

where every QSO is an event, where an enormous amount of latter-day expertise is put into equipment designing and building, where indeed the appellation 'most interesting' may truly be applied.

Let's stick to 70cm. Don't lament the restrictions which were placed on the use of a couple of megs at the bottom of the band last year. Realists know that the space was little used. The space on 'Seventy' which is used (and intensively at that) is the bit in the middle, meaning from 433 to 435MHz.

\*Excluding 50MHz, not yet in general allocation.

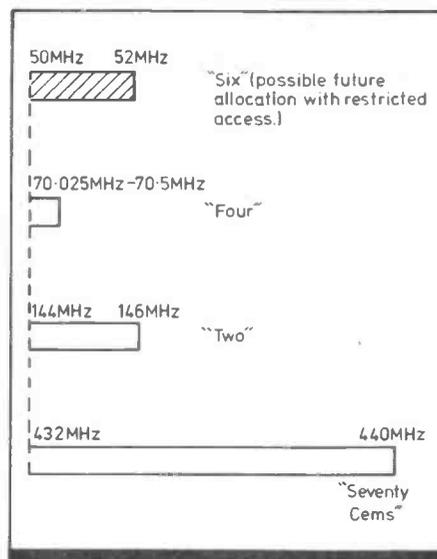
## The ordered logic of the bandplan

Here lies a profusion of simplex channels plus repeater inputs and outputs in the ordered logic of VHF/UHF bandplans. It might be rash to say that more repeater stations are provided on '70cm' than on 'Two' for the number is changing all the time as new ones are commissioned. But it would not be at all rash to say that a ham-mobile driving from Thames to Tyne would rarely if ever be out of range of one or other repeater station along his route, with the ever present possibility that many 432MHz simplex contacts might be initiated following a through-repeater one.

No excuse at all is made for talking about repeaters first in a survey of 'Seventy': thousands of operators use them in the course of a year, noting them to be less congested than repeaters on 'Two' than is sometimes the case on 'the next band down'.

'But isn't this because there are fewer people on 70cm?'. Regularly the question is thrown at your columnist half a dozen times a week. And the answer to it is 'Yes, it is less congested', and this is for two reasons: first, that a lot of newcomers who can't afford more than one transceiver to start with, will plump for a 2m...but secondly one *must* demolish the legend that there's nobody but nobody on 70cm. It just isn't true.

You could say that 70cm is 'three times the frequency of 2m and gives three times less range'. You could add what many of its users think: that it is three times as interesting! All very off the cuff, especially that bit about 'three times less



range', because QRB (look it up) turns very much on what kind of equipment and particularly what kind of antenna is in use.

We are back to antennae again, you will notice ('that most discussed of subjects'). Look at a half wave rod for 70cm — just a foot of metal — and you will rightly remark 'This can't possibly get me any place'. You would be right. Make it up into a beam (for your home station, anyway) and you will be in for a big surprise — but more about antennae in depth (or height) in a later METRE WAVE column.

If repeaters and FM simplex are regarded as the major part of the traffic carried by 70cm one should not fail to invite attention to at least three further activities offered by the band. One is the 24-hours-a-day beacon service (yet another subject for later discussion in METRE WAVE). Another is DX at the lower end (telegraphy and single sideband) and a third is television at the upper end.

All these modes of emission find their place in the bandplan shown at Table 1.

TABLE 2

144.0 to 144.15MHz	telegraphy (calling frequency 144.05MHz)
144.15 to 144.50MHz	single sideband (calling frequency 144.3MHz)
144.5 to 144.845MHz	any mode
144.845 to 145.000MHz	beacon area
145.0 to 145.175MHz	repeater inputs in 25kHz steps
145.2 to 145.6MHz	fm simplex channels in 25kHz steps; national fm calling spot is 145.5MHz (S20)
145.6 to 145.775MHz	repeater output channels in 25kHz steps
145.8 to 146.000MHz	satellite service, never to be used for local fm conversations.

## Higher still

Officially, the ultra-high-frequency spectrum extends from 300 to 3000MHz. It therefore embraces 70cm. But it also includes 23cm which to many operators is a microwave area regarded as esoteric today as 70cm was a dozen years ago (but not by its devotees). The microwave region is one that calls for separate discussion here (like antennas and beacons already mentioned — and apologies for putting a few subjects into the pending tray. Be assured they will reach the action tray before many months have passed).

## Popular 'Two'

The enormous increase in activity in the 144-146MHz area during the last two years and the spread of the repeater service in the last twelve, means that 'Two' is on the go virtually for all of the day and much of the night as well. It was very different in the old valve era: customarily one 'tuned the entire band for any possible call'. Some wags were wont to say 'Any impossible call! Today on 2m there is always somebody to talk to; where you can talk to them and on what modes is made clear from the bandplan shown at Table 2.

It must be admitted that 'Two' has its detractors, those who deplore the perceived penetration of what they call 'the CB mentality' into it. What needs to be emphasised is that former Citizen's Band operators who come to true amateur radio do so with some experience of microphone useage plus the determination to pay for and take (and pass) the Radio Amateurs' Examination. Most of them as they become observant of ham radio procedures quickly rid themselves of inane phrases like 'the handle' and 'break, break', recognising that the most ef-

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