

Your response

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Question 1: Do you have any views on the options for managing the 2 GHz MSS band after 13 May 2027? Are there any options that Ofcom has overlooked?	Confidential? – N Terrestar submits that the three policy options put forward at section 4 of the consultation document represent well the range of possibilities for managing the 2 GHz MSS band after 13 May 2027.
Question 2: Do you agree with our proposal for a short-term transition period, which authorises Viasat and EchoStar? Please set out your reasoning.	Confidential? – N Terrestar agrees with the proposal for a short-term transition period during which Viasat and EchoStar would be authorised to continue their existing use of the 2 GHz MSS band spectrum. As stated by Ofcom, a short-term extension would (i) mitigate business disruption and adverse effects on consumers, (ii) allow Ofcom to monitor market and service developments and (iii) enable Ofcom to consider the potential benefits of some degree of alignment with the EU's long-term approach.
Proposal for interim transition period	
Question 3: Do you agree with our preferred option for the duration of the proposed interim authorisation to be a three-year fixed period? Please set out your reasoning.	Confidential? – N Terrestar agrees with Ofcom's assessment that a three-year interim authorisation period for existing incumbents would be preferable to a five-year interim authorisation period. A three-year period would ensure continuity of existing services whilst also allowing enough time for migration planning, where relevant. The MSS technology ecosystem and global competitive environment are evolving quickly, and each national administration must ensure that it is able to react to these developments in a timely manner, including by facilitating the migration of existing licensees to new technologies.

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Question 4: Do you agree that our proposed approach to authorise continued use of the spectrum during the interim authorisation period through a CGC licence, licence exemption, and Aircraft Radio licence? If not, please set out your reasoning and alternative suggestions.	Confidential? – N Terrestar agrees with the proposed approach to authorise continued use of the spectrum during the interim authorisation period.
Question 5: Do you have any comments on the alternative approach we have considered, of licensing the satellite operators to use 2 GHz MSS during the interim authorisation period? If you have a preference for this approach, please set out your reasoning.	Confidential? – N Terrestar has no comments on the alternative approach.
Question 6: What are your views on the approach Ofcom should take to fees for the interim authorisation period? Please set out your reasoning and provide evidence where appropriate.	Confidential? – N Terrestar has no comments on the approach Ofcom should take to fees for the interim authorisation period.
Question 7: Do you agree with our proposals to enable additional users to access the spectrum during the interim period? If yes, do you have a preference for how we should enable other users during the short-term extension period? Please set out your reasoning.	Confidential? – N Terrestar has very strong reservations regarding spectrum sharing in the 2 GHz MSS band. User terminals employed for MSS in this band are inherently nomadic. They rely on low-gain omnidirectional antennas that cannot discriminate between wanted and unwanted signals. The appearance of a second MSS system in a frequency range and at a geographic location where a first MSS system is already operating would so degrade signal-to-noise ratios that neither system would be able to function at nominal levels. As a result, any effort to introduce spectrum sharing in the 2 GHz MSS band, even on an interim basis, must be contingent on a robust technical demonstration that it will not cause harmful interference to existing MSS services offered in the band.

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Question 8: Do you have any other views on the details of our proposal to authorise Viasat and EchoStar during the interim period?	Confidential? – N Terrestar has no other views on this matter.
Proposals for deciding on our longer-term approach to 2GHz MSS	
Question 9: Do you have any comments on the technical and operational implications of the four approaches to long term authorisation we have set out?	Confidential? – N As noted at section 6 of the consultation document, an important issue cutting across most if not all of Ofcom's four long-term authorisation approaches is the trade-off that exists between the number of providers that might use the 2 GHz MSS band and the quality of the services that can be offered by these providers. Terrestar has examined this issue in the Canadian context. A copy of our submission to a recent consultation held by ISED, the Canadian administration, can be found at https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/learn-more/key-documents/comments-received-smse-008-26-preliminary-consultation-mobile-satellite-service-developments-and-use. Our analysis showed that any reduction in the quantity of spectrum available to a given MSS LEO operator through spectrum segmentation must be compensated by a more-than-proportional increase in the number of satellites in that operator's constellation if it is to maintain the same quality of service to its end-users. This non-linear impact on constellation size is due to the fact that modern 3GPP-based MSS systems rely heavily on advanced resource management techniques such as beam hopping, time reuse and frequency reuse to maximize spectrum utilization, which operate most efficiently when the entire spectrum resource is managed as a single pool. Depending on the degree of spectrum fragmentation, the pressure to increase constellation size becomes unsustainable and quality of service degrades, most notably for real-time use cases, including voice and certain broadband applications.

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	In light of these realities, Terrestar recommended to ISED that it reject fragmentation of the 2 GHz MSS band in Canada. In doing so, we noted that several global MSS systems are already in place or in advanced development in the L or Big LEO MSS bands, or in Mobile spectrum bands approved for D2D services, hence there is no need to artificially create new competitors in the 2 GHz MSS band. Decades of experience in the terrestrial mobile sector show that larger contiguous spectrum channels drive increased spectrum efficiency and improved service to end-users. MSS spectrum is a rare and valuable resource, the allocation of which must be optimized in a similar manner. We encourage Ofcom to give due consideration to the above factors and to resist calls to unnecessarily multiply the number of MSS competitors at the expense of service quality.
Question 10: Which would you consider is the optimal approach to take for long-term authorisation? Are there any alternative approaches we have not considered? If so, please outline them.	Confidential? – N See our response to question 9. Regardless of the long-term authorisation approach ultimately adopted by Ofcom, we recommend that a high priority be placed on maintaining spectrum contiguity in the 2 GHz MSS band. Practically speaking, this likely means maintaining a minimum authorisation of 2x15 MHz per operator in the band.
Question 11: Do you have any further comments on factors we should consider when determining our approach to the longer-term UK authorisation of the 2 GHz MSS band?	Confidential? – N Terrestar has no further comments on this matter.
Question 12: Do you have any comments on the Impact Assessments?	Confidential? – N Terrestar has no comments on the Impact Assessment.