Title:

Mr

Forename:

Iain

Surname:

Young

Representing:

Self

Organisation (if applicable):

What additional details do you want to keep confidential?:

Keep part of the response confidential

If you want part of your response kept confidential, which parts?:

none.

Ofcom may publish a response summary:

Yes

I confirm that I have read the declaration:

Yes

Additional comments:

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 agree that the benefit to UK consomers and citizens will be greater from the MoD's release in 2.3GHz and 3.4 GHz than from retaining the current amateur use.

In the current environment, it is difficult to argue for retention of such large swathes of spectrum.

However, there is value in having a smaller amateur spectrum allocation in both

2.3GHz(2.4)GHz and 3.4GHz, so retaining access to 2310-2350, 2390-2400, and 3400-3410 MHz as per the preferred option is to be applauded.

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?:

None that I am aware of.

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 can see

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?:

Removing the "adjacent bands" from amateur licences would potentially stifle innovation. Retaining a small portion (such as in the preferred option) will help ensure that this innovation continues.

The 2.3 and 3.4 GHz bands, being of one of the lower microwave bands provide an accessible inttroduction to the operating techniques and technical requirements required for operating on the GHz frequencies, before moving on to the higher GHz bands. Entire loss of these bands would deprive newcomers this vital introduction, and may reduce those numbers deciding to experiment on higher frequencies. This would almost certainly reduce potential innovation.

Removing the "adjacent bands" will cause a financial impact on the amateurs using the bands in question.

Equipment in this part of the radio spectrum can easily cost 2000-3000 UKP for an entire station. To have all that equipment suddenly obsolete and useless would be a financial loss

This may discourage them and others from migrating to other amateur GHz frequencies. Retention of a small allocation (such as the "adjacent bands" in the preferred option) would help mitigate this impact.

In my own case, I have several thousand pounds worth of equipment in the affected bands, as well as probably serveral thousand more waiting to be used in ongoing projects

This brings me to another point. Weak signal activity, EME, and similiar activity in these bands is usually co-ordinated across europe. Removal of these adjacent bands would impact the inn ovation and co-operation that goes on between amateurs across Europe.

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?:

None that I am aware of

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?:

Appropriate band planning by the RSGB and Special Interest Groups (eg UKuG, BATC, AMSAT), in conjunction with the primary user and regulator. There is precident for this in recent work carried out in the 23cms (1.2-1.3GHz bands)

On a more technical level, filtering close to the "adjcent band edges" on both LTE and Amateur equipment will of course help mitigate any potential intererfernce issues.

It would not be particularly onerous to add filtering to the output circuitry of an amateur transmitter to minimise energy radiated a few MHz away in the case of interference where required.

Amateurs already have the ability, expertise, and equipment needed to design,build, and operate such filters, and have carried out such actions as and when needed in the past.

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?:

With regards to dealing with interference, I am in broad agreement with your initial strategy with providing the licence holder trhe pportunity to correct the problem, before seeking to vary the induvidual licence.

Cases of interference need to be dealt on a local level first. On these frequencies, It is highly unlikely that a specific instance of interference will cause interfereance on a regional or national level, thus if at all possible, the licence variations should be keep as local as possible. There are already restictions on certain frequencies in certain locations, so there is precident for this methodology

Mechanisms are already present within existing Amateur Radio Licensing arrangements to deal with specific interference problems, and should be used prior to a change that has national impact.

In the case that the number of cases rises to such an extent that the work to investigate becomes to onerous, then I would like to see the amateur community as a whole be given the opportunity to correct the problem, before removing access to the "adjacent bands" entirely, as it may be a "generic" problem that can be r
esolved.

For example, if, in a large number of interference cases, it were to be discovered that n dB more filtering is required close to a band edge to prevent an increase in noise floor for LTE devices.

Providing each amateur operating in the "adjacent" bands fits that additional filtering, then there should be no need to remove access to the "adjacent" bands to resolve the interfernce issue

Should then a "few" stations not fit the extra filtering needed, or take other mitigating measures (eg frequency change, power reductions), they can be dealt with under a NoV to the induvidual licence

Removal of the "Adjacent Bands" from the Amateur Licence should be the very last resort.

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

While not 100% ideal, the preferred option is acceptable, however I hope that any potential issue of a notice period to cease operations on the "adjacent bands" due to interference would only after all technical (eg additional filtering) and administrative (eg reduced power, limited times of operations), and other mitigation attempts have failed (see answers to Q6 and Q7)

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 Amateur Radio Licence already contains terms and conditions that require Radio Amateurs not to cause undue interefence. I cannot see any variation to the licence terms that would reduce the risk of causing harmful interfence, nor do I see any need or benefit to additional changes to the licence in this regard.