

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Intelsat License LLC

Application for Authority to Launch and Operate Intelsat 35e, a Replacement Satellite With New Frequencies, at 34.5° W.L. (325.5° E.L.)

File No. SAT-RPL- _____

**APPLICATION FOR AUTHORITY TO LAUNCH AND OPERATE
INTELSAT 35e, A REPLACEMENT SATELLITE WITH NEW FREQUENCIES, AT
34.5° W.L.**

Intelsat License LLC (“Intelsat”), pursuant to Section 25.114 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,¹ hereby applies to launch and operate a C/Ku-band replacement satellite with new frequencies, to be known as Intelsat 35e, at the 34.5° W.L. orbital location. Intelsat 35e, one of Intelsat’s EPIC^{NG} platform satellites, is scheduled for launch in the second quarter of 2017 and, after traffic transition, will replace the Intelsat 903 satellite (call sign S2407), which is currently operating at 34.5° W.L.² Intelsat 35e will operate on a non-common carrier basis.³

¹ 47 C.F.R. § 25.114.

² See *Intelsat LLC, Applications to Modify Authorizations*, File No. SAT-MOD-20011221-00139 (stamp grant issued Mar. 22, 2002) (“Intelsat 903 Authorization”). During traffic transition, Intelsat 903 and Intelsat 35e will occupy the same station-keeping box. Following traffic transition, and subject to receipt of FCC approval, Intelsat 903 will be redeployed to a different location. Intelsat will file an application to relocate the Intelsat 903 satellite as soon as possible after determining a redeployment plan that best meets customer needs.

³ Section 310(b) is not applicable to this license because Intelsat 35e, like all other satellites licensed to Intelsat, will operate on a non-common carrier basis. See *Applications of The News Corp. Ltd. and The DIRECTV Group, Inc. (Transferors) and Constellation, LLC, Carlyle*

As demonstrated below, Intelsat is legally and technically qualified to launch and operate its proposed replacement satellite with new frequencies. Moreover, grant of this application will serve the public interest by ensuring continuity of service to customers in the C- and Ku-bands at the 34.5° W.L. orbital location and by adding new Ku-band capacity at the location. In accordance with the Commission's requirements,⁴ this application has been filed electronically as an attachment to FCC Form 312 and Schedule S.

I. INTELSAT IS QUALIFIED TO HOLD THE AUTHORIZATION REQUESTED HEREIN

A. Legal Qualifications

Intelsat is legally qualified to hold the space station authorization requested in this application. The information provided in the attached Form 312 demonstrates Intelsat's compliance with the Commission's basic legal qualifications. In addition, Intelsat already holds multiple Commission satellite licenses, and its legal qualifications are a matter of record before the Commission.⁵

B. Technical Qualifications

In the attached Form 312, Schedule S, and Engineering Statement, Intelsat demonstrates that it is technically qualified to hold the authorization requested herein. Specifically, Intelsat

PanAmSat I, LLC, Carlyle PanAmSat II, LLC, PEP PAS, LLC and PEOP PAS, LLC (Transferees) for Authority to Transfer Control of PanAmSat Licensee Corp., Public Notice, 19 FCC Rcd 15424, 15425 (n.5) (Int'l Bur. 2004).

⁴ 47 C.F.R. § 25.114(c).

⁵ *See Constellation, LLC, Carlyle PanAmSat I, LLC, Carlyle PanAmSat II, LLC, PEP PAS, LLC, and PEOP PAS, LLC, Transferors and Intelsat Holdings, Ltd., Transferee, Consolidated Application for Authority to Transfer Control of PanAmSat Licensee Corp. and PanAmSat H-2 Licensee Corp.*, Memorandum Opinion and Order, 21 FCC Rcd 7368, 7381 ¶ 23 (rel. June 19, 2006) ("The Commission previously has determined that PanAmSat and Intelsat are qualified to hold licenses.").

provides the information currently required by Section 25.114 of the Commission's rules. In addition, the Engineering Statement provides information demonstrating Intelsat's compliance with the Commission's orbital debris mitigation rules.⁶

C. Waiver Requests

To the extent necessary, Intelsat requests waiver of the following technical rules regarding conventional C-band frequencies used for domestic service: (1) Section 25.210(a)(1), which requires use of orthogonal linear polarization;⁷ and (2) Section 25.210(a)(3), which requires the ability to switch polarization sense upon ground command.⁸ Intelsat also seeks waiver, to the extent necessary, of Section 25.210(i)(1), which requires antenna cross-polarization isolation such that the ratio of the on-axis co-polar gain to the on-axis cross-polar gain of the antenna in the assigned frequency band be at least 30 dB within its primary coverage area.⁹

Under Section 1.3 of the Commission's rules, the Commission has authority to waive its rules "for good cause shown."¹⁰ 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.¹¹ In determining whether waiver is appropriate, the Commission should "take

⁶ *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004).

⁷ 47 C.F.R. § 25.210(a)(1).

⁸ 47 C.F.R. § 25.210(a)(3).

⁹ 47 C.F.R. § 25.210(i)(1).

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

¹¹ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

into account considerations of hardship, equity, or more effective implementation of overall policy.”¹²

Good cause exists here for each of the requested technical waivers because the Commission recently eliminated Sections 25.210(a)(1), 25.210(a)(3), and 25.210(i)(1) in the Part 25 streamlining proceeding.¹³ The Commission’s December Second Report and Order, however, is not yet effective. Given that the Commission has concluded that these rule provisions no longer serve the public interest, waiver of their requirements is warranted.

D. Operational Frequencies

The following chart shows the frequencies that will be used by the Intelsat 35e satellite at 34.5° W.L. and the frequencies that are currently used by the Intelsat 903 satellite at that location.

	Intelsat 35e	Intelsat 903
3625-3700 MHz	✓	✓
3700-4200 MHz	✓	✓
5850-5925 MHz	✓	✓
5925-6425 MHz	✓	✓
10950-11200 MHz	✓	✓
11450-11700 MHz	✓	✓
13750-14000 MHz	✓	
14000-14500 MHz	✓	✓

¹² *WAIT Radio*, 418 F.2d at 1159.

¹³ *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, 30 FCC Rcd 14713, 14817 ¶ 333 (2015) (“*Part 25 Second Report and Order*”).

All of the existing frequencies licensed on Intelsat 903 are also on Intelsat 35e. In addition, Intelsat 35e contains new frequencies at 13750-14000 MHz that are not on the Intelsat 903 satellite.¹⁴

E. Milestone and Bond Requirements

Intelsat 35e will be subject to the milestone and bond posting requirements set forth in Sections 25.164 and 25.165 of the Commission's rules because the 13750-14000 MHz frequencies are included on Intelsat 35e but are not on the Intelsat 903 satellite it is replacing.¹⁵ Intelsat will comply with the milestone and bond requirements in effect at time of grant.¹⁶

II. GRANT OF THIS APPLICATION WILL SERVE THE PUBLIC INTEREST

The Commission recognizes a "replacement expectancy" in orbital locations in order to protect the large investments made by satellite operators. The agency has stated,

[G]iven the huge costs of building and operating satellite space stations, there should be some assurance that operators will be able to continue to serve their customers. The Commission has

¹⁴ The Commission's online records in the International Bureau Filing System ("IBFS") indicate that the 13750-14000 MHz band is licensed to Intelsat 903. As demonstrated in Table 3.3-1 of Volume II, Annex 1 of Intelsat's application to launch and operate Intelsat 903, Intelsat did not request authorization to use these frequencies. The Commission's order granting the application for Intelsat 903 did not include a list of frequencies on which Intelsat 903 would be authorized to operate. *See Applications of Intelsat LLC for Authority to Operate, and to Further construct, Launch, and Operate C-band and Ku-band Satellites that Form a Global Communications System in Geostationary Orbit*, Memorandum Opinion and Order, 15 FCC Rcd 15460 (2000). Intelsat concludes that the inclusion of 13750-14000 MHz on IBFS was a clerical error. Accordingly, Intelsat will consider these to be new frequencies for the purposes of this application and will meet the milestone and bond requirements pursuant to Sections 25.164 and 25.165 of the Commission's rules. *See* Section I.E., *infra*. There is an existing U.S. ITU filing for these frequencies.

¹⁵ 47 C.F.R. §§ 25.164 and 25.165.

¹⁶ The Commission's Second Report and Order in the Part 25 streamlining proceeding revises Sections 25.164 and 25.165 to eliminate several milestones and replace the existing bond requirements with an escalating bond framework. *See Part 25 Second Report and Order* at 14849-14851.

therefore stated that, when the orbit location remains available for a U.S. satellite with the technical characteristics of the proposed replacement satellite, it will generally authorize the replacement satellite at the same location.¹⁷

In this case, Intelsat holds a replacement expectancy for the 34.5° W.L. orbital location because the Commission authorized Intelsat to operate Intelsat 903 at that location.¹⁸

In addition, grant of this application will serve the public interest by ensuring continuity of service to consumers from the 34.5° W.L. orbital location. Intelsat stands ready to deploy a replacement satellite to the 34.5° W.L. orbital location before Intelsat 903 reaches the end of its useful life or is relocated, and has made concrete steps toward constructing Intelsat 35e. The Commission has stated that granting replacement applications ensures that service will be provided to consumers as efficiently as possible because the current licensee will be familiar with the service requirements and, given its experience, should be able to deploy a replacement satellite in the shortest possible time.¹⁹

In addition, the Intelsat 35e satellite will allow Intelsat to expand its service offering in the region, for the benefit of consumers, by adding additional Ku-band capacity at the location.

¹⁷ *Columbia Communications Corporation Authorization to Launch and Operate a Geostationary C-band Replacement Satellite in the Fixed-Satellite Service at 37.5° W.L.*, Memorandum Opinion and Order, 16 FCC Rcd 20176, ¶ 7 (2001) (citing *Assignment of Orbital Locations to Space Stations in Domestic Fixed-Satellite Service*, Memorandum Opinion and Order, 3 FCC Rcd 6972, n.31 (1988) and *GE American Communications, Inc.*, Order and Authorization, 10 FCC Rcd 13775, ¶ 6 (Int'l Bur. 1995)).

¹⁸ See Intelsat 903 Authorization, *supra* n.2.

¹⁹ See *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, 18 FCC Rcd 1962, ¶ 83 (2003) (“Repairing or even replacing a malfunctioning satellite, for all its complexity, requires less time than designing and constructing a new system. Even in the worst case where a satellite is destroyed, a licensee can ordinarily replace a lost satellite with a ground spare at the next available launch window, or procure a technically identical satellite in an expedient manner since it would have already completed the complex design process.”).

The expansion of capacity and additional services available on the Intelsat 35e satellite will serve the public interest.

III. INTELSAT ACCEPTS SECTION 316 PETITION CONDITIONS

Intelsat understands and accepts that its license to operate Intelsat 35e at 34.5° W.L., with the exception of the 13750-14000 MHz frequencies, 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.²⁰

IV. USE OF THE 3625-3650 MHZ, 5850-5925 MHZ, 10950-11200 MHZ, 11450-11700 MHZ, AND 13750-14000 MHZ FREQUENCY BANDS

Intelsat understands that operations in the 3625-3650 MHz, 5850-5925 MHz, 10950-11200 MHz, 11450-11700 MHz, and 13750-14000 MHz frequency bands are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, for operations in the 3625-3650 MHz frequency band, Intelsat accepts the following condition:

- Intelsat’s use of the 3625-3650 MHz (space-to-Earth) band is subject to US245 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US245, which states that the 3600-3650 MHz use of the non-Federal fixed-satellite service is limited to international inter-continental systems and is subject to case-by-case electromagnetic compatibility analysis.

For operations in the 5850-5925 MHz frequency band, Intelsat accepts the following condition:

- Intelsat’s use of the 5850-5925 MHz band (Earth-to-space) is subject to footnote US245 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US245, which states that the 5850-5925 MHz use of the non-Federal fixed-satellite service is limited to international inter-continental systems and is subject

²⁰ 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-MSC-20060710-00076, Order of Modification, 23 FCC Rcd 2764, 2769-71 ¶¶ 11-13 (Int’l Bur. 2008).

to case-by-case electromagnetic compatibility analysis. Intelsat shall not claim protection from radiolocation transmitting stations operating in accordance with footnote G2.

For operations in the 10950-11200 MHz frequency band, Intelsat accepts the following conditions:

- Operations in the 10950-11200 MHz frequency band shall comply with the terms of 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.
- Operations in the 10950-11200 MHz frequency band are limited to international operations in accordance with footnote NG52 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, NG52.

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.

For operations in the 13750-14000 MHz band, Intelsat accepts the following conditions:

- In the 13750-14000 MHz band (Earth-to-space), receiving space stations in the fixed-satellite service shall not claim protection from radiolocation transmitting stations operating in accordance with the United States Table of Frequency Allocations.
- Pursuant to footnote US337 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, any earth station in the United States and its possessions communicating with the Intelsat 35e space station in the 13750-13800 MHz band (Earth-to-space) is required to coordinate through National Telecommunications and Information Administration's ("NTIA") Interdepartment Radio Advisory Committee's ("IRAC") Frequency Assignment Subcommittee ("FAS") to minimize interference to the National Aeronautics and Space Administration Tracking and Data Relay Satellite System, including manned space flight.

- Operations of any earth station in the United States and its possessions communicating with the Intelsat 35e space station in the 13750-14000 MHz band (Earth-to-space) shall comply with footnote US356 of United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US356, which specifies a mandatory minimum antenna diameter of 4.5 meters and a non-mandatory minimum and maximum equivalent isotropically radiated powers (“e.i.r.p.”). Operations of any earth station located outside the United States and its possessions communicating with the Intelsat 35e space station in the 13750-14000 MHz band (Earth-to-space) shall be consistent with footnote 5.502 to the ITU Radio Regulations, which allows a minimum antenna diameter of 1.2 meters for earth stations of a geostationary satellite orbit network and specifies mandatory power limits.
- Operators of earth stations accessing the Intelsat 35e space station in the 13750-14000 MHz band are encouraged to cooperate voluntarily with the National Aeronautics and Space Administration (“NASA”) in order to facilitate continued operation of NASA’s Tropical Rainfall Measuring Mission (“TRMM”) satellite.

V. CONCLUSION

Based on the foregoing, Intelsat respectfully requests that the Commission grant this replacement satellite application.

Respectfully submitted,

/s/ Susan H. Crandall

Susan H. Crandall
Associate General Counsel
Intelsat Corporation

Jennifer D. Hindin
Colleen King
WILEY REIN LLP
1776 K Street, N.W.
Washington, DC 20006

April 8, 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*.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”),³ based on the Bureau’s finding that PanAmSat had not satisfied applicable construction milestones.⁴ 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.

³ 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).

⁴ 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.