

RADIO TODAY

News about amateur radio compiled by Richard Lamont G4DYA

MOULD spreads

The Ministry of Defence's MOULD mobile radiotelephone system, which has been causing interference to amateurs on 432MHz in several areas of the UK, is on target for completion this year. Despite this, the MoD says it does not yet know how many of the remaining transmitters will be on 432MHz.

In this month's *Radio Today* we investigate the background to the MOULD system.

Home defence

Two years ago, the Government decided to revamp its Home Defence preparations. The new plans, which are detailed in the Defence Estimates, include a £7,000,000 contract with Pye Telecommunications for the MOULD system. Pye described the project in a press release in December 1981 as "mobile, single channel, all-informed, radio command and control systems for each of the Home Defence Regions of the UK mainland. The Commander of each Region will be able to talk directly to the forces under his command from his headquarters, irrespective of whether those forces are still in their peacetime barracks or deployed to operational areas. The all-informed, mobile communications available to him through MOULD will allow the Commander to exercise effective control over military operations in his Region.

"In order to provide the wide area of communications cover required in each Region, it has been necessary to adopt a communications system similar to that used by local authorities, police and fire services and other agencies

such as gas and electricity boards. These rely on a network of static repeater or talkthrough stations, situated on suitable high ground and linked together to provide the necessary degree of intercommunications. In MOULD there are to be over 100 of these sites, located on existing military establishments or sharing facilities with other government or local government agencies. A limited capacity to expand the system or to replace unserviceable fixed sites will be provided using Land Rover-borne mobile repeaters.

"The MOULD user will be provided with a simple-to-operate commercial radio equipment which can be used as a desk-top, a mobile or a portable station, depending on the installation kit provided. Many radios will be provided with more than one installation kit so that the same equipment can fulfill more than one role."

The Home Defence Region covering London was the first to get MOULD in late 1981. Other Regions followed during 1982 and 1983. By the end of 1983 all Regions should be equipped.

What is it for?

It seems reasonable to assume that in wartime the Army would be rather busy. Yet there are a number of Home Defence duties that it would have to carry out, as well as fighting the war. Such tasks include the guarding of 'key points' (ie. protecting important installations from sabotage) and providing 'military aid to the civil power' (stopping riots etc.). The regular bits of the Army would have their hands full, so tasks like Home Defence would presumably be

carried out by odd bits of leftover military like the Catering Corps. These odd bits of military have widely varying and incompatible radio systems. Some have no radios at all. MOULD appears to fill this gap.

EDITOR'S NOTE

Our object in publishing this story is to bring to the attention of the readership the growing number of incursions into the amateur radio frequency allocations. Our intention is not that of mischief making. What the Military decides to do in its own exclusive bands is not ours, or anyone else's business.

However, if the MoD or Home Office decides to place a covert communications system in a section of what is, after all, a public broadcast band, then it must expect the presence to be noticed and noted. Furthermore, our responsibility for amateur radio interests compels us to bring any further incursions into the public view.

G4JST

Why 432 MHz?

One question that is often asked is "Why did the MoD stick an allegedly classified system into one of the most public bits of the radio spectrum?". One possible clue lies in the choice of Pye as the supplier. (Military radios are usually made by firms like Racal and Plessey.) Pye's description of the equipment as "simple-to-operate commercial radio equipment" suggests the use of standard PMR-type equipment, which is not normally made for military frequency bands (eg. the 230-420MHz chunk). MOULD may have been stuck in the 432MHz band simply because PMR equipment could be used, at much lower cost than equipment specially made for the military frequencies. Such economies have been a common feature of Home Defence preparations in the past.

Interference

Amateurs who have studied MOULD report considerable interference — to both amateurs and MOULD itself. The transmitters that have been heard on the 70cm band are listed in Table 1. These transmitters are reported to be interleaved with the amateur repeater output channels by a 12½kHz offset. The Winter Hill transmitter, which apparently came on just before Christmas with about 500 watts, is said to have made GB3LL unworkable in parts of