

**Avanti Communications Group plc Response**  
**To**  
**“Ofcom Consultation on the authorisation of Earth Stations on Mobile Platforms”**

**Deadline: 10 October 2013**

Avanti Communications ('Avanti') welcomes the opportunity to respond to Ofcom's consultation on Earth Stations on Mobile Platforms (ESOMPs) for GSO Satellite Systems.

Avanti is a UK headquartered satellite broadband data service provider with two Ka-band GSO satellite systems (HYLAS-1 and HYLAS-2) already in operation and further Ka-band GSO systems planned. See [www.avantiplc.com](http://www.avantiplc.com)

We believe that this Ofcom consultation is only in the context of GSO satellite systems and shall not be applied to NGSO satellite systems. We would like Ofcom to make it absolute clear that the proposed regulations is only applicable to GSO ESOMPs. We note in this regard there is no CEPT ECC Decision relating to Non-GSO ESOMPs or an ETSI EN relating to Non-GSO ESOMPs; it would therefore be inappropriate to assume or imply or interpret that Ofcom's proposed regulations also apply to Non-GSO ESOMPs.

As Avanti has indicated on a number of occasions to Ofcom, we generally believe that there is a significant risk that ESOMPs operating with GSO systems would not be able to meet from time to time or from location to location – due to poor pointing, platform tilts, grating lobes etc - certain parameters and technical characteristics which have been stipulated as ETSI standards. This then creates significant harmful interference risks to adjacent or nearby GSO satellite systems operating with FSS earth stations. Avanti in general believes that in coming years Ofcom (and other NRAs) will be faced with significant real-world enforcement issues in connection with the use of some ESOMPs with some GSO satellite systems.

Avanti proposes that to mitigate the above risk, as a minimum requirement, the following two parameters are referred on the mandatory part of the Table 3.1 on page 24 of the Ofcom's consultation on Earth Stations on Mobile Platforms (ESOMPs).

1. Reference to the limits of “Off-axis EIRP emission density within the band” as stipulated in section 4.2.3 of the ETSI EN 303 978 V1.1.2.
2. Reference to the “Antenna pointing and polarization alignment” as stipulated in section 4.2.6 of the ETSI EN 303 978 V1.1.2.

Avanti understands (possibly incorrectly) that the scope of this consultation is for the use of GSO ESOMPs only in the UK. Avanti believes that the potential establishment of regulations for GSO ESOMPs in the Crown Dependencies (i.e. Jersey, Guernsey, Isle of Man) and British Overseas Territories (e.g. Cayman Island, Bermuda etc) is a matter for those jurisdictions and not within the scope of this Ofcom consultation. Avanti would request Ofcom to appropriately clarify this matter consistent with applicable legislation and Ofcom's terms of reference.

Below are Avanti's answers to the specific questions set on this consultation.

***Question 1) Do you agree that Ofcom should authorise the use of ESOMPs in the UK in the frequency bands 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 30 GHz?***

Avanti supports that these frequency bands are made available in the UK only for GSO ESOMPs, provided that the ETSI EN standard for ESOMPS (ETSI EN 303 978 V1.1.2.) is applied on a mandatory basis. Or at least the following two parameters are referred on the mandatory part of the Table 3.1 on page 24 of the Ofcom's consultation on Earth Stations on Mobile Platforms (ESOMPs).

1. Reference to the limits of "Off-axis EIRP emission density within the band" as stipulated in section 4.2.3 of the ETSI EN 303 978 V1.1.2.
2. Reference to the "Antenna pointing and polarization alignment" as stipulated in section 4.2.6 of the ETSI EN 303 978 V1.1.2.

***Question 2) Do you agree with Ofcom's proposal to exempt from licensing the establishment, installation and use of land-based ESOMP equipment that transmits in the frequency bands 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 30 GHz?***

Avanti supports this proposal in the context of land-based ESOMPS associated with only GSO satellite systems. However, the following two parameters should be made as mandatory to avoid unacceptable interference to adjacent GSO satellites.

1. Reference to the limits of "Off-axis EIRP emission density within the band" as stipulated in section 4.2.3 of the ETSI EN 303 978 V1.1.2.
2. Reference to the "Antenna pointing and polarization alignment" as stipulated in section 4.2.6 of the ETSI EN 303 978 V1.1.2.

***Question 3) Do you agree that ESOMP equipment mounted on aircraft or ships should be licensed to transmit in the frequency bands 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 30 GHz using the existing Notice of Variation process?***

Avanti agree with the methodology proposed by Ofcom in the context of GSO satellite systems. See also above.

***Question 4) Do you agree with the proposed technical provisions given in the Draft Interface Requirement and Draft NoVs?***

Avanti recommends that Draft Interface Requirement and the Draft NoVs clearly clarify and unambiguously indicate that the technical regulations are applicable only for ESOMPs operating with GSO satellite systems.

In addition, Avanti proposes that as a minimum requirement, the following two parameters are referred on the mandatory part of the Table 3.1 on page 24 of the Ofcom's consultation on GSO Earth Stations on Mobile Platforms (ESOMPs).

1. Reference to the limits of “Off-axis EIRP emission density within the band” as stipulated in section 4.2.3 of the ETSI EN 303 978 V1.1.2.
2. Reference to the “Antenna pointing and polarization alignment” as stipulated in section 4.2.6 of the ETSI EN 303 978 V1.1.2.