

RESOLUTION 430 (WRC-19)

Studies on frequency-related matters, including possible additional allocations, for the possible introduction of new non-safety aeronautical mobile applications

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

considering

- a) that the number of aircraft equipped with sensors has grown significantly in the past 20 years;
- b) that the need for bidirectional low to high data rate communications between aeronautical stations and aircraft stations, or between aircraft stations, is consequently increasing;
- c) that the frequency bands to be considered should preferably be chosen close to frequency bands already used by aeronautical communication systems, in order to enable extended tuning ranges for such new aeronautical communication systems;
- d) that these new aeronautical communications are not related to safety of flights;
- e) that there is no clear identification of the frequency bands in which these new aeronautical communication systems may be developed with a sufficient level of confidence for long-term investment by industry;
- f) that the decisions of previous conferences have introduced some restrictions on the use and imposed constraints on the development of these communication systems within several existing mobile allocations traditionally used by aeronautical mobile applications;
- g) that the existing mobile allocations which can be used by these communication systems have some limitations due to coexistence with other services in the frequency band;
- h) that in Region 1 there are allocations to the mobile, except aeronautical mobile, service in some frequency bands which are allocated to the mobile service in Regions 2 and 3;
- i) that harmonized worldwide allocation would facilitate the implementation of these new aeronautical communication systems;
- j) that an adaptation of the regulatory framework for further visibility, protection and development of non-safety aeronautical mobile applications may be required,

recognizing

- a) that the use of innovative sharing methods may be considered to ensure the protection of existing services while offering the possibility to have access to new frequency bands;
- b) that the introduction of the new aeronautical mobile systems in the possible new allocations should not impose constraints on existing and planned systems of primary services,

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noting

- a) that the frequency band 15.4-15.7 GHz is allocated on a primary basis to the radiolocation service, the aeronautical radionavigation service and, in part, the fixed-satellite service (Earth-to-space);
- b) that the frequency band 22-22.21 GHz is allocated on a primary basis to the mobile, except aeronautical mobile, service;
- c) that the frequency band 15.4-15.7 GHz is adjacent to the frequency band 15.35-15.4 GHz which is allocated to the radio astronomy service (RAS) on a primary basis;
- d) that frequency band 22.01-22.21 GHz is adjacent to the frequency band 22.21-22.5 GHz which is allocated to the RAS, the Earth exploration-satellite service (passive) and the space research service (passive) on a primary basis;
- e) that the frequency bands 22.01-22.21 GHz and 22.21-22.5 GHz are covered by No. **5.149**,

resolves to invite the ITU Radiocommunication Sector

to conduct, and complete in time for WRC-23:

- 1 studies on spectrum needs for new non-safety aeronautical mobile applications for air-air, ground-air and air-ground communications of aircraft systems;
- 2 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;
- 3 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;
- 4 definition of appropriate protection for the passive services and the RAS allocated in adjacent frequency bands from unwanted emissions of the AMS,

invites the 2023 World Radiocommunication Conference

to review the results of the ITU Radiocommunication Sector (ITU-R) studies and take appropriate actions,

invites administrations

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