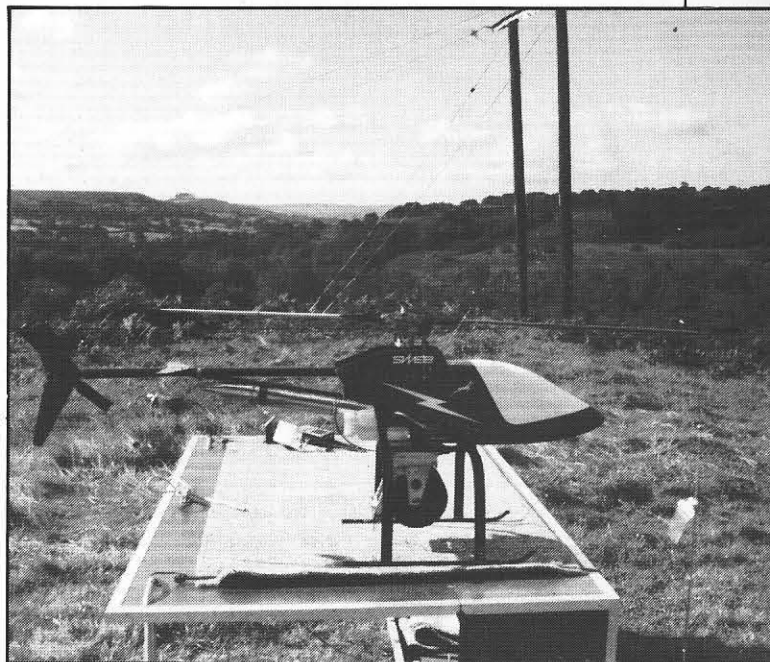


SHOOTING A LINE

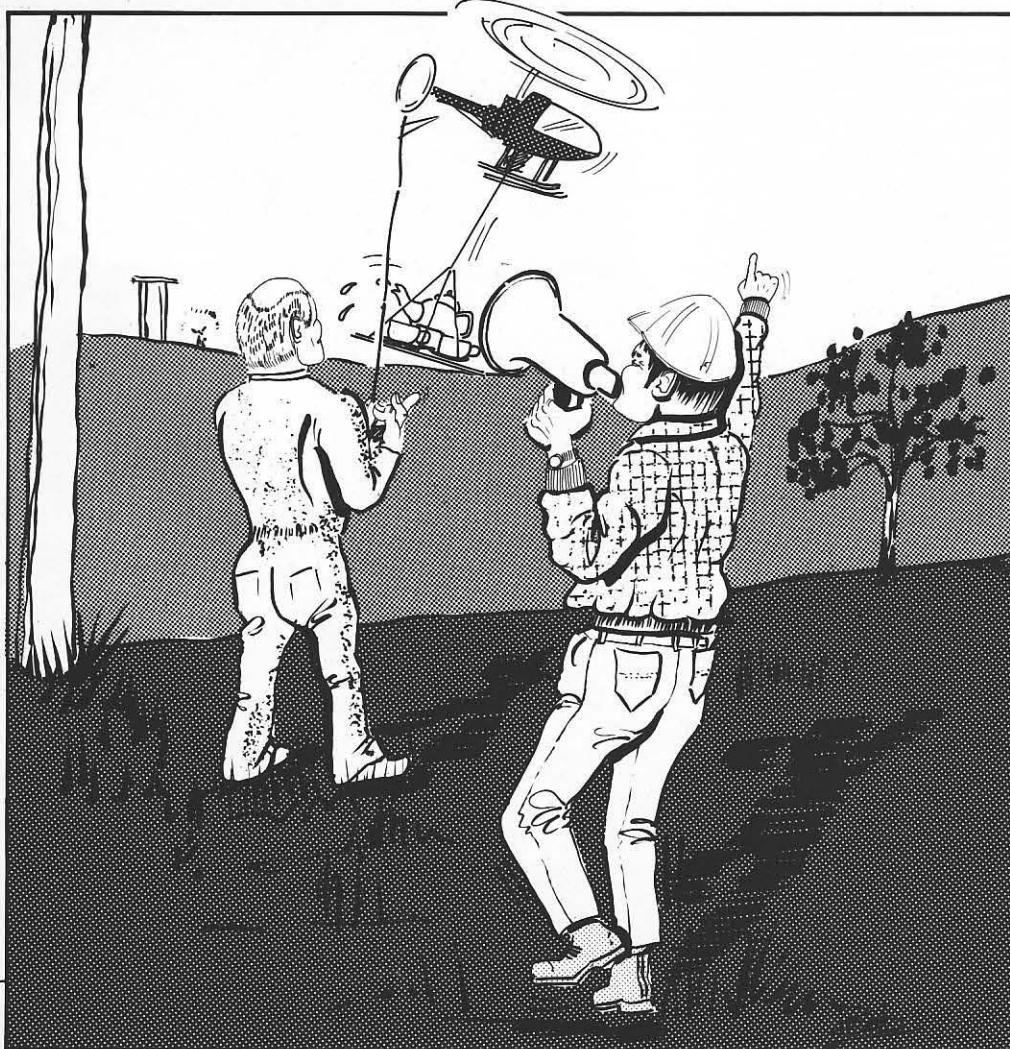
Geoff Bell does a superior job for the South West Electricity Board.

The vast majority of us who fly radio controlled helicopters do it for the sheer enjoyment it provides. Yes I know, particularly in my case, it has a lot to do with preserving my sanity or a balanced view on life too. I don't know about you, but after a hard day at the office, going out for a quick hover about has major therapeutic values, not least of which avoiding kicking the wife or cat probably comes highest. Having said that though, there must be many of us who have

wondered if the darned things could be put to a more practical use than just keeping us on the straight and narrow. We have all, probably, seen reports of the use of models for airborne camera work, either for surveying or for taking publicity photographs for estate agents, for example. I know of a couple of applications that are employing this sort of technology. What follows is a rather more mundane, but nevertheless very practical and useful, use of these little beasts.



The delivery system (model) on the portable heli-pad. Basically it's a Schluter Superior with extended skids. Between the skids is the paying-out reel carrying the fine line which is the first thing across the valley. This is then used to pull over the line on the larger reel.



Geoff Bell, who is probably fairly well known round the fly-ins, particularly in the southern half of the country, earns his daily bread working for the Southwest Electricity Board. Most of the time this involves doing devious things to vehicles. Occasionally, he gets outside to do something rather more interesting involving

Geoff Bell does a great job for South West Electricity board, especially at tea break time, 'tea's coming'.



This is how it's done. Here we can see the model on its integrated carrying case and heli-pad. In the foreground is the reel which is carrying the heavy line which will be used to, eventually, pull across the power line.

what is, basically, a Schluter Superior.

Now, let's set the scene. One of the things electricity boards have to do from time to time is relay power lines. This is fine and dandy in flat or unobstructed countryside. Something which rural Devonshire suffers from rather a lack of. If you are faced with the problem of stringing a new powerline

across a deep scrub and tree filled valley, which is further complicated by having sites of natural interest and/or animal sanctuaries, you have something of a problem. Dragging wires over this sort of terrain is not only unpleasant, heavy work and generally a pain in the lower regions, but also can damage the environment.

One way of getting round

this problem is to fire a very thin line across the valley using a rocket. This thin line is then used to pull in a thicker line which is then used in turn to pull in the power line and low and behold you solve the problem. However, rocketry is a somewhat imprecise and noisy business at the best of times. Geoff Bell and the Southwest

Electricity Board have got a rather more precise and repeatable way of going about things.

Their method involves using the aforementioned modified Schluter Superior to replace the rocket — it's slower, but comes back! In use, the helicopter transports the fine line across the valley, which is then dropped to the crew beneath. Hav-



The engine is running and Geoff Bell is rapidly running out of excuses for not taking-off and getting the job done. Couldn't you just covet one of those portable heli-pads.

This is what it's all about; on the left of the picture you can just see the crew making ready. One the right you can just see the reveiving crew's cans. Between the two is the valley to be crossed.



ing got thus far, the process described above is carried out and all proceeds as normal. Simple, right? Well, fairly, but in order to make it work, some reasonably sophisticated modifications are required to the model.

First of all, the model requires the ability to carry and extend a reasonable amount of line without getting the line and itself inexorably tangled together. To do this, some form of constant tension reel is required to maintain a steady line extension. This comes in handy later, as it is used to drop the end of the line to the receiving people by parachute. If you look at the helicopter, you will see that it has been fitted with a very much extended set of

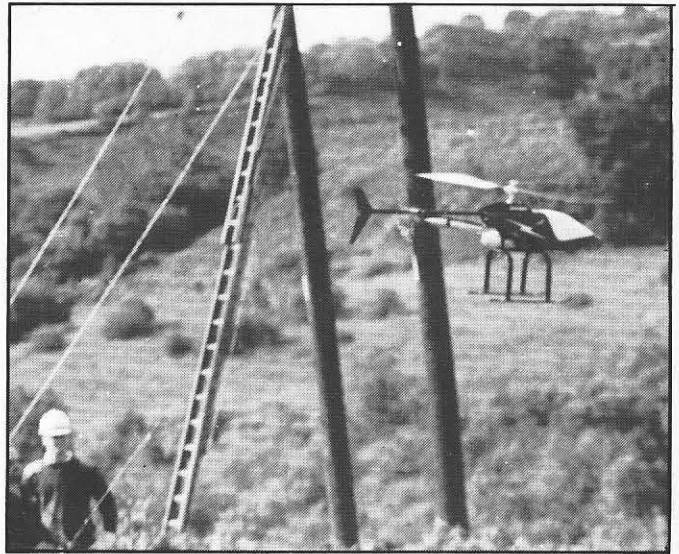
On the way over the valley with the line laying reel on board.



landing gear between which is the reel system. The reel system is attached by a radio-releasable catch to the underside of the helicopter beneath the main shaft. If you look carefully, you will see that there is a box between the reel and the attachment points, this contains the parachute. The line itself is paid out from the reel against a tensioning system and brake.

This consists of a spring loaded arm which bears on the edge of the reel preventing it from rotating unless the arm is lifted away by the line. The line goes under the arm so that as the helicopter pulls on the line, the arm is lifted away from the reel thus permitting the reel to pay out wire. The effect of this is to maintain a constant tension in the line, just sufficient to pull the arm away from the reel allowing a steady reel-out to occur without excessive pull on the helicopter.

In use, one end of the line is anchored at the takeoff point, ready to be attached to the follow up line, which is in turn, used to pull the power line across later. The helicopter is lifted off from its preparation table and is flown across the valley, obstacle or whatever is to be crossed, until it is beyond the receiving crew on the other side. At this point the reel is released remotely and descends, complete with the attached line under a parachute and the helicopter is flown back to the launching



A job well done — Geoff backs the "delivery system" back to the pad at the end of another successful day.

point. It all sounds remarkably straight forward but in practise, I suspect, requires a fair amount of piloting dexterity assisted by the use of walkie talkie radios and directions from the other side to ensure that the reel is dropped somewhere fairly sensible.

We understand that the process has been so successful that it is now readily accepted by the Southwest Electricity Board and that the model is maintained in a ready condition so that it can be pressed into use at any time that this sort of difficult line laying in awkward country is required.

We know several other characters out there using their helicopters in a serious working fashion, that is to say other than in the film industry. That is not to say, of course, that the film industry is not a serious use of model helicopters, but in this case they are standing in for the real thing, rather than working in their own right. What we are saying is that the use of model helicopters as a working tool; camera work, line laying, pollution gathering, etc., is rather more common than you might at first believe. We will be bringing you more news of this sort of escapade from time to time.

