ESOA Comments on AT Consultation on "Ontwerpbesluit NFP-wijziging 28 GHz-band"

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To: Ministry of Economic Affairs and Climate
P.O. Box 20401
2500 EK The Hague
The Netherlands

ESOA thanks the Dutch Ministry of Economic Affairs and Climate's ("Ministry") for the opportunity to comment on the proposed changes to the "Nationaal Frequentieplan" (NFP) in the 28 GHz band w.r.t. camera networks that are used for public safety and security.

ESOA[1] is an organisation established with the objective of providing a platform for collaboration between satellite operators globally and a unified voice for the sector. ESOA is recognised as the representative body for satellite operators by international, regional and national bodies including regulators, policymakers, standards-setting organisations such as 3GPP and international organisations such as the International Telecommunications Union and the World Economic Forum. As the world's only CEO-driven satellite association, ESOA leads the sector's response to global challenges and opportunities. It offers a unified voice for the world's largest operators, important regional operators and other companies that engage in satellite-related activities.

The consultation document indicates that a total of 2 x 112 MHz in the 27.9405-28.0525 GHz and 28.9485-29.0605 GHz bands are intended for wireless camera networks for public safety and security. These camera systems operate in a point-to-multipoint architecture.

The 27.5-29.5 GHz band (so-called "28 GHz band") is essential to the satellite sector. As a result of the demand for satellite broadband services, both the 28 GHz band and the 29.5-30.0 GHz band are in extensive use today by satellite broadband systems. More than 120 geostationary (GSO) Ka band satellites are now in orbit around the world whilst non-geostationary (NGSO) Ka band satellites have also been in operation for years, all providing a wide range of services to individuals, businesses and governments. Many more GSO and NGSO satellites relying on Ka band are under construction to meet the very high demand for connectivity that requires access to the full 27.5-30 GHz band which is vital for satisfying this demand.

This has been made possible thanks to the 28 GHz band allocation by the ITU-RR to the FSS on a primary basis, as confirmed by the European Allocation Table (ECA). Satellite operators are deploying uncoordinated satellite Earth stations (satellite terminals) in some parts of the 28 GHz bands, whilst the whole band is being used for wide-band Gateways Earth stations on a coordinated basis.

[1] The members, activities, and other details about ESOA can be found at www.esoa.net

ESOA first notes the Dutch NFP currently does not have an allocation for FSS in the full 27.5-29.5 GHz band, as can be seen from https://wetten.overheid.nl/BWBR0035791/2020-10-20, which is not in line with the ITU-RR and the ECA.

The Ministry however makes reference to ECC Decision (05)01, which addresses the use of the 28 GHz band by the Fixed Service (FS) jointly with uncoordinated Earth stations of the Fixed-Satellite Service (FSS - Earth-to-space), depending on the sub-bands. The frequencies identified for the wireless camera networks are in the bands which the ECC Decision designates for the use of FS systems (27.8285-28.4445 GHz and 28.9485-29.4525 GHz - Decides 3 of the CEPT Decision).

ESOA reminds the Ministry that the same ECC Decision indicates that "the international coordination of FSS earth stations, in accordance with RR provisions, can be sought in the whole band 27.5-29.5 GHz" (Considering i), making it possible for FSS operators to deploy Gateway Earth stations on a coordinated basis.

ESOA is concerned that no technical information is provided on the operational parameters of the camera systems, in terms of typical antenna heights, transmitted EIRP and bandwidth per system. It is also not clear how many camera systems will be deployed over time. Such information is critical to assess any potential for aggregation of interference into space station receivers on satellites in space that could operate in overlapping frequency bands serving users in CEPT countries. The ECC Decision states: "a maximum e.i.r.p. density level of 6 dBW/MHz applied to each FS transmitter in the direction of the GSO arc would ensure that harmful interference is not caused to FSS space stations" (Considering n).

ESOA thus invites the Ministry to:

- Update the Dutch NFP to reflect the FSS primary allocations in the whole 28 GHz band;
- Ensure the operation of FSS earth stations in the 28 GHz band is not precluded, notably the usage of FSS Gateways is ensured on a coordinated basis in the bands where the camera systems will operate; and
- If the wireless camera systems are permitted to deploy in the 27.9405-28.0525 GHz and 28.9485-29.0605 GHz bands, make sure that the conditions and parameters under which the camera systems will operate protect FSS satellite networks in space receiving signals from users on Earth, consistent with the principles of ECC Decision (05)01.

ESOA remains at the Ministry's disposal for any further information that would be needed to support our case.