



INDIA (Republic of)

PRELIMINARY VIEWS ON WRC-23 AGENDA ITEMS 1.7, 1.9 AND 1.10

Agenda Item 1.7:

To consider a new aeronautical mobile-satellite (R) service (AMS(R)S) allocation in accordance with Resolution 428 (WRC-19) for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz, while preventing any undue constraints on existing VHF systems operating in the AM(R)S, the ARNS, and in adjacent frequency bands;

Background

Resolution 428 (WRC-19) resolves to invite ITU-R

- i) to define the relevant technical characteristics and to study compatibility between potential new AMS(R)S systems that operate within the frequency band 117.975-137 MHz in the Earth-to-space and space-to-Earth directions and existing primary services in that frequency band and in adjacent frequency bands, while ensuring the protection of systems using existing primary services in those frequency bands and not constraining planned usage of those systems; considering:
 - a) that, to meet the evolving requirements of modern civil aviation, satellite systems may be used for the relay of VHF communications compliant with International Civil Aviation Organization (ICAO) standards, operating under the aeronautical mobile (R) service (AM(R)S), in order to complement terrestrial communication infrastructures when aircraft are operating in oceanic and remote areas;
 - b) that under Nos. 5.201 and 5.202, the frequency bands 132-136 MHz and 136-137 MHz are also allocated in several countries to the aeronautical mobile (OR) service on a primary basis;
- ii) to take into account the results of the studies to provide technical and regulatory recommendations relative to a possible new AMS(R)S allocation within the frequency band 117.975-137 MHz, taking into consideration that the development of compatibility criteria between new AMS(R)S systems proposed for operations in the frequency band 117.975-137 MHz and ICAO-standardized aeronautical systems in this frequency band is the responsibility of ICAO;

Conforming to above, ITU-R WP 5B in its recent meeting during 29 March 2022 to 08 April 2022 has developed a working document towards a draft CPM text for WRC-23 (*See Annex 2 of Doc. 5B/531*) and WP 5B has been working towards a preliminary draft new Report ITU-R M.[SPACE-VHF] on “Space-based aeronautical VHF communications in 117.975-137 MHz frequency” (*See Annex 15 of Doc. 5B/531*). WP-5B has communicated to ICAO that the compatibility between AM(OR)S and AMS(R)S assignments could be resolved through the existing frequency planning exercise (*See Annex 17 of Doc. 5B/531*).

Preliminary Views

India supports a new co-primary allocation for the AMS (R)S in the band 117.975 MHz-137 MHz in the Earth-to-space and space-to-Earth directions limited to internationally standardized aeronautical systems operating in accordance with ICAO Standards and Recommended Practices (SARPs), while ensuring protection and not constraining the systems of the incumbent services in the band and adjacent bands.

Agenda Item 1.9:

to review Appendix 27 of the Radio Regulations and consider appropriate regulatory actions and updates based on ITU R studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution 429 (WRC-19)

Background

Resolution 429 (WRC-19) resolves to invite the ITU Radiocommunication Sector

- i) to identify any necessary modifications to Appendix 27 for the AM(R)S between 2 850 and 22 000 kHz, noting that the modernization of aeronautical HF communications will not require any changes to Article 5 of the Radio Regulations;
- ii) to identify any necessary transition arrangements for the introduction of new digital aeronautical wideband HF systems and any consequential changes to Appendix 27; to recommend how new digital aeronautical wideband HF systems can be introduced while ensuring compliance with safety requirements and that any channel aggregation needs to be performed in a manner that protects other primary services operating in band and in adjacent frequency bands;
- iii) to define the relevant technical characteristics and to conduct any necessary sharing and compatibility studies, taking into account that inter-system compatibility between internationally standardized aeronautical equipment is the responsibility of ICAO, with incumbent services that are allocated on a primary basis in the same or adjacent frequency bands to avoid harmful interference in accordance that any channel aggregation needs to be performed in a manner that protects other primary services operating in band and in adjacent frequency bands;
- iv) to complete the studies in time for WRC-23.

In line with above, ITU-R Working Party 5B has developed a working document towards a draft CPM text for WRC-23 agenda item 1.9 in its last meeting held during 29 March 2022 to 08 April 2022 (*See Annex 4 of Doc. 5B/531*).

Preliminary Views

India supports the proposed changes to Appendix 27 of Radio Regulations to allow new modern/digital wideband HF communication systems using contiguous and/or non-contiguous 3 kHz channels coexisting with current HF voice and data systems.

Agenda Item 1.10:

to conduct studies on spectrum needs, coexistence with radiocommunication services and regulatory measures for possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with Resolution 430 (WRC-19);

Background

Resolution 430 (WRC-19) resolves to invite the ITU-R to conduct, and complete in time for WRC-23:

- i) studies on spectrum needs for new non-safety aeronautical mobile applications for air-air, ground-air and air-ground communications of aircraft systems;
- ii) sharing and compatibility studies in the frequency band 22-22.21 GHz, already allocated on a primary basis to the mobile, except aeronautical mobile, service, in order to evaluate the possible revision or deletion of the “except aeronautical mobile” restriction, while ensuring the protection of primary services in the frequency bands considered and, as appropriate, in adjacent frequency bands;
- iii) sharing and compatibility studies on possible new primary allocations to the aeronautical mobile service (AMS) for non-safety aeronautical applications in the frequency band 15.4-15.7 GHz, while ensuring the protection of primary services in the frequency bands considered and, as appropriate, in adjacent frequency bands;
- iv) definition of appropriate protection for the passive services and the RAS allocated in adjacent frequency bands from unwanted emissions of the AMS

ITU-R Working Party 5B has been conducting the studies on spectrum needs for new non-safety aeronautical mobile applications and has drafted a working document towards a preliminary draft new Report ITU-R [NON-SAFETY AMS CHARACTERISTICS AND SHARING STUDIES] on “ Technical characteristics, operational scenarios, spectrum needs, coexistence, and sharing studies of non-safety aeronautical mobile systems in the frequency bands 15.4-15.7 GHz and 22-22.21 GHz ” (*See Annex 13 of Doc. 5B/531*) as well as CPM text for WRC-23 (*See Annex 5 of Doc. 5B/531*).

2. Preliminary Views

India supports a new allocation in the bands 15.4-15.7 GHz and 22-22.21 GHz to the aeronautical mobile service for the introduction of new non-safety aeronautical mobile applications as per the outcome of studies undertaken in this regard in ITU-R. The intended use shall ensure protection and not constraint the incumbent services operating in-band and adjacent bands.
