

Title:

Mr

Forename:

J. P.

Surname:

Gilliver

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:

Section 1.2 "The UK supports the change" [of use of the "700 MHz" band] is somewhat incorrect: the UK, as a whole, has not expressed a view on this matter, with the exception of the mobile industry - in particular, domestic receivers (of TV) in this band have been insufficiently (in fact barely) consulted.

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The provision of a question relating to agenda item 8 has been omitted. (There is an invitation to contact the co-ordinator, but similar invitations are present in other sections, which nonetheless still have questions associated with them.)

Question 1: Do you have any comments on the mechanism for UK preparation for WRC-15 and the role of Ofcom in this process?:

Question 2: Do you agree with the prioritisation of the agenda items, as shown in Annex 6, and if not why?:

(It would have made this question easier to answer if the table had been placed adjacent to section 3.8 rather than in an Annex!)

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On the whole, it seems reasonable. Perhaps the following might be raised from Low to Medium:\

6.: If items require urgent action, this seems incompatible with a "Low";\

8. and possibly 9.1.4: any simplification of what is a horrendously complex subject is to be welcomed and encouraged; and\

9.2: though only if resultant action ensues, rather than just the acceptance of a report, for the same reasons as 8. above.

Question 3: Do you agree with Ofcom's general approach on WRC-15 agenda item 1.1?:

As regards change of use of the "700 MHz" band, no: if the total requirement is 1340-1960 MHz (your figures), then changing use of this <100MHz band will not assist greatly - and alleged economies of scale (e. g. in handsets) are less, with modern programmable synthesized equipment, than they might once have been.

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As regards the rest of the agenda on this item, yes, the general approach seems reasonable; in particular, I support the opposition to any consideration of any incursion into the 470-694 MHz band at this point (and in fact beyond 2030 also).

Question 4: In view of the recent developments on the 1 492 - 1 518 MHz and 5 925 - 6 425 MHz bands, what are your views on the potential identification of these bands for IMT and/or RLAN and on the mobile data applications that could make use of them? How do you believe the sharing with the fixed service and the fixed satellite services could be managed at the national level?:

For the lower band, I can see the technical advantages of creating a contiguous block; regarding other aspects (e. g. current users of the band, potential interference), I have insufficient familiarity to comment.

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As regards the ~6GHz band, the suggestion of its use for low power indoor systems is interesting; I suspect further research is needed on the potential for interference between such systems and existing satellite uses (particularly if those are in the from-satellite direction). But it should not be dismissed purely on the basis of lack of interest by industry so far.

Question 5: For the band 1 427 ? 1 452 MHz, do you agree that it is right to support the further consideration of the band, recognising the Ministry of Defence interest?:

Yes.

Question 6: For the band 1 452 ? 1 492 MHz, which is already subject to a harmonisation measure within CEPT, do you agree that this band be supported for an IMT identification at WRC-15?:

I have no view.

Question 7: Recognising the UK plans to release spectrum in the 3 400 ? 3 600 MHz band, coupled with the binding European Commission Decision (for electronic communications services) in the bands 3 400 ? 3 600 MHz and 3 600 ? 3800 MHz, do you agree that these bands should be supported for both a co-primary mobile allocation and IMT identification?:

Yes.

Question 8: Noting that there are a number of countries that strongly oppose the inclusions of the 3 800 ? 4 200 MHz band, do you agree that we should support the longer term consideration of this band for potential mobile broadband use?:

I have no view.

Question 9: Noting that there is currently limited international support for a co-primary mobile allocation in the band 2 700 ? 2 900 MHz, do you think that we should continue to support this band at WRC-15?:

Yes; in the same way that the 700 MHz band can be protected from use (within the UK) without significant equipment penalty in these days of synthesized handsets, the 2.7-2.9G band could be used in the UK and not abroad. The limited propagation of such signals, at least of the power required for mobile use, combined with the insular nature of the UK, should prevent interference with foreign radar. (There might need to be restrictions on its use in the channel islands if France is one of the opposing countries.)

Question 10: Do you agree that the 5 350 ? 5 470 MHz and 5 725 ? 5 925 MHz bands could provide important additional capacity for Wi-Fi and similar systems? If so, and noting the need to protect both earth observation satellites and radar systems, do you agree that sharing solutions should be considered at WRC-15? :

There may be bands at which weather radar _has_ to operate, related to typical drop sizes and similar matters; therefore protection for this use may be required. Otherwise, fine, _consider_.

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(The wording of the question - "do you agree that the ... bands _could_ provide important additional capacity ..." - is leading; obviously it _could_, as could _any_ band of similar size. I appreciate that this may not have been intentional.)

Question 11: Do you agree that we should oppose a co-primary mobile allocation at WRC-15 for the band 470 ? 694 MHz?:

Yes, vehemently. DTT is rapidly becoming the "poor relation" in all spectrum access planning matters, with those least able to engage (such as in consultations such as this) likely to have the most to lose.

Question 12: Do you agree that the UK should continue to support harmonisation of 694 - 790 MHz for mobile broadband and an out-of-band emission limit for protection of DTT reception in an ITU R Recommendation, alongside an acknowledgement that 694 MHz should be the lower frequency boundary for the band?:

No to the change of use of the band; I have perused various Ofcom publications on the future of DTT in general, and am not convinced by their claims that DTT can thrive in the reduced area of 470-694. (In addition, I have doubts as to whether these frequencies are optimum for mobile use anyway.) If the change of use does go ahead anyway, then Yes to the emission limits (including any possibility of making them more stringent).

Question 13: Do you agree that any harmonisation measures for PPDR use should be sufficiently flexible to enable PPDR agencies to choose the most appropriate spectrum solutions nationally?:

If the argument of economies of scale (equipment manufacturing costs) resulting from international agreement on bands applies to mobile equipment generally, then it can't be avoided in the consideration of PPDR equipment. However, given that in disaster and emergency situations, emergency powers to use whatever frequencies (and equipment) are available may be taken anyway, I do not have strong feelings either way on this point.

Question 14: Do you have any comments on the potential use by the amateur service in the 5 250 to 5 450 kHz band?:

Not really.

Question 15: Do you agree that if any allocations to the fixed satellite service in the 10-17 GHz range impose undue constraints on existing services then further studies on the demand and justification for use of the spectrum would need to be carried out?:

Probably.

Question 16: Do you agree that the UK should support retaining the recognition for aeronautical radionavigation use, but equally support reviewing the limits associated with the FSS with a view to facilitating better use by the FSS?:

I have no view.

Question 17: Do you agree that the UK should support new primary allocations for the fixed-satellite service in the 7/8 GHz bands, with the proposed restrictions?:

Yes.

Question 18: Do you agree that the UK should not support new allocations for the mobile satellite service in 22-26 GHz as they are not justified and that the focus should instead be upon the continued protection of the incumbent services?:

Again, a leading question: "Do you agree ... should not support ... as they are not justified"; surely it should be up to the respondent to make up their own mind, not preloaded into the question.

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Having said that, I support the protection of scientific (in particular astronomical) and amateur use of the band.

Question 19: What are your views on the use of FSS spectrum allocations for UAS, recognising the shared regulatory responsibility and the safety considerations for the control of unmanned aircraft?:

On the basis of efficient use of spectrum, I see no problem with the use of _regionally unused_ parts of FSS spectrum for this purpose, _provided_ provision is made for any situation where the UAV travels into a region where the spectrum used _is_ already in use.

Question 20: Do you have any view on the need, or otherwise, to modify the restrictions that relate to the operation of ESVs in the bands 5 925 ? 6 425 MHz and 14-14.5 GHz?:

No view.

Question 21: What are your views on a potential new allocation to the maritime mobile satellite service, recognising the UK interest in the other services that make use of the bands under consideration?:

No views.

Question 22: Do you agree that the UK should not support a proposal for additional UHF spectrum for maritime on-board communications and that narrower channels will help to increase capacity?:

Yes to the first part of the question. (Once again, the second half of the question is worse than leading: _obviously_ narrower channels would increase capacity, so asking whether I agree with that is pointless.)

Question 23: What are your views on any necessary regulatory provisions for AIS in the bands already identified for maritime use?:

No views.

Question 24: Where the appropriate radio regulatory provisions are established for use in existing aviation related bands, do you agree that the

UK should support regulatory conditions for the accommodation of WAIC applications?:

I see no reason why not.

Question 25: Do you agree that the UK should support a generic radiolocation allocation in the 77.5-78 GHz band, where appropriate technical conditions are established?:

Yes.

Question 26: Do you agree that the UK should support an allocation across the 7 190 ? 7 250 MHz band, dependent upon the outcome of technical studies?:

Yes.

Question 27: Do you agree that is right to wait for the relevant sharing studies to mature before coming to a final position on the potential for additional allocations to the earth exploration-satellite (active) service in the 8/9/10 GHz band?:

Yes.

Question 28: Do you agree that the UK should support the CEPT position that removes the distance limitation on space vehicles communicating with orbiting manned space vehicles, whilst retaining the pfd limit to protect terrestrial services?:

If removal altogether is the only option, no; if greater range is justified (e. g. for the safe docking of unmanned space vehicles), then amend the distance limitation, but its total removal seems excessive.

Question 29: Do you agree that the UK should support maintaining UTC as currently defined (i.e. with the inclusion of leap seconds) and that the UK should support further study around the concept of dissemination of two reference time scales?:

To the first part (maintain status quo) - yes; to the second part (support study) - no opinion.

Question 30: Do you have any comments on the UK approach and positions on the elements of Agenda Item 7?:

No.

Question 31: Do you agree that any potential regulatory constraints need to be fair and proportionate on both the Cospas-Sarsat operation and users in the adjacent band?:

Yes, with the limitation that satellite operational lifetimes must be taken into account - i. e. it is unreasonable to permit increased powers in adjacent bands while satellites whose adjacent-channel rejection capabilities are still functional, since they cannot be improved once in orbit.

Question 32: Do you have any comments on Agenda Item 9.1.2 concerning reduction of the satellite co-ordination arc?:

No.

Question 33: Do you agree that the UK should oppose any proposal that aims at changing the provisions of the Radio Regulations in a way that gives inherent priority (i.e. coordination priority) to certain satellite systems over any other satellite system?:

No comment.

Question 34: Do you have any comments on Agenda Item 9.1.4 relating to updating the RR for out of date or redundant material?:

I feel slightly more weight should be applied to any such simplification, as it rapidly becomes difficult to see the wood for the trees regarding bandplans etc. as it is, and where out-of-date or redundant material is concerned, this makes it even more so. Time spent in this area will actually _save_ time spent on other matters eventually.

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Having said the above, since conference time _is_ limited, all attending parties should be encouraged to collect (and circulate, where practical) information relating to any such proposals for removal, prior to the conference.

Question 35: Do you have any view on the need, or otherwise, for additional international regulatory measures to support the use of earth stations for aeronautical and meteorological communications in the 3.4 ? 4.2 GHz band?:

I tend to agree that such matters should be sorted out by adjacent countries where possible, rather than being subject to full international control.

Question 36: Do you agree that the UK should not support any change to the fixed and mobile definitions under Agenda Item 9.1.6?:

On the whole yes, though if a particularly good case is presented - perhaps related to the appearance of new _types_ of technology, not envisaged when the definitions were created - it should at least be _heard_. In other words, change for change's sake is probably to be resisted (for reasons including those given), but if something new does not fit into the existing definitions, some thought should be given to it, rather than forcing it along increasingly unnavigable (regulatory) paths.

Question 37: Do you have any views on the CEPT position that no further work is required in respect of spectrum management guidelines for emergency and disaster relief radiocommunications?:

No views beyond those in the response to Question 13.

Question 38: Do you agree that no specific measures need to be introduced for nano and pico-satellites and that the current approach to their regulation is sufficient?:

I feel the definition of what constitutes such a satellite needs further clarification (certainly than given in the consultation draft, which does not give any such definition); presumably some threshold of total operation (mission) time, power output, or some combination of both. Certainly a light touch is probably desirable for short-duration missions in order not to stifle technological initiative; however, presumably some limit must be imposed to prevent their impinging on more conventional satellite use (and such limit must take into account, and make provision for, such satellite[s] lasting considerably longer than originally expected - e. g. battery life, orbit decay).

Question 39: Do you agree that the UK should support the recent regulatory developments with respect to ESOMP operation, while continuing to monitor developments?:

I have no view.

Question 40: Do you have any comments on Agenda Item 9.3 considering Resolution 80?:

No.

Question 41: Do you have any comments concerning the standing agenda items?:

None beyond those already stated, in particular my response to question 34, which seems to relate to the example given in section 7.34.

Question 42: Do you have any comments regarding UK positions for future WRC agenda items?:

Of the items listed, I would oppose the review of allocations below 694 MHz, and the upgrade of 460-470 to primary; other than those, no comments (other than that some of them look interesting, in particular the possibility of mobile in 47-68 MHz!).

Question 43: Are there any other possible agenda items you wish to see addressed by future WRCs?:

Not at this time.

Question 44: Are there particular frequency bands, above 6 GHz, that should be considered for technical study in relation to the potential future agenda item addressing IMT use?:

I have no view.