

Asia: LVM045:00/2019

26 GHz:n taajuusalueen huutokauppa/ Auctioning of the 26 GHz spectrum

Lausunnonantajan lausunto

Voitte kirjoittaa lausuntonne alla olevaan tekstikenttään

Intelsat kiittää mahdollisuudesta antaa lausunto koskien 26 GHz:n taajuusalueen huutokauppaa ja lähettää alla olevat huomiot englanniksi EMEA Satellite Operator's Association (ESOA) puolesta.

As a trade association, the EMEA Satellite Operator's Association (ESOA) welcomes the opportunity to provide comments to Traficom (Finnish Ministry of Transport and Communications) in response to its Consultation for the auctioning of licences in the 25.1-27.5 GHz frequency band (here below called "Consultation").

ESOA is a non-profit organisation established with the objective of serving and promoting the common interests of EMEA satellite operators. The Association is the reference point for the European, Middle Eastern, and African satellite industry and today represents the interests of 34 members, including satellite operators who deliver communication services across the globe as well as EMEA space industry stakeholders and insurance brokers.

ESOA members are particularly involved in the discussions on spectrum identification for 5G, since several frequency bands prioritised in Europe (or identified at ITU level by WRC-19) are essential for satellite communications. Our comments are specifically related to the Finnish plans for auction and authorisation of 5G systems in the 25.1-27.5 GHz band.

ESOA fully understands the interest of the 26 GHz band for the mobile industry, and in particular to deploy 5G in dense urban areas. WRC-19 identified the frequency band 24.25-27.5 GHz for IMT, subject to specific conditions (Resolution 242 (WRC-19)), as highlighted by Traficom.

ESOA also notes Traficom's intentions to adopt technical restrictions of use and licence conditions for the 26 GHz band usage in accordance with EU Commission Implementing Decision (EU) 2019/784. Indeed, the introduction of new technologies should not be at the expense of, either some other industries, or incumbent users.

As a consequence, ESOA happily expects that Traficom is to fully take into consideration the prescriptions of ECC Decision (18)06 (available at: <https://www.ecodocdb.dk/download/5e74d0b8-fbab/ECCDec1806.pdf>), from which the following requirement is extracted: "Furthermore, administrations need to maintain the possibility of existing and future earth stations (EESS/SRS and FSS) to operate".

ECC Decision (18)06 thus stipulates the following (Considerings):

- ✓ "j) that the technical conditions related to coexistence with other services attached to this Decision have been developed on the assumption of an individual authorisation framework; any other assumption on the authorisation framework, such as general authorisation or a combined individual/general authorisation regime may require different and/or supplementary technical conditions;
- ✓ n) that a regular assessment of the evolution of MFCN system characteristics, including network deployments, in a timeline consistent with the 5 years review process of the Decision, or sooner if necessary, will provide additional confidence that these LRTC (Least Restrictive Technical Conditions) ensure adequate protection of other services, in particular space services;
- ✓ o) that appropriate provisions are needed in the authorisation for MFCN to define precisely how to safeguard in a proportionate way the use of existing EESS/SRS receiving earth stations and the possibility for future earth station deployments in the 25.5-27 GHz frequency band;
- ✓ p) that appropriate provisions are needed in the authorisation for MFCN to define precisely how to safeguard in a proportionate way the use of existing FSS transmitting earth stations and the possibility for future earth station deployments in the 24.65-25.25 GHz frequency band;
- ✓ q) that methodologies will be developed to support coordination/coexistence between MFCN and earth stations in the 26 GHz band (receiving EESS/SRS and transmitting FSS earth stations) through the definition of suitable separation/coordination areas and/or any other solutions as part of appropriate provisions mentioned in considerings o) and p));

✓ r) that most sharing studies have shown that Fixed-Satellite Service (FSS) and the Inter-Satellite Service (ISS) would be protected with a margin of more than 12 dB, based on agreed assumptions, and it will be necessary to ensure that these services remain protected (see considering n);

✓ s) that the pointing elevation of the main beam (electrical and mechanical) should normally be below the horizon for outdoor base stations;”

With respect to Considering j) above, the technical conditions provided in CEPT Report 68 for the use of the 26 GHz frequency band (available at: <https://www.ecodocdb.dk/document/3358>), which Traficom also references, are based on the assumption of an authorisation regime based exclusively on individual rights of use including “general restrictions of use” (in section 3 of: https://www.traficom.fi/sites/default/files/media/file/EN_Background_regarding_technical_restrictions_of_use_in_the_26_GHz_band.pdf), which is conducive to ensuring appropriate co-existence with current band usage. ESOA would anticipate that Traficom agrees that other authorisation framework such as general authorisation or a combined individual/general authorisation regime would require additional technical conditions to ensure appropriate coexistence of terrestrial systems capable of providing wireless broadband electronic communications services with other services in the band, taking due account of continued deployment of FSS, EESS and SRS satellite earth stations.

With respect to Considering p) above, ESOA also notes that ECC PT1 recently delivered a new draft ECC Recommendation (20)01 on “Guidelines to support the introduction of 5G while ensuring, in a proportionate way, the use of existing and planned FSS transmitting earth stations in the frequency band 24.65-25.25 GHz and the possibility for future deployment of these earth stations” (available at: <https://www.cept.org/ecc/groups/ecc/ecc-pt1/client/meeting-documents/file-history/?fid=56630>).

With respect to Considering s) above, ESOA further welcomes Traficom’s instructions that license holders in the 26 GHz band have base stations that do not transmit above the horizon. It is to be noted that 5G base stations in these frequencies will leverage smart antennas which adapt their emission characteristic to the location of the end users. This presents a specific risk as antenna panels, irrespective of their physical downtilt, could start transmission with the main beam above the horizon through beamforming. Such cases are very realistic, for example a lamppost-mounted base station transmitting to an end user located on the top floor of a building. This kind of scenario would most likely result in significant interference to the satellite service.

Finally, ESOA commends Traficom for its intention to apply, in accordance with resolves 2.2 of Resolution 242 (WRC-19), regulatory conditions that “sites for IMT base stations that would operate an e.i.r.p. per beam exceeding 30 dB(W/200 MHz) are selected so that the direction of maximum radiation of any antenna will be separated from the geostationary-satellite orbit, within the line-of-sight of the IMT base station, by ± 7.5 degrees” (as specified in page 4 of:

https://www.traficom.fi/sites/default/files/media/file/EN_Technical_licence_conditions_for_26GHz.pdf).

As a conclusion, ESOA fully welcomes the desire of the Finnish Ministry to define appropriate operational and technical conditions for a predictable spectrum sharing environment and a viable ecosystem for all users in the long term. Only by the inclusion of explicit terms and conditions in the authorisation regime for 5G/IMT will the usage of this band by space services be protected from interference, enabling the future sustainability of EESS/SRS earth stations in 25.5-27.0 GHz and FSS/ISS space stations in 24.65-25.25 GHz.

ESOA thanks Traficom for this opportunity to comment on their spectrum plans. ESOA will be very pleased to respond to any question Traficom may have in relation to our comments.

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Intelsat - Intelsat lähettää lausunnon EMEA Satellite Operator's Association
(ESOA) puolesta