

Response to "Spectrum Framework Review - A consultation of Ofcom's views as to how radio spectrum should be managed"

Please find below my response to the above consultation. Before the specific responses, I make brief comment on the following two Ofcom statements:-

"As a light-touch regulator our preference is to move away from central management, allowing market forces to prevail and increasing the use of licence-exemption. We have considered carefully the role for licence-exemption."

The proposed use of market forces is fully supported in areas where several commercial interests compete for a resource (eg. spectrum). But the respondent considers that the management of the Amateur Radio service should not fall under this commercial principle. Spectrum is made available to individuals (enthusiasts) for experimentation and self-training in communication, on a personal basis. There is a technical examination to ensure that those who pursue this activity do so without creating unacceptable risk to other radio services.

"We are also considering the possibilities of removing the need to have a licence in areas such as amateur and maritime although technology and usage restrictions will continue to apply".

The respondent believes that the principle of applying licence exemption to a band or service can only be successfully applied where the characteristics and specification of the equipment can be prescribed. A good example of this is found in the existing PMR446 service, and maritime services would appear to be another area where the need for an individual licence could be removed.

In the case of the amateur radio service, the specification of the equipment is not prescribed, although some operating parameters, such as power limits or emission envelopes are set out. The respondent notes that the new Foundation-class licence introduced a new principle into the amateur radio service viz: that of specifying the nature of the equipment to be used. Foundation licensees may only use commercial equipment, or equipment built from a commercially-made kit. Such a restriction is appropriate to that introductory class of licence, but to apply such a principle to other classes of licence, where a licensee has studied and demonstrated a level of technical competence, would preclude genuine experimentation, which has led to innovation, and would extinguish the reason why many people take up an amateur radio licence.

For this reason, the respondent proposes that the principle of licence exemption is NOT applied to the amateur service. Ofcom should explore all possibilities to exercise a lighter touch whilst retaining the amateur radio service in the "command and control" category.

Now, turning to your specific questions....

"Q1: Are there any other major medium- to long-term spectrum management issues that this review should be considering? Are there

any other significant technological or market developments that this review should be aware of when developing its thinking?"

Yes; Ofcom's attention is drawn to pollution of the radio spectrum by "non-radio" services where the effect of such services is cumulative. One such service is that of Power Line Transmission (PLT), which is likely to interfere with hf radio services. Future developments in "non-radio" services may raise the noise floor of the spectrum used for radio astronomy too.

Ofcom should consider whether there is a need to apply further spectrum management principles to these type of services.

"Q2: Do you believe it is useful to publish a compendium of issues? How frequently should it be published? What information should be included?"

Yes. The respondent agrees with all Ofcom's proposals for such a list.

"Q3: Are there any other issues of sufficient significance to merit mention in this document?"

No.

"Q4: Are there important lessons to be learnt from experience in other countries that is not addressed here?"

The respondent is not conversant with other countries' experience, other than countries mentioned in the consultative document, and makes no comment.

"Q5: Do you agree with Ofcom's intent to maximise the use of trading and liberalisation?"

The respondent generally supports Ofcom's intention to allow market forces to shape spectrum usage, given that Ofcom is able to monitor, quantify and publish the results and benefits of this strategy along the way as additional segments of spectrum become subjected to this new policy.

"Q6: Are there other areas, apart from those identified above, where trading and liberalisation should be restricted? Are there areas identified above where you believe the trading and liberalisation could be fully implemented?"

The respondent agrees that the Amateur Radio Service is an area where trading and liberalisation cannot be applied. On the issue of spectrum management, the respondent's preference is for Ofcom to retain its light touch "command and control" management of all amateur spectrum through a small internal team funded through licence subscription fees.

The respondent does not see any areas in Table 4.1 where trading and liberalisation could be fully implemented.

"Q7: Do you agree with Ofcom's approach to providing spectrum for licence-exempt use?"

Yes; the provision of further spectrum for licence-exempt use is welcomed given that this is previously unassigned spectrum or spectrum which has become available as services move to new technologies using other spectrum allocations. The respondent does not support reassignment of any current spectrum allocated to the amateur service to become licence-exempt.

It is said in the consultation document (Page 24) that, in the case of amateur radio and maritime radio, the usage and technology is tightly constrained. In the case of the amateur service, the technology is far from constrained. A unique situation exists whereby radio amateurs (other than Foundation licence holders) are not required to use type-approved equipment, and home constructed equipment may be freely used for experimentation and communicating.

The respondent maintains that a licensing system continues to be the best way to authorise individuals to carry out experimentation and communication.

"Q8: Is Ofcom's proposed methodology to estimate the amount of spectrum needed likely to deliver the right results?"

The methodology for measuring spectrum usage appears too crude for significant analysis. Ofcom's attention is drawn to the "Survey of Land Mobile Radio use in VHF High Band on London" - a comprehensive survey which was undertaken by the Radiocommunications Agency over a thirteen week period in 1995. That survey considered individual channel occupancy, whereas the methodology given in Annex I is less comprehensive, and does not produce data to a sufficiently high resolution.

Even the excellent 1995 survey would not have been sufficient to determine the occupancy of many of the bands allocated to the amateur radio service, where signals are weak, may be horizontally polarised, and closely spaced as they occupy much lower bandwidths than commercial transmissions.

"Q9: What is the appropriate timing and frequency bands for making available any additional spectrum for licence-exempt use that might be needed?"

Frequencies become available for reassignment when services move to new technologies using other spectrum allocations. The respondent does not support reassignment of any spectrum allocated to the amateur service for licence-exempt use.

"Q10: Do you agree with Ofcom's longer term proposals for market-based spectrum management methods?"

Yes. The development of band managers (or band management companies) is particularly welcome. Ofcom should consider the appointment of independent band managers where they do not develop naturally, and where Ofcom has neither the desire nor the resource to "micro manage" spectrum within a band. Having just supported the principle of band management, the respondent does not envisage an end-user group (such as the Radio Society of Great Britain) qualifying for appointment as an independent band-manager for amateur radio spectrum.

"Q11: Is the approach set out here, and in Annex H, for developing technology-neutral spectrum usage rights appropriate? Are there alternatives?"

No view.

"Q12: Should Ofcom do more to resolve interference?"

The proposal for a dense network of unattended monitoring stations is a welcome development, but the main benefit of such a system will be in the licence enforcement area rather than interference management.

The respondent agrees that Ofcom should remain the final arbiter in disputes over interference, but there is scope for a requirement that the band manager deals with interference issues when such issues are between operators in the managed band.

The trend over recent years has been to concentrate interference resolution efforts towards "safety of life" services. As spectrum becomes commercially traded the respondent anticipates a demand from owners for "quality of service" guarantees, which will require a different model.

"Q13: To what extent should Ofcom intervene in promoting innovation?"

Ofcom's proposed strategy is generally supported. The definition of the "extended" T&D licence is unclear, but the respondent does not favour the licensing and operation of commercial (ie. Bill-able) networks under a T&D licence.

"Q14: Do you agree with Ofcom's proposed approach to harmonisation?"

The respondent, having worked extensively with ETSI's on development of the ERMES protocol, and having witnessed the clearance of, and subsequent waste of prime VHF spectrum in the UK as a result of technology-specific licensing, fully supports technology-neutral licensing wherever possible. As stated in the consultative document, the UK has an enviable geographical position which means absolute harmonisation is not always necessary.

"Q15: Can you foresee any problems with the proposed approach to harmonisation other than those listed above?"

Ofcom should remain watchful of innovative developments in the USA, for which spectrum could be made available in the UK ahead of its general adoption across Europe. The UK's favourable geographic position may help to facilitate this.

"Q16: Do you agree with Ofcom's proposal to continue with division by frequency as the primary method of dividing the spectrum?"

Yes.

"Q17: Is Ofcom's approach of not intervening to mandate entitlements in time appropriate?"

Yes.

"Q18: Do you agree with the RIA"

Yes. The reduction in command and control spectrum is substantial, and moves the regulatory environment nearer to the desired "lighter touch".

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