

## Operation

Most QSOs on 23cm are on CW or SSB. In past year if telephony was required, eg for class B licencees, FM would be used by tripling up both frequency and deviation 70cm care being taken to avoid over deviation.

Although a sizable proportion of contacts are made on the band by first establishing contact on 70cm, beaming up and then transferring to microwave, today it is more common for QSOs to result by answering CQs on the band, or by calling in during, or at the end of an established contact between two other amateurs. Many regular skeds on the band tend to stir up activity, Sunday Mornings and Monday/Tuesday evenings being particularly active. The 23cm enthusiast tends to look at his barometer and TV weather maps very regularly and will make a run for his gear if he feels that a tropo duct is becoming likely.

Microwave addicts are used to scratching around in the noise for traces of weak signals and will be turning their beams round and round to find that elusive DX contact, and once a station has been detected, no matter how weakly, the odds are that turning the beam will considerably help. By the time he returns to the CQ call he may be fairly easily receivable by the other station who will then turn his beam. For this reason, CQ calls are usually much longer, but with fairly frequent breaks. Patience is undoubtedly a virtue on this band, and it is surprising how frequently a reasonably well sited station will receive a reply to his CQ call on 1296.200 MHz. This frequency is used for both CW and SSB calling.

## Beacons

Of tremendous importance are the 23cm beacons transmitting throughout the UK and continent of Europe between 1296.800 MHz and 1297.000 MHz. Note the beacon list from which it can be seen that most stations in the south and Midlands should be able to receive at least two of them. I normally receive at least five under the worst conditions, seven on average, but up to 20 when all hell is let loose! Alas, these

beacons have a habit of going wrong, and many an amateur has torn his rig apart when a beacon has blown itself up. GB3DUN has been significantly weaker for around 18 months, than it used to be, whereas several others seem to go on and off several times a year. GB3BPO is supposed to be an extremely accurate frequency standard, but its FSK deviation is both very wide, and wobbles around like a jelly.

These beacons are superb indicators of band conditions, and with me, GB310W can vary from a minimum of S7 to a maximum of 20dB over S9. The one beacon that almost goes through the roof in signal strength in very good conditions is GB3BPO approximating to perhaps 40dB above the level required for S9! When this occurs one starts hunting for continental beacons, and PA9QHN can come up from below noise to 5 and 9 within an hour, similarly ON5SHF can also indicate an opening to the southeast when it becomes possible to work through to Switzerland and even Czechoslovakia and Austria.

In September 1982, I worked four SM stations including one in JR square on an island (Gotland Island) off the east coast of Sweden at around 1340 kilometers. On the same unforgettable evening I worked three OZs, and many PA and DL stations as well as some new counties in Wales. Once you are known on the bands, you will probably find that a friend will call you up to warn you of an opening if you are not heard transmitting. It was G8DKK in Luton who kindly warned me on this occasion.

## Portable

There is much enthusiasm for going out portable on 23cm, even if one only has 2W output and a Jaybeam 15/15. Many continentals tend to belt for their highest local pimple at the slightest sign of a duct. It is quite incredible how so many amateurs seem to appear from nowhere when good conditions begin. Whilst many outstanding SSB QSOs occur, the use of CW is almost essential if you want to do really well on the band, and an perusal of the call signs who have obtained the 23cm senior award shows that all five stations are CW operators, although nine class B stations have achieved the standard

award without CW. G4KIY has very remarkably achieved a 40 squares award which would be good going for many stations on 2m let alone 70cm.

## Lunatic

Many stations in an attempt to work some new county will make regular skeds over a period of a week or so every night with cooperative DX station, and it is amazing how frequently patience is rewarded. I remember how Petra, G4KGC, in Towcester, Northants, managed to work a South Wales Station eventually after many attempts by bouncing off, it is assumed, lurking aircraft flying high up across the path in one of Petra's most difficult directions. I remember my first QSO with Northants, which took around two hours copying one letter at a time on CW! The real DX hounds on this band, including myself, are probably rated by many others as complete lunatics. But everyone has his poison!

Almost all normal operating is between 1296MHz and 1296.4MHz, and even in openings, almost all the activity is within 100kHz of the calling channel. ATV is becoming more frequent on the band, but rather lower in frequency, and there is so much bandwidth available that many new modes are being considered away from the normally used frequencies. While you may get quite a lot of pleasure if you are in a moderate location and running relatively low power, it must be emphasised that really good antenna systems, very high quality cable and good receiving systems are vital if you want to take to the band very seriously. This is not to say that a surprisingly modest system cannot give the odd amazing DX contact in an opening, although such a system would normally give very disappointing results by comparison to what is now regarded as average on the band.

## Propagation:

To describe 23cm propagation as "line of sight" is about as innaccurate on 23cm as it would be to use the same definition for 2m. What is particularly fascinating about the higher band is that while auroral and meteor scatter propagation is virtually non-existent (OK, I'll pro-