

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

In the Matter of

Intelsat License LLC

Application for Authority to Launch and  
Operate Intelsat 32e, a Replacement  
Satellite, at 43.1° W.L.

File No. SAT-RPL- \_\_\_\_\_

**APPLICATION FOR AUTHORITY TO LAUNCH AND OPERATE  
INTELSAT 32E, A REPLACEMENT SATELLITE, AT 43.1° W.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 Ku-band satellite, to be known as Intelsat 32e, at the 43.1° W.L. orbital location.<sup>2</sup> Intelsat 32e is a replacement satellite scheduled for launch in the first quarter of 2016. Intelsat 32e will operate using frequencies already licensed to Intelsat on the Intelsat 9 satellite (call sign S2380)<sup>3</sup> and the Intelsat 11 satellite (call sign S2237).<sup>4</sup> Intelsat 32e will operate on a

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<sup>1</sup> 47 C.F.R. § 25.114.

<sup>2</sup> Intelsat 32e also will contain a Ka-band hosted payload that is not owned by Intelsat. That Ka-band payload will be operated by Al Yah Satellite Communications Company PrJSC pursuant to a license from the Administration of the United Arab Emirates. Accordingly, Intelsat is not herein seeking authority to operate the Ka-band payload on Intelsat 32e.

<sup>3</sup> See *Policy Branch Information; Actions Taken*, Report No. SAT-00991, File Nos. SAT-STA-2013121900146 and SAT-STA-20131023-00125 (Jan. 10, 2014) (Public Notice); *Policy Branch Information; Satellite Space Applications Accepted for Filing*, Report No. SAT-00990, File No. SAT-STA-20130424-00061 (Jan. 10, 2014) (Public Notice); *Policy Branch Information; Actions Taken*, Report No. SAT-00909, File No. SAT-STA-20120621-00103 (Nov. 2, 2012) (Public Notice). Intelsat began operating Intelsat 9 in inclined orbit in late 2012. See Letter from Susan H. Crandall, Intelsat, to Marlene H. Dortch, FCC (Nov. 7, 2012) (notifying the FCC of the commencement of inclined orbit operations). Intelsat anticipates that the Intelsat 9 satellite will be deorbited or redeployed to a new location following the launch and operation of Intelsat 32e.

<sup>4</sup> Intelsat 11 is currently operating at 43.0° W.L. See *Policy Branch Information; Actions Taken*, Report No. SAT-00617, File No. SAT-MOD-20090108-00004 (July 10, 2009) (Public

non-common carrier basis.<sup>5</sup>

As demonstrated below, Intelsat is legally and technically qualified to launch and operate its proposed replacement satellite. Moreover, grant of this application will serve the public interest by providing replacement capacity to a large Intelsat customer for services to North and South America. In accordance with the Commission's requirements,<sup>6</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 replacement 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>7</sup>

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Notice). Intelsat 11 and Intelsat 32e will be co-located at the nominal 43.0° W.L. orbital location.

<sup>5</sup> Section 310(b) is not applicable to this license because Intelsat 32e, 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).

<sup>6</sup> 47 C.F.R. § 25.114(c).

<sup>7</sup> *See Constellation, LLC, Carlyle PanAmSat I, LLC, Carlyle PanAmSat II, LLC, PEP PAS, LLC, and PEOP 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.").

## **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>8</sup>

## **C. Waiver Requests**

### **1. Request for Waiver of Footnote NG52 of the U.S. Table of Allocations**

Intelsat requests waiver of Footnote NG52 of the U.S. Table of Allocations, which restricts the use of the 11450-11700 MHz and 12750 – 13250 MHz bands by the non-federal fixed satellite service in the geostationary orbit to international systems only.<sup>9</sup> A number of Intelsat 32e's beams that utilize the 11450-11700 MHz and 12750 – 13250 MHz bands provide coverage to the United States and its territories.

Under Section 1.3 of the Commission's rules, the Commission has authority to waive its rules "for good cause shown."<sup>10</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 the general rule.<sup>11</sup> In determining whether waiver is appropriate, the Commission should "take into account considerations of hardship, equity, or more effective implementation of overall

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<sup>8</sup> *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11,567 (2004).

<sup>9</sup> See 47 C.F.R. §§ 25.202(a)(1), fn. 2 and 2.106, fn. NG52. Footnote NG52 was formerly footnote NG104.

<sup>10</sup> 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

<sup>11</sup> *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

policy.”<sup>12</sup>

Good cause exists to waive the international only requirements for the 11450-11700 MHz and 12750 – 13250 MHz frequency bands on Intelsat 32e. The purpose of NG52 is to limit the number of the fixed satellite service earth stations with which the co-primary fixed service would need to coordinate.<sup>13</sup> A waiver of the Table of Allocations is generally granted “when there is little potential interference into any service authorized under the Table of Frequency allocations and when the nonconforming operator accepts any interference from authorized services.”<sup>14</sup> The International Bureau has found that waiving NG52 would not undermine the purpose of the rules if the party seeking a waiver: (1) will be utilizing earth stations that are receive-only in these bands and thus “not capable of causing interference into FS stations” operating in the bands; and (2) agrees to “accept any level of interference from FS stations” in these bands.<sup>15</sup>

With respect to the 11450-11700 MHz band, grant of the requested waiver satisfies these criteria and would be consistent with precedent. The earth stations operating in the 11450-11700 MHz band on Intelsat 32e will not transmit in these bands and Intelsat agrees to accept any level

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<sup>12</sup> *WAIT Radio*, 418 F.2d at 1159.

<sup>13</sup> *See Satellite Services*, 26 RR 2d 1257, 1263-65. *See also 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*, Order and Authorization, DA 04-3162, 9 (Int’l Bur., Sept. 30, 2004) (“EchoStar 83° Waiver”).

<sup>14</sup> *See The Boeing Company*, Order and Authorization, 16 FCC Rcd 22645, 22651 (Int’l Bur. & OET 2001); *Application of Fugro-Chance, Inc. for Blanket Authority to Construct and Operate a Private Network of Receive-Only Mobile Earth Stations*, Order and Authorization, 10 FCC Rcd 2860 (Int’l Bur. 1995) (authorizing MSS in the C-band); *see also Application of Motorola Satellite Communications, Inc. for Modification of License*, Order and Authorization, 11 FCC Rcd 13952-13956 (Int’l Bur. 1996) (authorizing service to fixed terminals in bands allocated the mobile satellite service).

<sup>15</sup> *EchoStar 83° Waiver*, ¶ 13.

of interference into those earth stations from fixed service stations in the band. Intelsat will provide services in the 11450-11700 MHz frequency band only on a non-interference/non-protected basis. Accordingly, the earth stations operating in these bands pose no interference concerns with respect to co-frequency fixed service stations and therefore will not need to be coordinated with fixed service stations located within United States and its territories.

In the 12750 – 13250 MHz band, only a limited number of gateway earth stations will be operating within United States and its territories. Intelsat will coordinate the operation of these Earth stations with other authorized systems. If mutually agreeable coordination conditions cannot be achieved, Intelsat will operate these Earth stations on a non-interference and non-protected basis with respect to any other FCC authorized station. Moreover, in the 12750 – 13250 MHz frequency band, Intelsat will operate Intelsat 32e in accordance with the provisions of Appendix 30B of the ITU Radio Regulations pertaining to FSS Plan frequencies. Consequently, any space stations receiving in this frequency band would be protected from interference.

Intelsat also agrees to abide by the customer notification requirements that the International Bureau has previously imposed when granting waivers of NG52.<sup>16</sup> Intelsat will inform its customers in writing, including any customers receiving end-user services from resellers accessing capacity on Intelsat 32e, of the potential for interference from fixed service operations in the 11450-11700 MHz band. Additionally, should coordination not be achieved with other authorized systems, Intelsat also will notify its customers that operation in the 12750 – 13250 MHz band within the United States and its territories is on a non-interference and non-

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<sup>16</sup> See, e.g., *Intelsat North America Request for Waiver*, File No. SAT-MOD-20050610-00122, 3 (stamp grant with conditions Sept. 30, 2005); *EchoStar 83° Waiver*, ¶ 13.

protected basis.

## **2. Request for Interim Waiver of Certain Information Requirements**

The FCC in its Public Notice DA 14-90 set forth an interim waiver policy with regard to a number of satellite application information requirements.<sup>17</sup> The information contained in Intelsat 32e's Schedule S and Engineering Statement is consistent with the policy set forth in DA 14-90. Accordingly, Intelsat requests grant of a waiver of the information requirements covered by the policy set forth in DA 14-90. Notably, Intelsat seeks a waiver of Section 25.114(c)(4)(vi), which requires applicants to specify the gain of each transponder channel including any adjustable gain step capabilities. As required by Footnote 6 of the Public Notice DA 14-90, Intelsat has entered a value of "1" in columns q and r of Table S7 and column b of Table S10 of the Schedule S. In accordance with the instructions provided in Footnote 6, and in reliance thereon, Intelsat states that such entries in these data fields are outside the scope of Intelsat's certification concerning the accuracy of information provided in the Intelsat 32e application.

### **D. Operational Frequencies**

The following chart shows the frequencies that will be used by Intelsat 32e at 43.1° W.L., as well as the frequencies that are currently used by the Intelsat 9 and Intelsat 11 satellites at that location.

<b>Frequency Band (MHz)</b>	<b>Intelsat 32e</b>	<b>Intelsat 9</b>	<b>Intelsat 11</b>
5925 – 6425		√	√
12750 – 13250	√		√
13750 – 14000	√		√
14000 – 14500	√	√	
3700 – 4200		√	√
10700 – 10950	√		√

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<sup>17</sup> Public Notice, International Bureau Adopts Policy of Granting Interim Waiver of Certain Requirements for Space Station Applications, Report No. SPB-255, DA 14-90 (Jan. 28, 2014).

10950 – 11200	√		√
11200 – 11450	√		√
11450 – 11700	√	√	
11700 – 12200	√	√	

All of the existing frequencies on Intelsat 9 and Intelsat 11 except for the 5925-6425 MHz and 3700-4200 MHz band are also on Intelsat 32e. Intelsat 32e will operate on the same Appendix 30B FSS Planned Band frequencies that are already in use on Intelsat 11 (*i.e.*, 12750-13250 MHz, 10700-10950 MHz, and 11200-11450 MHz) at this orbital location pursuant to USASAT-55E. Intelsat 32e also contains the Ka-band frequencies 28650-30000 MHz and 18850-20200 MHz which, as previously noted, will not be owned by Intelsat and for which Intelsat is not seeking a license to operate.

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

Grant of this application will serve the public interest by ensuring that follow-on capacity is available to serve the North and South American region from the nominal 43.0° W.L. orbital location. The Intelsat 32e capacity will allow an Intelsat customer to ensure continuity of service and greatly expand its service offering in the region, for the benefit of consumers. In addition, the excess capacity will ensure that this customer has back-up capacity available in the event it is needed.

## **III. ITU COST RECOVERY**

Intelsat is aware that processing fees are currently charged by the ITU for satellite filings, and that Commission applicants are responsible for any and all fees charged by the ITU.<sup>18</sup> Intelsat is aware of and unconditionally accepts this requirement and responsibility to pay any

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<sup>18</sup> See *Implementation of ITU Cost Recovery Charges for Satellite Network Filings*, Public Notice, DA 01-2435 (Oct. 19, 2001).

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.

**IV. 10950-11200 MHZ, 11450-11700 MHZ, AND 13750-14000 MHZ FREQUENCY BANDS**

Intelsat understands that operations in the 10950-11200 MHz, 11450-11700 MHz, and 13750-14000 MHz frequency bands are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, for operations in the 10950-11200 MHz frequency band, Intelsat accepts the following conditions:

- Operations in the 10.95-11.2 GHz frequency band 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 10.95-11.2 GHz frequency band is limited to international operations in accordance with footnote NG 52 to the United States Table of Frequency Allocations, 47 C.F.R. 2.106, NG 52.

In the 11450-11700 MHz frequency band, Intelsat accepts the following conditions:

- Intelsat's use of the 11450-11700 MHz band (Space-to-Earth) is subject to 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, consistent with footnote US74.

In the 13750-14000 MHz frequency band, Intelsat accepts the following conditions:

- In the 13750-14000 MHz band (Earth-to-space), receiving space stations in the fixed- satellite service shall not claim protection from radiolocation transmitting stations operating in accordance with the United States Table of Frequency Allocations.
- Pursuant to footnote US337 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, any earth station in the United States and its possessions communicating with the Intelsat 32e space station in the 13750-14000 MHz band (Earth-to-space) is required to coordinate through National Telecommunications



and Information Administration's ("NTIA") Interdepartment Radio Advisory Committee's (IRAC's) Frequency Assignment Subcommittee ("FAS") to minimize interference to the National Aeronautics and Space Administration Tracking and Data Relay Satellite System, including manned space flight.

- Operations of any earth station in the United States and its possessions communicating with the Intelsat 32e space station in the 13750-14000 MHz band (Earth-to-space) shall comply with footnote US356 to United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US356 which specifies a mandatory minimum antenna diameter of 4.5 meters and non-mandatory minimum and maximum equivalent isotropically radiated powers (e.i.r.p.). Operations of any earth station located outside the United States and its possessions communicating with the Intelsat 32e space station in the 13750-14000 MHz band (Earth-to-space) shall be consistent with footnote 5.502 to the ITU Radio Regulations, which allows a minimum antenna diameter of 1.2 meters for earth stations of a geostationary satellite orbit network and specifies mandatory power limits.
- Operators of earth stations accessing the Intelsat 32e space station in the 13750-14000 MHz band are encouraged to cooperate voluntarily with the National Aeronautics and Space Administration (NASA) in order to facilitate continued operation of NASA's Tropical Rainfall Measuring Mission (TRMM) satellite.<sup>19</sup>

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<sup>19</sup> NASA's TRMM satellite system radar in the 13.793-13.805 GHz band remains operational and is a highly valuable and visible United States asset with a broad range of international users. Accordingly, NTIA has requested cooperation from the Commission and non-Federal Government entities in providing assistance in reducing interference with the TRMM radar. Specifically, NTIA requests that FSS earth stations in the 13.793 - 13.805 GHz band located south of 39° N. and east of 110° W. operate with emission levels below —150 dBW/600 kHz at the TRMM space station receiver. Letter from Frederick R. Wentland, Acting Associate Administrator, Office of Spectrum Management, NTIA, to Don Abelson, Chief, International Bureau, FCC (February 28, 2002). Considering the secondary nature of the TRMM operation, NTIA's request is not a condition of this authorization. The Commission, however, urges all operators of earth stations accessing the Intelsat 20 space station in the 13.75 - 14.0 GHz band to cooperate voluntarily with NASA in order to facilitate continued operation of the TRMM satellite.

**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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February 21, 2014

## 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:

Michael McDonnell, Chairman  
Flavien Bachabi, Deputy Chairman  
Michelle Bryan, Secretary  
Simon Van De Weg, Director, Finance

Board of Managers:

Michael McDonnell  
Flavien Bachabi  
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 consummated.