### Before the Federal Communications Commission Washington, DC 20554

In the Matter of

Intelsat North America LLC

File No. SAT-A/O-

Application for Authority to Operate the Ku-band Frequencies of the NSS-5 Satellite at 340.0° E.L. (20.0° W.L)

### <u>APPLICATION FOR AUTHORITY TO OPERATE THE KU-BAND FREQUENCIES</u> OF THE NSS-5 SATELLITE AT 340.0° E.L. (20.0° W.L)

Intelsat North America LLC ("Intelsat"), pursuant to Section 25.114 of the Federal Communications Commission's ("FCC" or "Commission") rules,<sup>1</sup> hereby applies for authority to operate the Ku-band frequencies of the in-orbit NSS-5 satellite at 340.0° E.L. (20.0° W.L.) beginning at the end of February 2010. The NSS-5 satellite will replace the Intelsat 603 satellite (call sign S2399), which is currently operating at 19.95° W.L.<sup>2</sup>

As demonstrated below, Intelsat is legally and technically qualified to operate the Ku-

band frequencies of the NSS-5 satellite as proposed herein. Moreover, grant of this application

will serve the public interest by ensuring continuity and improving service for U.S. Ku-band

consumers at the nominal 340.0° E.L. orbital location and by bringing the Ku-band payload of

NSS-5 under U.S. jurisdiction. In accordance with the requirements of the Commission's rules,<sup>3</sup>

<sup>3</sup> 47 C.F.R. § 25.114(c).

<sup>&</sup>lt;sup>1</sup> See 47 C.F.R. § 25.114.

<sup>&</sup>lt;sup>2</sup> Although this application seeks authority to replace the Intelsat 603 satellite it is being submitted as an application for operating authority because the NSS-5 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.").

this modification application has been filed electronically as an attachment to FCC Form 312 and Schedule S.<sup>4</sup>

## I. <u>BACKGROUND</u>

Intelsat currently holds a license to operate the Intelsat 603 satellite from the nominal 340.0° E.L. orbital location.<sup>5</sup> Intelsat 603 currently operates at an orbital inclination of over six degrees, which limits the range of services that can be provided to customers at this orbital location.

New Skies Satellites B.V. (doing business as "SES WORLD SKIES"),<sup>6</sup> currently operates the NSS-5 satellite at 57.0° E.L. under the authority of the Netherlands. Intelsat Global Sales & Marketing Ltd., -- an affiliate of Intelsat -- and SES WORLD SKIES have entered into an agreement pursuant to which the NSS-5 satellite will be relocated to 340.0° E.L.<sup>7</sup> At that location, SES WORLD SKIES will operate the TT&C (other than the Ku-band tracking beacons) and C-band payloads under the authority of the Netherlands and Intelsat will operate the Ku-band frequencies (including the Ku-band tracking beacons) as a U.S. licensee.<sup>8</sup>

<sup>&</sup>lt;sup>4</sup> Although Intelsat only seeks to operate on 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.

<sup>&</sup>lt;sup>5</sup> See Satellite Policy Branch Information Actions Taken, Report No. SAT-00134, File Nos. SAT-MOD-20020418-00063, SAT-AMD-20020731-00146, SAT-AMD-20020822-00159 (Feb. 12, 2003) (Public Notice).

<sup>&</sup>lt;sup>6</sup> On September 7, 2009, SES S.A. announced that the newly integrated operations of New Skies Satellites B.V. and SES Americom, Inc. will be conducted under a single brand name, SES WORLD SKIES. The new brand name does not affect the underlying legal entities that hold Commission authorizations or U.S. market access rights.

<sup>&</sup>lt;sup>7</sup> A copy of the agreement will be submitted to the FCC with a request for confidential treatment.

<sup>&</sup>lt;sup>8</sup> The NSS-5 Ku-band payload includes the 12.50-12.75 GHz and 11.7-11.95 GHz frequency bands, which are not currently licensed on Intelsat 603.

Grant of this application will result in the transfer of licensing responsibility for the Kuband payload of the NSS-5 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 Ku-band at 340.0° E.L.

## II. <u>INTELSAT IS QUALIFIED TO HOLD THE AUTHORIZATION REQUESTED</u> <u>HEREIN</u>

## A. <u>Legal Qualifications</u>

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."<sup>9</sup> Indeed, less than two years ago, the Commission approved the transfer of control of licenses held by Intelsat and certain affiliates to Serafina Holdings Ltd.<sup>10</sup> Thus, Intelsat is legally qualified to hold the license requested herein.

<sup>&</sup>lt;sup>9</sup> 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 But. 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 hold a satellite license"). Likewise, the Commission is well aware of Intelsat North America'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).

<sup>&</sup>lt;sup>10</sup> 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, Ltd." and Serafina Acquisition's name has changed to "Intelsat Global Subsidiary, Ltd."

#### B. <u>Technical Qualifications and Request for Waivers</u>

In the attached Form 312, Schedule S, and Engineering Statement, Intelsat demonstrates that it is technically qualified to hold the authorization requested herein. Specifically, Intelsat provides the information currently required by Section 25.114 of the Commission's rules regarding the Ku-band frequencies it seeks to operate from the 340.0° E.L. orbital location.

SES WORLD SKIES will conduct the physical operations of the NSS-5 satellite using TT&C facilities located in Europe and the United States. Intelsat has contracted with SES WORLD SKIES for control of the U.S.-licensed Ku-band payload, and can direct SES WORLD SKIES to "turn off" that 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.<sup>11</sup> This contractual ability to instruct SES WORLD SKIES to "turn off" the Ku-band payload is no different from the contractual arrangements often entered into by satellite licensees for third parties to perform TT&C and other spacecraft operations under the direction and control of the licensee and is sufficient to meet the Commission's requirements.<sup>12</sup>

## 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.<sup>13</sup> The NSS-5 satellite is a Lockheed Martin 7000

<sup>&</sup>lt;sup>11</sup> 47 U.S.C. § 606(c).

<sup>&</sup>lt;sup>12</sup> 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 WORLD SKIES' 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).

<sup>&</sup>lt;sup>13</sup> 47 C.F.R. §§ 25.114(d)(14)(ii) & 25.283(c).

spacecraft that is not designed to vent all pressurized systems. Instead, oxidizer tanks in the NSS-5 satellite were sealed by firing a pyrotechnic valve following transfer orbit. The remaining oxidizer cannot be vented at end-of-life.

Waiver is appropriate in this case because grant would not undermine the purpose of these rules, which is to reduce the risk of accidental explosion and post de-orbit debris. All active units on the NSS-5 satellite will be turned off and all fuel tanks will be depleted. Additionally, Lockheed Martin has designed the pressurant tanks so that they leak before they burst. If a leak were to occur, there would not be sufficient energy in the gas stream to damage structurally the spacecraft and generate debris. Moreover, a leak would not significantly perturb the satellite's orbit because the expulsion of the pressurant gas would cause the spacecraft to tumble and the change in the spacecraft's velocity (*i.e.*, the thrust) would be randomly distributed, with the resulting impact on the satellite orbit's apogee and perigee being very small.

Grant of the waiver is also supported on hardship grounds.<sup>14</sup> NSS-5 is an in-orbit spacecraft. As such, a design change cannot be accomplished at this time. Avoiding such hardship is particularly appropriate where, as here, the licensee acted in good faith. Specifically, the NSS-5 satellite was licensed, launched, and operational prior to adoption of the rule requiring discharge of remaining fuel at end-of-life.<sup>15</sup> Under these circumstances, good cause exists to waive Sections 25.114(d)(14)(ii) and 25.283(c).

<sup>&</sup>lt;sup>14</sup> The FCC has previously waived Section 25.283(c) of its rules in similar situations when a satellite was in orbit and could not be modified to meet the Commission's rules. *See, e.g., Modification of Authorization for Galaxy 12*, File No. SAT-MOD-20080630-00133 (grant stamp with conditions Sept. 2, 2008).

<sup>&</sup>lt;sup>15</sup> The NSS-5 satellite (formerly the NSS-803 satellite) was already an in-orbit satellite when the Commission added it to the Permitted List in 2001. *See New Skies Satellites N.V., Petition for Declaratory Ruling*, Order, 16 FCC Rcd 6740 (2001). The Commission's orbital debris mitigation rule requiring discharge of all propellant, Section 25.283(c), was adopted in an order

#### 2. Request for Waiver of Section 25.202(g)

Intelsat requests waiver of Section 25.202(g), which requires satellite operators to conduct TT&C at either or both edges of the allocated band.<sup>16</sup> As described in the technical exhibit, the TT&C functions of the NSS-5 spacecraft (other than Ku-band tracking beacons) are conducted using the center of the C-band frequencies, as is presently the case for the Intelsat 603 satellite. As noted above, SES WORLD SKIES will be responsible for performing the C-band TT&C functions of the spacecraft under Dutch authority. Intelsat seeks this waiver out of abundance of caution and to eliminate unnecessary earth station modifications and associated expenses for existing Intelsat customers who will be transitioning their services to the NSS-5 satellite. Moreover, operation of the NSS-5 satellite's TT&C functions at the center of the C-band will not cause harmful interference to other satellite operators.

As described above, the Intelsat 603 satellite is currently operating 340.0° E.L. orbital location.<sup>17</sup> The Intelsat 603 satellite, along with other legacy Intelsat satellites, was authorized to operate its TT&C functions at the center of the C-band.<sup>18</sup> Consequently, the ground equipment of customers currently receiving service from these satellites is designed to receive the telemetry beacon from the center of the C-band. If the NSS-5 satellite does not perform TT&C operations at the center of the C-band, these customers will be required to modify certain ground equipment

<sup>16</sup> 47 C.F.R. § 25.202(g).

<sup>17</sup> See supra note 4.

released June 21, 2004, *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004), that became effective October 12, 2004. *Mitigation of Orbital Debris*, 69 Fed. Reg. 54581-54589 (Sept. 9, 2004).

<sup>&</sup>lt;sup>18</sup> 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 Comme'ns Sys. Geostationary Orbit, Memorandum Opinion, Order and Authorization, 15 FCC Rcd 15460, Appendix C (2000), recon. denied, 15 FCC Rcd 25234 (2000) ("Intelsat Licensing Order") (granting a waiver of Section 25.202(g) for all satellites authorized in the Intelsat Licensing Order).

to receive telemetry beacons from the band edge. Intelsat estimates that these modifications will cost customers approximately \$10,000 per uplink antenna. Grant of the requested waiver would avoid imposing such costs to these existing customers. Additionally, the NSS-5 satellite's TT&C configuration is identical to that of the Intelsat 603 satellite already operating at the 340.0° E.L. orbital location and is not expected to present a different interference situation to neighboring satellites or require additional coordination.

#### 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 nominal 340.0° E.L. orbital location.<sup>19</sup> The NSS-5 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.

In addition, the proposed operation of NSS-5 at 340.0° E.L. will improve service to existing U.S. customers. As noted in the background section, the Intelsat 603 satellite is currently operating at an orbital inclination of over six degrees, which limits the range of services that can be provided to customers at this orbital location. In contrast, the NSS-5 satellite is in good health and is expected to offer non-inclined service for several years.

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,

[G]iven the huge costs of building and operating satellite space stations, there should be some assurance that operators will be able

<sup>&</sup>lt;sup>19</sup> 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).

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.<sup>20</sup>

In this case, Intelsat holds a replacement expectancy for the Ku-band frequencies at the nominal

340.0° E.L. orbital location because the Commission authorized Intelsat to operate the Intelsat

603 satellite at this location. The Ku-band frequencies at this orbital location remain available to

Intelsat and operation of the NSS-5 satellite will conform to international coordination

obligations that derive from the ITU Radio Regulations.<sup>21</sup> Furthermore, as demonstrated in the

Engineering Statement, the NSS-5 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 the Ku-band payload of the NSS-5 satellite from the Dutch Administration to

the U.S. Administration. The FCC has acknowledged the public interest in having the United

States serve as a satellite licensing administration.<sup>22</sup> Grant of this application will "U.S. flag" the

<sup>&</sup>lt;sup>20</sup> 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)).

<sup>&</sup>lt;sup>21</sup> 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).

<sup>&</sup>lt;sup>22</sup> 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).

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. REQUEST FOR GRANT WITHOUT MILESTONES OR A BOND

Intelsat requests grant of this application without milestones or a bond because the satellite is already in-orbit and operating.<sup>23</sup> Intelsat notes this application seeks to use the 12.50-12.75 GHz and 11.7-11.95 GHz frequencies—which are on NSS-5 but not Intelsat 603—at the requested 340.0° E.L. orbital location. To the extent necessary, Intelsat requests a waiver of the Section 25.164 launch and operate milestone and the Section 25.165 bond requirement with respect to these additional Ku-band frequencies because there is no realistic concern about warehousing.<sup>24</sup> Alternatively, Intelsat requests a 75 percent reduction in the amount of the bond requirement.<sup>25</sup>

<sup>&</sup>lt;sup>23</sup> The Commission has granted licenses without a bond in similar situations involving in-orbit satellites and requests to use new frequencies at a specified orbital location. *See PanAmSat Licensee Corp., Modification to Relocate Intelsat 5 to 169° E.L.*, File No. SAT-MOD-20080725-00150 (stamp grant, Oct. 17, 2008) (granting authority to operate the in-orbit Intelsat 5 satellite at 169° E.L., including in previously unlicensed extended Ku-band frequencies, without a bond); *PanAmSat Licensee Corp., Application to Modify Authorization for Galaxy 11*, File No. SAT-MOD-20080225-00051 (stamp grant, July 22, 2008) (granting authority to operate the in-orbit Galaxy 11 satellite at 32.80° E.L., including in previously unlicensed extended Ku-band frequencies, without a bond):

<sup>&</sup>lt;sup>24</sup> To date, no operator has requested authority to operate in the small sliver of spectrum from 12.50-12.75 GHz or 11.7-11.95 GHz not currently licensed on Intelsat 603 and thus it is unlikely that any operator would request authority to do so pending relocation of NSS-5 to 340.0° E.L. at the end of February 2010.

<sup>&</sup>lt;sup>25</sup> Because the NSS-5 satellite is already in-orbit, the first three milestones -- non-contingent binding contract to construct, completion of critical design review and commencement of construction -- have been fully satisfied.

## V. <u>CONDITIONS RELATED TO FREQUENCIES AND ORBITAL LOCATIONS</u> <u>TRANSFERRED AT THE INTELSAT PRIVATIZATION</u>

Intelsat assumes that the following two conditions specified in the Intelsat 316 Order of

Modification<sup>26</sup> 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-5 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.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup> Petition of the International Telecommunications Satellite Organization under Section 316 of the Communications Act, as Amended, Order of Modification, 23 FCC Rcd 2764 (2008).

<sup>&</sup>lt;sup>27</sup> SES WORLD SKIES 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 WORLD SKIES at the 340.0° E.L. orbital location are not subject to the above conditions.

# VI. <u>CONCLUSION</u>

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

December 8, 2009

### Exhibit A FCC Form 312, Response to Question 34: Foreign Ownership

The Commission previously approved the foreign ownership in Intelsat North America LLC ("Intelsat"). 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"). There have been no material changes to the foreign ownership since the date of the Intelsat-Serafina Order.

## **Exhibit B** FCC Form 312, Response to Question 36: Cancelled Authorizations

Intelsat North America 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 PanAmSat Licensee Corp. ("PanAmSat"), a sister company of Intelsat North America LLC, based on the Bureau's finding that PanAmSat had not satisfied applicable construction milestones. *See* PanAmSat Licensee Corp., Memorandum Opinion and Order, DA 00-1266, 15 FCC Rcd 18720 (IB 2000). 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 either PanAmSat's or Intelsat's basic qualifications, which are well-established and a matter of public record.

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

Following are the officers of Intelsat North America LLC:

Michael McDonnell, Chairman Andrew Stimson, Deputy Chairman Phillip Spector, Secretary Simon Van De Weg, Director, Finance

Following are the members of the Board of Managers of Intelsat North America LLC:

Michael McDonnell Andrew Stimson Phillip Spector

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

Wellesley House North, 2<sup>nd</sup> Floor 90 Pitts Bay Road Pembroke, HM 08 Bermuda

Intelsat North America LLC is wholly owned by Intelsat LLC, a Delaware limited liability company. Intelsat LLC is wholly owned by Intelsat Holdings LLC, a Delaware limited liability company. Intelsat Holdings LLC is wholly owned by Intelsat Subsidiary Holding Company, Ltd., a Bermuda company. Intelsat Subsidiary Holding Company, Ltd., a Bermuda company. Intelsat Intermediate Holding Company, Ltd., a Bermuda company. Intelsat Intermediate Holding Company, Ltd., a Bermuda company. Intelsat Jackson Holdings, Ltd., a Bermuda company. Intelsat Jackson Holdings, Ltd., a Bermuda company. Intelsat Jackson Holdings, Ltd. is wholly owned by Intelsat (Bermuda), Ltd., a Bermuda company. Intelsat (Bermuda), Ltd. is wholly owned by Intelsat, Ltd., a Bermuda company. Intelsat, Ltd. is wholly owned by Intelsat Holdings, Ltd., a Bermuda company. Intelsat, Ltd. is wholly owned by Intelsat Global Subsidiary, Ltd. is wholly owned by Intelsat Global, Ltd., a Bermuda company ("Intelsat Global Subsidiary, Ltd. is wholly owned by Intelsat Global, Ltd., a Bermuda company ("Intelsat Global Subsidiary, Ltd. is wholly owned by Intelsat Global, Ltd., a Bermuda company ("Intelsat Global Subsidiary, Ltd. is wholly owned by Intelsat Global, Ltd., a Bermuda company ("Intelsat Global Subsidiary, Ltd. is wholly owned by Intelsat Global, Ltd., a Bermuda company ("Intelsat Global Subsidiary, Ltd. is wholly owned by Intelsat Global, Ltd., a Bermuda company ("Intelsat Global", formerly "Serafina Holdings Limited"). Each of these entities may be contacted at the following address: Wellesley House North, 2<sup>nd</sup> Floor, 90 Pitts Bay Road, Pembroke, HM 08, Bermuda.

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 22151 (2007) ("*Intelsat-Serafina Order*").