

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

In the Matter of  
Intelsat License LLC  
Application to Modify Authorization for  
Intelsat 1R (S2368)

File No. SAT-MOD- \_\_\_\_\_

**APPLICATION OF INTELSAT LICENSE LLC**  
**TO MODIFY AUTHORIZATION FOR INTELSAT 1R**

Intelsat License LLC (“Intelsat”), pursuant to Section 25.117 of the rules of the Federal Communications Commission (“Commission” or “FCC”),<sup>1</sup> hereby seeks to modify the authorization for the Intelsat 1R (Call Sign S2368) satellite. Specifically, this modification seeks authority to relocate Intelsat 1R to, and to operate the satellite at, 50.1° W.L. At this location, which is 0.1° from its current licensed location of 50.0° W.L., Intelsat 1R will continue to provide services in the C- and Ku-bands. Intelsat specifically requests authority to continue operating the communications payload on the satellite while drifting Intelsat 1R to 50.1° W.L. In addition, Intelsat seeks to extend the license term for Intelsat 1R, and extend the previously granted waivers, for seven-plus years through August 31, 2023.<sup>2</sup>

In accordance with the requirements of the Commission’s rules,<sup>3</sup> this application has been filed electronically as an attachment to FCC Form 312. Intelsat provides the technical

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<sup>1</sup> 47 C.F.R. § 25.117.

<sup>2</sup> The current projected end of service life for Intelsat 1R, assuming no inclined orbit operation, is August 31, 2018. Intelsat is seeking authority for approximately five years beyond the current projected end of Intelsat 1R’s service life to accommodate possible inclined orbit operation.

<sup>3</sup> 47 C.F.R. § 25.117(c).

information relating to the proposed modification on Schedule S and in narrative form in the attached Engineering Statement.<sup>4</sup>

**I. PROPOSED MODIFICATIONS**

**A. Relocation to 50.1° W.L.**

Intelsat requests authority to relocate Intelsat 1R to, and operate the satellite at, 50.1° W.L. Intelsat 1R currently is authorized to operate at 50.0° W.L.<sup>5</sup> Intelsat 29e (Call Sign S2913), which launched on January 27, 2016, is expected to arrive at 50.0° W.L. at the end of February 2016. Following transfer of some traffic to Intelsat 29e and receipt of FCC approval, Intelsat 1R will be relocated to the 50.1° W.L. orbital location and will continue to operate its communications payload during the drift. Intelsat expects to begin drifting Intelsat 1R in the June/July 2016 timeframe and have the satellite on-station at 50.1° W.L. a few days later. Currently, Intelsat 1R and Intelsat 29e are expected to remain collocated at the nominal 50.0° E.L. orbital location.

For the Commission's convenience, the following chart reflects the frequencies that will be used by Intelsat 1R at 50.1° W.L. and by Intelsat 29e at 50.0° W.L. upon receipt of Commission approvals and completion of drifts.

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<sup>4</sup> 47 C.F.R. § 25.114.

<sup>5</sup> See *Policy Branch Information; Actions Taken*, Report No. SAT-00713, File No. SAT-MOD-20090720-00073 (Aug. 6, 2010) (Public Notice). PanAmSat Licensee Corp. subsequently assigned the Intelsat 1R license to Intelsat. See *Policy Branch Information; Actions Taken*, Report No. SAT-00746, File No. SAT-ASG-20101203-00252 (Dec. 29, 2010) (Public Notice). "Intelsat" is used herein to include actions taken by PanAmSat Licensee Corp. prior to the assignment.

Frequency Band (MHz)	Intelsat 29e (50° W.L.)	Intelsat 1R (50.1° W.L.)
5850 – 5925	√	
5925 – 6425	√	√
6425 – 6725	√	
12750 – 13250	√	
13750 – 14000	√	√
14000 – 14500	√	√
17300 – 17550	√	
29500 – 30000	√	
3700 – 4200	√	√
10700 – 10950	√	
10950 – 11200	√	√
11200 – 11450	√	
11450 – 11700	√	√
11700 – 11950	√	√
11950 – 12200	√	
12200 – 12500	√	
19700 – 20200	√	

The specific Intelsat 1R telemetry, tracking, and command (“TT&C”) frequencies are as follows:

Uplink:

13995 MHz (H and V)  
14498.5 MHz (LHCP)

Downlink:

11696 MHz (H, V and LHCP)  
11697 MHz (H, V and LHCP)

#### **B. Extension of License Term**

Intelsat seeks to extend the license term for the Intelsat 1R satellite for approximately seven-plus years through August 31, 2023. The Intelsat 1R satellite was launched on November 16, 2000 and placed into service on February 20, 2001.<sup>6</sup> The current license term for Intelsat 1R

<sup>6</sup> See *PanAmSat Licensee Corp.; Application for Authority to Launch and Operate a Hybrid Replacement Fixed Satellite Serv. Space Station*. Order and Authorization, 15 FCC Rcd 22, 156 (2000). See Letter from Joseph A. Godles, Attorney for PamAmSat Licensee Corp., to Magalie R. Salas, FCC, File No. SAT-LOA-19990126-00018 (filed Jun. 26, 2001).

will expire on June 24, 2016.<sup>7</sup> This expiration date is well before the expected end of service life of the satellite, which was most recently estimated to be in August 2018, assuming no inclined orbit operation; inclined orbit operation would extend Intelsat 1R's expected end of service life into 2023. In order to accommodate the possibility of inclined orbit operation, Intelsat is requesting that the license term be extended through August 31, 2023.

## **II. PUBLIC INTEREST SHOWING**

Grant of this modification application to relocate and extend the license term of Intelsat 1R will serve the public interest by enabling Intelsat to provide continuity of service to customers at the nominal 50.0° W.L. location. Although Intelsat 29e, upon its arrival at 50.0° W.L., will provide new capacity at that location, Intelsat 1R will continue to serve some customers from 50.1° W.L and can continue providing such service well beyond the current license term's June 24, 2016 expiration date.

Grant of the relocation request will not result in an increased risk of harmful interference. During the short drift from 50.0° W.L to 50.1° W.L., Intelsat will operate the above listed TT&C frequencies, as well as the communications frequencies, and will coordinate the Intelsat 1R transmissions internally with the operations of Intelsat 29e. There are no other operators of co-frequency satellites in the drift path. Customers on Intelsat 1R will not experience service degradation because they will be tracking the satellite during the drift.<sup>8</sup> Once on-station at 50.1° W.L., Intelsat will operate the Intelsat 1R satellite's communications payload and TT&C

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<sup>7</sup> See *PanAmSat Licensee Corp. Application to Modify License for Intelsat 1R*, File No. SAT-MOD-20090720-00073 (stamp grant issued by Steve Duall on Aug. 5, 2010) ("Intelsat 1R Stamp Grant").

<sup>8</sup> The Commission previously has authorized a .1° drift during which the satellite's communications payload remained operational. See *Policy Branch Information; Actions Taken*, Report No. SAT-00998, File No. SAT-STA-20140212-00022 (Feb. 21, 2014) (Public Notice).

frequencies in conformance with Intelsat's coordination agreements regarding the nominal 50.0° W.L. orbital location and the FCC's rules governing operations vis-à-vis adjacent locations.

Grant of the license term extension request will serve the public interest by enabling customers to continue receiving service from an operational satellite with years of useful life remaining. There are no single points of failure on Intelsat 1R that would result in an inability to de-orbit the satellite. Additionally, the satellite's TT&C functions are operating nominally. Extending the license term will promote the continued efficient use of orbital resources and is consistent with past decisions by the Commission to extend satellite license terms.<sup>9</sup>

### **III. WAIVERS**

Intelsat requests that two of the waivers previously granted to Intelsat 1R at 50.0° W.L. be extended to the satellite at 50.1° W.L. and to Intelsat 1R's requested extended license term.<sup>10</sup> Specifically, Intelsat requests that the previously-granted waiver of Section 2.106, footnote NG52, of the Commission's rules, which restricts the use of the 10950—11200 MHz and 11450—11700 MHz bands by the non-federal fixed satellite service in the geostationary orbit to

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<sup>9</sup> See, e.g., *Policy Branch Information; Actions Taken*, Report No. SAT-00905, DA 12-1680, File No. SAT-MOD-20120629-00109 (Oct. 19, 2012) (Public Notice) (extending license terms of an SES satellite for an additional five years); *Policy Branch Information; Actions Taken*, Report No. SAT-00664, DA 10-236, File No. SAT-MOD-20091119-00123 (Feb. 5, 2010) (Public Notice) (extending license term of Sirius XM satellites for an additional seven years).

<sup>10</sup> Due to the modification of several technical rules, waivers previously issued to Intelsat for operation of the Intelsat 1R satellite are no longer required. For example, Section 25.210(a)(3), 25.211(a), 25.202(g), and Section 25.114(d)(3) recently have been eliminated or modified, so waivers are no longer required under the new Part 25 rules. Intelsat understands that the FCC will apply the new rules and procedures to pending applications as soon as these rules become effective. See *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, IB Docket No. 12-267, FCC 15-167 at ¶ 363 (rel. Dec. 17, 2015).

international systems only,<sup>11</sup> and the waiver of Section 25.283(c) requiring venting of all excess propellant,<sup>12</sup> be extended for the reasons set forth in the previous grant.<sup>13</sup>

#### **IV. ORBITAL DEBRIS STATEMENT**

Intelsat has assessed and limited the probability of the Intelsat 1R space station becoming a source of debris as a result of collision with large debris or other operational space stations at 50.1° W.L. Intelsat 1R and Intelsat 29e will be operated in the same 50.0° W.L. station-keeping box until Intelsat 1R is relocated. Once relocated to 50.1° W.L., Intelsat 1R will not have an overlapping station-keeping volume with any other satellite. Further, Intelsat is not aware of any other FCC-licensed system, or any other system applied for and under consideration by the FCC, having an overlapping station-keeping volume with Intelsat 1R at 50.1° W.L. Finally, Intelsat is not aware of any system with an overlapping station-keeping volume with Intelsat 1R at 50.1° W.L. that is the subject of an ITU filing and that is either in orbit or progressing toward launch.

Intelsat has reserved 30.035 kilograms of xenon<sup>14</sup> and expects to obtain a de-orbit altitude for the Intelsat 1R satellite of 300 kilometers above the geostationary arc.<sup>15</sup> Intelsat employs

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<sup>11</sup> Intelsat previously received a waiver of Section 2.106, footnote NG104. *See* Intelsat 1R Stamp Grant at ¶ 10, *supra* note 7. Footnote NG104 has been converted to footnote NG52 in the FCC's Table of Frequency Allocations. *See Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands*, Notice of Proposed Rulemaking and Report and Order, 27 FCC Rcd 16510, 16520-21 (¶ 21) (2012).

<sup>12</sup> 47 C.F.R. § 25.283(c).

<sup>13</sup> *See supra* n. 7.

<sup>14</sup> In 2009, Intelsat reported that it would reserve 4.3 kilograms of fuel for de-orbit. *See supra* note 7. This information was imprecise; the Intelsat 1R satellite will use xenon for purposes of de-orbiting the satellite. Moreover, based on the satellite manufacturer's corrected bookkeeping model for Intelsat 1R, Intelsat is now reserving 30.035 kilograms of xenon for de-orbit.

standard industry methods, in cooperation with the satellite manufacturer, to account for and calculate remaining xenon. Although unlikely, it is possible that despite Intelsat's best efforts the Intelsat 1R spacecraft will not meet the planned 300 kilometer de-orbit altitude. However, the FCC declared that satellites launched prior to March 18, 2002, such as Intelsat 1R, would be designated as grandfathered satellites not subject to a specific disposal altitude.<sup>16</sup> Therefore, the Intelsat 1R planned disposal orbit complies with the FCC's rules.

V. **CONDITIONS RELATED TO FREQUENCIES AND ORBITAL LOCATIONS TRANSFERRED AT INTELSAT PRIVATIZATION**

Intelsat assumes that the following two conditions specified in the *Intelsat 316 Order of Modification*<sup>17</sup> will apply to the requested authorization for the Intelsat 1R satellite (call sign S2368) to use the 50.1° W.L. orbital location and associated C- and Ku-band frequencies 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.

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<sup>15</sup> See *Policy Branch Information; Actions Taken*, Report No. SAT-00713, File No. SAT-AMD-20091113-00122 (Aug. 6, 2010) (Public Notice).

<sup>16</sup> See *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567, 11600-01 (2004).

<sup>17</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).

**VI. CONCLUSION**

For the reasons set forth above, Intelsat respectfully requests that the Commission grant this modification application.

Respectfully submitted,

Intelsat License LLC

By: /s/ Susan H. Crandall

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February 19, 2016



**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.