

Title:

Dr

Forename:

Michael

Surname:

Scott

Representing:

Self

Organisation (if applicable):**What additional details do you want to keep confidential?:**

No

If you want part of your response kept confidential, which parts?:**Ofcom may publish a response summary:**

Yes

I confirm that I have read the declaration:

Yes

Additional comments:

I have had a full amateur licence for the past 57 years, and for much of this time I have had a particular interest in building equipment and experimenting on the VHF, UHF and microwave bands. Currently I am developing equipment for both the 2.3 and 3.4GHz bands. I have been a member of the RSGB since receiving my licence, and have been a member of the UK Microwave Group (UKuG) since its formation.

Question 1: Do you agree that it is likely that the benefits to UK consumers and citizens will be greater from the MoD's release of spectrum in the 2.3 GHz and 3.4 GHz release bands than from retaining the current amateur use?:

I believe that it should be possible to co-exist with commercial users in the released bands as we did with the MoD. While excluding amateurs from these portions of the bands will not be a problem for narrow band modes, which use the adjacent bands, but for modes such as ATV

there will be a problem. Possibly a compromise solution allowing amateurs to use a portion of the released bands on a non-interference basis would keep everyone happy.

Question 2: Are there current uses in the release bands other than those detailed in RSGB's band plan and discussed in Section 3 of this consultation?:

I am not aware of any such uses.

Question 3: Are there further consequences of removing the release bands from amateur licences that have not been considered in our analysis?:

None that I am aware of.

Question 4: There is an option (although not preferred) to remove access to the adjacent bands, as well as to the release bands. What are the consequences of removing access to the adjacent bands from amateur licences?:

It would be extremely unfortunate if these bands were totally lost to amateurs as they are an area of much experimental work both in propagation studies and technical innovation. In addition, they are popular international bands for moonbounce (EME) communication and their removal would exclude UK amateurs from this area of great technical interest.

In addition, many amateurs have invested considerable sums of money as well as many hours spent on construction of equipment.

As well as opportunities for self-training in the field of RF engineering where the UK has a shortage of skilled people, there are great possibilities for outreach projects to interest school children as well as university students in careers in electronic engineering.

Question 5: Are there current uses in the adjacent bands other than those detailed in the RSGB's band plan and discussed in Section 3?:

There are many areas of scientific research where serendipitous discoveries by radio amateurs have been of great national and international benefit. As these bands are areas of much experimentation, it is to be expected that further discoveries will be made.

Question 6: Are there additional mitigation measures which would provide demonstrable proof that amateurs would not cause interference into LTE in the release bands following the release?:

Ever since amateur radio began in the early part of the 20th century, amateurs have had to learn to co-exist with other users. In the 1950's with the advent of television across the country, much work was done to ensure that the design of transmitters was improved to reduce harmonics, and filters, both low pass and high pass were developed to allow co-existence.

The construction of effective filters for the 2.3 and 3.4 GHz bands is well understood and many designs have been published in the amateur and professional literature which reduce spurious emissions to a very low level.

Most serious users of these bands now either have, or have access to spectrum analysers and

network analysers, and so are able to check the performance of equipment before it is put on the air.

In addition the UKuG holds five roundtable meetings a year where members can have access to professional test equipment.

It is also beholden on commercial users to ensure that their equipment is designed to a high standard so as to be reasonably immune to out of band signals. High performance filters are now available in small packages designed for use in mobile 'phones etc.

Question 7: Do you agree with the proposed process for varying licences following cases of reported interference and our proposal to vary licences should dealing with the number of reported cases become too onerous?:

The UKuG has expressed a willingness to help Ofcom, if requested, to investigate cases of interference by amateurs to other users, and where possible to provide solutions.

I think it would be unfair and unnecessary to penalise the whole amateur community for the occasional problem in a localised area. If the problem could not be resolved satisfactorily, then the individual amateur concerned could have his licence amended.

Question 8: Do you agree with our preferred option?:

In the absence of an improved compromise solution (see answer to Q1), then this option would be acceptable.

Question 9: Are there additional changes to the Amateur Radio Licence which would assist amateur in lowering the risk of causing harmful interference to new uses?:

The only change which could be helpful would be the inclusion, after consultation with RSGB, UKuG and BATC, and other interested parties, of guidelines on the level of spurious emissions which would be regarded as acceptable.