

VHF Spectrum Release in the range 143 MHz to 156 MHz

Call for Input 12/07/2012

Joint response from the Radio Society of Great Britain, AMSAT- UK and BATC

October 2012

This response is a joint one to the above Ofcom consultation document from the Radio Society of Great Britain (RSGB, www.rsgb.org) on behalf of its members and the wider Amateur Radio community. The latter includes both individual operators as well as a variety of special interest groups including the British Amateur Television Club (BATC, www.batc.org.uk) and AMSAT-UK (Radio Amateur Satellites www.uk.amsat.org) who have participated in preparing this joint response.

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.

Questions and Answers

Q1. What future uses might this spectrum support?

The RSGB believe there is an unprecedented opportunity for VHF innovation and growth based on an allocation to amateur radio at 146 – 148 MHz within the UK for digital TV, audio, and other evolving spectrum efficient data applications that would provide:-

- a) Room for highly innovative infrastructure-free narrowband DATV and other new applications that we have not been able to deploy in restricted secondary bands such as 70 MHz or 423 MHz, 1296 MHz.

- b) A relative easy and low-cost RF environment for further developing the UK's lead in Amateur electronics (such as FUNcube Dongle¹, DigiLite²) etc which are being successfully manufactured in the UK. Already many thousands of the FUNcube Dongle have been exported around the world.
- c) A useful propagation environment for medium range and in-building communication experimentation, with potential application in Emergency Communications.
- d) Reduce pressure on the existing 144 – 146 MHz Amateur allocation, through the opportunity to separate some of the analogue and digital usage.
- e) Provide for the increasing use of the existing 144-146 MHz allocation for amateur satellite activities by the CubeSat and similar spacecraft being developed by UK University student teams in collaboration with radio amateurs
- f) Use of equipment harmonised for amateur use in ITU Regions 2 and 3 where 146-148 MHz is already a ITU Primary allocation to the Amateur service.

Q2 What implications might these possible future uses have for the way in which this spectrum is configured in terms of transmit powers, bandwidth and geographic coverage? For example:

- **Could these possible future uses be accommodated under the existing Business Radio licence products? If so, would they need the channel widths of the existing Business Radio licence products to be increased above 25 kHz ?**
- **Alternatively, would they require an entirely new licence product to be developed?**
- **Do you think that we should allocate (at least) some of this spectrum for licence exempt use?**
- **If (at least a part of) this spectrum is made available for use under the existing Business Radio licence products, do you think that more spectrum should be allocated for light licence products as against technically assigned or area defined products?**

The RSGB would propose that the 146-148 MHz segment be wholly allocated to the amateur service-, with due provision for any remaining legacy use (as mentioned in Section-2 of the consultation paper). This can be accommodated by existing Ofcom licensing procedures without needing any new 'product' to be developed. Such usage would still leave ample opportunity in other VHF spectrum such as 155 -156 MHz for business use.

Reuse of this segment purely for narrow-channelled (business) radio would represent a major lost opportunity. Many of our proposed developments would utilise a mix of both narrower and

¹ The FUNcube dongle is the leading VHF USB SDR for Amateurs and Schools as part of the STEM goals for the UK FUNcube and UK-Gov UKube-1 satellite projects - <http://www.funcubedongle.com/> - by Amsat-UK

² DigiLite - Low cost encoding and transmission of DATV - <http://www.g8ajm.tv/dlindex.html> by BATC – the British Amateur Television Club

wider bandwidths, which would also not be compatible with shared/conventional Business Radio usage.

RSGB would discourage Ofcom from allowing license exempt systems within this segment in order to avoid non-harmonized sub-systems entering the UK/international marketplace and causing problems in Regions 2 and 3.

RSGB would in any event be concerned if significant high power business or other systems were licensed in close proximity to our existing 144-146 MHz segment band edges – where we have internationally harmonised usage by weak signal CW at the bottom and Amateur Satellites and the International Space Station at the top. Ofcom may recall that there have been problems from high power (200W) pager base stations near to our primary band 144 – 146 MHz.

Q3 What factors should Ofcom take into account in deciding how to make this spectrum available (both in terms of the choice of release mechanism and in terms of the timing and speed of release)?

The RSGB would be against a licence exempt release approach for the proposed 2 MHz segment, as the proposed developments and usage would be very specific to the Amateur Radio capabilities and interests. Auction is an option in which the Amateur community would be unable to participate and an opportunity for innovation would be lost. The recent DCMS review of Spectrum assignments for the new Communications Act already envisages greater use of administrative assignments rather than auction.

The options are thus the first-come, first-served or else a comparative assessment. The RSGB considers that the UK Amateur community is in a highly competitive position in terms of its peers in other countries in terms of SDR, Digital TV and Space applications and would hope that Ofcom is able to support further development of this position, and its valuable intangible impact on the UK Science and Engineering base by agreeing to our proposal.