

## RESOLUTION 664 (REV.WRC-23)

**Studies on a possible new primary allocation to the Earth exploration-satellite service (Earth-to-space) in the frequency band 22.55-23.15 GHz**

The World Radiocommunication Conference (Dubai, 2023),

*considering*

- a)* that the frequency band 25.5-27 GHz, allocated worldwide to the Earth exploration-satellite service (EESS) (space-to-Earth) on a primary basis currently does not have a paired band for potential associated Earth-to-space links;
- b)* that an EESS (Earth-to-space) allocation in the frequency band 22.55-23.15 GHz would allow for uplinks and downlinks on the same transponder, increasing efficiency and reducing satellite complexity;
- c)* that an EESS (Earth-to-space) allocation in the frequency band 22.55-23.15 GHz would allow for its use for satellite tracking, telemetry and command (TT&C) in combination with the existing EESS (space-to-Earth) allocation referred to in *considering a)*,

*noting*

- a)* that the frequency band 22.55-23.15 GHz is allocated to the fixed, inter-satellite and mobile services on a primary basis;
- b)* that the frequency band 22.55-23.15 GHz is also allocated to the space research service (SRS) (Earth-to-space) on a primary basis, paired with the space research service (SRS) (space-to-Earth) allocation in the frequency band 25.5-27 GHz;
- c)* that the frequency band 22.21-22.5 GHz is allocated to the radio astronomy service (RAS) and EESS (passive) on a primary basis;
- d)* that, for the RAS in the frequency bands 22.81-22.86 GHz and 23.07-23.12 GHz, No. **5.149** applies;
- e)* that the frequency band 23.6-24 GHz is allocated to the EESS (passive) and RAS on a primary basis (No. **5.340** applies),

*recognizing*

- a)* that the possible development of the EESS (Earth-to-space) in the frequency band 22.55-23.15 GHz should not constrain the use and development of the EESS (passive) operating in the frequency band 23.6-24 GHz;
- b)* that protection of the RAS sites operating in the frequency bands indicated in *noting c)*, *d)* and *e)* may be achieved through sufficient geographic separation from EESS earth stations,

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

studies on spectrum requirements and studies on sharing and compatibility between EESS (Earth-to-space) and the existing services, taking into account *noting a) to e)*, while ensuring the protection of these services, using relevant technical and operational parameters of their current and planned use,

*invites administrations*

to participate actively in ITU Radiocommunication Sector (ITU-R) studies and provide the technical and operational characteristics of the systems involved by submitting contributions to ITU-R,

*invites the 2031 world radiocommunication conference*

to consider, based on the results of the studies under *resolves to invite the ITU Radiocommunication Sector to complete in time for the 2031 world radiocommunication conference*, a new worldwide primary allocation to the EESS (Earth-to-space) in the frequency band 22.55-23.15 GHz,

*invites the Secretary-General*

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