

## RESOLUTION 75 (REV.WRC-12)

**Development of the technical basis for determining the coordination area for coordination of a receiving earth station in the space research service (deep space) with transmitting stations of high-density applications in the fixed service in the 31.8-32.3 GHz and 37-38 GHz bands**

The World Radiocommunication Conference (Geneva, 2012),

*considering*

- a)* that the band 31.8-32.3 GHz is allocated to the space research service for deep space operations only, the band 37-38 GHz is allocated to the space research service (space-to-Earth), and both bands are allocated to the fixed service for the use of high-density applications and to other services on a primary basis;
- b)* that the 31.8-32.3 GHz band offers unique advantages in support of deep-space missions;
- c)* that space research service earth stations operating in these bands employ very high-gain antennas and very low-noise amplifiers in order to receive weak signals from deep space;
- d)* that fixed-service stations in these bands are expected to be deployed in large numbers over urban areas of large geographical extent;
- e)* that studies are being initiated to characterize short-term (of the order of 0.001% of the time, commensurate with the protection criteria given in Recommendations ITU-R SA.1396 and ITU-R SA.1157) anomalous propagation from transmitting stations dispersed over a large geographical area to a single receiving earth station (area-to-point propagation);
- f)* that preliminary ITU-R studies have indicated that the coordination distance between a space research service (deep space) earth station and a single urban area may be of the order of 250 km;
- g)* that there are currently three space research service (deep space) earth stations in operation or planned for operation near Goldstone (United States of America), Madrid (Spain) and Canberra (Australia), and there are up to ten more earth stations planned in the future,

*noting*

- a)* that Resolution **74 (Rev.WRC-03)** provides a mechanism to update Appendix 7 as required;
- b)* that Recommendations ITU-R F.1760 and ITU-R F.1765 provide methodologies to derive the aggregate equivalent isotropically radiated power (a.e.i.r.p.) for transmitting stations of high-density applications in the fixed service in bands above 30 GHz, which may be used to assess the potential interference from these stations to other services,

**RES75-2**

*resolves to invite ITU-R*

to develop, as a matter of urgency, the technical basis for determining the coordination area for coordination of a receiving earth station in the space research service (deep space) with transmitting stations of high-density systems in the fixed service in the 31.8-32.3 GHz and 37-38 GHz bands,

*urges administrations*

to participate actively in the aforementioned studies by submitting contributions to ITU-R.