

RECOMMENDATION ITU-R SA.1276-2*

Orbital locations of data relay satellites to be protected from the emissions of fixed service systems operating in the band 25.25-27.5 GHz

(Question ITU-R 118/7)

(1997-2003-2009)

Scope

This Recommendation specifies the specific orbital locations of data relay satellites to be protected from the emission of fixed service systems operating in the band 25.25-27.5 GHz, based on e.i.r.p. and e.i.r.p. spectral density limits and provisions set forth in Recommendation ITU-R F.1249.

The ITU Radiocommunication Assembly,

considering

- a) that the 25.25-27.5 GHz band is used, *inter alia*, by the inter-satellite service for transmissions from low-orbiting satellites to receivers onboard geostationary data relay satellites (DRS);
- b) that this frequency band is shared with the fixed service (FS) and the mobile service on a primary basis;
- c) that studies have shown that FS stations that have near-boresight emissions directed towards the orbital location of a DRS may cause interference to the DRS receiver that is in excess of values set forth in Recommendation ITU-R SA.1155;
- d) that the possibility of interference to a DRS receiver depends on the e.i.r.p. density of FS station emissions radiated towards the DRS orbital location;
- e) that Recommendation ITU-R F.1249 sets forth practical limits on the e.i.r.p. and e.i.r.p. spectral density radiated by FS stations in the direction of geostationary DRS;
- f) that a limited number of DRS networks have been either deployed or are in the implementation phase and have not been equipped with adequate interference mitigation capabilities;
- g) that it is desirable to specify particular geostationary orbital locations to be protected in order to provide administrations with the maximum flexibility in the deployment of FS stations in these frequency bands,

recommends

1 that receivers onboard DRS that operate in the 25.25-27.5 GHz band which should be protected in accordance with Recommendation ITU-R F.1249 are located at the following geostationary orbital positions (given in the East direction): 16.4°, 21.5°, 47°, 59°, 85°, 89°, 90.75°, 95°, 113°, 121°, 133°, 160°, 177.5°, 186°, 189°, 190°, 200°, 221°, 298°, 311°, 314°, 316°, 319°, 328°, 344°, 348°.

* This Recommendation should be brought to the attention of Radiocommunication Study Group 5.