

RECOMMENDATION ITU-R S.1150^{*,**}**Technical criteria to be used in examinations relating to the probability of harmful interference between frequency assignments in the fixed-satellite service as required in No. S11.32A.1 of the Radio Regulations**

(Question ITU-R 39/4)

(1995)

The ITU Radiocommunication Assembly,

considering

- a) that Radio Regulation (RR) No. S11.32A.1 calls for examinations by the Radiocommunication Bureau (BR) with respect to the probability of harmful interference between frequency assignments in the fixed-satellite service;
- b) that to carry out such examinations guidance is needed to assist in the application of this Regulation;
- c) that it is essential to seek to prevent harmful interference from occurring in actual operation even though the examinations are carried out prior to frequency assignments being brought into use;
- d) that to coordinate frequency assignments administrations may use criteria of maximum allowable values of interference^{***} which, when satisfied by calculation prior to the frequency assignments being brought into use, ensure compatibility with relevant requirements for quality of service, availability and performance;
- e) that an examination pursuant to the provision of RR No. S11.32A.1 should rely on measures, agreements and other factors that have during coordination been identified by the administrations as conducive to reducing interference and have been communicated to the BR;
- f) that while attempting to coordinate frequency assignments administrations may agree to use criteria of accepted interference, as defined in RR No. S1.168, that would allow more severe interference than the maximum allowable values of interference to be tolerated yet still ensure compatibility as under § d);
- g) that on the one hand the BR needs a means of quantifying the interference level in cases where a finding is required in accordance with RR No. S11.32A.1, but on the other hand the term harmful interference is used elsewhere in the RR in contexts in which quantification is not appropriate,

* This Recommendation should be brought to the attention of Radiocommunication Study Groups 1, 6, 7, 8, and Working Party 4-9S.

** Radiocommunication Study Group 4 made editorial amendments to this Recommendation in 2001 in accordance with Resolution ITU-R 44 (RA-2000).

*** This can be taken to be permissible interference as defined in RR No. S1.167.

recognizing

h) that the degree of harmful interference suffered by a satellite service depends on the characteristics of that service and on the particular operating conditions affected within the service. The level of interference tolerated in practice may be influenced by a number of factors, including the degree of traffic loading within the satellite network suffering the interference;

j) that the acceptable level of single entry interference may vary according to actual interference levels received from other sources, i.e. it may be dependent on the aggregate interference level. Hence, the level of interference considered harmful for one network may be significantly greater or smaller for another network,

recommends

1 that in examinations pursuant to RR No. S11.32A.1:

1.1 where appropriate, the probability of harmful interference should be considered to be negligible if calculation shows that the applicable criteria of mutually accepted interference as provided by administrations for a particular coordination exercise between the two administrations are satisfied;

1.2 in the absence of information agreed by administrations regarding accepted interference, the probability of harmful interference should be considered to be negligible if it is found that the interference would be less than the single entry interference limits set forth in Recommendations ITU-R S.466, ITU-R S.483, ITU-R S.523, ITU-R S.671 and ITU-R S.735 (whichever is appropriate). (As additional Recommendations for interference criteria are developed they should be added);

2 that the following Notes should be considered part of this Recommendation:

NOTE 1 – Recommendation ITU-R S.741 should be used by the BR to assist in evaluating whether or not § 1.1 and/or 1.2 are met.

NOTE 2 – On a case-by-case basis, particularly in those situations where, as a result of the BR examination, the calculated results are greater than the appropriate levels in § 1.1 and 1.2, administrations are urged to provide the BR, on request, any additional information which could assist its examination.

NOTE 3 – It should not be assumed that calculated interference levels exceeding the single entry permissible interference levels would necessarily result in any significant probability of harmful interference.
