

Your response

Question	Your response
Question 1: Do you agree with the prioritisation of the agenda items, as shown in Annex 5, and if not why?	-
Question 2: What are your views on the continued need to protect global aeronautical and maritime services, in the 4.8 – 4.99 GHz band, under this agenda item?	-
Question 3a: Do you agree that the UK interest in the bands 3 600-3 800 MHz and 3 300-3 400 MHz in Region 2 (North & South Americas) should be limited to any impacts on UK operational use in those areas?	-
Question 3b: Do you agree that the UK should maintain its objections to changes to the regulatory environment for the band 3300-3400 MHz (in Region 1, Europe, Africa, Middle East), noting UK has interests in use of radar for both ground and airborne operations?	-
Question 3c: What is your view on the use of 6425-7025 & 7025-7125 MHz, and what evidence do you have to support this view? How does that inform your views on a IMT identification in these bands?	-
Question 3d: What are your thoughts on the current UK view that IMT should not be identified in Region 2 in the band 10-10.5 GHz in order to ensure the protection of the globally operating EESS (active) systems and airborne & vessel mounted radars?	-
Question 4: Do you agree that, where no additional technical limitations are placed on mobile services, the UK can support an upgrading of the mobile allocation, in 3600 - 3800 MHz, from secondary to primary?	-

<p>Question 5: What are your views on the development of regulatory conditions to facilitate deployment of high altitude IMT base stations in IMT identified bands below 2.7 GHz?</p>	<p>-</p>
<p>Question 6: Do you agree that a formal modification to the Radio Regulations is not needed for fixed service applications that use IMT technologies?</p>	<p>-</p>
<p>Question 7: What are your views on the proposed approach for 470-694 MHz, recognising the national decisions already in place and taken for DTT multiplex licensing in the band, and the additional and supplementary spectrum made available for UK PMSE usage?</p>	<p>-</p>
<p>Question 8: What are your views on the need to establish an international regulatory environment that provides adequate protection of UK fixed links from earth stations in motion, in the band 12.75 – 13.25 GHz, which is also practicable from an enforcement/implementation perspective?</p>	<p>-</p>
<p>Question 9: Do you agree that the UK continues to support the maritime distance figure for ESIMs that work to non-geostationary satellites and to test the other conditions agreed at WRC-19 for ESIMs working to geostationary satellites to ascertain whether these remain appropriate for non-geostationary satellites?</p>	<p>-</p>
<p>Question 10: What are your views on whether an allocation to inter satellite links is necessary for existing satellite allocated bands and whether this would provide benefits internationally?</p>	<p>-</p>
<p>Question 11: What are your views on the need for additional satellite allocations in support of narrowband IoT “M2M” type applications, noting that there remains the continued use of PMSE for wireless cameras in the band 2010 – 2025 MHz?</p>	<p>Kepler agrees that there is an increasing demand for narrowband mobile-satellite service (NB-MSS) systems using small satellites for the delivery of low data rate applications such as machine to machine (M2M) and Internet of Things (IoT) operations. Compared with geostationary (GEO) systems, non-geostationary (NGSO) systems operating in low-earth orbit</p>

(LEO) are of particular interest due to their low-complexity design, short deployment time, and reduced operation cost. Such systems could significantly benefit businesses, citizens and consumers worldwide, especially those located in remote, hard-to-reach areas that are not covered by existing communication networks.

Ofcom has voiced concerns regarding the operation of wireless cameras (PMSE) in the 2010 – 2025 MHz band in the UK as well as several other European countries. As Ofcom appropriately pointed out, the proposed NB-MSS systems under AI 1.18 feature small channel bandwidths (up to a few hundred kilohertz per channel), low transmit power, and infrequent transmissions. All these factors are envisaged to minimise the risk of causing harmful interference into other radio services. Preliminary sharing and compatibility studies submitted to ITU-R Working Party 4C (the responsible group for AI 1.18) showed promising results with regard to coexistence of NB-MSS and existing terrestrial services, including IMT2020 and fixed services, operating in and adjacent to the band 2010 – 2025 MHz.¹¹ Nevertheless, further technical work needs to be done to carefully assess the risk of interference from NB-MSS into PMSE and explore possible mitigation techniques if necessary.

Ofcom has misinterpreted the event in which Hiber decided to migrate its IoT services from its own satellite network to another operator's network. This individual case should not be interpreted as "the current market trends" or "more effective use of current spectrum capacity", but instead as the result of internal difficulties faced by the operator.²² Moreover, the operational characteristics of incumbent MSS systems may constrain and effectively hamper the sharing of existing MSS spectrum, as suggested in Report ITU-R M.2218 and stated in *considering d*) of Resolution 248 (WRC-19). This has been and will remain a strong justification for new allocation in support of NB-MSS systems.

¹ [Document 4C/384-E](#), Sharing and compatibility studies between NB-MSS uplink and existing primary services in and adjacent to 2 010-2 025 MHz in Region 1, 1 September 2022. (ITU TIES access required)

² "Hiber abandons plans for IoT satellite constellation", - <https://spacenews.com/hiber-abandons-plans-for-iot-satellite-constellation/>

<p>Question 12: What are your views on the proposed approach to this agenda item concerning the fixed satellite service in 17.3-17.7 GHz in Region 2?</p>	-
<p>Question 13a: On Topic B, what are your views on the post milestone procedures for non-geostationary satellite systems?</p>	-
<p>Question 13b: On Topic L, what are your views on regulatory conditions for Telemetry, Tracking and Command (TT&C) for NGSO in-orbit servicing?</p>	-
<p>Question 13c: What are your views on the remaining topics currently listed for Agenda Item 7?</p>	-
<p>Question 14: Noting that any UK position will be developed only after the ITU Plenipotentiary Conference, do you have any comments relating to the use of Article 48 that may be addressed at WRC-23?</p>	-
<p>Question 15: What are your views on the need to establish an international regulatory environment for sub-orbital vehicles, which at the same time does not limit flexibility of spectrum options, and retains international safety considerations?</p>	-
<p>Question 16: Do agree that where the adjacent band compatibility issues are addressed and ICAO coordination processes are not compromised, that the addition of an aeronautical satellite (AMS(R)S) allocation to the band can be supported?</p>	-
<p>Question 17: Do agree that functions related to international aviation safety are a matter for ICAO? On this basis, and absent any contrary information from ICAO, should the UK support the development of an international spectrum regulatory framework</p>	-
<p>for UA use of FSS that would support efficient use of spectrum?</p>	

<p>Question 18: Recognising the recent diminishing industry interest in this item relating to possible modification of the aeronautical HF assignment plan, and the general lack of global interest, do you agree that UK move towards a No Change proposal under this agenda item?</p>	-
<p>Question 19: What are your views on the need for additional spectrum, specifically in the 15 and 22 GHz bands, for non-safety aeronautical use?</p>	-
<p>Question 20: What are your views on Agenda Item 1.11 and the proposed UK position to support modernisation of GMDSS?</p>	-
<p>Question 21: What are your views on the approach to the review of 1240-1300 MHz, recognising that discussions concerning future satellite navigational needs for the UK are a matter for Government?</p>	-
<p>Question 22: What are your views on a new spectrum allocation in the 40-50 MHz range to support and enhance climate monitoring, such as, environmental shifts in ice sheets?</p>	-
<p>Question 23: What are your views on upgrading the Space Research Service allocation, from secondary to primary, in the 14.8-15.35 GHz band?</p>	-
<p>Question 24: What are your views on the potential for defragmentation in this band to facilitate both EESS (passive) use and provide for larger contiguous blocks for fixed & mobile allocations?</p>	-
<p>Question 25: Do you agree that formal international recognition for Space Weather Sensors should be implemented in the Radio Regulations?</p>	-
<p>Question 26: What are your views on the limits proposed to protect EESS (passive) under Agenda Item 9.1 topic d) and do you have any views on which of these limits might be accommodated in the Radio Regulations and how?</p>	-

<p>Question 27: Do you agree that the formalised time reference in common global use, is not a matter of spectrum regulation?</p>	<p>-</p>
<p>Question 28: Do you have any comments concerning the Standing Agenda Items, where not covered elsewhere in this document?</p>	<p>-</p>
<p>Question 29: Do you have a view on any of the footnotes to which UK is a party?</p>	<p>-</p>
<p>Question 30: Are you aware of any specific issues, not covered elsewhere in this document, which are likely to be raised in this part of the Director’s Report and of which you think Ofcom should be aware?</p>	<p>-</p>
<p>Question 31: Do you have any comments on Agenda Item 9.3 considering Resolution 80?</p>	<p>-</p>
<p>Question 32: What changes to the Radio Regulations have you identified that would benefit from action at a WRC and why? Do you have any proposals regarding UK positions for future WRC agenda items or suggestions for other agenda items, needing changes to the Radio Regulations, that you would wish to see addressed by a future WRC?</p>	<p>There are currently no agreed sharing and compatibility studies to support allocation of new MSS spectrum for delivering NB-MSS applications under AI 1.18. This is attributable to the ambiguity in the interpretation of Resolution 248 (WRC-19).</p> <p>Kepler maintains the perspective that a revision to Resolution 248 (WRC-19) or a new Resolution will address the difficulties encountered during the WRC-23 study cycle and underpin a new Agenda Item to be considered in the WRC-27 cycle.</p> <p>Kepler notes that CEPT expressed the same view and interest in the 2010 – 2025 MHz band for a global allocation at the September Working Party 4C meeting. Moreover, a preliminary AI 2.13 for WRC-27 has already been established in Resolution 812 (WRC-19).</p> <p>Kepler recommends that the UK support both CEPT and Kepler’s position for a WRC-27 Agenda Item to consider new global allocation for NB-MSS.</p>
<p>Question 33: What are your views on the use of IMT stations that use antennas that consists of an array of active elements, in bands shared with satellite services?</p>	<p>-</p>