



THIRD NATIONAL PREPARATORY COMMITTEE MEETING TOWARDS WRC-27 AGENDA ITEM BRIEF

Chapter: 1

Service: Satellite

Agenda item: 7

Description of Agenda item: To consider possible changes, on advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in order to facilitate the rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit;

Focus: This is a standing agenda item that:

1. considers any proposals which deal with deficiencies and improvements in the advance publication, coordination, notification and recording procedures of the Radio Regulations for frequency assignments pertaining to space services which have either been identified by the Board and included in the Rules of Procedure or which have been identified by administrations or by the Radiocommunication Bureau, as appropriate;
2. ensures that these procedures, and the related appendices of the Radio Regulations reflect the latest technologies, as far as possible,

Status of the Studies

As at the conclusion of the October 2025 meeting, five candidate topics appeared to have general support to pursue as Topics, there was not general agreement on six other candidate topics, and the meeting decided not to pursue four other candidate topics as Topics for WRC-27. Two African proposed topics were dropped and two were among the 5 generally agreed topics and there were no further contributions to those 4 topics.

At the May 2026 meeting, the five generally agreed candidate topics would be named Topics and will continue development towards a decision at WRC-27. Naming these candidates as Topics does not prejudge the outcome at WRC-27. There are now five Working Documents towards draft CPM text related to the five AI7 Topics. However, the contents of the working documents were neither discussed nor agreed by SWG 4A3c, WG 4A3, or WP 4A.

Topics under AI 7

Topic A: *Proposed modifications to Appendix 4 data items to address issues in the Radio Regulations*

To consider potential modifications to Appendix 4 of the Radio Regulations (RR) in order to reflect some of the Rules of Procedure relating to Appendix 4.

Issues:

At its November 2024 meeting, the Radio Regulations Board (RRB) adopted rules of procedures to address inconsistencies in RR Appendix 4. These issues were previously raised by the Radiocommunication Bureau to the RRB, and subsequently addressed by the RRB through new rules of procedure.

While these issues were temporarily addressed through these rules of procedure, the inconsistencies and contradictions remain in the RR.

- i) Data items A.4.b.7.d.1 and A.4.b.7.d.2 to reflect specific modifications made to Recommendation [ITU-R S.1503-3](#),
- ii) Data item A.27.b to ensure that the requirement apply to all types of space stations as prescribed in Resolution 679 (WRC-23), not just to non-GSO space stations as currently stated in the description of this data item, and
- iii) Data item C.8.b.3.c to extend the requirement to provide the necessary bandwidth information for active sensors in the EESS (active) and SRS (active) bands covered in the frequency bands covered by RR Nos. 5.475A and 5.478A, in order to allow the BR to assess compliance with regards to these provisions.

Other similar issues in RR Appendix 4 could also be considered, if agreed.

Methods to satisfy Topic A

One method A: Modifications to data elements A.4.b.7.d.1, A.4.b.7.d.2, A.27.b and C.8.b.3.c of Appendix 4.

Topic B: Assessing the potential advantage to define a new coordination arc for some frequency bands above 3.4 GHz and services currently not subject to the application of the coordination arc concept

To assess the potential advantage of defining coordination arcs for certain GSO satellite networks operating in frequency bands above 3.4 GHz that are currently coordinated solely using the $\Delta T/T$ criterion under RR No. 9.7.

Issues:

Currently, two coordination mechanisms exist for GSO satellite networks under RR No. 9.7:

- i) Coordination based on predefined coordination arcs together with the $\Delta T/T$ criterion; and
- ii) Coordination based solely on the $\Delta T/T$ criterion.

For some frequency bands and services, administrations are required to coordinate with satellite networks located very far away in orbital position, even where the likelihood of harmful interference is negligible. This creates significant administrative burden for administrations and the Radiocommunication Bureau.

Studies have shown that:

- i) Many identified networks requiring coordination are located more than 16° away from the proposed network.
- ii) Such distant networks are unlikely to cause harmful interference.
- iii) Introducing coordination arcs could significantly reduce the number of coordination cases while maintaining adequate protection of satellite networks.

The studies are considering the introduction of coordination arcs for specific FSS, MSS, EESS, BSS and Space Operation Service applications in frequency bands ranging from approximately 10.7 GHz up to 265 GHz.

Methods to Satisfy Topic B

All methods propose modifying RR Appendix 5 by introducing coordination arcs for specific frequency bands and services that are currently coordinated solely using the $\Delta T/T$ criterion. The difference between the methods is the size of the coordination arc adopted.

Method B1

Introduces a uniform coordination arc of $\pm 16^\circ$ for the identified frequency bands and services. This approach is considered conservative and provides a high degree of confidence that networks outside the arc will not create interference concerns.

Method B2

Introduces frequency-dependent coordination arcs based on technical studies:

- $\pm 8^\circ$ in Ku-band frequency ranges;
- $\pm 6^\circ$ in Q-band frequency ranges;
- $\pm 4^\circ$ in V-band and higher frequency ranges.

This method seeks to balance protection requirements with maximum reduction in coordination workload.

Method B3

Introduces simplified coordination arcs using:

- $\pm 8^\circ$ for Ku-band;
- $\pm 8^\circ$ for Q-band;
- $\pm 8^\circ$ for V-band and higher frequency ranges.

This approach provides greater simplicity while still reducing coordination burdens compared to the current framework.

Uganda Preliminary Position

Uganda supports the introduction of coordination arcs for frequency bands and services where studies demonstrate that coordination with distant satellite networks provides little practical interference benefit. Uganda supports solutions that improve the efficiency of the international satellite coordination process while maintaining adequate protection of existing and future satellite networks. Further technical studies should continue to ensure that any adopted coordination arc values are

technically justified and do not adversely affect equitable access to orbital and spectrum resources.

Topic C: Revision of Resolution 170 (WRC-23)

To consider possible revisions to Resolution 170 (Rev.WRC-23), which provides additional measures for satellite networks in the Fixed-Satellite Service (FSS) operating in frequency bands subject to Appendix 30B, with the objective of enhancing equitable access to orbit and spectrum resources.

Issues:

Resolution 170 was originally adopted by WRC-19 and revised by WRC-23 to facilitate equitable access to Appendix 30B frequency bands, particularly for developing countries seeking to establish national or regional satellite networks.

Since its implementation, some administrations have raised concerns regarding:

- i)* Restrictive eligibility conditions that limit access to the special procedure.
- ii)* The effectiveness of the Resolution in achieving equitable access in practice.
- iii)* Challenges associated with coordination and protection criteria.
- iv)* Regulatory time limits for bringing assignments into use.
- v)* Consideration of the specific needs of developing countries in accordance with Article 44 of the ITU Constitution.
- vi)* Recognition of national sovereignty in spectrum management and coordination processes.

Other administrations consider that the Resolution was only recently revised at WRC-23 and that further changes may create regulatory uncertainty and negatively affect existing satellite networks.

Methods to Satisfy Topic C

Method C1 – No Change

Maintain Resolution 170 (Rev.WRC-23) without modification.

Supporters of this method consider that the current framework already provides adequate measures for equitable access and that additional changes are premature given the limited implementation experience since WRC-23.

Method C2 - Revision of Resolution 170

Revise Resolution 170 (Rev.WRC-23) to:

- i)* Modify eligibility conditions for access to the special procedure.
- ii)* Improve the effectiveness of the equitable access mechanism.
- iii)* Better reflect the needs of developing countries.
- iv)* Address practical difficulties experienced during implementation.
- v)* Incorporate greater flexibility in coordination procedures and satellite network deployment.

- vi)* Recognize the sovereign rights of administrations in managing spectrum use within their territories.

Uganda Preliminary Position

Uganda supports studies aimed at improving the effectiveness of Resolution 170 in promoting equitable access to orbit and spectrum resources while preserving regulatory certainty and protecting existing satellite networks. Any revisions should carefully balance the needs of developing countries with the efficient and interference-free operation of existing Appendix 30B systems.

Topic D: Revision of Resolution 553 (Rev.WRC-23)

To consider possible revisions to Resolution 553 (Rev.WRC-23), which establishes special regulatory measures to enhance equitable access to the 21.4–22 GHz frequency band for Broadcasting-Satellite Service (BSS) networks in Regions 1 and 3.

Issues

Resolution 553 was established to facilitate equitable access to the 21.4–22 GHz BSS band, particularly for countries without existing assignments in the band. The Resolution provides a special procedure intended to support the establishment of national or sub-regional satellite networks.

Studies have identified a number of concerns regarding its implementation, including:

- i)* Restrictive eligibility conditions for access to the special procedure.
- ii)* Limited effectiveness of existing protection and coordination criteria.
- iii)* Challenges in completing coordination and bringing assignments into use within the applicable regulatory time limits.
- iv)* Constraints on system capacity arising from current minimum coverage and antenna gain requirements.
- v)* Consideration of the specific needs of developing countries and equitable access objectives.
- vi)* Recognition of national sovereignty in spectrum management and coordination processes.

Some administrations maintain that Resolution 553 was recently revised at WRC-23 and that additional modifications may create regulatory uncertainty and adversely affect existing satellite networks.

Methods to Satisfy Topic D

Method D1 - No Change (NOC)

Retain Resolution 553 (Rev.WRC-23) without modification.

Supporters of this method consider that the existing framework already provides adequate mechanisms for access to the 21.4–22 GHz BSS band and that additional amendments are unnecessary at this stage.

Method D2 - Revision of Resolution 553

Revise Resolution 553 (Rev.WRC-23) to:

- i)* Update eligibility conditions for application of the special procedure.
- ii)* Address practical and regulatory difficulties experienced during implementation.
- iii)* Improve the effectiveness of coordination and protection procedures.
- iv)* Better reflect the needs of developing countries.
- v)* Recognize the sovereign rights of administrations in managing spectrum use within their territories.
- vi)* Enhance the practical effectiveness of equitable access measures.

Uganda Preliminary Position

Uganda supports studies aimed at improving the effectiveness of Resolution 553 in promoting equitable access to the 21.4–22 GHz BSS frequency band, particularly for developing countries, while maintaining regulatory certainty and protecting existing satellite networks. Any revisions should be technically justified, proportionate, and consistent with the principles of equitable access to orbit and spectrum resources.

Topic E: Potential Regulatory Improvements Related to the Application of RR No. 4.4 to Stations of Space Services

Description

To consider possible regulatory improvements related to the application of Radio Regulations (RR) No. 4.4 to frequency assignments associated with space services.

RR No. 4.4 permits administrations to operate stations using frequency assignments that are not in conformity with the Table of Frequency Allocations or other provisions of the Radio Regulations, provided that such assignments:

- Do not cause harmful interference to stations operating in accordance with the Radio Regulations; and
- Do not claim protection from harmful interference caused by stations operating in conformity with the Radio Regulations.

The increasing use of RR No. 4.4 by satellite systems, particularly large non-GSO constellations, has raised concerns regarding transparency, implementation, and potential harmful interference.

Issues

Studies under this topic seek to determine whether additional regulatory measures are required to improve the implementation of RR No. 4.4 for space services.

Key issues under consideration include:

- i)* Limited transparency regarding the nature and extent of non-conformity associated with filings submitted under RR No. 4.4.
- ii)* Lack of information available to administrations on the specific Radio Regulation provisions from which a filing is seeking derogation.
- iii)* Challenges in assessing potential interference risks arising from satellite systems operating under RR No. 4.4.

- iv)* The increasing number of non-GSO satellite filings invoking RR No. 4.4.
- v)* Whether additional notification, consultation or information-sharing procedures should be introduced.
- vi)* Whether new regulatory provisions are required to address situations where harmful interference arises from systems operating under RR No. 4.4.

Some administrations consider that the existing provisions of RR No. 4.4, together with decisions taken at WRC-23 and measures implemented by the Radiocommunication Bureau, are sufficient and that no further regulatory action is necessary.

Methods to Satisfy Topic E

Method E1 - No Change (NOC)

Maintain the current Radio Regulations without modification.

This approach considers that:

- Existing RR No. 4.4 provisions are adequate.
- WRC-23 already clarified the regulatory status of RR No. 4.4 assignments.
- Additional measures are unnecessary.
- Frequency assignments recorded under RR No. 4.4 remain informational only and do not acquire protection rights.

Method E2 - Modifications to Article 9 and Appendix 4

Introduce limited procedural changes through:

- i)* Modifications to Article 9 coordination procedures.
- ii)* Addition of new Appendix 4 data elements.
- iii)* Requirement for administrations to identify the specific Radio Regulation provisions with which a filing does not comply.
- iv)* Improved transparency and information available to affected administrations.
- v)* Collection of statistical information on the use of RR No. 4.4.

Method E3 - New Resolution and Additional Regulatory Measures

Develop a new Radio Regulations Resolution specifically addressing the application of RR No. 4.4 to space services.

Possible elements under study include:

- i)* Additional reporting and disclosure requirements.
- ii)* More detailed information on the reasons for invoking RR No. 4.4.
- iii)* Procedures for notifying potentially affected administrations.
- iv)* Measures relating to harmful interference management.
- v)* Additional regulatory safeguards and enforcement mechanisms.
- vi)* Enhanced transparency and monitoring of RR No. 4.4 use.

Uganda Preliminary Position

Uganda supports studies aimed at improving transparency, regulatory certainty and effective implementation of RR No. 4.4 for space services. Any modifications should be proportionate, practical and should not create unnecessary regulatory burdens. Uganda supports measures that enhance access to information, facilitate interference management and preserve the integrity of the international satellite regulatory framework.

This topic is highly relevant to Uganda because it may affect future satellite network filings, satellite spectrum access, and the protection of national satellite and terrestrial services from harmful interference, particularly as the number of non-GSO satellite systems continues to grow.

For Uganda and many developing countries, the key challenge is ensuring that any changes:

- i) Improve transparency and efficiency;*
- ii) Preserve equitable access to spectrum and orbital resources;*
- iii) Do not create unnecessary regulatory or financial burdens;*
- iv) Protect national satellite and terrestrial services from harmful interference;*
- v) Enable future participation in satellite and space-based communications initiatives.*

This is particularly important as Africa seeks greater participation in the space sector while ensuring that international procedures remain fair and accessible to administrations with emerging satellite ambitions.