WRC-15 Agenda Item 1.1
Future demand for mobile broadband spectrum and consideration of potential candidate bands

Joint response from the Radio Society of Great Britain, UK Microwave Group, Amsat-UK and BATC.

April 29th 2013

Introduction

This response is a joint one to the above Ofcom discussion document from the Radio Society of Great Britain (RSGB, www.rsgb.org.uk) and its national affiliates who have microwave spectrum interests - Amsat-UK (www.uk.amsat.org), UK Microwave Group (UKuG, www.microwavers.org), and the British Amateur Television Club (BATC, www.batc.org.uk).

RSGB is recognised as one of the leading organisations in the world in the field of amateur radio. It collaborates with its fellow national societies via the International Amateur Radio Union (IARU) through IARU Region-1 (www.iaru-r1.org).

Amateur radio is a science based technical hobby enjoyed by over three million people worldwide. From a statutory point of view it is fully recognised by the International Telecommunication Union (ITU) as a Service and is listed in the ITU Radio Regulations as the Amateur Service and the Amateur-Satellite Service.

The amateur and amateur satellite services have ITU secondary allocations in the 1.3, 2.3 and 3.4GHz bands. These support considerable innovation yet continue to be eroded, principally by mobile broadband applications

We have limited our response to largely these bands but also make the point that prior to consideration of any further spectrum for mobile broadband , that

a) More efficient use is made of existing IMT allocations

b) Stronger evidence of continued growth is required , given that market saturation and greater efficiency will be factors in future

c) Incumbents displaced by new mobile allocations should be fully catered for

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RSGB, Amsat-UK, UKuG & BATC, April 2013

Questions and Answers

Questions 1-8: *Demand etc*

Answer:-

High ownership levels of mobile phones (inc data-rich smartphones) suggest that the growth in actual device numbers per person/household etc will flatten off and there already is some evidence of this roll-off.

Whilst other devices such as e-Readers and Tablets are currently growing, a high proportion of their traffic demands are more likely to be met by Wi-Fi offload, rather than 3G/4G services/spectrum. In the latter case, geographic re-use due to smaller cells will continue to be a major factor in meeting demand.

We therefore agree with Ofcoms' CTO Steve Unger in his recent IET Appleton Lecture[1] that spectrum alone will not be the solution and that other measures including smaller cells and fibre convergence will play a large role.

Some of the higher forecasts assume large video growth. However there is clear evidence that such usage is most associated with short video clips, news items etc. The TV broadcast services will remain popular and highly efficient for such applications.

The market failure of DVB-H/MediaFlo mobile TV and the relatively low take-up of internet radio suggests that high end streaming forecasts should be treated with caution.

Finally we have difficulties including M2M (Machine-to-machine) within parts of the forecasts. The M2M category includes Smart-metering, wireless industrial telemetry etc. This would often use lower data rates, proprietary protocols and may be in quite separate frequency bands - whereas AI-1.1 is associated with mainstream IMT such as LTE, LTE-Advanced etc

[1] Appleton Lecture: Superfast broadband – what will it take to make it happen? http://conferences.theiet.org/appleton/ , Wed 6th Feb 2013

Question 8: *What are your views about the pros and cons of the frequency ranges in Table A6.1 in Annex 6 for mobile broadband and for existing applications using this spectrum? Do you have views on other bands that are not in Table A6.1?*

Frequency band	Comments
1300-1375 MHz	The lower part of this frequency range is a vital resource for UK amateurs, and in particular for members of BATC, one of our affiliated groups.
1452-1492 MHz	Re-use of this empty band should be a priority. Furthermore auction rules should be modified regarding bringing spectrum into use (see also our Answer to Q10)
3400-3600 MHz	The lower part of this range (3400-3410 MHz) should be excluded. • In ITU Region-2/3 the 3.4GHz band has an amateur service allocation • In ITU Region-2/3 the 3400-3410MHz range is allocated to the amateur satellite service • In the UK and an increasing number of CEPT countries amateurs have successfully shared the 3400-3410 range with government incumbents for many years • European Allocation footnote EU17 also applies to the 3400-3410 MHz range
5850-5925 MHz	European Allocation footnote EU23 applies to amateur satellite downlinks in the adjacent 5830-5850 band

Question 10: What are your views on bands which should be a priority for consideration for mobile broadband?

An overriding priority should be to use existing mobile allocations far more effectively than at present

At a time when our own TV community (BATC) is under pressure from 40MHz of spectrum release in 2.3GHz it is extremely disappointing to say the least that 40MHz of prime harmonised spectrum that was originally intended for mobile TV has lain idle at 1452-1492 MHz since 2008