

RESOLUTION 422 (WRC-12)

Development of methodology to calculate aeronautical mobile-satellite (R) service spectrum requirements within the frequency bands 1 545-1 555 MHz (space-to-Earth) and 1 646.5-1 656.5 MHz (Earth-to-space)

The World Radiocommunication Conference (Geneva, 2012),

considering

- a)* that coordination between satellite networks is required on a bilateral basis in accordance with the Radio Regulations, and that, in the frequency bands 1 525-1 559 MHz (space-to-Earth) and 1 626.5-1 660.5 MHz (Earth-to-space), coordination is partially assisted by regional multilateral meetings;
- b)* that, in these frequency bands, geostationary mobile-satellite system operators currently use a capacity-planning approach at multilateral coordination meetings, with the guidance and support of their administrations, to periodically coordinate access to the spectrum needed to accommodate their requirements, including aeronautical mobile-satellite (R) service (AMS(R)S) spectrum requirements;
- c)* that within ITU-R, there is no agreed methodology for calculating AMS(R)S spectrum requirements related to the priority categories 1 to 6 of Article **44**;
- d)* that within ITU-R, some administrations have expressed a desire to develop an agreed methodology for calculating AMS(R)S spectrum requirements on an ongoing basis for purposes of bilateral and multilateral mobile-satellite service (MSS) coordinations conducted pursuant to Article **9** of the Radio Regulations;
- e)* that, since spectrum resources are limited, there is a need to use them in the most efficient manner within and amongst various MSS networks,

recognizing

- a)* that WRC-97 allocated the frequency bands 1 525-1 559 MHz (space-to-Earth) and 1 626.5-1 660.5 MHz (Earth-to-space) to the MSS to facilitate the assignment of spectrum to multiple MSS networks in a flexible and efficient manner;
- b)* that WRC-97 adopted No. **5.357A** giving priority to accommodating spectrum requirements for, and protecting from unacceptable interference, the AMS(R)S providing transmission of messages with priority categories 1 to 6 in Article **44** in the frequency bands 1 545-1 555 MHz and 1 646.5-1 656.5 MHz,

noting

that AMS(R)S systems are an essential element of the International Civil Aviation Organization (ICAO) standardized communications infrastructure used in air traffic management for the provision of safety and regularity of flight in civil aviation,

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resolves to invite ITU-R

to conduct studies on, and develop in one or more ITU-R Recommendations, a methodology, including clear definitions of input parameters and assumptions to be used, to calculate spectrum requirements within the frequency bands 1 545-1 555 MHz (space-to-Earth) and 1 646.5-1 656.5 MHz (Earth-to-space) for AMS(R)S communications related to the priority categories 1 to 6 of Article 44, and to take into account *considering b)* in conducting these studies,

invites

ICAO, the International Air Transport Association (IATA), administrations and other concerned organizations to participate in the studies identified in *resolves* above,

instructs the Secretary-General

to bring this Resolution to the attention of ICAO.