



RSGB Spectrum Forum Microwave Manager Report - Jan 2024

The Microwave Manager (RSGB MM) is the volunteer RSGB Spectrum Forum member looking after the amateur radio interests in the bands above 1 GHz and assists the RSGB on liaison activities with Ofcom and other bodies. The RSGB MM volunteer also assists the IARU and chairs the IARU Region 1 Spectrum and Regulatory Liaison Committee.

Actions Arising: n/a

Summary:

During 2023 a full microwave contest calendar including portable operations has been possible for both RSGB events and those organized by special interest groups. Round tables and rallies have also made a welcome return.

A review of the RSGB UKAC 23cm results published by the RSGB Contest Committee shows the number of clubs taking part in the 1.3 GHz UKAC series this year grew by 4% compared to 2022. The total number of different call signs submitting entries across the year was 224, exactly the same as in 2022. Generally the SHF UKAC results (2.3 GHz to 10 GHz) show a small decrease in the number of clubs entering (2) but a small increase (4 max.) in the number of call signs active. In general though the level of activity has remained largely the same. As usual the 2.3 GHz band attracts the highest number of entries followed by 10 GHz with 3.4 GHz and 5.7 GHz attracting about the same.

For 2023, the figures for activity in the higher bands at 24GHz and above show small variations in the average number of active stations compared to 2022. However, the small increases and decreases are most likely due to outside factors (e.g. calendar clash, poor weather, etc.) affecting the ability to operate rather than any significant changes in the number of active stations. Over-the-air experimentation continues to take place to try and improve results on 122 GHz using the VK3CV units especially using weak signal digital modes.

In addition to the RSGB, groups including the UK Microwave Group, the BATC, AMSAT and the EME community organise activity events that include operation in microwave bands. All these groups provide forums and web-based resources to provide advice and encourage participation.

As ever, more activity in all the bands should be encouraged as the commercial interests in using frequencies in amateur bands are not diminishing. Recent changes to the UK amateur licence proposed by Ofcom will open up new possibilities for Foundation licence holders in 2.4 GHz and 5.7 GHz and it is hoped this will encourage newcomers onto the GHz bands.



The Microwave Manager provided a presentation to the RSGB Convention and two UK Microwave Group meetings on the 23cm band developments in ITU-R.

Microwave Bands Round-up

1.3 GHz:

During 2023 the work within the ITU-R on WRC-23 Agenda Item 9.1 Topic b) concerning the 23cm band concluded. As expected the outcome includes guidance on how amateur and amateur satellite services can continue to use the band whilst protecting the primary radio navigation satellites service (RNSS). The guidance (which is not mandatory) takes the form of a new footnote in the Radio Regulations that makes reference to a new ITU-R Recommendation M.2164. The changes to the Radio Regulations will come into force in January 2025 but in the meantime the European region will continue to develop its own regulations on the topic taking into account the WRC-23 outcome. It is likely that some changes to the amateur 23cm band plans will become necessary in due course.

2.3 GHz / 3.4 GHz / 5.7 GHz / 10 GHz:

There have not been any changes affecting our use of these bands in the past year, however the recent Ofcom proposals to revise the UK amateur licence will enable Foundation licensees to build their own equipment and access the 2.4 GHz and 5 GHz band with 2 watts of power. This will open the opportunity for Foundation licensee access to the QO-100 geostationary satellite in the 2.4 GHz band.

24 GHz / 47 GHz / 77 GHz / 122 GHz / 134 GHz and 241 GHz:

No changes in these bands in the last year but interest in short range applications for automotive radars and security scanners continues around the 77 GHz, 122 GHz and 134 GHz bands. There are studies underway in CEPT on these new applications. So far no impact on the amateur use of these high frequency bands but some commercial operators may wish to “prioritise” their use.

The availability in the UK of ‘Spectrum Access: EHF’ licences for commercial usage across three bands (116-122 GHz, 174.8-182 GHz and 185-190 GHz) continues. This Ofcom initiative will be reviewed in 2024.

>275 GHz:

The UK NoV process remains open for >275 GHz access. In ITU-R, studies will commence on new identifications for radiolocation service applications in the frequency range 275-700 GHz under agenda item 1.8 for WRC-27. In addition WRC-31 may consider new allocations to the fixed, mobile, radiolocation, **amateur**, **amateur-satellite**, radio astronomy, Earth exploration-satellite (passive and active) and space research (passive) services in the frequency range 275-325 GHz in the Table of Frequency Allocations of the Radio Regulations.

Barry Lewis G4SJH, RSGB Microwave Manager

January 2024