

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Intelsat License LLC

Application for Authority to Operate
Certain Ku-band Frequencies of the
NSS-7 Satellite at 340.0° E.L. (20.0°
W.L.)

File No. SAT-A/O- _____

**APPLICATION FOR AUTHORITY TO OPERATE CERTAIN KU-BAND
FREQUENCIES OF THE NSS-7 SATELLITE AT 340.0° E.L. (20.0° W.L.)**

Intelsat License LLC (“Intelsat”), pursuant to Section 25.114 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,¹ hereby applies for authority to operate certain Ku-band frequencies of the in-orbit NSS-7 satellite at 340.0° E.L. (20.0° W.L.) beginning in mid-May 2012. The NSS-7 satellite (call sign S2463) will replace the NSS-5 satellite (call sign S2801), which is currently operating at 340.0° E.L. (20.0° W.L.).²

As demonstrated below, Intelsat is legally and technically qualified to operate the Ku-band frequencies of the NSS-7 satellite as proposed herein. Moreover, grant of this application will serve the public interest by ensuring continuity of service for U.S. Ku-band consumers at the 340.0° E.L. orbital location and by bringing the bulk of the Ku-band payload of NSS-7 under

¹ See 47 C.F.R. § 25.114.

² Although this application seeks authority to replace the NSS-5 satellite, it is being submitted as an application for operating authority because the NSS-7 satellite is already in orbit. See *DIRECTV Enterprises, LLC, Application for Authorization to Operate DIRECTV 5 at the 109.8° W.L. Orbital Location*, Order and Authorization, 20 FCC Rcd 15778, ¶ 5, note 10 (2005) (“[t]ypically, a replacement satellite is a newly-built satellite for which the applicant seeks authority to launch and operate.”).

U.S. jurisdiction. In accordance with the requirements of the Commission's rules,³ this application has been filed electronically as an attachment to FCC Form 312.⁴

I. **BACKGROUND**

Intelsat currently holds a license to operate the Ku-band payload on the NSS-5 satellite at the 340.0° E.L. orbital location⁵ pursuant to an agreement between Intelsat Global Sales & Marketing Ltd. -- an affiliate of Intelsat -- and SES.⁶ Pursuant to that same agreement, New Skies Satellites B.V. (doing business as "SES"), which currently operates the NSS-7 satellite at 22.0° W.L. under the authority of the Netherlands,⁷ will be replacing NSS-5 at 340.0° E.L. with NSS-7. At that location, SES will operate the TT&C,⁸ C-band and certain Ku-band frequencies under the authority of the Netherlands, and Intelsat will operate the bulk of the Ku-band

³ 47 C.F.R. § 25.114(c).

⁴ The Technical Narrative and Schedule S have been prepared by SES and filed as part of SES' request that the Commission modify the terms pursuant to which the Netherlands-licensed NSS-7 space station is authorized to serve the U.S. market to allow SES to relocate NSS-7 to 340.0° E.L. These exhibits are incorporated herein by reference. *See* NEW SKIES SATELLITES B.V., Request for Modification of the Terms of U.S. Market Access for NSS-7, File No. SAT-MPL-20120215-00017 (filed Feb. 15, 2012). Although Intelsat only seeks to operate certain of the Ku-band frequencies, information regarding the whole satellite, including both C-band and Ku-band frequencies, is given in the technical information to provide the Commission with a complete technical picture of the satellite.

⁵ *See Policy Branch Information; Actions Taken*, Report No. SAT-00698, File No. SAT-A/O-20091208-00141 (June 11, 2010) (Public Notice).

⁶ A copy of the agreement was previously submitted to the FCC. *See id.*

⁷ *See New Skies Satellites N.V.*, Order, 17 FCC Rcd 10369 (Int'l Bur. 2002) (adding NSS-7 to the Permitted List for operations at 21.5° W.L.), as modified by File No. SAT-PDR-20020930-00179 (grant stamp issued May 29, 2003) (updating the Permitted List to reflect relocation of NSS-7 to 22.0° W.L.).

⁸ The NSS-7 TT&C frequencies are as follows:
Command: 14496.0 and 14499.0 MHz (vertical polarization; uplink)
Telemetry/Tracking: 11451.0 and 11454.0 MHz (horizontal polarization; downlink)
Tracking Beacon: 4199.5 MHz (vertical polarization; downlink).

frequencies as a U.S. licensee.⁹ Intelsat will operate in the following Ku-band frequency ranges, except for the frequencies to be used by SES for TT&C operations, as specified above:

Uplink: 14.00-14.50 GHz

Downlink: 10.95-11.20 GHz, 11.45-11.95 GHz, 12.50-12.75 GHz

Notably, the NSS-7 frequencies to be operated by Intelsat are the same as those on the NSS-5 satellite it is replacing. The NSS-5 satellite will be moved to another location once NSS-7 has arrived on station and traffic transfer is complete.

Grant of this application will result in the transfer of licensing responsibility for the above mentioned Ku-band frequencies of the NSS-7 satellite from the Dutch Administration to the U.S. Administration while the satellite is at 340.0° E.L. Due to existing coordination agreements, the Dutch administration has effective priority in the C-band at the 340.0° E.L. orbital location. The United States has priority in the above mentioned Ku-band frequencies at 340.0° E.L.

II. INTELSAT IS QUALIFIED TO HOLD THE AUTHORIZATION REQUESTED HEREIN

A. Legal Qualifications

Intelsat is legally qualified to hold the space station authorization requested in this application. The information provided in the attached Form 312 demonstrates Intelsat's compliance with the Commission's basic legal qualifications. In addition, Intelsat already holds several Commission satellite licenses, and "its legal qualifications are a matter of record before the Commission."¹⁰ Indeed, in 2007, the Commission approved the transfer of control of

⁹ The NSS-7 Ku-band payload includes the 11.95-12.2 GHz frequency band, which will continue to be licensed by the Netherlands.

¹⁰ *EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-band Frequencies in the Fixed-Satellite Service at the 83° W.L. Orbital Location*, DA 04-3163, ¶ 6 (Int'l Bur. Sept. 30, 2004) (holding that because EchoStar "holds numerous Commission satellite licenses" and because "its legal qualifications are a matter of record before the Commission," EchoStar is "legally qualified to

licenses held by Intelsat and certain affiliates to Serafina Holdings Ltd.¹¹ Thus, Intelsat is legally qualified to hold the license requested herein.

B. Technical Qualifications and Request for Waivers

Intelsat incorporates by reference the Schedule S and Engineering Statement prepared by SES.¹² These exhibits provide the information currently required by Section 25.114 of the Commission's rules regarding the Ku-band frequencies Intelsat seeks to operate from the 340.0° E.L. orbital location.

SES will conduct the physical operations of the NSS-7 satellite using TT&C facilities located in Europe and the United States. Intelsat has contracted with SES for control of the U.S.-licensed portion of the Ku-band payload, and can direct SES to "turn off" that portion of the payload to comply with any U.S. statute or Commission regulation or order, including but not limited to any direction under Section 706(c) of the Communications Act.¹³ This contractual ability to instruct SES to "turn off" the Ku-band payload licensed by Intelsat is no different from the contractual arrangements often entered into by satellite licensees for third parties to perform

hold a satellite license"). Likewise, the Commission is well aware of Intelsat's legal qualifications. *Loral Satellite, Inc. and Loral SpaceCom Corporation, Assignors and Intelsat North America, LLC, Assignee Applications for Consent to Assignments of Space Station Authorizations and Petition for Declaratory Ruling Under Section 310(b)(4) of the Communications Act of 1934, as Amended*, Order and Authorization, 19 FCC Rcd 2404, ¶ 20 (2004).

¹¹ See *Intelsat Holdings, Ltd. and Serafina Holdings Limited, Consolidated Application for Consent to Transfer of Control of Holders of Title II and Title III Authorizations*, Memorandum Opinion and Order, 22 FCC Rcd 22151 (2007) ("*Intelsat-Serafina Order*"). Serafina's name has been changed to "Intelsat Global S.A." and Serafina Acquisition's name has changed to "Intelsat Global Subsidiary S.A."

¹² See *supra* note 4.

¹³ 47 U.S.C. § 606(c).

TT&C and other spacecraft operations under the direction and control of the licensee and is sufficient to meet the Commission's requirements.¹⁴

1. Request for Waiver of Sections 25.114(d)(14)(ii) and 25.283(c)

Intelsat requests a waiver of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules. These rules require an applicant to demonstrate that all stored energy will be vented at the spacecraft's end of life.¹⁵ The NSS-7 satellite is a Lockheed Martin A2100 spacecraft that is not designed to vent all pressurized systems. Instead, oxidizer tanks on the NSS-7 satellite were sealed following transfer orbit. The remaining oxidizer cannot be vented at end-of-life.

Waiver would be consistent with precedent. The Commission previously has waived Section 25.283(c) with respect to spacecraft that do not allow for full venting of pressure vessels at end of life but that were launched before the venting requirements were adopted. For example, the Commission waived the rule on its own motion with respect to SES Americom's AMC-2 satellite, noting that venting the spacecraft's sealed oxidizer tanks "would require direct retrieval of the satellite, which is not currently possible."¹⁶ Given that NSS-7 similarly was

¹⁴ In contrast, a technical "off" switch, such as the one employed by Lockheed Martin Corporation in its operation of the LM-RPS2 payload on Telesat's Anik F1R satellite, could compromise the integrity of SES' encrypted TT&C systems, and would need to be reconciled with U.S. Government requirements. *See Lockheed Martin Corporation, Application To Launch and Operate a Geostationary Orbit Space Station in the Radionavigation-Satellite Service at 107.3° W.L.*, Order and Authorization, DA 05-2424, ¶ 11 (Int'l Bur. 2005).

¹⁵ 47 C.F.R. §§ 25.114(d)(14)(ii) & 25.283(c).

¹⁶ *See SES AMERICOM, INC., Application for Modification of AMC-2 Fixed-Satellite Space Station License*, File No. SAT-MOD-20101215-00261 (grant stamp Mar. 8, 2011, Condition 8); *see also* In the Matter of Application by XM Radio Inc. For Modification of the XM-4 License, File No. SAT-MOD-20100722-00165 (grant stamp Oct. 14, 2010, Condition 2) (waiving Section 25.283(c) for XM-4 because "modification of the spacecraft would present an undue hardship, since XM-4 is an in-orbit space station and venting XM-4's helium and xenon tanks would require direct retrieval of the satellite, which is not currently possible").

licensed, launched, and operational prior to adoption of the rule requiring discharge of remaining fuel at end-of-life,¹⁷ good cause exists to waive Sections 25.114(d)(14)(ii) and 25.283(c).

2. Request for Waiver of Section 25.114(d)(3)

To the extent necessary, Intelsat requests waiver of Section 25.114(d)(3) of the Commission's rules, which prescribes the level of detail required for the space station antenna gain contours.¹⁸ As noted in the Technical Appendix, for certain beams some of the contours specified in the rule do not intersect with the earth's surface. As a result, these contours would not supply any information relevant to the Commission or interested third parties and therefore have not been provided.

III. GRANT OF THIS APPLICATION WILL SERVE THE PUBLIC INTEREST

Grant of this application will serve the public interest by ensuring continuity of service to Ku-band U.S. consumers from the 340.0° E.L. orbital location.¹⁹ The NSS-7 satellite is well-suited to providing continuity of service because it is an in-orbit satellite which can be moved relatively quickly to the 340.0° E.L. orbital location.

Grant of this application is also consistent with the Commissions' recognition of a "replacement expectancy" in orbital locations in order to protect the large investments made by satellite operators. The agency has stated,

¹⁷ The NSS-7 satellite was launched in 2002, before the venting requirement in Section 25.283(c) was adopted or took effect. *See Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004).

¹⁸ 47 C.F.R. § 25.114(d)(3).

¹⁹ In the case of a satellite reaching the end of its useful life, the Commission has determined that ensuring continuity of service to customers by granting authority to replace the satellite is in the public interest. *GE American Communications, Inc. and Alascom, Inc. for Authorization to Launch and Operate a C-Band Replacement Satellite*, Memorandum Opinion, Order and Authorization, 15 FCC Rcd 23583, ¶ 18 (Int'l Bur. 2000).

[G]iven the huge costs of building and operating satellite space stations, there should be some assurance that operators will be able to continue to serve their customers. The Commission has therefore stated that, when the orbit location remains available for a U.S. satellite with the technical characteristics of the proposed replacement satellite, it will generally authorize the replacement satellite at the same location.²⁰

In this case, Intelsat holds a replacement expectancy for the Ku-band frequencies it seeks to operate on the NSS-7 satellite at the 340.0° E.L. orbital location because the Commission authorized Intelsat to operate these same frequencies on the NSS-5 satellite at this location. These Ku-band frequencies at this orbital location remain available to Intelsat and operation of the NSS-7 satellite will conform to international coordination obligations that derive from the ITU Radio Regulations.²¹ Furthermore, as demonstrated in the Engineering Statement, the NSS-7 satellite is technically consistent with existing and future satellites operating in a two-degree environment.

Finally, grant of this application serves the public interest by transferring licensing responsibility for certain of the Ku-band frequencies of the NSS-7 satellite from the Dutch Administration to the U.S. Administration. The FCC has acknowledged the public interest in

²⁰ *Columbia Communications Corporation Authorization to Launch and Operate a Geostationary C-band Replacement Satellite in the Fixed-Satellite Service at 37.5° W.L.*, Memorandum Opinion and Order, 16 FCC Rcd 20176, ¶ 7 (2001) (citing *Assignment of Orbital Locations to Space Stations in Domestic Fixed-Satellite Service*, Memorandum Opinion and Order, 3 FCC Rcd 6972, n.31 (1988) and *GE American Communications, Inc.*, Order and Authorization, 10 FCC Rcd 13775, ¶ 6 (Int'l Bur. 1995)).

²¹ *Amendment of the Commission's Space Station Licensing Rules and Policies*, 18 FCC Rcd 10760, ¶ 257 (2003) (“We do not require replacement satellites to be technically ‘identical’ to the existing satellite. We recognize that next-generation satellites will incorporate satellites with technical advancements made since the previous generation satellite was launched. We do not intend to change this policy, which facilitates state-of-the-art systems. Rather, we will continue to assess only whether operations of the replacement satellite will be consistent with our international coordination obligations pursuant to regulations promulgated by the International Telecommunication Union.”) (internal citations omitted).

having the United States serve as a satellite licensing administration.²² Grant of this application will “U.S. flag” the bulk of the Ku-band payload of an in-orbit, currently non-U.S.-licensed satellite and thus ensure conformity of that payload with U.S. policy and regulation.

IV. CONDITIONS RELATED TO FREQUENCIES AND ORBITAL LOCATIONS TRANSFERRED AT THE INTELSAT PRIVATIZATION

Intelsat assumes that the following two conditions specified in the *Intelsat 316 Order of Modification*²³ will apply to the Ku-band frequencies, other than the 12.5-12.75 GHz and 11.7-11.95 GHz frequencies, on the NSS-7 satellite at the 340.0° E.L. orbital location while these frequencies are licensed to Intelsat. These frequencies were transferred to the United States at privatization.

- (a) Intelsat shall remain a signatory to the Public Services Agreement between Intelsat and the International Telecommunications Satellite Organization (“ITSO”) that was approved by the ITSO Twenty-fifth Assembly of Parties, as amended.
- (b) No entity shall be considered a successor-in-interest to Intelsat under the ITSO Agreement for licensing purposes unless it has undertaken to perform the obligations of the Public Services Agreement approved by the Twenty-fifth Assembly of Parties, as amended.²⁴

The limited use of 3 MHz of Ku-band TT&C frequencies by SES will have no negative impact on the U.S. Intelsat Ku-band filings at the 340.0° E.L. orbital location. The Ku-band frequencies in the U.S. Intelsat filings will retain ITU date priority over the Dutch filing under

²² *Applications of Intelsat LLC for Authority to Operate, and to Further Construct, Launch, and Operate C-band and Ku-band Satellites that Form a Global Communications System in Geostationary Orbit*, Memorandum Order and Opinion, 15 FCC Rcd 15460, 15475 (2000).

²³ *Petition of the International Telecommunications Satellite Organization under Section 316 of the Communications Act, as Amended*, Order of Modification, 23 FCC Rcd 2764 (2008).

²⁴ SES will be operating the C-band payload under a Dutch ITU filing that was not transferred to the United States at the time of the INTELSAT privatization. As a result, the C-band frequencies operated by SES at the 340.0° E.L. orbital location are not subject to the above conditions.

which TT&C will be conducted. Neither Intelsat nor SES will ask the U.S. or the Netherlands to enter into or ratify any administration-to-administration coordination agreement with respect to the Ku-band TT&C frequencies.

V. 10950-11200, 11450-11700 MHZ, AND 12500-12750 MHZ FREQUENCY BANDS

Intelsat understands that operations in the 10950-11200, 11450-11700 MHz, and 12500-12750 MHz frequency bands are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, for operations in the 10950-11200 MHz and 11450-11700 MHz frequency bands, Intelsat accepts the following conditions:

- Operations in the 10950-11200 MHz and 11450-11700 MHz frequency bands shall comply with the terms of footnote US211 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference.
- Operations in the 10950-11200 MHz and 11450-11700 MHz frequency bands are limited to international operations in accordance with footnote NG 104 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, NG 104, and footnote 2 of Section 25.202(a)(1) of the Commission's rules, 47 C.F.R. § 25.202(a)(1).

In the 12500-12750 MHz frequency band, Intelsat accepts the following condition:

- Use of the 12.5-12.75 GHz frequency band is not permitted for fixed-satellite service in the space-to-Earth direction in Region 2.

VI. CONCLUSION

Based on the foregoing, Intelsat respectfully requests that the Commission grant this replacement satellite application.

Respectfully submitted,

/s/ Susan H. Crandall

Susan H. Crandall
Asst. General Counsel
Intelsat Corporation

Jennifer D. Hindin
Colleen King
WILEY REIN LLP
1776 K Street, N.W.
Washington, DC 20006

February 16, 2012

Exhibit A

FCC Form 312, Response to Question 34: Foreign Ownership

The Commission previously approved foreign ownership in Intelsat License LLC (“Intelsat”), in the *Intelsat-Serafina Order*.¹ In December 2009, the Commission also approved the *pro forma* changes in Intelsat’s foreign ownership.² There have been no other material changes to Intelsat’s foreign ownership since the date of the *Intelsat-Serafina Order*.

¹ *Intelsat Holdings, Ltd. and Serafina Holdings Limited, Consolidated Application for Consent to Transfer of Control of Holders of Title II and Title III Authorizations*, Memorandum Opinion and Order, 22 FCC Rcd 22,151 (2007).

² *See Intelsat North America LLC, Intelsat LLC, PanAmSat Licensee Corp., PanAmSat H-2 Licensee Corp., and Intelsat New Dawn Company, Ltd., Applications for Pro Forma Transfer of Control*, File Nos. SAT-T/C-20091125-00128, SAT-T/C-20091125-00124, SAT-T/C-20091125-00127, SAT-T/C-20091125-00125, SAT-T/C-20091125-00126, SES-T/C-20091125-01505, SES-T/C-20091125-01502, SES-T/C-20091125-01506, SES-T/C-20091125-01504 and SES-T/C-20091125-01503 (granted Dec. 3, 2009).

Exhibit B

FCC Form 312, Response to Question 36: Cancelled Authorizations

Intelsat License LLC (“Intelsat”) has never had an FCC license “revoked.” However, on June 26, 2000, the International Bureau “cancelled” two Ka-band satellite authorizations issued to a former Intelsat entity, PanAmSat Licensee Corp. (“PanAmSat”),³ based on the Bureau’s finding that PanAmSat had not satisfied applicable construction milestones.⁴ In that same order, the Bureau denied related applications to modify the cancelled authorizations. PanAmSat filed an application for review of the Bureau’s decision, which the Commission denied, and subsequently filed an appeal with the United States Court of Appeals for the District of Columbia Circuit, which was dismissed in January 2003 at PanAmSat’s request. Notwithstanding the fact that the Bureau’s action does not seem to be the kind of revocation action contemplated by question 36, Intelsat is herein making note of the decision in the interest of absolute candor and out of an abundance of caution. In any event, the Bureau’s action with respect to PanAmSat does not reflect on Intelsat’s basic qualifications, which are well-established and a matter of public record.

³ All licenses previously held by PanAmSat Licensee Corp. have been assigned to Intelsat License LLC. See IBFS File Nos. SAT-ASG-20101203-00252 (granted Dec. 23, 2010), SES-ASG-20101203-0150 (granted Dec. 20, 2010), and SES-ASG-20101206-01502 (granted Dec. 20, 2010).

⁴ See *PanAmSat Licensee Corp.*, Memorandum Opinion and Order, 15 FCC Rcd 18720 (Int’l Bur. 2000).

Exhibit C
FCC Form 312, Response to Question 40:
Officers, Directors, and Ten Percent or Greater Shareholders

The officers and directors/managers of Intelsat License LLC are as follows:

Officers:

Michael McDonnell, Chairman
Flavien Bachabi, Deputy Chairman
Phillip Spector, Secretary
Simon Van De Weg, Director, Finance

Board of Managers:

Michael McDonnell
Flavien Bachabi
Phillip Spector

The address of all Intelsat License LLC officers and members of the Board of Managers is:

4 rue Albert Borschette
L-1246 Luxembourg

Intelsat License LLC is a Delaware limited liability company that is wholly owned by Intelsat License Holdings LLC, also a Delaware limited liability company. Intelsat License Holdings LLC is wholly owned by Intelsat Subsidiary Holding Company S.A., a Luxembourg company. Intelsat Subsidiary Holding Company S.A. is wholly owned by Intelsat Phoenix Holdings S.A., a Luxembourg company. Intelsat Phoenix Holdings S.A. is wholly owned by Intelsat Intermediate Holding Company S.A., a Luxembourg company. Intelsat Intermediate Holding Company S.A. is wholly owned by Intelsat Jackson Holdings S.A., a Luxembourg company. Intelsat Jackson Holdings S.A. is wholly owned by Intelsat (Luxembourg) S.A., a Luxembourg company. Intelsat (Luxembourg) S.A. is wholly owned by Intelsat S.A., a Luxembourg company. Intelsat S.A. is wholly owned by Intelsat Holdings S.A., a Luxembourg company. Intelsat Holdings S.A. is wholly owned by Intelsat Global Subsidiary S.A., a Luxembourg company. Intelsat Global Subsidiary S.A. is wholly owned by Intelsat Global S.A., a Luxembourg company (“Intelsat Global”, formerly “Serafina Holdings Limited”). Each of these entities may be contacted at the following address: 4 rue Albert Borschette, L-1246 Luxembourg.

Intelsat Global’s ownership was approved by the Commission in the *Intelsat-Serafina Order*, has not changed materially and is incorporated by reference. See *Intelsat Holdings, Ltd. and Serafina Holdings Limited, Consolidated Application for Consent to Transfer of Control of Holders of Title II and Title III Authorizations*, Memorandum Opinion and Order, 22 FCC Rcd 22,151 (2007) (“*Intelsat-Serafina Order*”).