



The World Radiocommunication Conference 2023: Agenda Items of Relevance to Scientific Radio Spectrum Users

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The next World Radio Conference (WRC) will be convened in November 2023 by the International Telecommunication Union (ITU) to update the Radio Regulations (RR) that determine and coordinate the usage of the electromagnetic spectrum by the different radio services.

The WRC-23 agenda was set based on the Final Acts of the previous World Radio Conference WRC-19 [1] during the first Conference Preparatory Meeting for WRC-23 (CPM23-1) [2]. It contains several topics of relevance to scientific users and decisions taken on them could have an impact for years to come. Therefore, it is essential that scientists and engineers working in fields such as satellite remote sensing and radio astronomy are kept informed on the technical studies performed in anticipation of WRC-23.

The WRC-23 Agenda Items that have been identified to be relevant to the acquisition of scientific data using the radio frequency spectrum are as follows:

- Agenda Item 1.2: Consideration of the frequency bands 3300-3400 MHz, 3600-3800 MHz, 6425-7025 MHz, 7025-7125 MHz and 10.0-10.5 GHz for potential use by International Mobile Telecommunications (IMT).
- Agenda Item 1.4: Use of high-altitude platforms to provide IMT services in the 694-960 MHz, 1710-1885 MHz and 2500-2690 MHz frequency bands.
- Agenda Item 1.12: New secondary allocation for spaceborne radar sounders within the range of frequencies 40-50 MHz.
- Agenda Item 1.14: Potential new allocations to satellite remote sensing in the 231.5-252 GHz band.
- Agenda Item 1.15: Potential modifications to the use of 12.75-13.25 GHz the frequency band 12.75-13.25 GHz Earth stations on aircraft and vessels communicating with geostationary space stations by radio systems on aircraft and vessels communicating with geostationary space stations.
- Agenda Item 1.16: Fixed-satellite service Earth stations in motion in bands adjacent to 18.6-18.8 GHz and adjacent to 27.5 GHz.
- Agenda Item 1.17: Development of technical conditions and regulatory provisions for satellite-to-satellite operations of geostationary and non-geostationary telecommunication systems in the frequency bands 27.5-30 GHz and 11.7-12.7 GHz, 18.1-18.6 GHz and 18.8-20.2 GHz.
- Agenda Item 9.1.a: Technical and operational characteristics, spectrum requirements and appropriate radio service designations for space weather sensors.
- Agenda Item 9.1.d: Protection of the 36-37 GHz passive remote sensing band from communication systems in non-geostationary orbit.

Each Agenda Item will be examined in regard to its potential impact on scientific services.

References

- [1] *World Radiocommunication Conference 2019 (WRC-19) Final Acts*, ITU Publications, Geneva, 2020.
- [2] *Results of the first session of the Conference Preparatory Meeting for WRC-23 (CPM23-1)*, ITU Radiocommunication Bureau (BR) Administrative Circular CA/251, Geneva, 19 December 2019.