

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
Request for Special Temporary Authority for Clarksburg Maryland Earth Station KA275

1. Applicant

<b>Name:</b>	Intelsat North America LLC	<b>Phone Number:</b>	202-944-7848
<b>DBA Name:</b>		<b>Fax Number:</b>	202-944-7870
<b>Street:</b>	c/o Intelsat Corporation 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		

*With Condition*



File # SES-STA-20100423-00473  
Call Sign KA275 Grant Date 4/29/2010  
(or other identifier)  
Term Dates  
From 5/3/2010 To: 5/5/2010  
Approved: *K. M. Jones*  
*Chief Satellite Engg. Div.*

Attachment

SES-STA-20100423-00473  
KA275

Condition:

All operations shall be on an unprotected and non-harmful interference basis, i.e., Intelsat North America LLC. shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.

*With Condition*



File # SES-STA-20100423-00473

Call Sign KA275 Grant Date 4/29/2010  
(or other identifier)

Term Dates  
From 5/3/2010 To: 5/5/2010

Approved: [Signature]  
*Chief Technical Officer*

**2. Contact**

<b>Name:</b>	Intelsat North America LLC	<b>Phone Number:</b>	202-944-7848
<b>Company:</b>		<b>Fax Number:</b>	202-944-7870
<b>Street:</b>	c/o Intelsat Corporation 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	<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 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

7. City Clarksburg

8. Latitude  
(dd mm ss.s h) 39 13 7.4 N

9. State MD	10. Longitude (dd mm ss.s h) 77 16 10.9 W
11. Please supply any need attachments. Attachment 1: STA Request                      Attachment 2: Exhibit A                      Attachment 3: Exhibit B	
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 North America LLC herein requests a grant of Special Temporary Authority for three days, from May 3, 2010 through May 5, 2010, to use its Clarksburg, Maryland C-band earth station -- call sign KA275 -- to communicate with the Galaxy 15 satellite while it is located at 132.5 +/- 0.1 W.L.</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. <span style="float: right;"><input checked="" type="radio"/> Yes      <input type="radio"/> No</span>	
14. Name of Person Signing Susan H. Crandall	15. Title of Person Signing Asst. General 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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**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.**

April 23, 2010

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



Re: Request for Special Temporary Authority  
Clarksburg, Maryland Earth Station KA275

Dear Ms. Dortch:

Intelsat North America LLC ("Intelsat") herein requests a grant of Special Temporary Authority ("STA")<sup>1</sup> for three days, from May 3, 2010 through May 5, 2010, to use its Clarksburg, Maryland C-band earth station -- call sign KA275 -- to communicate with the Galaxy 15 satellite while it is located at 132.5 +/- 0.1° W.L. As the Commission is aware, on April 5, 2010, the Galaxy 15 satellite suffered an anomaly of unknown origin. Due to this anomaly, the satellite has drifted outside of its authorized +/- 0.05° East/West station-keeping box.<sup>2</sup> Intelsat will utilize the transmissions contemplated herein in an attempt to disable the communications payload on the Galaxy 15 satellite. Intelsat will take this action only if all ongoing efforts to regain control of Galaxy 15 have not been successful by May 3.

In the course of the three days of operations, during one or more periods of up to three hours, the earth station will be transmitting simultaneously to the 24 transponders of the Galaxy 15 satellite. There will be one 10 MHz carrier transmitted to each of the transponders. The characteristics of these carriers, including the exact frequencies and corresponding power density and EIRP density are provided in Exhibit A of this application.

The carriers transmitted will be within the antenna's licensed parameters and will generate at 131° W.L., or at any other location occupied by a non-Intelsat satellite, an off-axis EIRP density that is within levels mandated by the FCC's two-degree spacing requirements. As such, the operations of other lawfully permitted terrestrial radio communication facilities will not be subject to

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<sup>1</sup> Intelsat has filed its STA request, an FCC Form 159, a \$175.00 filing fee and this supporting letter electronically via the International Bureau's Filing System ("IBFS").

<sup>2</sup> See *Policy Branch Information; Actions Taken*, Report No. SAT-00682, File No. SAT-STA-20100409-00071 (Apr. 16, 2010). Intelsat will very shortly file an STA request to allow operation of the Galaxy 15 communications payload at 132.5 +/- 0.1° W.L. for purposes of the transmissions contemplated herein.

Ms. Marlene H. Dortch  
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electromagnetic interference levels above the levels that they would receive for normal operation of the earth station in accordance with the terms of its license.

In support of this, Intelsat has conducted an interference analysis with respect to non-Intelsat geostationary satellites with C-band operations up to six degrees from the Galaxy 15 satellite during the relevant time period. The results of these analyses, reported in Exhibit B, indicate that there will be a reduction of uplink interference to SES's AMC-11 satellite at 131.04° W.L., compared to the interference level resulting from the applicable off-axis EIRP density levels of Section 25.218 of the FCC's rules (corresponding to a power density level of -2.7 dBW/4kHz transmitted by an antenna just meeting the specifications in Section 25.209 of the FCC's rules). The uplink interference level into other relevant SES satellites – AMC-10 and GE-7 – will also be reduced as the proposed operations will be further away from those satellites. Intelsat is discussing with SES the transmissions contemplated herein and has provided SES with the emergency contacts listed below in the event that harmful interference occurs.

ESOC Satellite Control Center – (202) 944-7701

Knut Tjonneland, Director, Satellite Engineering – (202) 438-1527

Grant of this STA request will allow Intelsat to attempt to disable the communications payload on the Galaxy 15 satellite should ongoing attempts to regain control of the spacecraft prove unsuccessful. If this attempt to disable the communications payload is successful, it will greatly reduce the likelihood of Galaxy 15 causing potential interference into the operations of other operators, thereby promoting the public interest.

Please direct any questions regarding this STA request to the undersigned at (202) 944-7848.

Respectfully submitted,



Susan H. Crandall  
Assistant General Counsel  
Intelsat Corporation

Cc: Kathryn Medley

### EXHIBIT A: CHARACTERISTICS OF THE PROPOSED TRANSMISSIONS

Table 1. Transmission characteristics corresponding to the maximum carrier bandwidth of 10 MHz: Carriers 1 to 8

		Carrier 1	Carrier 2	Carrier 3	Carrier 4	Carrier 5	Carrier 6	Carrier 7	Carrier 8
Polarization	:	H/V	H/V	H/V	H/V	H/V	H/V	H/V	H/V
U/L carrier frequency	:	5965	6005	6045	6085	6125	6165	6205	6245
D/L carrier frequency	:	3740	3780	3820	3860	3900	3940	3980	4020
Transmit e.i.r.p.	dBW	<b>76.6</b>	<b>70.9</b>	<b>76.9</b>	<b>71.3</b>	<b>75.5</b>	<b>76.5</b>	<b>77.3</b>	<b>77</b>
Occupied bandwidth	KHz	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Antenna Diameter	meter	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
Total e/s uplink eirp through HPA	dBW	76.6	70.9	76.9	71.3	75.5	76.5	77.3	77.0
Peak antenna gain	dB	59.8	59.8	59.9	59.9	60.0	60.1	60.1	60.2
Losses from HPA to antenna feed.	dB	1	1	1	1	1	1	1	1
Power density per 4 kHz	dBW	-16.2	-21.9	-16.0	-21.6	-17.5	-16.5	-15.8	-16.2
EIRP density per 4 kHz	dBW/4kHz	42.6	36.9	42.9	37.3	41.5	42.5	43.3	43.0
Required power at HPA output port	dBW	17.8	12.1	18.0	12.4	16.5	17.4	18.2	17.8

Table 2. Transmission characteristics corresponding to the maximum carrier bandwidth of 10 MHz: Carriers 9 to 16

		Carrier 9	Carrier 10	Carrier 11	Carrier 12	Carrier 13	Carrier 14	Carrier 15	Carrier 16
Polarization	:	H/V	H/V	H/V	H/V	V/H	V/H	V/H	V/H
U/L carrier frequency	:	6285	6325	6365	6405	5945	5985	6025	6065
D/L carrier frequency	:	4060	4100	4140	4180	3720	3760	3800	3840
Transmit e.i.r.p.	dBW	<b>77.1</b>	<b>75.4</b>	<b>77.2</b>	<b>77.7</b>	<b>78.5</b>	<b>77.6</b>	<b>76.7</b>	<b>77.7</b>
Occupied bandwidth	KHz	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
Antenna Diameter	meter	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
Total e/s uplink eirp through HPA	dBW	77.1	75.4	77.2	77.7	78.5	77.6	76.7	77.7
Peak antenna gain	dB	60.2	60.3	60.3	60.4	60.2	60.3	60.4	60.4
Losses from HPA to antenna feed.	dB	1	1	1	1	1	1	1	1
Power density per 4 kHz	dBW	-16.1	-17.9	-16.1	-15.7	-14.7	-15.7	-16.6	-15.7
EIRP density per 4 kHz	dBW/4kHz	43.1	41.4	43.2	43.7	44.5	43.6	42.7	43.7
Required power at HPA output port	dBW	17.9	16.1	17.9	18.3	19.3	18.3	17.3	18.3



Table 3. Transmission characteristics corresponding to the maximum carrier bandwidth of 10 MHz: Carriers 17 to 24

		Carrier 17	Carrier 18	Carrier 19	Carrier 20	Carrier 21	Carrier 22	Carrier 23	Carrier 24
Polarization	:	V/H	V/H	V/H	V/H	V/H	V/H	V/H	V/H
U/L carrier frequency	:	6105	6145	6185	6225	6265	6305	6345	6385
D/L carrier frequency	:	3880	3920	3960	4000	4040	4080	4120	4160
Transmit e.i.r.p.	dBW	<b>77.9</b>	<b>77.9</b>	<b>77.3</b>	<b>77.6</b>	<b>78.1</b>	<b>75.8</b>	<b>77.2</b>	<b>76.3</b>
Occupied bandwidth	KHz	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0	10000.0
10 log BW	DB-Hz	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Antenna Diameter	meter	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
Total e/s uplink eirp through HPA	dBW	77.9	77.9	77.3	77.6	78.1	75.8	77.2	76.3
Peak antenna gain	dB	60.5	60.5	60.6	60.6	60.7	60.8	60.8	60.9
Losses from HPA to antenna feed.	dB	1	1	1	1	1	1	1	1
Power density per 4 kHz	dBW	-15.6	-15.6	-16.3	-16.0	-15.6	-17.9	-16.6	-17.5
EIRP density per 4 kHz	dBW/4kHz	43.9	43.9	43.3	43.6	44.1	41.8	43.2	42.3
Required power at HPA output port	dBW	18.4	18.4	17.7	18.0	18.4	16.0	17.4	16.4

## EXHIBIT B

### Analysis of Change of Uplink Interference Potential Resulting From the Proposed KA275 Transmissions

Satellite Name	Orbital Location (degrees)	Minimum Orbital separation during test	Off-axis EIRP density with the antenna pointed at the G15 licensed location (133.0° W.L.) assuming FCC permitted power density of - 2.7 dBW/4 kHz	Maximum Off-axis EIRP density during the test (input. power density of -14.7 dBW/4 kHz)	Decrease in uplink interference compared to operations at licensed location
AMC-11	131	1.4	18.77	10.65	8.13
AMC-10	135	2.4	18.77	4.79	13.98
GE 7	137	4.4	11.25	-1.79	13.03