

## Your response

Question	Your response
<p><b>Question 1:</b> Do you agree with our proposal to update the Earth Station Network Licence to include a new provision authorising NGSO maritime services in the territorial seas of the UK and the Crown Dependencies? If you do not agree, please explain your reasons.</p>	<p>Mangata Edge Ltd (“Mangata”) supports Ofcom’s proposal to amend the Earth Station Network Licence to authorise NGSO terminals on maritime vessels and offshore facilities to use Ka band frequencies within the territorial seas of the UK and Crown Dependencies.</p> <p>Mangata holds an Earth Station Network licence for NGSO service in the Ka-band.<sup>1</sup> By amending this licence to include maritime terminals, Ofcom will enable Mangata and similar NGSO licence holders to deliver high-capacity broadband internet services to vessels and mobile platforms operating in UK waters, including those used for commercial shipping, energy production, leisure and tourism, transportation, emergency response and defence.</p>
<p><b>Question 2:</b> Do you agree with our proposal to introduce a licence condition in relation to NGSO downlinks to protect GSO satellites, and earth stations communicating with GSO satellites? If you do not agree, please explain your reasons.</p>	<p>While we understand Ofcom’s arguments to place this additional licence condition on NGSO operators, we wish to ensure that complying with such a condition would not place any additional burden on NGSO operators beyond those stipulated in the Radio Regulations. In other words, the demonstration of compliance with this licence condition (Schedule 1 Section 3.7 of the licence) should be limited to, for example, the procedure specified in the Circular Letter CR/414. Any deviation from this would be unwarranted and would amount to an additional burden on NGSO systems.</p>

<sup>1</sup> *Mangata Edge Ltd: Application for a non-geostationary Earth Station Network licence*, Ofcom, Decision (published 9 Feb. 2023).

**Question 3:** Do you agree with our proposal to introduce a licence condition setting out requirements for the protection of radio astronomy from harmful interference in relation to NGSO downlinks? If you do not agree, please explain your reasons.

No comment.

**Question 4:** Do you agree with our proposal to introduce licence conditions setting out requirements for the protection of fixed links from harmful interference in relation to NGSO downlinks? If you do not agree, please explain your reasons.

As we mentioned in our response to the question 2, we understand Ofcom's arguments to place this additional licence condition on NGSO operators. However, we wish to ensure that complying with such a condition would not place any additional burden on NGSO operators beyond those stipulated in the Radio Regulations. In other words, the demonstration of compliance with this licence condition should be limited to the demonstration of compliance with Article 21 PFD limits as specified in the Radio Regulations. Any deviation from this would be unwarranted and would amount to an additional burden on NGSO systems.

In this context, Schedule 1 Section 3.8.r seems to place an additional unwarranted burden on NGSO systems. Ofcom will recognise that PFD limits in Article 21 (Section V – Limits of power flux-density from space stations) have been derived by the ITU to provide required protection for the fixed service.

Further, we believe that the use of the term "undue interference" in the context of fixed links is inappropriate.

For these reasons, Schedule 1 Section 3.8.r should be not included in the licence.

**Question 5:** Do you have any additional comments regarding any of our proposals?

We noted the proposals to amend the Licence. Please find our additional comments provided in a new page below.

Question 5: Additional comments.

1. We noted that the template of Earth Station Network Licence shown in A5 is common to both GSO and NGSO licensees. This Licence does not state whether the earth stations licenced under it communicate with a GSO or a NGSO system or in which frequency bands

(except in its Schedule 2). However, even the Schedule 2 does not make it clear (see below). We believe that it would be helpful if the licence clearly identifies the GSO or NGSO satellite network/system to which the earth stations are expected operate and the frequency bands within which the earth stations are expected to operate. Clear identification of these allows the rest of the licence document to be read in proper context (for example “Clause 3 Limitations on use” stipulate conditions that apply separately to GSO and NGSO systems, as well as collectively).

2. Ofcom requires applicants to the NGSO Earth Station Network Licence to demonstrate coexistence between applicant’s NGSO system and other NGSO systems, including those of existing licensees and future systems. The applicants demonstrate such coexistence based on the applicant’s NGSO system currently in operation or the one they plan to operate. Such applicant’s NGSO system is generally defined by one or more satellite filings made to the ITU, rather than the name of the satellite system. Changing the operational parameters or changing the number of satellites (such changes can be realised with additional filings made to the ITU) affects the coexistence with other NGSO systems. For these reasons, it may be necessary for the NGSO system to be defined clearly in Schedule 2, not only identifying the name of the satellites, but also the related satellite filings.
3. The “Frequency bands” listed (in a separate box) should clearly state those applying to GSO networks and NGSO systems (or both). In our view current representation is ambiguous.
4. Schedule 3 refers to Schedule 1, Sections 2 i) and j). We could not locate such sections in Schedule 1 as presented in the Section A5 of the consultation document.