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October 1, 1999

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Via Hand Delivery

Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th St., S.W., Room TW-B204
Washington, D.C. 20554

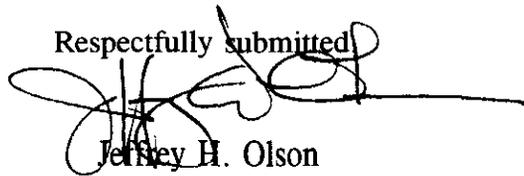
Re: Ex Parte File Nos. 48-SAT-P/LA-97, 89-SAT-AMEND-97,
130-SAT-AMEND-98, RM No. 9147

Dear Ms. Salas:

On September 30, 1999, Mark MacGann and the undersigned met in person with Commissioner Susan Ness and her Senior Legal Adviser, Mark D. Schneider, for the purpose of discussing issues relating to the above-referenced matters. Copies of the attached were distributed at this meeting.

Please contact the undersigned if you have any questions.

Respectfully submitted,



Jeffrey H. Olson
Attorney for SkyBridge L.P.

Enclosure

cc: Commissioner Susan Ness
Mark D. Schneider, Esq., Senior Legal Adviser

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The Commission Should Not Adopt the WRC-97 Limits.

The EPFD limits provisionally adopted at WRC-97 ("WRC-97 Limits") represented a political compromise, a condition of which was that WRC-97 would task the JTG 4-9-11 with studying and revising the WRC-97 Limits as appropriate. As stated in WRC-97 Resolutions 130, 131, and 538, a key objective for the JTG was to ensure that the EPFD limits place no undue constraints on any of the services involved. Both in the JTG proceedings, and in the Commission's NGSO rulemaking (ET Docket No. 98-206), all parties -- GSO and NGSO alike -- have agreed that the WRC-97 Limits must be modified to reflect operational realities.

- **The WRC-97 Limits do not take advantage of the extensive advancements of JTG 4-9-11 on the protection requirements of GSO systems.**

The JTG has comprehensively studied all aspects of the GSO/NGSO interference environment to determine the best way to facilitate sharing among NGSO systems and the various incumbent services. The operating assumption of this work has been that new, technically rigorous, limits would be derived and proposed to WRC-00. In the process, the group has reached consensus on virtually every step in the derivation and refinement of new EPFD limits for protection of GSO systems.

In particular, the JTG has compiled an extensive database of actual and planned GSO links. The JTG has also established GSO link protection criteria and related calculation methodologies to develop new limits based on the GSO link database. The WRC-97 Limits obviously were not derived to protect this new database of links and were not derived according to the agreed protection criteria.

- **The WRC-97 Limits do not take into account NGSO operational characteristics.**

The JTG recognized that the precise shape of the EPFD mask is of vital importance in accommodating NGSO systems; this critical fact was not considered in adoption of the WRC-97 Limits. A variety of masks can ensure the necessary GSO protection criteria are met. However, only those masks whose shape mirrors or encompasses the statistics of interference produced by NGSO systems avoid placing unnecessary constraints on NGSO systems.

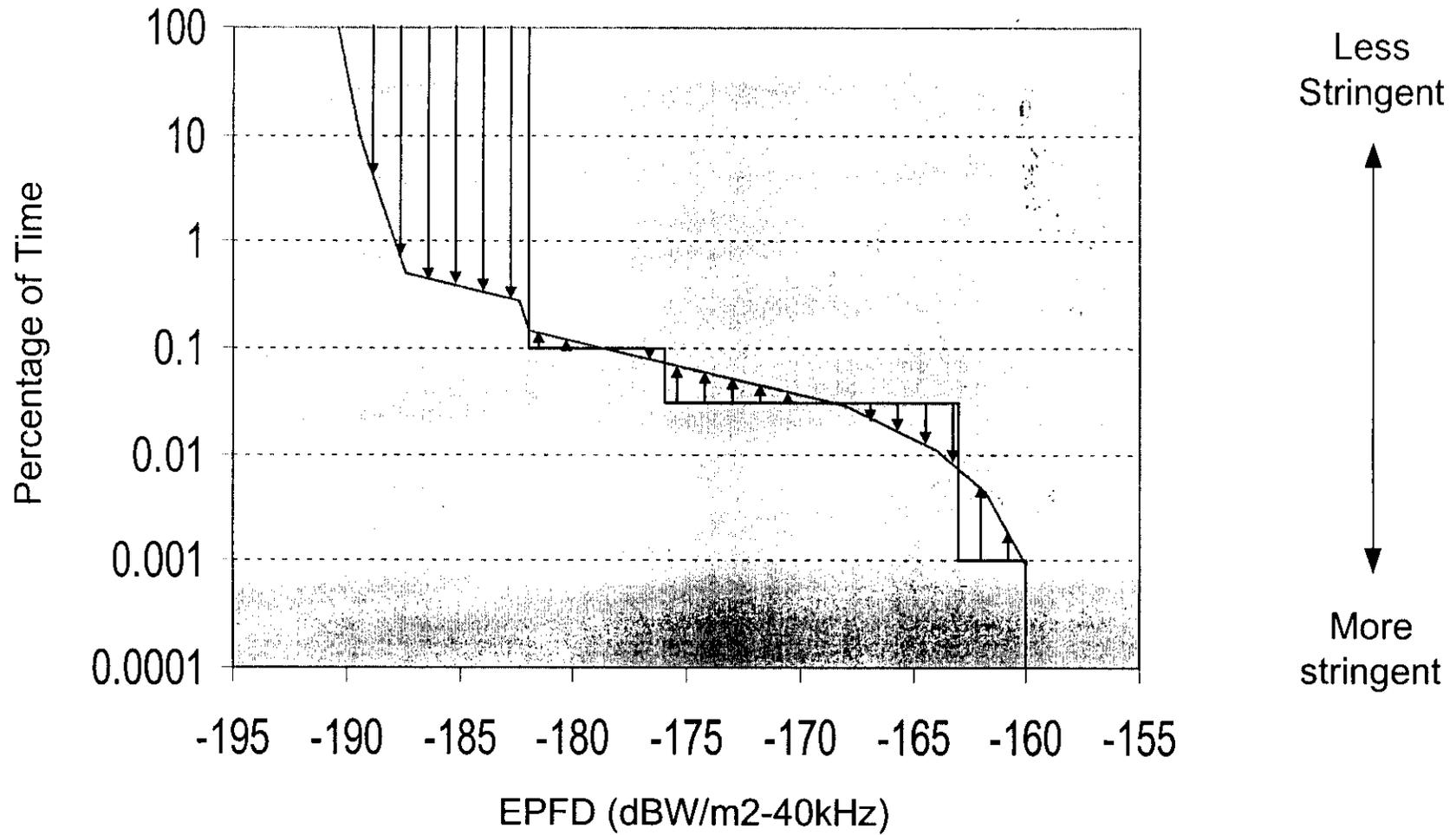
Moreover, the JTG agreed on the specification of a software tool that will enable the BR to verify each NGSO system's compliance with the limits. The tool is based on a number of worst-case and simplifying assumptions. Rather than computing the actual NGSO interference statistics, the software computes a very conservative upper bound, which in general overestimates the interference experienced by GSO systems. The WRC-97 Limits do not take into account the shape of the interference statistics of NGSO systems as calculated by the later-developed BR software.

For example, as shown in the attached figures, if the WRC-97 Limits and the "curve A" candidate masks developed by the JTG are compared point by point, the WRC-97 Limits are sometimes more stringent than the "curve A" masks, and sometimes less stringent. However, the curve A masks more closely reflect the interference characteristics of NGSO systems, as computed by the BR software, than the "staircase" shape of the WRC-97 Limits. As concluded by the JTG, accommodating NGSO interference characteristics by refining the mask shape can decrease the burden on NGSO systems while still affording the appropriate protection to GSO links.

- **For these reasons, there has been broad consensus within the U.S. and international satellite communities that the WRC-97 Limits never had any practical meaning and were to be replaced by the results reached by the JTG. No party, in either the JTG process or ET Docket No. 29-206, has attempted to defend or support the obsolete WRC-97 Limits; all have concurred that they should be abandoned in view of the state-of-the-art approaches that have now been developed by the JTG.**

Comparison of "Curve A" and WRC-97 Limits

3m Antenna



Comparison of "Curve A" and WRC-97 Limits

10m Antenna

