

HOVERING ABOUT

by JIM MORLEY

WHEREAS a satisfyingly substantial number of modellers, not only existing helicopter pilots, have expressed agreement with my comments in the first *Hovering About* that helicopters should behave like helicopters and not try to imitate multi-aerobatic fixed wing aircraft, there has been an ominous silence from victims of the string training method of the February issue. Comments from those who no longer need to try it have ranged from ridicule by those with short memories to reserved enthusiasm by others. All were capped by the suggestion that I could make a fortune selling it with a sheet of instructions! I won't be trying that, but I will send a free one for the best letter about experiences using it.

Going back to the first *Hovering About* again, I also commented that 'individual' 'copters would begin to appear. I should have realised of course that I was a bit late and photos to prove it accompany this article.

The monster *Huey Cobra* by H. Quek of Mitcham, Surrey is a rather magnificent effort that perhaps lacks the recognition it deserves because at a glance it is just another early *Schluter* kit. In fact it is some 20% bigger, being 85in. long and with an all up weight of 17½lbs. Mechanics are *Schluter*, power *Veco 61* and construction mostly balsa. Not flown much I believe due to the usual problems associated with oversize models.

The other example, also with *Schluter* mechanics, was made by Mick Harris of Reading and suffered from that other fault of being flown too much. Again also of mainly balsa construction, perhaps it would have lasted better if stronger, though it proves it can be done. The *Wessex* may not be a pretty subject either but it does have character, a worthy exercise and a pity that Mick didn't take a fibreglass cast from it. He apparently didn't even take a photograph of it, having to scrounge the negative from a friend at my prompting. Thank you.

Public relations Criminal Band radio

It is 11 a.m. and the telephone rings: 'Hello, Yorkshire TV here, can we come at 12 noon and film some flying shots, we're making a film on CB radios!' 'Yes,' I replied, 'see you at twelve.'

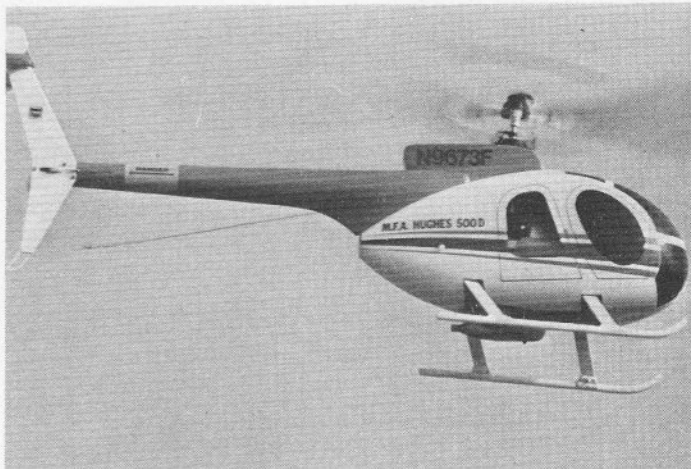
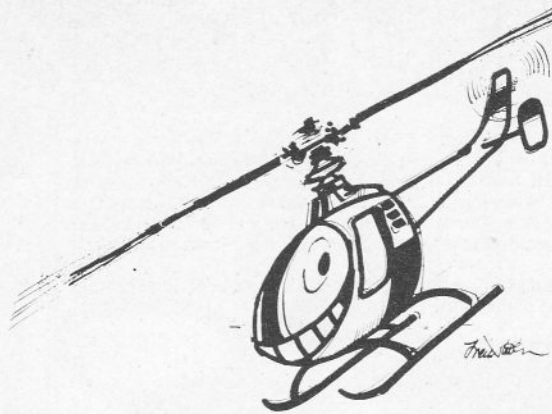
In half an hour nine models had arrived at the flying ground and five pilots. There was a 30 knot wind, snow on the ground, and huge puddles everywhere.

The camera crew arrived and we decided to fly my Morley Bell 47, as the cameraman could keep it in frame much more easily than a plane.

The crew set up and I started the engine, 'O.K. take off.' The Bell was easy to hover in the 30 knot wind, five minutes later the model landed. In the wet conditions the floats really were useful. Phil McDonald, Yorkshire TV's reporter then interviewed our chairman, Dave Goose.

So wrote Brian Fearnley, Secretary of Grimsby & District MAC, a few weeks ago. Apparently the model did help to put a good case forward for the modelling cause generally and I believe that 'Criminal Band' radios were seized by customs and excise as a result of their efforts. That side of

Below: monster Huey Cobra by H. Quek of Mitcham, Surrey, tips the scale at 17½lbs. Schluter mechanics, Veco .61 powered. **Below right:** another big one by Mick Harris of Reading — a Wessex — also uses Schluter mechanics.



Above: latest offering from Model Flight Accessories, the Hughes 500D is now in full production. Features Morley mechanics. More on this one in a future issue.

the story was reported in last month's magazine. The Yorkshire TV's 'Calendar' programme goes out to thousands of people all over South Yorks, Humberside and Lincolnshire.

Planning permission

Problems with flying sites are old hat, of course, but an interesting happening took place recently. A private field settled upon by a group of helicopter enthusiasts offered by a friend developed into quite a regular gathering point. Almost before it became a club it was decided to safeguard the friendship with appreciative gestures, i.e. fix up the gate on the field, tidy up some dead trees in the hedges, take out a group insurance policy and do all the usual with silencers etc.

Of course there was an objection. Only one, and not from the nearest dwellers but from an adjacent landowner who really went to town on the reasons for his objection and tried to get an injunction to stop the flying. The local council were perhaps in an awkward position, and referred the matter for town and country planning permission to settle the matter.

At the committee meeting, or hearing, when the objections were aired it was pointed out that the danger element, mostly concerned with the idea that the models would crash on a nearby busy road, was considered very small by the insurance company and that as a pleasure activity it came within the purpose of the green belt land idea.

The end result was that there now exists a small but pleasant field with planning permission to fly model helicopters. It is tider than it was and a



portion of the grass is shorter than it would have been, but in these days when authority finds it easier to say no than stick out their necks, it is nice to see that common sense prevailed. Thanks and congratulations to that particular authority.

Ceiling

A reader has asked why three ceilings are quoted on full size specifications. For example, one version of the Bell 47G (there were a great many spread out over its quarter century of production since 1945) has a service ceiling of 19,000ft., a lower ceiling designated IGE 17,700ft. and thirdly OGE designated 12,700ft.

This means that our Bell 47G, although able to fly up to 19,000ft. would sink to 12,700ft. if the pilot tried to hover instead of moving forward. That is, of course, just to make it more interesting, unless there is some ground in the way in which case it would hover just above it so long as this was not above 17,700ft. If it was, there would be a proportional sized landing bump and an inability to take off again.

Our old favourite is responsible for the difference between service ceiling and hover ceiling, and ground effect for that between the two hovers. In Ground Effect and Out of Ground Effect.

Just one of the problems facing the full-size pilot in high terrain which, of course, is further complicated by atmospheric pressure of the day, and temperature, so it is not as clear as implied by the above.

Translational lift is the extra lift you get from the same power when moving forward, a simplification is to compare it with the increase in propeller r.p.m. that you get when your fixed wing job moves forward at speed. Ground effect does not mean a lot after the rotor is half its diameter up, in other words it only helps to get the skids clear of the ground and is caused by the increase in pressure due to the downwash air having to change direction rather smartly.

These characteristics apply to models too.

Developments

Pressure of work (I don't play helicopters full time) and weather conditions just haven't allowed development of the five bladed head on the *Sea King* so apart from the accompanying photographs the promised information on this doesn't exist.

I can promise some features of the 'Hughes 500' by *Model Flight Accessories* which will shortly be in the shops, having at last overcome the production problems.

Also by the next 'Hovering About' some of us will have been certified — or is it certificated — at the rather splendid S.M.A.E. Odiham Spring Gala. This will be the first gathering where this interesting scheme is tried out; there will be apparently two certificates, Part A being made difficult by a right-hand circuit and Part B, with substitute manoeuvres to suit helicopters, more arduous perhaps but not much more difficult than Part A. We'll see!

If this copy is early enough let me remind you to see me at Sandown Park, May 13/14. The RipMax trophy will have just taken place so the next event is Iwade, Kent, on June 17.



Above: Brian Fearnley hovers his Morley Bell 47 for the T.V. cameras. See text 'Public relations C.B. radio.' Below and bottom right: author's 5-bladed rotor 'Sea King' amid the winter snow. Below left: Mike Young helps Nigel Brackley set up the new Revolution 'Commander,' first production model to use a freewheel on the main rotor to facilitate autorotation. Bottom left: rotor head of Revolution 'Commander' looks familiar! Interesting to note the return to teeter head and fly-bar.

