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RESOLUTION 685 (WRC-23)

Studies towards frequency allocations for the Earth exploration-satellite service (space-to-Earth) within the frequency range [37.5-52.4 GHz]*

The World Radiocommunication Conference (Dubai, 2023),

considering

- a) that the frequency band 40-40.5 GHz is allocated worldwide to the Earth exploration-satellite service (EESS) (Earth-to-space) on a primary basis;
- b) that a frequency allocation to the EESS (space-to-Earth) above 37.5 GHz would allow its use for payload data transmissions in combination with the existing EESS (Earth-to-space) allocation referred to in *considering a)*;
- c) that a frequency allocation to the EESS (space-to-Earth) above 37.5 GHz would allow for uplinks and downlinks on the same transponder, increasing efficiency and reducing satellite complexity,

noting

- a) that the frequency band 37.5-40.5 GHz is allocated worldwide to the EESS (space-to-Earth) on a secondary basis;
- b) that the frequency band 37.5-40.5 GHz is allocated to a number of services on a primary basis,

recognizing

- a) the importance of the appropriate regulatory status and certainty to accommodate the requirements of future Earth observation missions;
- b) that, in order to meet those requirements, primary allocation to the EESS (space-to-Earth) in certain frequency bands above 37.5 GHz might be required,

resolves to invite the ITU Radiocommunication Sector to complete in time for the 2031 world radiocommunication conference

1 the review of the existing allocation to the EESS (space-to-Earth) in the frequency band [37.5-40.5 GHz], and sharing and compatibility studies as necessary, in order to determine the feasibility of upgrading this frequency allocation to primary status while ensuring the protection of the primary services;

* The appearance of square brackets around certain frequency bands in this Resolution is understood to mean that WRC-27 will consider and review the inclusion of these frequency bands with square brackets and decide, as appropriate.

2 the identification of frequency bands within the frequency range [40.5-52.4 GHz], and sharing and compatibility studies as necessary, in order to determine the feasibility of creating new primary allocations to the EESS (space-to-Earth) in these bands, while ensuring the protection of the primary services,

invites administrations

to participate actively in the studies by submitting contributions to the ITU Radiocommunication Sector,

invites the 2031 world radiocommunication conference

to consider, based on the results of studies, an upgrade of the secondary allocation to the EESS (space-to-Earth) in the frequency band [37.5-40.5 GHz] or possible new worldwide allocations on a primary basis to the EESS (space-to-Earth) in certain frequency bands within the frequency range [40.5-52.4 GHz],

instructs the Secretary-General

to bring this Resolution to the attention of international and regional organizations concerned.