

Intelsat License LLC

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:  
180-Day STA to Use a 9m C-band Antenna at Intelsat's Hagerstown, Maryland Teleport to Communicate with Intelsat 34

1. Applicant

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

File # SES-STA-20170302-00228

Call Sign 5-12-17  
(or other identifier)

Term Dates  
From: 6-1-17 To: 11-28-17

Approved: [Signature]




Applicant: Intelsat License LLC  
Call Sign: N/A  
File No.: SES-STA-20170302-00228  
Special Temporary Authority (STA)

Intelsat License LLC is granted a special temporary authority for 180 days, commencing June 1, 2017, to operate its Hagerstown, MD fixed earth station to communicate with Intelsat 34 (S2915) at the 55.5° W.L. orbital location in the 5925 - 6425 MHz (Earth-to-space) and 3700 – 4200 MHz (space-to-Earth) under the following conditions:

1. Operations will not exceed the operational power levels and parameters requested and coordinated.
2. Operations 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.
3. Grant of STA is without prejudice to any determination that the Commission may make regarding any Intelsat's future applications.
4. Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measure must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.
5. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat's risk.

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 upon release.

 <b>GRANTED</b> International Bureau	File # <u>SES-STA-20170302-00228</u>
	Call Sign _____ Grant Date <u>5-12-17</u> (or other identifier)
	Term Dates From: <u>6-1-17</u> To: <u>11-28-17</u>
	Approved: <u>[Signature]</u>

<b>2. Contact</b>	
<b>Name:</b> Cynthia J. Grady	<b>Phone Number:</b> 703-559-6949
<b>Company:</b> Intelsat Corporation	<b>Fax Number:</b> 703-559-8539
<b>Street:</b> 7900 Tysons One Place	<b>E-Mail:</b> cynthia.grady@intelsat.com
<b>City:</b> McLean	<b>State:</b> VA
<b>Country:</b> USA	<b>Zipcode:</b> 22102 -5972
<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 or Submission ID	
4a. Is a fee submitted with this application?	
<input 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).	
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee	
<input type="radio"/> Other (please explain):	
4b. Fee Classification CGX - Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input type="radio"/> Use Prior to Grant	<input type="radio"/> Change Station Location
<input checked="" type="radio"/> Other	
6. Requested Use Prior Date	
7. City/Hagerstown	8. Latitude (dd mm ss.s h) 39 35 56.8 N

9. State MD	10. Longitude (dd mm ss.s h) 77 45 23.0 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.) Intelsat License LLC herein requests a grant of Special Temporary Authority for 180 days, commencing June 1, 2017, to utilize a 9m C-band antenna located at its Hagerstown, Maryland teleport to communicate with Intelsat 34 (S2915) to provide services to a new customer. Intelsat is seeking to perform operations in the frequencies 3700 - 4200 MHz	
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"; party to the application; for these purposes. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Cynthia J. Grady	15. Title of Person Signing Regulatory 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.**

## **12. Description**

Intelsat License LLC herein requests a grant of Special Temporary Authority for 180 days, commencing June 1, 2017, to utilize a 9m C-band antenna located at its Hagerstown, Maryland teleport to communicate with Intelsat 34 (S2915) to provide services to a new customer. Intelsat is seeking to perform operations in the frequencies 3700 - 4200 MHz and 5925 - 6425 MHz.

March 1, 2017

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

Re: Request for Special Temporary Authority  
9m C-band Antenna in Hagerstown, Maryland

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests a grant of Special Temporary Authority (“STA”)<sup>1</sup> for 180 days, commencing June 1, 2017, to utilize a 9m C-band antenna located at its Hagerstown, Maryland teleport to communicate with Intelsat 34 (S2915) to provide services to a new customer.

Intelsat is seeking to perform operations in the following frequencies: 3700 – 4200 MHz and 5925 – 6425 MHz.

In further support of this request, Intelsat herewith attaches Exhibits A and B, which contain technical information that demonstrates that the operation of the earth station will be compatible with its electromagnetic environment and will not cause harmful interference into any lawfully operating terrestrial facility, as well as a radiation hazard analysis report. In the extremely unlikely event that harmful interference should occur due to transmissions to or from its earth station, Intelsat will take all reasonable steps to eliminate the interference.

Grant of this STA request will allow Intelsat to provide customer services and thereby promotes the public interest.

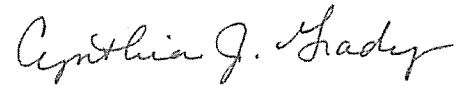
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<sup>1</sup> Intelsat has filed its STA request, an FCC Form 159, a \$200.00 filing fee, and this supporting letter electronically via the International Bureau’s Filing System (“IBFS”).

Ms. Marlene H. Dortch  
March 1, 2017  
Page 2

Please direct any questions regarding this STA request to the undersigned at (703) 559-6949.

Respectfully submitted,

A handwritten signature in cursive script that reads "Cynthia J. Grady".

Cynthia J. Grady  
Regulatory Counsel  
Intelsat Corporation

cc: Paul Blais



Prepared By

**COMSEARCH**

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
(703)726-5500 <http://www.comsearch.com>

Prepared For

**Intelsat License LLC  
Hagerstown, Maryland**

Temporary Transmit-Only Earth Station  
Operation Dates: 06/01/2017 - 12/01/2017

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations. Verbal and written coordination was conducted with the below listed carriers on February 9, 2017.

Company

AT&T Communications of Virginia, LLC  
AT&T Corp.  
Adams County Department of Emergency Svc  
Affiniti PA, LLC  
Appalachia Engineering Services  
Argos Engineering, LLC  
Atlantic Broadband (Penn), LLC  
BLAIR COUNTY 911  
Baltimore County of Maryland  
Baltimore Gas and Electric Company  
Bedford County of  
Believe Wireless, LLC  
CNG Transmission Corporation  
Capital Communications of America  
Carroll, County of  
Cellco Partnership-WDC/Baltimore  
Cellco Prtnrshp - Phil. Tri-State Rgn  
Charles, County of  
Commonwealth of Pennsylvania-Radio Proj.  
Comprehensive Wireless LLC  
Conterra Ultra Broadband, LLC  
County of Frederick  
County of York  
DAUPHIN COUNTY EMERGENCY MANAGEMENT  
Delaware Division of Communications  
ECW Wireless, LLC  
Eastern MLG LLC  
Enoch Pratt Free Library  
Exelon Generation Company, LLC  
FELHC, INC  
Federal Communication Commission  
Frederick County  
Fulton County of (PA)  
Fundamental Broadcasting LLC  
Garden State Transmissions  
HUNTINGDON COUNTY, PA

Hardy Cellular Telephone Company  
Hardy County OEM/E911  
Juniata County Emergency Services  
Lancaster County-Wide Communications  
Loudoun, County of  
Maryland Public Broadcasting Commission  
Maryland State Highway Administration  
Maryland, State of - Dept.of Info & Tech  
New Cingular Wireless PCS - Maryland  
New Cingular Wireless PCS LLC - DC  
New Cingular Wireless PCS LLC - VA  
New Cingular Wireless PCS LLC - WV,NC,SC  
New Cingular Wireless PCS, LLC - PA  
Norfolk Southern Railway  
PA Communications  
PRESTON COUNTY OFFICE OF EMERGENCY MANAG  
Pennsylvania Turnpike Commission  
Pepco Holdings Inc.  
Perry, County of  
Perseus Technology Holdings USA Inc.  
Prince George's County  
Prince William, County of  
Radio One Inc  
Rappahannock Electric Cooperative  
SHENANDOAH VALLEY ELECTRIC COOPERATIVE  
Shenandoah Personal Communications, LLC  
Somerset, County of  
South Central Task Force (SCTFNET)  
State of Maryland, MIEMSS  
T-Mobile License LLC  
Texas Eastern Communications, LLC  
Thought Transmissions, LLC  
Transcontinental Gas Pipeline Corp.  
US Cellular Operating Company, LLC (WI)  
USCOC of Cumberland, Inc.  
USOC of Pennsylvania RSA No 10 B2 Inc.  
Uniti Fiber PEG, LLC  
Verizon Wireless (VAW) LLC - Maryland  
Verizon Wireless (VAW) LLC - W/B/V Mkts  
Virginia Department of State Police  
Virginia Electric & Power Company  
WV DHHR BPH, Office of EMS, Com. Div.  
Washington Gas Light Company  
Washington Suburban Sanitary Commission  
Weblin Holdings LLC  
World Class Wireless, LLC  
YAB Mobile  
iSignal

There are no unresolved interference objections with the station contained in these applications.

The following section presents the data pertinent to frequency coordination of the earth station that was circulated to all carriers within its coordination contours.

**COMSEARCH**  
**Earth Station Data Sheet**  
19700 Janelia Farm Boulevard, Ashburn, VA 20147  
(703)726-5500 <http://www.comsearch.com>

Date: 02/08/2017  
Job Number: 170209COMSGE03

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**Administrative Information**

Status: TEMPORARY (Operation from 06/01/2017 to 12/01/2017)  
Call Sign: TEMP12  
Licensee Code: INTELS  
Licensee Name: Intelsat License LLC

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**Site Information** **HAGERSTOWN, MD**

Venue Name:  
Latitude (NAD 83): 39° 35' 56.8" N  
Longitude (NAD 83): 77° 45' 23.0" W  
Climate Zone: A  
Rain Zone: 2  
Ground Elevation (AMSL): 165.08 m / 541.6 ft

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**Link Information**

Satellite Type: Geostationary  
Mode: TO - Transmit-Only  
Modulation: Digital  
Satellite Arc: 6° W to 149° West Longitude  
Azimuth Range: 101.9° to 257.8°  
Corresponding Elevation Angles: 5.3° / 5.7°  
Antenna Centerline (AGL): 6.1 m / 20.0 ft

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**Antenna Information** **Transmit - FCC32**

Manufacturer: GD Satcom  
Model: 9 Meter  
Gain / Diameter: 53.7 dBi / 9.0 m  
3-dB / 15-dB Beamwidth: 0.35° / 0.87°

Max Available RF Power (dBW/4 kHz): -19.9  
(dBW/MHz): 4.1

Maximum EIRP (dBW/4 kHz): 33.8  
(dBW/MHz): 57.8

Interference Objectives: Long Term: -154.0 dBW/4 kHz 20%  
Short Term: -131.0 dBW/4 kHz 0.0025%

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**Frequency Information** **Transmit 6.1 GHz**

Emission / Frequency Range (MHz): 30M0G7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance: 245.6 km / 152.6 mi  
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

<b>Coordination Values</b>	<b>HAGERSTOWN, MD</b>	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	39° 35' 56.8" N	
Longitude (NAD 83)	77° 45' 23.0" W	
Ground Elevation (AMSL)	165.08 m / 541.6 ft	
Antenna Centerline (AGL)	6.1 m / 20.0 ft	
Antenna Model	GD Satcom 9 meter	
Antenna Mode	Transmit 6.1 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	-19.9 (dBW/4 kHz)	

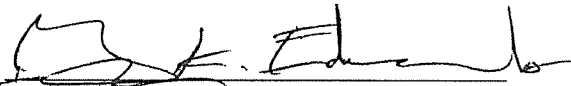
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.33	101.82	-10.00	107.01
5	0.55	96.84	-10.00	100.00
10	0.45	91.86	-10.00	100.00
15	0.34	86.88	-10.00	106.14
20	0.30	81.90	-10.00	109.23
25	0.30	76.92	-10.00	109.03
30	0.30	71.94	-10.00	109.05
35	0.27	66.96	-10.00	112.06
40	0.43	61.98	-10.00	100.00
45	0.52	57.00	-10.00	100.00
50	0.29	52.04	-10.00	109.79
55	0.36	47.07	-9.82	104.69
60	0.23	42.12	-8.61	118.68
65	0.26	37.16	-7.25	119.79
70	0.23	32.23	-5.71	126.32
75	0.25	27.30	-3.91	128.94
80	0.24	22.42	-1.76	134.74
85	0.28	17.58	0.88	138.98
90	0.00	12.98	4.17	157.51
95	0.00	8.67	8.55	175.92
100	0.00	5.62	13.26	245.65
105	0.00	6.15	12.28	195.27
110	0.00	9.60	7.45	171.62
115	0.00	13.27	3.93	156.64
120	0.00	16.89	1.31	147.63
125	0.00	20.41	-0.75	141.12
130	0.00	23.83	-2.43	136.19
135	0.00	27.11	-3.83	133.58
140	0.00	30.23	-5.01	130.41
145	0.00	33.14	-6.01	127.75
150	0.00	35.82	-6.85	125.52
155	0.00	38.20	-7.55	123.68
160	0.00	40.26	-8.12	122.19
165	0.00	41.93	-8.56	121.04
170	0.00	43.16	-8.88	120.22
175	0.00	43.92	-9.07	119.73
180	0.00	44.18	-9.13	119.57
185	0.00	43.92	-9.07	119.73

<b>Coordination Values</b>	<b>HAGERSTOWN, MD</b>	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	39° 35' 56.8" N	
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Ground Elevation (AMSL)	165.08 m / 541.6 ft	
Antenna Centerline (AGL)	6.1 m / 20.0 ft	
Antenna Model	GD Satcom 9 meter	
Antenna Mode	Transmit 6.1 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	-19.9 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.26	42.91	-8.81	115.21
195	0.00	41.93	-8.56	121.04
200	0.37	39.93	-8.03	109.08
205	0.22	38.02	-7.50	122.14
210	0.36	35.52	-6.76	112.43
215	0.35	32.87	-5.92	115.77
220	0.65	29.74	-4.83	100.14
225	0.53	26.72	-3.67	108.60
230	0.60	23.40	-2.23	108.93
235	0.74	19.90	-0.47	107.44
240	0.74	16.39	1.64	113.10
245	1.01	12.59	4.50	109.53
250	1.09	8.86	8.31	118.55
255	1.12	5.35	13.79	166.86
260	1.10	5.09	14.32	232.89
265	0.89	8.66	8.56	126.62
270	0.77	13.15	4.02	118.39
275	0.70	17.90	0.68	112.23
280	0.61	22.76	-1.93	109.42
285	0.58	27.66	-4.04	105.43
290	0.50	32.59	-5.83	104.24
295	0.38	37.54	-7.36	109.60
300	0.32	42.49	-8.71	111.05
305	0.39	47.44	-9.90	102.75
310	0.41	52.40	-10.00	100.44
315	0.47	57.37	-10.00	100.00
320	0.45	62.34	-10.00	100.00
325	0.32	67.32	-10.00	107.70
330	0.32	72.30	-10.00	108.04
335	0.51	77.27	-10.00	100.00
340	0.42	82.25	-10.00	100.00
345	0.41	87.23	-10.00	100.79
350	0.33	92.21	-10.00	107.05
355	0.44	97.19	-10.00	100.00

## Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.

BY:   
\_\_\_\_\_

Gary K. Edwards  
Senior Manager  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147

DATED: February 24, 2017

Prepared By

**COMSEARCH**

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
(703)726-5500 <http://www.comsearch.com>

Prepared For

**Intelsat License LLC  
Hagerstown, Maryland**

Temporary Transmit-Only Earth Station  
Operation Dates: 06/01/2017 - 12/01/2017

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations. Verbal and written coordination was conducted with the below listed carriers on February 9, 2017.

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AT&T Corp.  
Adams County Department of Emergency Svc  
Affiniti PA, LLC  
Appalachia Engineering Services  
Argos Engineering, LLC  
Atlantic Broadband (Penn), LLC  
BLAIR COUNTY 911  
Baltimore County of Maryland  
Baltimore Gas and Electric Company  
Bedford County of  
Believe Wireless, LLC  
CNG Transmission Corporation  
Capital Communications of America  
Carroll, County of  
Cellco Partnership-WDC/Baltimore  
Cellco Prtnrshp - Phil. Tri-State Rgn  
Charles, County of  
Commonwealth of Pennsylvania-Radio Proj.  
Comprehensive Wireless LLC  
Conterra Ultra Broadband, LLC  
County of Frederick  
County of York  
DAUPHIN COUNTY EMERGENCY MANAGEMENT  
Delaware Division of Communications  
ECW Wireless, LLC  
Eastern MLG LLC  
Enoch Pratt Free Library  
Exelon Generation Company, LLC  
FELHC, INC  
Federal Communication Commission  
Frederick County  
Fulton County of (PA)  
Fundamental Broadcasting LLC  
Garden State Transmissions  
HUNTINGDON COUNTY, PA

Hardy Cellular Telephone Company  
Hardy County OEM/E911  
Juniata County Emergency Services  
Lancaster County-Wide Communications  
Loudoun, County of  
Maryland Public Broadcasting Commission  
Maryland State Highway Administration  
Maryland, State of - Dept.of Info & Tech  
New Cingular Wireless PCS - Maryland  
New Cingular Wireless PCS LLC - DC  
New Cingular Wireless PCS LLC - VA  
New Cingular Wireless PCS LLC - WV,NC,SC  
New Cingular Wireless PCS, LLC - PA  
Norfolk Southern Railway  
PA Communications  
PRESTON COUNTY OFFICE OF EMERGENCY MANAG  
Pennsylvania Turnpike Commission  
Pepco Holdings Inc.  
Perry, County of  
Perseus Technology Holdings USA Inc.  
Prince George's County  
Prince William, County of  
Radio One Inc  
Rappahannock Electric Cooperative  
SHENANDOAH VALLEY ELECTRIC COOPERATIVE  
Shenandoah Personal Communications, LLC  
Somerset, County of  
South Central Task Force (SCTFNET)  
State of Maryland, MIEMSS  
T-Mobile License LLC  
Texas Eastern Communications, LLC  
Thought Transmissions, LLC  
Transcontinental Gas Pipeline Corp.  
US Cellular Operating Company, LLC (WI)  
USCOC of Cumberland, Inc.  
USOC of Pennsylvania RSA No 10 B2 Inc.  
Uniti Fiber PEG, LLC  
Verizon Wireless (VAW) LLC - Maryland  
Verizon Wireless (VAW) LLC - W/B/V Mkts  
Virginia Department of State Police  
Virginia Electric & Power Company  
WV DHHR BPH, Office of EMS, Com. Div.  
Washington Gas Light Company  
Washington Suburban Sanitary Commission  
Weblin Holdings LLC  
World Class Wireless, LLC  
YAB Mobile  
iSignal

There are no unresolved interference objections with the station contained in these applications.

The following section presents the data pertinent to frequency coordination of the earth station that was circulated to all carriers within its coordination contours.



**COMSEARCH**  
**Earth Station Data Sheet**  
 19700 Janelia Farm Boulevard, Ashburn, VA 20147  
 (703)726-5500 <http://www.comsearch.com>

Date: 02/08/2017  
 Job Number: 170209COMSGE03

**Administrative Information**

Status: TEMPORARY (Operation from 06/01/2017 to 12/01/2017)  
 Call Sign: TEMP12  
 Licensee Code: INTELS  
 Licensee Name: Intelsat License LLC

**Site Information** **HAGERSTOWN, MD**

Venue Name:  
 Latitude (NAD 83): 39° 35' 56.8" N  
 Longitude (NAD 83): 77° 45' 23.0" W  
 Climate Zone: A  
 Rain Zone: 2  
 Ground Elevation (AMSL): 165.08 m / 541.6 ft

**Link Information**

Satellite Type: Geostationary  
 Mode: TO - Transmit-Only  
 Modulation: Digital  
 Satellite Arc: 6° W to 149° West Longitude  
 Azimuth Range: 101.9° to 257.8°  
 Corresponding Elevation Angles: 5.3° / 5.7°  
 Antenna Centerline (AGL): 6.1 m / 20.0 ft

**Antenna Information** **Transmit - FCC32**

Manufacturer: GD Satcom  
 Model: 9 Meter  
 Gain / Diameter: 53.7 dBi / 9.0 m  
 3-dB / 15-dB Beamwidth: 0.35° / 0.87°

Max Available RF Power (dBW/4 kHz): -19.9  
 (dBW/MHz): 4.1

Maximum EIRP (dBW/4 kHz): 33.8  
 (dBW/MHz): 57.8

Interference Objectives: Long Term: -154.0 dBW/4 kHz 20%  
 Short Term: -131.0 dBW/4 kHz 0.0025%

**Frequency Information** **Transmit 6.1 GHz**

Emission / Frequency Range (MHz): 30M0G7W / 5925.0 - 6425.0

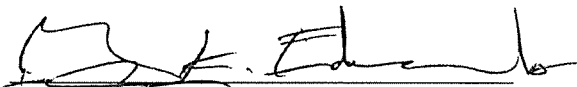
Max Great Circle Coordination Distance: 245.6 km / 152.6 mi  
 Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

<b>Coordination Values</b>	<b>HAGERSTOWN, MD</b>	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	39° 35' 56.8" N	
Longitude (NAD 83)	77° 45' 23.0" W	
Ground Elevation (AMSL)	165.08 m / 541.6 ft	
Antenna Centerline (AGL)	6.1 m / 20.0 ft	
Antenna Model	GD Satcom 9 meter	
Antenna Mode	Transmit 6.1 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	-19.9 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.33	101.82	-10.00	107.01
5	0.55	96.84	-10.00	100.00
10	0.45	91.86	-10.00	100.00
15	0.34	86.88	-10.00	106.14
20	0.30	81.90	-10.00	109.23
25	0.30	76.92	-10.00	109.03
30	0.30	71.94	-10.00	109.05
35	0.27	66.96	-10.00	112.06
40	0.43	61.98	-10.00	100.00
45	0.52	57.00	-10.00	100.00
50	0.29	52.04	-10.00	109.79
55	0.36	47.07	-9.82	104.69
60	0.23	42.12	-8.61	118.68
65	0.26	37.16	-7.25	119.79
70	0.23	32.23	-5.71	126.32
75	0.25	27.30	-3.91	128.94
80	0.24	22.42	-1.76	134.74
85	0.28	17.58	0.88	138.98
90	0.00	12.98	4.17	157.51
95	0.00	8.67	8.55	175.92
100	0.00	5.62	13.26	245.65
105	0.00	6.15	12.28	195.27
110	0.00	9.60	7.45	171.62
115	0.00	13.27	3.93	156.64
120	0.00	16.89	1.31	147.63
125	0.00	20.41	-0.75	141.12
130	0.00	23.83	-2.43	136.19
135	0.00	27.11	-3.83	133.58
140	0.00	30.23	-5.01	130.41
145	0.00	33.14	-6.01	127.75
150	0.00	35.82	-6.85	125.52
155	0.00	38.20	-7.55	123.68
160	0.00	40.26	-8.12	122.19
165	0.00	41.93	-8.56	121.04
170	0.00	43.16	-8.88	120.22
175	0.00	43.92	-9.07	119.73
180	0.00	44.18	-9.13	119.57
185	0.00	43.92	-9.07	119.73

## Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.

BY: 

Gary K. Edwards  
Senior Manager  
COMSEARCH  
19700 Janelia Farm Boulevard  
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DATED: February 24, 2017