Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of Intelsat License LLC Application to Amend Pending Application to Modify Authorization for Galaxy 17 (Call Sign S2715)	SAT-AMD- _____ SAT-MOD-20220523-00053

APPLICATION OF INTELSAT LICENSE LLC
TO AMEND PENDING APPLICATION FOR GALAXY 17

Intelsat License LLC ("Intelsat"), pursuant to Section 25.116 of the Federal Communications Commission's ("Commission" or "FCC") rules,[1] hereby amends its pending application seeking to modify the authorization for Galaxy 17 (S2715), a C- and Ku-band satellite operating at 91.0° W.L, to extend the license term (the "Application").[2] Specifically, Intelsat seeks to amend its Application to include requests: (1) to redeploy Galaxy 17 to 85.0° W.L., (2) to further extend the license term through January 31, 2029, and (3) for waiver of Sections 25.114(d)(14)(ii) and 25.253(c) of the Commission's rules.[3] Grant of this Application,

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1 47 C.F.R. § 25.116.

2 *See* Intelsat License LLC, Application to Modify Authorization for Galaxy 17, File No. SAT-MOD-20220523-00053 (filed May 23, 2022) ("Pending Galaxy 17 Modification Application") (requesting extension of the license term for Galaxy 17 through January 31, 2024).

3 The Commission's rules permit extension and 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, 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

as amended, will enable Intelsat to provide C- and Ku-band coverage and capacity from 85.0° W.L. beyond the satellite's existing license term.

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, as amended herein, in Schedule S and in narrative form in the attached Engineering Statement.[5] 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 expired license and grants of Special Temporary Authority ("STA") until such time as the Commission makes a determination with respect to this request.[6] Additionally, Intelsat will operate Galaxy 17 in accordance with the Commission's C-band Order and Footnote NG182 of the U.S. Table of Frequency Allocations.[7]

I. REQUEST TO RELOCATE GALAXY 17 TO 85.0° W.L.

Intelsat requests authority to drift Galaxy 17 to, and operate the satellite at, 85.0° W.L.[8]

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for replacement space stations."); *see also Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Report and Order and Order of Proposed Modification, 35 FCC Rcd 2343, ¶ 115 n. 327 (2020).

4 47 C.F.R. § 25.116(e).

5 *See id.*; *see also* 47 C.F.R. § 25.114.

6 47 C.F.R. § 1.62.

7 Intelsat has sought reconsideration to allow its continued access to 500 MHz at its consolidated international TT&C/gateway sites on a protected basis to ensure C-band service continuity to customers on its international C-band satellites. *See* Intelsat License LLC Petition for Reconsideration, GN Docket No. 18-122 (filed May 26, 2020).

8 Intelsat has a pending application to use the 11700-12200 MHz (space-to-Earth) and 14000-14500 MHz (Earth-to-space) frequency bands at 85.0° W.L. pursuant to the Commission's Public Notice released on December 3, 2021. *See Satellite Policy Branch Information; Actions Taken*, Public Notice, Report No. SAT-01595, File No. SAT-MOD-20191223-00152 (Dec. 3, 2021); Intelsat License LLC, as debtor-in-possession, Application for Authority to Launch and Operate Intelsat 85, a Ku/Ka-band Satellite, at 85.0° W.L., SAT-LOA-20211207-00171 (filed Dec. 7, 2021). The 3700-4200 MHz (space-to-Earth) and 5925-6425 MHz (Earth-to-space) frequency bands have not previously been licensed at 85.0° W.L.

Galaxy 17 is currently licensed to operate at 91.0° W.L.,[9] and was replaced by Galaxy 32 (S3078) in February 2023.[10] The specific frequencies associated with the Galaxy 17 satellite are as follows:

Frequencies:	3700-4200 MHz (space-to-Earth) 5925-6425 MHz (Earth-to-space) 11700-12200 MHz (space-to-Earth) 14000-14500 MHz (Earth-to-space) Telemetry, Tracking, and Command (TT&C") center frequencies: 4197.125 MHz and 4198.875 MHz (space-to-Earth) 5925.5 MHz and 6424.5 MHz (Earth-to-space)

In early May 2023, Galaxy 17 was redeployed to 85.0° W.L. pursuant to grant of STA.[11] Intelsat recently commenced inclined orbit operations for Galaxy 17, which will provide more than five additional years of service life at its new location.[12]

II. REQUEST FOR EXTENSION OF LICENSE TERM

Intelsat requests the Commission extend the license term for the Galaxy 17 satellite through January 31, 2029, or alternatively, five years from license grant, to accommodate the

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9 *See Policy Branch Information; Actions Taken*, Report No. SAT-00439, File Nos. SAT-AMD-20070123-00013 and SAT-RPL-20061219-00155 (Apr. 27, 2007) (Public Notice) ("*Galaxy 17 Authorization*").

10 *See Satellite Policy Branch Information; Actions Taken*, Report No. SAT-01615, File No. SAT-LOA-20210107-00004 (Mar. 4, 2022) (Public Notice). *See also* Letter from W. Ray Rutngamlug, Associate General Counsel, Intelsat US LLC, to Marlene H. Dortch, Secretary, FCC, File No. SAT-LOA-20210107-00004 (Feb. 23, 2023) (notifying the Commission of Galaxy 32's commencement of operations).

11 *See* Intelsat License LLC, Request for Special Temporary Authority to Drift Galaxy 17 to and Operate at 85.0° W.L., Stamp Grant, File No. SAT-STA-20230417-00091 (granted May 1, 2023). Galaxy 17 arrived on-station on May 12, 2023. Pursuant to the terms of its STA grant, the satellite is only utilizing Ku-band communications frequencies and C-band TT&C frequencies at 85.0° W.L.

12 *See* Letter from W. Ray Rutngamlug, Associate General Counsel, Intelsat US LLC, to Marlene H. Dortch, Secretary, FCC, File No. SAT-RPL-20061219-00155 (Apr. 21, 2023) ("IOO Commencement Notice").

satellite's remaining service life.[13] Galaxy 17 was placed into service on July 6, 2007.[14] Pursuant to the conditions of its authorization, the license term for Galaxy 17 expired on July 5, 2022.[15] Intelsat timely filed a modification application on May 23, 2022, seeking to extend the license term through January 31, 2024, and notifying the Commission of Intelsat's intent to continue operating Galaxy 17 pursuant to the terms and conditions of its expiring license and any grants of STA until such time as the Commission makes a determination with respect to its request.[16] The expected end-of-life of the satellite—accounting for inclined orbit operations—is January 31, 2029.[17] To the extent the satellite's projected end-of-life is extended in the future or the Commission limits extension to five years from the date of license grant, Intelsat may request an additional extension of the license term.

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[13] Intelsat's request in the alternative seeks to align with the Commission's decision in the *2020 Orbital Debris Order* to limit license term extensions to no more than five years in a single modification application to "help ensure reasonable predictions regarding satellite health while affording operators some flexibility." *Mitigation of Orbital Debris in the New Space Age*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 4156, ¶ 112 (2020). This and other Part 25 rule changes that require review and approval by the Office of Management and Budget under the Paperwork Reduction Act are not yet effective. *See id.*, ¶ 215; *see also Mitigation of Orbital Debris in the New Space Age*, 85 FR 52422 (Aug. 25, 2020) ("The amendments to §§ 25.271 and 25.282 are effective September 24, 2020. The other rule amendments contain information collection requirements that are not effective until approved by the Office of Management and Budget. The Commission will publish a document in the Federal Register announcing the effective date for those amendments.").

[14] *See* Letter from Susan H. Crandall, Assistant General Counsel, 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, Intelsat Corporation, to Marlene H. Dortch, Secretary, FCC, File No. SAT-RPL-20061219-00155 (July 24, 2008).

[15] *See Galaxy 17 Authorization*; *see also* 47 C.F.R. § 25.121(a)(1), (d)(1).

[16] *See* Pending Galaxy 17 Modification Application at 2; *see also* 47 C.F.R. § 1.62.

[17] *See* IOO Commencement Notice.

III. POST MISSION DISPOSAL

Extending the license term of Galaxy 17 will not affect the satellite's previously approved post-mission disposal plan.[18] At the end of the Galaxy 17 mission, Intelsat will dispose of the satellite by moving it to an altitude of at least 300 kilometers above the geostationary arc. For that purpose, Intelsat has reserved 44.21 kilograms of propellant.[19] Additional information regarding the orbital debris mitigation plan for Galaxy 17 is provided in the Engineering Statement accompanying this application.

IV. REQUEST FOR WAIVER

Intelsat requests waiver, to the extent necessary, of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules, which require licensees to discharge stored energy remaining at the satellite's end-of-life.[20] The FCC has authority to waive its rules "for good cause shown."[21] 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.[22] In determining whether waiver is appropriate, the Commission should "take into

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18 *See* PanAmSat Licensee Corp., Application for Authority to Launch and Operate a Replacement Satellite at 91° W.L., SAT-RPL-20061219-00155, Engineering Statement at 26 (filed Dec. 19, 2006).

19 The reserved propellant figure is an estimate. This figure is calculated taking into account the expected mass of the satellite at the end-of-life and the required delta-velocity to achieve the desired orbit.

20 47 C.F.R. §§ 25.114(d)(14)(ii), 25.283(c). A 2015 revision to Section 25.283(c) removing the word "all" from the text of the rule, permitting a *de minimis* residual amount of fuel that cannot be vented to remain in the fuel tanks after decommissioning, may obviate the need to grant waiver in this instance. *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Report and Order, 30 FCC Rcd 14713, ¶¶ 359-60 (2015) (corrected by *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Erratum, 31 FCC Rcd 5160 (2016)).

21 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

22 *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

account considerations of hardship, equity, or more effective implementation of overall policy."[23] As shown below, there is good cause for the requested waiver.

Galaxy 17 is a Thales Alenia Space (formerly Alcatel) Spacebus 3000-B3 model spacecraft,[24] launched in 2007, which has a propulsion system that includes three high-pressure helium tanks and a bipropellant system comprised of an oxidizer tank containing nitrogen tetroxide and a liquid fuel tank containing monomethylhydrazine.[25] Intelsat intends to vent the fuel and oxidizer tanks in the end-of-life shutdown procedure. It is prevented technically, however, from venting the helium tanks, which were sealed by firing pyrotechnic valves shortly after launch in 2007.

Grant of this waiver is supported on hardship grounds. The helium tanks on the Galaxy 17 satellite were permanently sealed off following the completion of launch transfer orbit via a pyro valve, and consequently cannot be vented at the satellite's end-of-life. Galaxy 17 is currently in orbit and a design change cannot be accomplished at this time because the satellite cannot be retrieved from orbit. The Commission has previously granted waivers of Sections 25.114(d)(14)(ii) and 25.283(c) on hardship grounds for in-orbit satellites in similar circumstances.[26]

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23 *WAIT Radio*, 418 F.2d at 1159.

24 Galaxy 17 and other Thales Alenia Spacebus 2000, 3000, and 4000 models are included in the Satellite Industry Association's list of satellites that do not vent fuel. *See* Letter from Karis A. Hastings, Counsel to SES Americom, Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 02-54 (Oct. 29, 2009) (attaching a list of spacecraft models that cannot vent fuel and requesting a blanket waiver for those satellites included on the list).

25 *See* PanAmSat Licensee Corp., Amendment to Application for Authority to Launch and Operate a Replacement Satellite at 91.0° W.L., File No. SAT-AMD-20070123-00013, Technical Exhibit at 7-8, 25 (filed Jan. 27, 2007).

26 *See, e.g.*, Intelsat License LLC, Application to Modify Authorization for Galaxy 14, Stamp Grant, File No. SAT-MOD-20201229-00152, ¶ 10 (granted Feb. 10, 2022) ("This waiver

V. PUBLIC INTEREST SHOWING

Grant of this Application, as amended, to relocate and extend the license term of Galaxy 17 is in the public interest because it will allow Intelsat to provide C- and Ku-band capacity at 85.0° W.L. beyond the previously authorized license term's expiration date.

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 the payload is operational.

Grant of this relocation request 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 harmful interference occur during the drift, Intelsat will take all reasonable steps to eliminate such interference. Intelsat will operate Galaxy 17's communications payload and TT&C frequencies at 85.0° W.L. in conformance with existing coordination agreements and the FCC's rules governing operations vis-à-vis adjacent locations.

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is granted because modification of the spacecraft would present an undue hardship, since Galaxy 14 is an in-orbit space station and venting Galaxy 14's oxidizer tanks would require direct retrieval of the satellite, which is not currently possible.").

VI. CONCLUSION

For the reasons set forth above, Intelsat respectfully requests that the Commission grant this Application, as amended herein.

Respectfully submitted,

Intelsat License LLC

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May 19, 2023

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:	Board of Managers:
Aaron Shourie, Chairman	Aaron Shourie
José Toscano, Deputy Chairman	José Toscano
Michelle Bryan, General Counsel, Chief Administrative Officer, and Secretary	Michelle Bryan
Mirjana Hervy, Director, Finance	

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 Luxemburg 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 April 7, 2023, 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 32.89%
Indirect Non-Voting Interest:	Approximately 32.89%

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).