Informal Working Group 3 (IWG-3)

Preparation for WRC-03

DRAFT PRELIMINARY VIEWS

WRC-2003 Agenda Item 1.29: to consider the results of studies related to Resolution **78[COM5/23]** (WRC-2000) dealing with sharing between non-GSO and GSO systems.

ISSUES: Resolution **78 (WRC-2000),** *Development of procedures in case the operational or additional operational limits in Article S22 are exceeded*, invites the ITU-R to undertake the appropriate regulatory studies to develop procedures in cases where the operational epfd↓ limits in the bands 10.7-12.75 GHz, 17.8-18.6 GHz, and 19.7-20.2 GHz or the single-entry additional operational epfd↓ limits for 3 and 10 meter antennas in the 10.7-12.75 GHz band are exceeded at an operational GSO earth station.

BACKGROUND: Resolution **78 (WRC-2000),** WRC-2000 adopted a combination of single-entry validation, operational and, for 3 and 10 meter antennas in the 10.7-12.75 GHz band, single-entry additional operational epfd↓ limits contained in Article S22, along with the aggregate epfd↓ limits in Resolution 76 (WRC-2000), which apply to non-GSO FSS systems to protect GSO networks in the bands 10.7-12.75 GHz, 17.8-18.6 GHz, and 19.7-20.2 GHz. The operational epfd↓ limits were adopted to protect *operational* GSO FSS networks from interference levels that may result in loss of synchronization, or loss of capacity, or severe degradation in performance.

Compliance with the operational epfd↓ and additional operational epfd↓ limits is not subject to verification by the ITU-BR but by individual administrations. In the case of operational epfd↓ limits, verification would be made by measurement conducted by administrations and/or their GSO system operators. A commitment by the administration (and their non-GSO operator) that the system filed will meet the additional operational epfd↓ limits is part of the Appendix **S4** coordination data. A non-GSO system causing interference must reduce its epfd↓ power levels towards the affected GSO earth station to meet the single-entry operational epfd↓ limits unless otherwise agreed by the concerned administrations. The ITU-R has identified the need for specific procedures that correct in the most expeditious manner any cases where the operational epfd↓ (see Tables **S22-4A** through **S22-4C**) or additional operational epfd↓ limits (see Table **S22-4A1**) are exceeded, by the inclusion of appropriate procedures in the Radio Regulations.

The U.S. supports the development of ITU-R recommendations such as the preliminary draft new recommendation concerning Methodologies for measuring epfd↓ interference levels from a non-GSO space station to verify compliance with operational epfd↓ limits (WP 4A Chairman's Report 4A/93, TEMP/42), preliminary draft new recommendation on estimating the accuracy of the epfd↓ measurements (WP 4A Chairman's Report 4A/93, TEMP/28) and the draft new recommendation concerning Procedure for the

identification of non-GSO satellites causing interference into an operating GSO earth station approved during the September 2000 WP 4A meeting. These recommendations provide the methodologies needed by administrations and/or their GSO system operators to assess operational epfd↓ levels and were requested in resolves 1 of Resolution **137** (WRC-2000).

PRELIMINARY VIEW: Resolution **78 (WRC-2000),**
Because compliance with the operational epfd↓ and additional operational epfd↓ limits is not subject to verification by the ITU-BR but by individual administrations, and , there is a need for a procedure to apply when there is a case that the Article S22 limits are exceeded, to assist administrations in ensuring that the operational GSO/FSS networks are properly protected for those cases where unforeseen operational non-GSO systems exceed the operational limits.

Exceedance of the operational limits may cause severe degradation to GSO terminals in the form of synchronization loss or loss of capacity. In order to expeditiously resolve cases where the operational limits are exceeded, the procedure outlined in Annex 1 of Resolution **78** should be followed. The US preference is to develop a procedure in accordance with Annex 1 of Resolution **78**, and place this procedure in Article **S15** of the Radio Regulations.

(04.12.01)