

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

In the Matter of

Intelsat License LLC

Application for Authority to Launch and  
Operate Intelsat 36 at 68.5° E.L.

File No. SAT-LOA- \_\_\_\_\_

**APPLICATION FOR AUTHORITY TO LAUNCH AND OPERATE**  
**INTELSAT 36 AT 68.5° E.L.**

Intelsat License LLC (“Intelsat”), pursuant to Section 25.114 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,<sup>1</sup> hereby applies to launch and operate a C/Ku-band satellite, to be known as Intelsat 36, at the 68.5° E.L. orbital location. Intelsat 36 is scheduled for launch in August 2016 and will be collocated with Intelsat 20 (call sign S2847), which will continue to operate at 68.5° E.L.<sup>2</sup> Intelsat 36 will operate on a non-common carrier basis.<sup>3</sup>

As demonstrated below, Intelsat is legally and technically qualified to launch and operate its proposed satellite. Moreover, grant of this application will serve the public interest by providing additional capacity for services to Europe, Asia, the Middle East, and Africa. In

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<sup>1</sup> 47 C.F.R. § 25.114.

<sup>2</sup> See *Policy Branch Information; Actions Taken*, Report No. SAT-00886, File No. SAT-LOA-20111024-00208 (Jul. 27, 2012) (Public Notice).

<sup>3</sup> Section 310(b) is not applicable to this license because Intelsat 36, like all other satellites licensed to Intelsat, will operate on a non-common carrier basis. See *Applications of The News Corp. Ltd. and The DIRECTV Group, Inc. (Transferors) and Constellation, LLC, Carlyle PanAmSat I, LLC, Carlyle PanAmSat II, LLC, PEP PAS, LLC and PEOP PAS, LLC (Transferees) for Authority to Transfer Control of PanAmSat Licensee Corp.*, Public Notice, 19 FCC Rcd 15,424, 15,425 (n.5) (Int’l Bur. 2004).

accordance with the Commission's requirements,<sup>4</sup> this application has been filed electronically as an attachment to FCC Form 312 and Schedule S.

**I. INTELSAT IS QUALIFIED TO HOLD THE REPLACEMENT 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 multiple Commission satellite licenses, and its "legal qualifications are a matter of record" before the Commission.<sup>5</sup>

**B. Technical Qualifications**

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. In addition, the Engineering Statement provides information on Intelsat's compliance with the Commission's orbital debris mitigation rules.<sup>6</sup>

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<sup>4</sup> 47 C.F.R. § 25.114(c).

<sup>5</sup> *See Constellation, LLC, Carlyle PanAmSat I, LLC, Carlyle PanAmSat II, LLC, PEP PAS, LLC, and PEO PAS, LLC, Transferors and Intelsat Holdings, Ltd., Transferee, Consolidated Application for Authority to Transfer Control of PanAmSat Licensee Corp. and PanAmSat H-2 Licensee Corp.*, Memorandum Opinion and Order, FCC 06-85, ¶ 23 (rel. June 19, 2006) ("The Commission previously has determined that PanAmSat and Intelsat are qualified to hold licenses.").

<sup>6</sup> *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11,567 (2004).

### C. Waiver Requests

To the extent necessary,<sup>7</sup> Intelsat requests waiver of the following technical rules: (1) Section 25.210(a)(2), which requires that the polarization sense of uplink transmissions is opposite to that of downlink transmissions on the same transponder for space stations in the Fixed Satellite Service (“FSS”) used for domestic service in the 3700-4200 MHz and 5925-6425 MHz frequency bands,<sup>8</sup> (2) Section 25.210(a)(3), which requires that space stations in the FSS used for domestic service in the 3700-4200 MHz and 5925-6425 MHz frequency bands be capable of switching polarization sense upon ground command,<sup>9</sup> and (3) Section 25.210(i)(1), which requires antenna cross-polarization isolation such that the ratio of the on-axis co-polar gain to the on-axis cross-polar gain of the antenna in the assigned frequency band shall be at least 30 dB within its primary coverage area.<sup>10</sup>

Under Section 1.3 of the Commission’s rules, the Commission has authority to waive its rules “for good cause shown.”<sup>11</sup> Good cause exists if “special circumstances warrant a deviation from the general rule and such deviation will serve the public interest” better than adherence to

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<sup>7</sup> The FCC recently adopted proposals to remove the polarization requirements in Section 25.210(a) and (i)(1). *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, IB Docket No. 12-267, FCC 15-167 at ¶ 333 (rel. Dec. 17, 2015) (“Satellite Streamlining Second Report and Order”). The FCC also indicated that it would apply the new rules and procedures adopted in the Satellite Streamlining Second Report and Order to pending space station applications. *Satellite Streamlining Report and Order*, ¶ 363. Under the new rules, no waivers are required for grant of this space station application.

<sup>8</sup> 47 C.F.R. § 25.210(a)(2).

<sup>9</sup> 47 C.F.R. § 25.210(a)(3).

<sup>10</sup> 47 C.F.R. § 25.210(i)(1).

<sup>11</sup> 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

the general rule.<sup>12</sup> In determining whether a waiver is appropriate, the Commission should “take into account considerations of hardship, equity, or more effective implementation of overall policy.”<sup>13</sup> As shown below, there is good cause for each of the requested technical waivers.

**1. Request for Waiver of Sections 25.210(a)(2) and 25.210(a)(3)**

To the extent necessary, Intelsat requests a waiver of Section 25.210(a)(2) of the Commission’s rules, which requires that the polarization sense of uplink transmissions is opposite to that of downlink transmissions on the same transponder for space stations in the FSS used for domestic service in the 3700-4200 MHz and 5925-6425 MHz frequency bands. The polarization sense of the Intelsat 36 C-band transponder uplinks and downlinks is the same. Intelsat 36 will be co-located with Intelsat 20, which is also configured with transponders that have the same polarization sense in the uplink and downlink in the 3700-4200 MHz and 5925-6425 MHz frequency bands. Intelsat 20 was configured in that way to meet a customer requirement. Intelsat 36 will provide additional capacity and also serve as backup for Intelsat 20. Therefore, the polarization plans of the two satellites need to be aligned.

Intelsat 36 does not have the capability to switch the polarization sense of the C-band communication beams upon ground command and, hence, is not compliant with the provisions of Section 25.210(a)(3) of the Commission’s rules. To the extent necessary, Intelsat requests a waiver of Section 25.210(a)(3), which requires that space stations in the FSS used for domestic service in the 3700-4200 MHz and 5925-6425 MHz frequency bands be capable of switching polarization sense upon ground command.

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<sup>12</sup> *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>13</sup> *WAIT Radio*, 418 F.2d at 1159.

Good cause exists to waive Sections 25.210(a)(2) and (a)(3) because waiver will not undermine the rule's policy objective to mitigate potential interference between adjacent fixed-satellite systems transmitting analog television signals.<sup>14</sup> Further, failure to meet the requirements of Sections 25.210(a)(2) and (a)(3) does not adversely affect any other operator. Both polarization senses will be used in each sub-band in both the uplink and downlink, and so the interference potential with respect to adjacent operators is not affected by the polarization plan.

## **2. Request for Waiver of Section 25.210(i)(1)**

To the extent necessary, Intelsat requests a waiver of Section 25.210(i)(1) of the Commission's rules, which requires that satellites be designed to provide a cross-polarization isolation such that the ratio of the on-axis co-polar gain to the on-axis cross-polar gain of the antenna in the assigned frequency band will be at least 30 dB within its primary coverage area.

Good cause exists to waive the cross-polarization isolation requirement of Section 25.210(i)(1) because a failure to meet the requirement does not adversely affect any other operator.<sup>15</sup> The FCC previously has acknowledged that non-compliance results only in self-interference and has granted waivers to other operators in similar situations.<sup>16</sup> Moreover, the

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<sup>14</sup> See Telesat Canada Petition for Declaratory Ruling for Inclusion of ANIK F3 on the Permitted Space Station List, Order, 22 FCC Rcd 588, ¶ 10 (2007).

<sup>15</sup> See *AMC-15 Ku-Band Circular Polarization Amendment*, File No. SAT-AMD-20030422-00069, Attachment Terms and Conditions of Authorization (¶ 5) (Aug. 18, 2004).

<sup>16</sup> See, e.g., *Applications of INTELSAT LLC; For Authority to Operator, and to Further Construct, Launch, and Operate C-band and Ku-band Satellites that Form a Global Communications System in Geostationary Orbit*, 15 FCC Rcd 15,460, 15,503 (¶ 109) (2000); *New Skies Satellites N.V.; Petition for Declaratory Ruling*, Order, 17 FCC Rcd 10,369, 10,376-377 (¶ 19) (2002); *Star One S.A. Petition for Declaratory Ruling to Add the Star One C1*

Commission has recently decided to eliminate this requirement entirely.<sup>17</sup> In this case, the level of isolation of the non-compliant Intelsat 36 beams is equal to or greater than 27 dB. This level was the best that the satellite manufacturer could achieve without causing excessive degradation in the performance of the beam and/or in the size of the beams' coverage area. Intelsat has taken this level of isolation into account in its planned operations. Moreover, Commission precedent supports a grant of Intelsat's requested waiver of Section 25.210(i)(1) for Intelsat 36.<sup>18</sup>

**D. Operational Frequencies**

The following chart shows the frequencies that will be used by the Intelsat 36 satellite, as well as the frequencies that currently are used by the Intelsat 20 satellite, at 68.5° E.L.

|                   | IS-36 | IS-20 |
|-------------------|-------|-------|
| 3650 – 3700 MHz   | ✓     |       |
| 3700 – 4200 MHz   | ✓     | ✓     |
| 5925 – 6675 MHz   | ✓     | ✓     |
| 6675 – 6725 MHz   | ✓     |       |
| 10950 – 11200 MHz |       | ✓     |
| 11200 – 11450 MHz | ✓     |       |
| 11450 – 11700 MHz |       | ✓     |
| 11700 – 12500 MHz | ✓     |       |
| 12500 – 12750 MHz |       | ✓     |
| 13000 – 13250 MHz | ✓     |       |
| 13750 – 14500 MHz |       | ✓     |
| 17300 – 18100 MHz | ✓     |       |
| 19700 – 20200 MHz |       | ✓     |
| 29500 – 30000 MHz |       | ✓     |

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*Satellite at 65° W.L. to the Permitted Space Station List*, Order, 19 FCC Rcd 16,334, 16,339 (¶ 12) (2004).

<sup>17</sup> Satellite Streamlining Second Report and Order, ¶ 333.

<sup>18</sup> See *Application to Launch and Operate Intelsat 17, a Replacement Satellite, at 66.0 E.L.*, IBFS File No. SAT-LOA-20100726-00167 (stamp grant Nov. 17, 2010; re-issued stamp grant with further conditions Dec. 17, 2010).

Intelsat 36 contains new frequencies at 3650 – 3700 MHz, 6675 – 6725 MHz, 11200 – 11450 MHz, 11700 – 12500 MHz, 13000 – 13250 MHz, and 17300 – 18100 MHz that are not currently on the Intelsat 20 satellite.

**E. Milestone Demonstration and Request for Bond Reduction**

Intelsat 36 will be subject to the milestone and bond posting requirements set forth in Sections 25.164 and 25.165 of the Commission’s rules because 3650 – 3700 MHz, 6675 – 6725 MHz, 11200 – 11450 MHz, 11700 – 12500 MHz, 13000 – 13250 MHz, and 17300 – 18100 MHz are included on Intelsat 36, but are not on Intelsat 20.<sup>19</sup> Intelsat understands that when the modified milestone and bond requirements adopted in the *Satellite Streamlining Second Report and Order* come into force, the FCC will apply them to pending space station applications, such as this one.<sup>20</sup>

**II. GRANT OF THIS APPLICATION WILL SERVE THE PUBLIC INTEREST**

Grant of this application will serve the public interest by ensuring that additional capacity is available to serve Europe, Asia, the Middle East, and Africa from the nominal 68.5° E.L. orbital location. The Intelsat 36 capacity will allow Intelsat customers to expand their service offering in the region, for the benefit of consumers. In addition, Intelsat 36 will provide back-up capacity to customers on Intelsat 20.

**III. ITU COST RECOVERY**

Intelsat is aware that processing fees are currently charged by the International Telecommunication Union (“ITU”) for satellite filings, and that Commission applicants are

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<sup>19</sup> 47 C.F.R. §§ 25.164, 25.165.

<sup>20</sup> Satellite Streamlining Report and Order, ¶ 363.

responsible for any and all fees charged by the ITU.<sup>21</sup> Intelsat is aware of and unconditionally accepts this requirement and responsibility to pay any ITU cost recovery fees associated with the ITU filings that the Commission makes on behalf of Intelsat for the satellite proposed in this Application, as well as any ITU filings associated with any satellite system for which Intelsat may request authorization at a later date. Intelsat will submit a declaration as required by Section 25.111(d) of the Commission's rules.<sup>22</sup>

#### **IV. 3650 - 3700 MHZ FREQUENCY BANDS**

Intelsat understands that operations in the 3650 – 3700 MHz frequency bands are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, Intelsat accepts the following condition:

- Intelsat's use of the 3650 – 3700 MHz (space-to-Earth) band is subject to footnote NG185 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106 NG185, which states that the 3650-3700 MHz use of the non-Federal fixed-satellite service is limited to international inter-continental systems.

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<sup>21</sup> See *Implementation of ITU Cost Recovery Charges for Satellite Network Filings*, Public Notice, DA 01-2435 (Oct. 19, 2001).

<sup>22</sup> 47 C.F.R. § 25.111(d).

**V. CONCLUSION**

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

Respectfully submitted,

*/s/ Susan H. Crandall*

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December 31, 2015

**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*.<sup>1</sup> In December 2009 and October 2011, the Commission also approved *pro forma* changes in Intelsat’s foreign ownership.<sup>2</sup> There have been no other material changes to Intelsat’s foreign ownership since the date of the *Intelsat-Serafina Order*.

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<sup>1</sup> *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).

<sup>2</sup> 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); *Intelsat Application for Pro Forma Transfer of Control*, File Nos. SAT-T/C-20110810-00160, SAT-T/C-20110811-00161, SES-T/C-20110811-00948, SES-T/C-20110812-00963 (granted Oct. 13, 2011), and 0004825139 (granted Oct. 19, 2011).

**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”),<sup>3</sup> based on the Bureau’s finding that PanAmSat had not satisfied applicable construction milestones.<sup>4</sup> 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.

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<sup>3</sup> 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).

<sup>4</sup> See *PanAmSat Licensee Corp.*, Memorandum Opinion and Order, 15 FCC Rcd 18720 (IB 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:

Franz Russ, Deputy Chairman  
Michelle Bryan, Secretary  
Mirjana Hervy, Director, Finance

Board of Managers:

Franz Russ  
Michelle Bryan

The business 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 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 Investments S.A., a Luxembourg company. Intelsat Investments S.A. is wholly owned by Intelsat Holdings S.A., a Luxembourg company. Intelsat Holdings S.A. is wholly owned by Intelsat Investment Holdings S.à r.l., a Luxembourg company. Intelsat Investment Holdings S.à r.l. is wholly owned by Intelsat S.A., a Luxembourg company. Each of these entities may be contacted at the following address: 4 rue Albert Borschette, L-1246 Luxembourg.

Intelsat S.A.'s ownership was approved by the Commission as part of the *Intelsat-Serafina Order* and the recent Intelsat Pro Forma 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*"); *Intelsat Application for Pro Forma Transfer of Control*, File Nos. SAT-T/C-20110810-00160, SAT-T/C-20110811-00161, SES-T/C-20110811-00948, SES-T/C-20110812-00963 (granted Oct. 13, 2011), and 0004825139 (granted Oct. 19, 2011) ("*Intelsat Pro Forma*"). On May 16, 2012, the International Bureau granted an application to transfer control of Intelsat pursuant to a public offering of newly issued voting shares by Intelsat, subsequent voting share sales by current shareholders and possible private placements of newly issued voting shares. *In the Matter of Intelsat Global Holdings, S.A., Applications to Transfer Control of Intelsat Licenses and Authorizations from BC Partners Holdings Limited to Public Ownership*, Order, DA 12-768 (rel. May 16, 2012). This change of control has not yet been fully consummated.