QUESTION ITU-R 252/7

Parameters needed for the registration of   
distributed radio astronomy systems

(2011)

The ITU Radiocommunication Assembly,

considering

a) that the angular resolution of single dish radio telescopes is proportional to their diameter, and that the diameter of a dish antenna, particularly if it is steerable, is limited by engineering factors;

b) that higher angular resolutions may be achieved through the use of arrays of antennas working jointly as an interferometer, and that such arrays may be spread over large areas;

c) that most radio telescopes currently under construction or planned are interferometric systems, and in some cases the elements of the interferometer are expected to be spread over hundreds or even thousands of kilometres;

d) that interferometers are less susceptible to interference than single dish telescopes;

e) that distributed radio astronomy systems may also be used in a non-interferometric mode;

noting

that the characteristics required to register radio astronomy stations, listed in the Tables of Annex 2 to Appendix 4 of the Radio Regulations, appear to have been determined with single dish telescopes in mind, and that these characteristics may not be sufficient to adequately describe distributed radio astronomy stations, such as those referred to in *considering* c), and thus ensure their protection, in accordance with the Radio Regulations,

decides that the following Question should be studied

**1** What parameters should be specified, in addition to, or instead of, those contained in Appendix 4 of the RR, when registering distributed radio astronomy systems that may cover extended areas, in order to ensure their effective protection?

further decides

**1** that the results of the above studies should be included in (a) recommendation(s) and/or report(s);

**2** that the above studies should be completed by 2015.

Category: S2