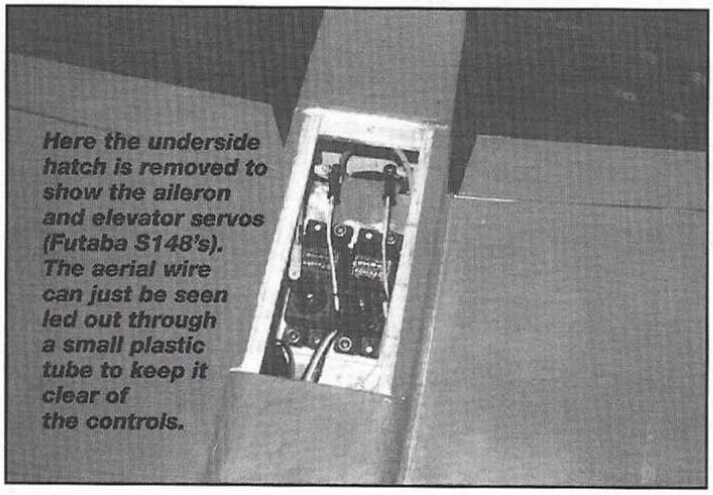
ELECTRIC 1

Roger Unitt's electric sports/aerobat is ideal as a small, fun model. Designed for a Graupner Speed 600 and two to four function radio

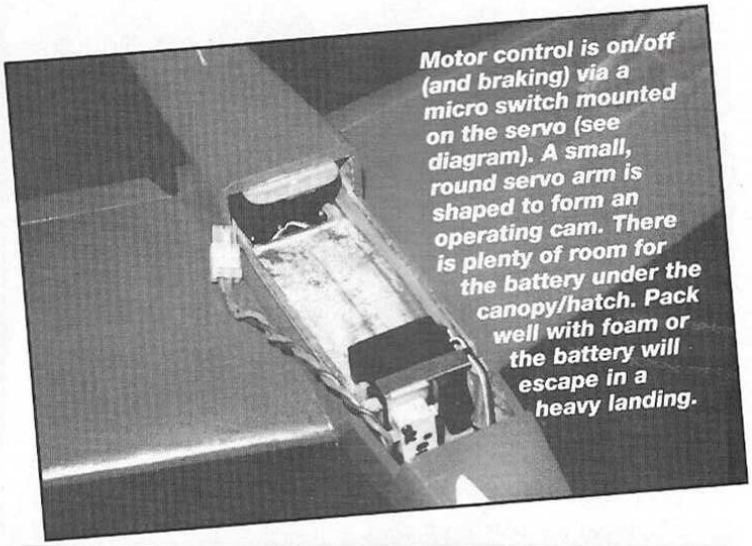
It was about two years ago that I first decided to try electric. On looking around, the most successful models seemed to be electric gliders but I wanted to try a sports/aerobatic model and a light model with a reasonable wing area seemed to be the right way to go.

Electric 1 was designed around a wing that I had previously used for a BAC Hawk slope soarer in 1986. The wing had survived the rest of the model and a subsequent model powered by a Mills

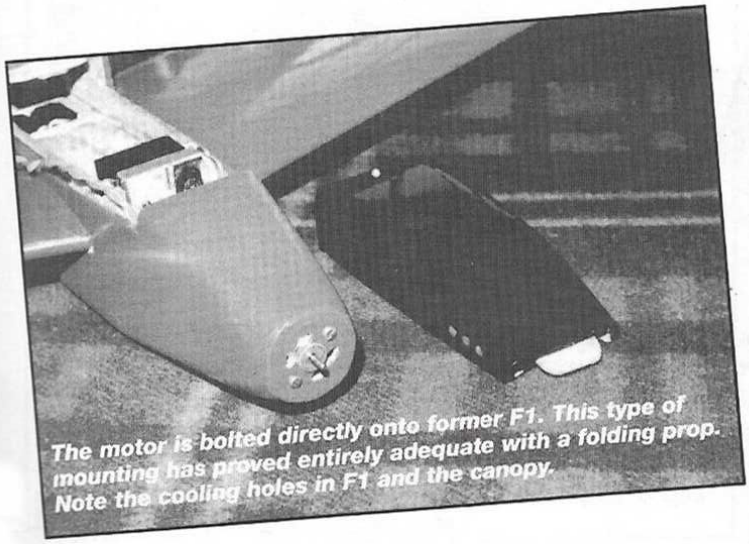
Electric 1 is a good fast sports model that could quite easily be adapted for use on the slope. Do keep the speed up (that's what she was designed for) and make sure that you build in washout on the main wing to ease the possibility of tip-stalls at slow speed.



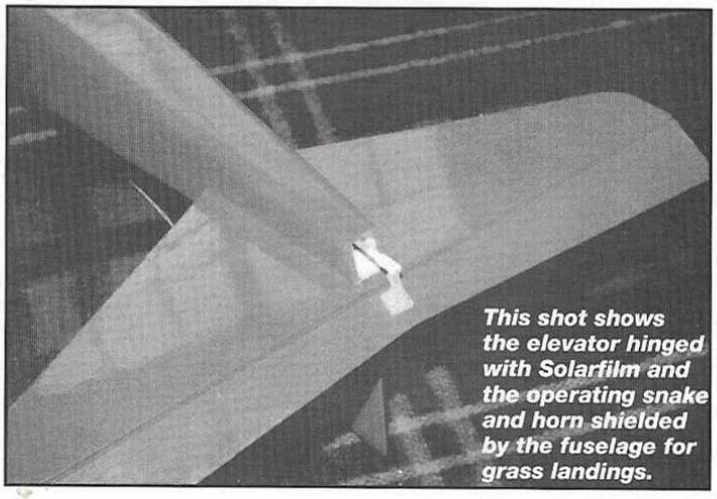
Here the underside hatch is removed to show the aileron and elevator servos (Futaba S148's). The aerial wire can just be seen led out through a small plastic tube to keep it clear of the controls.



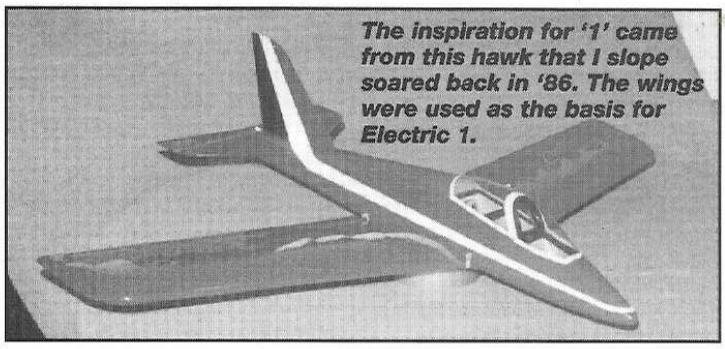
Motor control is on/off (and braking) via a micro switch mounted on the servo (see diagram). A small, round servo arm is shaped to form an operating cam. There is plenty of room for the battery under the canopy/hatch. Pack well with foam or the battery will escape in a heavy landing.



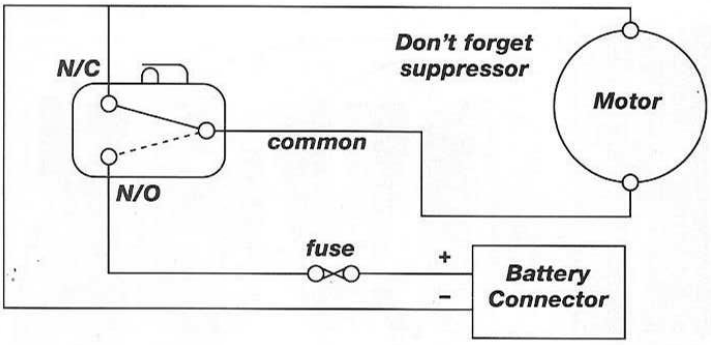
The motor is bolted directly onto former F1. This type of mounting has proved entirely adequate with a folding prop. Note the cooling holes in F1 and the canopy.



This shot shows the elevator hinged with Solarfilm and the operating snake and horn shielded by the fuselage for grass landings.



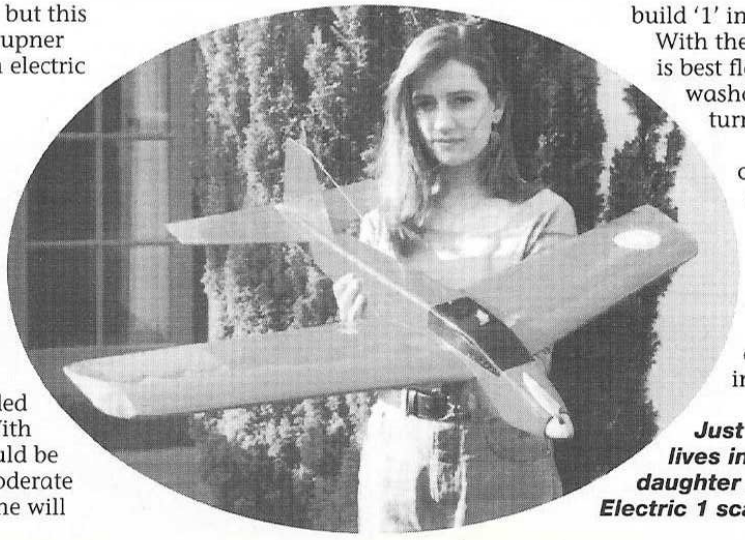
The inspiration for '1' came from this hawk that I slope soared back in '86. The wings were used as the basis for Electric 1.



.75. An old buggy motor was used but this has now been replaced with a Graupner Speed 600 (surely the best value in electric flight at around £6.00?).

The prototype, built using medium/light balsa and covered with Solarfilm, weighs 13.5ozs empty. With three S148 servos, 7.2 volt motor battery and a 250 mAh Rx battery, the all up weight is less than 2.5lbs.

The model will fly on 7.2v 1200mAh batteries but I now use 7.2v 1400mAh SCR's. It has also flown from the slope in this form, with the motor switched off provided that there is a reasonable wind. With two function radio only, AUW would be less than 1.5lbs, requiring only moderate winds on the slope. Maybe someone will build '1' in this form?



With the swept, tapering wing, Electric 1 is best flown fairly fast. If you forget the washout, it will drop a wing in slow turns.

For those of you who have considered trying electric flight as well as for those who haven't, just think - no fuel, no starter motor, no starter battery, no glow clip; in fact no flight box! Just a model in one hand, a transmitter in the other and a couple of spare batteries in your pocket - why not try '1'?

Just to prove that my household lives in modelling harmony, my daughter Emma assisted to give Electric 1 scale!