

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

In the Matter of

Intelsat License LLC

Application for Authority to Launch and Operate Galaxy 15R, a Replacement Satellite With New Frequencies, at 133.0° W.L. (227.0° E.L.)

File No. SAT-LOA-20170524-00078

**AMENDMENT TO APPLICATION FOR AUTHORITY TO LAUNCH AND OPERATE GALAXY 15R, A REPLACEMENT SATELLITE WITH NEW FREQUENCIES, AT 133.0° W.L.**

Intelsat License LLC (“Intelsat”), pursuant to Section 25.116 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,<sup>1</sup> hereby amends its pending application to launch and operate a C-band replacement satellite with new Ku-band frequencies, to be known as Galaxy 15R (Call Sign S3015), at the 133.0° W.L. orbital location (“Application”) to add Ka-band frequencies.<sup>2</sup> Specifically, Intelsat is amending the Application to add the following Ka-band frequencies: 17800-19300 MHz, 19700-20200 MHz, 27500-29100 MHz, and 29250-30000 MHz. For the Commission’s convenience, Intelsat supplies herewith an updated version of the Legal Narrative, Engineering Statement, and Schedule S.

As demonstrated below, Intelsat is legally and technically qualified to launch and operate its proposed replacement satellite with new frequencies. Moreover, grant of this application will

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<sup>1</sup> 47 C.F.R. § 25.116.

<sup>2</sup> See *Intelsat License LLC, Application for Authority to Launch and Operate Galaxy 15R, a Replacement Satellite with New Frequencies*, at 133.0° W.L Call Sign S3105, File No. SAT-LOA-20170524-00078 (filed May 24, 2017).

serve the public interest by ensuring continuity of service to customers in C-band at the 133.0° W.L. orbital location and by adding new Ku- and Ka-band capacity at the location. In accordance with the Commission's requirements,<sup>3</sup> this application has been filed electronically as an attachment to FCC Form 312 and Schedule S.

**I. 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 multiple Commission satellite licenses, and its legal qualifications are a matter of record before the Commission.<sup>4</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.<sup>5</sup> In

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<sup>3</sup> 47 C.F.R. § 25.116(e).

<sup>4</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, 21 FCC Rcd 7368, 7381 ¶ 23 (2006) (“The Commission previously has determined that PanAmSat and Intelsat are qualified to hold licenses.”).

<sup>5</sup> 47 C.F.R. § 25.114(c).

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

**C. Operational Frequencies**

The following chart shows the frequencies that will be used by the Galaxy 15R satellite at 133.0° W.L. and the frequencies that are currently used by the Galaxy 15 satellite at that location.<sup>7</sup>

	Galaxy 15	Galaxy 15R
3700-4200 MHz	✓	✓
5925-6425 MHz	✓	✓
10950-11200 MHz		✓
11450-11700 MHz		✓
11700-12200 MHz		✓
13750-14500 MHz		✓
17800-19300 MHz		✓
19700-20200 MHz		✓
27500-29100 MHz		✓
29250-30000 MHz		✓

All of the existing frequencies licensed on Galaxy 15 are also on Galaxy 15R. In addition, Galaxy 15R supports additional frequencies in the 10950-11200 MHz, 11450-11700 MHz, 11700-12200 MHz, 13750-14500 MHz, 17800-19300 MHz, 19700-20200 MHz, 27500-29100 MHz, and 29250-30000 MHz bands that are not on the Galaxy 15 satellite.<sup>8</sup>

<sup>6</sup> 47 C.F.R. § 25.114(d)(14). *See also Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004).

<sup>7</sup> *See Policy Branch Information; Actions Taken, Public Notice*, Report No. SAT-00233, SAT-LOA-19991207-00119 (Aug. 13, 2004) (“Galaxy 15 Authorization”). The licenses originally held by PanAmSat Licensee Corp. were assigned in 2005 to Intelsat North America, which later changed its name to Intelsat License LLC.

<sup>8</sup> These Ku- and Ka-band frequencies are not currently licensed to or approved for market access by any other operator. *See* FCC, Approved Space Station List, <https://www.fcc.gov/approved-space-station-list> (last revised May 19, 2017). The Commission has released a Public Notice indicating that ViaSat has surrendered the Ka-band frequencies and informing parties that they may file for space station authorizations for those frequencies. *Policy*

#### **D. Waiver Requests**

Intelsat requests waiver of the following portions of the Table of Allocations: (1) Section 2.106, Footnote NG52, which restricts the use of the 10950-11200 MHz and 11450-11700 MHz bands by the non-federal Fixed Satellite Service (“FSS”) in the geostationary orbit to international systems only;<sup>9</sup> (2) Section 2.106, which allocates the 17800-18300 MHz to the Fixed Service (“FS”);<sup>10</sup> and (3) Section 2.106, Footnote NG165,<sup>11</sup> which designates the use of the 18800-19300 MHz band to non-geostationary satellite (“NGSO”) FSS operations.

Under Section 1.3 of the Commission’s rules, the Commission has authority to waive its rules “for good cause shown.”<sup>12</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>13</sup> In determining whether waiver is appropriate, the Commission should “take into account considerations of hardship, equity, or more effective implementation of overall policy.”<sup>14</sup> Additionally, 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>15</sup>

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*Branch Information; Actions Taken, Public Notice*, Report No. SAT-01244, SAT-LOI-20160208-0016 (June 9, 2017).

<sup>9</sup> 47 C.F.R. § 2.106, fn. NG52. Footnote NG52 was formerly footnote NG104.

<sup>10</sup> 47 C.F.R. § 2.106.

<sup>11</sup> 47 C.F.R. § 2.106, fn. NG165.

<sup>12</sup> 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

<sup>13</sup> *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>14</sup> *WAIT Radio*, 418 F.2d at 1159.

<sup>15</sup> *See The Boeing Company*, Order and Authorization, 16 FCC Rcd 22645, 22651 (Int’l Bur. & OET 2001) (*citing Application of Fugro-Chance, Inc. for Blanket Authority to Construct and*

## 1. Request for Waiver of Section 2.106, Footnote NG52

Good cause exists to waive the international only requirements for the 10950-11200 MHz and 11450-11700 MHz frequency bands on Galaxy 15R. The purpose of NG52 is to limit the number of the fixed satellite service earth stations with which the co-primary FS would need to coordinate.<sup>16</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>17</sup>

With respect to the 10950-11200 MHz and 11450-11700 MHz bands, grant of the requested waiver satisfies these criteria and would be consistent with precedent.<sup>18</sup> The earth stations operating in both these bands with Galaxy 15R will not transmit and Intelsat agrees to accept any level of interference into those earth stations from FS stations in the band. Intelsat will provide services in the 10950-11200 MHz and 11450-11700 MHz frequency bands only on a non-interference/non-protected basis. Accordingly, the earth stations operating in these bands pose no

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*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>16</sup> See *Amendment of Part 2 of the Commission’s Rules to Conform, to the Extent Practicable, with the Geneva Radio Regulations, as Revised by the Space WARC, Geneva, 1971*, Report & Order, 26 RR 2d 1257, 1263-65 (1973). 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, 20 FCC Rcd 919, ¶ 9 (Int’l Bur. 2004) (“EchoStar 83° Waiver”).

<sup>17</sup> EchoStar 83° Waiver, ¶ 13.

<sup>18</sup> See, e.g., *DIRECTV Enterprises, LLC, Fleet Management Notice for SKY-B1 Satellite*, File No. SAT-MOD-20170221-00019 at condition no. 10 (stamp grant reissued May 11, 2017).

interference concerns with respect to co-frequency FS stations and therefore will not need to be coordinated with FS stations located within United States and its territories.

Intelsat also agrees to abide by the customer notification requirements that the International Bureau has previously imposed when granting waivers of NG52.<sup>19</sup> Intelsat will inform its customers in writing, including any customers receiving end-user services from resellers accessing capacity on Galaxy 15R, of the potential for interference from FS operations in the 10950-11200 MHz and 11450-11700 MHz bands.

## **2. Request for Waiver of Section 2.106**

Good cause also exists to waive the 17800-18300 MHz allocation<sup>20</sup> to permit downlink operation on Galaxy 15R on a non-interference/non-protected basis. In the instant case Intelsat will be utilizing earth stations that are receive-only in these bands and thus will not cause interference into the FS. Intelsat will also comply with the PFD limits on emissions from space stations proposed in the NGSO NPRM, which have already been applied in portions of the band through waivers.<sup>21</sup> Additionally, Intelsat will accept interference from FS operations. Moreover, grant would also be consistent with precedent.<sup>22</sup> For these reasons, grant of the requested waiver would serve the public interest.

## **3. Request for Waiver of Section 2.106, Footnote NG165**

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<sup>19</sup> See, e.g., *Intelsat North America Request for Waiver*, File No. SAT-MOD-20050610-00122, at condition no. 3 (stamp grant issued Sept. 30, 2005); *EchoStar 83° Waiver*, ¶ 13.

<sup>20</sup> The 17800-18300 MHz frequency band is currently subject to a Commission proceeding wherein the Commission has proposed adding an allocation for FSS downlink on a secondary basis. *In the Matter of Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Notice of Proposed Rulemaking, 31 FCC Rcd 13651, ¶ 9 (2016) (“NGSO NPRM”).

<sup>21</sup> *Id.* ¶ 15.

<sup>22</sup> *Id.* at ¶ 6 (noting that the International Bureau has already issued waivers to permit both GSO FSS and NGSO FSS operations in this band on a non-interference basis).

Similarly, good cause exists to waive the allocation in the 18800-19300 MHz frequency band<sup>23</sup> to permit downlink operation on Galaxy 15R on a non-interference/non-protected basis. As the Commission has recognized, the proposed GSO operations in 18800-19300 MHz on an unprotected/non-interference basis will allow both GSO FSS and NGSO FSS to co-exist in this band.<sup>24</sup> Intelsat will accept interference from, and not cause interference to, NGSO FSS operators. Moreover, such grant would be consistent with precedent.<sup>25</sup> For these reasons, grant of the requested waiver would serve the public interest.

#### **E. Milestone and Bond Requirements**

Galaxy 15R 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 the 10950-11200 MHz, 11450-11700 MHz, 11700-12200 MHz, 13750-14500 MHz, 17800-19300 MHz, 19700-20200 MHz, 27500-29100 MHz, and 29250-30000 MHz frequencies are included on Galaxy 15R but are not on the Galaxy 15 satellite it is replacing.<sup>26</sup>

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

Grant of this application is consistent with the Commission's policy regarding satellite replacements. Section 25.165(e) of the Commission's rules defines a "replacement space station" as one that is (1) "authorized to operate at an orbital location which is  $\pm 0.15^\circ$  of the assigned

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<sup>23</sup> The 18800-19300 MHz frequency band is currently subject to a Commission proceeding wherein the Commission has proposed adding an allocation for FSS downlink on a secondary basis. NGSO NPRM at ¶ 11.

<sup>24</sup> *Id.*

<sup>25</sup> See *Hughes Network Systems, LLC, August 2011 Ka-Band GSO FSS LOI for Jupiter 97W – 97.1 W.L. (HNSLS)*, File No. SAT-LOI-20110809-00148 at condition no. 4 (stamp grant issued July 27, 2012); *Hughes Network Systems, LLC, Application for Authority to Operate Jupiter 2/EchoStar XIX at 97.1*, File No. SAT-LOA-20160624-00061 at condition nos. 5 and 6 (stamp grant issued Sep. 15, 2016).

<sup>26</sup> 47 C.F.R. §§ 25.164 and 25.165.

location of a GSO space station to be replaced”; (2) is “authorized to operate in the same frequency bands, and with the same coverage area as the space station to be replaced”; and (3) “is scheduled to be launched so that it will be brought into use at approximately the same time as, but no later than, the existing space station is retired.”<sup>27</sup> In this case, Intelsat holds a replacement expectancy for the C-band frequencies at the 133.0° W.L. orbital location because the Commission authorized Intelsat to operate Galaxy 15 at that location.<sup>28</sup> Galaxy 15R will operate on the same C-band frequencies and at the same orbital location as the satellite being replaced, and will be brought into use prior to retirement of the existing satellite.

Further, the Commission recognizes 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 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>29</sup>

Grant of this application is therefore merited, consistent with the Commission’s long standing policy. In addition, grant of this application will serve the public interest by ensuring continuity of service to consumers from the 133.0° W.L. orbital location. Intelsat stands ready to deploy a replacement satellite to the 133.0° W.L. orbital location before Galaxy 15 reaches the end

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<sup>27</sup> *Id.* § 25.165(e).

<sup>28</sup> *See* Galaxy 15 Authorization, *supra* n.7.

<sup>29</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 (Int’l Bur. 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)).



of its useful life or is relocated. The Commission has stated that granting replacement applications ensures that service will be provided to consumers as efficiently as possible because the current licensee will be familiar with the service requirements and, given its experience, should be able to deploy a replacement satellite in the shortest possible time.<sup>30</sup>

Finally, the Galaxy 15R satellite will allow Intelsat to expand its service offering in the region, for the benefit of consumers, by adding new Ku- and Ka-band capacity at the location. This expansion of capacity will serve the public interest.

#### **IV. 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 responsible for any and all fees charged by the ITU.<sup>31</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.

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<sup>30</sup> See *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, 18 FCC Rcd 11030, ¶ 83 (2003) (“Repairing or even replacing a malfunctioning satellite, for all its complexity, requires less time than designing and constructing a new system. Even in the worst case where a satellite is destroyed, a licensee can ordinarily replace a lost satellite with a ground spare at the next available launch window, or procure a technically identical satellite in an expedient manner since it would have already completed the complex design process.”).

<sup>31</sup> See *Implementation of ITU Cost Recovery Charges for Satellite Network Filings*, Public Notice, 16 FCC Rcd. 18732 (2001).

V. **USE OF THE 10950-11200 MHz, 11450-11700 MHz, 13750-14000 MHz, 18300-18800 MHz, 19700-20200 MHz, AND 27500-28600 MHz FREQUENCY BANDS**

Intelsat understands that operations in the 10950-11200 MHz, 11450-11700 MHz, 13750-14000 MHz, 18300-18800 MHz, 19700-20200 MHz, and 27500-28600 MHz frequency bands are subject to certain limitations and obligations, which Intelsat accepts and will fulfill.<sup>32</sup> Specifically, for operations in the 10950-11200 MHz frequency band, Intelsat accepts the following condition:

- Operations in the 10950-11200 MHz 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.

For operations in the 11450-11700 MHz frequency band, Intelsat accepts the following condition:

- 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.

For operations in the 13750-14000 MHz 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 Galaxy 15R space station in the 13750-13800 MHz band (Earth-to-space) is required to coordinate through National Telecommunications and Information Administration's ("NTIA") Interdepartment Radio Advisory Committee's ("IRAC") 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 Galaxy 15R space station in the 13750-14000 MHz band

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<sup>32</sup> Intelsat is also aware that frequencies in the 27.5-28.35 GHz and 28.6-29.1 GHz band are secondary for GSO FSS. See 47 C.F.R. § 25.202(a)(1), fn. 3, 7.

(Earth-to-space) shall comply with footnote US356 of 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 a 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 Galaxy 15R 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 Galaxy 15R 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.

For operations in the 18300-19300 MHz and 19700-20200 MHz bands, Intelsat accepts the following conditions:

- Operators must coordinate their space-to-Earth operations in the 18300-19300 MHz and 19700-20200 MHz frequency bands with the U.S. Federal systems, including Federal operations to earth stations in foreign countries, in accordance with footnote US334 to the United States Table of Frequency Allocations, 47 CFR § 2.106.
- The power flux-density (pfd) at the Earth’s surface produced by the emissions from the Galaxy 15R space station for all atmospheric conditions, and for all methods of modulation in the 18300-19300 MHz and 19700-20200 MHz frequency bands (space-to-Earth), must not exceed a level of -118 dBW/m<sup>2</sup>/MHz at any angle of arrival.

For operations in the 27500-28600 MHz band, Intelsat accepts the following conditions:

- Communications between U.S.-licensed earth stations and Galaxy 15R in the 28100-28350 MHz (Earth-to-space) frequency band are on a secondary basis with respect to LMDS until the provisions adopted in FCC 16-89 go into force. After that, communications between U.S.-licensed earth stations and Galaxy 15R in this band are secondary with respect to Upper Microwave Flexible Use Service (UMFUS) operations, except for FSS operations associated with earth stations authorized pursuant to 47 CFR § 25.136.

**VI. CONCLUSION**

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

Respectfully submitted,

*/s/ Susan H. Crandall*

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June 13, 2017

**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 22151 (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>1</sup> based on the Bureau’s finding that PanAmSat had not satisfied applicable construction milestones.<sup>2</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>1</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>2</sup> 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:

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

Board of Managers:

Jacques Kerrest  
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 22151 (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, 27 FCC Rcd 5226 (Int'l Bur. 2012). This change of control has not yet been fully consummated.