



SPECTRUMASTRO

April 6, 1999

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In reply refer to:
0000-EL-Z14079

BY HAND DELIVERY

Attn: Magalie Román Salas, Esq.,
Secretary
Federal Communications Commission
The Portals, 445 12th Street, S.W.
TW-A325
Washington, D.C. 20554

DOCKET FILE COPY ORIGINAL

Subject: *Allocation and Designation of Spectrum for Fixed
Satellite Services in the 37.5-38.5 GHz, 40.5-41.5
GHz, and 48.2-50.2 GHz Frequency Bands, FCC
98-336, released December 23, 1998 (Report and
Order in IB Docket No. 97-95)*

Dear Ms. Salas:

Pursuant to Section 1.429 of the Commission's rules, 47 C.F.R. § 1.429 (1997), Spectrum Astro, Inc. encloses for filing in the above-captioned proceeding an original and eleven (11) copies of its "Comments on Petitions for Reconsideration."

Please contact me if you have any questions concerning this filing.

Sincerely,

John Dyster
Director, Commercial and
International Programs

Enclosures

No. of Copies rec'd 11
List A B C D E

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

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Allocation and Designation of Spectrum)
for Fixed Satellite Services)
in the 37.5-38.5 GHz, 40.5-41.5 GHz,)
and 48.2-50.2 GHz Frequency Bands;)
Allocation of Spectrum to Upgrade Fixed)
and Mobile Allocations in the 40.5-42.5 GHz)
Frequency Band; Allocation of Spectrum)
in the 46.9-47.0 GHz Frequency Band for)
Wireless Services; and Allocation of Spectrum)
in the 37.0-38.0 GHz and 40.0-40.5 GHz)
for Government Operations)

IB Docket No. 97-95

RM-8811

COMMENTS ON PETITIONS FOR RECONSIDERATION

Spectrum Astro, Inc. submits these comments in general support of the petitions for reconsideration of the Commission's Report and Order in the above-captioned proceeding in which the Commission allocates and designates spectrum for satellite and terrestrial wireless services in the 36.0-51.4 GHz band ("V-Band"). Spectrum Astro is an applicant before the Commission for authorization to provide fixed satellite service ("FSS") in the V-Band via a geostationary orbit ("GSO") satellite constellation.

I. THE SPECTRUM ALLOCATION FOR FSS IN THE V-BAND IS INSUFFICIENT

Hughes Communications, Inc. ("HCI") and GE American Communications, Inc. ("GE") contend in their petitions that the spectrum allocated to FSS in the Report and Order¹ in the

¹ *Allocation and Designation of Spectrum for Fixed Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz, and 48.2-50.2 GHz Frequency Bands*, Report and Order, IB Docket No. 97-95, FCC 98-366 (rel. Dec. 23, 1998) ("V-Band Order").

above-captioned proceeding (“V-Band Order”) is insufficient.² Spectrum Astro agrees. In the V-Band Order, the Commission allocated spectrum for FSS use on a primary basis in the 37.6-38.6 GHz, 40.0-41.0 GHz, and 48.2-50.2 GHz bands, a total of 4 GHz. That amount is the same amount of spectrum proposed by the Commission in its Notice of Proposed Rulemaking in the above captioned proceeding (“V-Band NPRM”).³ However, both the comments to the V-Band NPRM and subsequently filed satellite applications in the V-Band processing round clearly demonstrate the need for additional spectrum for the continued development of FSS.

A. Additional V-Band Spectrum is Necessary for the Continued Development of FSS

As GE points out in its petition for reconsideration, and Spectrum Astro concurs, the Commission must allocate sufficient spectrum to allow for continued growth of FSS. The V-Band represents, as GE notes, the “last frontier” in frequency spectrum for FSS for the foreseeable future.⁴ Given the increasing congestion in lower bands, an adequate V-band allocation is critical in order to extend the benefits of FSS to underserved areas in the U.S. and around the world. It is also critical in order to allow for the development of new, innovative, and affordable broadband services. Spectrum Astro and other V-band applicants are proposing an array of high data rate, high capacity, high quality, affordable services that offer connectivity to the Internet, customer premises, hubs, cable heads, and private networks, thereby enhancing the global telecommunications infrastructure. The prospect of such new broadband services; the enormous interest shown by the satellite industry in providing these services in the 18.0-30.0

² See Petition for Reconsideration of HCI, IB Docket No. 97-95, at 4-6 (filed Feb. 16, 1999) (“HCI Petition”); and Petition for Reconsideration of GE, IB Docket No. 97-95, at 4-10 (filed Feb. 16, 1999) (“GE Petition”).

³ *Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.4 GHz, and 48.2-50.2 GHz Frequency Bands*, Notice of Proposed Rulemaking, 12 FCC Rcd 10130 (1997) (“V-Band NPRM”). The particular designations changed slightly, however: the proposed FSS service designations in the 37.5-37.6 GHz and 41.0-41.5 GHz bands and the proposed wireless service designations in the 38.5-38.6 GHz and 40.0-40.5 GHz bands were reversed. See V-Band Order, *supra* note 1, at ¶ 15.

⁴ GE Petition, at 6.

GHz band and in the V-Band; and reports of market demand for these services⁵ demonstrate the criticality of the V-Band for FSS.

B. Comments on the V-Band NPRM Demonstrate the Need for Additional Spectrum

As HCI and GE note in their petitions for reconsideration, comments on the V-Band NPRM demonstrate the need for additional spectrum beyond the 4 GHz proposed by the Commission.⁶ At least four of the commenters argued that 4 GHz was nowhere near sufficient and requested an additional 2-4 GHz.⁷ The Commission acknowledged in the V-Band Order that the “majority of satellite commenters argue that they need more spectrum designated for long term satellite use than the 4 GHz proposed in the V-Band NPRM.”⁸ Yet, the Commission failed to allocate additional spectrum for FSS without adequately explaining why 4 GHz is sufficient. The Commission did so despite the commenters’ observation that the V-Band is the only significant remaining spectrum resource available to accommodate future satellite services.⁹

C. Applications for V-Band Satellite Systems Demonstrate the Need for Additional Spectrum

As HCI and GE contend in their petitions, and Spectrum Astro agrees, the V-Band Order ignores the evidence in the V-Band processing round demonstrating the need for additional V-

⁵ See, e.g., Pioneer Consulting, *Satellite Data Networks: The Internet’s Next Frontier* (Dec. 1997).

⁶ See HCI Petition, at 4-6; and GE Petition, at 4-5. See also GE Comments, IB Docket No. 97-95, at 3 (filed May 5, 1997); HCI Comments, IB Docket No. 97-95, at 10 (filed May 5, 1997); Lockheed Martin Corporation Comments, IB Docket No. 97-95, at 8 (filed May 6, 1997); Motorola Satellite Systems, Inc. Comments, IB Docket No. 97-95, at 6 (filed May 5, 1997) (“Motorola Comments”); PanAmSat Corporation Reply Comments, IB Docket No. 97-95, at 1-2 (filed Jun. 3, 1997) (“PanAmSat Reply Comments”); Satellite Industry Association Comments, IB Docket No. 97-95, at 2 (filed May 5, 1997); and TRW Inc. Comments, IB Docket No. 97-95, at 3 (filed May 5, 1997).

⁷ See GE Reply Comments, IB Docket No. 97-95, at 11 (filed Jun. 3, 1997); HCI Reply Comments, IB Docket No. 97-95, at 24-25 (filed Jun. 3, 1997); Motorola Comments, at 6; PanAmSat Reply Comments, at 2; and TRW Reply Comments, IB Docket No. 97-95, at 7-10 (filed Jun. 3, 1997).

⁸ V-Band Order, *supra* note 1, at ¶ 27.

⁹ See GE Comments, at 4-5; PanAmSat Reply Comments, at 2.

Band spectrum for FSS.¹⁰ Thirteen companies filed applications for a total of fifteen satellite systems in the V-Band on September 26, 1997.¹¹ Seven of these applications requested spectrum in excess of 4 GHz of V-Band spectrum.¹² These applications demonstrate the strong demand for V-Band spectrum by the satellite industry and reinforce the earlier satellite industry comments on the inadequacy of the Commission's V-Band allocation. As HCI contends, the Commission fails "to explain how the absence of a demonstration by the terrestrial wireless industry could be more persuasive" than the filing of "fifteen concrete satellite system proposals . . ."¹³ Echoing GE's comments, Spectrum Astro feels the Commission has failed to explain why 4 GHz of V-Band spectrum is enough for FSS systems, given the many FSS system applications requesting more than 4 GHz.¹⁴

D. The Unequal Apportionment of Spectrum Between Terrestrial Wireless Services and FSS is Not Adequately Explained

Spectrum Astro agrees with the contentions of HCI and GE that the Commission has not adequately explained the unequal apportionment of spectrum between terrestrial wireless services and FSS.¹⁵ In the V-Band Order, the Commission allocates 5.6 GHz of spectrum to terrestrial wireless services and only 4 GHz to FSS. But the V-Band Order fails to explain why the satellite industry should be subjected to less favorable spectrum allocation treatment, especially in light of the spectacular demonstration of interest shown by the satellite industry through applications filed in the V-Band processing round. The unequal apportionment of spectrum is all the more puzzling considering, as HCI notes, that the terrestrial industry "was

¹⁰ See HCI Petition, at 2-6, 8; GE Petition, at 5-10.

¹¹ In July 1997, the International Bureau accepted for filing the V-Band satellite system application of Motorola and established a filing window for the V-Band. At the close of the filing window, fifteen additional V-Band applications were filed along with an amendment of its original V-Band application filed by Motorola. See V-Band Order, *supra* note 1, at ¶ 11.

¹² These seven applications requested at least 6 GHz of V-Band spectrum. See Applications of GE, at TA-7; HCI Expressway, at 24; HCI SpaceCast, at 23; Lockheed Martin, at 41; Motorola, at 34; PanAmSat, at 2; and TRW, at 6. See also V-Band Order, *supra* note 1, at ¶ 27.

¹³ HCI Petition, at 6.

¹⁴ GE Petition, at 5-6.

¹⁵ HCI Petition, at 2; GE Petition, at 5.

virtually silent as to its need, or even its desire, for terrestrial spectrum designations outside of the 38.6-40.0 GHz band.”¹⁶ Spectrum Astro agrees with HCI that the Commission’s statement that the allocations “strike[] a reasonable balance among competing services” is “conclusory” and does not justify or explain the Commission’s position.¹⁷ Moreover, Spectrum Astro agrees with both HCI and GE that the Commission’s reference to possible auctions of some of the wireless spectrum for any allocated service is not persuasive.¹⁸

II. THE SPECTRUM ALLOCATION FOR FSS IN THE V-BAND SHOULD CONFORM TO INTERNATIONAL ALLOCATIONS

Along with GE, Spectrum Astro is concerned about the inconsistency of the Commission’s V-Band allocations for FSS with the International Table of Frequency Allocations.¹⁹ Most of the U.S. satellite systems proposed in the V-Band are global, and the implementation of these systems will be considerably more complex and expensive in the absence of global allocations. Moreover, as GE points out, the need for consistency is “all the more critical” given the limited amount of downlink spectrum allocated to FSS.²⁰

On several occasions, the Commission has demonstrated the need for consistency with international allocations for global satellite systems. For example, in the Big LEO proceeding, the Commission made a point of the fact that the domestic allocations for MSS would be “identical to the international allocation”²¹ In the V-Band NPRM, the Commission

¹⁶ HCI Petition, at 5.

¹⁷ *Id.*, at 3, *cf.* V-Band Order, *supra* note 1, at ¶ 28.

¹⁸ HCI Petition, at 7-8; GE Petition, at 8-10.

¹⁹ *Id.*, at 10-13. The FSS allocation is only partially consistent with the international allocations. As GE notes, the V-Band Order “assigns 25 percent of FSS’s downlink V-Band designations to a band where, internationally, there is only a partial, provisional FSS allocation.” *Id.*, at 11. If the provisional international allocation is modified, GSO/FSS “would have access to only 1.5 GHz of globally consistent downlink spectrum in the V-Band.” *Id.*, at 12.

²⁰ *Id.*, at 11.

²¹ *Amendment of Section 2.106 of the Commission’s Rules to Allocate the 1610-1626.5 MHz and the 2483.5-2500 MHz Bands for Use by the Mobile-Satellite Service*, Report and Order, ET Docket No. 92-28, 9 FCC Rcd 536, ¶ 1 (1994).

emphasized that “[t]o ensure international protection of global and domestic FSS operations . . . it is desirable to obtain consistent international allocations.”²²

III. THERE IS NOT ADEQUATE PROTECTION FOR GSO/FSS SYSTEMS

Spectrum Astro echoes the concerns expressed by GE that there are not adequate safeguards in place for GSO/FSS systems. For example, according to GE, without “sensible sharing rules, GSO/FSS interests do not know how or to what extent the use of V-Band frequencies can overlap or interact with NGSO/FSS systems.”²³ In addition, Spectrum Astro is concerned about the co-primary allocation in the 40.0-40.5 GHz band with MSS and in the 40.5-41 GHz band with BSS without rules in place that protect FSS in sharing between FSS and MSS, and FSS and BSS.

IV. CONCLUSION

For the reasons stated above, Spectrum Astro supports the petitions of HCI and GE for reconsideration of the V-Band Order. Spectrum Astro supports the requests of the petitioners to balance better the allocation of spectrum between terrestrial wireless services and FSS. Spectrum Astro also supports the request of GE that the Commission conform its domestic allocations in the V-Band to international allocations.

²² V-Band NPRM, *supra* note 3, at ¶ 34.

²³ GE Petition, at 14.

Respectfully submitted,

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April 6, 1999

CERTIFICATE OF SERVICE

I, Sean P. Fleming, hereby certify that I have on this 6th day of April, 1999, caused a copy of the foregoing "Comments on Petitions for Reconsideration" to be delivered via first class mail or by hand delivery to the following persons:

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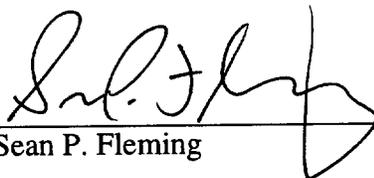
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