

RESOLUTION 420 (WRC-07)

Consideration of the frequency bands between 5000 and 5030 MHz for aeronautical mobile (R) service surface applications at airports

The World Radiocommunication Conference (Geneva, 2007),

considering

- a) the current allocation of the frequency band 5000-5010 MHz to the aeronautical mobile-satellite (R) service (AMS(R)S), subject to agreement obtained under No. **9.21**, the aeronautical radionavigation service (ARNS) and the radionavigation-satellite service (RNSS) (Earth-to-space);
- b) the current allocation of the frequency band 5010-5030 MHz to AMS(R)S, subject to agreement obtained under No. **9.21**, ARNS and RNSS (space-to-Earth and space-to-space);
- c) the current allocation of the frequency band 4990-5000 MHz to the radio astronomy service;
- d) that this Conference has additionally allocated the band 5091-5150 MHz to the aeronautical mobile (R) service (AM(R)S), for use by systems operating in accordance with international aeronautical standards, limited to surface applications at airports;
- e) that the International Civil Aviation Organization (ICAO) is in the process of identifying the technical and operating characteristics of such AM(R)S systems, and that initial estimates for associated spectrum requirements are approximately 60-100 MHz in some portion of the band 5000-5150 MHz (Report ITU-R M.2120);
- f) that the band 5091-5150 MHz may not provide sufficient spectrum capacity to satisfy the requirement identified in *considering e*), and therefore additional spectrum may be required;
- g) that the protection requirements for the radio astronomy service are given in Recommendation ITU-R RA.769,

recognizing

- a) that the RNSS allocations in these bands were made at WRC-2000;
- b) that RNSS currently operates in the Earth-to-space direction in the band 5000-5010 MHz, and needs access to the space-to-Earth allocation in 5010-5030 MHz for service and feeder links in the longer term;

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c) that RNSS and AM(R)S systems planned in the 5 GHz range are still evolving, and that technical characteristics and operational parameters for these systems have not been fully established within ITU-R;

d) that protection of RNSS and the radio astronomy service must first be demonstrated before additional services can be allocated in the bands between 5 000-5 030 MHz;

e) that, currently, there are no agreed studies within ITU-R for AM(R)S to ensure protection of RNSS and the radio astronomy service,

resolves

1 that ITU-R investigate, with priority, AM(R)S spectrum requirements for surface applications in the 5 GHz range, in order to determine if they can be fulfilled in the band 5 091-5 150 MHz;

2 that ITU-R further investigate, if necessary, the feasibility of an allocation for AM(R)S for surface applications at airports, study the technical and operational issues relating to the protection of RNSS in the bands between 5 000 and 5 030 MHz and of the radio astronomy service in the band 4 990-5 000 MHz from AM(R)S, and develop appropriate Recommendations;

3 that WRC-11 consider results of the above studies and take appropriate actions,

invites

1 administrations and ICAO to supply technical and operational characteristics for AM(R)S necessary for compatibility studies, and to participate actively in the studies;

2 administrations to supply technical and operational characteristics and protection criteria for RNSS necessary for compatibility studies, and to participate actively in the studies,

instructs the Secretary-General

to bring this Resolution to the attention of ICAO.