



## Report on the Outcomes of WRC-2019

The 2019 ITU World Radiocommunication Conference (WRC) took place in Egypt from 28 October to 22 November 2019. Frequency spectrum is notably a scarce resource with finite capacity for which competing demands are constantly increasing. IATA, in cooperation with ICAO and its member airlines, actively engaged in this quadrennial global, multi-industries negotiation on allocating and identifying radio frequency spectrum - a critical infrastructure for flight operations and air traffic management. The outcomes of each WRC are enshrined in the ITU Radio Regulation – the global treaty on frequency spectrum allocations, rules and procedures.

### i. Outcomes of WRC-2019

WRC-2019 is a success for aviation. The followings are the list of key collective aviation achievements:

- 1) **VDL Mode 2:** Obtaining proper regulatory and technical spectrum protections for VHF Data Link (VDL) Mode 2 from potential interference caused by non-geostationary short duration satellites (e.g. CubeSats)
- 2) **Aeronautical Systems:** Preserving spectrum protections and suitable radio interference environment for the following aviation systems:
  - Avionics – Enhanced Flight Vision System, Aircraft Weather Radar, Aircraft Radio Altimeter and Emergency Locator Transmitter
  - Aircraft Communication – HF and Aeronautical VSAT networks
  - Aircraft Navigation - Instrument Landing System (Marker Beacon and Guided path), Distance Measuring Equipment and Non-Directional Beacon/Automatic Direction Finder
  - Aircraft Testing - Aeronautical Mobile Telemetry.
- 3) **ESIM:** Obtaining suitable operational conditions for aeronautical Earth-Station-in-Motion (ESIM) which can enhance on-board broadband connectivity for passengers.
- 4) **GADSS:** Successfully opposing State proposals to include identification of specific Global Aeronautical Distress and Safety System (GADSS) elements or operating frequency bands in the Radio Regulation, thus maintaining the preferred performance-based requirements on GADSS.
- 5) **Radio Altimeter:** Successfully avoiding the frequency bands being used by and adjacent to aircraft radio altimeter to be considered for international IMT 5G during WRC-2023

### ii. Relevant Agenda Items for WRC-2023

Moreover, during WRC-2019, aviation succeeded in getting the following work items approved to be studied by ITU in preparation for WRC-2023. These items aim to provide regulatory spectrum frameworks for future aviation infrastructures and services:

- Potential new satellite-based VHF communication system (for remote and oceanic areas)
- New HF channel plan for updated HF Datalink system
- Further review of spectrum regulations for sub-orbital vehicles
- Further development of RPAS/UAS SATCOM for Beyond Line of Sight operations



Additionally, while aviation is well placed for WRC-2023, it is also necessary for aviation and IATA to ensure continuing engagements on the following WRC-2023 agenda items:

- Aviation use of satellite-based ESIM for aircraft/passenger enhanced non-safety connectivity
- Maintain sufficient regulatory and technical protections for aeronautical systems considering additional IMT 5G deployments
- The uses of IMT 5G for drones and non-safety applications.