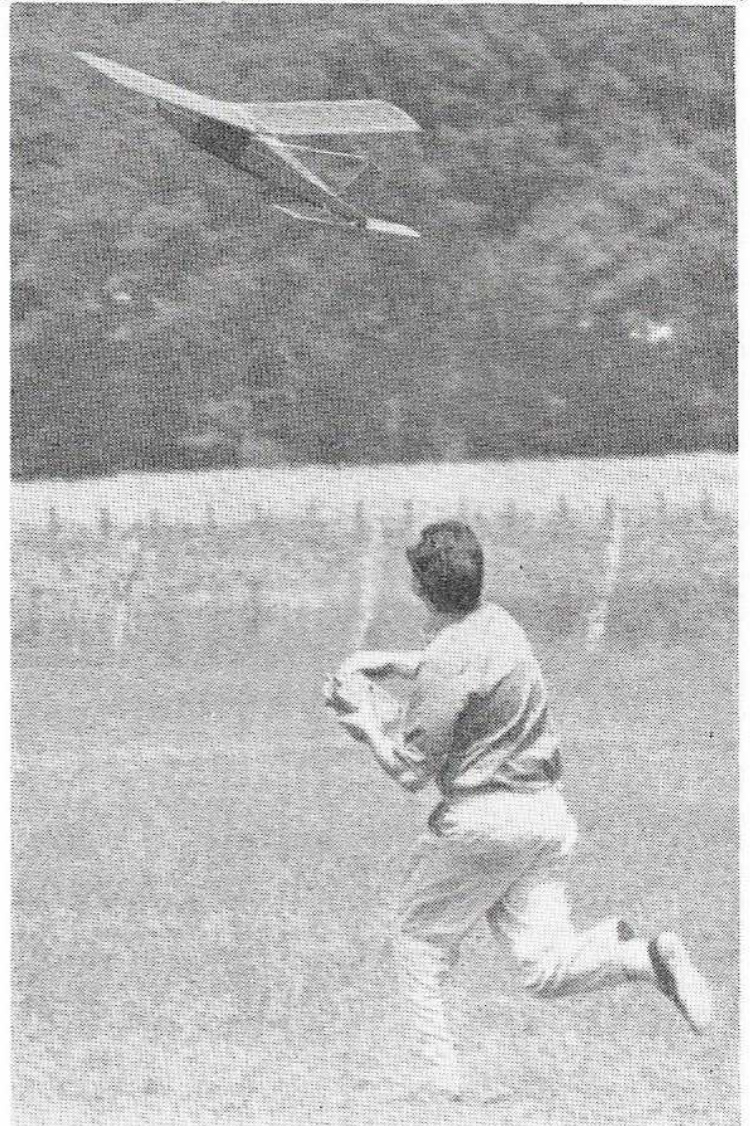


HOPFUL

a smooth
flying model for
rudder only to G.G.

Designed by
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THE original *Hopful* design was conceived and built as an attempt to rationalise the club's thoughts on single channel r/c flying. It was evident, at flying sessions and rallies, that there were basically two approaches to single channel flying. One school presented a highly aerobatic "bomb" which required definite pilot skill to be successful; the other gave us models which, although "safe," twitched and wallowed most unrealistically all over the sky,





and would actually fly backwards (relative to the ground) in a wind.

The qualities required of a model were considered to be as follows:

(i) It *must* fly smoothly (and thus more realistically), and have room for throttle control to aid this.

(ii) It must be quite safe in the air on rudder only and yet be aerobatic enough to satisfy, in the hands of a good pilot.

(iii) The model should be able to penetrate a reasonable wind and—

(iv) be able to withstand rough field treatment (etc.) with impunity.

Personally—and I know I am open to much criticism here—

model weight was considered to be of secondary importance, provided the original aims were fulfilled.

The result, after evenings of discussion on wing sections, areas, moment arms, dihedral considerations and so on, plus “eyeball engineering,” beer and balsa sessions, was *Hopful* Mk. I. This sported a slightly larger wing area than the Mk. IV presented here, and is 8oz. lighter. Penetration was reasonable, but the model suffered from having *too* good a glide, making landing approaches difficult to judge. The Mk. II was given an undercarriage (our club having started to lay a runway in the meantime) and a kick-down

elevator to be used in pylon racing attempts. Never again! All worked well, for two flights, until the elevator stuck down at about 300ft. with the motor at full bore. Needless to say, the model hit the small runway in our very large field and little was left to salvage. So the Mk. III was built, followed by the Mk. IV, with improved, more simple, construction.

Hopful has more than proved itself, both from the point of view of smooth flying and rugged construction, with Mks. I and III flying *smoothly* through their fourth season. Many Ashford club members have built *Hopfuls*, with various radio installations, using rubber driven escapements, motorised actuators, galloping-ghost and also multi gear. One flew very successfully with proportional and an O.S.19.

Power and trimming

A motor which throttles reliably is considered essential. Here the O.S.15 fills the bill perfectly, with plenty of urge and faultless idling making touch-and-go's a joy to perform. Three-position throttle actuators have been used by some, with great success. The ideal trim to aim for is a natural left hand turn, thus needing only occasional dabs of right to fly into wind. The rudder movement may be altered for greater deflection, if more complicated aerobatics are the aim, but for sheer enjoyment and general fun flying, keep to the $\frac{3}{8}$ in. each side of neutral, as specified on the plan.

The plan itself is complete enough for anyone who has built a model or two previously, without recourse to ‘now stick this to that’ type of instructions, so I will not presume to give them. The construction is quite straight-forward and, if covered with the materials specified, the model is *very* strong, and has the basis for getting a really good finish if desired.

Build a *Hopful* and many happy and smooth flying hours will be yours.

