

S2381 SAT-AMD-20170613-00089 IB2017001548
Intelsat License LLC
Galaxy 3C



File # SAT-AMD-20170613-00089*
* See Also SAT-MOD-20170523-00077
Call Sign S2381 Grant Date 7/20/17
(or other identifier)
Term Dates
From 7/20/17 To: 6/3/2026
Approved by OMB
3060-0678
Approved: Kathryn J Medley
Chief, Satellite Engrs Br.

Date & Time Filed: Jun 13 2017 3:21:25:526PM
File Number: SAT-AMD-20170613-00089

*with
Conditions

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Amendment to Application of Intelsat License LLC to Modify Authorization for Galaxy 3C (S2381)


1-8. Legal Name of Applicant

Name:	Intelsat License LLC	Phone Number:	703-559-7848
DBA Name:		Fax Number:	703-559-8539
Street:	c/o Intelsat Corporation 7900 Tysons One Place	E-Mail:	susan.crandall@intelsat.com
City:	McLean	State:	VA
Country:	USA	Zipcode:	22102 -5972
Attention:	Susan H. Crandall		

ATTACHMENT TO GRANT

Intelsat License LLC

IBFS File Nos. SAT-MOD-20170523-00077 and SAT-AMD-20170613-00089

IBFS File No(s):	SAT-MOD-20170523-00077, SAT-AMD-20170613-00089	<p align="center">GRANTED – With Conditions</p>  <p align="center">International Bureau Satellite Division</p>
Licensee/Grantee:	Intelsat License LLC	
Call Sign:	S2381	
Satellite Name:	Galaxy 3C	
Orbital Location: (required station-keeping tolerance)	95.05° W.L. (+/- 0.05 degrees east-west station keeping)	
Administration:	United States of America	
Nature of Service:	Fixed-Satellite Service (FSS)	
Scope of Grant:	Extension of the authority to provide FSS via the Galaxy 3C space station at 95.05° W.L. through June 30, 2026.	
Previous Grant(s):	PanAmSat Licensee Corp. Application to Launch and Operate Galaxy III-C, IBFS File No. SAT-LOA-19980812-00082 (granted May 29, 2002); PanAmSat Licensee Corp., Galaxy III-C Modification, IBFS File No. SAT-MOD-20040405-0079 (granted June 15, 2004); PanAmSat Licensee Corp., Galaxy 3C Waiver, IBFS File No. SAT-MOD-20060303-00019 (granted Oct. 26, 2006).	
Service Area(s):	See IBFS File No. SAT-AMD-20170613-00089, Schedule S Tech Report at 5-25.	
Frequencies:	3700-4200.0 MHz (space-to-Earth) 5925-6675 MHz (Earth-to-space) 11.45-12.2 GHz (space-to-Earth) 13.75-14.5 GHz (Earth-to-space)	
<p>Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission’s rules not waived herein. This grant is also subject to the following conditions:</p> <ol style="list-style-type: none"> 1. Intelsat must operate Galaxy 3C at the 95.05° W.L. orbital location in accordance with any existing or future coordination agreements for this location. 2. In connection with the provision of service in any particular country, Intelsat is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country. 3. While at the 95.05° W.L. orbital location, Intelsat must maintain the Galaxy 3C spacecraft with an east/west longitudinal station-keeping tolerance of +/- 0.05 degrees. 4. The operations of Galaxy 3C and associated earth stations must comport with the applicable uplink and downlink limits in 47 CFR § 25.140(a)(3) of the Commission’s rules, unless Intelsat coordinates any non-conforming operations with the operations of U.S.-licensed geostationary orbit space stations within 6 degrees of the 95.05° W.L. orbital location. Intelsat must also comport with the maximum power limits indicated in existing or future coordination agreements at 95.05° W.L. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 95.05° W.L. involving approved communications with U.S.-licensed earth stations. 5. Operations of Galaxy 3C in the 6650-6675 MHz (Earth-to-space) and 14.47-14.5 GHz (Earth-to-space) frequency bands are subject to the terms of footnotes 5.149 and US342 to the United States Table of Frequency Allocations, 47 CFR § 2.106, 5.149, US342, which urge applicants to take all practicable steps to protect the radio astronomy service from harmful interference. 6. Operations of Galaxy 3C in the 6425-6675 MHz (Earth-to-space) frequency band is subject to Footnote 5.458 to the United States Table of Frequency Allocations, 47 CFR § 2.106, Footnote 5.458, which 		

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Intelsat License LLC

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- directs Intelsat to bear in mind the needs of the passive services when operating the Galaxy 3C space station.
7. Operations in the 11.45-11.7 GHz frequency band are subject to footnote US211 to the United States Table of Frequency Allocations, 47 CFR § 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.
 8. Intelsat's request for waiver of footnote NG52 of Section 2.106 is GRANTED as conditioned. Consistent with previous waivers granted to Galaxy 3C,¹ we find that, with respect to the domestic use of the 11.45-11.7 GHz band, waiver of footnote NG52 of Section 2.106 would not undermine the rule's purpose because receive-only earth stations are not capable of causing interference into fixed stations operating in the same frequency band. Furthermore, Intelsat cannot claim protection from interference caused to it by fixed stations operating in the 11.45-11.7 GHz frequency band.
 - a) Intelsat's space-to-Earth transmissions in the 11.45-11.7 GHz band that provide domestic service are on an unprotected, non-harmful interference basis relative to fixed stations and, as such, Intelsat must not cause harmful interference to, or claim protection from, fixed stations to which frequencies in the 11.45-11.7 GHz band have either been already assigned, or to which frequencies in the 11.45-11.7 GHz band may be assigned at a later date. Intelsat must terminate operations in the 11.45-11.7 GHz band upon notification that its operations are causing harmful interference to fixed stations operating in this band, and must immediately inform the Commission, in writing, of such an event.
 - b) Intelsat is required to inform its customers, in writing, including end-users receiving service from resellers accessing capacity on the Galaxy 3C space station, that domestic service in the United States in the 11.45-11.7 GHz frequency band is being provided on an unprotected basis, and is therefore subject to interference from fixed stations authorized to operate in the 11.45-11.7 GHz frequency band.
 9. The license term for Call Sign S2381 is extended from September 22, 2017, through June 30, 2026.
 10. Intelsat's request for a waiver of sections 25.114(d)(14) and 25.283(c), 47 CFR §§ 25.114(d)(14) and 25.283(c) is GRANTED. Section 25.283(c) specifies that space stations must discharge all stored energy sources at end-of-life of the space station. Intelsat indicates that Galaxy 3C is an Intelsat Model 702 spacecraft and was launched on September 22, 2002. Intelsat states that due to its design, Galaxy 3C's two pressurant tanks were sealed by firing pyrotechnic valves shortly after launch and will not be vented to depletion at the spacecraft's end of life. Intelsat states that the total mass of remaining pressurant in each of the two tanks will be approximately 270 grams at end of life, with each tank volume being approximately 69 liters. We grant the requested waivers because Galaxy 3C was launched before Section 25.283(c) was adopted and compliance would require direct retrieval of the satellite, which is not currently possible. In making this determination, however, we note that the information Intelsat submitted for its waiver is not sufficient to support a finding that the intent of the rule would be satisfied by the described procedure for sealing the oxidizer tanks.
 11. Upon expiration of the license term, Intelsat is responsible for the proper disposal of Galaxy 3C by moving it to a minimum altitude of 265.9 kilometers above the geostationary arc.²
 12. Within 30 days of completion of the end-of-life maneuvers, Intelsat shall send a letter to the Chief, Satellite Division, International Bureau, indicating the apogee and perigee of the Galaxy 3C disposal orbit.

¹ See *PanAmSat Licensee Corp.*, Galaxy 3C Waiver, IBFS File No. SAT-MOD-20060303-00019 (granted Oct. 26, 2006).

² See Application Narrative at 3.

ATTACHMENT TO GRANT

Intelsat License LLC

IBFS File Nos. SAT-MOD-20170523-00077 and SAT-AMD-20170613-00089

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

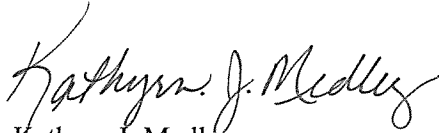
This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action Date:	July 20, 2017
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Term Dates	From: July 20, 2017	To: June 30, 2026
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Approved:



Kathryn J. Medley

Chief, Engineering Branch

9-16. Name of Contact Representative

Name:	Jennifer D. Hindin	Phone Number:	201-719-4975
Company:	Wiley Rein LLP	Fax Number:	202-719-7049
Street:	1776 K Stree, NW	E-Mail:	jhindin@wileyrein.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	-
Attention:	Jennifer D. Hindin	Relationship:	Legal Counsel

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

- a1. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- b3. Amendment to a Pending Application
- b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- b7. Notification of Minor Modification
- (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- (N/A) b10. Other (Please specify)
- (N/A) b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States
- (N/A) b12. Application for Database Entry
- b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:	
<input checked="" type="checkbox"/> a. Fixed Satellite <input type="checkbox"/> b. Mobile Satellite <input type="checkbox"/> c. Radiodetermination Satellite <input type="checkbox"/> d. Earth Exploration Satellite <input type="checkbox"/> e. Direct to Home Fixed Satellite <input type="checkbox"/> f. Digital Audio Radio Service <input type="checkbox"/> g. Other (please specify)	
21. STATUS: Choose the button next to the applicable status. Choose only one. <input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier	22. If earth station applicant, check all that apply. <input type="checkbox"/> Using U.S. licensed satellites <input type="checkbox"/> Using Non-U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities: <input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A	
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s). <input checked="" type="checkbox"/> a. C-Band (4/6 GHz) <input checked="" type="checkbox"/> b. Ku-Band (12/14 GHz) <input type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.) Frequency Lower: Frequency Upper: (Please specify additional frequencies in an attachment)	

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- a. Fixed Earth Station
- b. Temporary-Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Geostationary Space Station
- f. Non-Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive Transmit-Only Receive-Only N/A

"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

- a -- authorization to add new emission designator and related service
- b -- authorization to change emission designator and related service
- c -- authorization to increase EIRP and EIRP density
- d -- authorization to replace antenna
- e -- authorization to add antenna
- f -- authorization to relocate fixed station
- g -- authorization to change frequency(ies)
- h -- authorization to add frequency
- i -- authorization to add Points of Communication (satellites & countries)
- j -- authorization to change Points of Communication (satellites & countries)
- k -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l -- authorization to change orbit location
- m -- authorization to perform fleet management
- n -- authorization to extend milestones
- o -- Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments. Yes No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? Yes No N/A

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? Yes No
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances. Yes No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.

Yes No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances

Yes No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.

Yes No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

Yes No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.

Yes No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Intelsat License LLC, pursuant to Section 25.117 of the rules of the Federal Communications Commission), hereby seeks to amend its application to modify the authorization for Galaxy 3C (Call Sign S2381), a C- and Ku-band satellite operating at 95.05 W.L.

Narrative & Exhibits

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing
Susan H. Crandall

46. Title of Person Signing
Assoc. General Counsel, Intelsat Corporation

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WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

Intelsat License LLC

Application to Modify Authorization for
Galaxy 3C (S2381)

File No. SAT-AMD- _____

**AMENDMENT TO APPLICATION OF INTELSAT LICENSE LLC
TO MODIFY AUTHORIZATION FOR GALAXY 3C**

Intelsat License LLC (“Intelsat”), pursuant to Section 25.116 of the rules of the Federal Communications Commission (“Commission” or “FCC”),¹ hereby seeks to amend its application to modify the authorization for Galaxy 3C (Call Sign S2381), a C- and Ku-band satellite operating at 95.05° W.L.² Specifically, Intelsat is filing this amendment to request waiver of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission’s rules and, pursuant to FCC staff’s request, to provide a Schedule S.³ All other information in the modification application remains unchanged and Intelsat incorporates by reference the information previously provided.

¹ 47 C.F.R. § 25.116.

² See Intelsat License LLC, Application to Modify Authorization for Galaxy 3C Satellite (S2381), File No. SAT-MOD-20170523-00077 (filed May 23, 2017).

³ Intelsat previously sought waiver of § 25.114(a)(1) of the Commission’s rules, which requires submission of Schedule S. Intelsat’s provision of Schedule S as part of this amendment renders this waiver request moot. See *id.* at n. 5.

In accordance with the requirements of the Commission's rules,⁴ this application has been filed electronically as an attachment to FCC Form 312. Consistent with Section 1.62 of the Commission's rules,⁵ Intelsat will continue to operate the Galaxy 3C 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.

I. WAIVER REQUEST

Intelsat requests a waiver of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules,⁶ which require an applicant to demonstrate that all stored energy will be vented at the spacecraft's end of life.

Under Section 1.3 of the Commission's rules, the Commission has authority to waive its rules "for good cause shown."⁷ 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.⁸ In determining whether waiver is appropriate, the Commission should "take into account considerations of hardship, equity, or more effective implementation of overall policy."⁹ As shown below, there is good cause to waive Sections 25.114(d)(14)(ii) and 25.283(c).

⁴ 47 C.F.R. § 25.116(e).

⁵ 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).

⁶ 47 C.F.R. §§ 25.114(d)(14)(ii) & 25.283(c).

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

⁸ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

⁹ *WAIT Radio*, 418 F.2d at 1159.

Galaxy 3C is a Boeing model 702 spacecraft that is not designed to vent all pressurized systems. Instead, the pressurant for the Galaxy 3C satellite that was used during orbit raising was permanently isolated from the propulsion system by firing a pyrotechnic valve at beginning of on-orbit life such that the residual gas (about 5%) cannot be vented at end of life.

Waiver is appropriate in this case because grant would not undermine the purpose of these rules, which is to reduce the risk of accidental explosion and post de-orbit debris. Intelsat will ensure that all active units on the Galaxy 3C satellite are turned off and that all propellant tanks are depleted. In addition, the satellite's manufacturer, Boeing, has designed the Galaxy 3C spacecraft so that risk of accidental explosion causing additional orbital debris is minimal. First, the risk of accidental explosions is minimized because the pressures will be very low at end of life of the satellite, especially after the spacecraft is powered down and the temperature in the tanks drops. Galaxy 3C has two helium tanks with a volume of 69.0 liters each. The estimated mass and pressure of residual helium in each tank will be 270.0 grams and 2372.93 kPa (344.16 psia) at 18.3° C, respectively, at end-of-life. This minimal amount of residual helium will not cause the pressure in the tanks to exceed burst pressure, even in a worst case end-of-life temperature scenario. Additionally, Boeing has designed the tanks so that they leak before they burst. If a leak were to occur, there would not be sufficient energy in the gas stream to structurally damage the spacecraft and generate debris. Moreover, a leak would not significantly perturb the satellite's orbit because the expulsion of the pressurant gas would cause the spacecraft to tumble and the change in the spacecraft's velocity (i.e., the thrust) would be randomly distributed, with the resulting impact on the satellite orbit's apogee and perigee being very small.

Grant of the waiver is also supported on hardship grounds. Galaxy 3C is an in-orbit spacecraft. As such, a design change cannot be accomplished at this time. Avoiding such hardship is particularly appropriate where, as here, the licensee acted in good faith. Specifically, the Galaxy 3C satellite was licensed, launched, and operational prior to adoption of the rule. Finally, grant of waiver of Sections 25.283(c) and 25.114(d)(14)(ii) is consistent with waivers previously granted by the FCC.¹⁰ For all of these reasons, grant of the requested waiver is warranted.

II. 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
WILEY REIN LLP
1776 K Street, N.W.
Washington, D.C. 20006
June [], 2017

¹⁰ See e.g. PanAmSat Licensee Corp. Application to Modify Authorization for Intelsat, File No. SAT-MOD-20090720-00073 (stamp grant Aug. 5, 2010).

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 (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, 27 FCC Rcd 5,226 (IB 2012).. This change of control has not yet been fully consummated.