

2015 WORLD RADIOCOMMUNICATION CONFERENCE

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

TITLE: To consider the identification of frequency bands allocated to the FSS in the range from 37.5 to 51.4 GHz where NGSO satellite systems would coordinate with GSO satellite networks under No. **9.11A** and No. **22.2** would not apply

AGENDA ITEM 10: *to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention,*

U.S. PROPOSAL: The US proposes the adoption of an agenda item for WRC-18 aiming at the consideration of the possibility to identify frequency bands allocated to the FSS in the range from 37.5 to 51.4 GHz, where NGSO satellite systems would coordinate with GSO satellite networks on a first-come-first-served basis, as is currently the case for the frequency bands covered by **5.523A**, which are not subject to epfd limits in the Radio Regulations.

BACKGROUND

WRC-97 approved **5.523A** whereby the use of certain frequency bands by geostationary and non-geostationary fixed satellite service networks is subject to the application of the provisions of No. **9.11A** and No. **22.2** does not apply.

According to that footnote, non-geostationary-satellite networks should not cause unacceptable interference to geostationary fixed-satellite service networks for which complete Appendix 4 notification information was considered as having been received by the Bureau prior to a certain date, but after that date **9.11A** would apply.

The WRC action was motivated by the understanding that NGSO satellite systems should be allowed to operate in certain frequency ranges unconstrained by the need to protect future GSO satellite networks and therefore able to make full use of the technical characteristics and service capabilities inherent to NGSO constellations.

The same regulatory certainty is desirable in the 37.5 – 51.2 GHz band. In the past few years, there have been many technological advances in non-geostationary satellite communications. Such advances can help bridge the digital divide between developed and developing countries, but the uncertainty of the current rules and regulations for non-geostationary satellite systems in this band discourages its use. Therefore, identifying bands where non-geostationary satellite systems can coordinate with geostationary satellite networks on a first-come first served basis will in fact result in a more efficient use of spectrum and will enable operators to make full use of the technical characteristics and service capabilities inherent to NGSO constellations also in that frequency band.

The same type of approach adopted by WRC-97 for the Ka-band could apply to any frequency bands potentially identified under the new agenda item.

RESULTS OF STUDIES

As of today, there is only one satellite network notified in the frequency range 37.5-39.5 GHz, no notified networks in the frequency range 39.5-40.5 GHz, and two notified networks in the frequency range 40.5-42.5 GHz (downlink frequency allocations). Additionally, there are 26 satellite networks notified in the frequency range 42.5-43.5 GHz, 65 networks notified in the frequency range 43.5-45.5 GHz, no networks notified in the frequency range 45.5-47 GHz, two networks notified in the frequency range from 47.2-49.2 GHz, one network notified in the frequency range 49.2-50.2 GHz and no satellite networks notified in the frequency range 50.4-51.4 GHz.

Judicial choice of frequency bands should minimize the impact on notified GSO satellite networks.

Proposals

MOD USA/10/1

RESOLUTION 808 (WRC-15)

Agenda for the 2018 World Radiocommunication Conference

The World Radiocommunication Conference (Geneva, 2015),

Reasons: To modify the agenda for WRC-18 to add a new item.

ADD USA/10/2

XX to consider the identification of frequency bands allocated to the FSS in the range from 37.5 to 51.4 GHz where NGSO satellite systems would coordinate with GSO satellite networks under No. **9.11A** and No. **22.2** would not apply;

Reasons: To allow the introduction of NGSO systems in certain frequency ranges in the band from 37.5 to 51.4 GHz unconstrained by No. **22.2** in order to allow NGSO satellite systems operations unconstrained by the need to protect future GSO satellite networks and allow the full use of the technical characteristics and service capabilities inherent to NGSO constellations.

ADD USA/10/3

DRAFT RESOLUTION [USA/10/NGSO V-BAND] (WRC-15)

Studies relating to the identification of frequency bands allocated to the FSS in the range from 37.5 to 51.4 GHz where NGSO satellite systems would coordinate with GSO satellite networks under No. 9.11A

[TBD]