

BAR-FLEA



Your **FREE** plan
for another
mini-multi R/C
model

BY JOHN KNIGHT

If Phil Kraft's *Kwik-Fli* can be scaled down to *Flea-Fli* size, then why not the *Bar-Fli* too? Such was the thinking that led to the creation of *Bar-Flea* - and it works!

This is *not* a beginner's model, quite the reverse in fact, since this little number really demands reasonable experience with aerobatic type R/C multi models and good reflexes. Prototype No. 1 died early through my own incompetence - inverted at 30 ft., and applied up elevator instead of down - ouch. (Rather bad habit for serving R.A.F. pilot - Ed.) No. 2 model was shot down by interference (monitored American voice transmission).

Both models used *K & B* 19 R/C power, driving an 8 x 8 in. nylon prop. Running on *K.K. Nitrex* 15 fuel, both prototypes would hold pace with a 61 powered *Thunderstorm* straight & level (to coin a phrase Mr Russell), which in my estimation corresponded to a speed of about 80 m.p.h., so this little fella doesn't exactly drag its heels.

Construction is pretty straightforward but here are a few useful pointers which may help. To help keep the weight as low as possible, balsa replaces ply in many places where the latter is normally the accepted material, for instance, the dihedral braces are balsa and I've never had a failure yet using balsa instead of ply here. Undercarriage blocks are not grooved - 10 s.w.g. mainlegs are clamped on with *Micro Mold* nylon saddle clamps. Even in the write-off of model No. 1, the main gear was in one piece and installed in model No. 2.

If you like, you can use 1/16 in. ply all the way along the tank bay floor - the ply is to stop the nose wheel entering the fuselage on a good 'bounce'. You might also try putting 1/8 in. sq. strips along the inside of fuselage bottom corners aft of the wing to allow rounding off the bottom of the fuse. Dowel and rubber band wing fixing is, obviously, an alternative to the nylon bolt type shown.

Radio installation must, naturally, be arranged to suit your equipment. My models used *Bonner RS* radio, but the *Kraft KPS-10* servos shown on the plan are typical of modern lightweight radio installations. In any case, your arrangement must be made to preserve correct balance and on mine, the power pack was situated vertically behind F3, elevator and rudder servos in front of F4, with the Rx. between DEACS and servos. (All set for a nice transistor sandwich in the case of a prang, but in the little ones, your options are limited - Ed.) Motor servo was fitted between F2 and F3 because I build nose heavy!

Finally, limit the aileron and elevator travels to 1/4 in. up and down initially, and in the case of the ailerons, afterwards too! I doubled the aileron movement on No. 2 model which produced a roll rate like an R.A.F. Gnat jet trainer, but it was just not comfortable to fly.

With the *Bar-Flea*, you get only 317 sq. ins. of wing area and any extra ozs. tend to up the wing loading much more dramatically than on the big machines so watch it. Aim for a weight of 2 1/2 - 2 3/4 lbs - mine was 2 lbs 14 ozs.

