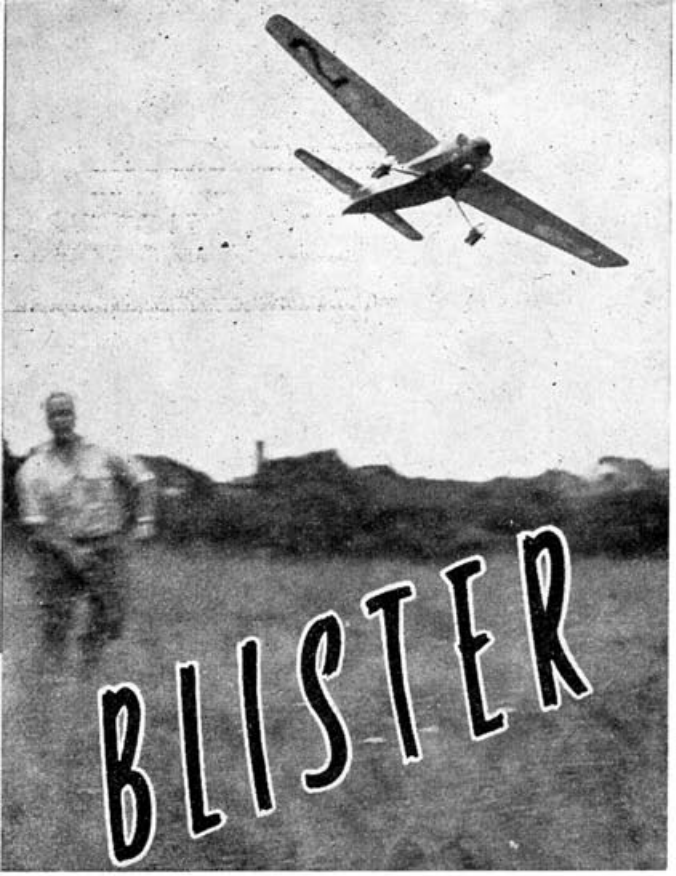

Designed to AEROMODELLER specification for a good looking, near unbreakable thrilling sports radio model to suit 2·5c.c. engines.

. . . by P. E. NORMAN

THIS MODEL IS the result of producing a radio controlled single channel machine based on characteristics of some of the American Goodyear Racers, but is not necessarily a scale model of any one machine.

It is an attempt to make an aircraft which would be suitable for pylon racing, but still have the essential characteristic of immense strength, fairly straightforward construction, pleasing appearance and not too violent flying qualities.

It departs a little from normal construction practices, in so much that the forward portion of the fuselage is built on a plywood platform, which in turn serves to carry (if needed) the fuel tank, the batteries (DEAC's), the radio receiver, the wing tongues, and possibly the actuator, this unit at the same time prevents the fuselage "bursting" in the event of a heavy crash.

Wings are made in two halves and fit onto the tongues and are held in flight position by spring clips or sheer pins; the tail and fin/rudder unit in one piece is easily knock-offable and adjustable, and the prototype sports a 2 in. diam. needle nose spinner and streamlined wheel spats.

The battery radio unit and actuator are easily accessable by lifting the hinged cockpit canopy and the model is emminently suitable for some of the small lightweight receivers coming onto the market. It is nylon covered and should not be too great a problem for a fairly

experienced modeller to tackle, although practice and previous operation of a radio model are a "must."

The prototype is powered by a Fox 15 glow motor and the whole of the motor unit and mount is detachable and held in position on the front of the fuselage by spring loaded bolts, this mounting being adjustable by means of slight packing which may be built in when the earlier flying tests have been completed.

The model is fast and has a tendency to neutral stability and is sensitive to the rudder control. The original is finished in red with white trim racing numbers lettering etc. and has white under-surfaces to wings and tail (for easy direction visibility when flying) with natural black plastic spinner and presents a very attractive sight while performing in the air.

Before commencing the model, study the plans and construction details carefully.

The main strength of the fuselage lies in the use of a

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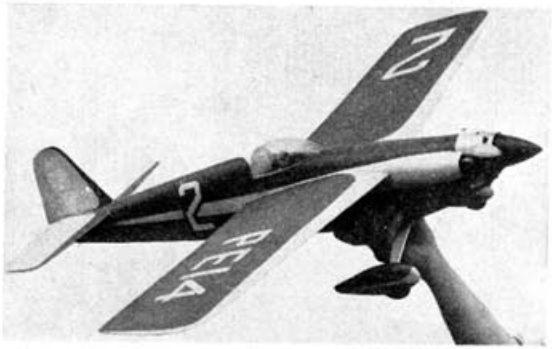


3 ply platform which serves to carry units such as the tank, receiver batteries and actuator and wing tongues.

Good quality aircraft plywood should be used throughout construction, preferably resin bonded if obtainable and the use of a long reach fretsaw is to be recommended. Onto the platform, two strong crutch members are securely glued, followed by the fitting and gluing of several formers. All of this operation is done with this lower portion of the fuselage laying inverted.

Then the lower longerons are fitted and the strong 5 ply front former, glued in place. The construction drawings will then show that having completed this lower part, it is now turned the correct way up, and the upper portion tackled.

Comparison of first prototype (too hot to handle for other than "P.E."!) below, and plan model above show changes through two years of development. Prototype Sarll Rx, the "Terrytone" seen encapsulated and on escapement bulkhead at right, this after a 300 ft. dive. Note NO damage to model! This is a great model, likely to become the Sunday flier's favourite.

As will be seen, some block balsa is employed and these pieces should be shaped externally to the approximate shapes with a sharp knife, wood rasp and varying grade sand papers. Internal work may be done with a sharp cutting out knife, or *very sharp* wood gouges.

In the case of the space in the nose block for the battery containing portion; should this seem too difficult, it may be overcome by carving the front portion from solid block and fabricating the battery compartment by building up with $\frac{3}{16}$ in. planks and then carving to shape when glued.

It is highly recommended that *Cascamite* glue should be used throughout in the main construction parts (it is fuel proof and very strong and easy to work although the time taken for drying is longer than balsa cement). The designer used it almost entirely in the fuselage and wing frame construction using *Britfix* for such parts as the tail unit, and sheet balsa covering.

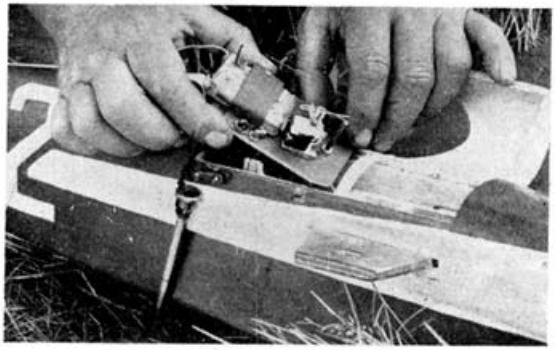
The wing construction uses the knotching system for ribs and mainspar and the mainspar itself is full depth and employing P.E.'s usual method of a sandwich of 1/32 in. 3 plywood and $\frac{1}{8}$ in. hard balsa glued together securely with Cascamite. All knotches in mainspars are shallow to preserve strength and those in ribs are deep.

Great care in line up, dihedral angle and incidence is essential in a fast model and these should be checked frequently during building. Surfaces should be carefully sanded before carving to ensure smooth clean lines so essential to a racing aircraft. The nose blocks again should be roughly cut out inside to clear the installed engine, glued with Cascamite to the engine former and when thoroughly dried, carefully shaped externally to follow the lines.

The engine should be thoroughly "sealed" with Sellotape etc. before being fitted in the mount to prevent sandpaper and dust from gumming up the works. The complete fuselage is fuel proof doped.

The surfaces are covered with nylon chiffon or silk and given a coat or two of shrinking fuel proof dope and then fuel proof colour dope.

When installing the radio batteries etc. ensure that every lead is anchored against vibration breakage etc. and carry out the usual checks and rechecks. Check the balance point of the completed model and add ballast as necessary fore and aft to bring the weight within about $\frac{1}{8}$ in. as shown on plan. Check the model for glide,



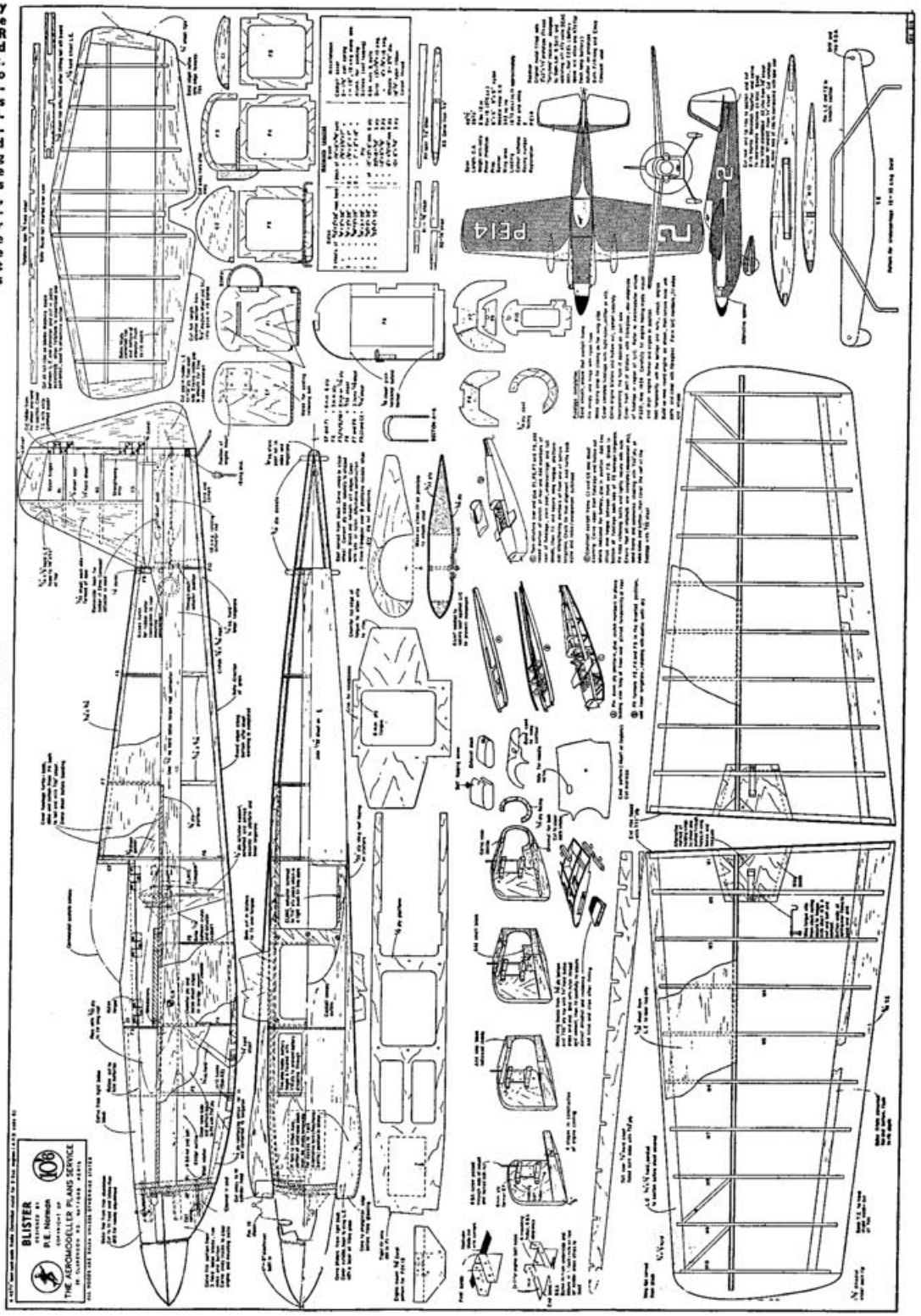
taking the normal precaution of choosing fairly calm conditions and reasonable length grass to shock absorb those first few bad launches. The model will glide fast (it is $18\frac{1}{2}$ ozs. per square foot and has a thin wing section) so make sure your launch is sufficiently powerful to the necessary thrust. Trim the model to avoid any nose-up tendency (the model is designed and rigged to fly with a nose down attitude for speed and penetration) and also that there is no left or right turning tendency (a slight amount of wing tip warping by finger coaxing will cure this).

When glide is correct, prepare for first test flights by running the engine quite slowly and well four-stroking. A glow motor speeds up in the air, so do not allow motor to rev at all fast. "Make haste slowly" should be a very good slogan when dealing with a machine of this type.

When you have had a few "slow" flights and found out if there is to be any correction on thrust angles, weight distribution etc. then you may gradually speed up your motor and you will be rewarded with a really snappy mount.

One final word, do take all precautions to avoid accidents to other people and property, remember you have spent a good deal of time, effort and money, and there isn't much point in losing everything just through sheer carelessness on your part. The public is foolish enough as it is and enjoys nothing more than a good prang so, do your level best *not* to oblige them!

Having been closely associated with the development of BLISTER and seen it fully tested (Vertical dive from 300 ft. into marshland with no damage!) we have absolute confidence that this is another AERO-MODELLER Plans milestone in radio controlled model progress, following the advancement made by introduction of types like Rudder-bug, R.6-B, Smog Hog, Uproar, Astro-hog and Gasser. Blister will amply satisfy the demand for a fast toughie that calls for competent control and rewards with many a thrill.



FULL SIZE COPIES OF THIS 1/7th SCALE REPRODUCTION ARE AVAILABLE PRICE 10/6 FROM AEROMODELLER PLANS SERVICE QUOTE DRAWING RC 815 WHEN ORDERING.

"P.E." applies turns on escapement rubber with son Marcus heping. Cockpit gives excellent accessibility. We know many readers will be sorry to learn that since these pictures were taken, "P.E." suffered a paralytic stroke and has been obliged to foresake his considerable activities. As we go to press, he remains cheerful and confident that in due course of time he will regain his health and be able to participate in flying Blister at model meetings. All of us wish him the speediest recovery.