

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Intelsat License LLC

Application to Modify Authorization for
Galaxy 17 (S2715)

File No. SAT-MOD-_____

APPLICATION TO MODIFY AUTHORIZATION FOR GALAXY 17

Intelsat License LLC (“Intelsat”) pursuant to Section 25.117 of the Federal Communications Commission’s (“Commission” or “FCC”) rules,¹ hereby seeks to modify the authorization for Galaxy 17 (S2715), a station-kept C- and Ku-band satellite operating at 91.0° W.L.² Specifically, Intelsat seeks to extend the license term for the Galaxy 17 satellite through January 31, 2024.³

¹ 47 C.F.R. § 25.117.

² See *Policy Branch Information; Actions Taken*, Report No. SAT-00439, File No. SAT-AMD-20070123-00013 (Apr. 27, 2007) (Public Notice) (“*Galaxy 17 Authorization*”). The licenses originally held by PanAmSat Licensee Corp., including Galaxy 17, were assigned in 2005 to Intelsat North America, which later changed its name to Intelsat Licensee LLC. Due to recent rule changes, Intelsat is not seeking waiver extension for the following Commission rules: 47 C.F.R. §§ 25.210(i), and 25.114(d)(3) (rule sections as of the time of the 2007 grant).

³ The Commission’s rules permit modification applications in the 3700-4200 MHz band and these applications are not subject to the FCC’s 2018 filing freeze on new fixed satellite service space station applications. See 47 C.F.R. § 2.106 n. NG182 (“In the band 3700-4200 MHz ... [a]pplications for extension, cancellation, replacement, or modification of existing space station authorizations in the band will continue to be accepted and processed normally.”); *International Bureau Announces Temporary Filing Freeze on New Fixed-Satellite Service Space Station Applications in the 3.7-4.2 GHz Band*, Public Notice, DA 18-640, 33 FCC Rcd 6119 (2018) (“The freeze does not apply to applications for modification of existing authorizations, relocations of existing space stations pursuant to the Commission’s fleet management policy, or to applications for replacement space stations.”) (internal citations omitted); see also *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Report and Order and Order of Proposed Modification, FCC 20-22, 35 FCC Rcd 2343, ¶ 115 n. 327 (2020).

In accordance with the Commission's rules,⁴ this application has been filed electronically as an attachment to FCC Form 312 and Schedule S. Consistent with Section 1.62 of the Commission's rules, Intelsat will continue to operate the Galaxy 17 satellite pursuant to the terms and conditions of its expiring license until such time as the Commission makes a determination with respect to this request.⁵

I. REQUEST FOR EXTENSION OF LICENSE TERM

Intelsat seeks to extend the Galaxy 17 license term through January 31, 2024. Galaxy 17 was placed into service on July 6, 2007.⁶ Pursuant to the conditions of its authorization, the license term for Galaxy 17 will expire on July 5, 2022.⁷ This expiration date is before the expected end of service life of the satellite, which was most recently estimated to be January 31, 2024, assuming inclined orbit operation after arrival of the Galaxy 32 and Intelsat 40e satellites at 91.0° W.L.

II. ORBITAL DEBRIS MITIGATION

Extending the license term of Galaxy 17 will not affect the satellite's post-mission disposal plan.⁸ At the end of the Galaxy 17 mission, Intelsat intends to dispose of the satellite by

⁴ 47 C.F.R. § 25.117(c).

⁵ 47 C.F.R. § 1.62.

⁶ See Letter from Susan H. Crandall, Assistant General Counsel for Intelsat Corporation, to Marlene H. Dortch, Secretary, FCC, File No. SAT-RPL-20061219-00155 (July 24, 2007). Galaxy 17 was placed into orbit at 74.05° W.L. and later moved to 91.0° W.L., see Letter from Susan H. Crandall, Assistant General Counsel for Intelsat Corporation, to Marlene H. Dortch, Secretary, FCC, File No. SAT-RPL-20061219-00155 (July 24, 2008).

⁷ See PanAmSat Licensee Corp., Application for Authority to Operate Replacement Satellite Galaxy 17 at 91 W.L., Stamp Grant, File No. SAT-RPL-20061219-00155, at Condition 6 (granted Apr. 24, 2007); see also 47 C.F.R. § 25.121(a)(1), (d)(1).

⁸ See *Galaxy 17 Authorization* Technical Exhibit at §12.4 Post Mission Disposal.

moving it to a minimum altitude of 291 km (perigee) above the geostationary arc (“GEO”).⁹ For that purpose, Intelsat has reserved 44.21 kg of propellant.¹⁰

Galaxy 17 is designed in a manner to minimize the potential for such explosions. Propellant tanks and thrusters are isolated using redundant valves and electrical power systems are shielded in accordance with standard industry practices.¹¹ At the completion of the mission and upon disposal of the spacecraft, Intelsat will ensure the removal of all stored energy on the spacecraft by depleting all propellant tanks, venting all pressurized systems, isolating the batteries from the spacecraft bus, and turning off all active units.¹²

III. PUBLIC INTEREST SHOWING

Grant of this modification application to extend the license term would serve the public interest by enabling customers to receive service from Galaxy 17 at the 91.0° W.L. orbital location beyond the current license term’s July 5, 2022, expiration date. Furthermore, grant of the license term extension request will allow Intelsat to maximize the use of Galaxy 17, which

⁹ In calculating the disposal orbit, Intelsat has used simplifying assumptions as permitted under the Commission’s *Orbital Debris Report and Order*. See *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004). The effective area to mass ratio (Cr^*A/M) of the satellite is 0.04 m²/kg, resulting in a minimum perigee disposal altitude under the Inter-Agency Space Debris Coordination Committee (“IADC”) formula of at most 280.4 km above GEO. Intelsat herein updates the intended deorbit height of Galaxy 17 to be consistent with the calculated height under the IADC formula. Intelsat’s previous estimate was 300 km above GEO, approximately 20 km beyond the IADC calculated height.

¹⁰ The reserved fuel figure was determined by the spacecraft manufacturer and provided for in the propellant budget. To calculate this figure, the manufacturer used the “rocket equation,” i.e., it plugged in the expected mass of the satellite at end of life and the required delta-velocity to achieve the desired orbit. Intelsat has assessed fuel gauging uncertainty and has provided an adequate margin of fuel reserve to address the assessed uncertainty in remaining propellant. The provided fuel figure also includes the total dispersions and propellant unavailable for maneuvers—both of which were not included in the previous estimate in 2007.

¹¹ *Galaxy 17 Authorization* Technical Exhibit at §12.2 Minimizing Accidental Explosions.

¹² *Id.*

has one and a half years of useful life remaining beyond the current license term's expiration date, including future inclined orbit operations.

The Galaxy 17 satellite's subsystems and solar panels are functioning normally, and there are no single points of failure on Galaxy 17 that would result in an inability to de-orbit the satellite. Additionally, the satellite's TT&C functions are operating normally and most of the payload is operational. Extending the license term will promote the continued efficient use of orbital resources and is consistent with prior decisions by the Commission to extend satellite license terms.¹³

IV. CONCLUSION

For the reasons set forth above, Intelsat respectfully requests that the Commission grant this modification application to extend the Galaxy 17 license term through January 31, 2024.

Respectfully submitted,

Intelsat License LLC

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May 23, 2022

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

Exhibit A

FCC Form 312, Response to Question 34: Foreign Ownership

The Commission previously approved Intelsat's ownership structure, including foreign ownership.¹ There have been no material changes to Intelsat's ownership since the *2022 Intelsat Order*.

¹ See *Intelsat S.A., as debtor-in-possession (Transferor) and New TopCo S.A. (Transferee)*, Order, IBFS File No. SAT-ASG-20210826-00117, IB Docket No. 21-375, DA-22-162 (rel. Feb. 16, 2022) ("*2022 Intelsat Order*").

Exhibit B

FCC Form 312, Response to Question 40: Officers, Directors, and Ten Percent or Greater Shareholders

Intelsat License LLC is a Delaware limited liability company. The officers and directors/managers of Intelsat License LLC are as follows:

Officers:

José Toscano, Deputy Chairman
Michelle Bryan, General Counsel, Chief
Administrative Officer, and Secretary
Mirjana Hervy, Director, Finance

Board of Managers:

José Toscano
Michelle Bryan

The business address of all Intelsat License LLC officers and members of the Board of Managers is: 7900 Tysons One Place, McLean, Virginia 22102.

Intelsat License LLC is a Delaware limited liability company that is indirectly wholly owned by Intelsat S.A. (formerly named Intelsat Emergence S.A.). Specifically, Intelsat License LLC is wholly owned by Intelsat License Holdings LLC, a Delaware limited liability company. Intelsat License Holdings LLC is wholly owned by Intelsat Ventures S.à r.l., a Luxembourg company, which is in turn wholly owned by Intelsat Alliance LP, a Delaware limited partnership. Intelsat Alliance LP is managed by one general partner (Intelsat Genesis GP LLC, a Delaware limited liability company) and two limited partners (Intelsat Genesis Inc., a Delaware corporation, and Intelsat Jackson Holdings S.A., a Luxembourg company). Intelsat Genesis GP LLC is wholly owned by Intelsat Genesis Inc., which is wholly owned by Intelsat Jackson Holdings S.A. Intelsat Jackson Holdings S.A. is wholly owned by Intelsat Connect Finance S.à r.l., a Luxembourg company, which in turn is wholly owned by Intelsat Envision Holdings LLC, a Delaware limited liability company. Intelsat Envision Holdings LLC is wholly owned by Intelsat (Luxembourg) S.à r.l., a Luxembourg company. Intelsat (Luxembourg) S.à r.l. is wholly owned by Intelsat Investments S.à r.l., a Luxembourg company, which in turn is wholly owned by Intelsat Holdings S.à r.l., a Luxembourg company. Intelsat 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.

Pacific Investment Management Company LLC (“PIMCO”), a Delaware limited liability company, serves as the manager or investment advisor for a number of investment funds and other investment vehicles that each hold less than 10% of the voting and non-voting equity interests in Intelsat S.A. However, to the best of Intelsat’s knowledge, as of February 23, 2022, the aggregate total of the voting and non-voting equity interests in Intelsat S.A. held by PIMCO-managed funds and certain parent entities of PIMCO exceeded 10%. Details regarding PIMCO are listed below.

PIMCO

Name: Pacific Investment Management Company LLC
Address: 650 Newport Center Drive
Newport Beach, CA 92660
Citizenship: United States (Delaware)
Indirect Voting Interest: Approximately 32.99%
Indirect Non-Voting Interest: Approximately 32.99%

A complete list of the investment funds and entities collectively controlling a 10% or greater indirect voting and indirect non-voting interest in Intelsat S.A. is set forth in Intelsat's 2022 application for consent to the assignment and transfer of control of authorizations.¹

¹ See Application for Assignment and Transfer of Control of Authorizations held by Intelsat License LLC, as debtor-in-possession, IBFS File No. SAT-ASG-20210826-00117 (filed Aug. 26, 2021).