

## RESOLUTION 558 (WRC-19)

**Protection of implemented broadcasting-satellite service networks in the orbital arc of the geostationary-satellite orbit between 37.2° W and 10° E in the frequency band 11.7-12.2 GHz**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

*considering*

- a)* that the provisions applying to the broadcasting-satellite service (BSS) in the frequency bands 11.7-12.5 GHz in Region 1, 12.2-12.7 GHz in Region 2 and 11.7-12.2 GHz in Region 3 are contained in Appendix **30**;
- b)* that systems in the fixed-satellite service (FSS) and the BSS share the frequency band 11.7-12.2 GHz;
- c)* that this conference suppressed the limitation in Section 3 of Annex 7 to Appendix **30** (**Rev.WRC-15**) which determined allowable portions of the orbital arc between 37.2° W and 10° E for new or modified assignments in the frequency band 11.7-12.2 GHz in the Regions 1 and 3 List;
- d)* that Section 1 of Annex 1 to Appendix **30** provides criteria used for determining coordination requirements for frequency assignments of the Regions 1 and 3 Plan and List;
- e)* that power flux-density mask values in Section 1 of Annex 1 to Appendix **30** are based on the parameters adopted by WRC-2000, based on a minimum earth station receiving antenna diameter of 60 cm;
- f)* that the use of this frequency band by the BSS is subject to the coordination procedure of Article 4 of Appendix **30**,

*noting*

- a)* that the ITU Radiocommunication Sector has carried out a significant amount of studies in preparation for conferences on BSS planning, and has developed a number of Reports and Recommendations;
- b)* that, within the orbital arc of the geostationary-satellite orbit (GSO) between 37.2° W and 10° E, prior to this conference there were limitations on the use of some orbital positions for any proposed new or modified assignment in the Regions 1 and 3 List of additional uses in the frequency band 11.7-12.2 GHz;
- c)* that some networks with an earth station receiving antenna diameter smaller than 60 cm were successfully implemented within the orbital arc mentioned in *noting b)*, in view of protection due to the presence of limitations on the use of orbital positions in this orbital arc;
- d)* that, with the deletion of orbital position limitations, the protection of satellite assignments mentioned in *noting c)* shall be ensured;
- e)* that the GSO between 37.2° W and 10° E is widely used by Region 1 BSS and Region 2 FSS networks;

## RES558-2

f) that equitable access to and efficient use of the 12 GHz frequency range should be encouraged,

*resolves*

1 that this Resolution is applicable only to implemented<sup>1</sup> networks with an earth station receiving antenna diameter smaller than 60 cm (40 cm and 45 cm) as outlined in Annex 1 to this Resolution;

2 that frequency assignments associated with an earth station receiving antenna diameter of 40 cm or 45 cm in the networks mentioned in *resolves* 1 above are considered by the Radiocommunication Bureau (BR) as being affected by a proposed new or modified assignment in the List filed at the GSO orbital positions mentioned in Annex 1 to this Resolution, only if the following conditions specified in Annex 1 to Appendix 30 are met:

- the minimum orbital spacing between the wanted and interfering space stations, under worst-case station-keeping conditions, is less than 9°;
- the reference equivalent downlink protection margin corresponding to at least one of the test points of that wanted assignment, including the cumulative effect of any previous modification to the List or any previous agreement, falls more than 0.45 dB below 0 dB, or, if already negative, more than 0.45 dB below that reference equivalent protection margin value;

3 that, for cases when a proposed new assignment in the List is filed within the GSO orbital arc between 37.2° W and 10° E in orbital arc segments that differ from those in Annex 1 to this Resolution, appropriate provisions of Annex 1 to Appendix 30 to determine the need for coordination continue to be applied with respect to relevant frequency assignments of the satellite networks mentioned in *resolves* 1.

---

<sup>1</sup> For the avoidance of doubt, the “implemented” networks referred to are related to Regions 1 and 3 BSS networks in the orbital arc 37.2° W and 10° E:

- for which complete Appendix 4 information had been received by BR under § 4.1.3 of Appendix 30 (Rev.WRC-15) prior to 28 November 2015, and
- for which complete Appendix 4 information had been received by BR under § 4.1.12 of Appendix 30 (Rev.WRC-15) prior to 23 November 2019, and
- for which the complete due diligence information, in accordance with Annex 2 to Resolution 49 (Rev.WRC-15), had been received by BR prior to 23 November 2019, and
- for which complete Appendix 4 information had been received by BR under § 5.1.2 of Appendix 30 (Rev.WRC-15) prior to 23 November 2019, and
- brought into use, and for which the date of bringing into use has been confirmed to BR before 23 November 2019.

## ANNEX 1 TO RESOLUTION 558 (WRC-19)

**Satellite networks in the frequency band 11.7-12.2 GHz and orbital arc segments  
for which this Resolution is applicable**

Satellite networks for which this Resolution applies					Orbital arc segments where the conditions specified in <i>resolves 2</i> of this Resolution apply
Orbital position	Earth station antenna diameter, cm	Satellite network	Date of receipt of Part A submission	Notice ID Part II	
30.0° W	45	HISPASAT-1	08.02.2000	99500256	34.92° W ≤ θ < 33.5° W; 32.5° W < θ ≤ 31.78° W; 28.22° W ≤ θ < 26.0° W.
		HISPASAT-37A	19.11.2014	117560019	
4.8° E	40	SIRIUS-N-BSS	17.11.2014	118560003	0° < θ ≤ 2.93° E; 6.67° E ≤ θ < 9.0° E; 9° E < θ ≤ 10° E.

Where θ is the orbital position within the orbital segment defined in the table above.

