

## Ofcom UK WRC-15 Preparation Consultation

### Q+A Response by BAE Systems (Operations) Limited, UK

***Q3: Do you agree with Ofcom's general approach on WRC-15 agenda item 1.1?***

The Agenda Item itself has created huge uncertainty and consternation in our industry due to its unrestricted open-ended scope. Ofcom could and should have requested a more focussed approach when the item was proposed and subsequently to prioritise or rule out certain bands that were clearly unsuitable, at a much earlier stage. The consequences of the approach have been to heighten uncertainty and hinder technology planning and investment. It is important that such an eventuality is avoided at all costs in future (eg for any WRC-18 IMT item).

***Q5: For the band 1427 – 1452 MHz, do you agree that it is right to support the further consideration of the band, recognising the Ministry of Defence interest?***

We agree that consideration of defence/aviation use of the band is important. Whilst solutions are possible, such use can make sharing inherently challenging, as well as any migration/clearance particularly expensive. Our view is that the band should therefore take a low priority compared to existing under-utilised mobile allocations and empty bands such as 1452-1492MHz.

***Q6: For the band 1452 – 1492 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?***

We fully support the designation of this band (eg for supplemental downlinks) and further, urge there should also be a defined delivery plan for it to be brought into use, or the current licenses be forfeit and be re-auctioned.

***Q9: Noting that there is currently limited international support for a co-primary mobile allocation in the band 2700 – 2900 MHz, do you think that we should continue to support this band at WRC-15?***

BAE Systems and other UK radar companies have been supportive of UK/CAA efforts around 2.6GHz radar mitigation, as well as 2.7-2.9GHz re-planning (and associated radar upgrades).

It is important to make a final effort in order to clearly determine if there will be wider acceptance and support for such a major engineering change, or close down the option entirely. As with the rest of AI-1.1, long term certainty must be an overriding goal for both sides of industry. We do not want ongoing uncertainty under a WRC18 continuation or beyond.

**Q11: Do you agree that we should oppose a co-primary mobile allocation at WRC-15 for the band 470 – 694 MHz?**

Yes - In our view there is no justification for IMT in this range, which have serious consequence for both broadcasting and white-space developments

**Q13: 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?**

PPDR increasingly requires interoperability between different services, (inc police, fire and ambulance, coastguard etc). Spectrum and equipment solutions must be strongly harmonised to enable this and facilitate cross-border and international relief missions as well.

**Q16: 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?**

*The 5GHz band is an important one for the defence & aviation industry (particularly given the loss of spectrum in lower frequencies). Therefore at this time are reluctant to support FSS use*

**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?**

BAE Systems is a leading UAS developer and along others in the aviation industry fully recognise that any solution must support aviation safety requirements and regulation. Unmanned aircraft in busy shared civilian airspace inherently raise safety issues. We have closely followed this agenda item (as we did with its WRC12 predecessor that allocated spectrum at 5GHz).

Whilst a series of options have been proposed that can satisfy the aviation requirements, we are to say the least, deeply disappointed by what has effectively been a long running inflexible and unhelpful approach by the FSS industry .

**Q24: 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?**

Yes – there are strong benefits from WAIC and solutions that facilitate it. This merits strong support and will support aerospace innovation and growth

***Q42: Do you have any comments regarding UK positions for future WRC agenda items?***

We are strongly opposed to the proposal by Sweden to effectively repeat AI-1.1 in the bands below 6GHz. This should be ruled out of order and not supported.

For IMT in bands above 6GHz, BAE Systems supported Samsung and others in a focused proposal promoting innovative use of the 20-40GHz (revised later to 20-50GHz) range. The lower millimetre wave bands offer innovation, synergies and benefits; and have the bandwidth to accommodate this. We would stress that the proposal was also deliberately focussed on existing mobile Primary allocations in order to avoid the open-ended damaging uncertainty that AI-1.1 caused. Likewise, it is absolutely critical that Ofcom recognise the benefits of a focussed item right at the start in any Agenda Item resolution, should this proceed.

***Q44: 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?***

Our preference for IMT itself remains the Primary Mobile service allocations in the 20-40GHz range (recognising radiolocation usage at 35GHz). This could separately be supplemented by wireless offload in the exempt 60GHz band (802.11ad WiGig etc).