

RESOLUTION 726 (WRC-23)

Possible new primary allocation to the fixed-satellite service (space-to-Earth) in the frequency band 17.3-17.7 GHz and possible new primary allocation to the broadcasting-satellite service (space-to-Earth) in the frequency band 17.3-17.8 GHz in Region 3, and consideration of equivalent power flux-density limits to be applied in Regions 1 and 3 to non-geostationary-satellite systems in the fixed-satellite service (space-to-Earth) in the frequency band 17.3-17.7 GHz

The World Radiocommunication Conference (Dubai, 2023),

considering

- a)* the need to encourage the development and implementation of new technologies in the fixed-satellite service (FSS) for broadband applications and in the broadcasting-satellite service (BSS) for ultra-high-definition television (UHDTV) applications;
- b)* that FSS systems based on the use of new technologies associated with geostationary-satellite orbit (GSO) and non-geostationary-satellite orbit (non-GSO) systems are capable of providing high-capacity and low-cost means of broadband communication even to the most isolated regions of the world, and BSS systems are capable of providing high-quality and low-cost means of wideband broadcasting;
- c)* that, due to the orbital characteristics of non-GSO satellite systems, the constellations are capable of providing services globally, and there is therefore a need for harmonized Radio Regulations;
- d)* that the Radio Regulations should enable the introduction of new applications of radiocommunication technology to ensure the operation of as many systems as possible in order to ensure efficient use of the spectrum;
- e)* that there is a mismatch in usable downlink bandwidth in the FSS in Region 3 in the frequency range 17-20 GHz associated with the uplink frequency range of 27-30 GHz;
- f)* that, in Region 3, the frequency band 17.3-18.1 GHz is allocated on a primary basis to the FSS (Earth-to-space), subject to the application of No. 5.516;
- g)* that there are no relevant provisions applying to the non-GSO FSS in the frequency band 17.7-17.8 GHz;
- h)* that, under the present Resolution, the equivalent power flux-density (epfd) limits in *noting e)* are to be considered as a reference, without the intent of a modification at WRC-27 for Region 2;

noting

- a) that technology has been developed to provide more efficient use of the spectrum and to enable both bidirectional and same-directional sharing;
- b) that bidirectional sharing between the FSS (Earth-to-space) and the FSS (space-to-Earth) is already considered in Regions 1 and 2 for the frequency band 17.3-17.7 GHz;
- c) that extending the FSS (space-to-Earth) allocation in the frequency band 17.3-17.7 GHz and the BSS (space-to-Earth) allocation in the frequency band 17.3-17.8 GHz to Region 3 will contribute to global harmonization;
- d) that there are other primary services, including the fixed and mobile services, in the band 17.7-17.8 GHz in Region 3;
- e) that Article 22 (Tables 22-1B, 22-3 and 22-4B) contains epfd limits to ensure the protection of GSO satellite networks from non-GSO FSS satellite systems in the frequency band 17.3-17.7 GHz in Region 2,

resolves

that the studies referred to in *invites the ITU Radiocommunication Sector to conduct and complete in time for the 2027 world radiocommunication conference* below shall protect radiocommunication services to which the frequency band is allocated on a primary basis, including the fixed and mobile services, in particular assignments to the BSS feeder links contained in Appendix 30A,

invites the ITU Radiocommunication Sector to conduct and complete in time for the 2027 world radiocommunication conference

1 studies on sharing and compatibility between the FSS (space-to-Earth), the BSS (space-to-Earth) and the FSS (Earth-to-space) designated by No. 5.516 in order to consider a possible new primary allocation to the FSS (space-to-Earth) in the frequency band 17.3-17.7 GHz for Region 3 and to the BSS (space-to-Earth) in the frequency band 17.3-17.8 GHz for Region 3, while ensuring the protection of existing primary allocations in the same and adjacent frequency bands, and without adversely affecting the existing allocations to the FSS (Earth-to-space) designated by No. 5.516, including assignments to the BSS feeder links contained in Appendix 30A;

2 consideration of the applicability of Region 2 non-GSO FSS epfd limits (see *noting e*) pertaining to the frequency band 17.3-17.7 GHz to Regions 1 and 3, so as to ensure the protection of GSO networks,

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to consider the results of the above ITU Radiocommunication Sector (ITU-R) studies and take necessary actions, as appropriate, with respect to the following issues:

- 1) a possible new primary allocation to the FSS (space-to-Earth) in the frequency band 17.3-17.7 GHz for Region 3;
- 2) a possible new primary allocation to the BSS (space-to-Earth) in the frequency band 17.3-17.8 GHz for Region 3;

- 3) ensuring the protection of existing primary allocations in the same and adjacent frequency bands, without adversely affecting the existing allocations to the fixed and mobile services in the frequency band 17.7-17.8 GHz and to the FSS (Earth-to-space) as designated by No. **5.516**, including assignments to the BSS feeder links contained in Appendix **30A**;
- 4) the application of Region 2 epcf limits to non-GSO FSS systems (as given in *noting e*) operating in the frequency band 17.3-17.7 GHz in Regions 1 and 3,

invites administrations

to participate actively in the studies described in *resolves to invite the ITU Radiocommunication Sector to conduct and complete in time for the 2027 world radiocommunication conference* and provide the technical and operational characteristics of the systems involved by submitting contributions to ITU-R.