

March 18, 2002

BY ELECTRONIC FILING

William F. Caton
Acting Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

EX PARTE PRESENTATION

Re: Part 25 Streamlining Proceeding, IB Docket 00-248

Dear Mr. Caton:

The undersigned companies respond to the *ex parte* filing made by PanAmSat Corporation (“PanAmSat”) on November 20, 2001 in this docket.¹ PanAmSat’s filing provides notice of a meeting held with Commission staff concerning proposed rules that would implement certain proposals that PanAmSat made in its initial comments in this proceeding and that a number of commenters opposed as unnecessary. Specifically, PanAmSat proposes that, for antennas with dimensions less than 1.2 meters in the geostationary orbital plane, (i) network system equipment design must inhibit transmit capability of remote units until appropriate instruction is received from the central operations center, (ii) network system equipment design must allow transmit capability to be disabled remotely from a central operations center at all times and the equipment design must inhibit the remote terminal from being able to override the “transmit disable” function, and (iii) network system design shall include a means by which interference can be traced to individual remote stations.²

As stated in the Hughes Reply Comments in this proceeding,³ these proposals are unnecessary because existing Commission Rules already require earth station network operators to do exactly what PanAmSat is proposing.⁴ These existing rules have proven to be effective in

¹ *Ex parte* letter of PanAmSat Corporation, IB Docket No. 00-248, dated November 20, 2001.

² *Id.*

³ Joint Reply Comments of Hughes Network Systems, Hughes Communications, Inc. and Hughes Communications Galaxy, Inc., IB Docket No. 00-248, dated May 7, 2001, at 20-21 (“Hughes Reply Comments”).

⁴ *See, e.g.*, 47 C.F.R. §25.271(c) (requiring the earth station operator at the control point to immediately suspend operation of a remote station upon notification by another licensee of harmful interference); 47 C.F.R. 25.272(d) (requiring the earth station operator to obtain permission from the satellite network control center before transmitting to the satellite and to

minimizing the potential for adjacent satellite interference. More than one hundred thousand sub-meter Ku-band antennas have been deployed under the existing rules, and PanAmSat has not shown that the existing rules are an inadequate means of regulating the deployment and use of those antennas.

Furthermore, as noted by Starband/Spacenet in their Reply Comments in this proceeding, “PanAmSat has not presented any evidence to support its proposals.”⁵ This is not surprising given that Hughes, Spacenet and StarBand install their respective sub meter antennas in a manner that minimizes the potential for adjacent satellite interference. Specifically, Hughes, Spacenet and StarBand reduce the potential for interference by minimizing the cross-polarization signal from their respective very small aperture terminal (“VSAT”) antennas. As shown in the attached antenna gain pattern for the Spacenet and StarBand 89 x 62 cm antenna, the antenna cross-polarization gain performance has a steep null coincident with the co-polarization peak. During the antenna installation process, the VSAT antenna cross-polarization gain is measured and minimized to align the null with the desired satellite and polarization. This method of installing VSAT antennas sufficiently minimizes the potential for adjacent satellite interference.

Specifically, the attached antenna gain pattern shows the “first null” of the co-polarization gain pattern occurring at approximately 2.5 degrees off-axis from the boresight (direction of peak co-polarization gain and cross-polarization null). Since the nominal angular satellite separation is 2.2 degrees as viewed from the earth’s surface in the United States, a null at this offset provides very good isolation toward geostationary satellites spaced at increments of two geocentric degrees and greater.

In addition to the lack of any need or evidentiary support for the PanAmSat proposals, the Commission should not adopt these proposals because they are inconsistent with general Commission policies. The Commission’s existing rules are broad and do not mandate the use of one specific technology or one system architecture over another. In contrast, the PanAmSat proposals are extremely detailed and architecturally specific and implementation may require the use of a particular technology.

The PanAmSat proposals also are impractical and burdensome from both a technical and economic perspective. For instance, the proposed identification process would be extremely burdensome for both the earth station operators and the satellite operators. Certain VSAT network architectures permit earth stations to transmit intermittently and on different frequencies. The PanAmSat proposal would require the VSAT network system operator to track

immediately take whatever measures are needed to eliminate adjacent transponder interference); 47 C.F.R. §25.273(a) (prohibiting transmissions unless the specific transmission is first authorized by the satellite network control center); 47 C.F.R. §25.274 (providing procedures to be followed in the event of harmful interference).

⁵ Reply Comments of Spacenet Inc. and StarBand Communications Inc., IB Docket No. 00-248, dated May 7, 2001, at 23 (“Spacenet/StarBand Reply Comments”).

a large quantity of data identifying which stations were transmitting and the specific time of the transmitting signal, and presumably maintain that data for some period of time. As stated by Spacenet/StarBand, “[l]ogging this data would require storage equivalent to a substantial [percentage] of the total throughput of the system,” and therefore would be impractical to implement.⁶

In addition to the aforementioned technical burden, the PanAmSat proposals would require a significant outlay of resources to redesign existing networks that have not been shown to cause adjacent satellite interference. The Commission should not adopt more restrictive rules when PanAmSat has provided no basis for its proposals and has not demonstrated how the Commission’s current rules are inadequate. Significantly, no other satellite operator has supported PanAmSat’s proposals.

Moreover, minimizing the potential for adjacent satellite interference is a matter that is being addressed between satellite operators and network earth station operators on a commercial basis – both at the contractual and operational level. The market place is working and the Commission’s Rules are working. Thus, there is no need for the Commission to implement new regulations for a purported problem that does not exist. Rather, the Commission should continue to allow the industry to address this issue on a commercial basis.

Finally, Hughes, Spacenet and StarBand have deployed more than one hundred thousand terminals and are continuing to build out existing networks based on the current rules. Any regulation that requires the development of new technology or architecture would hinder the deployment of highly efficient, technology advanced sub-meter antennas that provide high-speed satellite based broadband services, resulting in limited consumer alternatives to cable (cable modem) and telephone (DSL) services and eliminating all broadband service offerings for rural and other underserved areas that do not have access to terrestrial services. Rather than streamlining the Commission’s rules and promoting growth, the PanAmSat proposals would constrain the use of existing earth station technology, require the development of new system architectures, and impose unnecessary additional equipment costs on end-users. Additional regulation of the satellite broadband industry is not necessary, would be burdensome to deployment, is not consistent with Commission policy,⁷ and would be contrary to the mandate of Section 706 of the Telecommunications Act of 1996.⁸

⁶ Spacenet/StarBand Reply Comments at 23.

⁷ Satellite News (<http://www.satnews.com/stories2/5oct2001-2.html>) October 5, 2001, Digital Broadband Migration is Essential For Nation’s Survival, Says FCC’s Powell. Excerpt: FCC, Powell said, has been taking a proactive approach to broadband deployment. But he said it should be the consumers who determine how the broadband landscape would play out. But he promised that FCC “should guard against regulatory excess.”

⁸ See Pub. L. 104-104, Title VII, § 706, Feb. 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. § 157.

Respectfully submitted,

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Spacenet 89 x 62 cm Antenna Transmit Azimuth Off-Axis Gain Pattern

Solid line in figure is normalized co-polarization gain pattern. Dotted line is normalized cross-polarization gain pattern. FCC co-polarization off-axis gain mask per Section 25.209(a) is shown.

