Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D. C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's	)	IB Docket No. 02-34
Space Station Licensing Rules and	)	
Policies	)	

To: The Commission

COMMENTS OF SPACE IMAGING LLC

Raymond G. Bender, Jr.
Dow, Lohnes & Albertson, PLLC
Suite 800
1200 New Hampshire Ave., N.W.
Washington, D.C. 20036
(202) 776-2758

November 6, 2003

SUMMARY

Space Imaging, licensee of a commercial remote-sensing satellite system, submits these comments in support of certain petitions for reconsideration that urge the Commission to re-think the use of performance bonds as a means of deterring speculative satellite applications. Opposition to the use of bonds is virtually unanimous, and objections to the bond requirement are legitimate and credible.

The various costs associated with a bond requirement would be substantial and would impose an unnecessary risk to new satellite ventures. As shown by the petitioners, the costs of placing and renewing a bond would be high, especially for new entrants to the industry and small operators seeking to expand their businesses. The risk of default, which could lead to a forfeiture of $5 million for missing a GSO milestone and $7.5 million for missing an NGSO milestone, is an unwarranted penalty for not implementing a satellite system or for delay caused by normal market forces. Yet this is precisely the kind of unnecessary risk that a bond requirement will place on new satellite system proponents. The use of bonds in the United States also could lead to the imposition of additional bonding requirements on U.S. licensees seeking landing rights in foreign markets.

The petitions argue convincingly that a bond requirement is not necessary because the Commission has adopted other safeguards that will effectively deter speculative satellite applications. These measures, when combined with the Commission's rigorous milestone enforcement policies, are more than adequate to protect against the risk of speculative applications.

Finally, if the Commission retains the bond requirement, it should not apply any bond to replacement satellites that propose the use of extended bands or additional spectrum in the same

frequency band. Requesting that a replacement remote-sensing satellite be permitted to incorporate additional spectrum within the same frequency band does not suggest a speculative intent; rather, it reflects a legitimate need for more spectrum resources to improve services to meet consumer demands. Because no risk of speculation arises in this context, the Commission should hold that any bond requirement it retains will not apply to replacement satellites seeking to add extended bands or additional spectrum in the same frequency band.

TABLE OF CONTENTS

Page

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D. C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's	)	IB Docket No. 02-34
Space Station Licensing Rules and	)	
Policies	)	

To: The Commission

COMMENTS OF SPACE IMAGING LLC

Space Imaging LLC ("Space Imaging"), by its attorney, hereby submits these comments in support of certain petitions for reconsideration filed in connection with the Commission's new satellite licensing rules.[1] Specifically, Space Imaging agrees with petitioners who urge the Commission to re-think the adoption of performance bonds as a means of deterring speculative satellite applications. The costs associated with a bond requirement would be significant and could deter the filing of legitimate satellite applications. The Commission has instituted other measures that will be effective in deterring frivolous satellite applications, and a bond requirement therefore is not necessary to achieve the Commission's regulatory goals. For these reasons, performance bonds should be eliminated from the Commission's new licensing rules. Should the Commission nevertheless retain the bond requirement, replacement satellites that incorporate extended frequency bands or additional spectrum in the same frequency bands should not be subject to a bond.

---

[1] Amendment of the Commission's Space Station Licensing Rules and Policies, *First Report and Order and Further Notice of Proposed Rulemaking in IB Docket No. 02-34*, FCC 03-102 (rel. Mar. 19, 2003). ("*Satellite Licensing Order*").

I. Introduction

Space Imaging is the licensee of the IKONOS commercial remote-sensing satellite system. The company currently provides a variety of imagery and date products and value-added services for commercial and government applications. Space Imaging provides products and services used in various industry sectors, including agriculture, transportation, forestry, oil and gas, mining, environmental, telecommunications and real estate, and also serves Federal, state and local governments in connection with defense and intelligence programs, planning and tax assessment, and other projects. The IKONOS satellite is a non-geostationary satellite orbit ("NGSO") space station using X-band spectrum in the 8025-8400 MHz frequency band to downlink data to various ground stations in the United States and other regions of the world.

The Commission's *Satellite Licensing Order* recently revamped the space station licensing rules. The principal objective of that effort was to adopt procedural reforms that would accelerate the satellite licensing process. The central procedural revision was to create a single queue for all new satellite applications. The Commission adopted a first-come, first-served procedure for geostationary satellite orbit-like ("GSO-like") satellite systems, and a modified processing round approach using a spectrum-splitting framework for applications for NGSO-like satellite applications.[2] In addition, the *Satellite Licensing Order* revised other space station licensing rules, including the adoption of a bond requirement, eliminating the satellite anti-trafficking rules, strengthening milestone requirements, and adopting safeguards to protect against speculative satellite applications.

---

[2] Space Imaging has asked the Commission in a separate petition to clarify how these new licensing rules will apply to remote-sensing satellite system applications. Specifically, Space Imaging urges the Commission to rule that applicants for new or modified NGSO remote-sensing satellite systems shall be processed under the first-come, first-served procedures applicable to GSO-like satellite systems rather than under the modified processing round procedures applicable to NGSO-like systems. *See* Space Imaging's *Petition for Clarification* in IB Docket No. 02-34, filed September 12, 2003.

The Commission adopted a bond requirement to help deter speculative satellite applications and to expedite provision of service to the public.[3] The bond will be payable upon missing a milestone without providing an adequate justification for extending the milestone. Licensees will be allowed to reduce the amount of the bond upon meeting each milestone.[4] Because the Commission did not have an adequate basis in the record for determining precisely what the amount of the bond should be, it issued a *Further Notice of Proposed Rulemaking* inviting parties to comment on the long-term bond requirement. As an interim measure, the Commission set the required bond amount at $5 million for GSO-like licensees and $7.5 million for NGSO-like satellite system licensees.[5] Under these new rules, a licensee must obtain a bond within 30 days of grant of its license, as a condition of the license, or the license will become null and void. If a licensee transfers or assigns its license, the purchaser of the license will be required to assume the bond. The bond also will be payable if the licensee surrenders its license voluntarily before a milestone date.

II. The Commission Should Eliminate the Bond Requirement

There is overwhelming support within the satellite industry for repeal of the bond requirement. Indeed, opponents of the bond requirement include The Boeing Company, Hughes Network Systems, Inc., Lockheed Martin Corporation, Loral Space & Communications Ltd., Mobile Satellite Ventures LP, PanAmSat Corporation, and SES Americom, Inc.[6] As noted in the

---

[3] *See Satellite Licensing Order* at ¶ 167.

[4] Thus, NGSO licensees will be allowed to reduce the amount of the bond by 20 percent of the original bond amount upon meeting each milestone after they post their bonds, and GSO-like licensees will be allowed to reduce the amount of the bond by 25 percent of the original amount upon meeting each milestone after they post their bonds. *Satellite Licensing Order* at ¶ 172.

[5] *Id*. at ¶ 168,

[6] *See* Petition for Reconsideration and Comments of The Boeing Company, Hughes Network Systems, Inc., Lockheed Martin Corporation, Loral Space & Communications Ltd., Mobile Satellite Ventures LP, PanAmSat Corporation, and SES Americom, Inc., filed September 26, 2003. (hereinafter "*Ad Hoc Satellite Group Petition*"). *See also* Petition for Reconsideration and Comments of SES Americom, Inc., filed September 26, 2003. ("*SES*

Petitions, each of these parties is a major satellite system operator or manufacturer *who would be the most harmed by speculation in satellite applications or licenses*.[7] Yet these companies firmly oppose performance bonds as a means of deterring speculation. Parties like the Satellite Industry Association ("SIA"), Northrop Grumman and Telesat Canada, who offer no view on the bond issue generally given their unique posture vis-à-vis the satellite licensing process, nonetheless oppose specific aspects or elements of the bond requirement.[8] Only Intelsat is on record affirmatively supporting the use of performance bonds, but Intelsat's view on bonds is in sharp contrast to the steadfast opposition of the rest of the satellite industry. Indeed, based on the record in this proceeding, opposition to the use of bonds is virtually unanimous. More importantly, as shown in the *Petitions*, objections to the bond requirement are legitimate and credible.

A. The Costs of A Bond Requirement Would Be Significant

The *Petitions* show that a bond requirement will impose significant and unwarranted costs on satellite operators, costs that ultimately will be borne by end users. Space Imaging would highlight three distinct cost components associated with a bond requirement, each of which are individually burdensome, but when combined impose a substantial and unnecessary risk to new satellite ventures.

Americom Petition") (the *Ad Hoc Satellite Group Petition* and *SES Americom Petition* are hereinafter referred to collectively as the "*Petitions*").

[7] *See Ad Hoc Satellite Group Petition* at p. 1-2 (noting that these companies "arguably would be most harmed if such speculation occurred."); *see also SES Americom Petition* at p. 2 (noting that SES Americom "fully appreciates the need to deter speculation in satellite licenses," and that "[a]s a major system operator, we would be among those most adversely affected by speculation.").

[8] *See* Petition for Reconsideration and Clarification and Comments of the Satellite Industry Association, filed September 26, 2003 ("*SIA Petition*"); Comments Or, in the Alternative, Petition for Clarification or Reconsideration of Telesat Canada, filed September 26, 2003; Petition for Partial Reconsideration of Northrop Grumman, filed September 26, 2003.

First, the cost of placing and renewing a bond would be substantial, especially for new entrants to the industry and small operators seeking to expand their businesses. The *Petitions* note, among other things, that:

> ? Annual surety fees can be up to four percent of the value of each bond for a licensee with good credit.[9] Thus, for GSO satellites the annual surety fee (for each $5 million bond) could be $200,000; and for NGSO systems the annual surety fee (for each $7.5 million bond) could be $300,000. These costs would be multiplied for each additional GSO satellite or NGSO system license that is awarded to a given licensee.
>
> ? Many licensees likely would be required by the surety company to collateralize their performance bonds by placing money in escrow.[10] This would involve substantial additional costs for maintaining each bond, measured by the difference between the licensee's cost of money and the much lower interest rate earned on an escrow account. Such a requirement could add hundreds of thousands of dollars annually to the cost of maintaining a performance bond.
>
> ? The foregoing costs would fall largely on new systems that by definition are the most risky to deploy, and such costs therefore would threaten the development of new and innovative services.[11] These costs will be especially burdensome for small operators and new entrants who generally are thinly capitalized, have limited funding sources, and have a higher cost of capital. Thus, the financial burdens imposed by a bond requirement could easily deter smaller companies and new entrants from introducing competitive new services to the satellite marketplace.
>
> ? These additional costs would be over and above the substantial costs already associated with implementing a new satellite project, including system development costs, FCC application preparation costs and filing fees, initial marketing and other start-up expenses.[12]

Space Imaging agrees that the costs of obtaining and maintaining performance bonds would be substantial and burdensome, particularly for small entrepreneurial companies seeking to bring new satellite services to the market. Commercial remote-sensing, for example, is a

---

[9] *Ad Hoc Satellite Group Petition* at 13; *SES Americom Petition* at p. 7.

[10] *Ad Hoc Satellite Group Petition* at 13-14; *SES Americom Petition* at 7-8.

[11] *Ad Hoc Satellite Group Petition* at 14 *et seq.*; *SES Americom Petition* at 4 *et seq*.

[12] *SES Americom Petition* at 5.

relatively new satellite service industry with only a few operators contending with a challenging satellite market during the short time they have been operational. Remote-sensing satellite systems afford private and Government customers a variety of service offerings that are beneficial and unique. But system operators constantly must try to minimize costs to provide these services while striving to achieve profitability in a nascent satellite service sector. In due course, remote-sensing system licensees doubtless will need to apply for new systems in new frequency bands to satisfy a growing demand for wider bandwidths to downlink increasing amounts of data at faster rates.[13] Expenses associated with obtaining and maintaining performance bonds are unnecessary costs that must be avoided by new system operators (like remote-sensing licensees) who seek to develop innovative new satellite services, especially considering the many other start-up costs associated with a new satellite venture.

A second cost associated with the bond requirement, of course, is the risk of default, which could lead to a forfeiture of $5 for failure to meet a GSO milestone and $7.5 million for failure to meet an NGSO milestone. While the Commission rightfully is concerned about speculation in FCC licenses, there are many factors, as noted in the *Petitions*, that can affect the implementation of a planned satellite system. Indeed, changing marketplace conditions typically drive business decisions concerning whether or not an ongoing project remains viable; the schedule on which it might proceed; and ultimately whether the project feasibly can be implemented. Satellite licensees confronting changed circumstances (whether financial, technical or other factors) should not be subject to multi-million dollar fines because business considerations or market conditions have changed. Yet the new bond requirement places

---

[13] For example, one remote-sensing licensee, DigitalGlobe, has informed the Commission that spectrum requirements for its next generation system cannot be met at X-band and it anticipates applying to the Commission to use the 22.5-27.0 GHz frequency band. *See* Comments of DigitalGlobe, Inc., dated May 15, 2003, filed in response to the *Notice of Proposed Rulemaking* in ET Docket No. 02-305, RM-10331, released October 7, 2002.

satellite licensees at risk of a substantial penalty in precisely this scenario--for failure to implement a satellite system or for delay caused by normal market forces.

The *Ad Hoc Satellite Group Petition* correctly points to the DBS industry as a prime example of a satellite service that was many years in the making, noting: "[i]t is not difficult to imagine the stifling effect on the development of the DBS industry that would have occurred if the pioneer DBS licensees had all forfeited five million dollars per slot."[14] Early C- and Ku-band fixed-satellite service ("FSS") systems also were abandoned or experienced delays in implementation as business models needed to be refined to reflect market realities. More recently, many new Ka-band satellite systems were abandoned not because of rampant speculation by Ka-band licensees. Indeed, most Ka-band applicants were established satellite companies and FCC-licensed system operators with proven track records. On the contrary, the deployment of Ka-band systems stalled because changed market conditions led to an oversupply of communications capacity, a general economic downturn, and capital markets that were unreceptive to new business ventures.[15]

Implementing an advanced new satellite system is an inherently risky enterprise, and uncertainty and high costs typically are associated with any such project. Beyond these costs, as SES Americom observes, the Commission's bond requirement "ups the stakes" dramatically, increasing the amount of capital at risk by many millions of dollars.[16] The Commission therefore

---

[14] *Ad Hoc Satellite Group Petition* at 11.

[15] The Commission's licensing process at the time the first- and second-round Ka-band applications were submitted also probably contributed to the spate of Ka-band applications that were filed. Thus, cut-off notices and traditional processing rounds that took years to resolve encouraged parties to submit applications even if their system plans may not have been definite, or else be precluded from entering a new satellite service for years until a new processing round could be formed. The Commission's recent satellite licensing reforms addressed this issue in large measure, and the first-come, first-served procedure and modified processing round approach will lead to much faster FCC licensing.

[16] *SES Americom Petition* at 5.

should not use bonds as a regulatory sledgehammer—especially now that it has adopted other appropriate measures to address speculation in satellite licenses—because bonds will only impede the development of innovative new satellite services.

Finally, a third cost of the bond requirement is what the *SES Americom Petition* referred to as "[t]he risk of bond proliferation."[17] Other nations do look to U.S. regulatory practices to guide their own requirements, and the imposition of bonds by the FCC, including on foreign-licensed systems desiring access to the U.S. market, could lead other nations to impose performance bonds on U.S. satellite licensees seeking landing rights in foreign markets. Thus, the Commission should know that its decision on the bonding requirement may well have unintended extra-territorial consequences for U.S. satellite licensees. For global satellite networks like remote-sensing systems, the potential of foreign bond requirements, on top of a U.S. requirement, would only exacerbate an already untenable situation and place in jeopardy the development of new systems and services.

B. The Commission Has Adopted Other Measures That Will Deter Frivolous Satellite Applications

The *Petitions* argue convincingly that a bond requirement is not necessary because the Commission has adopted other safeguards that will effectively deter speculative satellite applications. Space Imaging agrees with petitioners that numerous revisions adopted by the Commission will protect the satellite licensing process from speculative applications.[18]

First, the Commission found that limiting pending applications to five GSO orbit locations or one NGSO satellite system per frequency band will restrain speculation; and, furthermore, these limits will give licensees an incentive to turn in licenses for satellite systems

---

[17] *SES Americom Petition* at 8.

[18] *See Satellite Licensing Order* at ¶ 226 *et seq*.

that they do not intend to build.[19] The Commission also decided to include authorized but unlaunched satellites in the five GSO orbit location limit, which will provide additional protection against speculation.[20] In the event the Commission's experience with these limits do not discourage a particular applicant form filing speculative applications, the Commission reserved the right to impose more stringent limits on the number of pending applications and unbuilt satellites on that applicant.[21]

Second, in conjunction with these limits on the number of satellite applicatons, the Commission adopted an attribution rule so that applicants could not evade these limit through corporate restructuring.[22] Specifically, the Commission adopted a "controlling interest" standard under which it will calculate ownership interests on a fully-diluted basis.

Third, the Commission will prohibit applicants from transferring their places in the queue.[23] The Commission noted that, without this prohibition, it is possible that some parties would file satellite applications simply to obtain a place in a queue to sell to another party willing and able to implement the proposed satellite system. Thus, a prohibition on transferring places in the queue also addresses speculation in a meaningful way.

Fourth, the Commission reaffirmed its "hard look" doctrine, whereby it will continue to require satellite applications to be substantially complete when they are filed.[24] The Commission found that this requirement, too, will protect against speculative satellite applications.

---

[19] *Id*. at ¶ 230.

[20] *Id*. at ¶ 231.

[21] *Id*. at ¶ 233.

[22] *Id*. at ¶ 234-239.

[23] *Id*. at ¶ 240-243.

[24] *Id*. at ¶ 244.

Finally, other existing safeguards discourage the filing of speculative applications. The preparation and filing of a satellite application is a costly undertaking involving substantial engineering, legal and other costs, as well as high FCC filing fees for both GSO satellites and NGSO systems. The risk of losing such investments should deter speculation in most cases. Indeed, the Commission's system implementation milestones, and especially its rigorous enforcement policy, will lead to loss of this investment (as well as to revocation of the FCC license) as early as one year after a new system is licensed.

For these reasons, Space Imaging respectfully submits that the use of performance bonds is not necessary, and the foregoing measures will more than adequately protect against the risk of speculative applications. The Commission should weigh carefully the negative consequences of imposing performance bonds, including a "chilling" effect on new and innovative services, and should conclude that bonds are unnecessary because other significant safeguards are now in place to deter speculation.

III. Replacement Satellites That Incorporate Additional Spectrum in the Same Frequency Bands Should Not be Subject to a Performance Bond

If the Commission retains the bond requirement, the *SIA Petition* and *SES Americom Petition* urge the Commission to clarify that replacement satellites that add extended bands or additional spectrum in the same band will be exempt from the bond requirement.[25] Space Imaging agrees with SIA and SES Americom on this issue because the use of a bond in this context would serve no regulatory purpose, and could only frustrate a licensee's legitimate plans for expanding critical satellite services.

The Commission stated in the *Satellite Licensing Order* that it would apply the bond requirement to new licensees only, not to replacement satellites, because "[o]nce a licensee has

[25] *See SIA Petition* at 21-23; and *SES Americom Petition* at 19-20.

begun to provide service, we are confident that its replacement satellite application will be intended to continue service, and would not be filed for speculative purposes."[26] However, the Commission did not specifically address the question of whether an application to add extended bands or additional spectrum in the same bands on a replacement satellite would be subject to a bond. Space Imaging believes there is no more reason to apply a bond in this context than in the case of replacement satellites generally.

Space Imaging concurs with SIA and SES Americom that extended C- and/or Ku-band spectrum should be able to be added to replacement satellites operating in the conventional C- and/or Ku-bands without being subject to a bond. Space Imaging's principal concern, however, relates to incorporating on replacement satellites *additional spectrum in the same frequency bands*.[27] As noted above, remote-sensing licensees currently use portions of the X-band spectrum at 8025-8400 MHz, which is allocated on a primary basis (space-to-Earth) to the Earth Exploration-Satellite Service ("EESS"). Space Imaging expects that it (and possibly other remote-sensing operators) will need to seek additional frequencies within this EESS allocation at such time as they apply for replacement satellites. Indeed, as the Commission is aware, there is a growing demand for remote-sensing satellite systems to downlink increasing amounts of data at faster rates, which will necessitate wider bandwidths within the same EESS spectrum. Applying for a replacement satellite that incorporates additional spectrum within the same band does not suggest any speculative motive whatsoever; rather, it reflects a legitimate need for additional spectrum resources to improve services to meet consumer demands. Significantly, a remote-sensing operator's request to add EESS spectrum in this manner would not deprive other

---

[26] *Satellite Licensing Order* at ¶ 167.

[27] For example, the *SIA Petition* explains why a Ka-band licensee seeking to utilize additional Ka-band spectrum on a follow-on satellite would not involve a speculative intent. *See SIA Petition* at 19-20.

applicants or licensees of the opportunity to use the same spectrum. This is because remote-sensing operators are capable of sharing the same EESS spectrum, which is why the Commission has been able to authorize remote-sensing licensees to operate in broad overlapping frequency ranges.[28]

Because no risk of speculation arises when replacement satellites propose the use of extended bands or additional spectrum in the same frequency band, the Commission should hold that any bond requirement it retains will not apply to replacement satellites seeking to add such spectrum.

Conclusion

For reasons discussed herein, Space Imaging supports the requests in the *Ad Hoc Satellite Group Petition* and *SES Americom Petition* for elimination of the recently-adopted bond requirement. Performance bonds create more concerns than they resolve. The costs associated with a bond requirement would be significant and could deter legitimate satellite applications, thereby thwarting the introduction of new satellite services. The Commission has adopted numerous other safeguards to deter speculative satellite applications, and a bond requirement is therefore unnecessary and unwarranted. Should the Commission nonetheless retain the bond

[28] *See* Space Imaging's *Petition for Clarification* in this proceeding, IB Docket No. 02-34, filed September 12, 2003.

requirement, it should not apply bonds to replacement satellites that incorporate extended bands or additional spectrum in the same frequency bands.

Respectfully submitted,

SPACE IMAGING LLC

By: /s/ Raymond G. Bender, Jr.
Raymond G. Bender, Jr.
Its Attorney

Dow Lohnes & Albertson, PLLC
1200 New Hampshire Ave. N.W.
Washington, D.C. 20036
Tel: (202) 776-2758
Email: RBender@dlalaw.com

November 6, 2003

CERTIFICATE OF SERVICE

I, Vicki Lynne Lyttle, do hereby certify that on this 6th day of November, 2003, copies of the foregoing "Comments of Space Imaging LLC" were delivered via first class mail, postage prepaid to the following:

Peter A. Rohrbach, Esquire
Karis A. Hastings, Esquire
David L. Martin, Esquire
Hogan & Harson L.L.P.
555 Thirteenth Street, NW
Washington, DC 20004

Thomas M. Walsh
The Boeing Company
IDS/HSS Spectrum Management
P.O. Box 92919
BSS M/C: W-S10-S341
Los Angeles, CA 90009-2919

Patricia A. Mahoney
Vice President, Regulatory & Spectrum Affairs
Iridium Satellite LLC
1575 Eye Street, Suite 500
Washington, DC 20005

John P. Janka, Esquire
Latham & Watkins, LLP
555 Eleventh Street, NW
Suite 1000
Washington, DC 20004

Gerald Musarra
Vice President, Trade & Regulatory Affairs
Lockheed Martin Corporation
1725 Jefferson Davis Highway
Suite 403
Arlington, VA 22202

John P. Stern, Esquire
Deputy General Counsel
Loral Space & Communications Ltd.
1755 Jefferson Davis Highway
Suite 1007
Arlington, VA 22202

Joseph A. Godles, Esquire
Goldberg, Godles, Wiener & Wright
1229 Nineteenth Street, NW
Washington, DC 20036

Lon C. Levin
Vice President
Mobile Satellite Ventures LP
10802 Parkridge Boulevard
Reston, VA 20191

Scott B. Tollefsen
Nancy J. Eskenazi
SES Americom, Inc.
Four Research Way
Princeton, NJ 08540

Richard DalBello
President
Satellite Industry Association
225 Reinekers Lane, Suite 600
Alexandria, VA 22314

/s/ Vicki Lynne Lyttle
Vicki Lynne Lyttle