

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
2000 Biennial Regulatory Review --) IB Docket No. 00-248
Streamlining and Other Revisions of Part 25 of)
the Commission's Rules Governing the Licensing of,)
and Spectrum Usage by, Satellite Network)
Earth Stations and Space Stations)

COMMENTS OF GE AMERICAN COMMUNICATIONS, INC.

GE American Communications, Inc. ("GE Americom"), by its attorneys,
hereby submits its comments in response to the *Notice of Proposed Rulemaking* in
the above-captioned proceeding, FCC 00-435 (rel. Dec. 14, 2000) (the "*Notice*").

GE Americom supports Commission efforts to revise and update earth
station rules. We believe that such efforts will reduce burdens on both earth station
and space station licensees. However, the Commission must ensure that its
technical standards continue to provide protection against harmful interference.

INTRODUCTION

The *Notice* requests comment on a range of issues relating to the
streamlining of earth station licensing rules and procedures. In particular, the
Commission seeks input regarding ways to speed processing of routine applications
for earth station licenses and reduce any unnecessary burdens associated with non-
routine earth station applications. *Notice* at ¶ 1. The *Notice* asks for comment on
whether current technical requirements relating to earth stations can be relaxed,

and on the standards and procedures that should be used to evaluate applications that do not meet the requirements. The *Notice* also requests comment on issues relating to VSAT licensing, including use of random access techniques.

As an operator of both space stations and earth stations, GE Americom has a strong interest in the issues raised in this proceeding. GE Americom agrees that the rules relating to routine and non-routine licensing of earth stations need to be revised to reflect current technology and operational realities. We suggest that the Commission convene an industry working group to explore these issues and develop a consensus on appropriate changes to the rules. The working group should also address power levels for VSAT operations, including VSAT networks using random access techniques.

After the technical standards have been revised, case-by-case evaluation will still be needed for applications that do not come within the parameters specified in the updated rules. The Commission should continue to consider applications for earth stations that do not comply with the new standards provided that the applicant obtains consent from affected satellite operators.

We agree with the Commission that the Adjacent Satellite Interference Analysis (“ASIA”) program can be unnecessarily burdensome on earth station applicants. Instead, we suggest below a set of technical parameters that should be submitted by the earth station applicant to ensure that space station operators can evaluate the proposal.

I. THE COMMISSION SHOULD CONVENE AN INDUSTRY WORKING GROUP TO CONSIDER REVISIONS TO EARTH STATION TECHNICAL RULES

The *Notice* observes that the power level limits in Sections 25.134, 25.211, and 25.212 were adopted in the 1980's, when typical earth station diameters were relatively large. In the past two decades, the Commission has dramatically decreased earth station antenna diameter requirements in light of technical advances but has not changed the power spectral density requirements. The *Notice* seeks comment on whether changes to the power levels should be made to reflect current technology and service needs. *Notice* at ¶¶ 39-40.

GE Americom agrees that earth station technical requirements should be re-evaluated and updated. Revising the technical standards for earth stations should substantially decrease burdens on both space and earth station operators and on the Commission staff. Making the power levels more consistent with current technology and traffic patterns should lead to a substantial decline in the number of earth station proposals that are ineligible for routine processing. As a result, earth station operators will be less likely to need to go through the steps required to demonstrate non-interference, allowing for expedited service to the public. Similarly, space station operators will receive fewer requests to evaluate and coordinate non-routine earth station operations. Commission resources will also be conserved, because less staff time will be needed to consider non-routine proposals.

In GE Americom's view, revisions to the earth station power limits can best be considered by an industry working group, similar to the blanket licensing working group that developed technical parameters for Ka-band operations. That group was able to reach consensus on a comprehensive set of Ka-band technical standards. Because each U.S. Ka-band satellite licensee participated in the group and agreed to the standards, the outcome was to provide a blueprint for "pre-coordinated" operations. Development of similar standards for C- and Ku-band operations would clearly benefit satellite system operators and users alike. Specifically, GE Americom believes that the group's goal should be to develop a set of off-axis EIRP levels that will permit deployment of new technology without creating a risk of unacceptable interference.

The group should also consider appropriate power levels for VSAT systems, including VSAT networks that employ random access techniques. GE Americom supports allowing the use of random access techniques, such as slotted ALOHA. Our experience has been that such operations have not resulted in unacceptable interference. We believe the industry working group will be in the best position to evaluate the appropriate power levels that should apply to VSAT networks relying on slotted ALOHA or other multiple access methods.

II. THE COMMISSION SHOULD CONTINUE TO PERFORM A CASE-BY-CASE REVIEW OF NON-ROUTINE EARTH STATION APPLICATIONS

Even after the power limits have been updated, however, GE Americom anticipates that there will continue to be proposals for operations that do not meet the standards for routine licensing. The Commission should use a case-by-case analysis to evaluate such applications, but should modify the procedures used to demonstrate non-interference.

As the *Notice* recognizes, the current practice of requiring use of the ASIA program to demonstrate that an earth station that does not comply with Section 25.209(a)(1) of the Commission's rules will not cause harmful interference is time-consuming and burdensome. *Notice* at ¶ 13. Although the ASIA program is useful for satellite applications, GE Americom believes that it is not necessary to require non-routine earth station applicants to use the program. An earth station applicant typically will not have access to the information regarding space station operations that is required to complete the program. Even assuming this difficulty can be overcome, coordination with adjacent satellite operators is still necessary once the results of the ASIA program are available. *Id.*

GE Americom agrees that alternatives to the use of the ASIA program should be acceptable. The *Notice* proposes two options. First, the Commission proposes to create a policy that would permit an operator to reduce its power sufficiently to avoid potential adjacent satellite interference. *Id.* at ¶ 15. GE Americom agrees that this approach would be acceptable, provided that compliance with the reduced power levels is monitored by the satellite operator with

which the non-conforming earth station is communicating. GE Americom also concurs with the Commission's analysis regarding earth station susceptibility to interference from other satellites. Specifically, a non-routine earth station should be required to accept the same level of interference that a compliant earth station is required to tolerate. Assuming the working group discussed above can develop appropriate off-axis EIRP limits, those limits could be used to define the interference environment that any network should be required to accept.

Second, the *Notice* suggests that an earth station operator should be licensed to use a non-conforming antenna if it can successfully coordinate the higher power levels proposed. *Id.* at ¶ 20. GE Americom has no objection to this proposal provided that the Commission establishes procedures that ensure that space station operators are given sufficient information and time to evaluate the potential impact of non-routine earth station operations.

In order to assess whether a proposed earth station is likely to create interference, a space station operator will need to be provided with the following information:

- Transmit and receive frequency parameters, including bandwidth
- Earth station maximum and minimum power level and density
- The antenna's off-axis gain pattern

An earth station operator seeking to coordinate a non-conforming earth station should be required to supply this information to potentially affected space station operators.

The *Notice* proposes to place non-conforming earth station applications on public notice and establish a 60-day period for resolution of coordination issues with potentially affected satellites. *Notice* at ¶ 35. GE Americom has serious concerns about the implementation of this proposal. GE Americom has no objection to efforts to speed decision-making once coordination issues have been resolved. However, the Commission must recognize that coordination of non-conforming antennas can be difficult and time-consuming. In some cases, coordination may involve shifting other customers' traffic or making other adjustments. Sixty days may not be enough time to accomplish necessary changes. In other cases, coordination may ultimately prove to be impossible. The Commission cannot establish artificial time limits that interfere with a satellite operator's ability to protect its customers from potential interference.

The burden should be on the earth station operator proposing non-conforming operations to provide space station operators with complete technical information and work with them to resolve any coordination issues. Only after that process has been completed will the Commission be in a position to license the non-conforming proposal.

CONCLUSION

For the foregoing reasons, GE Americom urges the Commission to convene an industry working group to review and update earth station power levels. The Commission should retain case-by-case analysis of non-compliant proposals pursuant to the procedures outlined above.

Respectfully submitted,

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