bearers in place), is positioned; add all the fuselage formers, D/T and autorudder wires. The fin is then pushed between the sides and glued; now add top and bottom sheeting.

Care should be taken when glueing the fin that there is no offset incorporated. The fuselage is silk covered (4 coats of dope) and sprayed with thinned Humbrol enamel using Pukka dope thinners. Fuselage back end and tailplane should be as light as possible. The wood grain in the fin, pylon and fuselage formers should be exactly as on the plan.

All wing wash-in and wash-out should be built in the structure and not applied after covering. The top spar slots have been omitted as it is better to notch the ribs after the panels and tips have been joined.

Wings and tailplane are silk covered (6-7 coats and Titanine proofer). For best results, after adding the hardener, the fuel proofer jar should be kept in a bowl of hot water.

Test glide by launching *Faital* with its nose pointing slightly downward. If the flight path is in a straight line, offset the rudder to the right by $\frac{1}{16}$ in. Glide path should then be about 4-5 ft. deflection to the right over a 35-40 ft. distance; the plane will nose-in to the ground (when hand-launched) in the last 4-5 ft. This is as it should be!

First power flight is best with a 4-5 sec. engine run. If a 4 in. pitch prop is used the rudder should be used for good pull out. When using a $3\frac{1}{2}$ in. pitch propeller for first flight, the autorudder can be left alone and applied in the subsequent stages of the trimming.

Although *Faital V* has a good reserve stability it is capable of flights above the 4 min. maximum (last fly-off in the Halifax trophy was in fact 4:50 which one must agree is a long flight from a 9.5 sec. engine run).



Joe's launching tip is to point the model 15-20 deg. to the right of the wind direction in order to achieve maximum rate of climb. This typical hand launch following an underarm launching action shows how the designer starts 'Faital' on its upward way.

Getting started in Radio Control PART TEN EXPERIENCES WITH A KIT MODEL AND ESCAPEMENTS

WHEN WE PASSED the Trade Review Schuco-Hegi kit for the 47 in. Frechdax over to staff member John Franklin for consideration and appraisal it became obvious that here was an ideal opportunity to sense out a typical individual opinion on a first approach to single channel radio control. The following is an account of these experiences which we feel will be very much the same as those of others and will also therefore be a forewarning to those about to take up this branch of the hobby.

Being a complete novice as far as single channel radio control model flying was concerned and primarily a control line enthusiast, Frechdax served to initiate John with the difficulties of equipment installation and flying of single channel radio models. His very first reaction was one of "there certainly is a lot to it". As his experience was to prove, there are many hidden pitfalls and possibilities of error even with a kit produced in this so-called modern age of technology.

The Frechdax kit looked very nice when neatly packed in its box and was full of good quality bits and pieces—everything in fact apart from the most important information of all, on radio installation! The plan (German instructions) was void of all R/C details with the sole exception of a push rod centre line and rudder horn. As a further diversion in the kit test, it was also decided to use the light-weight Japanese O.S. "Pixie" Rx and Tx with matching O.S. escapements. The O.S. K-11 compound escapement was fitted to the $\frac{1}{8}$ in. plywood U/C former and linked up to the rudder horn by a $\frac{1}{8}$ in. sq. balsa torque rod with bound wire ends and home made spring retainers. After examination of the space remaining, the O.S. S-2 motor control escapement was mounted horizontally behind the cabin former on a removable $\frac{1}{8}$ in. plywood platform, so allowing fairly easy access to the battery compartment under the 30 c. Keil Kraft team race tank, (can't stop that C/L fluence can you!).

Once the disposition of equipment had been decided, it was wiring up time, and *what* a time! The pictorial wiring diagram thoughtfully supplied with the O.S. gear made this job really straight forward, with no electrical knowledge required at all. Soldering of connections seemed to be proceeding satisfactorily until John tried to install the gear to get the wire lengths right. This showed the first mistake—he had not cut the wires to length beforehand and it was now too late as they were all firmly attached. After stripping the gear down, cutting the wires to length, then everything was neat. All the joints and hanging wires were bound where possible to the escapements or something solid to stop vibration breaking the joints. This, of course, would result in a crashed or lost model. With the radio gear installed the batteries were shifted fore and aft to obtain correct balance and the model was ready to fly.

On the first available calm day John, and Tony Dowdeswell of R.C.M. & F. journeyed to the local flying site full of hope and dreading the thought of

a fly-away. The "field" has such things as a canal, pulp factory, housing estate and electric railway line bounding its sides. First mistake committed was the one of an inadequate 1.5 volt dry battery for glow plug boosting which in turn spoiled the normally good starting characteristics of the little Enya .09. Adjusting the motor for good high speed running and smooth idle proved to be very easy. Several test glides indicated that the leading edge of the wing needed to be packed up and the movable tabs on the tailplane were deflected up. A range check of 30 yards with the Tx aerial retracted was carried out to simulate a larger distance check and extra tuning was quite unnecessary.

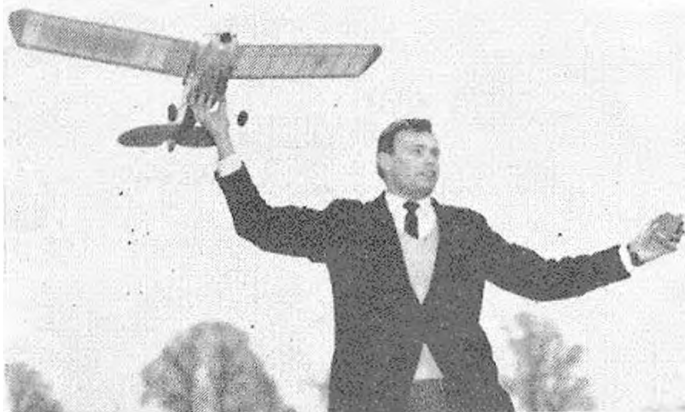
When all the tests were complete, the engine was started up and radio switched on, another brief check made and off went Frechdax from a hand launch by the experienced Tony into the slight breeze. It soon became apparent that the leading edge packing was a hasty decision as the model stalled all over the sky and dropped its wing into a spin every time a signal was given. Next flight was far more docile with shallow stalls so engine speed control signals were given but for reasons explained later, the results were that throttle change came only when least desired.

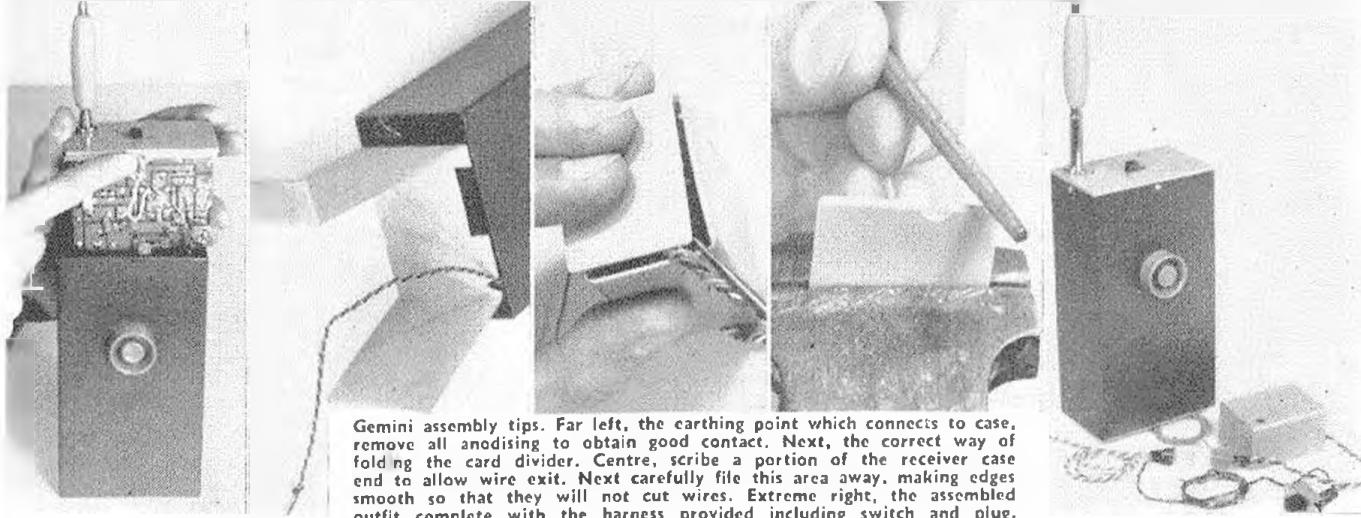
To John's control line impregnated mind, when instructions state "one press of the button for left, two for right and three for engine control" he does just that, to no avail. What is intended of course "one press and *hold* it for left, a quick blip and *hold* for right rudder and two quick blips and *hold* for motor control" with the system used. That is to say *always* hold the last signal but not for long or the model will develop a spiral into the ground. Being a fast flying aircraft with the .09 used, Frechdax was kept circling overhead most of the time by blipping short signals of the rudder one way and releasing before the wing dropped too much. At all times the Tx aerial was kept pointing at the model and on every launch he was obliged to fight the temptation to give a signal straight away as this would have resulted in an immediate loss of 10 ft. altitude when the model was only 9 ft. above ground level!

Tony was always on hand to take over when matters became desperate and on one flight he managed to display his skills with a "Split S" and roll, deliberately of course.

Examination of the model at the end of this flying session showed that it had survived the ordeal rather well with only three parts showing any sign of damage incurred by the test flight prangs—or should we say "hard landings". The nose wheel leg had become somewhat removed from its original shape, a state soon rectified with heavy pliers. Transparent windcreens are always troublesome things to fix securely and this one was no exception, splitting

"Off went Frechdax from a hand launch by the experienced Tony". Note tiny Pixie transmitter.





Gemini assembly tips. Far left, the earthing point which connects to case, remove all anodising to obtain good contact. Next, the correct way of folding the card divider. Centre, scribe a portion of the receiver case end to allow wire exit. Next carefully file this area away, making edges smooth so that they will not cut wires. Extreme right, the assembled outfit complete with the harness provided including switch and plug.

down both of the bends where the sides wrap around the fuselage. The remedy is to replace it with thicker acetate or block it in and paint it. Cracks in the tailplane were noticed and a closer examination showed that both the leading and trailing edges had broken. Due to the Piper type shape it had also warped very badly. The built up structure is to be replaced with a solid, soft $\frac{1}{16}$ in. sheet one with anti warp braces set across the grain, the extra weight being an asset to improve the balance.

The O.S. S2 motor control escapement was modified to allow the pushrod to attach to the yoke itself rather than the extension arm provided, (as shown in "Getting started in Radio Control", Part 9, in March, 1965 issue). By doing it this way, the now redundant linkage arm was fouling the former and not allowing the escapement wheel to revolve freely unless it was jolted, or an extremely strong rubber motor was fitted. Hence the intermittent throttle control. Some more downthrust was added by putting a washer under the back of the engine mounting lugs, to help alleviate some of the slight stall remaining.

Summarising, the Frechdax as equipped with Enya .09: O.S. escapements and O.S. Pixie R/C proved to be a good combination providing one is quick to train one's self on the button drill. These escapements are fast and the model fairly sensitive when the centre position on the rudder horn provided is used for pushrod connection. Also, it helps to have some previous experience when undertaking construction of this model, or an experienced friend whose knowledge can fill in the lack of radio control installation details on the plan.

Regrettably this sounds as though we are singling out Schuco for lack of detail but in fact they are far from being alone in avoiding the issue. Many other kit manufacturers skip this important aspect and others simply give explicit information on their own particular gear and leave all the variables unmentioned.

Admittedly the frequent changes of radio design have made difficulties for those preparing model plans, but it should be obvious that several best selling lines are those ranges which do provide this vital information on installation of equipment and even, in some cases, give wiring diagrams in schematic drawings.

Cutting the cost

When Messrs. R.E.P. introduced their Gemini "High" and "Low" tone twins in the shape of a very neatly packaged tone filter transmitter/receiver outfit they were the first to provide the sports flyers with the facility of being able to operate two models at the same time. Gemini transmitter is a six tran-

sistor crystal controlled compact set with collapsible centre-loaded aerial and the companion receiver (best operated off 4.5 volts) is neatly encased in grey plastic. Furthermore one can obtain two different types of receiver either with Relay, or Relayless for direct drive to the escapement. The outfit is of course still in circulation but a move of the company from its production centre of Southampton to High Wycombe in Buckinghamshire has created delivery delays. This in turn brought forth a very happy situation. Whereas the cost of the original outfits were £18/14/1d. for the Relayless and £19/7/1d. for the Relay version, these charges are now considerably reduced by about £5 through the availability of assembly sets. This does not mean to say that the Gemini is reduced to kit form. Cases, switches and completely assembled transmitter and receiver circuitry are supplied ready to fit together with only one solder joint to make an aerial connection and a cut to be made in the receiver case, which should be sealed either with tape or cement.

We have made a test assembly of a complete outfit using the instructions supplied and feel that the following points are worth extra consideration.

- (a) Most important—Remember to scrape the inside of the transmitter case to remove coloured anodising (which insulates) where the earth tag is clamped, *see photograph*.
- (b) Check that the keying button is free (remove "flash" if necessary).
- (c) The microswitch arm may have to be bent down slightly so that the switch is not permanently "on" when resting against the keying button.
- (d) The battery lead should not be entangled with the microswitch.
- (e) The card battery separator is supplied scored to form an inverted "U" (brown side outwards), but must have the short lug on the aerial side bent *outwards* (crease inside). *See photograph*.
- (f) Cut a notch in the receiver case lid large enough for the harness to pass through, *see photograph*.
- (g) If the receiver lid is taped on, the relay contacts are still accessible for cleaning, whereas a completely cement sealed unit would be difficult to open, should servicing be necessary.

Final check over the equipment proved that it matched our original tests which were published in *Radio Control Models & Electronics* in June, 1963 and we still make the particular recommendation that the "High" tone outfit (red anodised case) is particularly useful in view of its interference rejection. This effort to cut the cost of single channel sport flying equipment will be welcomed particularly as we understand that the assembly sets are to be widely distributed throughout the model shops in Great Britain.

WORLD NEWS

racers. At the first meeting Pennist and Zana used an old type G.20 D for 56 min. 19 sec. and on March 7th this year Cereda and Cipolla using their own fabricated engine were winners in 56 min. 14 sec. having 20 pit stops. Standard 10 c.c. tanks are used in F.A.I. class models.

PORTUGAL. Intense contest programme announced in the national magazine "Aero Modelismo" indicates increasing interest in this country. A/2 glider remains the most popular class but there is a strong following for all the control-line categories.

FINLAND. Annual Helsinki International Winter event on February 26th

FINLAND. With Sandy Pimenoff an organiser, the World Free Flight Championships at Kaubava, July 5th-11th promise to be a true modeller's meeting. Despite distance, attendance will include a full U.S.A. team plus individuals from Australia (D. A. Anderson from Adelaide in A/2 who is also going on to the U.S. Nats) and New Zealand (Ron Magill, Wakefield, Paul Lagan, Power and John Winn Manager) plus leading British nominated proxy flyers to make up a full N.Z. team. These include Wisner, Dilly, Hipperston, Welch, Halford and British FF champion Dick Godden. George French was to fly for New Zealand but is now in the British team replacing Savini whose naturalisation papers will not be through in time.

Accommodation is to be in local schools. Information circulated includes a weather analysis over the past 10 years and maps of the locality.

AUSTRIA. The fourth annual winter event held on 27th December at Salzburg was intended to find the best A/2 free flight standards without thermal aid. True to form, Kaczor from Landshut, W. Germany, led the 28 A/2 competitors, dropping only 12 seconds from a perfect score. His solid balsa wing is 4 1/2 in. chord and 102 1/2 in. span. Wakefield standards were equally high in spite of the falling snow. Horst Wagner winning the fly off with an ultimate fifth flight of 1 min. 1 sec. He also won the Coupe d'Hiver event with 5:21.

Earlier in December, an Austrian indoor meeting was held in Vienna with 40 ft. ceiling and an unfortunate draught which halved flying time. Four classes were flown, and top times in Microfilm were by Walter Huch with a best performance of 6:12 in the 35 cm. class. This is an encouraging beginning of indoor interest in Austria.

CZECHOSLOVAKIA. Indoor flying has

Above left, Chad Krogh of Illinois M.A.C. holds for Charlie Sotich in Chicago Coupe d'Hiver event. At right Chad helps Chuck Bedwell with his diamond fuselage design. Below 60 in. Piper Tri-Pacer by George Curmi of Malta taken at Ta Qali, ex R.A.F. airfield now enjoyed by 15 active Radio Control modellers.

also started in this country after a 10 year gap with three contests and 30 entries from February to March using F.A.I. and 35 cm. classes. Ceilings are



about 40 ft. and national record stands at 16:43. There are prospects of an International event in an industrial fair hall with 130 ft. ceiling in 1966.

WEST GERMANY. Thousand lap team racing time submitted too late for the international was a remarkable 16 min. 481 sec. performance by Wamper and Schlieger using an Oliver Tiger. They made 21 pit stops.

ITALY. Thousand lap marathons have also been running in Milan using F.A.I.

had traditional calm but extremely cold weather. Nils Hollander came over from Sweden having been deterred by cancellation of two Swedish events through bad weather and lack of organisers rewarding himself with a perfect score and top fly-off time in F.A.I. power using the Super Tigre G15. Finns, Kumpulainen and Raulio were also in the fly-off. A/2 was tough with Torsten Strang and Bjorn Werner tying at 836 sec. Werner thought his performance inadequate and departed home before the end, leaving Strang with a walk-over victory. Only one second behind this pair came Hietanen and in 11th place with 832 was Mallerand. These tight times indicate strong Finnish competition on their home ground in the coming World Championships. Wakefield was won by Renio Hyvarinen at 810 and both he and Strang repeated their leading positions at the 2nd Finnish team trials and Championships meeting held in Northern Finland on March 21st. This was really tough with 8 in. of soft snow over hard ice and falling snow created poor visibility in the last rounds.

SOUTH AFRICA 1965 Nats are to be held at Cape Town over Easter and promise to be extremely interesting. Radio Control will be held at Youngsfield, Free Flight at Durbanville and Control-Line at Fisantekraal.

At left, Nils Hollander (Sweden) winner of the Finnish international. Model has an outstanding climb. At right 3rd in Wakefield, Pentti Aalto struggles to wind a tired and cold motor with 4th place man Hamalainen hanging on.



Silencers

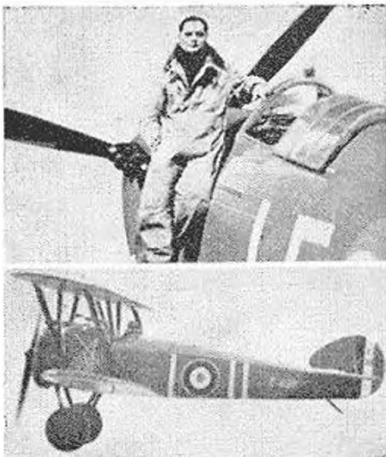
DEAR SIR,

Silencers are now mandatory everywhere in Britain. It is too late to change our rule, or to do anything but obey it and extract what little advantage we can from it. However, attempts are being made to push this sort of rule in many countries, and to present it as the answer to flying field problems.

It is of course far too early to judge our rule but the first information does nothing to still my misgivings. Certainly the British experiment should be allowed to run for a couple of seasons, so that its advantages and disadvantages can come to light, before we accept it as the prototype of rules in other countries. We have done without silencers for decades—how can they now, suddenly, be necessary everywhere? *Local* noise rules have many advantages. Let us at least try them. After all, local rules can be changed to general ones though the reverse is not possible.

A proposal has been made that the F.A.I. should require silencers in international competition. Now the prime concern of this body is the good of our movement throughout the world. If they take this step they will bring in one single standard to answer the infinitely varied needs of the whole globe—and no single rule can do that even acceptably well. Further, they will make internationals even more the preserve of the special engine, now with matched exhaust and silencer system, exceedingly expensive and not available to the general modeller.

Clever plastic model photography by Mr. Boyd, see "Captain Brown's Markings".



READERS' LETTERS

The right silencer rule can be a tremendous boon to aeromodeling. The wrong one could be a catastrophe. We in Britain have jumped in the dark. Maybe we had to. But most countries can afford to wait, to see results and think out the right form for their noise controls. Go carefully on this one. It might be the most important decision this generation of modellers ever makes.

R.A.F. Manby. NOEL FALCONER.

Capt. Brown's Markings

DEAR SIR,

I was most interested in your articles and drawings, etc., of Capt. A. R. Brown's Sopwith Camel, and the letter from Sgt. H. E. Greagan regarding the markings of that machine. I think you will find that your illustrations are correct, as there is a photo of Capt. Brown and his Camel taken two days before he shot down Von Richthofen and no roundels can be seen although the squadron markings can. This photo is in the February 1934 issue of *Popular Flying* on page 579.

I am enclosing two of my model photographs which may interest you. The Camel is in 209 squadron markings and Group Capt. D. R. S. Bader is "standing" on the wing of my model Hurricane of 242 Squadron.

Edinburgh.

H. J. BOYD

Big Stuff

DEAR SIR,

The so called "giant" Electra of 84 in. featured in November 1964 issue and on last month's cover is said to need two to fly it. All that Mr. Carpenter needs is longer lines. My own 92½ in. *Avro Lincoln* of 19 lbs., has made a hundred or more flights since it first was seen at Northern Heights Gala in 1953, and I can claim to have made and flown more multi engined models than anybody else in this country. Never have I found the need for support on my control handle.

But the main point that I wish to bring to your notice is about the junior aspect. Most of the younger modellers are left out in the cold, all that seems to matter is radio, combat, and team racing, each of which, to get anywhere, costs the earth. For many juniors,

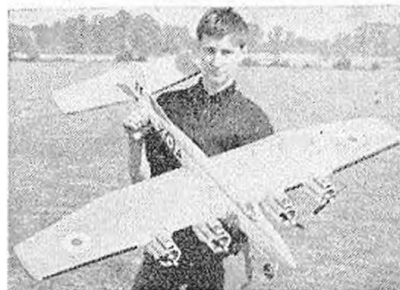
scale models are the thing. Since P. M. A. L. of Mitcham closed down, I have not been a club member but I do teach aeromodeling at two youth clubs one at Tooting and the other at Banstead. These clubs are for 'boys' between ages of 14-21 years and without pressing them scale comes first, I don't press them, because I am expected to draw all their plans! The Banstead club of 10 members have under way one *Spitfire*, one *FW190*, one *Corsair* and three *Tempests* the other models being stunt and a few free flight power.

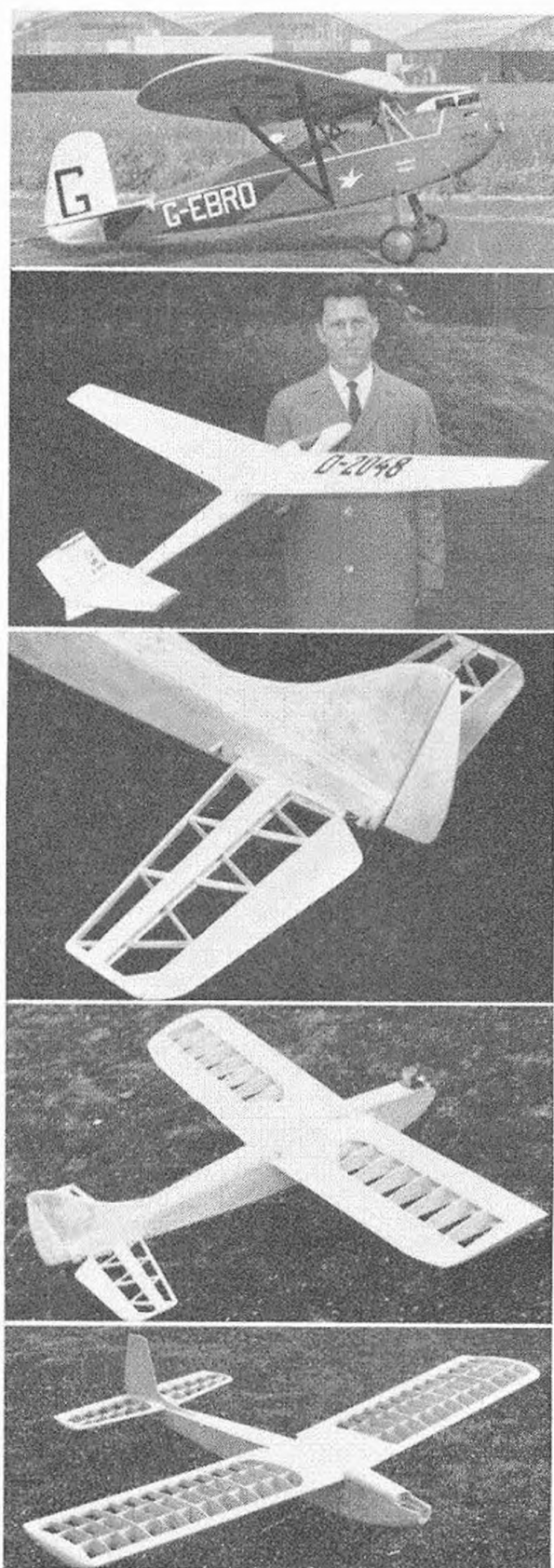
My Tooting club class had a full turn out at last year's N.H. Gala at Halton. One member who has only been modelling three short but very busy years, is only 16 years old, but has already made two twins and one four engined model which I designed.

He made it entirely on his own in 8 months. He is still at school and he earned the money for this model by working Saturdays in a shop. He puts the cost of the model at about £28. He came away from Halton a very disappointed modeller after the Concours d'Elegance in which he entered his model in section 2 power models, only to find a largely prefabricated kit job beat him. Only 12 or so models were entered, and this is a main South England Event. Main reason for this bad support is not necessarily lack of models, but lack of prizes, when there is only a first in each class, no one will put in a second class model. In the old days of 1-2-3 and sometimes four prizes per class, dozens of models would be seen in each class, also there used to be classes for junior members, which would do a great deal of good, if resumed.

Tadworth, Surrey. A. J. BRIGGS.

Peter Parrish of Balham and "Devastator" a four engined semi-scale, stuntable model. Wing span 56 in., chord 12 in., area approx. 4 sq. ft., length 40 in., power four E.D. 1.46 c.c. Super Furies, weight 7 lb. 12 oz. Flown on 7-strand Laystrate 62 ft. long, speed approx. 65 m.p.h., inner tanks 50 c.c., outers 35 c.c.





OVER THE (RADIO)

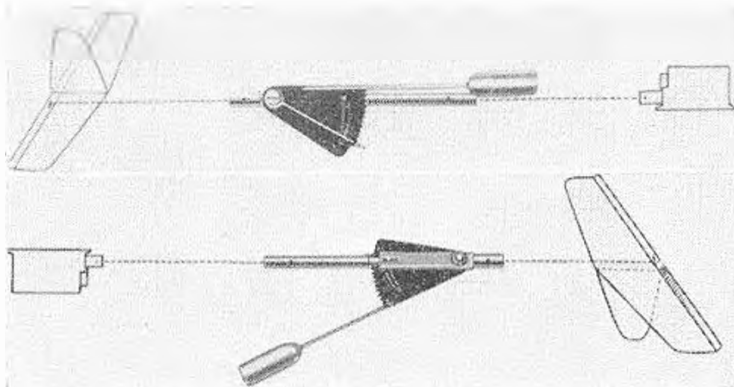
RADIO CONTROL SCALE models are definitely on the upswing. We hear from all directions about interesting projects and not all of them multi-channel either. One neat model of the Westland Widgeon by Stan Newton of Blackburn has rudder elevator and engine control with R.C.S. gear and was scaled up from our Aeromodeller plans. Its enormous scale rudder proved to be excessively effective on the first flight and has had to be reduced in movement. Scale is $1\frac{1}{2}$ in. to the foot and the realistic photographic angle was obtained by John Bridge when he set the centre of his lens $7\frac{1}{2}$ in. off the ground which represents a scale height of eye level—5 ft.

Giliders are included in the scale class and the unusual Graupner kit for the K10 with its polystyrene parts makes it into a really fine model. Michael Charles of Bushey, Herts. has fitted 4 channel Quadratone in his model with two Servomites, for rudder and elevator. The model is entirely covered in nylon (Unibond can be used as an adhesive) and Humbrol enamel applied to the fuselage with Britfix dope on the wings. With multi-gear installed and a superb paint finish, this K10 weighs a modest 2 lb. 14 oz. ready for slope soaring.

Our test *Aviette President* kit nears completion for installation of Orbit proportional and a Merco .49. This prefabricated 64 in. kit has gone together very well indeed and is reckoned to be extraordinary value among competitive multi kits at the price of £7.19.6d.

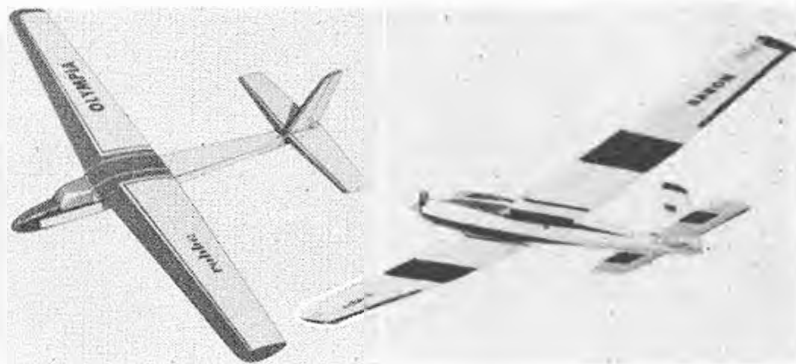
Completed and test flown is our *Senior Falcon* by Goldberg Models and imported through Roland Scott at £11.18.0d. Finished in polychromatic blue cellulose and fitted with Orbit 10 channel, Bonner servos and Merco .61, the total weight came out at 7 lb. The rather spindly undercarriage could well do with a spreader bar to take the load. Only minor adjustments on the Kwik-link connectors were necessary after the first flight. The Falcon is unusual in only having its centre section sheeted with balsa, two tough spars and their spruce cappings taking all the stresses admirably and saving some weight. This is quite a large area model with a span of 69 in. In order to fit any tank larger than its own capacity it is advisable to narrow the engine bearers aft of the firewall.

At top, the Westland Widgeon and Graupner K10 mentioned in text. Tail structure is on the *Aviette "President"*, a robust and economic design. Whole framework is below, and at bottom, is the Goldberg Sr. Falcon showing double spars and multiple ribs. Below, the Schuco trim device mentioned last month. Pendulum drops when inverted to alter pushrod length and so obtain better neutral trim.



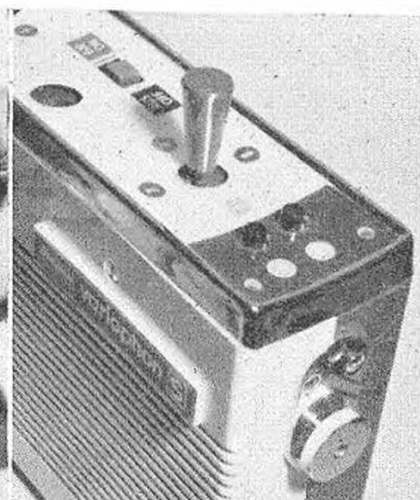
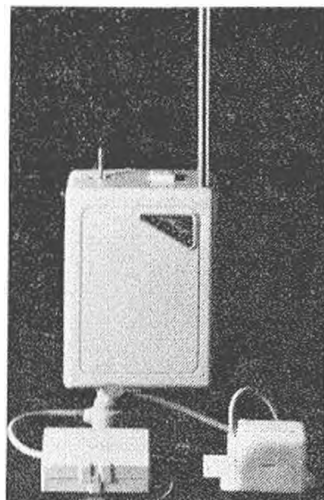
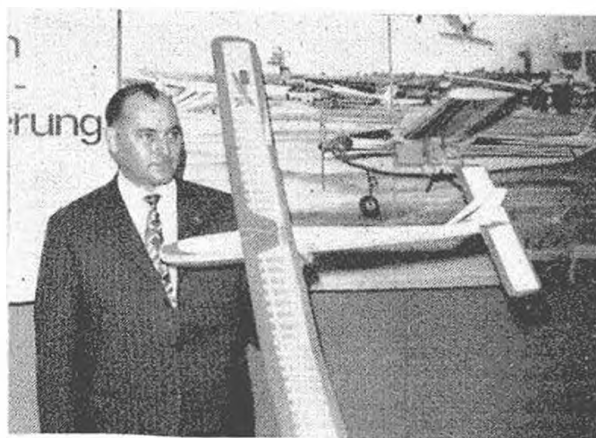
WAVES

Right: Two new Robbe kits from W. Germany. "Olympia" is semi-scale sailplane of 60 in. span to suit the two channel sets. Can have 1 c.c. auxiliary power, be towed up or flown off a slope. The "Baron" is specifically designed as a powered sailplane to take 2.5 c.c.-3.5 c.c. Radio control of up to 12 channels can be used and it is based on the French Breguet 902 sailplane, with a span of 102 in. Below right is Wolfgang Soergel, Schuco kit designer and the 50 in. "Spassvogel" 2 channel R/C simple slope soarer first shown at Nuremberg. At bottom, left to right, the new Metz 2 channel outfit, very neat and compact, in centre is the latest Telecont with proportional stick for pulsing relays and at right, the added 2 channels on Grundig Variophon 8 to make it a 10. Two buttons are at left of the Tx top.



As 1965 is most likely to be the last year for use of the existing F.A.I. schedule of manoeuvres, Ed. Johnson's list of 35 stunts for a speciality event is of interest. Copies of the schedule are available on request from Ed. Idea of his system is that it would be used at Model Rallies rather than Championships to allow each competitor 6 min. including engine starting time to produce as many nominated manoeuvres as possible. Coefficients have been established according to the difficulty of the manoeuvre, highest scoring being the touch-and-go preceded by a reversal (within 15 sec.). Other interesting suggestions are the rolling vertical 8; double Immelman (level, $\frac{1}{2}$ loop, $\frac{1}{2}$ roll, level, $\frac{1}{2}$ bunt, $\frac{1}{2}$ roll, level, with the second $\frac{1}{2}$ roll directly below the first $\frac{1}{2}$ roll). Then there is the rolling loop ($\frac{1}{4}$ inside loop, $\frac{1}{2}$ outside loop, $\frac{1}{4}$ inside loop joined by $\frac{1}{2}$ rolls) or the 4-point roll, scrambled 8, inverted spin, etc. Another approach to variety for sports events is the West Essex system of flying the first round to the F.A.I. schedule and making the 2nd round a novelty event. Here the competitor is allowed to do as many rolls in 60 sec. followed by loops for another minute and spins, 30 of each seem to be a pretty high average figure. Incidentally, the Australians have just established an international record for the number of spins in one descent, when Noel Fell (flying someone else's "Tauri") made 51 turns then went up again immediately after for another 42, giving a total of 91 complete spins in one flight.

This sort of novelty helps to keep a club together. The danger of speciality and insistence on the use of the superhet can lead to disruption. In an open letter to fellow members of the Model Aeronautic Radio Specialists of Montreal, Canada, Issie Havis raises some most valid points. He states: (1) A group of multi flyers have taken control of the club; (2) Conditions favourable for multi flyers are predominant at the expense of single channel; (3) There is increasing discrimination against super-regen owners; and (4) There is the rise of a new class of organisers and pushers. Opinions on this vexed matter deserve an airing. Let's have your views.





Coupe d'Hiver Inter- nationals

Landeau (France)
a true Champion
of the class

British contingent at Chavenay. Standing, T. French, J. Brookes, D. Hipperson, M. Harris, J. O'Donnell, T. Faulkner; kneeling, G. Dallimer, A. Payne, D. Morley, G. Kent; with their wide variety of Coupe d'Hiver designs.

EACH OF THE major 1964/65 Coupe d'Hiver (Winter Cup) model contests have been won with perfect scores of 360 seconds. This alone underlines the fact that on each occasion old man weather has happily co-operated. It also confirms that with the increasing popularity of this small model class, development in performance has reached the stage where some experts, given ideal conditions, can exceed the two minute maximum on each flight.

This was especially evident at the *Grand Finale* held at Chavenay near Paris on February 28th. Alain

Landeau won, for the second time running, the M.R.A. cup, the Anglo-French Challenge, and to cap his brilliant performance, also took 2nd place . . . and was 10th

and 37th as well with his other, older models. Alain is truly a champion flyer and we are very proud indeed to be able to make full size drawings of his *Pamy-*

AEROMODELLER 1965 POSTAL

Pos.	Name	Club	Design	1	2	3	Total
1.	D. G. White	York	Own	120	120	120	360
2.	R. J. North	Croydon	Own	120	120	99	339
3.	M. S. Pressnell	Essex	Own	95	120	120	335
4.	R. Fleetwood	Hornchurch	Own	120	114	91	325
5.	J. O'Donnell	Whitefield	Own 'Hatband'	117	96	109	322
6.	D. Hipperson	Croydon	Own	115	96	103	314
7.	O. Fhmman	Rentlingen	Nikolina APS	98	95	120	313
8.	F. Mehr	Kollbrin	Garter Knight	64	120	120	304
9.	B. Rowe	St. Albans	Own	73	120	107	300
10.	N. C. Willis	Essex	Garter Knight	89	102	107	298
11.	Sgt. J. Meaney	Khormaksar	Garter Knight	85	86.9	120	291.9
12.	G. Dallimer	Stevenage	Challenger	62	99	120	291
13.	D. B. Linstrum	Kansas	IMAC 'Spirit'	96	120	72	288
14.	G. W. A. Cornell	Croydon	Own	62	105	120	287
15.	A. R. Wells	Hornchurch	Own	120	72	95	287
16.	J. H. Bailey	Bristol & West	Own	70	82	120	281
17.	W. Wetzel	Kollbrin	Garter Knight	98	91	73	262
18.	W. Jordan	Kollbrin	Garter Knight	90	101	71	262
19.	M. C. Nunn	Walsall	Nikolina	92	88	77	257
20.	Sgt. H. French	R.A.F. Lyneham	Own	120	50	85	255

Left to right, Dave Linstrum with his Jack Daniels' design "The Spirit" using Jedelsky wing. Francoise Nicolle, releases her entry at Chavenay and third photo shows Danielle Templier also from Paris, piling on the turns. End picture shows Brian Cox enjoying the heat and sunshine of "Winter" in Aden.



scaphe available through Aeromodelleur Plans Service.

This is quite the largest of all Coupe d'Hiver models we know, similar in general proportions to the well-known *Garter Knight* but with an increase in wing chord. Obviously, thorough selection of lightweight balsa is needed to bring weight with rubber motor down to the minimum permitted 2.8 ounces. This is a very lightly loaded device, which will offer an excellent glide, and make no mistake this is where the improvement in performance factor lies. Landeau has a fast revving prop, which only runs for 20 secs, but in that time his height gain was superior to anything else on the field in France. If the glide is similarly superior by virtue of the loading and presuming that one has perfect trim, then this naturally brings one to the top of the contest list.

One is permitted to make any number of entries. Landeau made four and scored five maximums among his 12 flights. The British contingent made 60 flights and collected just one maximum (Geoff Dallimer's last flight which earned him 12th place). This is meant as no reflection on standards, it is an emphasis of the advantage of experience.

Chavenay

A long string of cars and quartet of those bright continental tents identified the location on the crest of Chavenay hill. The atmosphere was amazing. Dead still air and an eerie silence broken only by the occasional click of a prop shaft against its stop, the rattling ring of a winder and the flick of elastic bands being assembled over models made an idyllic setting which none of us had dared to imagine before. As Trevor Faulkner said, it was to be the first competition where he had ever prayed for wind.

Trim, in this kind of weather was way-off. All those hours of sorting things out over previous windy weeks in Britain were virtually wasted. It was to be a fair chance comp, so we thought with little lift and ridiculous drift. Major hazard was the number of busted motors. So many went, we lost count.

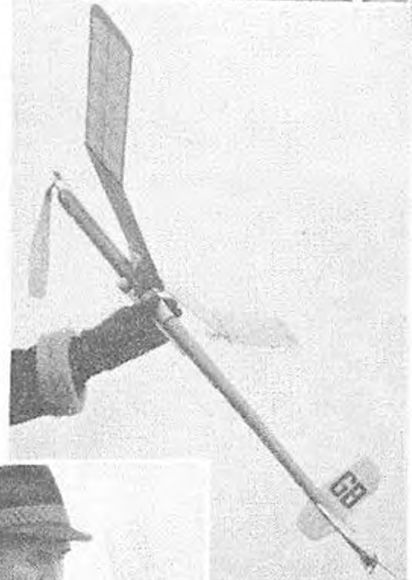
Dave Hipperson's model actually improved itself after damage repairs, flying even better than ever and bringing him up into 7th place. John O'Donnell's flights were also great for he was top man *without* a "max" and well earned his fourth position. But whatever was done to boost duration seemed to be to no avail because by 11.40, Landeau had made his third consecutive maximum with but the slightest trace of lift to help him, and the competition was won and virtually over before it had really got under way.

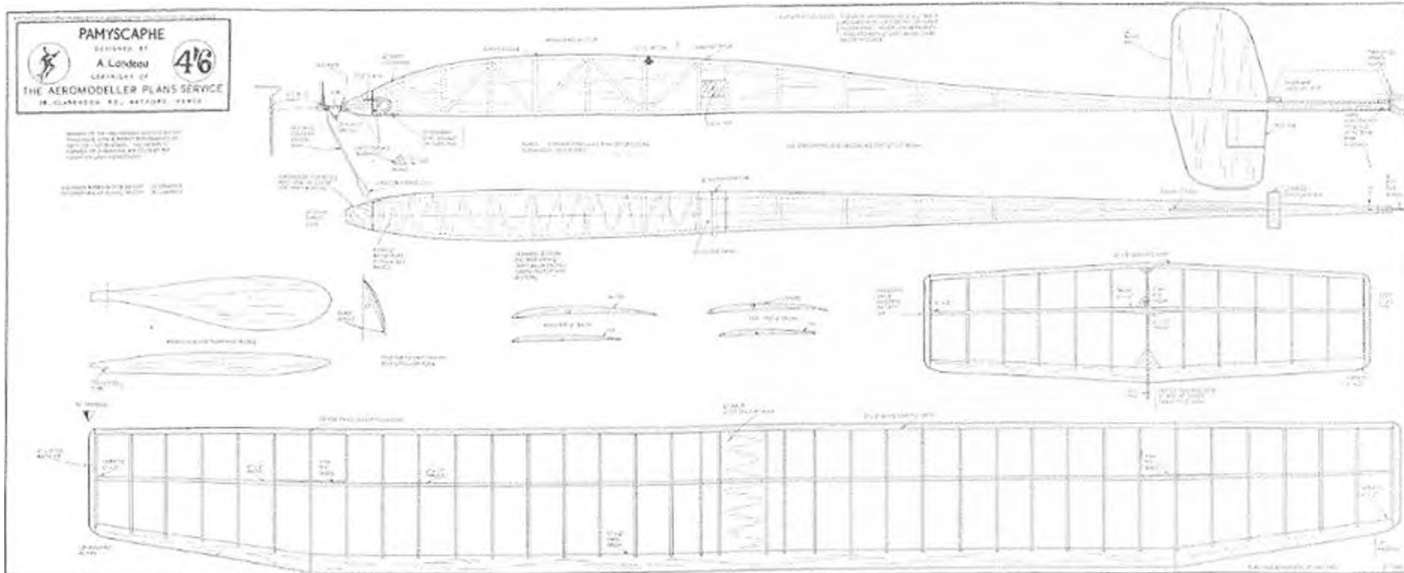
This by no means diminished the enthusiasm of the entry which produced 155 models. Take-off boards were continually in use, though sometimes the launches were dubious. At least the simple requirement to start from ground level destroys the advantage of any sort of push. In general, the British models were outstanding for their variety and appearance and neatness. They were also quite obviously the most recently constructed. Two groups of German modellers also attended from Reutlingen and Oberhausen, Oskar Ehmann flying his *Nikolina* to a very well deserved 8th place.

In the Anglo-French challenge, the French had a clear lead with a 17 point advantage over Great Britain but no matter, the visiting contingent enjoyed themselves thoroughly and welcome the day when it will be possible to entertain the French CH flyers



Top: Low wing Coupe d'Hiver design by J. P. Lafille. Next Roger Garrigou with an unusual planked fuselage of elegant profile. Right, Dave Hipperson's tubular fuselage design with cross-section made up by pylon support for wing, and at bottom, Oscar Ehmann with his square fuselage "Nikolina" which proved to be a far better performer than the streamline version.





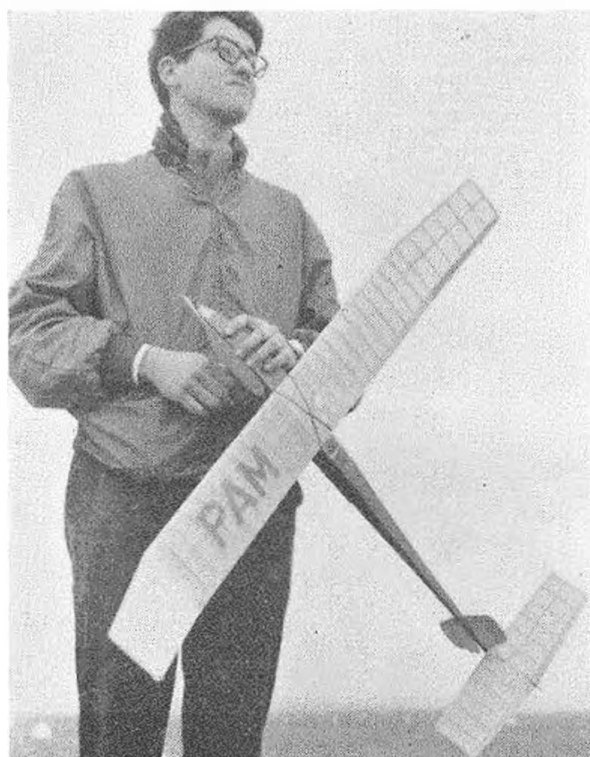
FULL SIZE COPIES OF THIS 1/7th SCALE REPRODUCTION ARE AVAILABLE THROUGH A.P.S. AS D880, PRICE 5/- INC. POST.

to a British model flying field and British model flying weather!

21st "M.R.A." Coupe d'Hiver (France)

Pos.	Name	Club	1.	2.	3.	Total
1.	A. Landeau	PAM	120	120	120	360
2.	A. Landeau	PAM	114	120	98	332
3.	B. Raulin	Nancy	109.5	120	100.9	330.4
4.	J. O'Donnell	Whitefield	117.1	96.2	109.6	322.9
5.	J. Grivaux	Indep.	81	120	120	321
6.	B. Hardel	Angers	110.5	86.5	120	317
7.	D. Hipperson	Croudon	114.6	96	103.3	313.9
8.	O. Ehmman	Rutlingen	89	95	120	313
9.	F. Lefebvre	Indep.	103	87	120	310
10.	A. Landeau	PAM	112	78	111.4	301.4
11.	J. Cabannes	PAM	95	120	85.6	300.6
12.	J. Bussiere	Angers	100.7	111.4	82	300.1
15.	G. Dallimer	Stevengage	62.5	99	120	291.5

43rd Dallimer (258), 48th Dallimer (253), 58th Morley (233),
 59th Brookes (230), 61st Harris (228), 62nd Faulkner (228),
 64th Kent (226), 68th Faulkner (218), 82nd Faulkner (202),
 86th French (198.9), 88th Brookes (198), 90th Payne (193),
 etc. Total entries 155.



Postal Event

Most of the flights in the ALROMODELLER postal event were also made on February 28th in the ideal conditions which prevailed and entries were received from as far afield as Kansas and Aden. Dave White of York used thermal-hunting tactics to win with three maximums at R.A.F. Elvington, and he was closely chased as the results show. Most interesting was the entry from R.A.F. Khormaksar (Aden) where the heat and desert flying field might have been expected to make matters easy. In fact, one model flown by Brian Cox disappeared into the blue and out to sea after being chased for 20 minutes. The other flights hit the downdraughts to prove that you cannot have it all your own way! Over in the U.S.A. melting snows had created a quagmire and wind affected some entries though Dave Linstrum enjoyed fair weather for his eventual 13th place. A complete listing and report of the event is available through the editorial offices on receipt of a stamped addressed envelope.

Italian Uggiate Contest

Held on February 7th at Uggiate near Como in Northern Italy this third annual event attracted 49 entries including two from neighbouring Switzerland. Times were commendably high as the results show and Luigi Giolitto's winning model which established a perfect 360 score is one of the most elegant we have yet seen among C.H. designs.

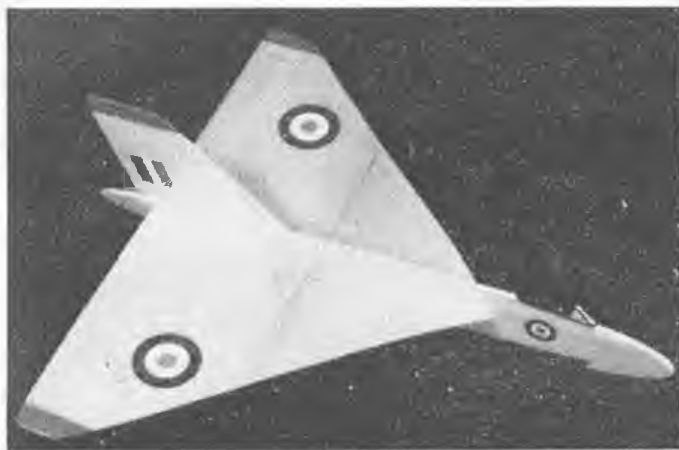
Coupe d'Hiver Uggiate (Italy)

1. L. Giolitto	360	7. G. Fea	317
2. E. Cerazza	357	8. V. Givene	312
2. E. Bizzozero	357	8. T. Argentin	312
4. F. Malnati	351	10. A. Mangiarini	309
5. S. Sehlrru	323	10. C. Casale	309
6. M. Zunica	321	10. A. Plantandla	309

Coupe de la Cote d'Azur

135 models were entered at the classic French South Coast event held in December last in unusual snow-bound conditions. Just the same there were many flights over the 120 seconds maximum, 28 in all and with leading modellers from Italy competing, standards were very high indeed. The eventual winner was J. Bellon who made three max's then scored 84 seconds in the fly off. We hope to be able to reproduce details of his design in an early issue.

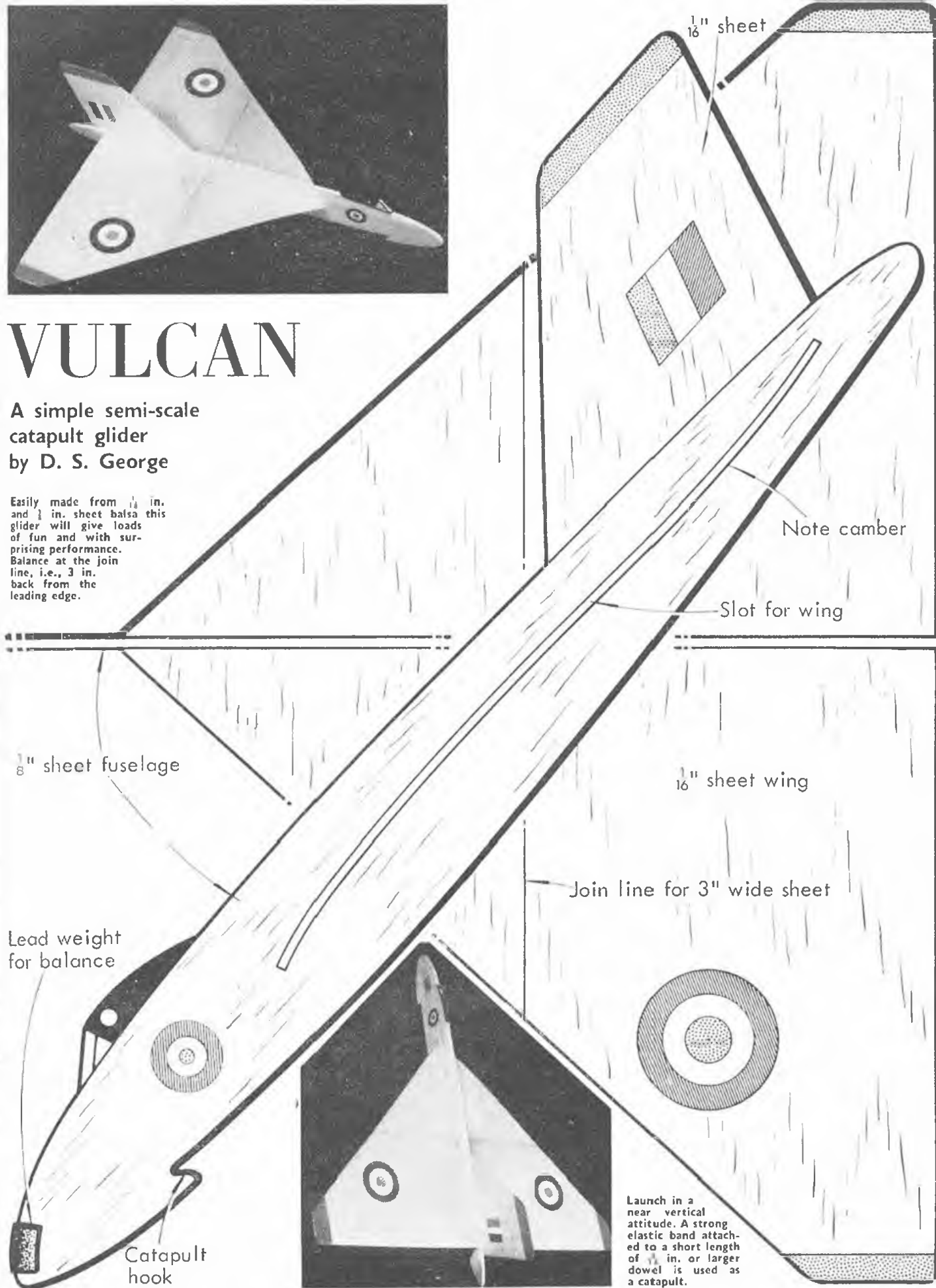
The WINNER Alain Landeau from Paris and his "Pamyscaphe" a new, large design for calm weather. He placed 2nd with his last year's winner "Pamela" and was also 10th with a duplicate "Pamyscaphe".



VULCAN

A simple semi-scale
catapult glider
by D. S. George

Easily made from $\frac{1}{8}$ in.
and $\frac{1}{16}$ in. sheet balsa this
glider will give loads
of fun and with sur-
prising performance.
Balance at the join
line, i.e., 3 in.
back from the
leading edge.



Launch in a
near vertical
attitude. A strong
elastic band attach-
ed to a short length
of $\frac{1}{8}$ in. or larger
dowel is used as a
catapult.

Milan Drazek's

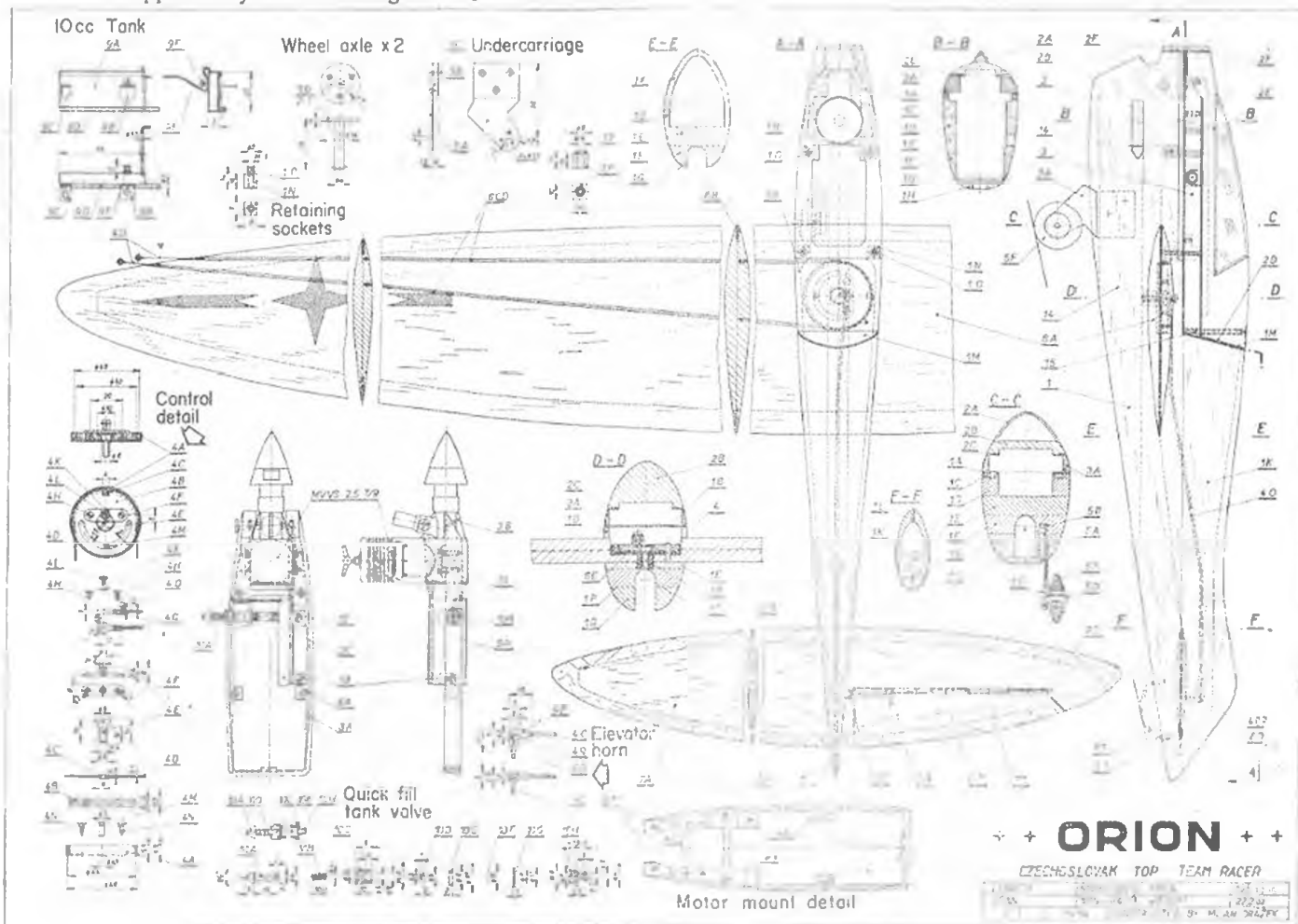
Top Czechoslovakian F.A.I. Team Racer

out below and as can be seen in the photograph of the unusual engine mounting unit at left. Note the 'remote' filler valve, fixed to the pan and attached with fuel line to the tank. Remember that few commercial items are available to Czechoslovakian modelers when studying the drawing. The wheel type control replacing the bellcrank is favoured by virtue of its smoother action and the simple direct tubular runs which can be made through the wing. This, incidentally, is a comparatively thick symmetrical section and has a plywood inset outline. The tailplane has a similar plywood strengthener. Laminated blocks of balsa form the fuselage shape which is elegant in profile and fully hollowed for lightness. Total weight is 22.2 oz. Details of the type of airscrew used were given in our issue for September 1964. Those wishing to obtain a copy of the full-size reproduction below, may obtain a print by special service from AERO-MODELLER Plans at 5/- per copy. Please note that this design is not included in Aeromodeller Plans Service and does not have an A.P.S. code number.

HAVING represented his country at many International and World Championship events in the team racing category Milan Drazek from Prague, Czechoslovakia, has achieved an enviable reputation for producing some of the most aerodynamically clean team racer designs.

With his club fellow Trnka piloting, this pair of skilled modellers were the fastest in the heats at the 1964 World Championships in Budapest with a time of 4:23.7. In the final they were a close match for Champions Place/Haworth of Great Britain with a time of 4:58.4 against the winning 4:51.2.

"Orion" may not externally appear to be very much different from other designs until one is given the opportunity of examining all the details as laid



ORION

CZECHOSLOVAK TOP TEAM RACER

Motor mount detail

AEROMODELLER VISITS AN AIR MUSEUM

Part 1. Shuttleworth Collection

THE PRESERVATION OF ITEMS of historic interest has long been practiced in this country, although the enthusiasm with which this has been done, varies a great deal.

Aviation is one of the categories which has failed to attract any great interest in those who hold the National purse strings, and it has been largely left to private

Canadian built Hurricane and Photo Recce Spitfire are only externally stored A/C. Bristol F2b (as on cover) and Avro 504K are stars of the "at home" displays as below, and interior view shows the Pup with Moth and Bleriot adjacent. Enthusiastic staff assure warm welcome for modellers.

Aeroplane Society has been formed. Income derived from its members will be used for the provision of further accommodation for items held in store and for the restoration and preservation of items, before they are destroyed by the uninitiated, or the ravages of time.

Those with specialist qualifications, not only in aviation, but in any field which may assist in the development of the Collection, are specially welcome, as indeed will those whose sole offering is enthusiasm for this development.

Aircraft on view during our visit were the Bleriot XI, Deperdussin Trainer, Blackburn 1912 Monoplane, Avro 504k, Sopwith Pup, Bristol Fighter 1-2b, D.H.53 Humming Bird, English Electric Wren, D.K. 60 Moth, Hawker Tomtit, Avro Tutor, Percival Gull, Hawker Hurricane, Supermarine Spitfire XI, and Avro Triplane replica and numerous aircraft engines plus of course the famous collection of Historical motor cars and motor cycles. Other aircraft in store or based elsewhere are the S.E. 5A, I.V.G. C-V, Parnall EH, Gloster Gladiator, a Percival Jet Provost, and the remains of a Bristol Bulldog which will probably be replaced.

Address: The Shuttleworth Collection, Old Warden Aerodrome, Biggleswade, Bedfordshire. *Trl.:* Northill 268. *Situation:* 5 miles west of Biggleswade. *Open:* Weekdays, 10 a.m.-4 p.m., weekends, 11 a.m.-6 p.m. *Charges:* Adults 3/6d., Children, 1/6d. (Open Days, 5/- and 2/6d.). Party trips welcome by arrangement. *Catalogue:* 18 pages fully illustrated 2/6d.

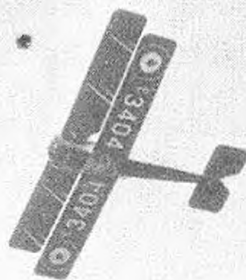
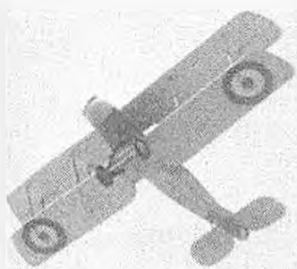
individuals and organizations to preserve machines from our aviation past, so that we, and future generations can have the benefit of seeing the strides that have been taken, particularly in this country, since man first achieved powered flight in 1903.

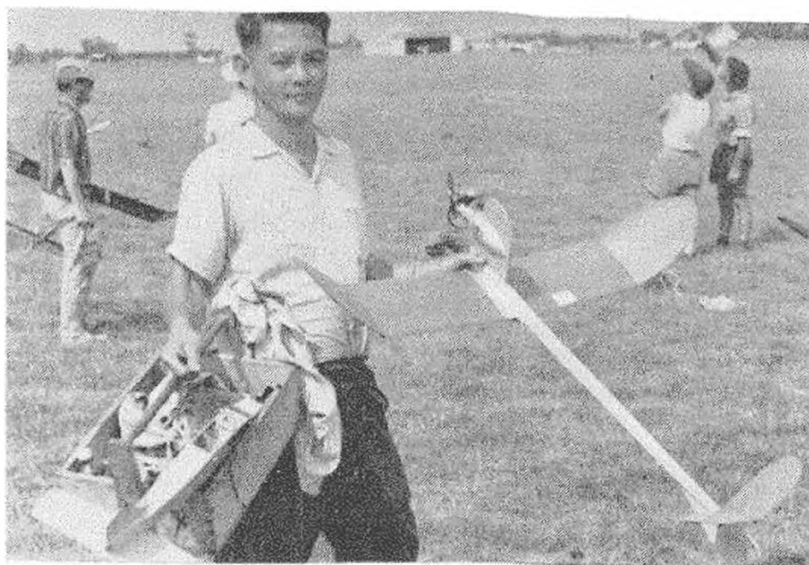
One of these organizations, *The Shuttleworth Trust*, has in its possession, one of the largest collections of original historic aeroplanes in the world, spanning the years 1868 to 1954, and including such famous examples of British aviation development as the Sopwith "Pup", S.E.5a, Bristol F2b, and Avro 504K. These, and others, are maintained in full flying condition, and are often to be seen at flying displays in this country, and at times abroad. They are flown also, on a number of "Open Days" during the summer from their home aerodrome at Old Warden, in Bedfordshire.

1965 dates are to be June 19th, July 17th and August 14th.

Cost of keeping such a collection in full working order is considerable and resources are limited, so that further items of historic value cannot always be acquired for restoration.

To allow the Trust to fulfil its aim, the *Shuttleworth Veteran*





Apart from the fact that the report records 5.15 a.m. starts, this photo of Alf Leong (Hamilton) with high thrust Cox TD.09 model in one hand and radio outfit in t'other plus bobs in background gives a wonderful impression of the leisurely week-long New Zealand modelling jamboree.

the thought of the second round flights might have had some bearing on the matter. With the radio gear functioning perfectly the motors decided to be the touchy item and quite a few had false starts due to cutting out.

Winner of the first round was Mike Kendrick of Wanganui flying a "Sultifer" with Dave Whitehead of Hawera also flying a "Sultifer" in 2nd place with 244 and 229 points respectively.

Back at the Racecourse C/I. Aerobatics, 21 c.c. Speed and 10 c.c. Speed were run and in stunt Nev. Dawson once again proved

WITH THE 17th N.Z. National Championships being held at Feilding once again the question uppermost in the modellers' minds was, could they have good weather for these Nats after nearly perfect conditions for the last two Feilding Nats in 1961 and 1962. True to the last two times, conditions were virtually just as good and many modellers were quite content to have the 65/66 Nats held again at Feilding, subject to the consent of the Feilding Jockey Club on whose property they were billeted and camped. The old adage of an army marching on its stomach can be applied just as well to aeromodellers and in this respect the catering was excellent, as was the organisation by the N.Z.M.A.A. and host club, Palmerston North after a couple of minor incidents had been ironed out.

After a contestants' meeting on the evening of the 27th in which all fields of modelling were fully covered most of the modellers went off to bed in order to be fairly bright for the 5.30 a.m. start of flying.

Forty fliers gathered at Taonui 'drome at about 5.15 a.m., and sharp at 5.30 the first round of Nordic commenced. Five maxes were scored in the first round, namely Roots, Speedie and Malkin of Wellington, Leong and Thompson of Hamilton. In the 2nd round, Speedie, Thompson and Malkin all gained more maxes and this round closed with virtually no change in the position. In round three Speedie and Thompson gained maxes once more as well as eight others but Malkin dipped

NZ Nats

reported
by
J. Malkin



out. Round 4 should be called the "Great Downfall" as in this round nearly all the top placers duffed out in beautiful downies but Winn and MacDonald of Auckland both maxed to let them take the top places.

Round 5 commenced and most of the top boys were a bit chary of flying first till MacDonald showed the way to max and then things literally started flying. Winn, Thompson and Malkin maxed but Speedie was down in 60 sec. and when the contest closed the placings were: 1. H. Winn; 2. J. Thompson; 3. J. Malkin, but when the winning models were being processed it was found that Malkin's model was an ounce underweight and so was disqualified. This made the final placings:

1 H. Winn	Auckland	812.5
2 J. Thompson	Hamilton	791.5
3 A. MacDonald	Auckland	764.3

Meanwhile the Multi boys were doing battle on another sector of the 'drome and with 14 flying the judges were kept on their toes. Controllaire gear seemed to be the most popular with Orbit, Kraft and F.M. also used. Most of the contestants preferred to do the manoeuvres up high which in some ways was a pity but perhaps

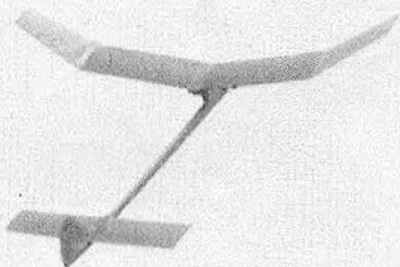
the man to beat, flying a beautifully finished modded O.D "Galaxy", painted in Crusader Jet colours.

		pts.
1 N. Dawson	Wellington	791
2 P. Wheeler	Kaitapoi	747
3 G. Speedie	Wellington	645

In Speed the heat seemed to heat quite a lot of hot motors and the final placings were:

		m.p.h.
1 A. Clarke	Palmerston North	118
2 J. Crombie	Wellington	111.1
10 c.c.		
1 P. Ivet	Auckland	112.5
2 J. Malkin	Wellington	76.5

With the A.G.M. not finishing till midnight most of the modellers weren't too keen to get out of their sleeping bags for the start of F.A.I. Power on the 29th, but once 5.30 was announced the air was filled with the noise of screaming 2.5's all trying vainly to feed themselves out of their exhausts. The weather was just about perfect with a slight amount of high cloud and no wind, and immediately the first round commenced Paul Lagan of Christchurch flew his model which has a beautifully straight climb, and maxed with 30 sec. to spare. His was the only max in the first round, but in round two,



Henry Winn's own design Cox TD.15 away on its last round flight in F.A.I. power.

Horne, Hewitson, Brown, and Lagan all maxed so giving them a slight edge on the others. In round three Lagan missed a max by a scant few seconds but it was sufficient for Hewitson to overtake him and hold on to the lead from out of the fourth round in which he was the only one to max. In the fifth round 10 maxes were recorded and Hewitson consolidated his 1st place with another

tremely well with the rest being fairly average. Results were:

1 B. Perry	Hastings	pts. 440
2 A. Leung	Hamilton	414
3 D. Whitehead	Hawera	374

During the afternoon **1A Team Racing** and **C/L Scale** was held, and in **1A**, Oliver Tiger Cubs were the most popular motor and the majority of these seemed to enjoy the hot weather as witness the results.

1 W. Long	Christchurch	4,31.7 (Mod. E.D. Fury)
2 G. Andrews	Palmerston North	5,01.3 (Tiger Cub)
3 R. Collins	Palmerston North	5,51.4 (Tiger Cub)

For **Control Line Scale** Neville Dawson produced an immaculate model in the shape of a "Cessna Skymaster" powered by two K&B 15's with 6 x 3 props! This model flew very well and must have gained nearly full points for a real scale take off and flight but the landing which was on grass was a bit bumpy.

1 N. Dawson	Wellington	861 (Cessna)
2 N. Maurice	Auckland	711 (Nieuport 17)
3 P. Staples	Wanganui	695 (Kittyhawk)

Wakfield was flown on the morning of the 30th with conditions being a light northerly, with a complete overcast which held out all lift for the first two rounds thus making the modellers really work for the maxes. Virtually in a class by themselves MacAulay (Kaipoi), Sutcliffe (Auckland), Roots (Wellington) and Malkin of Wellington all produced maxes up till the end of the third round and it was just a question of who would make a dull flight or would they all have a fly off. Once again the fourth round bogey showed up and Malkin who was first away managed only 2.21. Sutcliffe was down in 2.15 and MacAulay spiralled in when his blades folded incorrectly for 2.52. Roots was the only one to max out of this group but with such an upset the calm and nonchalance had completely disappeared. In round 5, Roots, MacAulay and Malkin maxed whilst Sutcliffe who had been plagued with rubber trouble did another 2.15. Roots' model was in beautiful trim and with his calm flying thoroughly deserved his 1st place.

1 G. B. Roots	Wellington	900
2 A. MacAulay	Kaipoi	892.9
3 J. Malkin	Wellington	866.2

Hand Launched Glider was run concurrently with Wakfield and it was once again a case of strong

arm tactics plus sniffing the elusive thermals and in this case Gary Bowden proved himself the champion.

1 G. Bowden	Roskill	332.5
2 P. Clark	Palmerston North	321.1
3 P. Lagan	Christchurch	282.8

Together with these two events the last round of **Multi** was flown and this time the beep box boys were out for a do or die effort and it was noted that the points scores were up considerably on the first round flights. The eventual winner, Dave Whitehead, flew a lovely pattern and amassed a total of 487 pts.

1 D. Whitehead	Hawera	pts. 487
2 M. Kendrick	Wanganui	470
3 E. G. Hartley	Palmerston North	459.

In the afternoon the **Class A** heats and final were flown and this year the pit boys were quick off the mark in pitting, which might have been inspired by virtue of a TV camera being beamed on to them. The majority of finalists were using Eta 15's which, combined with wooden props made them really go.

1 A. Clarke	Palmerston North	4:24
2 P. Levett	Auckland	5:00.3
3 W. Long	Christchurch	5:03.9

In the evening the slow motion boys had their contest at the IZadium in Palmerston North. This hall, with a ceiling of 40 ft. and length and breadth of approx. 90 x 150 ft. proved to be fairly turbulent due no doubt to the high outside temperature and times were not as good as expected. This year two classes of **Indoor** were flown, **Class B** (Easy B) and **Class D** (over 18 in.). In "Easy B" John Malkin proved to be the winner after one or two narrow misses with a large speaker box suspended from the ceiling. Similarly in Class D Brian Roots had a few terrifying moments as his "Ditto" played tag with the same speaker, and then played bump the girders just for good measure.

Easy B		
1 J. Malkin	Wellington	7,41.8
2 B. Roots	Wellington	5,00.4
3 T. Martin	Roskill	4,57.3

Class D		
1 B. Roots	Wellington	7,53.1
2 T. Martin	Roskill	7,07.5
3 B. Keegan	Auckland	6,01.5

After the Indoor the morning of the 31st arrived far too quickly (yawn!) but thanks to the services of a good alarm clock in the shape of a modeller who shook the camp stretcher till one fell out of it, the Payload fliers managed to grope their way out to the flying site before the scheduled 5.30 a.m.



Chris Thompson about to release Father John's modified A.P.S. "Thermalnose" in A/2 Glider, generally referred to in New Zealand as "Nordic".

max as well as Horne and the final placings were:

1 N. Hewitson	Auckland	894.3
2 T. Horne	Levin	752.6
3 P. Lagan	Christchurch	730.6

Once again another contest was being held and this time **R/C Single Channel** (Precision) was the event. Being otherwise occupied at the Power contest I couldn't see much of this but from what my spies say, the top two flew ex-

Nev Dawson's tiny Viscount using 4 Cox TD.010's rests upon the wing of P. Meredith's version with 2 E.D. racers and 2 E.D. Furys.



start. Open power was flown with Payload and of course the chances of a fly-off in open power were considered quite good. The most surprising thing in these two contests; out of 43 flying there were no fewer than 27 major and minor crashes. Some survived, to patch up with Sellotape and pins but others weren't quite as fortunate. In Payload there were very few maxes throughout the contest and both the winner and 2nd placer flew modified "Solars" which were extremely stable in all aspects of flight.

1 J. Malkin	Wellington	742.4
2 B. Roots	Wellington	689.5
3 B. Sutton	Levin	659.4

In **Open Power** all sizes of motors were evident from Malkin's Dooling 29 "Nig Nog" down to a .010 powered model. In this event many modellers came back with two maxes but getting the third seemed the hardest and when the contest closed both Malkin and Roots had perfect scores necessitating the first ever N.Z. Nats fly-off. Roots was flying a "Mexi Boy" powered by T.D.09 which was grooving beautifully and after a big build up the actual fly-off was something of an anti-climax. Malkin had a 13.4 sec. motor run due to the motor timer vibrating to pieces which automatically gave Roots first place.

1 B. Roots	Wellington	540 & 157.8
2 J. Malkin	Wellington	540
3 P. Lagan	Christchurch	532.7

For the first time ever **R/C Multi Scale** was flown and although only four modellers flew the models were a joy to behold. Bob Milne of Hastings flew a "Mustang" into first place with Mike Kendrick flying an extremely scaly "Piper Pawnee" into second and Dave Whitehead flying a "Spitfire" into third place.

In **Class B Team Race** which was flown in the afternoon quite a few of the top contenders dipped out through various faults such as line snags, lines parting, etc., but the final was a real thriller with Phil Staples' model circulating at 105 m.p.h. for 30 laps and Bill Long using a bored out Eta 15 which was doing approx. 70 laps at 85-90 m.p.h. As the times show



Reporter's wife Betty holds on to husband John's far travelled Wakefield model which placed 3rd.

the race certainly wasn't won till the last few laps and then Long unfortunately had his motor go off tune. Final results were:

1 P. Staples	Wanganui	7.29.3
2 W. Long	Christchurch	7.47.3
3 A. Douglas	Gisborne	8.12.4

Friday, January 1st, 1965, dawned or did it just arrive? For some the former and for others the latter but regardless of which **Nordic A.1** commenced at 5.30 again. Once again the most popular model was the A.P.S. "Aiglet" but quite a few modellers were flying all sheet balsa models. There is no doubt that the modellers are really putting a lot of practice in to towing now, and the way some of them waited till they "felt" thermals certainly showed how competitive Nordic classes are becoming.

Very few maxes were scored in the first round due to the high overcast which gradually cleared to give big cumulus clouds with big thermals and likewise big downs. By the end of round four the leaders had a fair lead over the rest to such an extent that very few others could touch them so with Glennie of Wanganui leading Malkin and Martin of Roskill by 30 sec. and 90 sec. respectively the last round commenced and Malkin immediately towed into a massive thermal for a "cert" max but Glennie and

Martin unfortunately sagged out for 73 and 31 sec. When the final times were posted the results were:

1 J. Malkin	Wellington	811.1
2 R. Glennie	Wanganui	734.7
3 J. Armstrong	Ashburton	702.1

The last three events to be flown were 3.5 c.c. **Speed**, 5 c.c. **Speed** and **Jet**. After Phil Staples had circulated his Eta 29 model one evening at 136 it was apparent that he would be the man to beat and this proved correct.

3.5 c.c.

1 P. Staples	Wanganui	m.p.h.
2 A. Clarke	Palmerston North	112.5
3 O. Rogers	Palmerston North	108.4

5 c.c.

1 P. Staples	Wanganui	129.5
2 N. Dawson	Wellington	120
3 P. Levett	Auckland	118.4
3 G. Tennant	Palmerston North	118.4

Jet

1 B. Deakin	Palmerston North	116.9
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Also, this year the contenders for overseas representation had held a series of eliminations which though not really proving anything certainly stimulated interest in F.A.I. events and as a consequence Wakefield, A 2, and F.A.I. Power were keenly competed. With Ron Magill, who is in England already, being selected for Wakefield only two berths were needed but three places were required in the other events. Providing good proxies are available these teams should acquit themselves extremely well as the models certainly have the potential.

Wakefield	Nordic A/2
A. MacAulay	J. Thompson
R. Magill	A. MacDonald
B. Roots	R. Glennie

F.A.I. Power
R. N. Hewitson
P. Lagan
H. Winn

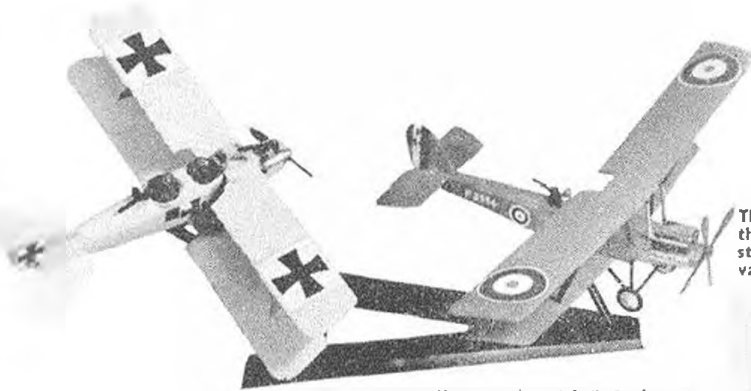
Once again another Nats had gone by and after the prizegiving which was held in the grandstand of the racecourse everyone voted this Nats to be the best ever. With a new Council of Management in office, naturally everybody was being fairly critical for a start but full marks to the N.Z.M.A.A. councillors and officers together with the host club Palmerston North for an excellent Nats.

Champ of Champs		pts.
1 J. Malkin	Wellington	137
2 B. Roots	Wellington	125
Speed Champion		
1 P. Staples	Wanganui	44
2 A. Clarke	Palmerston North	32

Junior Champ		pts.
1 C. Sleep	Roskill	54
2 J. Urry	Wellington	43
Control Line Champion		
1 P. J. Staples	Wanganui	81
2 A. Clarke	Palmerston North	64

Free Flight Champion		pts.
1 J. Malkin	Wellington	114
2 B. Roots	Wellington	112
Champion Club		
1 Wellington		443
2 Auckland		325
3 Palmerston North		258

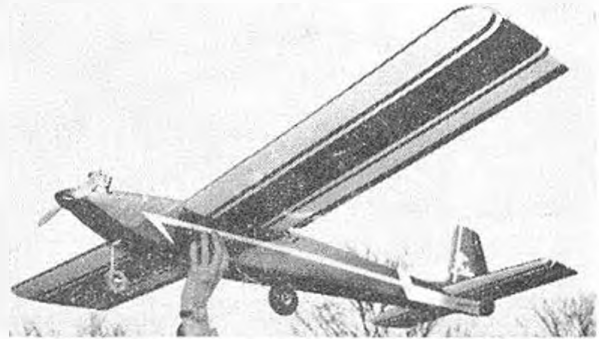
Trade Notes



NOTHING BUT SUCCESS assuredly awaits Airfix's latest imaginative idea: the packaging of two kits of different models together in one box under the name 'Dog-fight doubles'. First six kits to receive this long awaited treatment are all W.W.I machines, viz., the R.E.8 and Roland C II (our own particular test-piece) Sopwith Camel and Albatros, and F.E. 2b and partner Fokker Triplane. Great thing about this set-up is the fact that in effect, you get two 2 - kits for 3 - what Airfix save on packing, the modeller picks up in kits.

With the exception of the Roland which is a brand new model, all the others have been in the Airfix

The Airfix "Dogfight Pair" just introduced with the new kit for the Roland C II and the revised R.E. 8. Note the combination stand and the animated pilots, gunners, etc. Really first class value at 3/-. Below, is our completed Sr. Falcon, total weight 7 lb. see page 220.



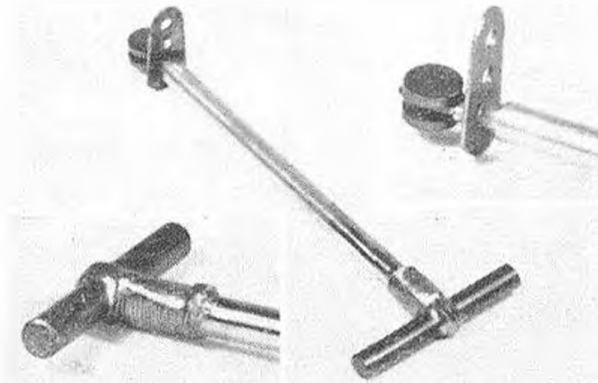
those who want to get it dead right, check our "Famous Biplane" plan pack AF 2703 price 2 - plus 4d. post from the editorial offices.

In another plastics field, a new item of considerable interest is that the next Wen-Mac all plastic ready to fly model will be a scale replica of the famous Boeing P-26 "Peashooter" Fighter. Moreover it will have for the first time a new feature with a throttle speed control which apparently is operated by the pilot so that the model has a speed range from slow speed taxi to 40 m.p.h. flight. It was at the Chicago Trade Fair that it was first put on display.

At Nuremberg, one particularly interesting kit outside the Radio Control field was the Robbe "Maximus". This is immediately recognisable as the ultimate Louis Grondal design which achieved so many successes in the years 1960-1963 in World Championships and the Criterium of Aces. Odd thing about the publicity for this kit is that nowhere in any literature is the famous Belgian designer mentioned!

B. J. Ward Ltd. have introduced several interesting new items, one of them being a range of hand-held Compasses which we are currently testing for a future article on Model Retrieving.

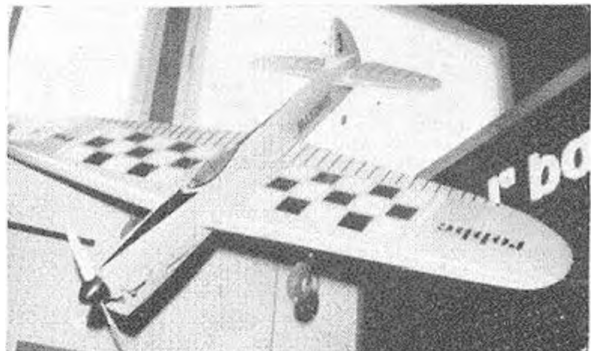
Another is the Polycard pack at 2 6d. This comes in three forms, either a single sheet of .040 in., or two sheets of .025 in., or four sheets of .010 in. thickness white Polystyrene sheet. This can be cut and painted, heat moulded, and of course glued with plastic cement. Ingenious modellers will find one thousand and one uses for it, but we can advisedly say that it is not suitable for engine cowlings where heat is radiated, particularly from exhausts. An ideal application would be the moulding of wheel spats.



From America we have received a range of "H & R" Torque Transfer units covering the range from A (.049), A (2.5 c.c.), B (5 c.c.), and C (up to 10 c.c. and jet). The tee bar is anchored in the wing and control-line connected to the "button". Torque on control-line drives the horn and is stabilised by a return spring contained within concentric brass tubes between the horn and the anchor point. See close ups for end detail which are slightly larger than actual size. Price in the U.S.A. is \$1.95.

range for some time. Modifications have been made, however, and these include strengthening of panel lines and fabric stitching pattern and the addition of these to the moulds where they were omitted from the original kits. A nice big 'A' stand to take the completed models on two arms of different heights makes for attractive display and realistic dog-fight attitudes of models, while the aircraft themselves look impressive as though locked in combat. We particularly like the new Roland with its realistic crew members pointing and training guns, their scarves streaming in the slipstream. One point we would make about the R.E.8 is the fact that the transfer sheet lets it down. The words 'A Paddy bird from Ceylon' which appear on the nose of this machine (the full size original can be seen in the Imperial War Museum) are grossly oversize. Fuselage roundel is way out, too, we're sad to say - the outer white ring should be thinner and generally lighter and the fin numerals are blue instead of black. For

New Robbe kit for the "Maximus" which is Louis Grondal's championship control-line stunt in another guise.



Club and Contest News

Heading picture at left shows the impressive display of models at the East Anglian Area Southend, fund raiser display. Local youngsters were indeed treated to a good show of all types of models.

Destroy your own

From "Lead-Out" the News Letter of Hunts M.A.C. now in its second issue we learn of some interesting goings on at the scramble held on January 24th, which some members say was their best comp yet. B. Waterland won with a fly off time of 4:31, J. Cope came second and P. Crough third. The afternoon had one of its brighter moments when D. Wood trod on his own model, a "Pixielander" whilst watching the opposition. Pixielander, as the name implies a small model and undoubtedly derives its name from a well known kit. Span is only 18 in. and with a high thrust line for TD 41 power, should make those open power. Eta 29 types tremble all over! D. Wood has at last managed to get his rubber powered R.T.P. pusher Konkord to fly, which is something of a feat, as he has been at it since Christmas. B. Turner normally known for his team race goings on, also dabbles in R.T.P. and it seems he was the first one out through the club-room door when his Jetex 200 model came off the line at very high speed, to the concern of all clubmates in the line of fire.

Crawley Combat Jousts

Known mainly as a free flight club Crawley and D.M.A.C. also have an active control line section with most of the action centered on combat. On January 24th most of the control line fans were out sporting their new silencers, the most popular being the split ring type made by P. A. Moore of Leicester. The noise was well reduced and performance did not suffer too badly, but some more than others. John Tindle flying his Aero-modeller free plan "Flingie Bunt" came off worst in one bout by going inverted and crashing into the opposition, Tony Satchell when his pushrod came adrift. February 14th saw the club defending their combat honours against Worthing Bald Eagles at Worthing flying site with their four champions against the same number from the opposition. Some spectacular flying with Worthing Bald Eagles member Derek Woody taking first place by a four point margin, and Maurice Harney from Crawley in second place.

Ulster News

Ulster M.A.C. (39 members) can now use Nuts Corner Airfield for weekend flying and practice for the forthcoming Irish Nationals. At last year's Nats Ulster M.A.C. won both single and multi channel radio control but were not able to make a similar impression at the British Nats where competition was stronger. It is hoped that a larger party is going to attend the 1965 Newcastle Nationals with more success. They should have less opposition as many of the Southern England R.C.'s consider Newcastle too far to travel.

Red Faced at Woodvale

Arther Searl a member of Liverpool D.M.A.S. whose club has the use of R.A.F. Woodvale approached a stranger on the airfield and enquired whether he was a member. Receiving a negative reply Arther bluntly informed the "intruder" that he had no right to be there at all, whereupon the stranger equally bluntly replied he was an R.A.F. Officer and started to question Arther's own right to be on the airfield. Just shows doesn't it, you can be "too" careful at times.

EAST ANGLIAN AREA DISPLAY

Over 300 people attended the model aircraft exhibition organised by the East Anglian Area S.M.A.E. as a fund raiser to try and help one of their Area members with the costs of going to the World Free Flight Championships in Finland this year. Held at Southend-on-Sea on February 20th the static display included no less than 140 models which is indeed a creditable number. All classes were represented and there was also an impressive display of R.P.T. models and demonstration flights throughout the day which were admired by the visitors. Dagenham, Southend, Essex, Cambridge, and Norwich clubs all helped out, and also M. Pressnell and M. Shipp who flew some indoor models. The area reports the display to have been a great success and that they hope to run it at either Norwich or Cambridge in 1966.

Buckaneer Adventures

Main event for Bletchley Buckaneers M.C. in February was the club dinner held on the 20th attended by local dignitaries and some well known aero modelers including Ed. Johnson, Ron Moulton, and Jack Morton. After the dinner, dancing and of course celebrating the Bristol boys stayed over night and took part in a flying session at their field next day. Jack Morton was flying his Tiger Moth but had the engine cut in a most awkward place and whilst landing in a ploughed up area managed to damage the rudder. The local newspaper sent their photographer to the dinner and he also came along to the flying session, two photographs appearing in one edition and three in a later number, as well as three reports in the columns. When Arthur

Bass's Frog Attacker control line stunt model became airborne with a beat up Veco 45 everyone was rather surprised to see it only totter around the circle, until the silencer fell off, whereupon it went like a racer. This occurrence and a lecture given to them by Fred Beaton proved there was more than meets the eye to silencers, or should we say more than meets the ear! The lecture was thorough and included some working devices to illustrate sound waves and sound measuring equipment that was used on the field to check some club members' engines.

New Midland Flying Site

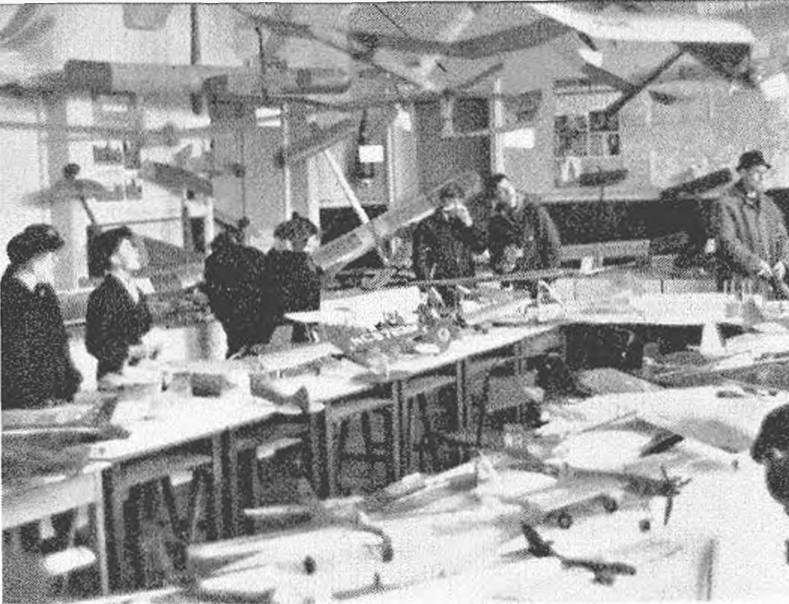
During the last few months very little flying has taken place by members of Clayton M.A.C. Staffs. This has been due to the loss of their former flying site but luckily they have now attained the co-use with Five Towns M.A.C. of Meir Aerodrome for an annual fee of £10. Five Towns M.A.C. are also going through a slack period with Tuesday night club meetings attended by a dozen diehard members. They have, however, come to accept this phenomena and realise that once blessed with better weather more members should attend. The latest craze for the coming season seems to be giant slope soarers with several designs and an A.P.S. Thermalist under construction. Team racing is also enjoying an increased interest with two class "B" models on the stocks. At Clayton M.A.C. an indoor chuck glider contest was held on January 22nd. Requirements were maximum span 8 in., best five out of seven flights to score. This produced an entry of 13 members and Ernie Wheeler emerged as victor with a 30.5 second total. Chris Wilshaw came second with 30.3 seconds.

Aeromodelling '65

At a North Western Area meeting it was decided that their ambitious "Aeromodelling '65" magazine, would have to cease as it involved too much of the area's ready cash, soon to be needed for their crowded contest season. They claim that it was always run at a break-even point and in fact it was cheaper to produce when all the costs were taken into account than their present duplicated newsletter. Although some readers have paid subscriptions in advance the Area intend to refund these.

Essex Clubs

Newly formed Witham M.A.C., from the town of that name in Essex are now looking for a hall to use for a club room and general meeting place. Witham is within easy reach of Maldon, Hatfield, Kelvedon and Tiptree so any lone hands in that area are invited to contact M. Shipp, 16 Holley Way, Tiptree, Colchester, Essex. Not a new club but still going strong Brentwood M.A.C. members have interests ranging from radio control to indoor free flight and have meetings on the first Fridays of April, July, September, October, November and December starting at 8 p.m. in the Congregational Church Hall, South Street, Brentford.



Hayes and Silencers

From the club point of view Hayes and D.M.A.C. were pleased when Geoff Lefever dropped out of the Wakefield team for this year's World Free Flight Championships as it meant that their own club member Alan Arnes was in as the third man. This of course means a frantic constructional and financial effort to see that Alan goes to Finland with the best possible chance of making a high place. Recent club contests revealed that apart from control line then Dave Balch bending his "Dixie'ander", the new silencer ruling has killed what little interest there was in the club for power events. Not that they disagree with silencers, far from it, but there was only a small interest before the new rules came out, and this served as the last straw. In a club rubber competition Ray Wotton beat Laurie Bar in a fly off by 4:41 against 4:28 despite stalling all the way down. This gives some idea of the performance potential of his new large model, statistics of which in terms of motor run, weight, etc., would cause some raised eyebrows, but are withheld at Ray's request. In glider Alan Arnes with his "tow at any time and cross fingers attitude" achieved 8:20 to beat the scientific lift hunters, who were frustrated to say the least.

One look at the Contest Calendar will soon indicate the popularity of the club's Charville Lane flying site for rallies by other clubs and their own. Last year they were restricted to one rally a month, due to some noise complaints getting to the council from local residents. This year the council have reconsidered the situation with silencers in mind and will now allow the club to have as many rallies as they like per month but only 12 in the year, so things are really not any better at all. Due to this restriction and the strict rationing in force to see that all clubs get a fair chance to use the circuit the Wanstead F.A.I. Rally for June 27th has been cancelled. This will not affect the other two meetings to be held on May 16th and September 19th except for the addition of Combat run by the Feltham club to make full use of the circuit on these days.

Belfast M.F.C. Projects

We hear from across the Irish Sea that building aplenty is taking place and most of it seems to be by Belfast M.F.C. members. Derek Wilson has his new class B team racer finished and a new one started for an Eta 15 and he has also been examining an A2 glider built by M. Doyle very closely. Still in the control line sphere Ken Smeltzer is building a combat design by fellow club mate John Black and Tom Snoddy is constructing a fleet of stunters for his now silenced Merco.

Honorary Member

At the St. Albans M.A.C. Annual General Meeting, John "Lulu" Barker, the well-known APS plan designer who recently had to leave the club due to his work, was made an honorary member. The club with a 35 strong membership is in a sound financial position and the points competition awarded for prizes in most of the year's contests was won by Colin Morris who had a very successful flying season flying A2 gliders. Silencers are big talking points amongst their power modelers, but so far only one or two working designs have appeared. At least two members are threatening to give engines a miss and switch from power to glider models this season.

Precision in F/F

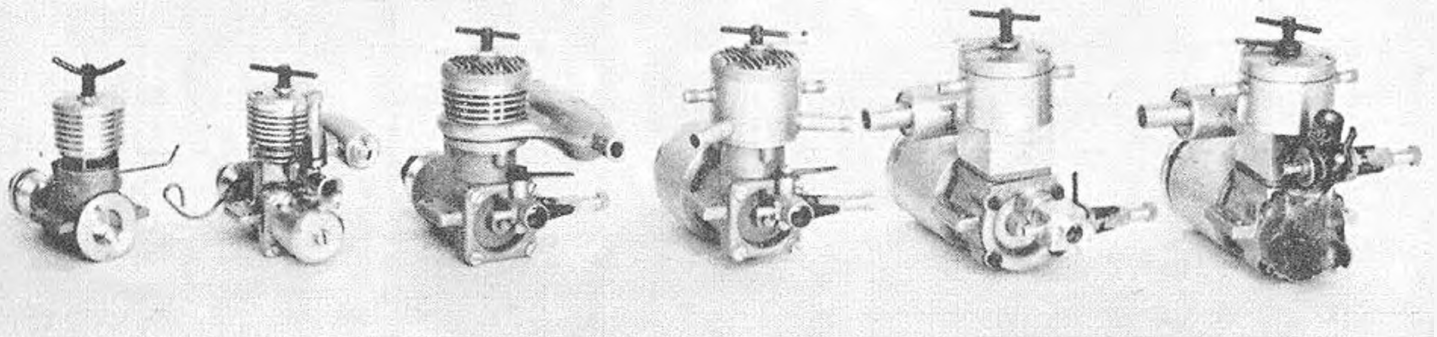
In spite of almost continuous snowfall several members of Brighton D.M.A.C. went to Ashdown on February 21st to fly off the club's Lanes Cup for precision duration. Three members achieved the exact score of 4 mins. with the three flights, with the result that a fly-off was called for to a time of 60 secs. John West made best effort with 59 secs. using a veteran glider, Ken Winstanley was second with 57 secs. and Fred Boxall third with 65 secs. skilled flying what?

FILM SHOWS AND TALKS AT BEXLEY KENT

Cosmo A.C. report that this winter's club meetings have been their best attended for many years with an average of 20 members out of a possible 33 at each meeting. Highlights of their winter programme were film shows to which members of other clubs have been invited; talks, and discussions. Shortly they are to be given a talk by J. D. McHard editor of Triang Magazine on scale models. Model electric car racing has been a regular feature on their programme and has encouraged members to build and motorise plastic car kits, but strictly between building time allowed for model aircraft.

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COMBINED S.M.A.E. AND CLUB CONTEST CALENDAR

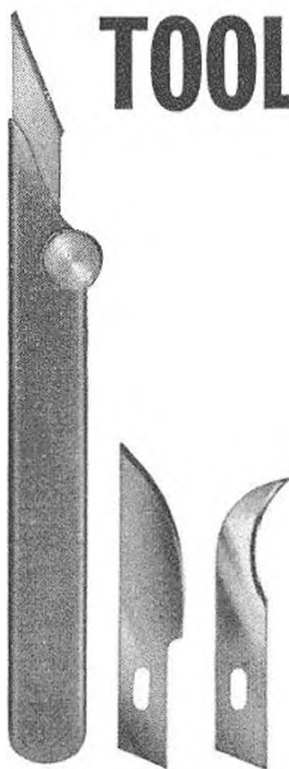
April 18 & 19	North Western Area S.M.A.E. Easter Meeting. R.A.F. Ternhill, on A41 road between Whitechurch and Newport, Shropshire. Sunday Events: Open Rubber and Power, 1A Power, Combat, Stunt, F.A.I. T/R, Free Style R/C Multi. Monday Events: Open Glider, Tailless Glider, Combined F.A.I. (F/F), Control Line Scale, Combat, 1A T/R, B/T/R, F.A.I. Multi R/C. Details and Pre-entry forms from: U. A. Wannup, 13 Dene Court, Stockport, Cheshire.
April 25	S.M.A.E. Multi Radio Control Meeting. Venue to be announced.
April 25	Croydon D.M.A.C. Open Gala. Chobham Common. Open R/G/P, 2/6 no re-entry.
April 25	South Bristol Vintage Gala. R.A.F. Hurlingham, on A429, Wilts. Open R/G/P, pre-January 1951, and Chuck Glider. Details from: J. B. Mayes, 17 Northville Road, Northville, Bristol, 7.
May 2	Airtech M.F.C. F/F Gala. Haddenham, Bucks. Open R/G/P and Chuck Glider.
May 9	Imperial College Combat Rally. Imperial College Sports Ground, Harlington, nr. London Airport, off Great West Road. Pre-entry 3/- to: D. Klein, 18 Beaumont Crescent, West Kensington, London, W.11. by May 1st. Field entry 4/-.
May 9	S.M.A.E. All Scale Meeting. R.A.F. Hemswell, near Lincoln. F/F, C/L and Single Channel R/C. Also incorporating 20th Century Fox "Those Magnificent Men in Their Flying Machines" contest, details in March 1965 Aeromodeller.
May 16	S.M.A.E. Area Event. Open Rubber, Open Rubber/Glider, Team Rubber.
May 16	Wanstead Warhawks F.A.I. Meeting. Hayes C/L Circle, Charville Lane, Hayes, Middlesex. F.A.I. T/R & Combat. Pre-entry 2/6d. to: G. A. Green, 20 Meadows Road, Upminster, Essex, by 10-5-65.
May 16	Dunfermline C/L Rally. Pitreavie Playing Fields, Nr. Rosyth, Scotland. Rat Race, Combat, Stunt, 1A, F.A.I., B, Team Race, Scale, Chuck Glider. 2/6d. Field Entry.
May 23	S.M.A.E. Control Line Team Trials. Criterium of Aces. R.A.F. Hemswell, Lincoln. F.A.I. Speed, T/R Stunt, Combat. No silencers required. Pre-entry 10/- Full Members. 20/- Associates. 40/- Non Members to S. A. Wade, 10 Storer Road, Loughborough, Leics.
June 6 & 7	British National Championships. R.A.F. Ouston, 12 miles west of Newcastle upon Tyne, just off B6318 road. Thurston Cup (Open Glider), Women's Cup (Open R/G/P.), S.M.A.E. Trophy (Multi R/C), Knocke Trophy (C/L Scale), Gold Trophy (C/L Stunt), Davies A Trophy (A T/R), Combat heats, Handicap Speed, and Scale Radio. June 7—Model Aircraft Trophy (Open Rubber), Sir John Shelly (Open Power), R.A.F.M.A.A. Trophy (1A T/R), Scale Radio (Judging) Scale C/L (Judging) Combat heats and finals, and Speed. Pre-entry to: S. A. Wade, 10 Storer Road, Loughborough, Leics.
Rallies additional to last month's S.M.A.E. and Club Contest Calendar	
June 20	Finchley and D.M.A.C. Control Line Gala. Glebe Lands, Summers Lane, Finchley, London, N.12. Class A and B Combat, Senior and Junior Stunt. Pre-Entry 2/6d. to K. D. Lesser, 20 Squire Lane, Finchley, N.3, or field entry if places are available on the day.
June 27	Hayes Free Flight Gala, Chobham Common. Open R/G/P, 1A power, combined vintage F/F event (pre-1951). Entry on the day 2/6d.
June 27	Hayes 1st 1965 C/L Rally. Hayes C/L Circle, Charville Lane, Hayes, Middx. S.M.A.E. 'A' Combat and all classes of speed. Entry 2/6d. on field starts 10 a.m.
July 18	Peltham C/L Rally. Hayes C/L Circle, Charville Lane, Hayes, Middx. S.M.A.E. Combat and Rat Race.
August 22	Hayes 2nd 1965 C/L Rally. Hayes C/L Circle, Charville Lane, Hayes, Middx. 1A T/R and Class 'B' Combat to S.M.A.E. rules, or proposed rules.

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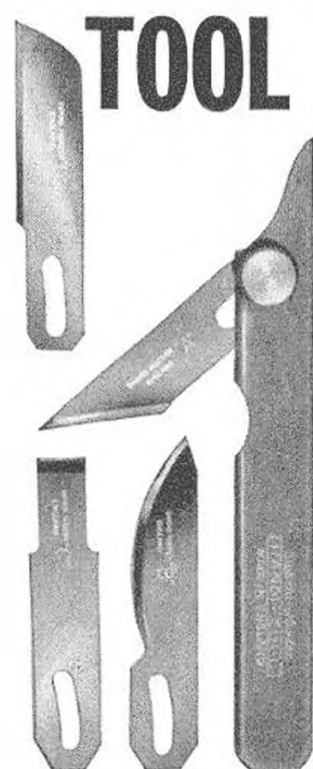


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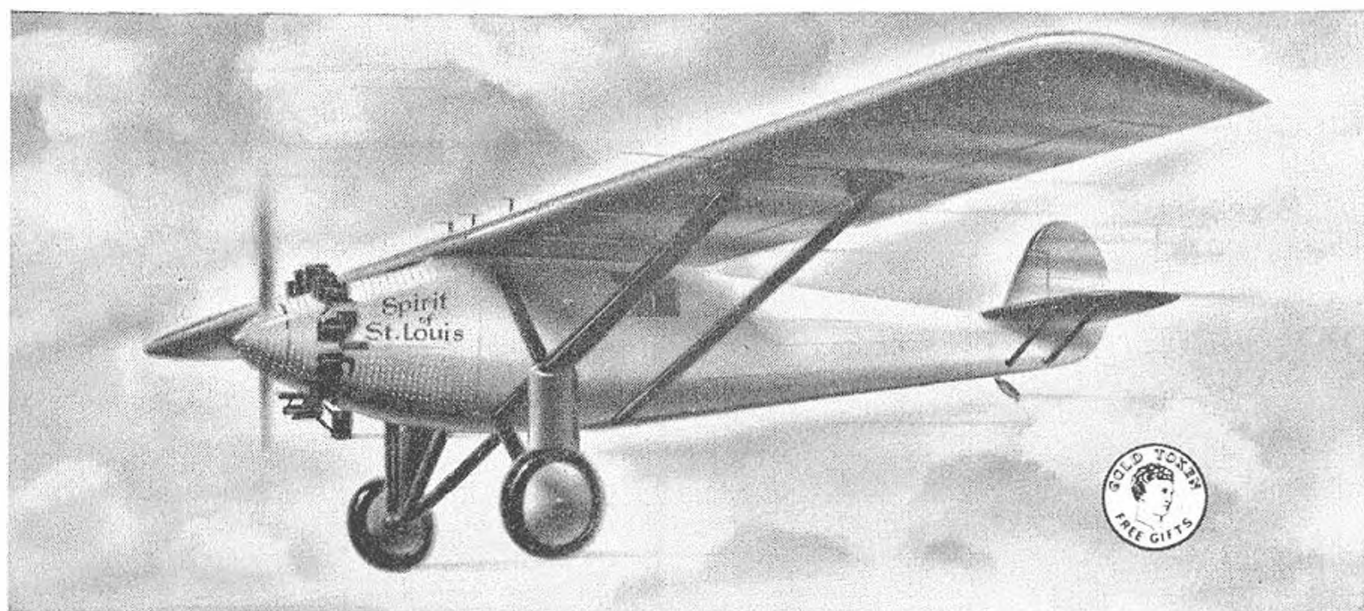
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Lindbergh's 'Spirit of St Louis'

Now a Frog Trail Blazer kit 3/6



Lindbergh, the Flying Fool, left New York in his overladen plane 20th May 1926 to fly solo across the Atlantic. Others had tried for the \$2500 prize and all failed. Some had lost their lives, too.

For two days the entire world waited anxiously for news, and finally Lindbergh touched down at Le Bourget in Paris . . . as the first man in history to fly the Atlantic solo!

The Spirit of St Louis was a modified RYAN M2. A super-inspected 223 b.h.p. Wright J-50 Whirlwind and a duralumin Standard Steel Co. propeller were provided. The 36-ft M-2 wing was enlarged to 46 feet, with the same Clark Y wing ribs, but for efficiency the spacing was reduced to 11 inches, leading edge wrapped with ply, and airfoil shaped balsa blocks used to fair the tips. The ailerons were reduced by 1/5 from the M-2 size to avoid wing stress, and became diminutive tabs by comparison, though quite effective for lateral control. With the larger wing and need for internal fuel tankage plus a large tank in the fuselage around the centre of gravity, the tail unit had to

be shifted back 2 ft. and nose length extended 18 in. to compensate. Another major requirement was for an extra 2' 9" undercarriage track with bungee cord suspension on long travel legs to take the terrific load.

The fuselage was welded steel, the wings wood, with steel tube brace struts. Fuel tanks were tailored of "Ternplate". Fuselage was lined with balsam wool around the cockpit.

Wing struts were covered with balsa fairings, and all strut component joints sealed with beaten aluminium covers. Most important of all was the blending of the Ryan spinner into the square frame of the main fuselage with machine-turned polished cowlplates . . . possible only by placing the pilot aft. Also bulk fuel tankage had to be near the c.g. Lindbergh preferred being aft of the weight mass, anyway, in case of a crash, and an emergency periscope was devised.

Frog have brought the 'Spirit of St. Louis' to life in their new Trail Blazer series. Kit includes superb scale models of Lindbergh and ground crew. In the shops now, only 3'6d.

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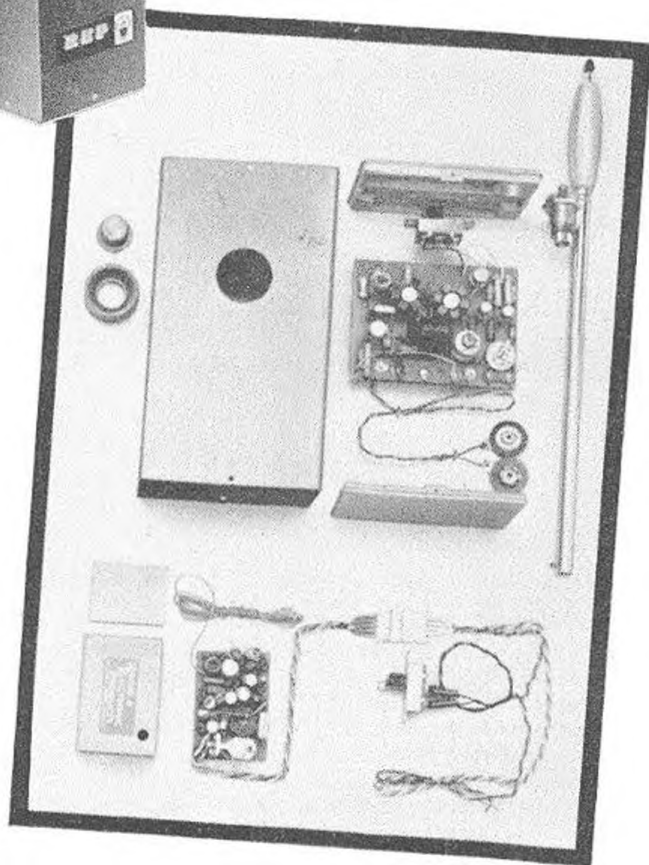
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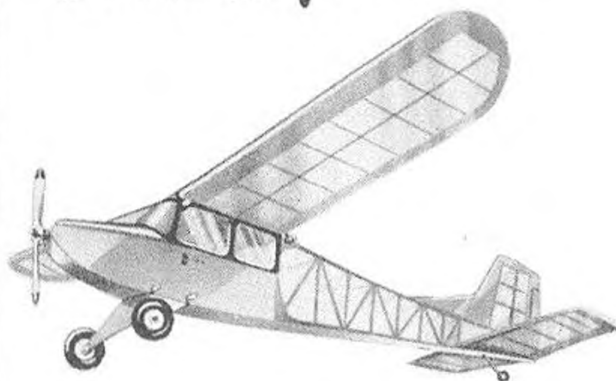


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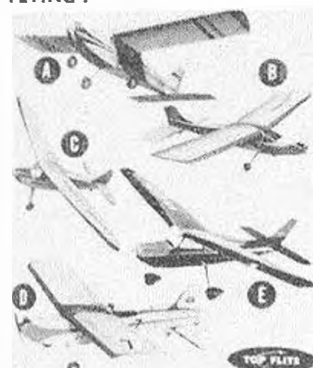
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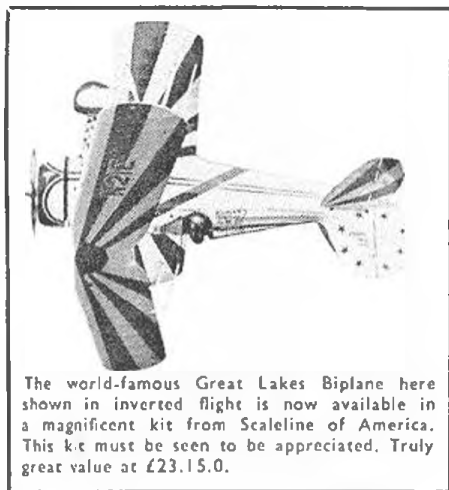
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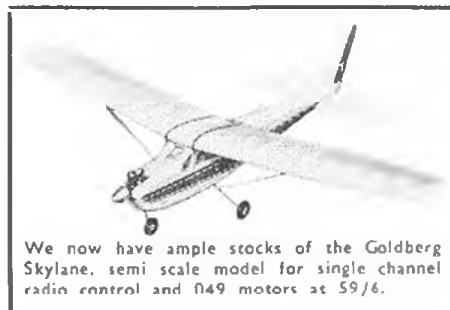
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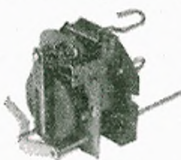


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