Metrewave

Our regular VHF column

By Jack Hum G5UM

It is no bad thing to start this series straight away with an attempt at a definition: What do we mean by metre-wave? The answer put in the simplest of terms reads like this: from 10m and upwards in terms of wavelength is HF. From 10m downwards is metre-wave. In amateur radio terms the 28MHz band ('Ten') is a HF one, but the 70MHz band ('Four') is a VHF one. So is 144MHz ('Two'). Higher than that you move into the UHF region (officially as from 300MHz). So the ham band at 433MHz is UHF. So is 1.3GHz. Higher still, beyond the 3GHz benchmark, it becomes microwave.

Metre-waves, then, will be the business of this continuing feature in *HAM RADIO TODAY*. It will talk about the frequency spectra delineated above. But *how* will it do its talking? Your editor and your columnist exchanged some earnest correspondence about the 'how' of METRE WAVE and this is what emerged from it:

Both of them agreed there was little point in making this feature an account of the latest feats of derring-do on the VHF and UHF bands. A score of magazines around the world (three in the United Kingdom alone) follow this procedure. There is much to be said for their approach. By presenting a conspectus of what was worked and when, under what conditions and with what modes, they built up a body of knowledge over the months and years about the peculiarities of metre-wave propagation — and whatever the professionals may suggest, there is still much to be learned about it. A corps of diligent, dedicated observers like the amateur radio movement can add to this body of knowledge although not perhaps in so dramatic a form as sixty years ago, when all was young, little was known about how transmitted signals got where they did, and it 'hadn't all been done before'.

'Thousands of newcomers...'

Yet how many of today's metre-wave operators are dedicated in this way? Perhaps a thousand or two. Contrast their number with the total of Class B licensees who choose to pursue their VHF/UHF activities along rather different avenues. How many are there? Let's take a look:

The 1983 edition *The RSGB Callbook*, that indispensable adjunct to every metre-wave person's station, lists 80 pages of them, more than a third of the content of that publication. Add to them another half-dozen callsign blocks issued since *The Callbook* went to press last August and you conclude that some 4,000 new Class B callsigns have come onto the air in the last four or five months. Granted that a sizeable number of their holders will take an interest in the DX capabilities and propagation quirks of the metre-waves, an even more sizeable number probably won't.

It is to this enormous aggregate of VHF and UHF operators, who wish to pursue the ham radio pastime in less dramatic ways than those normally publicised, that this column will address itself.

At any time, thousands of newcomers to the metre-waves, Class A as well as Class B, are in search of information about them. It is hoped this column will be able to help. It won't set out to be a textbook on this or that; what it *will* attempt to do is to discuss some of the subjects daily aired on the bands, like antennae (on which probably more has been said and written than anything else in ham radio), on the 'how' of operating, on 'Morse' or not?' and much else.

Saying your piece

Your METRE WAVE feature will also encourage its readers to 'do their own thing' by turning in subjects for discussion, by writing in to agree or disagree with what is said here, by generally helping to stir things up — the unfailing sign that a column is being read and noticed. Could be that some reader somewhere might feel strongly enough or enthusiastic enough about a metre-wave matter to occupy the whole of this page one month!

Enough of preliminaries. Now, getting right down to basics, let's go straight to one of the most interesting bands of all, 70cm.

Even to say that a band is 'the most interesting' is apt to bring the protagonists of other bands rushing to the ramparts declaiming 'Wait! Why 70cm? Why not 70MHz (or whatever)?'. And of course they would have a case. So would the adventurers on the microwave scene

TABLE 1

432 to 432.15MHz	telegraphy
432.15 to 432.5MHz	telegraphy and single sideband
432.5 to 432.8MHz	all modes
432.8 to 433MHz	beacons
433.0 to 433.375MHz	fm repeater output channels in 25kHz steps; although RB8 is listed as a repeater output channel it is widely used as a popular simplex channel (433.2MHz).
433.4 to 433.5MHz	fm simplex channels in 25kHz steps; national fm calling spot is 433.5MHz
434.6 to 434.975MHz	fm repeater input channels in 25kHz steps
435 to 438MHz	reserved for satellite communication
434 to 440MHz	amateur television in frequency areas not employed by other users.