



United States of America

PROPOSAL FOR THE WORK OF THE CONFERENCE

AGENDA ITEM 1.8.2

1.8.2 consideration of the results of studies, and proposal of any regulatory measures regarding the protection of passive services from unwanted emissions, in particular from space service transmissions, in response to *recommends 5* and 6 of Recommendation **66** (Rev. WRC-2000)

Background information

Following the completion of a general Recommendation by Task Group 1/5 on the protection of passive services from unwanted emissions, Study Group 1 charged Task Group 1/7 with studying protection of radio astronomy and satellite remote sensing on a band-by-band basis, using a list of frequency bands prepared by Task Group 1/5. Task Group 1/7 developed a methodology for the band-by-band studies and studied pairs of active and passive service bands thought most likely to require regulatory measures. The radio astronomy and remote sensing protection issues were considered separately because of the differences in protection criteria, operational characteristics and likely interference mitigation solutions.

recommends 5 and 6 of Recommendation 66 direct ITU-R to:

5 study those frequency bands and instances where, for technical or operational reasons, more stringent spurious emission limits than the general limits in Appendix 3 may be required to protect safety services and passive services such as radio astronomy, and the impact on all concerned services of implementing or not implementing such limits;

6 study those frequency bands and instances where, for technical or operational reasons, out-of-band limits may be required to protect safety services and passive services such as radio astronomy, and the impact on all concerned services of implementing or not implementing such limits;

recommends 5 and 6 require that the studies of passive service protection consider the impact of limits on all concerned services. This means that solutions to the protection of passive services under this agenda item must be agreeable to both the active and passive service interests involved.

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to bring their personal copies to the meeting since no others can be made available.
A CD-ROM containing all preparatory documents will be provided to each participant on arrival.

Task Group 1/7 completed its work, and documented its studies in draft new Recommendation ITU-R SM.[Band-by-Band], *Compatibility Analysis Between a Passive Service and an Active Service Allocated in Adjacent and Nearby Bands*, which was considered for approval at the Radiocommunication Assembly. The draft new Recommendation identifies emission limits that could be applied to fixed service systems in the 31-31.3 GHz and 51.4-52.6 GHz bands to protect remote sensing systems in adjacent bands. It also provides protection criteria for passive services in numerous other frequency bands. Study Group 1 will assign responsibility for maintenance of the Recommendation to one of its working parties.

Section 6.1.2.3 of the CPM Report to the 2003 World Radiocommunication Conference presents several means of addressing agenda item 1.8.2. One proposal would be to incorporate passive service protection criteria as emission limits in the Radio Regulations. However, since the impact of these limits on the active services has not been fully considered, this approach would be inconsistent with *recommends* 5 and 6 of Recommendation 66 and the limits may have detrimental effects, foreseen or unforeseen, on the active services.

A second proposal would be to incorporate the results of the band-by-band studies as emission limits in the Radio Regulations. The studies propose solutions for passive service protection from fixed service unwanted emissions near 30 GHz and 50 GHz, though the impact on the fixed service has not been fully considered. Analysis of other frequency bands is in the preliminary stages.

Consultation between administrations when active service unwanted emissions exceed a threshold is a third element of the methods in the CPM text. Consultation, however, would at best only benefit the radio astronomy service, and would impose a significant burden on administrations.

Recommendation ITU-R SM.[BbB] in its current form represents a significant first step in providing protection to the passive services. As Study Group 1 continues the work on these studies, it will provide protection to the passive services in additional frequency bands.

Because of pressure to limit the size of the WRC agendas, and the extraordinary difficulty of reaching agreement on general regulatory solutions to passive service protection, future conference agendas should not include review of these studies.

Proposal

The United States proposes no changes to the Radio Regulations pursuant to this agenda item except for the following.

SUP USA/37/1

RECOMMENDATION 66 (Rev.WRC-2000)

Studies of the maximum permitted levels of unwanted emissions

Reasons: The initial studies to which *recommends* 5 and 6 of Recommendation 66 (Rev.WRC-2000) refer have been documented in a draft new Recommendation. Study Group 1 will assign responsibility for maintenance of the Recommendation to one of its working parties.