

**INTERNATIONAL TELECOMMUNICATION UNION**

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**PLENARY MEETING**

**Document XXXX-E**  
**31 July 2015**  
**Original: English**

**Member States of the Inter-American Telecommunication Commission (CITEL)**

**PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda item 10**

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,

## **Background**

WRC-97 adopted **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.

This WRC action allows NGSO satellite systems to operate in the bands referred to in **5.523A** subject to coordination on a first come first served basis with respect to GSO satellite networks.

WRC-97 also adopted provisional equivalent pfd (epfd) and aggregate epfd limits to be met by NGSO satellite systems operating in certain frequency bands. WRC-2000 adopted definitive epfd limits and expanded the ranges of frequency where they would apply. A NGSO satellite system meeting the epfd limits in the relevant frequency bands is deemed to be compliant with Article **22.2** with respect to any GSO satellite network regardless of priority date.

Both of these measures contributed to provide a well-defined regulatory framework for NGSO systems operating in the associated frequency bands. The same types of approaches could be studied and considered for NGSO FSS systems that may operate in the frequency bands 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space).

Moreover, there are currently no mechanisms in the RR establishing coordination procedures applicable to NGSO systems operating in the frequency bands currently allocated to the FSS in the range from 37.5 to 51.4 GHz, such as application of **9.12**. This also contributes to uncertainty among potential operators of NGSO satellite systems in these bands, and should be resolved as soon as possible by a competent WRC.

## **Status of ITU filings**

As of April, 2015, there was only one GSO 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 GSO satellite networks in the frequency range 40.5-42.5 GHz (space-to-Earth allocations). Additionally, there were 23 GSO satellite networks notified in the frequency range 42.5-43.5 GHz, one GSO satellite 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 (Earth-to-space allocations).

## **Proposals**

**SUP**      **USA/10(VBAND)/1**

## **RESOLUTION 808 (WRC-12)**

### **Preliminary agenda for the 2018 World Radiocommunication Conference**

The World Radiocommunication Conference (Geneva, 2012),

**Reasons:** This Resolution must be suppressed, as WRC-15 will create a new Resolution that will include the agenda for WRC-19.

**ADD USA/10(VBAND)/2**

## DRAFT NEW RESOLUTION [USA-2019]

### **Agenda for the 2019 World Radiocommunication Conference**

The World Radiocommunication Conference (Geneva, 2015),

*considering*

- a) that, in accordance with No. 118 of the ITU Convention, the general scope of the agenda for a world radiocommunication conference should be established four to six years in advance and that a final agenda shall be established by the Council two years before the conference;
- b) Article 13 of the ITU Constitution relating to the competence and scheduling of world radiocommunication conferences and Article 7 of the Convention relating to their agendas;
- c) the relevant resolutions and recommendations of previous world administrative radio conferences (WARCs) and world radiocommunication conferences (WRCs),

*recognizing*

- a) that WRC-15 has identified a number of urgent issues requiring further examination by WRC-19;
- b) that, in preparing this agenda, some items proposed by administrations could not be included and have had to be deferred to future conference agendas,

*resolves*

to recommend to the Council that a world radiocommunication conference be held in 2019 for a maximum period of four weeks, with the following agenda:

1 on the basis of proposals from administrations, taking account of the results of WRC-15 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action in respect of the following items:

1.[Vband] To develop a regulatory framework that provides specific regulatory provisions for NGSO FSS satellite systems operating in the 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands in accordance with Resolution **[USA/10/NGSO V-BAND] (WRC-15)**;

2 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-03)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in Annex 1 to Resolution **27 (Rev.WRC-12)**;

3 to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the Conference;

4 in accordance with Resolution **95 (Rev.WRC-07)**, to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;

5 to review, and take appropriate action on, the Report from the Radiocommunication  
Assembly submitted in accordance with Nos. 135 and 136 of the Convention;

6 to identify those items requiring urgent action by the Radiocommunication Study  
Groups in preparation for the next world radiocommunication conference;

7 to consider possible changes, and other options, in response to Resolution 86  
(Rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination,  
notification and recording procedures for frequency assignments pertaining to satellite networks, in  
accordance with Resolution **86 (Rev.WRC-07)** to facilitate rational, efficient, and economical use  
of radio frequencies and any associated orbits, including the geostationary-satellite orbit;

8 to consider and take appropriate action on requests from administrations to delete their  
country footnotes or to have their country name deleted from footnotes, if no longer required, taking  
into account Resolution **26 (Rev.WRC-07)**;

9 to consider and approve the Report of the Director of the Radiocommunication Bureau,  
in accordance with Article 7 of the Convention:

9.1 on the activities of the Radiocommunication Sector since WRC-15;

9.2 on any difficulties or inconsistencies encountered in the application of the Radio  
Regulations; and

9.3 on action in response to Resolution **80 (Rev.WRC-07)**;

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,

*resolves further*

to activate the Conference Preparatory Meeting,

*invites the Council*

to finalize the agenda and arrange for the convening of WRC-15, and to initiate as soon as possible  
the necessary consultations with Member States,

*instructs the Director of the Radiocommunication Bureau*

to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting  
and to prepare a report to WRC-19,

*instructs the Secretary-General*

to communicate this Resolution to international and regional organizations concerned.

**Reasons:** To eliminate the regulatory uncertainty inherent in the application of No. **22.2** to NGSO  
satellite systems operating in the FSS frequency bands 37.5-42.5 GHz (space-to-Earth) and 42.5-  
43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) and the absence of coordination  
conditions applicable to such systems in these frequency bands.

**ADD USA/10(VBAND)/3**

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

**Development of a regulatory framework for NGSO FSS satellite systems that may operate in the 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands**

The World Radiocommunication Conference (Geneva, 2015),

*considering*

- a) that the International Telecommunication Union has, among its purposes, “to promote the extension of the benefit of the new telecommunication technologies to all the world’s inhabitants” (No. 6 of the Constitution of the International Telecommunication Union - Edition 2011);
- b) that it is desirable, in this respect, to promote systems capable of providing universal service;
- c) that new telecommunication services need advanced and reliable networks permitting high-capacity communications;
- d) the need to encourage the development and implementation of new technologies;
- e) that systems based on the use of new technologies associated with both geostationary (GSO) and non-geostationary (non-GSO) satellite constellations are capable of providing high-capacity and low-cost means of communication even to the most isolated regions of the world;
- f) that the Radio Regulations should allow flexibility for the operation of as many systems as possible to ensure efficient use of the spectrum;
- g) that the Radio Regulations must be sufficiently flexible to accommodate the introduction and implementation of innovative technologies as they evolve;
- h) that the application of No. 22.2 can result in uncertainty for non-GSO FSS systems unless provisions are adopted to specify what is required to protect future GSO FSS networks;
- i) that there are plans to operate GSO FSS networks and non-GSO FSS systems in the 37.5-51.4 GHz frequency bands allocated to the FSS;
- j) that technical studies are required in order to ascertain the extent to which sharing of the frequency ranges 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) is feasible: 1) between GSO and non-GSO systems and 2) between non-GSO systems;
- k) that currently there are no regulatory provisions establishing mechanisms for coordination among NGSO satellite systems in the frequency bands allocated to the FSS in the range 37.5-51.4 GHz,

*noting*

- a) that filing information for GSO FSS satellite networks in the frequency bands 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) has been communicated to the Bureau;

- b) that some of these networks are in operation and others will be operated in the near future and, consequently, difficulties may be experienced in modifying their characteristics;
- c) the need to take into account the current and planned use of these bands by the existing services,

*recognizing*

- a) that WRC 2000 adopted provisions to protect GSO FSS satellite networks from NGSO FSS satellite systems in the 10-30 GHz frequency range;
- b) that No. **5.516B** identifies the frequency bands 39.5-40 GHz (space-to-Earth) in Region 1, 40-40.5 GHz (space-to-Earth) in all Regions, 40.5-42 GHz (space-to-Earth) in Region 2, and 48.2-50.2 GHz (Earth-to-space) in Region 2 for use by high-density applications in the fixed-satellite service;
- c) that No. **5.552** urges Administrations to take all practicable steps to reserve the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5-42.5 GHz;
- d) that No. **5.544A** limits the use of the bands 47.5-47.9 GHz, 48.2-48.54 GHz and 49.44-50.2 GHz by the fixed-satellite service (space-to-Earth) to geostationary satellites;
- e) that No. **21.16** contains power flux-density limits applicable to NGSO satellite systems to protect fixed and mobile services with allocations in the 37.5-42.5 GHz frequency band;
- f) that the frequency band 50.2-50.4 GHz is allocated on a primary basis to the EES (passive) and SR (passive) services, which must be adequately protected;
- g) that the Mobile-Satellite Service (MSS) is allocated on a primary basis in the 39.5-40.5 GHz frequency band (space-to-Earth);
- h) that the Broadcasting Satellite Service (BSS) is allocated on a primary basis in the 40.5-42.5 GHz frequency band,

*resolves to invite ITU-R*

1 To study and develop possible alternative technical and regulatory provisions for NGSO FSS satellite systems that may operate in the frequency bands 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) that will ensure adequate protection of GSO satellite networks in the FSS, MSS and BSS;

2 To study and determine whether the current out-of-band limits on the FSS in Resolution **750 (Rev WRC-12)** Table 1-1 are still appropriate taking into account updated information on NGSO satellite systems;

3 To study and develop sharing conditions between NGSO FSS systems operating in the bands listed in 1 above,

*further resolves*

to invite WRC-19 to consider the results of the above studies and take appropriate action,

*invites administrations*

to participate in the studies by submitting contributions to ITU-R.

**Reasons:** This new Resolution will provide structure and guidance to ITU-R for consideration of regulatory actions required to eliminate the regulatory uncertainty inherent in the application of No. **22.2** to NGSO satellite systems operating in the FSS frequency bands 37.5-42.5 GHz (space-to-

Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) and the absence of coordination conditions applicable to such systems in these frequency bands.

**ATTACHMENT**

**PROPOSAL FOR ADDITIONAL AGENDA ITEM AIMING AT DEVELOPING A REGULATORY FRAMEWORK FOR NGSO FSS SATELLITE SYSTEMS THAT MAY OPERATE IN THE 37.5-42.5 GHZ (SPACE-TO-EARTH) AND 42.5-43.5 GHZ, 49.2-50.2 GHZ AND 50.4-51.4 GHZ (EARTH-TO-SPACE) FREQUENCY BANDS**

**Subject:** Proposal for an Agenda Item for WRC-19 aiming at developing a regulatory framework for NGSO FSS satellite systems that may operate in the 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands

**Origin:** United States of America

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**Proposal:** *To develop a regulatory framework that provides specific regulatory provisions for NGSO FSS satellite systems operating in the 37.5-42.5 GHz (space-to-Earth) and 42.5-43.5 GHz, 49.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands in accordance with Resolution [USA/10/NGSO V-BAND] (WRC-15).*

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**Background/reason:** According to the current provisions of the Radio Regulations, NGSO systems operating in the frequency range from 37.5 to 51.4 GHz have to protect current and future GSO satellite networks operating in the same frequency range, according to No. **22.2**, which creates considerable regulatory uncertainty to potential NGSO satellite service providers. Moreover, there are currently no mechanisms in the RR establishing coordination procedures applicable to NGSO systems operating in these frequency bands, such as application of No. **9.12**. This also contributes to uncertainty among potential operators of NGSO satellite systems in these bands.

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**Radiocommunication services concerned:** FSS, MSS and BSS

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**Indication of possible difficulties:** None foreseen

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**Previous/ongoing studies on the issue:** Previous WRCs addressed similar issues in the 11/12/13/14 and 20/30 GHz bands.

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**Studies to be carried out by:** SG4

**with the participation of:**

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**ITU-R Study Groups concerned:** SG4

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**ITU resource implications, including financial implications (refer to CV126):** Minimal

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**Common regional proposal:** Yes/No

**Multicountry proposal:** Yes/No

**Number of countries:**

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**Remarks**