

QUESTION ITU-R 230/1*, **

**Improved measurement methods for unwanted emissions
of primary radars using magnetrons**

(2004)

The ITU Radiocommunication Assembly,

considering

- a) that the principal objective of Appendix 3 of the Radio Regulations (RR) is to specify the maximum permitted level of unwanted emissions in the spurious domain;
- b) that the out-of-band and spurious domains of an emission are defined in Article 1 of the RR;
- c) that Recommendation ITU-R SM.1541 specifies the boundary between the out-of-band and spurious domains for primary radars, and that the boundary is related to the emission mask based on the –40 dB bandwidth;
- d) that Appendix 3 of the RR refers to Recommendation ITU-R SM.1541;
- e) that the measurement methods for unwanted emissions of some radars are described in Recommendation ITU-R M.1177;
- f) that the 2003 World Radiocommunication Conference *recommends* 2 in Recommendation 75 (WRC-03), that studies be carried out by ITU-R “to establish improved measurement methods for unwanted emissions of primary radars using magnetrons”,

recognizing

- a) that § 3.3 of Annex 1 in Recommendation ITU-R SM.1539 mentions that the specification of the boundary between the out-of-band and spurious domains of primary radars is subject to ongoing studies in the ITU-R and that there would be benefit in having these completed by the next Radiocommunication Assembly;
- b) that there is a possibility that calculated values for the –40 dB bandwidth related to unwanted emissions of primary radars using magnetrons underestimate the actual bandwidth,

noting

- a) that improved technology and new features contained within spectrum analysers and other equipment used to measure unwanted emissions may lead to better measurement techniques for determining unwanted emission levels from primary radars;
- b) that computer control of the measurement system using suitable software will allow unwanted emissions from primary radars to be measured more reliably and with greater ease,

* This Question should be brought to the attention of ITU-R Working Party 8B and JRG 1A-1C-8B.

** In the year 2009, Radiocommunication Study Group 1 extended the completion date of studies for this Question.

decides that the following Question should be studied

1 What improved measurement methods can be used for the measurement of unwanted emissions of primary radars using magnetrons?

further decides

1 that the results of the above studies should be included in (a) Recommendation(s) and/or Report;

2 that the above studies should be completed by 2012.

Category: S2