

E040286  
Intelsat LLC

SES-STA-20060131-00188

IB2006000328

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
STA To Conduct IOT of Spainsat at 30.3W.L.

1. Applicant

<b>Name:</b>	Intelsat LLC	<b>Phone Number:</b>	202-944-7848
<b>DBA Name:</b>		<b>Fax Number:</b>	202-944-7860
<b>Street:</b>	c/o Intelsat Global Svc. Corp. 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		

*Conditions Attached*



File # SES-STA-20060131-00188

Call Sign E040286 **Grant Date** Feb. 17, 2006  
(or other identifier)

**Term Dates**  
From March 6, 2006 To April 2, 2006

Approved: Jeanette R. Spriggs

**2. Contact**

<b>Name:</b>	Susan H. Crandall	<b>Phone Number:</b>	202-944-7848
<b>Company:</b>	Intelsat Global Svc. Corp.	<b>Fax Number:</b>	202-944-7860
<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>		<b>Relationship:</b>	Legal Counsel

(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)

3. Reference File Number SESSTA2006010900022 or Submission ID

4a. Is a fee submitted with this application?

- If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).  
 Governmental Entity     Noncommercial educational licensee  
 Other (please explain):

4b. Fee Classification CGX - Fixed Satellite Transmit/Receive Earth Station

5. Type Request

- Use Prior to Grant                       Change Station Location                       Other

6. Requested Use Prior Date  
03/03/2006

7. City Clarksburg

8. Latitude  
(dd mm ss.s h) 39 13 6.0 N

9. State MD	10. Longitude (dd mm ss.s h) 77 16 16.0 W
11. Please supply any need attachments. Attachment 1: Exhibits A-C                      Attachment 2: Exhibits D-E                      Attachment 3: Schedule S	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">Intelsat LLC herein requests a grant of STA from 03/03/06 through 04/02/06 to provide in-orbit testing by its Clarksburg, MD Ka-Band transmit/receive earth station E040286 in support of the Spainsat satellite currently planned for launch in late February.</div>	
13. 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. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing Susan H. Crandall	15. Title of Person Signing Assistant General Counsel, IGSC
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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**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.**

## Attachment

Call Sign E040286

File No. SES-STA-20060131-00188

Intelsat LLC's request for temporary authority to provide earth station communications from Clarksburg, MD to Spain's Spainsat satellite at 30.3 W.L. in the bands 20.2-21.2 (space-to-Earth) and 30-31 GHz (Earth-to-space) is GRANTED WITH CONDITIONS. After the IOT, the Spainsat satellite is to support Spanish Ministry of Defense, including NATO operations, from a location of 30W.L. Based on the exceptional circumstances of this request, Intelsat is authorized to operate the Clarksburg earth station with the Spainsat satellite on a non-interference basis till no later than April 2, 2006, in accordance with the terms, conditions, and technical specifications set forth in the application, this Attachment (including the Intelsat-to-FCC letter of February 13, 2006), and the Commission's Rules.

1. This grant is limited to a period of 5 days or less between March 6 and April 2, 2006. If 5 day period does not begin on March 6, 2006, then Intelsat will inform NTIA and the DoD at least 24 hours prior to the first day of testing and obtain their agreement before any testing begins. Intelsat will also inform NTIA and the DoD when testing has been completed. Once the IOT testing starts, this authorization will become null and void when the testing has been completed or after 5 days, whichever occurs first.
2. While communicating with the Spainsat satellite at the 30.3W.L. orbital location in the band 30-31 GHz, no harmful interference shall be caused by the Intelsat earth station to any lawfully operating satellites or radiocommunication systems. Operations of the Intelsat earth station shall cease immediately upon notification of such interference and Intelsat shall inform the Commission in writing immediately of such an event.
3. While communicating in the band 20.2-21.2 GHz with the Spainsat satellite at 30.3 W.L. orbital location, the Intelsat earth station is required to accept interference from other lawfully operating satellites or other radiocommunication systems. If any interference is received from the Spainsat satellite, operations of the Intelsat earth station shall cease immediately upon notification of such interference and Intelsat shall inform the Commission in writing immediately of such an event.
4. This grant does not convey to Intelsat any authority to operate in the bands 20.2-21.2 and 30-31 GHz for any other satellite than the Spainsat at 30.3 W.L.
5. Intelsat's request to waive the table of allocations to the extent necessary to operate on a non-interference basis in the 30/20 GHz bands is granted.
6. The grant is limited to the purpose described in Intelsat's application, i.e., the in-orbit-test of the Spainsat satellite for 5 days or less.
7. This grant was conditioned upon the concurrence of the National Telecommunications and Information Administration (NTIA) in the 30/20 GHz bands and if NTIA withdraws its concurrence, the grant will be canceled effective upon the time NTIA withdraws its concurrence.
8. Intelsat must operate pursuant to the technical requirements set forth in their letter February 13, 2006.
9. Intelsat must have 24/7 point-of-contact that has the capability of ceasing operations of their Clarksburg Earth Station (p: 301-428-1501/1502).

13 February 2006

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

**RECEIVED**

FEB 13 2006

Federal Communications Commission  
Office of Secretary

**RECEIVED**

Re: Intelsat LLC Request for Special Temporary Authority  
File No.: SES-STA-20060131-00188

FEB 14 2006

Satellite Division  
International Bureau

Dear Ms. Dortch:

This letter supplements Intelsat LLC's ("Intelsat") above referenced request for Special Temporary Authority ("STA") to use its Ka-band antenna to provide in-orbit testing ("IOT") service to the Spainsat satellite following the satellite's launch. The National Telecommunications and Information Administration ("NTIA") requested that Intelsat provide this letter to the FCC.

Because the Spainsat IOT service will be conducted in Federal spectrum, i.e., 20.2-21 and 30-31 GHz ("Ka-band"), coordination with the Department of Defense ("DOD") was required. Since the filing of the STA request, Intelsat, together with Space Systems Loral ("Loral"), the satellite's manufacturer, and Hispasat, representing the satellite's operator, have discussed this IOT service with NTIA and DOD. During a conference call between the parties on 3 February 2006, DOD advised that it appears technically feasible to allow this short-term IOT service, subject to certain conditions.

During the discussion, Intelsat and Loral provided clarification regarding the planned IOT transmissions. Specifically, Intelsat and Loral explained that two types of signals will be used for the IOT. One type of signal will be modulated with a bandwidth spread of at least 1 MHz, to reduce the power density. Continuous wave (CW) signals will also be employed; however, the CW tests will be performed with a much lower e.i.r.p. (approximately 15 dB backoff), which will help to minimize interference.

As a result of the discussions, Loral agreed to the following:

1. Loral will provide at least 24 hours notice to the U.S. Government of any change in the start date for the IOT. The current plan is to commence testing on 6 March. (This date is later than the date of 3 March provided to FCC in the STA application due to an update to the launch and test plan schedules.) The actual start date is dependent upon the successful launch date and the weather, because Ka-band testing must have reliable weather for the duration of testing.

2. Loral will provide notice to the U.S. Government upon completion of the Ka-band IOT, where upon the temporary authorization will automatically become void.
3. The duration of the Ka-band IOT activities will be a maximum of five (5) days.
4. Intelsat will maintain a 24-hours-per-day contact point at the IOT earth station (Clarksburg, MD) during the IOT, for a designated U.S. Government official(s) to contact the test team in the event of interference or any other emergency situation, in order to immediately shut down the IOT transmissions. This contact is as follows:

Clarksburg Earth Station  
Phone: 301-428-1501/1502

5. Signal levels and characteristics during the IOT will be as discussed with NTIA/DOD (see attached Annex) and provided in the STA application filed with the FCC, file number SES-STA-20060131-00188.

Should the FCC require additional information regarding the discussions with NTIA and DOD, please do not hesitate to contact the undersigned at your earliest convenience.

Sincerely,

  
Humberto Henriques

cc: Scott Kotler  
Karl Kensinger

### Annex: Details of the IOT transmissions as discussed with NTIA and DOD

The ITU name of the satellite is HISPASAT-2B 30KA (for the Ka-band). The IOT will be performed while the satellite is located at 30.3° W.L. and final on-orbit operations will take place with the satellite located at 30° W.L.

The Intelsat earth station to be used for this IOT is located in Clarksburg, Maryland, USA.

The technical parameters for Space-to-Earth transmissions are as follows:

1. Number of the channels:	1
2. Bandwidth of the channel:	36 MHz
3. Center frequency of the channel:	20,347 MHz
4. Lower frequency of the channel:	20,329 MHz
5. Upper frequency of the channel:	20,365 MHz
6. Maximum transmit antenna gain:	44.35 dBi
7. Maximum transmit power (modulated):	44.16 W (16.45 dBW)
8. Maximum transmit EIRP (modulated):	60.8 dBW
9. Maximum transmit power EIRP density:	60.8 dBW/MHz
10. Maximum transmit power in the CW mode:	1.4 W (1.45 dBW)
11. Maximum transmit EIRP in the CW mode:	45.8 dBW

The technical parameters for Earth-to-Space transmissions are as follows:

1. Center frequency of the channel:	30,147 MHz
2. Lower frequency of the channel:	30,129 MHz
3. Upper frequency of the channel:	30,165 MHz
4. Maximum S/S receive antenna gain:	47.74 dBi
5. E/S antenna transmit gain:	54.6 dBi
6. E/S antenna pattern:	29-25log( $\theta$ )
7. Max power (at E/S antenna feed) (modulated):	100 W (20 dBW)
8. Max power density (at E/S feed, modulated or CW):	-4dBW/4kHz
9. Max power (at E/S feed, CW):	0.4 W (-4 dBW)

For the unmodulated beacon in Ka-Band, the characteristics are as follows:

1. Frequency:	20,450 MHz
2. Frequency stability (24 hrs):	+/- 1 ppm
3. Coverage:	Global
4. Maximum EIRP:	17.5 dBW