



Greg Smith

SUMMARY:

- I appreciate the opportunity to provide input to this consultation.
- The varying level of co-channel/site interference I have experienced on these bands generally follows that reported by other organisations (JRC, FCS, *et. al*) in the previous Call for Input (December 2014) , and appears to have been recognised by Ofcom in the current Strategic Review.
- I have some reservations about the acceptance of higher noise floor, see response.

Consultation questions, with responses:

Question 1: *Do you agree with our assessment of the trends in current and future demand in the band?*

I agree in principle that the assessment reflects my opinion, based on my usage of a narrow segment of this band. I also agree that the size of these bands combined allow for a wide variety of different (and incompatible) uses, the growth metrics for which should be derived from actual usage observations rather than licence statistics and other metadata.

Question 2: *Do you agree with our assessment that the risk of continental interference is limited to the east and south east of the UK during periods of atmospheric lifts?*

No comment.

Question 3: *Do you agree with our assessment that these bands could enable the implementation of our UHF policy proposals? Are there any additional uses you think we should consider if this spectrum becomes available for use?*

I agree that the spectrum release could facilitate the implementation of the policy

proposals. I believe the reply by the FCS in the 2014 Call for Input should be taken into account, specifically as it applies to what it terms Unprotected Analogue Systems (p. 2). Effects of digital and analogue co-channel usage can sometimes be problematic, particularly where users of each (though specifically analogue) are unable to mitigate these problems in a business-critical environment. Both *user groups* (not *necessarily* licensees themselves) may be unaware of the regulatory framework for reporting interference or are not in a position to provide feedback. This is particularly an issue in the Simple Light UHF (Band 1) allocation.

Question 4: *Do you agree with our conclusion that aligning UHF Band 2 with continental Europe is not required?*

Yes. Similarly, I believe issues that relate to currently in-force regulations and specifications implemented via the EU should be taken into account with regard to the UK leaving at some point.

Question 5: *Do you agree with our proposal to add additional channels to the Simple UK and Simple Site licence products from spectrum within the 458.5 to 459.5 MHz band?*

Yes. As mentioned above, the UHF Simple Light allocation is subject to high usage, hindered by the three channels it currently occupies.

To illustrate the crowding of the Simple Light service, I believe the problem is already alleviated by some via the use of non-approved Family Radio Service equipment intended for the US market. In a similar context, I am aware some organisations are solving their channel availability problem with the use of other, non-FRS equipment factory-supplied with a number of non type-approved frequencies within UHF Band 2. This equipment is widely marketed as providing an alternative to both PMR446 and Simple-**X**, and (although re-programmeable) is pre-programmed to frequencies that are not allocated to any legally useable service. Use of DMR/dPMR is also commonplace in the UHF Simple Light analogue allocations, and this contributes to problems outlined by the FCS among others in their responses to the previous Call for Input.

Question 6: *Do you agree with our assessment that the risk of interference between Simple UK and Simple Site use and licence exempt short range devices in the 458.5 to 459.5 MHz band is low, and that any interference can be mitigated by users changing channels?*

Partially. The crowded nature of Simple Light (Band 1) should be alleviated to a certain extent by this measure, although the possibility of interference to LE/SRD from high-power Simple-**X** usage should be considered.

Question 7: *Do you agree with the proposal to initially increase the sharing criterion from two to three, and, subject to further analysis, move to four in the longer term?*

Partially. I believe the proposed occupancy increase of the frequencies needs to be tailored to the level of usage in the area concerned. This proposal could be successful in some ways if a minimum useable ERP could be discovered per site (not calculated), and enforced as a licensing condition.

Question 8: *Do you agree with our proposal to change the planning levels we use in our modelling by reducing both the RSL and unwanted levels by 12 dB for VHF Band 1 and VHF Low band?*

Not entirely. I think the noise level plans should be based on the minimum level it is possible to achieve given the current state of the art, rather than increasing the level that should be tolerated. The proposal suggests the EMC regulations are not being as strictly enforced/adhered to as they should be. The noise floor should be minimised in line with good noise reduction/interference hygiene practices.

The change in RSL/noise levels proposed indicate a desire to disregard the underlying causes of noise itself. Given time, the noise level could increase to the extent that it is no longer practical or possible to expect a higher RSL baseline. By this point the cause of the high noise floor level would be more widespread and less economically viable to reduce effectively, possibly to the extent that other services are affected.

Question 9: *Do you agree with our assessment that moving towards more common duplex spacings will increase spectrum efficiency?*

No comment.

Question 10: *Do you agree with our proposed activities for improving stakeholder guidance? Are there further steps you think Ofcom could take to ensure stakeholders and licensees can make an informed decision when considering their licensing needs?*

Partially. I believe the TFAC are outdated in that most commercially available equipment is capable of employing a greater number of CTCSS/DCS settings than the current criteria allow. This document is therefore partially responsible for some of the limitations imposed on lawful users that I believe are no longer fit for purpose.

As I mentioned previously, a legally defined user-reported feedback mechanism (compliant with s48 of the WTA) would enable Ofcom to obtain a more up to date real-world interference status of the current business radio system. Could this perhaps be enabled via an app or W3C compliant web utility? The current system does not follow the *letter* of the law in terms of the reporter being (or not) the intended recipient of a communication, regardless

of the communication being considered interference or otherwise. Improving stakeholder guidance could provide an official, mutually beneficial way of cross-licence coordinating the use of the limited resources this band provides.

Question 11: *Are there any other policy options you think we should consider to make use of UHF 1 and 2 more efficient?*

Future policy decisions should include a more comprehensive measurement of real-world monitoring results and customer feedback, as the crowded nature of some allocations provide incentives for end-users to facilitate their own solutions that may cause undue, unintentional and unexpected interference to other users.

From a purely recreational perspective I would also ask Ofcom to ensure the Amateur (secondary) allocation is protected from any significantly adverse changes. I believe parts of the service not currently used for voice could accept additional allocations for low power (sub 500mW) licence-exempt services. I would also like to see official guidance relating to, and possibly permitting, the use of non-handheld equipment with non-integral antenna systems operating on the PMR446 allocation as licence-exempt equipment within the current 500mW ERP specifications. Such use could ease the strain on the current Simple-**X** UHF system.