



# Ti-Dee . . . It's neat too! You can build S. Barrett's 18 in. span R/C model for sub-miniature Rx's and the Cox .010 - - - Full size plans overleaf →

**T**HE first time I set eyes on the small transistorised relayless receivers, I was attracted to the idea of really small radio control aircraft offering small field performance and a tolerable noise level. At the time, British gear had yet to achieve the diminutive proportions and amazingly light weight of equipment then becoming available in the U.S.A., so with the aid of my good friend Norman Murray in Burbank, California, a C & S 501 Humming Bird 3 volt relayless receiver and Babcock Mk. III compound escapement were obtained for the experiment.

My aircraft are of all sheet construction, using  $\frac{1}{16}$  in. and  $\frac{3}{32}$  in. balsa and P.V.A. adhesive which does not have the tendency to warp light balsa as is the case with balsa cement. Ti-Dee, the subject of the full size plan, is intended for the Cox .010 power plant, but could be scaled up to larger size if preferred. Flight characteristics of these tiny aircraft can be erratic as some people say but I have found them to be as stable as sports free flight. They are lively and one must be "with" the model throughout the flight.

Trim the model, test gliding over long grass to minimise the risk of damage and check very closely for warps which can grossly affect the flight characteristics of these small models. And it should also be remembered that for the Ti-Dee, even the Cox .010 engine provides plenty of power and it was found that a combination of the Cox .010 and a three bladed Cox propeller for the .020 provided the exact amount of thrust required. Never fly the model in rough weather, 10-15 m.p.h. wind is just about enough.

For first test flights, set the rudder yoke to minimum travel. Test all equipment and fill the tank with enough fuel for only a short motor run. Natural flight pattern should be a wide left turn under power and right turn on glide, a turn being preferred to straight flight in case of loss of control. If your tone transmitter emits a constant carrier wave which swamps the receiver at close range, then switch off

*(Continued opposite)*

**Top:** Prototype with small fin area, increased for better performance. **Below:** Radio installation showing batteries, receiver, miniature Otarion switch and Elmic Conquest escapement.

