

28GHz Project Team

**Ofcom**

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Issy-les-Moulineaux, 17 September 2024

**Topic: Information regarding current and planned use of land-based user terminals in Ka band (27.5 – 30 GHz)**

Dear Sir/Madam,

In response to your letter dated 20 August 2024, regarding information on current and planned use of land-based user terminals in the Ka band, Eutelsat Group would like to submit the following:

Eutelsat Group would like to reiterate that the 28GHz band is a core band for FSS services for both GSO and NGSO satellite networks. As highlighted in our response to Ofcom's previous consultation on Increasing use of the 27.5 – 30GHz band,<sup>1</sup> satellite demand for the use of the said band is only expected to continue growing in the future.

Eutelsat Group, through its wholly owned subsidiary company Skylogic SPA, holds two Satellite Earth Station Network licenses issued by Ofcom for satellite user terminals operating in the Ka band.<sup>2</sup> In this context, and noting increased consumer demand, we would encourage Ofcom to make more spectrum available to satellite land-based user terminals on a primary basis - in addition to satellite Gateways - to help meet evolving needs.

Please find below our responses to Ofcom's questions:

## Questions

### **1. For currently operational satellites:**

*a) Have you deployed land-based user terminals in the Ka band?*

Yes. Several land user terminals in Ka band have already been deployed and are operational within the UK territory.

*b) If yes, how many terminals have you deployed to date?*

See response in Annex 1.

*c) What use case(s) are these terminals used for?*

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<sup>1</sup> <https://www.ofcom.org.uk/spectrum/space-and-satellites/increasing-use-of-the-27-5-to-30-ghz-band/>

<sup>2</sup> ESN License No. 1225587/1 dated 18/05/2020 associated with our GSO KONNECT - F-SAT- N7 - 3E satellite, and ESN License No. 1307542/1 dated 24/03/2023 associated with our GSO KONNECT - F-SAT- N3 - 7E satellite.

The terminals currently deployed in the Ka band mainly serve for the provision of broadband internet access services directly to user (consumer or corporate) premises.

*d) What is/are the specific frequency range(s) within the Ka band (17.7-20.2 GHz downlink and 27.5-30GHz uplink) that your land-based user terminals use (uplink and downlink) to connect to your satellites?*

See response in Annex 1.

## **2. For future satellite services you are planning to deploy in the next 5-10 years:**

*a) Are you planning to deploy user terminals in the Ka band?*

Yes. Consumer demand is expected to grow in the future. Therefore, we expect to deploy a bigger number of terminals within the next 5-10year period. We thus call upon Ofcom to prioritize allocating more 28GHz spectrum than what is currently available to land-based satellite user terminals.

*b) If yes, what use case(s) will these terminals be used for?*

Satellite user terminals to be deployed in the near future in the Ka band will be used mainly for the provision of broadband internet access services towards consumers and corporate users. We also aim to deploy satellite user terminals for fixed, and for aeronautical and maritime mobility services.

*c) What is/are specific frequency range(s) that the land-based user terminals will use (uplink and downlink) to connect to your satellites?*

To ensure enough flexibility in the future development of satellite communications systems, we would like to request Ofcom to make more spectrum available in the Ka band for land-based user terminals to assist in meeting the growing satellite connectivity sector needs.

We would thus kindly request Ofcom to ensure that at least the following frequency ranges remain and become accessible to land-based user terminals in the Ka band spectrum in the UK:

Uplink (Earth-to-space):

28.4445 – 28.9485 GHz<sup>3</sup> and 29.4625– 30.0000GHz

FSS Downlink (space-to-Earth):

17.3000 – 20.2000GHz

*d) When are you planning to make these services commercially available in the UK?*

Our Konnect and KVHTS services are already commercially available in the UK and land-based user terminals have been deployed and are currently offering services to consumers and businesses in the Ka band. Noting our already-existing business in the UK market, we expect further increase in the use of land-based user terminals in the Ka band within the coming years.

*3. For current and future satellite services: What are your preferred channel sizes for Ka band land-based user terminals? Do you have flexibility to use different channel sizes? If so, please provide details.*

To the contrary of terrestrial fixed and mobile networks, satellite user terminals are not transmitting or receiving in pre-defined fixed channels. Size of carriers are adapted to the data rate requirement,

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<sup>3</sup> As per our response to the March 2024 consultation, we kindly ask Ofcom to additionally allocate at least the 28.8365 – 28.9485 GHz to land-based satellite terminals to ensure continuity of spectrum in line with ECC Decision (05)01.

taking into account propagation performances. And such size can be across a large range of possibilities. Therefore, we recommend keeping the option of a flexible usage of satellite spectrum without channelization.

*4. Responses to our March consultation "increasing use of 27.5-30GHz" suggest that there is demand for land-based user terminals in the UK to access 2 x 224 MHz (27.8285 – 28.0525 GHz and 28.8365 – 29.0605 GHz) rather than 1 x 112 MHz (28.8365 – 28.9485 GHz). Do you have any information on how the availability of 2 x 224 MHz for land-based user terminals would impact the number of consumers and customers you could connect, product speed, or the quality of service you could provide via these land terminals (compared to just having 1 x 112 MHz available)?*

No further comment – refer to Q. 2c) above.

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We would like to thank Ofcom for giving us the opportunity to provide more information on our current and future spectrum demands in the Ka band and commend Ofcom for the continuous efforts to understand and meet industry needs.

Sincerely,

Mr. Fabrice BARBEDETTE

Market Access Director

