

Date & Time Filed: Jul 16 2007 3:20:03:696PM  
File Number: SAT-AMD-20070716-00102

S2237

Intelsat 11 @ 43.1 W.L

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

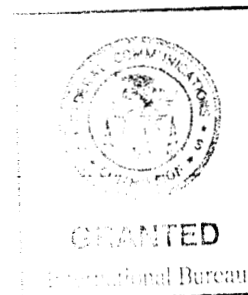
APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:  
Amendment to Change Orbital Location of Intelsat 11 to 43.1 W.L.

1-8. Legal Name of Applicant

<b>Name:</b>	PanAmSat Licensee Corp.	<b>Phone Number:</b>	202-944-7848
<b>DBA Name:</b>		<b>Fax Number:</b>	202-944-7870
<b>Street:</b>	3400 International Drive, N.W.	<b>E-Mail:</b>	susan.crandall@intelsat.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20008 -3006
<b>Attention:</b>	Susan H. Crandall		

See also SAT-MOD-20070207-00027



File # SAT-AMD-20070716-00102

Call Sign S2237 Grant Date 10/4/07  
(or other identifier) Term Dates \_\_\_\_\_

From \_\_\_\_\_ To: \_\_\_\_\_  
Approved: [Signature]

**Attachment**  
**Conditions of Authorization**  
**IBFS File Nos. SAT-MOD-20070207-00027, SAT-AMD-20070716-00102**  
**Call Sign: S2237**  
**October 4, 2007**

PanAmSat Licensee Corp.'s (PanAmSat)'s request to modify its authority to construct, launch, and operate a C and Ku-band satellite, INTELSAT 11,<sup>1</sup> IBFS File No. SAT-MOD-20070207-00027 as amended by SAT-AMD-20070716-00102 (Call Sign: S2237), at the 43.1° W.L orbital location IS GRANTED. Accordingly, PanAmSat is authorized to provide Fixed Satellite Services (FSS) in the 3700-4200 MHz (space-to-Earth), 5925-6425 MHz (Earth-to-space), 10.70-11.45 GHz (space-to-Earth), 12.75-13.25 GHz (Earth-to-space) and 13.75-14.00 GHz (Earth-to-space) frequency bands<sup>2</sup> using the INTELSAT 11 satellite at the 43.1° W.L orbital location, in accordance with the technical specifications set forth in application, this Attachment, and the Commission's Rules and subject to the following conditions:

1. PanAmSat shall operate the INTELSAT 11 satellite at the 43.1° W.L orbital location in compliance with all existing or future coordination agreements for that location.
2. PanAmSat shall prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, international coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. PanAmSat shall be held responsible for all cost-recovery fees associated with these ITU filings. We also note that no protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 C.F.R. §25.111(b).
3. INTELSAT 11 must begin providing service at the 43.1° W.L orbital location in the C- and Ku-bands before the satellites it is replacing discontinue service.<sup>3</sup> Failure to meet this milestone shall render this authorization null and void.

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<sup>1</sup> As part of its modification request, PanAmSat changed the name of the satellite from PAS-4R to INTELSAT 11.

<sup>2</sup> We note that PanAmSat's modification application for INTELSAT 11 does not include a request for the request for the 11.7-12.2 GHz, 12.5-12.75 GHz, and 14.0-14.5 GHz frequency bands. These bands are authorized for use on the PAS-2R satellite at the 43° W.L orbital location.

<sup>3</sup> Among other things, a replacement satellite is one that is scheduled to be launched so that it will be brought into use at approximately the same time as, but no later than, the existing satellites are retired. 47 C.F.R. § 25.165(e)(2).

4. PanAmSat's request for waiver of Section 25.210(i), of the Commission's rules, 47 C.F.R. § 25.210(i), IS GRANTED as conditioned. Section 25.210(i) directs, "Space station antennas in the Fixed-Satellite Service must be designed to provide a cross-polarization isolation such that the ratio of the on axis co-polar gain to the cross-polar gain of the antenna in the assigned frequency band shall be at least 30 dB within its primary coverage area." PanAmSat indicates that the cross-polarization isolation ratio for INTELSAT 11 C-band receive antenna is at least 30 dB in its primary coverage area, except Southern Chile and a small area in the northeast section of South America, where it is greater than 25 dB; in small sections of the northeast United States where the cross-polarization isolation ratio ranges from 18 to 30dB; and northern regions of Great Britain and Ireland where the cross-polarization is greater than 24 dB. Similarly, the cross-polarization isolation ratio for INTELSAT 11's C-band transmit antenna is at least 30 dB in its primary coverage area, except for west central South America and southern sections of Chile and Argentina, where the cross-polarization isolation ratio is equal to or greater than 24 dB; and northern sections of Europe, where the cross-polarization isolation ratio is greater than 25 dB. Also, INTELSAT 11's Ku-band receive antenna provides a cross-polarization isolation ratio of at least 30 dB in its primary coverage area, except for small sections of the southern and northern United States, where it is equal to or greater than 26 dB. We find that these shortfalls will not produce a significant increase in interference, except to the applicant itself, and will not adversely affect any other operator. As a condition of the grant of this waiver, PanAmSat must accommodate future satellite networks serving the United States that are two-degree compliant. Grant of this waiver request is consistent with our precedent.<sup>4</sup>
5. PanAmSat's request for a waiver of Section 25.210(a)(3) of the Commission's rules, 47 C.F.R. § 25.210(a)(3), IS GRANTED as conditioned. Section 25.210(a)(3) of the Commission's rules requires all space stations in the Fixed-Satellite Service in the C-band to be capable of switching polarization sense upon ground command.<sup>5</sup> PanAmSat acknowledges that the polarization of INTELSAT 11's C-band and Ku-band channels cannot be switched. The only operating co-frequency spacecraft located within 2 degrees of 43.1° W.L. is the IS-1R satellite operated by Intelsat. PanAmSat indicates that it will minimize any impact to IS-1R through coordination. As a condition of the grant of this waiver, PanAmSat must accommodate future satellite networks serving the United States that are compliant with section 25.210(a)(3). Grant of this waiver request is consistent with our precedent.<sup>6</sup>

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<sup>4</sup> Star One S.A.; Petition for Declaratory Ruling to Add The Star One C1 Satellite at 65° W.L. to the Permitted Space Station List, *Order*, 19 FCC Rcd 16334 (Int'l Bur., Sat. Div. 2004) (finding that the impact on neighboring satellite systems of a 3-5dB difference from the required cross polarization isolation ratio would be negligible).

<sup>5</sup> 47 C.F.R. § 25.210(a)(3).

<sup>6</sup> Telesat Canada; Petition for Declaratory Ruling for of Inclusion of ANIK F2 on the Permitted Space Station List, *Order*, 22 FCC Rcd (Int'l Bur., Sat. Div. 2007) (finding that harmful interference had been mitigated with conditions).

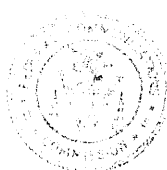
6. PanAmSat's request for waiver of Section 25.114(d)(3) of the Commission's rules, 47 C.F.R. § 25.114(d)(3), IS GRANTED. Section 25.114(d)(3) requires predicted space station antenna gain contour(s) for each transmit and each receive antenna beam and nominal orbital location requested. PanAmSat's application indicates that the wide coverage area, global horn, and omni antenna diagrams (Exhibits 6M through 6Q) and the ULPC horn antenna diagrams (Exhibits 6I and 6J) were not prepared in accordance with the parameters specified in Section 25.114(d)(3) of the Commission's Rules because the satellite manufacturer did not provide contours in the required format. We find, however, that Exhibits 6M through 6Q and Exhibits 6I and 6J, together with the descriptive characterization provided in Sections 2.8.1 and 2.9 of the application, respectively,<sup>7</sup> fulfill the requirements of Section 25.114(d)(3). Grant of this waiver request is consistent with our precedent.<sup>8</sup>
7. PanAmSat's request for a partial waiver of Section 25.283(c) of the Commission's rules, 47 C.F.R. 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. PanAmSat indicates that due to its design, INTELSAT 11's oxidizer tanks cannot be completely depleted but will retain approximately 13 kilograms of the oxidizer (less than a 3% fill fraction) after the oxidizer tanks are isolated from the Liquid Apogee Motor (LAE) and Dual Mode Thrusters (DMTs) immediately following the last orbit-raising maneuver. This waiver is granted because modification of the spacecraft would present an undue hardship, given the late stage of satellite construction. In making this determination, we note that, the information submitted in the application is not sufficient to support a finding that the intent of the rule would be satisfied by the described procedure for sealing the oxidizer tank.
8. The license term for the space station is 15 years and will begin on the date PanAmSat certifies to the Commission that the satellite has been successfully placed into orbit and its operation fully conforms to the terms and conditions of this authorization. 47 C.F.R. § 25.121(d)(1). PanAmSat shall file its certification with the Chief, Satellite Division, International Bureau within 5 business days of the satellite being placed into operation at the 43.1° W.L. orbital location.
9. PanAmSat is afforded thirty days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

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<sup>7</sup> See PanAmSat Licensee Corp. Application for Modification of Authority to Launch and Operate a C/Ku-band satellite at 169° E.L., SAT-MOD-20070207-00027 (Call Sign: S2237), Engineering Statement at 15 and 18.

<sup>8</sup> See SES Americom, Inc., Application for Modification of Space Station Authorization, DA 04-1581, *Order and Authorization*, 19 FCC Rcd. 20,377, 20,377-78 (paras. 4-8) (rel. May 27, 2004) (finding that the main purpose of the contour map is to allow evaluation of the potential for harmful interference with other operators and services in the frequency band).

10. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

 <b>GRANTED</b> International Bureau	File # <u>SAT-AMD-20070716-00102</u>
	Call Sign <u>S 2237</u> Grant Date <u>10/4/07</u> (or other identifier)
	From _____ Term Dates _____ To: _____
	Approved: <u>[Signature]</u> Policy Branch Chief

9-16. Name of Contact Representative

<b>Name:</b>	Jennifer D. Hindin	<b>Phone Number:</b>	202-719-4975
<b>Company:</b>	Wiley Rein LLP	<b>Fax Number:</b>	202-719-7207
<b>Street:</b>	1776 K Street, N.W.	<b>E-Mail:</b>	jhindin@wileyrein.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20006-
<b>Attention:</b>		<b>Relationship:</b>	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?  Yes  No

30. Is the applicant an alien or the representative of an alien?  Yes  No  N/A

31. Is the applicant a corporation organized under the laws of any foreign government?  Yes  No  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?  Yes  No  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?  
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

Yes  No

Technical Exhibit

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.)

PanAmSat Licensee Corp. herein amends its pending modification application for its Intelsat 11 satellite in order to change the requested authorized orbital location from 43.0 W.L. to 43.1 W.L. and to revise its orbital debris statement.

Attachment

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  
Asst. Gen. Counsel, Intelsat Corporation

—>

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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Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

**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

PanAmSat Licensee Corp.

Amendment to Application for  
Modification of Authority to Launch and  
Operate

File Nos. SAT-AMD-\_\_\_\_\_  
SAT-MOD-20070207-00027

**Amendment**

PanAmSat Licensee Corp. (“PanAmSat”), pursuant to Section 25.116 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,<sup>1</sup> hereby requests amendment of the above captioned application seeking authority to modify the orbital location of the Intelsat 11 satellite (call sign S2237). With this amendment, PanAmSat (1) seeks authority to change the requested authorized orbital location of the Intelsat 11 satellite from 43.0° W.L. to 43.1° W.L; and (2) revises its orbital debris mitigation statement and seeks waiver of Section 25.283(c) of the Commission’s rules to the extent that the rule requires PanAmSat to discharge all propellant remaining in the satellite upon de-orbiting.<sup>2</sup>

In support of these requests, PanAmSat attaches hereto a Schedule S (showing the requested new orbital location) and an amended Engineering Statement (updating technical information to reflect the new orbital location and revising PanAmSat’s orbital debris mitigation disclosure). All other information provided in the pending modification

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<sup>1</sup> 47 C.F.R. § 25.116.

<sup>2</sup> 47 C.F.R. § 25.283(c) (“...a space station licensee shall ensure, unless prevented by technical failures beyond its control, that all stored energy sources on board the satellite are discharged, by venting excess propellant, discharging batteries, relieving pressure vessels, and other appropriate measures”).

application will remain unchanged. In accordance with the requirements of Section 25.116(e) of the Commission's rules, 47 C.F.R. § 25.116(e), this amendment is being filed electronically as an attachment to FCC Form 312.

**I. REQUEST TO CHANGE ORBITAL LOCATION TO 43.1° W.L.**

PanAmSat currently has a pending modification application to operate Intelsat 11 at the 43.0° W.L. orbital location.<sup>3</sup> PanAmSat requests amendment of this application to instead operate Intelsat 11 at 43.1° W.L.<sup>4</sup>

The proposed modification of PanAmSat's deployment plan will serve the public interest. PanAmSat's proposed amendment will not change the nominal orbital location of the Intelsat 11 satellite. At 43.1° W.L., Intelsat 11 will be temporarily collocated with Intelsat 6B, which is currently operating at 43.1° W.L.,<sup>5</sup> but will, with FCC authorization, be drifted to 43.2° W.L.<sup>6</sup> Intelsat 3R is currently operating at 43.0° W.L.<sup>7</sup> The operation of Intelsat 11 at 43.1° W.L. will therefore permit PanAmSat to maintain safe station-keeping at the nominal 43.0° W.L. orbital location with other satellites operated by PanAmSat.

Grant of this amendment will also ensure that PanAmSat is able to maintain continuity of service to customers at the nominal 43.0° W.L. orbital location. The

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<sup>3</sup> See *PanAmSat Licensee Corp.*, File No. SAT-MOD-20070207-00027 (filed Feb. 7, 2007).

<sup>4</sup> As noted in the attached revised Engineering Statement, Intelsat 11 and Intelsat 6B will be co-located for a short period of time at 43.1° W.L. (1 to 2 days).

<sup>5</sup> See *PanAmSat Licensee Corp.* File No. SAT-MOD-20040405-00077, *Satellite Policy Branch Information*, Public Notice, Report No. SAT-00222 (June 18, 2004).

<sup>6</sup> PanAmSat will shortly request authority for this satellite move.

<sup>7</sup> See *PanAmSat Licensee Corp.*, File No. SAT-MOD-19950310-00044.

Intelsat 6B and Intelsat 3R satellites at the nominal 43.0° W.L. orbital location are both projected to reach the end of their useful lives in 2008. In order to maintain continuity of service to customers from this orbital location, services need to be shifted to newer satellites, such as the Intelsat 11 satellite.

Finally, PanAmSat will operate Intelsat 11 at 43.1° W.L. consistent with international coordination agreements and thus the requested amendment will not adversely affect any party. Accordingly, grant of PanAmSat's request to relocate Intelsat 11 to 43.1° W.L. will serve the public interest.

## **II. REVISED ORBITAL DEBRIS MITIGATION STATEMENT AND REQUEST FOR WAIVER**

PanAmSat's pending request for modification to operate Intelsat 11 at 43.0° W.L. triggered, for the first time with respect to this satellite, a procedural obligation under Section 25.114(d)(14)(ii) to submit an orbital debris mitigation statement.<sup>8</sup> In that statement, PanAmSat noted that it would discharge all remaining propellant upon de-orbiting, pursuant to the current orbital debris mitigation requirements. Following submission of its statement, however, PanAmSat learned that the satellite's manufacturer – Orbital Sciences Corporation ("Orbital") – did not design or construct Intelsat 11 to allow for the discharge of all propellant upon de-orbiting. Accordingly, this amendment attaches a revised Section 11.2 (Minimizing Accidental Explosions), which replaces the Section 11.2 that is contained in Section 11.0 (Orbital Debris Mitigation Plan) of the Engineering Statement attached to the pending modification application.

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<sup>8</sup> The Commission excluded "authorized space station and earth station operations" from the orbital debris mitigation disclosure rules that became effective October 19, 2005 until an existing licensee sought authority to modify its authorization. *Disclosure of Orbital Debris Mitigation Plans, Including Amendments of Pending Applications*, Public Notice, Report No. SPB-112, DA 05-2698 (Oct. 13, 2005).

To the extent Section 25.283(c) of the Commission's rules requires PanAmSat to discharge all propellant remaining in the Intelsat 11 satellite upon de-orbiting, PanAmSat requests waiver of this rule. Under Section 1.3 of the Commission's rules, the Commission has authority to waive its rules "for good cause shown."<sup>9</sup> 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.<sup>10</sup> In determining whether waiver is appropriate, the Commission should "take into account considerations of hardship, equity, or more effective implementation of overall policy."<sup>11</sup> As shown below, there is good cause for the requested waiver.

Waiver is appropriate in this case because grant would not undermine the purpose of the rule, which is to reduce the risk of accidental explosion. Orbital has informed PanAmSat that it expects Intelsat 11 to have less than 13 kilograms of residual oxidizer at the end of the mission (less than 3 percent of total). This minimal amount of oxidizer will not cause the pressure in the oxidizer tank to exceed its burst pressure, even in a worst case end-of-life temperature scenario. Moreover, PanAmSat will take steps to minimize the risk of reaction between fuel and oxidizer by venting both the fuel and pressurant through thrusters at the end of the mission. Oxidizer remaining in the propellant manifolds also will be expelled by performing an engine pulsing maneuver. The minimal amount of residual oxidizer, combined with these end-of-life measures, will

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<sup>9</sup> 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

<sup>10</sup> *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>11</sup> *WAIT Radio*, 418 F.2d at 1159.

ensure that there is little risk of accidental explosion following the end-of-life of the Intelsat 11 satellite.

Grant of the waiver is also supported on hardship grounds. Construction of Intelsat 11 is substantially complete.<sup>12</sup> As such, a design change cannot be accomplished at this time without great cost and without placing the satellite's projected launch date at risk. Avoiding such hardship is particularly appropriate where, as here, the licensee acted in good faith. PanAmSat always intended to comply with the Commission's orbital debris mitigation rules. Waiver in these circumstances is further supported by the fact that the Intelsat 11 satellite was licensed prior to adoption of the rule requiring discharge of remaining fuel at end-of-life.<sup>13</sup>

For these reasons, the public interest would be served by waiver of the Section 25.283(c) requirement.

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<sup>12</sup> As noted in the recent Annual Satellite Status Report filed jointly by Intelsat North America LLC, PanAmSat Licensee Corp. and PanAmSat H-2 Licensee Corp., Intelsat 11 is presently undergoing final integrated system tests leading to a ready-to-launch date of August 2007. See *Intelsat North America LLC, PanAmSat Licensee Corp. and PanAmSat H-2 Licensee Corp. Annual Status Report to the FCC (Data as of May 31, 2007) June 30, 2007* at 2 (Part I Status of Satellite Construction) (Public Version) (July 2, 2007). The satellite is currently scheduled to be launched on September 21, 2007.

<sup>13</sup> The Commission originally granted PanAmSat authority to launch the Intelsat 11 satellite on March 11, 2004. See *PanAmSat Licensee Corp.*, File No. SAT-LOA-20000929-00137, Grant of Launch and Operating Authority, *Satellite Policy Branch Information*, Public Notice, Report No. SAT-00158 (Aug. 29, 2003). The Commission's orbital debris mitigation rule requiring discharge of all propellant, Section 25.283(c), was adopted in an order released June 21, 2004, *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004), that became effective October 12, 2004. *Mitigation of Orbital Debris*, 69 Fed. Reg. 54581-54589 (Sept. 9, 2004).

**III. CONCLUSION**

Based on the foregoing, PanAmSat respectfully requests that the Commission grant this amendment application.

Respectfully submitted,

*/s/ Susan H. Crandall*

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Intelsat Corporation

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July 16, 2007

**Exhibit A**  
**FCC Form 312, Response to Question 34: Foreign Ownership**

The Commission previously approved the foreign ownership in PanAmSat Licensee Corp. 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, FCC 06-85 (rel. June 19, 2006) (“*Intelsat-PAS Order*”). There have been no material changes to the foreign ownership since the date of the *Intelsat-PAS Order*.



**Exhibit B**  
**FCC Form 312, Response to Question 36: Cancelled Authorizations**

PanAmSat Licensee Corp. has never had an FCC license “revoked.”

However, on June 26, 2000, the International Bureau “cancelled” two Ka-band satellite authorizations issued to PanAmSat Licensee Corp. based on the Bureau’s finding that PanAmSat Licensee Corp. had not satisfied applicable construction milestones. *See* PanAmSat Licensee Corp., Memorandum Opinion and Order, DA 00-1266, 15 FCC Rcd 18720 (IB 2000). In that same order, the Bureau denied related applications to modify the cancelled authorizations. PanAmSat Licensee Corp. 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 Licensee Corp.’s request. Notwithstanding the fact that the Bureau’s action does not seem to be the kind of revocation action contemplated by question 36, PanAmSat Licensee Corp. 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 Licensee Corp. does not reflect on PanAmSat Licensee Corp.’s basic qualifications, which are well-established and a matter of public record.

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

Following are the officers of PanAmSat Licensee Corp.:

James B. Frownfelter, President & COO  
Patricia Casey, General Counsel & Secretary  
Anita Beier, Controller  
Linda Kokal, Treasurer

The address of all PanAmSat Licensee Corp. officers is:

3400 International Drive NW  
Washington, DC 20008-3006

PanAmSat Licensee Corp. is wholly owned by PanAmSat International Systems LLC, which in turn is wholly owned by Intelsat Corporation (formerly known as PanAmSat Corporation). Intelsat Corporation holds 59% of its interest in PanAmSat International Systems LLC directly and 41% indirectly. (Specifically, Intelsat Corporation wholly owns 100% of PanAmSat International Holdings LLC, which wholly owns USHI, LLC, which in turn holds a direct, 41% interest in PanAmSat International Systems LLC.) Intelsat Corporation is wholly owned by Intelsat Holding Corporation (formerly known as PanAmSat Holding Corporation). Intelsat Holding Corporation is wholly owned by Intelsat (Poland) Sp. z.o.o., which is in turn wholly owned by Intelsat (Luxembourg) Sarl, which is in turn wholly owned by Intelsat (Gibraltar), Ltd., which is in turn wholly owned by Intelsat (Bermuda), Ltd. Intelsat (Bermuda), Ltd. is wholly owned by Intelsat, Ltd. Intelsat, Ltd., in turn, is wholly owned by Intelsat Holdings, Ltd.

Following are the officers and directors of Intelsat Holdings, Ltd.:

**Officers**

Joseph Wright, Chairman  
David P. McGlade, Chief Executive Officer  
Andrew D. Africk, Deputy Chairman  
Jeffrey Freimark, Executive Vice President and Chief Financial Officer  
Phillip Spector, Executive Vice President, General Counsel, and Assistant Secretary  
Gloria Dill, Secretary

**Directors**

Andrew D. Africk  
Douglas Grissom  
Richard A. Haight  
David P. McGlade  
James N. Perry, Jr.

Alan Peyrat  
 Andrew P. Sillitoe  
 Aaron J. Stone  
 Nicola Volpi  
 Joseph Wright

Shareholders holding 10% or more of the voting stock of Intelsat Holdings, Ltd. are as follows (percentage ownerships indicated are approximate):

Shareholder	Jurisdiction of Incorporation	Address	% of voting <sup>14</sup> and equity stock
AIF V Euro Holdings, L.P.	Cayman Islands	c/o Walkers SPV Limited Walker House PO Box 908GT George Town, Grand Cayman Cayman Islands	23.9% of voting stock 31.4% of Series A Common Stock
Apax WW Nominees Ltd. <sup>15</sup>	United Kingdom	15 Portland Place London W1B 1PT	22.2% of voting stock 92.8% of Series B Common Stock
MDCP IV Global Investments, L.P.	Cayman Islands	c/o Walkers SPV Limited PO Box 908GT Walker House Mary Street George Town, Grand Cayman Cayman Islands, B.W.I.	23.9% of voting stock 31.4% of Series A Common Stock
Permira Europe III L.P. 2 <sup>16</sup>	Guernsey	PO Box 255 Trafalgar Court Les Banques St. Peter Port, Guernsey CI, GY1 3QL	17.2% of voting stock 22.6% of Series A Common Stock

<sup>14</sup> The percentage of voting stock is calculated by dividing the number of votes represented by the common shares held by the entity by the total number of votes represented by the common shares that are outstanding and have the right to vote.

<sup>15</sup> Registered shareholder for nine entities. Other entities advised by or associated with Apax Partners hold, in the aggregate, an additional 1.7% of voting stock and 7.2% of Series B Common Stock of Intelsat Holdings, Ltd.

<sup>16</sup> Other entities affiliated or otherwise associated with Permira Europe III, L.P. 2 hold, in the aggregate, an additional 6.7% of voting stock and 8.9% of Series A Common Stock of Intelsat Holdings, Ltd.