

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

In the Matter of

Intelsat License LLC

Application to Modify Authorization for  
Intelsat 5 (S2704)

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

**APPLICATION OF INTELSAT LICENSE LLC  
TO MODIFY AUTHORIZATION FOR INTELSAT 5**

Intelsat License LLC (“Intelsat”), pursuant to Section 25.117 of the rules of the Federal Communications Commission (“Commission” or “FCC”), 47 C.F.R. § 25.117, hereby seeks to modify the authorization for the Intelsat 5 satellite (Call Sign S2704). Specifically, this modification application seeks authority to drift Intelsat 5 from 50.15° E.L. to 157.0° E.L. and to operate the satellite at 157.0° E.L. in inclined orbit.<sup>1</sup>

In accordance with the requirements of the Commission’s rules,<sup>2</sup> this application has been filed electronically as an attachment to FCC Form 312. Intelsat provides the technical information relating to the proposed modification on Schedule S and in narrative form, as contained in the attached Engineering Statement, pursuant to Section 25.114 of the Commission’s rules.<sup>3</sup>

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<sup>1</sup> Intelsat began operating Intelsat 5 in inclined orbit in 2012. *See* Letter from Susan H. Crandall, Intelsat, to Marlene H. Dortch, FCC, Call Sign S2704 (Oct. 23, 2014).

<sup>2</sup> 47 C.F.R. § 25.117(c).

<sup>3</sup> 47 C.F.R. § 25.114.

## **I. REQUEST TO RELOCATE INTELSAT 5 TO 157.0° E.L.**

Intelsat requests authority to relocate Intelsat 5 to, and operate the satellite at, 157.0° E.L.<sup>4</sup> Intelsat 5's most recent permanent authorization is at 169.0° E.L.<sup>5</sup> However, as noted above, the satellite was most recently operating at 50.15° E.L. pursuant to STA.<sup>6</sup> Pursuant to STA, Intelsat began drifting Intelsat 5 to 157.0° E.L. on June 1, 2014<sup>7</sup> and expects to have the satellite on-station at 157.0° E.L. in early October 2014, where it will replace Intelsat 706 (Call Sign S2401).<sup>8</sup>

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<sup>4</sup> Intelsat has a pending modification application to extend the license term for the Intelsat 5 satellite through December 31, 2020. *See Policy Branch Information, Satellite Space Applications Accepted for Filing*, Report No. SAT-00937, File No. SAT-MOD-20121002-00176 (Mar. 15, 2013) (Public Notice).

<sup>5</sup> *See Policy Branch Information; Actions Taken*, Report No. SAT-00561, File No. SAT-MOD-20080725-00150 (Oct. 24, 2008) (Public Notice).

<sup>6</sup> *See Policy Branch Information; Actions Taken*, Report No. SAT-01011, File No. SAT-STA-20140226-00028 (Apr. 25, 2014); *Policy Branch Information; Actions Taken*, Report No. SAT-00973, File No. SAT-STA-20130808-00105 (Sept. 20, 2013) (Public Notice); *Policy Branch Information; Actions Taken*, Report No. SAT-00972, File No. SAT-STA-20130717-00095 (Sept. 6, 2013) (Public Notice).

<sup>7</sup> *See Policy Branch Information; Actions Taken*, Report No. SAT-01031, File No. SAT-STA-20140722-00088 (Jul. 25, 2014) (Public Notice); *Policy Branch Information; Actions Taken*, Report No. SAT-01025, File No. SAT-STA-20140620-00072 (Jun. 27, 2014) (Public Notice); *Policy Branch Information; Actions Taken*, Report No. SAT-01019, File No. SAT-STA-20140501-00044 (May 30, 2014) (Public Notice). *See also* Letter from Susan H. Crandall, Intelsat, to Ms. Marlene H. Dortch, FCC (June 3, 2014) (notifying FCC of commencement of Intelsat 5 drift). Intelsat has a pending application to extend for an additional 30 days the STA authority to drift Intelsat 5 to 157.0° E.L. *See Request for Further Extension of Special Temporary to Drift Intelsat 5*, Call Sign S2704, File No. SAT-STA-20140822-00091 (filed Aug. 22, 2014). Intelsat also has a pending application for STA for 180 days to drift Intelsat 5 to, and operate at, 157.0° E.L. *See Policy Branch Information; Satellite Space Applications Accepted for Filing*, Report No. SAT-01018, File No. SAT-STA-20140502-00047 (May 30, 2014) (Public Notice).

<sup>8</sup> *See Policy Branch Information; Actions Taken*, Report No. SAT-01034, File No. SAT-MOD-20121026-00188 (Aug. 8, 2014) (Public Notice).

During the drift of Intelsat 5, Intelsat will utilize only the satellite’s TT&C frequencies.

The specific TT&C frequencies are as follows:

Uplink:

14498 MHz (H)

13999 MHz (RHCP)

Downlink:

11451 MHz (H, V and RHCP)

11452 MHz (H, V and RHCP)

11454 MHz (RHCP and LHCP)

Once located at 157.0° E.L., Intelsat 5 will replace Intelsat 706 and will operate in the communications frequencies as set forth below:

<b>Frequency Band</b>	<b>INTELSAT 5</b>	<b>INTELSAT 706</b>
5925 – 6425 MHz	√	√
14000 – 14250 MHz	√	√
14250 – 14500 MHz		√
3700 – 4200 MHz	√	√
10950 – 11200 MHz		√
11450 – 11700 MHz	√	√
11700 – 11950 MHz		√
12500 – 12750 MHz		√

Intelsat 5 will operate on all of the same frequencies the Intelsat 706 satellite operates on except for the 10950-11200 MHz, 11700 – 11950 MHz, 12500 – 12750 MHz, and 14250 – 14500 MHz bands. In addition, as explained above, Intelsat 5 will utilize the 13999 MHz frequency, which is not currently used by Intelsat 706 at the 157.0° E.L. location, for telecommand.

## **II. PUBLIC INTEREST SHOWING**

Grant of this modification application is in the public interest because it will allow Intelsat to ensure continuity of service at 157.0° E.L. to customers currently on Intelsat 706. Intelsat 706 currently is expected to be de-orbited in November 2014.

Moreover, grant of this modification application will not result in an increased risk of harmful interference. As noted above, Intelsat will operate only the above listed TT&C frequencies during the drift, and will coordinate its TT&C transmissions with operators of satellites in the drift path. Should any interference occur during the drift, Intelsat will take all reasonable steps to eliminate such interference. Once Intelsat 5 is on-station at 157.0° E.L., Intelsat will operate the communications payload and TT&C frequencies in conformance with its coordination agreements and the FCC's rules governing operations vis-à-vis adjacent locations. Intelsat previously was granted de-orbit authority for Intelsat 5, which will be adhered to at the 157.0° E.L. location.<sup>9</sup>

## **III. REQUEST FOR TECHNICAL WAIVER**

Intelsat requests a waiver of Section 25.114(d)(3), which specifies that predicted antenna gain contours for each transmit and each receive antenna beam and nominal orbital location be supplied in a certain format.<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

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<sup>9</sup> See *Policy Branch Information; Actions Taken*, Report No. SAT-00561, File No. SAT-MOD-20080725-00150 (Oct. 24, 2008) (Public Notice).

<sup>10</sup> 47 C.F.R. § 25.114(d)(3).

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

interest” better than adherence to the general rule.<sup>12</sup> In determining whether waiver is appropriate, the Commission should “take into account consideration of hardship, equity, or more effective implementation of overall policy.”<sup>13</sup>

Good cause exists for grant of this waiver request. As explained more fully on page 2 of the attached Engineering Statement, to the extent necessary, Intelsat requests a waiver of Section 25.114(d)(3) with respect to Intelsat 5’s Telemetry, Command and Ranging’s (TC&R’s) bicone antenna and the uplink power control (“ULPC”) antenna, shown in Exhibits 2I, 2L, 2M and 2N. The satellite manufacturer did not provide the beam patterns for these antennas in the required form. Intelsat provides a descriptive characterization of these beams on pages 1 and 2 of the Engineering Statement. Waiver of Section 25.114(d)(3) is warranted in this case because Intelsat’s descriptive characterization, coupled with the beam patterns provided by the manufacturer, fulfill the information requirements of Section 25.114(d)(3). In addition, granting the requested waiver would be consistent with precedent. The FCC has previously waived Section 25.114(d)(3) in similar circumstances.<sup>14</sup>

#### **IV. REQUEST FOR GRANT WITHOUT MILESTONES OR A BOND**

As noted above, Intelsat will telecommand Intelsat 5 at 157.0° E.L. using the 13999 MHz frequency, which is not utilized by Intelsat 706 at that location. Nevertheless, the Commission

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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.

<sup>14</sup> *See Application of PanAmSat Licensee Corp. to Modify Authorization for Galaxy 11*, File No. SAT-MOD-20101102-00229 (filed Nov. 2, 2010; stamp grant Mar. 8, 2011; corrected Apr. 7, 2011); *Intelsat North America LLC Application for Authority to Launch and Operate Intelsat 15, a Ku-band Replacement Satellite at 85.15 E.L.*, File No. SAT-LOA-20090410-00043 and SAT-AMD-20090528-00059 (stamp grant with conditions Nov. 25, 2009).

should grant this application without imposing milestones<sup>15</sup> or a bond.<sup>16</sup> Because Intelsat 5 already is in-orbit and operating, all milestones for this satellite have been satisfied and Intelsat should not be required to post a bond.<sup>17</sup> Indeed, the Commission has granted similar applications for in-orbit satellites without imposing milestones or a bond.<sup>18</sup>

## V. INTELSAT ACCEPTS SECTION 316 PETITION CONDITIONS

Intelsat understands and accepts that its license to operate Intelsat 5 at 157.0° E.L., with the exception of the 13999 MHz frequency, will be conditioned as follows:

(a) Intelsat shall remain a signatory to the Public Services Agreement between Intelsat and the International Telecommunications Satellite Organization (“ITSO”) that was approved by the ITSO Twenty-fifth Assembly of Parties, as amended.

(b) No entity shall be considered a successor-in-interest to Intelsat under the ITSO Agreement for licensing purposes unless it has undertaken to perform the obligations of the Public Services Agreement approved by the Twenty-fifth Assembly of Parties, as amended.<sup>19</sup>

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<sup>15</sup> 47 C.F.R. § 25.164(a).

<sup>16</sup> 47 C.F.R. § 25.165.

<sup>17</sup> See *Loral Skynet Network Services, Inc.*, 21 FCC Rcd 14,365 (Int’l Bur. 2006) (“Because Telstar 18 is in-orbit and operating, Loral is not required to post a bond.”).

<sup>18</sup> See *Application of PanAmSat Licensee Corp. to Modify Authorization for Galaxy 11*, File No. SAT-MOD-20080225-00051 (stamp grant July 22, 2008); *PanAmSat Licensee Corp., Application to Modify Authorization to Relocate Intelsat 5 to 169.0° E.L.*, File No. SAT-MOD-20080725-00150 (stamp grant Oct. 17, 2008). To the extent necessary, Intelsat requests waiver of Sections 25.164(a) and 25.165 of the rules, 47 C.F.R. §§ 25.164(a) and 25.165, for any possible milestone or bond associated with the operation of Intelsat 5 in the 13998 – 14000 MHz band at 157.0° E.L. In this case, there is no risk of warehousing because the Intelsat 5 satellite is already in-orbit and will be able to provide service from the 157.0° E.L. location in a much more timely manner than the five years that would be allowed to an applicant intending to construct, launch, and operate a new satellite at this location.

<sup>19</sup> See *Petition of the Int’l. Telecomms. Satellite Org. under Section 316 of the Commc’ns Act, as amended, IB 06-137, File No. SAT-MS-20060710-00076*, Order of Modification, 23 FCC Rcd 2764, 2769-71 (¶¶11-13) (Int’l Bur. 2008).

**VI. 11450 – 11700 MHZ FREQUENCY BAND**

Intelsat understands that operations in the 11450 – 11700 MHz frequency band are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, 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.

**VII. 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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**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.