

## RESOLUTION 417 (WRC-07)

**Use of the band 960-1 164 MHz by the aeronautical mobile (R) service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that this Conference has allocated the band 960 to 1 164 MHz to the aeronautical mobile (R) service (AM(R)S) in order to make available this frequency band for new AM(R)S systems, and in doing so enabled further technical developments, investments and deployment;
- b) the current allocation of the frequency band 960-1 164 MHz to the aeronautical radionavigation service (ARNS);
- c) the use of the band 960-1 215 MHz by the ARNS is reserved on a worldwide basis for the operation and development of airborne electronic aids to air navigation and any directly associated ground-based facilities per No. **5.328**;
- d) that new technologies are being developed to support communications and air navigation, including airborne and ground surveillance applications;
- e) that this new allocation is intended to support the introduction of applications and concepts in air traffic management which are data intensive and which could support data links that carry safety critical aeronautical data;
- f) that in countries listed in No. **5.312** the frequency band 960-1 164 MHz is also used by systems in the ARNS for which standards and recommended practices (SARPs) have not been developed nor published by the International Civil Aviation Organization (ICAO);
- g) that, furthermore, the frequency band 960-1 164 MHz is also used by a non-ICAO system operating in the ARNS that has characteristics similar to those of ICAO standard distance measuring equipment;
- h) that this allocation was made knowing that studies are ongoing with respect to the technical characteristics, sharing criteria and sharing capabilities;
- i) that the frequency band 117.975-137 MHz currently allocated to the AM(R)S is reaching saturation within certain areas of the world, therefore that band would not be available to support additional medium- and long-range data communications;

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j) that, additional information is needed on the new technologies which will be used, other than the AM(R)S system identified in *recognizing c)*, the amount of spectrum required, and the characteristics and sharing capabilities/conditions. Therefore, studies are urgently required on which AM(R)S systems will be used, the amount of spectrum required and the characteristics and conditions for sharing with ARNS systems,

### *recognizing*

a) that precedence must be given to the ARNS operating in the frequency band 960-1 164 MHz;

b) that Annex 10 of the Convention of the ICAO contains SARPs for aeronautical radionavigation and radiocommunication systems used by international civil aviation;

c) that all compatibility issues between the ICAO Standard Universal Access Transceiver (UAT) and other systems which operate in the same frequency range, excluding the system identified in *considering f)*, have been addressed;

d) that in the frequency band 1 024-1 164 MHz the sharing conditions are more complex than in the band 960-1 024 MHz,

### *noting*

that, excluding the system identified in *recognizing c)*, no compatibility criteria currently exist between AM(R)S systems proposed for operations in the frequency band 960-1 164 MHz and the existing aeronautical systems in the band,

### *resolves*

1 that any AM(R)S system operating in the frequency band 960-1 164 MHz shall meet SARPs requirements published in Annex 10 of the ICAO Convention on International Civil Aviation;

2 that any AM(R)S systems operating in the band 960-1 164 MHz shall not cause harmful interference to, nor claim protection from, and shall not impose constraints on the operation and planned development of aeronautical radionavigation systems in the same band;

3 that compatibility studies between AM(R)S systems operating in the band 960-1 164 MHz and ARNS systems in *considering f)* and *g)* need to be conducted to develop sharing conditions to ensure that the conditions of *resolves 2* are satisfied, and that ITU-R Recommendations are developed as appropriate;

4 that the result of the studies pursuant to *resolves 3* shall be reported to WRC-11 and the decision should be taken by WRC-11 to review, if appropriate, regulatory provisions in *resolves 2* taking into account protection requirements of ARNS systems identified in *considering f)* and *g)* and the need for global facilitation of AM(R)S operating in accordance with ICAO standards;

5 that frequencies in the band 960-1 164 MHz shall not be used by an AM(R)S system, except for the AM(R)S system identified in *recognizing c*), until all potential compatibility issues with the ARNS and, as necessary, the radionavigation-satellite service (RNSS) in the adjacent band have been resolved, also taking into account *recognizing d*),

*invites*

administrations and ICAO, for the purposes of conducting the ITU-R studies mentioned in *resolves 3 and 5*, to provide to ITU-R the technical and operational characteristics of systems involved,

*invites ITU-R*

1 to conduct studies in accordance with *resolves 3 and 5* on operational and technical means to facilitate sharing between AM(R)S systems operating in the band 960-1 164 MHz and ARNS systems identified in *considering f*) and *g*);

2 to conduct studies in accordance with *resolves 5* on operational and technical means to facilitate sharing between AM(R)S systems operating in the band 960-1 164 MHz and the RNSS operating in the band 1 164-1 215 MHz;

3 to report the results of the studies to WRC-11,

*instructs the Secretary-General*

to bring this Resolution to the attention of ICAO.