

Title:

Mr

Forename:

Samuel

Surname:

Jewell

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 held the 'Advanced' Amateur Radio Licence (or it's predecessors) since 1974 and the tehe technician 'B' licence for two years prior to that.

Professionally, I have worked as a radio and fibre communications engineer and manager for BT and other companies for more than 40 years. I am now retired.

My hobby is radio amateur, with a particular interest in VHF, UHF and microwave propagation and equipment. I am a member of the Radio Society of Great Britain and am the founder member of the UK Microwave Group (UKuG).

I was the GHz Bands columnist for the RSGB magazine, Radcom for eight years

In my retirement I design and manufacture small quantities low noise amplifiers suitable for incorporation into amateur microwave equipment. The spin out has been that these amplifiers are now used in a large number of radio observatories around the world.

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?:

Yes.

I am fully in favour of the principles of good spectrum management. Indeed, I worked in this very area soon after retiring for BT. I helped several of the Accession Countries with their spectrum management arrangements prior to joining the EU.

With this background it would be difficult to argue for the retention of the Release bands as secondary amateur allocations.

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?:

A considerable number of commercial WiFi equipments have been re-programmed by radio amateurs to operate below 2400MHz in the 2330 to 2400MHz band in order to take advantage of the higher amateur power levels permitted. These equipments have been providing reliable, interference free, links over considerable distance where no other technology has been available to use. Amateur ingenuity at work, without doubt!

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

I do not believe so.

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?:

The radio spectrum between 2 and 4GHz is acknowledged as being the lowest noise area of the entire wireless spectrum. Removal of access to this spectrum could have serious longer term consequences for British industry. Research by the amateur community has often been a precursor to commercial developments in this and other parts of the spectrum.

Considerable amateur satellite and moon-bounce development has taken place in this part of the spectrum as a result of its favourable noise characteristics. This would no longer be possible.

Modern commercial communications is limited by carrier to interference ratios. Amateur radio is still very much a weak signal environment and as such it tends to be noise limited. Moving mobile services into this spectrum could be seen as a waste of a unique resource.

3.4GHz is the most favourable band for weather related propagation. Comments to this effect have been made in the RSGB forum by a well respected professional researcher. Denying access to this spectrum risks losing valuable and unique research by those who are motivated by the quest for knowledge and not for monetary reasons.

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?:

See answer to question 2 and 4

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?:

Proper use of filtering at both the amateur radio station and the LTE base station will mitigate against many of the potential problems.

Combined with careful band planning by the RSGB and the special interest groups such as the UKuG, BATC and Amsat UK the incidences of interference can be minimised to be very manageable. Current levels of interference from amateur radio stations is understood to be minimal.

Sharing with the Primary User is something we have done for many years. It is well understood and I see no reason why that should not continue. Both services are low occupancy services.

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?:

As an RIS engineer (with the GPO) I often was involved in cases where the then licence was effectively changed to suit the circumstances of difficult interference cases. Implementing a global change to the amateur license to solve a few small and probably isolated cases would be very unpopular and unnecessary.

The UKuG has long provided sophisticated test equipment facilities at its regular meetings (Microwave Round Tables) where amateur equipment has been tested and where more experienced amateurs have been on hand to advise in the case of problems with amateur equipment.

It should also be mentioned that the amateur license is primarily to allow personal training in this most advanced of technical area. Much of this is achieved by allowing the radio amateur to build their own equipment. Undue constraints would undermine this important aspect of amateur radio. Much of this self-building is now conducted in the affected part of the radio spectrum

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

It seems like it is a workable solution to a difficult problem. So the answer is yes.

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?:

This is already well covered in the existing license. I see no reason to change the present arrangements as they seem to work well. The risk would be of destroying a valuable UK self training service.

