

## RESOLUTION 651 (WRC-12)

### **Possible extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the frequency band 9 300-9 900 MHz by up to 600 MHz within the frequency bands 8 700-9 300 MHz and/or 9 900-10 500 MHz**

The World Radiocommunication Conference (Geneva, 2012),

*considering*

- a) that there is a growing demand for increasing radar image resolution to satisfy global environmental monitoring which can only be achieved with greater transmission bandwidth;
- b) that there is a need to provide additional frequency spectrum around the existing allocation to the Earth exploration-satellite service (EESS) (active) in the frequency band 9 300-9 900 MHz, in order to increase the available bandwidth by 600 MHz to satisfy the demand in *considering a*);
- c) that radars in EESS (active) operate worldwide in the frequency band 9 300-9 800 MHz on a primary basis under the constraints of No. **5.476A**, and in the frequency band 9 800-9 900 MHz on a secondary basis with respect to the radionavigation and the fixed services, which are both allocated in the frequency band 9 300-9 900 MHz;
- d) that Recommendation ITU-R M.1796 contains the technical characteristics and protection criteria for radars in the frequency range 8 500-10 500 MHz;
- e) that Report ITU-R RS.2094 contains studies related to the compatibility between EESS (active) and the radiodetermination service in the frequency bands 9 300-9 500 MHz and 9 800-10 000 MHz and between EESS (active) and the fixed service in the frequency band 9 800-10 000 MHz,

*recognizing*

- a) that the EESS (active) is of great value for the global community as identified in Part A of Report ITU-R RS.2178 and Recommendation ITU-R RS.1859;
- b) that the envisaged resolution performance of space-borne radars in the EESS (active) in the 9 GHz range requires an additional transmission bandwidth of 600 MHz since the resolution performance of a radar is directly related to its transmission bandwidth;
- c) that the aeronautical radionavigation service operating in the frequency band 9 000-9 200 MHz and the maritime radionavigation service operating in the frequency band 9 200-9 500 MHz are used by safety service systems, in accordance with Nos. **1.59** and **4.10**;
- d) that it is important to ensure the protection of the existing primary services, including fixed and mobile services, having allocations in the frequency bands 8 700-9 300 MHz and 9 900-10 500 MHz;
- e) that it is important to ensure the protection of existing primary space research service operations in the frequency bands 8 400-8 500 MHz and 10.6-10.7 GHz;
- f) that it is important to protect the existing primary radio astronomy service and EESS (passive) in the frequency band 10.6-10.7 GHz,

*noting*

that Resolution 174 (Guadalajara, 2010) of the Plenipotentiary Conference highlights the importance of ICTs, especially for developing countries, for the monitoring and observation of climate change, the management of natural resources and reduction of the risk of natural disasters,

*resolves*

that, taking into account the results of ITU-R studies, WRC-15 consider the possible extension of the current worldwide allocation to the EESS (active) in the frequency band 9 300-9 900 MHz by up to 600 MHz on a primary and/or secondary basis, as appropriate, within the frequency range 8 700-9 300 MHz and/or 9 900-10 500 MHz while ensuring protection of existing services and taking due account of the safety services allocated in the frequency band 9 000 to 9 300 MHz,

*invites ITU-R*

to conduct and complete, in time for WRC-15, compatibility studies addressing:

- EESS (active) and existing services in the frequency bands 8 700-9 300 MHz and 9 900-10 500 MHz in order to ensure the protection of the existing services, taking into account the constraints as per No. **5.476A**;
- unwanted emissions from stations operating in the EESS (active) within the frequency band 8 700-9 300 MHz into stations of the space research service operating in the frequency band 8 400-8 500 MHz;
- unwanted emissions from stations operating in the EESS (active) within the frequency band 9 900-10 500 MHz into stations of the radio astronomy service, space research service (passive) and EESS (passive) operating in the frequency band 10.6-10.7 GHz,

*instructs the Secretary-General*

to bring this Resolution to the attention of the International Civil Aviation Organization (ICAO), and International Maritime Organization (IMO).