

Approved by OMB
3060-0678

Date & Time Filed: Jul 31 2007 3:27:39:210PM
File Number: SAT-AMD-20070731-00108

52423

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 of Pending Application to Relocate Horizons 2 from 74.0 W.L. to 74.05 W.L.

1-8. Legal Name of Applicant			
Name:	PanAmSat H-2 Licensee Corp.	Phone Number:	202-944-7848
DBA Name:		Fax Number:	202-944-7860
Street:	3400 International Drive, N.W.	E-Mail:	susan.crandall@intelsat.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20008 -3006
Attention:	Susan H. Crandall		

1



File # SAT-AMD-20070731-00108

Call Sign 52423 Grant Date 11/30/07
(or other Identifier)

Term Dates
From EO To: + 15 years

Approved: [Signature]
Policy Branch Chief

w/conditross

**Attachment
 Conditions of Authorization
 IBFS File Nos. SAT-MOD-20070628-00090, SAT-AMD-20070731-00108, and
 SAT-STA-20071029-00147
 PanAmSat Horizons 2
 Call Sign: S2423
 November 30, 2007**

PanAmSat H-2 Licensee Corp.'s (PanAmSat)'s request to modify its authorization to launch and operate a Ku-band satellite, Horizons 2,¹ IBFS File No. SAT-MOD-20070628-00090 as amended by File No. SAT-AMD-20070731-00108 (Call Sign: S2423), to be located at the 74.05° W.L. orbital location IS GRANTED. Accordingly, PanAmSat is authorized to provide Fixed Satellite Services (FSS) in the 11.7-12.2 GHz (space to Earth) and 14.0-14.5 (Earth to space) frequency bands using the Horizons 2 satellite at the 74.05° W.L orbital location, in accordance with the technical specifications set forth in its application, this Attachment, and the Commission's Rules and subject to the following conditions:

1. PanAmSat shall operate the Horizons 2 satellite at the 74.05° 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. Horizons 2 must begin providing service at the 74.05° W.L orbital location in the Ku-bands before the satellites it is replacing discontinues service at the 74.05° W.L orbital location.² Failure to meet this milestone date shall render this authorization null and void.

4. PanAmSat's request for waiver of Section 25.114(d)(3) of the Commission's

File #s
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 To:
 From:
 Approved: [Signature]
 Policy Branch Chief
 w/conditions

¹ As part of its modification request, PanAmSat changed the name of the satellite from SBS-6R to Horizons 2.

² 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).

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 Omni Antenna diagrams (Exhibits 6H, 6I, 6K, and 6L) 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 form since pointing of the omni antennas with respect to the Earth will vary during emergency situations. Similarly, PanAmSat's application indicates that the ULPC global horn antenna diagram (Exhibit 6M) was 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 form. Under these specific circumstances, we find that Exhibits 6H, 6I, 6K, 6L, and 6M, together with the descriptive characterization provided in Sections 2.7.1 and 2.8 of the application,³ respectively, fulfill the requirements of Section 25.114(d)(3). Grant of this waiver request is consistent with our precedent.⁴

5. 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, Horizon 2'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.⁵

6. 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. 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 74.05° W.L. orbital location.

7. 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

³ See PanAmSat H-2 Licensee Corp. application for modification of authorization to launch and operate its Horizons-2 satellite (Call Sign: S2423) at 74.5° W.L, SAT-MOD-20070628-00090, Engineering Statement at 10-11, 13.

⁴ See SES Americom, Inc., Application for Modification of Space Station Authorization, DA 04-1581, *Order and Authorization*, 19 FCC Rcd. 20,377, 20,378-79 (paras. 4-8) (Int'l Bur., Sat. Div. 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).

⁵ We note that the manufacturer of the Horizons 2 satellite has indicated that changes to its spacecraft design will allow its future satellites to be fully compliant with the requirements of Section 25.283(c), 47 C.F.R. 25.283(c).

period will constitute formal acceptance of the authorization as conditioned.

8. PanAmSat's Licensee Corp.'s request for special temporary authority to conduct in-orbit testing of Horizons 2 at the 67.5° W.L. orbital location for a period of 60 days prior to Horizon 2's installation at the 74.05° W.L. orbital location, File No. SAT-STA-20071029-00147, IS GRANTED. Accordingly, PanAmSat H-2 Licensee Corp. is authorized to conduct space station Telemetry, Tracking, and Control operations on Horizons 2 necessary to effect operation at the 67.5° W.L. orbital location in the 11.7-12.2 GHz (space to Earth) and 14.0-14.5 (Earth to space) frequency bands from December 26, 2007 to February 23, 2007, subject to the following conditions:

- a. All operations shall be on an unprotected and non-harmful interference basis, *i.e.*, PanAmSat shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radiocommunication system.
- b. In the event of any harmful interference as a result of PanAmSat's operations at the 67.5° W.L. orbital location, PanAmSat shall cease operations immediately upon notification of such interference and shall inform the FCC, in writing, immediately of such an event.
- c. While at the 67.5° W.L. orbital location, PanAmSat shall maintain the Horizons 2 spacecraft with an east/west longitudinal station-keeping tolerance of 0.05 degrees.
- d. Any actions taken as a result of the launch and operation of Horizons 2 are solely at PanAmSat's own risk.

9. These actions are issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and are effective upon grant. 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 these actions were taken.

9-16. Name of Contact Representative

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

<p>17c. Is a fee submitted with this application?</p> <p><input checked="checked" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).</p> <p><input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee</p> <p><input type="radio"/> Other (please explain):</p>	
<p>17d.</p> <p>Fee Classification CWY – Space Station Amendment (Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: S2423</p>	<p>19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:</p> <p>(a) Date pending application was filed: 06/28/2007</p> <p>(b) File number: SATMOD2007062800090</p>

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 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

<p>25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.</p> <ul style="list-style-type: none"><input type="radio"/> a. Fixed Earth Station<input type="radio"/> b. Temporary-Fixed Earth Station<input type="radio"/> c. 12/14 GHz VSAT Network<input type="radio"/> d. Mobile Earth Station<input checked="" type="radio"/> e. Geostationary Space Station<input type="radio"/> f. Non-Geostationary Space Station<input type="radio"/> g. Other (please specify)
<p>26. TYPE OF EARTH STATION FACILITY:</p> <p><input type="radio"/> Transmit/Receive <input type="radio"/> Transmit-Only <input type="radio"/> Receive-Only <input checked="" type="radio"/> N/A</p> <p>"For Space Station applications, select N/A."</p>

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.	<input type="radio"/> Yes <input checked="" type="radio"/> No
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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.

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

<p>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.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>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</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>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.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>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.</p>	

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 H-2 Licensee Corp. herein amends its pending modification application for its Horizons 2 satellite in order to revise the 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

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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).

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Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of

PanAmSat H-2 Licensee Corp.

Amendment to Modification of
Authorization to Relocate Horizons 2
from 74.0° W.L. to 74.05° W.L.

File Nos. SAT-AMD-_____

SAT-MOD-20070628-00090

Amendment

PanAmSat H-2 Licensee Corp. (“PanAmSat”), pursuant to Section 25.116 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,¹ hereby requests amendment of the above captioned application seeking authority to modify the orbital location of the Horizons 2 satellite (call sign S2423). With this amendment, PanAmSat 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.²

In support of this request, PanAmSat attaches hereto an amended Engineering Statement (revising PanAmSat’s orbital debris mitigation disclosure). All other information provided in the pending modification application, including the corresponding Schedule S, 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.

¹ 47 C.F.R. § 25.116.

² 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”).

I. REVISED ORBITAL DEBRIS MITIGATION STATEMENT AND REQUEST FOR WAIVER

PanAmSat's pending request for modification to launch and operate Horizons 2 at 74.05° W.L. instead of 74.0° W.L triggered, for the first time, a procedural obligation under Section 25.114(d)(14)(ii) to submit an orbital debris mitigation statement.³ 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 Horizons 2 to allow for the discharge of all propellant upon de-orbiting. Accordingly, this amendment attaches a revised Section 12.2 (Minimizing Accidental Explosions), which replaces the Section 12.2 that is contained in Section 12.0 (Orbital Debris Mitigation Plan) of the Engineering Statement attached to the pending modification application.

To the extent Section 25.283(c) of the Commission's rules requires PanAmSat to discharge all propellant remaining in the Horizons 2 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.”⁴ 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.⁵ In determining

³ 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).

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

⁵ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C.Cir. 1990).

whether waiver is appropriate, the Commission should “take into account considerations of hardship, equity, or more effective implementation of overall policy.”⁶ 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 Horizons 2 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 ensure that there is little risk of accidental explosion following the end-of-life of the Horizons 2 satellite.

Grant of the waiver is also supported on hardship grounds. Construction of the Horizons 2 satellite is substantially complete.⁷ As such, a design change cannot be

⁶ *WAIT Radio*, 418 F.2d at 1159.

⁷ In the recent Annual Satellite Status Report filed jointly by Intelsat North America LLC, PanAmSat Licensee Corp. and PanAmSat H-2 Licensee Corp., PanAmSat stated that Horizons 2 “is presently undergoing thermal vacuum system tests, to be followed by final integrated system tests leading to a ready-to-ship 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 presently undergoing re-installation of certain flight units. Once this activity is completed, the satellite will undergo a set of validation tests prior to the final integrated systems tests. As a result of these activities, the ready-to-ship date has been delayed to October 2007, consistent with the revised launch schedule of December 2007.

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 Horizons 2 satellite was licensed prior to adoption of the rule requiring discharge of remaining fuel at end-of-life.⁸

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

II. CONCLUSION

Based on the foregoing, PanAmSat respectfully requests that the Commission grant this amendment and requested waiver.

Respectfully submitted,

/s/ Susan H. Crandall

Susan H. Crandall
Assistant General Counsel
Intelsat Corporation

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

July 31, 2007

⁸ The Commission originally granted PanAmSat authority to launch the Horizons 2 satellite on August 19, 2003. *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).

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

The Commission previously approved the foreign ownership in PanAmSat H-2 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 H-2 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., a sister company of PanAmSat H-2 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 or PanAmSat H-2 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 H-2 Licensee Corp.:

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

The address of all PanAmSat H-2 Licensee Corp. officers is:

3400 International Drive NW
Washington, DC 20008-3006

PanAmSat H-2 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 ¹ 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. ²	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. ³	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

¹ 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.

² 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.

³ 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.

Engineering Statement

The Orbital Debris Mitigation Plan contained in the pending modification application included the statement that “PanAmSat will ensure the removal of all stored energy on the spacecraft by depleting all propellant tanks, venting all pressurized systems, isolating the batteries from the spacecraft bus, and turning off all active units.” This statement is being revised herein because PanAmSat has recently learned that oxidizer not used during maneuvers to place the satellite in orbit cannot be depleted at the end of the mission as a result of the satellite’s design. As a consequence, section 12.2) (Minimizing Accidental Explosions) of section 12.0) (Orbital Debris Mitigation Plan) in the Engineering Statement attached to the pending modification application should be replaced by the text in Attachment A.

No Schedule S is being submitted herewith because the Schedule S included in the pending modification application remains unchanged.

Certification Statement

I hereby certify that I am a technically qualified person and am familiar with Part 25 of the Commission's Rules and Regulations. The contents of this engineering statement were prepared by me or under my direct supervision and to the best of my knowledge are complete and accurate.

/s/ Jose Albuquerque

Jose Albuquerque
Intelsat
Senior Manager
Spectrum Engineering

July 27, 2007

Date

Attachment A

Revised Section 12.2 of the Engineering Statement

12.2) Minimizing Accidental Explosions

PanAmSat has assessed the probability of accidental explosions during and after completion of mission operations. The spacecraft is designed in a manner to minimize the potential for such explosions. Propellant tanks and thrusters are isolated using redundant valves and electrical power systems are shielded in accordance with standard industry practices. At the completion of the mission, and upon disposal of the spacecraft, PanAmSat will, with the exception of the oxidizer tanks discussed below, ensure the removal of all stored energy on the spacecraft by depleting all propellant tanks, venting all pressurized systems, isolating the batteries from the spacecraft bus, and turning off all active units.

Orbital's standard operational approach isolates the oxidizer tanks from both the Liquid Apogee Motor (LAE) and Dual Mode Thrusters (DMTs) immediately following the last orbit raising maneuver. Typically, some residual oxidizer remains in the tank following the isolation. Isolation is achieved by firing pyro-valves, which means that the unspent oxidizer cannot be expelled from the oxidizer tanks at the end of the mission. The oxidizer tanks hold a total of 446.4 kg of oxidizer and it is currently anticipated that less than 13 kilograms of residual oxidizer will be carried throughout the mission (less than a 3% fill fraction).

Venting both fuel and pressurant through thrusters at the end of the mission minimizes the risk of reaction between fuel and oxidizer. Also, oxidizer remaining in the propellant manifolds between the pyro valves and the LAE/DMT thrusters will be expelled at the end of life by performing an engine pulsing maneuver. The risk of an explosive reaction is further reduced by isolating the oxidizer tanks from the remainder of the propulsion system. In addition, at the worst case end-of-life temperature with a 3% fill fraction the pressure in the oxidizer tank will not exceed its burst pressure.