

REPORT 1163

COORDINATION AREA OF AN EARTH STATION OF THE FIXED-SATELLITE SERVICE
SHARING THE SAME FREQUENCY BAND WITH THE RADIONAVIGATION SERVICE

(Question 81/8)

(1990)

1. Introduction

The Radio Regulation includes an allocation of the frequency bands 14 - 14.3 GHz to the fixed-satellite (Earth-to-space) service and the radionavigation service on an equal primary basis, with a footnote stating that the use of the band by the radionavigation service shall be such as to provide sufficient protection to space stations of the fixed-satellite service.

2. Coordination of these services

2.1 Section III of Article 11 of the Radio Regulations concerns the coordination of frequency assignments to an earth station in relation to terrestrial stations and, in particular, RR 1107.1 states:

1107.1 ¹ Appendix 28, which shall be used for the calculation of the coordination area, contains criteria relating only to coordination between earth stations and stations in the fixed or mobile services. The criteria relating to other terrestrial radiocommunication services should be based on relevant CCIR Recommendations agreed by the administrations concerned either as a result of Resolution 703 or otherwise.

In the event of disagreement on a CCIR Recommendation or in the absence of such Recommendations, the methods and criteria shall be agreed between the administrations concerned. Such agreements shall be concluded without prejudice to other administrations.

2.2 Appendix 28 of the Radio Regulations does not include criteria relevant to the radionavigation service and there are no CCIR Recommendations which can be used as a basis for such criteria. As a temporary means of overcoming this problem the IFRB decided to use, on a provisional basis, a coordination area calculated in accordance with Appendix 28 and the values indicated in Table I for the band 12.5 - 14.5 GHz*.

* When recorded in the Master Register, assignments to earth stations shall bear, in Column 13B1, the following symbol:

"_": The Board is not in a position to define technical criteria for the calculation of the coordination area relating to the radionavigation service. The finding in Columns 13A2 or 13A3, as the case may be, is provisionally based on the use of the method described in Appendix 28, although the precise values of terrestrial service parameters to be taken into account are not available.

2.3 A coordination area calculated in accordance with Appendix 28 may be:

1. unnecessarily great, if the radionavigation stations are using low powers; or
2. insufficient for radionavigation stations installed in aircraft for safety purposes.

3. Conclusion

To enable coordination areas in the frequency band 14 - 14.3 GHz to be calculated properly, detailed study of the characteristics of radionavigation equipment operating in this band is required. The study should include the technical and operating criteria of the equipment and the environment in which it will be used.
