

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Intelsat License LLC

Application to Modify Authorization for
Intelsat 9 (S2380)

File No. SAT-MOD- _____

APPLICATION OF INTELSAT LICENSE LLC
TO MODIFY AUTHORIZATION FOR INTELSAT 9

Intelsat License LLC (“Intelsat”), pursuant to Section 25.117 of the rules of the Federal Communications Commission (“Commission” or “FCC”),¹ hereby seeks to modify the authorization for the Intelsat 9 satellite (Call Sign S2380). Specifically, this modification seeks authority to (i) redeploy Intelsat 9 to, and operate the satellite in inclined orbit² at, 66.15° E.L. (293.85° W.L), and (ii) further extend the Intelsat 9 license term, and previously granted waivers,³ through July 2021.

In accordance with the Commission’s rules, this application has been filed electronically as an attachment to FCC Form 312.⁴ Intelsat provides the technical information relating to the proposed modification on Schedule S and in narrative form in the attached Engineering

¹ 47 C.F.R. § 25.117.

² Intelsat 9 began inclined orbit operations in 2012. *See* Letter from Susan H. Crandall, Assistant General Counsel, Intelsat Corporation, to Marlene H. Dortch, Secretary, FCC, File No. SAT-MOD-20120703-00110 (Nov. 7, 2012).

³ Specifically, to the extent necessary, Intelsat seeks an extension of the previously granted waivers of 47 C.F.R. §§ 25.114(d)(14)(ii) and 25.283(c). *See Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01236, File No. SAT-MOD-20161110-00105 (May 5, 2017). The FCC recently revised rule 25.283(c) to remove the word “all” and thus permit a *de minimis* residual amount of fuel that cannot be vented, which may obviate the need to extend the previously granted waiver.

⁴ 47 C.F.R. §§ 25.117(b), (c).

Statement.⁵ Consistent with Section 1.62 of the Commission’s rules,⁶ Intelsat will continue to operate Intelsat 9 pursuant to the terms and conditions of its expiring license until such time as the Commission makes a determination with respect to this request.

I. REQUEST TO RELOCATE INTELSAT 9 TO 66.15° E.L.

Intelsat requests authority to relocate Intelsat 9 to, and operate the satellite at, 66.15° E.L. Intelsat 9 is currently operating in inclined orbit at 29.5° W.L. (330.5° E.L.).⁷ Upon receipt of Commission approval, Intelsat expects to begin drifting Intelsat 9 to 66.15° E.L. commencing on or about June 10, 2018.⁸ The drift to 66.15° E.L. is expected to take approximately 10 months.

During the drift of Intelsat 9, Intelsat will utilize only the satellite’s telemetry, tracking, and command (“TT&C”) frequencies and will follow industry practices for coordinating TT&C transmissions during the relocation process. Intelsat 9’s specific TT&C frequencies are as follows:

Uplink	Downlink
14.0005 GHz	11.7005 GHz
14.4945 GHz	11.7020 GHz

The specific communications frequencies on Intelsat 9 for which Intelsat seeks authorization are as follows:

Uplink	Downlink
5925-6425 MHz	3700-4200 MHz
14000-14500 MHz	11450-11700 MHz
	11700-12200 MHz

⁵ See 47 C.F.R. § 25.114.

⁶ 47 C.F.R. § 1.62 (permitting continued operations by a licensee where there is a proper and timely pending application for renewal of the license).

⁷ See *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01236, File Nos. SAT-MOD-20161110-00105, SAT-AMD-20170208-00016 (May 5, 2017).

⁸ Intelsat 17 is currently operating at 66.0° E.L. See *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-00748, File No. SAT-LOA-20100726-00167 (Jan. 7, 2011). The Intelsat 9 and Intelsat 17 satellites will be collocated at the nominal 66.0° E.L. location.

II. REQUEST FOR EXTENSION OF LICENSE TERM

Intelsat seeks to extend the license term for the Intelsat 9 satellite for an additional two years, through July 2021. The Intelsat 9 satellite commenced operation on September 6, 2000.⁹ The current July 31, 2019 license term expiration for Intelsat 9 is two years before the current expected end of service life of the satellite, which was most recently estimated to be July 2021 following relocation.

Intelsat has implemented a gauging technique originally developed by the satellite's manufacturer, Boeing, with respect to the propellant tanks to help determine the amount of propellant remaining onboard satellites. This technique relies on the satellite's daily temperature changes. Using this technique, Intelsat reduced the uncertainties holdback from the bookkeeping model and was thus able to identify additional propellant for satellite operations.

Based on this technique and in consultation with Boeing, Intelsat has added 4 kg of fuel to the bookkeeping values. The spacecraft is in inclined orbit operations, and annual fuel usage is therefore minimal. The updated end-of-life predications are based on the additional fuel values and Intelsat 9's continued inclined orbit operations.

III. POST-MISSION DISPOSAL PLAN

Further extending the license term of the Intelsat 9 satellite will not affect the satellite's post-mission disposal plan. As approved in earlier Intelsat 9 modification applications,¹⁰ Intelsat will dispose of the satellite by moving it to an altitude of at least 150 kilometers above the

⁹ See Letter from Joseph A. Godles, Counsel to PanAmSat Licensee Corp., to Ms. Magalie R. Salas, FCC, File No. SAT-LOA-19990812-00081 (Jan. 12, 2001) (certifying that the PAS-23 spacecraft had been successfully placed into orbit). The PAS-23 satellite was subsequently renamed Intelsat 9. See Letter from Susan H. Crandall, Intelsat Corporation, to Marlene H. Dortch, FCC, Intelsat North America LLC and PanAmSat Licensee Corp., Notification of New Space Station Names (filed Jan. 8, 2007).

¹⁰ See *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01017, File No. SAT-MOD-20120703-00110 (May 23, 2014); *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01236, File No. SAT-MOD-20161110-00105 (May 5, 2017).

geostationary arc.¹¹ For that purpose, 36.1 kilograms of bi-propellant (fuel + oxidizer) has been reserved.

IV. PUBLIC INTEREST SHOWING

Grant of this modification application to relocate and extend the license term of Intelsat 9 is in the public interest, because it will allow Intelsat to provide additional capacity at the 66.15° E.L. location well beyond the current license term's July 31, 2019 expiration date.

Grant of this relocation request will not result in an increased risk of harmful interference. As noted above, Intelsat will operate only at 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. Intelsat will operate Intelsat 9's communications payload and TT&C frequencies at 66.15° E.L. in conformance with existing coordination agreements 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 two years of useful life remaining beyond the current license term's expiration date. The Intelsat 9 satellite's subsystems and solar panels are functioning normally, and there are no single points of failure on the satellite that would affect the ability to de-orbit the satellite. Additionally, the satellite's TT&C functions are operating normally, and all the payload is operational.¹² Extending the license term will

¹¹ The Commission has designated satellites launched prior to March 18, 2002, such as Intelsat 9, as grandfathered satellites not subject to a specific disposal altitude. *See Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567, 11600-01 (2004).

¹² The Xenon Ion propulsion system on Intelsat 9 is non-operational. Intelsat uses liquid propulsion for all East-West station-keeping of Intelsat 9.

promote the continued efficient use of orbital resources and is consistent with prior decisions by the Commission to extend satellite license terms.¹³

V. REQUEST FOR EXTENSION OF WAIVERS

Intelsat requests that the previously granted waivers of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules requiring applicants to demonstrate that all stored energy will be removed at the spacecraft's end of life be extended to Intelsat 9's operations at 66.15° E.L.¹⁴ Intelsat also previously received a waiver of Section 2.106, Table of Allocations footnote NG52 of the FCC's rules to enable Intelsat 9 to provide domestic services using the 11450-11700 MHz band, subject to certain conditions.¹⁵ At 66.15° E.L., Intelsat does not anticipate providing domestic services given that this location cannot see Region 2. However, to the extent the Commission deems necessary, Intelsat requests continued waiver of Section 2.106, footnote NG52.

VI. INTELSAT ACCEPTS SECTION 316 PETITION CONDITIONS

Intelsat understands and accepts that its license to operate Intelsat 9 at 66.15° E.L. will be conditioned as follows:

- 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.
- No entity shall be considered a successor-in-interest to Intelsat under the ITSO Agreement for licensing purposes unless it has undertaken to

¹³ See, e.g., *Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01199, DA 16-1251, File Nos. SAT-MOD-20160805-00079, SAT-MOD-20160816-00084, and SAT-MOD-20160906-00088 (Nov. 4, 2016) (extending license terms of the Intelsat 904, Intelsat 902, and Intelsat 901 satellites, respectively).

¹⁴ See 47 C.F.R. §§ 25.114(d)(14)(ii) and 25.283(c); *Application of Intelsat License LLC to Modify Authorization for Intelsat 9 (S2380)*, Stamp Grant, File Nos. SAT-MOD-20161110-00105 and SAT-AMD-20170208-0016, Condition 11 (May 4, 2017) ("Intelsat 9 Stamp Grant").

¹⁵ See 47 C.F.R. § 2.106 footnote NG52; *Intelsat 9 Stamp Grant*, at Condition 9.

perform the obligations of the Public Services Agreement approved by the Twenty-fifth Assembly of Parties, as amended.¹⁶

VII. 11.45-11.7 GHZ FREQUENCY BANDS

Intelsat understands that operations in the 11.45-11.70 GHz frequency band are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, Intelsat accepts the following condition:

- Intelsat's use of the 11.45-11.70 GHz 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.

VIII. REQUEST FOR GRANT WITHOUT MILESONES OR A BOND

Because Intelsat 9 is already in-orbit and operating, grant of this modification application is not subject to milestone conditions, and Intelsat is not required to post a bond under Sections 25.164(a) and 25.165 of the Commission's rules.¹⁷ As such, there is no risk of warehousing.

¹⁶ See *Petition of the International Telecommunications Satellite Organization under Section 316 of the Communications Act, as Amended*, Order of Modification, 23 FCC Rcd 2764, 2769-71 ¶¶ 11-13 (2008).

¹⁷ See 47 C.F.R. §§ 25.164(a) and 25.165.

IX. 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

Susan H. Crandall
Associate General Counsel
Intelsat Corporation

Jennifer D. Hindin
Sara M. Baxenberg
WILEY REIN LLP
1776 K Street, NW
Washington, DC 20006

March 5, 2018

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

¹ *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).

² *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”),¹ based on the Bureau’s finding that PanAmSat had not satisfied applicable construction milestones.² 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.

¹ 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).

² *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:

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 Connect Finance S.A., a Luxembourg company. Intelsat Connect Finance 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.