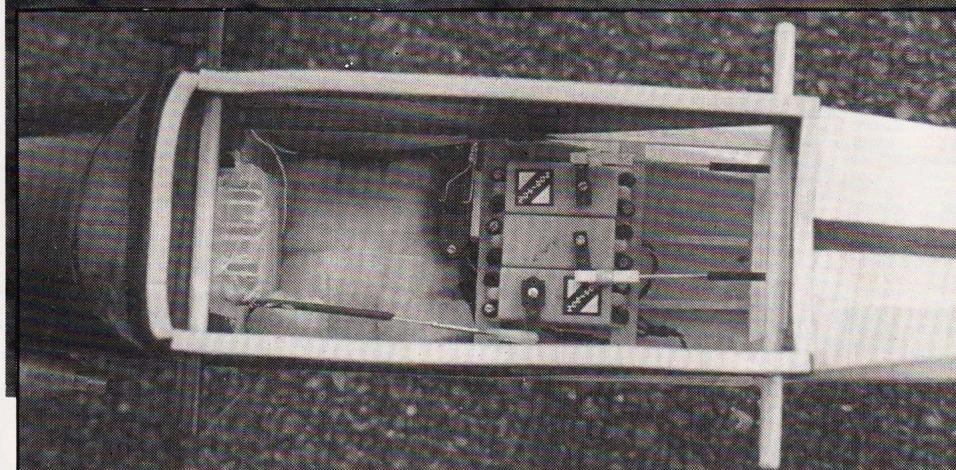


**FLAIR**

# Black Magic



**R/C Model World reviews this elegant 60in. span vintage model for .19-.25 two strokes or .30 four strokes and two/three function radio.**

Black Magic first took to the air nearly 40 years ago, its designer, Fred Hempsall, aimed to design a practical yet elegant model that was not just another box with wings. He built three of them, one of which was credited with a time of 26 minutes out of sight at the Irish Eliminatory Trials in 1946. The plans were published in Aeromodeller the following year. In kitting this classic design Flair Products have aimed to keep alterations to a minimum, maintaining the original outline and as much of the original structure as far as is practically possible.

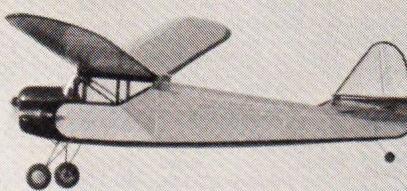
The kit is of the all wood variety with no foam or plastic parts. The wood is of good quality with different grades for different parts of the model. The hardware supplied consists of pre-formed undercarriage parts, bowden cable, quicklinks, connectors and control horns for the rudder and elevator.

The original wing construction was two panels plugging into a centre fuselage section, this has been changed to a one piece wing which is far more robust. The wing ribs are all pre-cut with only a slight trim-

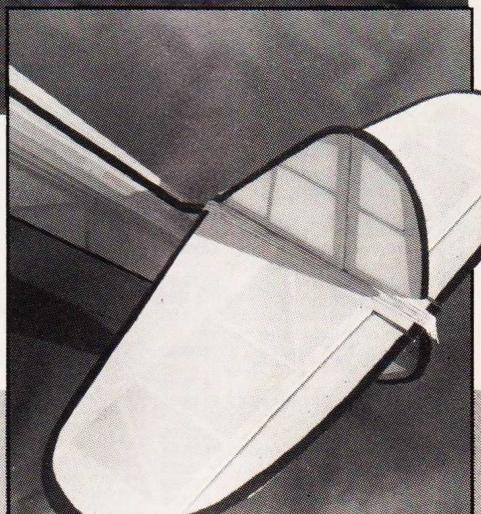
ming of the tip ribs needed to fit the taper. I used cyanoacrylate for all construction except for the leading edge sheeting, where a little care is needed in setting up the washout and white glue was used to allow adjustment.

Tailplane, fin and rudder are all built up. The upper half of the fin, rudder and tailplane are elastic banded onto a plywood seat on top of lower portion of the fin to give a mid-tail layout as per the original.

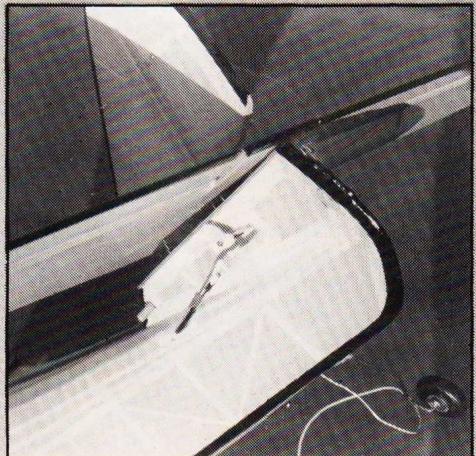
The fuselage has a basic Warren girder structure to which are added top and bottom formers and then stringers to form the elegant shape. The plan shows an engine



installation as probably used on the original, the engine mounted inverted on a ply plate with a top cowling giving access to the bottom of the crankcase. I think Flair have wisely left the installation to suit ones own taste and size of engine, but a novice would have problems. I choose to use the 1/4in. ply plate and added 1/8in. ply webs to stiffen the mounting plate to the front bulk head, the tank fitted nicely between the



*Tail surfaces are shown in detail above and below. As on the 1940's original, the tail surfaces are banded on.*



webs, with a fully detachable bottom cowl, to give complete access to engine and tank, this maintains the elegant nose profile of the original. All of the wood for the above was in the kit, the only extra parts I added were the ply webs.

Radio installation is very simple and straightforward with the usual large cabin



*The underside of the nose showing the inverted engine installation.*

*The Black Magic has all the lines of the classical vintage models.*

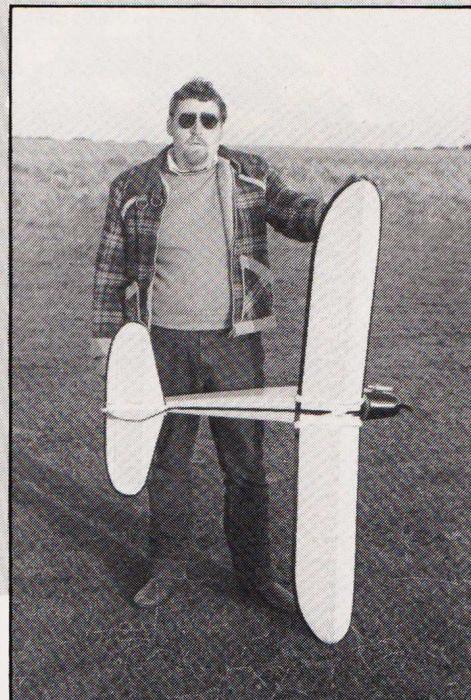
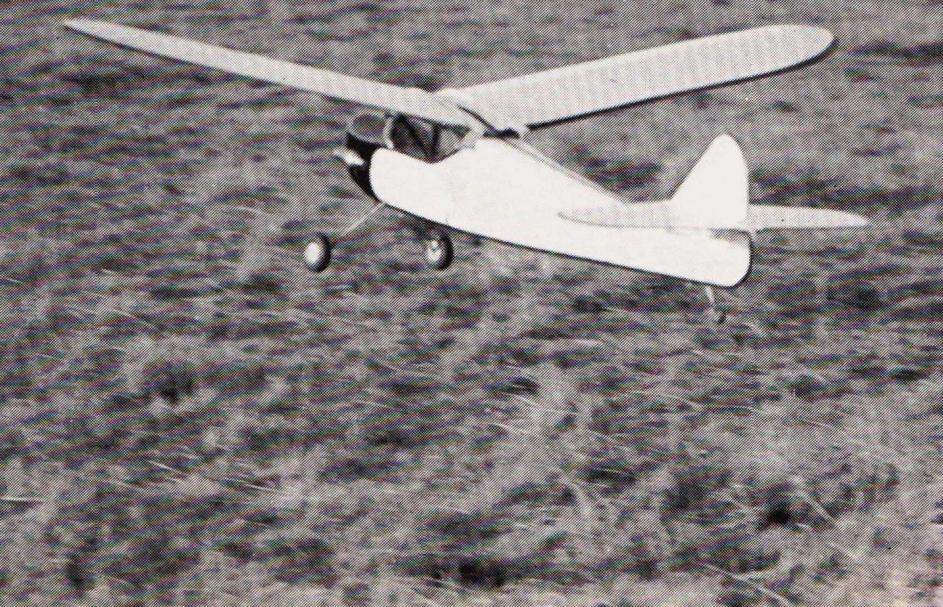


area provided with this type of model. I used antique Solartex for covering with one coat of thinned dope, a black trim outline and nose area, then Tufcote to finish off. The ready to fly weight was 3lb 10ozs, this included 6oz of lead behind the engine to get the C of G right. The engine chosen was a fairly old plain bearing Enya 19 which I had just refurbished with new piston and liner. I spent a long time running it in and setting up, as I find this always helps avoid problems later with fully cowled installations.

The Enya 19 turning a 9 x 4 prop provided more than ample power. On the maiden flight, after a ground run of about six feet the model leapt into the air, at full throttle full down elevator was needed to stop it power stalling, but on reducing power the nose dropped and a more sedate climb angle was achieved with only down trim needed. To fly level no more than a fast tick over is required, and to actually descent an engine with a very slow tick over or that can be cut is needed, or you won't get it

down. Even with the engine cut the glide is very flat mainly due to the clean design.

After the first flight, I added 1/8in. ply packing under the leading edge of the tailplane, this helped reduce the amount of down elevator needed at full power. Subsequent flights were superb, at low power the Black Magic just ambles around the sky, touch and goes are just great, with the undercarriage well forward there is no tendency to



*The classic planform of the Black Magic is shown by your reviewer.*

nose over even in long grass. The Enya 19 is more than adequate power, I think that a cooking 15 or one of the new small 20 four-strokes would be perfectly suitable.

In kitting the Black Magic, Flair have achieved their original aim, as the model captures fully the charm and elegance of a classic design. Although a beginner would find the Black Magic simple enough to fly, I think that construction is more for someone with a couple of similar models under their belt. I am sure the Black Magic will find a home with many of the growing band of vintage enthusiasts. Nice one, Dudley!

Manufactured and distributed by Flair Products, Manor Close, Blunsden, Swindon, Wilts, the Black Magic costs £27.90.