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Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Part 101 of the)
Commission's Rules to Streamline)
Processing of Microwave Applications)
In the Wireless Telecommunications)
Services)

WT Docket No. 00-19

COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

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SUMMARY

In this proceeding, the Commission has asked for comment on alternative licensing plans for terrestrial microwave stations governed by Part 101 of the Commission's Rules. The Satellite Industry Association ("SIA") believes that some of the suggested changes could impair use by satellite operators of bands in which satellite services and terrestrial services have co-primary allocations. The Commission, however, has failed to provide adequate notice of potential changes in the availability of these bands to satellite operators to comply with the Administrative Procedure Act. The Commission cannot consider changing the rules under which these two services currently coordinate use of these bands without providing adequate notice to satellite interests. In any event, these sharing issues should only be evaluated in the context of specific allocated bands rather than in a general rulemaking.

SIA also objects to adoption of any restriction on the availability of bands in which satellite services have co-primary allocations that might arise as a result of geographic limits on earth station siting. Moreover, the suggestion that the Commission could determine the priority of co-primary services in these bands by auction is inconsistent with the recently-enacted ORBIT Act, which precludes the use of auctions for licensing global and international satellite services. Accordingly, SIA urges the Commission not to adopt any rules here that would have an impact on the availability to satellite services of bands in which satellite services and terrestrial microwave services are co-primary.

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	i
BACKGROUND	2
I. THE COMMISSION SHOULD NOT CONSIDER HERE CHANGES TO THE POLICIES ON SPECTRUM SHARING BETWEEN TERRESTRIAL AND SATELLITE SERVICES.	3
A. The <i>NPRM</i> Does Not Constitute Sufficient Notice of Change to the Rules Governing Use of Satellite Spectrum.	4
B. Any Sharing Between Terrestrial and Satellite Services Should Be Considered on a Band-Specific Basis.	5
II. GEOGRAPHIC OR OTHER RESTRICTIONS ON SATELLITE EARTH STATIONS SHOULD BE REJECTED.	7
III. AUCTIONS ARE INAPPROPRIATE FOR SATELLITE SERVICES.	10
IV. CONCLUSION	12

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COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

Pursuant to Section 1.415 of the Commission's Rules, the Satellite Industry Association ("SIA")¹ submits the following comments on the Commission's proposals regarding modifications to the licensing procedures for wireless telecommunications services governed by Part 101 of the Commission's Rules in accordance with Section 309(j)(1).²

¹ SIA is a national trade association representing the leading U.S. satellite manufacturers, service providers, and launch service companies. SIA serves as an advocate for the U.S. commercial satellite industry on regulatory and policy issues common to its members. With member companies providing a broad range of manufactured products and services, SIA represents the unified voice of the U.S. commercial satellite industry. SIA's members include: Boeing Commercial Space Company; COMSAT Corporation; Ellipso Inc.; GE American Communications, Inc.; Globalstar L.P.; Hughes Electronics Corp.; Iridium LLC; Lockheed Martin Corp.; Loral Orion Network Services Inc.; Loral Space & Communications Ltd.; Motient Corp.; Motorola Inc.; Orbital Sciences Corporation; PanAmSat Corporation; Teledesic Corporation; TRW Inc.; and Williams Vyvx Services.

² See Memorandum Opinion and Order and Notice of Proposed Rulemaking, FCC 00-33 (released Feb. 14, 2000) ("*Notice*").

BACKGROUND

SIA represents companies that provide both Fixed Satellite Service (“FSS”) and Mobile-Satellite Service (“MSS”). In the *Notice*, the Commission seeks comment on the licensing of terrestrial microwave stations by auction, including licenses for fixed stations in several bands above 2 GHz in which terrestrial services and FSS are co-primary, for example, 3700-4200 MHz, 5925-6425 MHz, 10.95-11.2 GHz and 11.45-11.7 GHz. See Notice, ¶ 77. The satellite allocations in these bands are used for fixed satellite services and/or for MSS feeder links.

SIA believes that some of the proposed modifications to licensing terrestrial stations could impair satellite use of these bands. The Commission, however, has failed to provide adequate notice of such changes to comply with the Administrative Procedure Act. Also, SIA objects to adoption of any restriction on the availability of these bands to satellite services that might arise as a result of geographic limits on earth station siting. Moreover, the suggestion that the Commission could determine the priority of co-primary services in these bands by auction is inconsistent with the recently-enacted ORBIT Act, which precludes the use of auctions for licensing global and international satellite services.

The proposed changes of concern to SIA all arise from the discussion of the options for licensing terrestrial microwave services by competitive bidding. In two licensing options (Options I and II), the Commission did not discuss whether there would be changes in the way that other services accessed the auctioned spectrum.

For Option III, the Commission suggests that the spectrum rights of co-primary users could be modified, perhaps with auctions used to determine which service is primary and which secondary in certain frequency blocks, and asks whether geographic restrictions should be imposed on satellite earth stations. In connection with Option III, the Commission asks generally about rule changes that would facilitate spectrum sharing between co-primary terrestrial and satellite services. As Option IV, the Commission suggests retaining the status quo.

For the reasons discussed below, SIA urges the Commission to ensure that any rules adopted here have no impact on the spectrum rights of satellite services in bands shared with terrestrial microwave services.

I. THE COMMISSION SHOULD NOT CONSIDER HERE CHANGES TO THE POLICIES ON SPECTRUM SHARING BETWEEN TERRESTRIAL AND SATELLITE SERVICES.

As a threshold matter, this proceeding is an inappropriate forum in which to suggest changes in existing policies relating to spectrum sharing between terrestrial and satellite services. Although the Commission states that it will not consider spectrum sharing issues that have been raised in other proceedings, SIA is concerned that any changes in the licensing regime for terrestrial microwave stations may impair the availability of spectrum for co-primary satellite services. The Commission cannot consider shifting the balance reflected in current coordination rules without providing adequate notice to satellite interests. In any event, SIA submits that sharing issues can only be evaluated in the context of specific allocated bands rather than in a general rulemaking.

A. The *NPRM* Does Not Constitute Sufficient Notice of Change to the Rules Governing Use of Satellite Spectrum.

The focus of this proceeding is very clearly on fixed microwave services, including “technical and regulatory issues that are unique to microwave services,” *Notice*, n.3, and ways to streamline, clarify and reorganize the rules applicable to licensing terrestrial stations. The *Notice* itself arises out of previous decisions regarding the consolidation of the rules for common carrier and private operational fixed microwave services in Part 101 of the Commission’s Rules. *See id.*, ¶ 2. Thus, this proceeding centers on issues of primary interest only to microwave operators, equipment manufacturers, and users, and that is exactly who has participated in the earlier stages of the proceeding.

The *Notice*, however, includes discussion that raises questions of critical interest to the satellite industry, and proposes changes to Part 101 that may affect Part 25 licensees. But the discussion of sharing with satellite services is buried in a single paragraph toward the end of the *Notice*, and nothing in the rest of the document indicates that the rights of satellite service users could be affected by the outcome of this proceeding. Neither the caption nor the introduction and executive summary of the *Notice* contains any reference to satellites or Part 25. As a result, it is unlikely that the vast majority of satellite service users whose rights could be

adversely affected by these proposals are aware that changes in spectrum rights for satellite services are even being mentioned here.³

It would be manifestly unreasonable and unfair to resolve issues of such importance to the satellite industry under these circumstances. Accordingly, SIA urges the Commission not to take action on any issues affecting sharing between satellite and terrestrial services in this proceeding. Clearly, if any substantive re-examination of sharing policies is to take place, full and fair notice to all satellite operators and users is required so that they have an adequate opportunity to participate.⁴

B. Any Sharing Between Terrestrial and Satellite Services Should Be Considered on a Band-Specific Basis.

The current proceeding seeks to develop generic policies for licensing terrestrial microwave stations that can be applied to a broad range of frequency bands. Yet, the issues raised by spectrum sharing between terrestrial and satellite services vary significantly from band to band. A number of factors are important to any sharing analysis, including the specific types of terrestrial and satellite applications that are authorized in the spectrum and the ubiquity of terminal

³ The SIA represents only a fraction of companies that hold licenses for earth stations in bands above 2 GHz. A number of SIA members, including satellite system operators, are earth station licensees, but there are hundreds of satellite service customers who hold their own earth station licenses and are not represented by SIA.

⁴ See MCI Telecommunications Corp. v. FCC, 57 F.3d 1136, 1140-41 (D.C. Cir. 1995); Reeder v. FCC, 865 F.2d 1298, 1305-06 (D.C. Cir. 1989).

deployment in each service. As a result, the Commission's sound practice has been to evaluate sharing issues on a band-by-band basis, considering the feasibility of sharing in band allocation proceedings based on the technical characteristics and market structure of the services proposed.⁵

Meaningful solutions to sharing issues can be evaluated best in the context of making specific band allocation decisions rather than in a general rulemaking. The Commission should not abandon that practice here and attempt to develop rules that affect sharing policies in a one-size-fits-all manner. Although terrestrial-satellite sharing has been feasible in many cases, sharing solutions that are appropriate for one band may not necessarily work in another. There is no point in discussing sharing in the abstract, without taking into account the particular attributes of the services being considered for a given band and the specific views of existing or proposed service providers. Instead, the Commission must address sharing issues based on a band-specific evaluation of the interference environment and service parameters. Because it is not in a position to do so here, the Commission should simply retain the status quo, at least until the potential issues

⁵ See Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite Service Use, FCC 00-212 (released June 22, 2000) ("Ka-Band Order") (adopting band segmentation plan to accommodate FSS and FS); Amendment of Parts 2, 25 and 97 of the Commission's Rules with Regard to the Mobile-Satellite Service Above 1 GHz, 13 FCC Rcd 17107 (1998) (proposing co-primary sharing between NGSO MSS feeder links and FS).

raised by any changes to the spectrum-sharing arrangements have been fully and fairly considered.

II. GEOGRAPHIC OR OTHER RESTRICTIONS ON SATELLITE EARTH STATIONS SHOULD BE REJECTED.

The *Notice* asks if the Commission should “establish restrictions on whether the satellite earth stations should be located outside of major cities where microwave routes are most valuable.” *Notice*, ¶ 77. It also asks whether co-primary services could be assigned priority status in separate band segments by auction. SIA strongly opposes any new restrictions on licensing earth stations in spectrum shared with fixed terrestrial services.

First, the *Notice* cites to no evidence whatsoever that suggests that the proposed geographic or priority restrictions are necessary either generally or in specific bands. There is a general assertion that the expansion of satellite services in shared spectrum decreases available options for terrestrial microwave use (*id.*, ¶ 75), but no attempt to present evidence that this has a negative impact on microwave services that requires such restrictions as a remedy. Furthermore, the *Notice* does not even consider the negative impact of any geographic restrictions on the tens of millions of users who directly or indirectly rely on satellite services.

Second, imposing geographic or other restrictions on earth stations is contrary to the principles on which the terrestrial and satellite services share

spectrum. Many bands are allocated to both terrestrial and satellite services because it is often feasible for these two services to coordinate use of spectrum.⁶

Moreover, to mitigate the potential for interference, the ITU and the Commission have adopted power flux density (“PFD”) limits for space-to-earth satellite transmissions to protect microwave stations.⁷ These limits are the product of international study groups and represent the combined opinion of satellite and terrestrial interests on the levels necessary to protect terrestrial services.

Third, limiting access to spectrum would hamstring the development of commercial satellite industry. The satellite allocations above 2 GHz, which are shared with terrestrial services and potentially affected by rules adopted in this proceeding, are almost all international allocations for satellite services that have also been allocated by the Commission. Were the Commission to limit the availability of this spectrum for satellite operators, it would potentially deprive U.S. subscribers of the benefits of global satellite services, from both U.S.-licensed and foreign-licensed companies. To suggest that other spectrum could be allocated for satellite services is no solution, because such allocations would have to be consistent with international allocations to offer equivalent use. New international allocations

⁶ In bands with terrestrial services, Part 25 requires earth station licensees to coordinate with existing terrestrial users and applicants for terrestrial stations with previously-filed applications. 47 C.F.R. § 25.203(a-c). In some cases, it may not be feasible for “ubiquitously deployed FSS earth stations” to share spectrum with terrestrial fixed service stations. See Ka-Band Order, FCC 00-212, ¶ 17.

⁷ See 47 C.F.R. § 25.208.

for satellite services would take years of work through the ITU process. The resulting delay would unnecessarily disrupt the provision of existing satellite services, hamper delivery of new satellite services and give terrestrial services an unwarranted competitive advantage.

Moreover, if the Commission were to create new exclusion zones for earth stations near major cities, operators of teleports and other earth station licensees in those cities, who have relied on existing policies, may be precluded from adding frequencies, points of communication, and/or new earth stations. Siting earth stations in clusters may facilitate coordination with terrestrial microwave stations, but changing the rules will deprive the public and earth station customers of the advantages of the proximity of teleports to cities, and require placement of earth stations in additional locations even though new facilities at the sites already in use may cause no incremental impairment to microwave stations.

Existing satellite-terrestrial coordination procedures rely on a “first-in-time, first-in-right” principle with respect to managing interference, both between and within services. Therefore, when siting stations in the shared bands, terrestrial and satellite operators must coordinate construction of specific stations through geographic and/or frequency separation, and that process has worked for years and has been reaffirmed by the Commission over and over again. Once a terrestrial link has been established, it is protected from interference under the coordination rules from later proposals for new or modified earth stations, and vice-versa.

Because terrestrial services have historically been deployed more quickly than satellite operations, this policy has worked in favor of terrestrial providers. In effect, this coordination system has established *de facto* exclusion zones in which terrestrial use is so heavy that insertion of new, co-frequency earth stations is simply infeasible. This creates a burden that satellite service users have been required to accept under current coordination rules as part of the overall balancing of interests underlying sharing policies. There is clearly no basis for shifting that balance further in the interests of terrestrial users through adoption of arbitrary geographical limitations, particularly absent any concrete evidence that the current rules create hardships or that the proposed change would create a substantial benefit. Therefore, the *Notice's* proposal for new limits and restrictions on earth stations must be rejected.

III. AUCTIONS ARE INAPPROPRIATE FOR SATELLITE SERVICES.

The *Notice* also asks whether auctions should be used to determine what service is primary and what service is secondary in a given band. *Notice*, ¶ 77. This proposal, however, pre-dates the adoption of the ORBIT Act, in which Congress expressly prohibited the Commission from using auctions in assigning spectrum rights for satellite services.⁸ Specifically, the statute provides that:

⁸ See Open-Market Reorganization for the Betterment of International Telecommunications Act, Pub. L. 106-180, § 647 (Mar. 27, 2000) (codified at 47 U.S.C. § 765(f)).

Notwithstanding any other provision of law, the Commission shall not have the authority to assign by competitive bidding orbital locations or spectrum used for the provision of international or global satellite communications services.

In light of this clear expression of Congressional intent, the Commission must abandon any consideration of the use of auctions to set spectrum access priorities for satellite services.

Currently, in shared bands, both services are generally obligated to avoid the risk of interference into the other service. Given the flexibility already present in the Commission's Rules, there is no reason for the Commission to change the licensing scheme. Rather, these services should continue to be treated as co-primary in the shared bands above 2 GHz, unless there has been a specific determination otherwise for individual bands.

IV. CONCLUSION

For the reasons set forth above, the Commission should reject any proposed changes to its policies for licensing terrestrial microwave services that would have any impact on the existing rights of satellite services in bands shared with terrestrial microwave services.

Respectfully submitted,

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I, William D. Wallace, hereby certify that I have on this 20th day of July, 2000, caused to be served true and correct copies of the foregoing "Comments of the Satellite Industry Association" upon the following parties via hand delivery:

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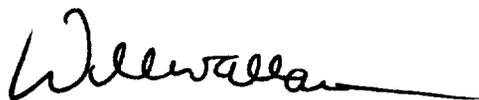
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