

RESOLUTION 756 (WRC-12)

Studies on possible reduction of the coordination arc and technical criteria used in application of No. 9.41 in respect of coordination under No. 9.7

The World Radiocommunication Conference (Geneva, 2012),

considering

- a) that the coordination arc methodology was introduced as a means to streamline the examination of coordination filings and thus reduce the efforts of the Bureau;
- b) that a more efficient coordination process is desirable;
- c) that further reduction in the coordination arc together with appropriate criteria for identification of affected administrations is desirable;
- d) that, currently, the of $\Delta T/T$ criterion is used for the identification of affected administrations,

recognizing

- a) that this Conference has reduced the coordination arc to be used to identify coordination requirements in the 6/4 GHz and 14/10/11/12 GHz frequency bands*;
- b) that further reductions in the coordination arc in these bands may be warranted;
- c) that it may also be appropriate to reduce the coordination arc in the 30/20 GHz frequency bands** used by the FSS;
- d) that the improvement of the coordination process in the 6/4 GHz and 14/10/11/12 GHz frequency bands also depends on the technical criteria used in the application of No. 9.41;
- e) that the frequency bands where the current $\Delta T/T$ criterion is used in application of No. 9.41 for coordination sought under No. 9.7 are listed in Table 5-1 to Appendix 5 of the Radio Regulations;
- f) that there may be other criteria (e.g. C/I , pfd) that could be used for the identification of affected administrations and in the coordination process,

resolves to invite ITU-R

1 to carry out studies to examine the effectiveness and appropriateness of the current criterion ($\Delta T/T > 6\%$) used in the application of No. 9.41 and consider any other possible alternatives (including the alternatives outlined in Annexes 1 and 2 to this Resolution), as appropriate, for the bands referred to in *recognizing e)*;

* 3 400-4 200 MHz (space-to-Earth), 5 725-5 850 MHz (Earth-to-space) in Region 1, 5 850-6 725 MHz (Earth-to-space), 7 025-7 075 MHz (space-to-Earth) and (Earth-to-space). 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth) in Region 2, 12.2-12.5 GHz (space-to-Earth) in Region 3, 12.5-12.75 GHz (space-to-Earth) in Regions 1 and 3, 12.7-12.75 GHz (Earth-to-space) in Region 2, and 13.75-14.5 GHz (Earth-to-space).

** 27.5-30 GHz (Earth-to-space), 17.7-20.2 GHz (space-to-Earth).

2 to study whether additional reductions in the coordination arcs in RR Appendix 5 (Rev.WRC-12) are appropriate for the 6/4 GHz and 14/10/11/12 GHz frequency bands, and whether it is appropriate to reduce the coordination arc in the 30/20 GHz band,

instructs the Director of the Radiocommunication Bureau

to include in his Report, for consideration by WRC-15:

- the results of the ITU-R studies referred to in *resolves* 1 and 2 above;
- statistics on the use of No. 9.41 in respect of coordination under No. 9.7 for the bands identified in *recognizing d*).

ANNEX 1

Possible example of application of No. 11.32A to coordination under No. 9.7 in certain radiocommunication services and frequency bands

One possible alternative to the $\Delta T/T > 6\%$ criterion for triggering GSO-to-GSO coordination is to use more precise criteria in an effort to reduce undue protection requirements stemming from assignments recorded in the MIFR and preventing the successful conclusion of coordination of incoming assignments in their vicinity. This method would consist in a more precise quantification of the probability of harmful interference as referred to in No. 11.32A and should reduce the use of No. 11.41.

This method could be applied, at least initially in applying No. 11.32A, to coordination under No. 9.7 between frequency assignments to geostationary-satellite networks in the fixed-satellite, broadcasting-satellite and mobile-satellite services in the following bands:

- 3 400-4 200 MHz (space-to-Earth), 5 725-6 725 MHz (Earth-to-space), 7 025-7 075 MHz (Earth-to-space);
- 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth, Region 2), 12.2-12.5 GHz (space-to-Earth, Region 3), 12.5-12.75 GHz (space-to-Earth, Regions 1 and 3), 13.75-14.5 GHz (Earth-to-space),

Under this method, the Bureau would, in conducting its review under No. 11.32A, consider the probability of harmful interference to be negligible and issue a favourable finding if the power flux-density (pfd) is less than or equal to a prescribed limit.

If the above-mentioned pfd limits are not met, the Bureau would potentially use the relevant Rules of Procedure to determine whether the probability of harmful interference is considered to be negligible or not.

ANNEX 2

Possible application of a different interference criterion to coordination under No. 9.7 in certain radiocommunication services and frequency bands

A second possible alternative to the $\Delta T/T > 6\%$ criterion for triggering GSO-to-GSO coordination is to use more precise criteria in an effort to reduce undue protection requirements stemming from

assignments recorded in the MIFR and preventing the successful conclusion of coordination of incoming assignments in their vicinity. This method would consist in using the *C/I* criterion instead of the $\Delta T/T$ criterion when justifying the inclusion of additional affected administrations outside the coordination arc where No. **9.41** is applied. Under this method, the *C/I* level would be calculated in accordance with, for example, the method in Recommendation ITU-R S.741. Networks outside the coordination arc where the *C/I* level is lower than the threshold established would be included as networks with which coordination is needed.

Studies could look at the suitability both of the method for replacing the $\Delta T/T > 6\%$ criterion and of including in the Radio Regulations (for example, in Appendix **8**) the methodology for calculation of interference between satellite networks using the *C/I* criterion set out in Section B3 of Part B of the Rules of Procedure, and whether corresponding modifications would need to be made in RR Appendix **5**.