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**Received**

**OCT 30 2002**

October 24, 2002

**Satellite Engineering Branch  
International Bureau**

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**BY HAND**

**OCT 24 2002**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: **Opposition to Petition to Deny - File No. SES-MOD-20020806-01284  
E000035**

Dear Ms. Dortch:

On behalf of Spacenet Services License Sub, Inc. ("Spacenet"), and in accordance with Section 25.154(c) of the Commission's Rules, please find enclosed for filing an original, four copies and a "stamp and return" copy of Spacenet's Opposition to PanAmSat Corporation's ("PanAmSat") Petition to Deny ("Petition") the above referenced application for license modifications.

Please do not hesitate to contact me with any questions concerning this matter.

Respectfully submitted,

*Rosalind K. Allen*

Rosalind K. Allen  
Counsel for Spacenet Services  
License Sub, Inc.

Enclosures

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

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OCT 24 2002

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
SPACENET SERVICES LICENSE SUB, INC.	)	
	)	
Application to Modify Earth Station Authority	)	File No. SES-MOD-20020806-01284
In the Domestic Fixed-Satellite Service	)	E000035
	)	

**OPPOSITION TO PETITION TO DENY**

Spacenet Services License Sub, Inc. (“Spacenet”), pursuant to Section 25.154(c) of the Commission’s Rules, opposes PanAmSat Corporation’s (“PanAmSat”) petition to deny (“Petition”) the above-referenced Spacenet application (“Application”), and requests that the Federal Communications Commission (“FCC” or “Commission”) expedite grant of the proposed license modifications. PanAmSat’s Petition is procedurally defective and should be summarily dismissed because the Petition contains specific allegations of fact that are not supported by the affidavit of a person or persons with personal knowledge thereof, as required by Section 25.154(a)(4) of the Rules. Even assuming that PanAmSat’s Petition was not defective, PanAmSat fails to demonstrate that grant of Spacenet’s application would be *prima facie* inconsistent with the public interest.

PanAmSat opposes Spacenet’s application for license modification because it contends that Spacenet’s proposed operations are “highly likely” to cause interference. In support of this argument, PanAmSat expresses, without documentation, generalized concerns that industry practices for installation of submeter antennae frequently result in pointing errors, and that Spacenet has failed to demonstrate that its proposed operations will not cause unacceptable levels of interference to satellites under conditions of uniform 2 degree orbital spacing. PanAmSat recommends that at a minimum, Spacenet must perform advance coordination with adjacent satellite operators.

Contrary to PanAmSat's claims, Spacenet has demonstrated in the Application, and submissions associated with the underlying license grant, that Spacenet's use of the 89 x 62 cm elliptically shaped Ku-Band antenna equivalent to a 0.75 meter circular antenna ("Antenna") will not cause unacceptable levels of interference. Spacenet has also documented to the Commission that its installation practices for submeter antennae will ensure alignment within 0.3 degrees of the desired satellite.<sup>1</sup> Furthermore, PanAmSat's assertion that Spacenet must enter into fixed satellite service ("FSS") Ku-Band earth station coordination discussions in advance of receiving a license grant has no basis in the Commission's Rules. It appears that PanAmSat's Petition is less interested in the merits of Spacenet's specific application, and focuses instead on the potential to cause satellite interference of the broad proliferation of incorrectly pointed submeter dishes. That issue is squarely before the Commission in the context of IB Docket No. 00-248, and is more appropriately addressed in the context of that industry-wide rulemaking rather than through a petition to deny a specific license modification application.

#### **ACCURATE ANTENNA POINTING CAN AND IS BEING ACHIEVED**

PanAmSat's Petition does not refute any aspect of the Application's engineering analysis.<sup>2</sup> Rather, PanAmSat contends that Spacenet will be unable to point the Antenna to an accuracy of 0.3 degrees.<sup>3</sup> PanAmSat previously raised the VSAT antenna pointing accuracy issue with the Commission in an *ex parte* filing dated October 22, 2001.<sup>4</sup> On March 18, 2002, Spacenet and other key participants in the VSAT industry joined in an *ex parte* presentation that specifically responded to PanAmSat's assertions regarding potential interference caused by inaccurate pointing of antennae.<sup>5</sup> This joint VSAT industry response highlighted the fact that optimum VSAT satellite link performance and minimization of adjacent satellite interference is obtained by aligning the peak gain of the VSAT antenna toward the intended satellite using

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<sup>1</sup> See Attachment 1. At its own initiative, Spacenet has shared this information with PanAmSat in an effort to address stated concerns and ease any misconceptions.

<sup>2</sup> Application Form 312 at 43, engineering analysis provided in previous E000035 applications has been incorporated by reference.

<sup>3</sup> See Petition at page 3.

<sup>4</sup> PanAmSat *ex parte* filing on October 22, 2001, Interference Risk Assessment For Mispointing of Earth Station Antennas, IB Docket 00-248.

<sup>5</sup> *Ex parte* presentation of Spacenet Inc, StarBand Communications Inc., Hughes Network Systems and SES Americom, IB Docket 00-248, dated March 18, 2002.

measurements of the cross-polarized signals from the VSAT. The off-axis gain patterns provided in previous applications proposing use of the Antenna clearly show that the Antenna can be very accurately aligned to minimize the cross-polarization signal from the VSAT, which is coincident with the co-polarization peak. As fully addressed in the March 18, 2002 *ex parte* presentation

“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.<sup>6</sup>”

The dynamic range provided by the steep null of the cross-polarization off-axis gain clearly shows the Antenna can be reliably installed to PanAmSat’s suggested pointing accuracy of 0.3 degrees or better. Moreover, as Attachment 1 demonstrates, Spacenet has represented in the context of the Commission’s consideration of Spacenet’s underlying license grant that Spacenet will maintain accurate pointing for all its submeter antennae. Spacenet has demonstrated both in technical showings and in the operation of its networks the ability to use submeter antennas without causing adjacent satellite interference. Therefore, contrary to the Petition’s claims, the Commission has already found that use of the subject Antenna will not cause unacceptable levels of interference pursuant to Section 25.209(f).<sup>7</sup>

PanAmSat claims, again without documentation, that it has experienced interference from “non-standard” antennae.\* PanAmSat does not, however, provide specific information about the number and type of any such incidents, nor does PanAmSat provide an engineering analysis demonstrating that such interference was caused by submeter antennae that do not comply with Section 25.209(a), (b) and (g), let alone by the specific Antenna at issue in the pending modification application. Similarly, PanAmSat fails to demonstrate that interference from

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<sup>6</sup> Id. Off-axis gain pattern on page 5.

<sup>7</sup> See Petition at page 2.

<sup>8</sup> See Petition at page 3.

networks using “non-standard” submeter antennae generate greater levels of interference than networks using antennae compliant with Section 25.209(a), (b) and (g). Such non-specific claims of generalized interference from unspecified submeter antennae must therefore be discounted, and in any event, not resolved in a specific modification application proceeding.

Potential interference is not only a problem for satellite operators. It is a problem for VSAT network providers as well. Resolution of any interference events requires action not only by the satellite operators but also by earth station operators and can be expensive for the earth station licensees to resolve. Spacenet has been in the VSAT network service business for over eleven years and is fully aware of the impact interference could have on its own and other networks and has dedicated significant resources toward interference avoidance.

**PANAMSAT’S COORDINATION DEMANDS ARE UNNECESSARY TO AVOID  
ADJACENT CHANNEL INTERFERENCE, CANNOT BE SELECTIVELY IMPOSED  
ON SPACENET AND ARE BEING ADDRESSED IN THE MORE APPROPRIATE  
CONTEXT OF AN ON-GOING RULEMAKING PROCEEDING**

The Petition recommends that the Commission require Spacenet to perform advance coordination with PanAmSat prior to granting the request to modify Spacenet’s license. As discussed above, prior coordination of Ku-Band earth stations with satellite operators has been generally opposed by the VSAT industry because it is unnecessary and overly burdensome. The Commission’s Rules require space station licensees to exchange among themselves general technical information concerning current and planned transmissions as needed to resolve any potential cases of unacceptable interference between their satellite systems.’ The Commission does not impose this advance coordination requirement on those leasing capacity on the satellite systems. PanAmSat cannot justify imposition of a burdensome advance coordination requirement selectively on Spacenet, and particularly not in the context of a license modification proceeding.

In IB Docket No. 00-248, the Commission notes the rapid proliferation of submeter antennae, and seeks comments on a number of options for achieving routine processing of applications for blanket licensing of submeter antennae, while ensuring that satellite station

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<sup>9</sup> 47 C.F.R. § 25.273(c).

licensees are protected from harmful interference". That is the proper forum for PanAmSat to identify and provide factual support for any concerns it may have regarding the potential for interference to satellites from increasing deployment of submeter antennae. A full record with responses from both the VSAT and satellite industries would then be available, and any resulting rules and procedures would apply industry-wide.

PanAmSat has failed to provide facts specific to Spacenet's proposed operations that would justify any further delay in grant of the Spacenet license modification application.

#### **GRANT OF THE APPLICATION SERVES THE PUBLIC INTEREST**

Spacenet's Application undeniably serves the public interest. The grant of this Application will enable Spacenet to develop further its state-of-the-art VSAT network, thereby providing diverse VSAT customers with an even broader range of competitively priced service options.

#### **CONCLUSION**

For the reasons presented herein, Spacenet respectfully requests that the Commission dismiss and/or deny the Petition, and promptly grant Spacenet's Application.

Respectfully submitted,



Mark P. Bresnahan  
Vice President & General Counsel  
Spacenet Services License Sub, Inc.  
1750 Old Meadow Road  
McLean, VA 22102  
(703) 848-1000

October 24, 2002

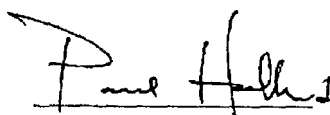
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<sup>10</sup> See, 2000 Biennial Regulatory Review--Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations, Notice of Proposed Rulemaking, IB Docket No. 00-248, 15 FCC Rcd 25128 (2000), Further Notice of Proposed Rulemaking, IB Docket No. 00-248, adopted 9/26/02.

### DECLARATION OF PAUL HOLLAND

My name is Paul Holland, and I am Manager of RF Engineering for **StarBand** Communications. **StarBand** is a sister company of **Spacenet** Services Licensing Sub. I have reviewed the foregoing "Opposition to Petition to Deny." I declare, under penalty of perjury under the laws of the **United** States of America that the foregoing is true and correct.

Executed on October 24, 2002.

A handwritten signature in black ink that reads "Paul Holland". The signature is written in a cursive style with a horizontal line underneath the name.

Paul Holland,  
Manager, RF System Engineering  
**StarBand** Communications

## ATTACHMENT 1

To: hng@panamsat.com  
cc: Leslie.Adelman@Spacenet.com, Mark.Bresnahan@Spacenet.com, Rosalind  
Allen/Atty/DC/ArnoldAndPorter@APORTER

Subject: FW: Modification to our application to modify the Call Sign E000035

Harry,

As per our discussion today, the below email is Spacenet's correspondence to the Commission regarding the pointing accuracy issue.

Paul.

> -----Original Message-----  
> From: Lesley Cooper - McLean  
> Sent: Thursday, August 15, 2002 3:05 PM  
> To: 'slam@fcc.gov'  
> cc: Paul Holland - StarBand - MCL; Benny Zilberstein  
> - McLean; Ram  
> Avitzour - Israel; Danny Spirtus - Israel; Leslie Adelman  
> - McLean;  
> Mark Bresnahan - McLean; Yossi Gal - StarBand - MCL  
> Subject: Modification to our application to modify  
> the Call Sign  
> E000035  
>  
> Dear Sylvia,  
>  
> As you are aware, we recently submitted an application to  
> modify  
> Spacenet's authorization for the 75E antenna, Call Sign  
> E000035, for  
> use on a temporary fixed basis. In response to your  
> request, we have  
> reviewed the pointing accuracy specification of this  
> antenna with our  
> Research and Development Engineers for the automatic  
> pointing system  
> that is currently under development for use with this  
> antenna.



> Modifications will be made to the design to meet a pointing accuracy  
> specification of +/-0.25 degrees, as we discussed on the telephone on  
> August 8th. We trust this clears up any concerns that you may have  
> had with this application and believe that the new service offerings  
> it will provide will be a great benefit to the public.  
>  
>

## CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was mailed, this 24<sup>th</sup> day of October, first class postage pre-paid, to:

Joseph A. Godles  
Michael A. McCain  
Goldberg, Godles, Wiener & Wright  
1229 19<sup>th</sup> Street, NW  
Washington, DC 20036



Shelia Swanson