


APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
Request for 30-Day STA to Use Hagerstown, MD Earth Station KA275 to Provide LEOP Services for Telstar 18V Satellite

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 US LLC 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		



**GRANTED**  
International Bureau

File # SES-STA-20180727-02074  
KA275 Grant Date 9-6-18  
 Call Sign (or other identifier)  
 Term Dates  
 From: 9-6-18 To: 10-6-18  
 Approved: [Signature]

<b>2. Contact</b>	
<b>Name:</b> Cynthia J. Grady	<b>Phone Number:</b> 703-559-6949
<b>Company:</b> Intelsat US LLC	<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 54.7 N



**FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT**

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to [PRA@fcc.gov](mailto:PRA@fcc.gov). PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

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.**

Applicant: Intelsat License LLC  
Call Sign: KA275  
File No.: SES-STA-20180727-02074  
Special Temporary Authority (STA)

Intelsat License LLC ("Intelsat") is granted STA for 30 days starting September 05, 2018 to operate its earth station in Hagerstown, Maryland to provide launch and early orbit phase ("LEOP") services for the Telstar 18V satellite with in-orbit testing location 136.5° E.L. and permanent orbital location of 138.0° E.L. Operations shall utilize frequencies 6423.00 MHz and 6425.00 MHz (Earth-to-space); and 3623.00 MHz, 3625.00 MHz; and 4199.0 (space-to-Earth). Operations are authorized under the following conditions:

1. Operations will not exceed the operational power levels and parameters coordinated.
2. In the event of any harmful interference Intelsat shall cease operations immediately upon notification of such interference, and shall immediately inform the Commission, in writing, of such an event.
3. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future Intelsat applications.
4. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat's risk.
5. The 24/7 point of contact for this 18V LEOP mission is as follows: Ph: (703) 559-7701 – East Coast Operations Center (primary) and (310)525-5591- West Coast Center (back-up).

This grant is issued pursuant to Section 0.26 1 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.



File # SES-STA-20180727-02074  
KA275  
Call Sign KA275 Grant Date 9-6-18  
(or other identifier)  
From: 9-6-18 Term Dates To: 10-6-18  
Approved: Paul E. Hilde

July 24, 2018

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

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

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests a grant of Special Temporary Authority (“STA”)<sup>1</sup> for 30 days, commencing August 17, 2018, to use its Hagerstown, Maryland C-band earth station—call sign KA275—to provide launch and early orbit phase (“LEOP”) services for the Telstar 18V satellite.<sup>2</sup> Telstar 18V is expected to launch on August 17, 2018.<sup>3</sup> Intelsat expects the LEOP period to last approximately 10 days.

The Telstar 18V LEOP operations will be performed at the following frequencies: 6423.00 MHz, and 6425.00, MHz (RHCP) in the uplink, and 3623.00 MHz (LHCP), 3625.00 MHz (LHCP), and 4199.00 MHz (Linear) in the downlink. The LEOP operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path.<sup>4</sup> All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs.

The 24x7 contact information for the Telstar 18V LEOP mission is as follows:

Ph.: (703) 559-7701 – East Coast Operations Center (primary)  
(310) 525-5591 – West Coast Operations Center (back-up)

Request to speak with Harry Burnham or Kevin Bell.

In further support of this request, Intelsat herewith attaches Exhibits A and B, which contain a coordination report and waiver requests. In the extremely unlikely event that harmful interference

---

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

<sup>2</sup> This LEOP mission will also be supported by the following antennas: E040125, E000296, and E4132.

<sup>3</sup> The permanent orbital location for Telstar 18V, which Intelsat understands is licensed by Tonga, will be at 138.0° E.L. The in-orbit testing location will be 136.5° E.L.

<sup>4</sup> SSL, the manager of the Telstar 18V LEOP mission, will handle the coordination.

Ms. Marlene H. Dortch  
July 24, 2018  
Page 2

should occur due to transmissions to or from its earth station, Intelsat will take all reasonable steps to eliminate the interference.

Finally, Intelsat clarifies that during the Telstar 18V launch, SSL will control the spacecraft. SSL will build and send the commands to the Intelsat antenna, which will process and execute the commands. Telemetry received by Intelsat will be forwarded to SSL. Intelsat will remain in control of the baseband unit, RF equipment, and antenna.

Grant of this STA request will allow Intelsat to help launch the Telstar 18V satellite. This, in turn, will help provide services to China, Mongolia, Southeast Asia, and the Pacific Ocean region from the 138.0° E.L. orbital location and thereby promotes the public interest.

Please direct any questions regarding this STA request to the undersigned at (703) 559-7848.

Respectfully submitted,

*/s/ Cynthia J. Grady*

Cynthia J. Grady  
Regulatory Counsel  
Intelsat US LLC

cc: Paul Blais

## Exhibit A

### PETITION FOR WAIVER OF SECTIONS 25.137 AND 25.114

Pursuant to Section 25.137 of the Federal Communications Commission's ("Commission" or "FCC") rules, earth station applicants "requesting authority to communicate with a non-U.S. licensed space station" to serve the United States must demonstrate that U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services in certain countries and must provide the same legal and technical information for the non-U.S.-licensed space station as required by Section 25.114 for U.S.-licensed space stations.<sup>1</sup> Intelsat License LLC ("Intelsat") herein seeks authority to provide launch and early orbit phase ("LEOP") services—not commercial services—to the United States, and thus believes that Section 25.137 does not apply.<sup>2</sup>

To the extent the Commission determines, however, that Intelsat's request for authority to provide LEOP services on a special temporary basis is a request to serve the United States with a non-U.S.-licensed satellite, Intelsat respectfully requests a waiver of Sections 25.137 and 25.114 of the Commission's rules.<sup>3</sup> The Commission may grant a waiver for good cause shown.<sup>4</sup> The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.<sup>5</sup> In granting a waiver, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.<sup>6</sup> Waiver is therefore appropriate if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.

In this case, good cause exists for a waiver of both Section 25.137 and Section 25.114 of the FCC's rules. With respect to Section 25.114, Intelsat seeks authority only to provide LEOP services for the Telstar 18V satellite. The information sought by Section 25.114 is not relevant to LEOP services. Moreover, Intelsat does not have—and would not easily be able to obtain—such information because Intelsat is not the operator of the Telstar 18V satellite. Intelsat has a contract with SSL, the manufacturer of the Telstar 18V satellite, to conduct LEOP services.

---

<sup>1</sup> 47 C.F.R. § 25.137.

<sup>2</sup> See *EchoStar Satellite Operating Company Application for Special Temporary Authority Related to Moving the EchoStar 6 Satellite from the 77° W.L. Orbital Location to the 96.2° W.L. Orbital Location, and to Operate at the 96.2° W.L. Orbital Location*, Order and Authorization, 28 FCC Rcd. 4229 (2013) (noting that operating TT&C earth stations in the United States with a foreign-licensed satellite does not constitute "DBS service").

<sup>3</sup> 47 C.F.R. §§ 25.137 and 25.114.

<sup>4</sup> 47 C.F.R. § 1.3.

<sup>5</sup> *N.E. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) ("*Northeast Cellular*").

<sup>6</sup> *WAIT Radio v. FCC*, 419 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.



The information required under Section 25.114 of the FCC's rules is not necessary to determine potential harmful interference. The Schedule S information for this satellite would pertain to the operation of the Telstar 18V satellite at its final orbital location. However, the present application for LEOP services involves communications *prior* to the satellite attaining its final location in the geostationary orbit. In other words, during the LEOP mission, the earth station will not be communicating with a satellite located in the geostationary orbit. Rather, it will be transmitting to a satellite traveling on its "transfer orbit" or "LEOP path," which starts immediately following its separation from a launch vehicle, and ends when the satellite reaches its geostationary orbital location. Moreover, as with any STA, Intelsat will perform the LEOP services on a non-interference basis.

Because it is not relevant to the service for which Intelsat seeks authorization, and because obtaining the information would be a hardship, Intelsat seeks a waiver of all the information required by Section 25.114 of the Commission's rules. Intelsat has provided in this STA request the required technical information that is relevant to the LEOP services for which Intelsat seeks authorization.

Good cause also exists to waive Section 25.137 of the agency's rules. Section 25.137 is designed to ensure that "U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services" in other countries.<sup>7</sup> Here, there is no service being provided by the satellite; it is simply being placed in its orbital location after separating from the launch vehicle. Thus, the purpose of Section 25.137 would not be served by applying these rules to LEOP services. For example, Section 25.137(d)(4) requires earth station applicants requesting authority to operate with a non-U.S.-licensed space station that is not in orbit and operating to post a bond.<sup>8</sup> The underlying purpose of Section 25.137(d)(4)—to provide parity between U.S.-licensed and non-U.S.-licensed commercial satellite systems in discouraging orbital location warehousing—would not be served by requiring Intelsat to post a bond to provide approximately 10 days of LEOP services to the Telstar 18V satellite.

It is Intelsat's understanding that Telstar 18V is licensed by Tonga, which is a WTO-member country. Thus, the purpose of Section 25.137—to ensure that U.S. satellite operators enjoy "effective competitive opportunities" to serve certain foreign markets—will not be undermined by grant of this waiver request.

Finally, Intelsat notes that it expects to operate with the Telstar 18V satellite using its U.S. earth station for a period of approximately 10 days. Requiring Intelsat to obtain copious technical and legal information from an unrelated party, where there is no risk of harmful interference and the operations will cease after approximately 10 days, would pose undue hardship without serving underlying policy objectives. Given these particular facts, the waiver sought herein is plainly appropriate.

---

<sup>7</sup> 47 C.F.R. § 25.137(a).

<sup>8</sup> See 47 C.F.R. §25.137(d)(4).

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: 07/01/2018 - 09/01/2018

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 April 28, 2018.

#### Company

AB Services LLC  
AT&T Corp.  
AT&T Wireless Services 3 LLC - PA  
Adams County Department of Emergency Svc  
Affiniti PA, LLC  
Albemarle, County of, Virginia  
Alltel Communications LLC-E OH WV  
American Electric Power Service Corp  
Appalachia Engineering Services  
Appalachian Power Company  
Argos Engineering, LLC  
Atlantic Broadband (Penn), LLC  
Atlantic City Electric Company  
Atlantic Coast Pipeline, LLC  
Atlantic, County of  
Baltimore County of Maryland  
Baltimore Gas and Electric Company  
Beaver Springs Faith Baptist Church, Inc  
Bedford County of  
Believe Wireless, LLC  
Berks County Department of Emergency Ser  
Blair County 911  
Blue Ridge Carriers  
Blueline Communications  
CBS Radio of Maryland, LLC  
Calvert, County of  
Cambria, County of  
Capital Communications of America  
Caroline County, VA  
Carroll, County of  
Cellco Partnership - Bridgeville, PA/WV  
Cellco Partnership - Southern Virginia  
Cellco Partnership- PA Region  
Cellco Partnership-WDC/Baltimore  
Cellco Prtnrshp - Phil. Tri-State Rgn  
Charles, County of

Chester, County of  
City of Fredericksburg  
Citynet  
Clearfield, County of  
Clinton, County of  
Columbia Gas Transmission, LLC  
Commonwealth of Pennsylvania  
Commonwealth of Pennsylvania-Radio Proj.  
Comprehensive Wireless LLC  
Conterra Ultra Broadband, LLC  
County of Augusta  
County of Centre  
County of Culpeper  
County of Fayette  
County of Frederick  
County of Lycoming  
County of York  
DSRC Networks  
Dauphin County Emergency Management  
Delaware County (PA) Emergency Services  
Delaware Division of Communications  
Delmarva Broadcasting Company  
Delmarva Power and Light Company  
Dominion Energy Transmission, Inc.  
ECW Wireless, LLC  
Eastern MLG LLC  
Enoch Pratt Free Library  
Essex, County of  
Exelon Generation Company, LLC  
FELHC, Inc.  
Federal Communication Commission  
Fulton County of (PA)  
Fundamental Broadcasting LLC  
GTT America LLC  
Garden State Transmissions  
Getwireless.Net  
Gloucester, County of  
Greene, County of (PA)  
Hanover, County of  
Hardy Cellular Telephone Company  
Hardy County OEM/E911  
Harrisonburg-Rockingham ECC  
High Voltage Communications LLC (CFN)  
Indiana, County of  
Jefferson County of Pennsylvania  
Jefferson Microwave, LLC  
Juniata County Emergency Services  
King and Queen County  
Kryptick Technologies  
Lancaster County-Wide Communications  
Limitless Mobile, LLC  
Loudoun, County of  
MGW Networks, LLC  
Maryland Public Broadcasting Commission  
Maryland State Highway Administration  
Maryland, State of - Dept.of Info & Tech

Mifflin County  
Montgomery County Of  
Montgomery, County of  
National Tower Company LLC  
New Cingular Wireless PCS LLC - NJ  
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-DE/NH/RI  
New Cingular Wireless PCS, LLC - PA  
New Jersey Turnpike Authority-Pkwy Div  
New Jersey, State of -NJ Transit  
New Line Networks, LLC  
Norfolk Southern Railway  
Northumberland County DPS/911  
PSEG Services Corporation  
Peco Energy Company  
Pennsylvania Turnpike Commission  
Perry, County of  
Pittsburgh SMSA Limited Partnership  
Preston County Office of Emergency Manag  
Prince George's County  
Prince William, County of  
Radio One Inc  
Rappahannock Electric Cooperative  
Rockbridge Reg. Pub Safety Comm Ctr  
Rural Broadband Network Services LLC  
Rural Broadband, LLC  
SW Networks  
Shenandoah Personal Communications, LLC  
Shenandoah Valley Electric Cooperative  
Snyder, County of  
Somerset, County of  
South Central Task Force (SCTFNET)  
Southern Maryland Electric Cooperative I  
Spotsylvania, County of  
St. Mary's County of (MD)  
Stafford, County of  
State of Maryland, MIEMSS  
T-Mobile License LLC  
Texas Eastern Communications, LLC  
Thought Transmissions, LLC  
Torelco LLC  
Transcontinental Gas Pipeline Corp.  
US Cellular Operating Company, LLC (WI)  
USCOC of Cumberland, Inc.  
USCOC of Virginia RSA #3, Inc.  
USOC of Pennsylvania RSA No 10 B2 Inc.  
Uniti Fiber PEG, LLC  
Ursa Navigation Solutions, Inc.  
Verizon Maryland, Inc.  
Verizon Wireless (VAW) LLC - Maryland  
Verizon Wireless (VAW) LLC - W/B/V Mkts  
Verizon Wireless (VAW) LLC-Pennsylvania  
Verizon Wireless VAW LLC - West Virginia

Verizon Wireless VAW LLC-Southern VA  
Virginia Broadband, LLC  
Virginia Department of State Police  
Virginia Electric & Power Company  
WV DHHR BPH, Office of Ems, Com. Div.  
Warrenton Fauquier Joint Communications  
Washington Gas Light Company  
Washington Suburban Sanitary Commission  
Washington, County of  
Weblin Holdings LLC  
Westmoreland, County of  
Wicomico County  
Wireless Internetnetwork LLC  
World Class Wireless, LLC  
iSignal  
xWave Engineering LLC

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: 04/28/2018  
Job Number: 180428COMSGE01

---

### Administrative Information

Status: TEMPORARY (Operation from 07/01/2018 to 09/01/2018)  
Call Sign: TEMP09  
Licensee Code: INTELS  
Licensee Name: Intelsat License LLC

---

### Site Information

#### HAGERSTOWN, MD

Venue Name:  
Latitude (NAD 83): 39° 35' 54.7" N  
Longitude (NAD 83): 77° 45' 35.3" W  
Climate Zone: A  
Rain Zone: 2  
Ground Elevation (AMSL): 171.3 m / 562.0 ft

---

### Link Information

Satellite Type: Geostationary  
Mode: TO - Transmit-Only  
Modulation: Analog and 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): 12.5 m / 41.0 ft

---

### Antenna Information

#### Transmit - FCC32

Manufacturer: GD Satcom  
Model: 19M CFPA  
Gain / Diameter: 59.1 dBi / 19.0 m  
3-dB / 15-dB Beamwidth: 0.20° / 0.40°

Max Available RF Power (dBW/4 kHz): 2.9  
(dBW/MHz): 26.9

Maximum EIRP (dBW/4 kHz): 62.0  
(dBW/MHz): 86.0

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): 1M00FXD / 6423.0  
1M00FXD / 6425.0

Max Great Circle Coordination Distance: 520.7 km / 323.5 mi  
Precipitation Scatter Contour Radius: 266.0 km / 165.3 mi

Coordination Values		HAGERSTOWN, MD	
Licensee Name		Intelsat License LLC	
Latitude (NAD 83)		39° 35' 54.7" N	
Longitude (NAD 83)		77° 45' 35.3" W	
Ground Elevation (AMSL)		171.3 m / 562.0 ft	
Antenna Centerline (AGL)		12.5 m / 41.0 ft	
Antenna Model		GD Satcom 19 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	2.9 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	192.30
5	0.00	96.84	-10.00	192.30
10	0.00	91.86	-10.00	192.30
15	0.00	86.88	-10.00	192.30
20	0.00	81.90	-10.00	192.30
25	0.00	76.92	-10.00	192.30
30	0.00	71.95	-10.00	192.30
35	0.00	66.97	-10.00	192.30
40	0.00	62.00	-10.00	192.30
45	0.00	57.03	-10.00	192.30
50	0.00	52.06	-10.00	192.30
55	0.00	47.09	-9.82	192.97
60	0.00	42.14	-8.62	197.59
65	0.00	37.19	-7.26	202.77
70	0.00	32.26	-5.72	207.04
75	0.00	27.34	-3.92	214.20
80	0.00	22.47	-1.79	223.20
85	0.00	17.65	0.83	235.00
90	0.00	12.98	4.17	250.64
95	0.00	8.66	8.56	274.63
100	0.00	5.61	13.27	520.72
105	0.00	6.15	12.28	360.16
110	0.00	9.60	7.45	268.25
115	0.00	13.27	3.93	249.41
120	0.00	16.89	1.31	237.25
125	0.00	20.41	-0.75	227.80
130	0.00	23.83	-2.43	220.45
135	0.00	27.11	-3.83	214.58
140	0.00	30.23	-5.01	209.81
145	0.00	33.14	-6.01	205.91
150	0.00	35.82	-6.85	204.32
155	0.00	38.20	-7.55	201.66
160	0.00	40.26	-8.12	199.49
165	0.00	41.93	-8.56	197.80
170	0.00	43.16	-8.88	196.60
175	0.00	43.92	-9.07	195.87
180	0.00	44.18	-9.13	195.63
185	0.00	43.92	-9.07	195.87

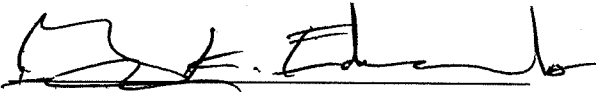
Coordination Values		HAGERSTOWN, MD	
Licensee Name		Intelsat License LLC	
Latitude (NAD 83)		39° 35' 54.7" N	
Longitude (NAD 83)		77° 45' 35.3" W	
Ground Elevation (AMSL)		171.3 m / 562.0 ft	
Antenna Centerline (AGL)		12.5 m / 41.0 ft	
Antenna Model		GD Satcom 19 meter	
Antenna Mode		Transmit 6.1 GHz	
Interference Objectives:	Long Term	-154.0 dBW/4 kHz	20%
	Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	2.9 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	43.16	-8.88	196.60
195	0.00	41.93	-8.56	197.80
200	0.00	40.26	-8.12	199.49
205	0.00	38.20	-7.55	201.66
210	0.00	35.81	-6.85	204.33
215	0.00	33.14	-6.01	205.91
220	0.00	30.22	-5.01	209.82
225	0.00	27.11	-3.83	214.58
230	0.00	23.83	-2.43	220.44
235	0.00	20.42	-0.75	227.79
240	0.00	16.89	1.31	237.27
245	0.00	13.28	3.92	249.39
250	0.00	9.59	7.46	268.31
255	0.00	6.33	11.96	370.15
260	0.00	6.11	12.35	500.38
265	0.00	9.18	7.93	270.97
270	0.00	13.46	3.77	248.64
275	0.00	18.11	0.55	233.72
280	0.00	22.90	-2.00	222.31
285	0.00	27.76	-4.09	213.52
290	0.00	32.66	-5.85	206.52
295	0.00	37.59	-7.38	202.33
300	0.00	42.53	-8.72	197.21
305	0.00	47.48	-9.91	192.63
310	0.00	52.44	-10.00	192.30
315	0.00	57.40	-10.00	192.30
320	0.00	62.37	-10.00	192.30
325	0.00	67.34	-10.00	192.30
330	0.00	72.31	-10.00	192.30
335	0.00	77.28	-10.00	192.30
340	0.00	82.26	-10.00	192.30
345	0.00	87.23	-10.00	192.30
350	0.00	92.21	-10.00	192.30
355	0.00	97.18	-10.00	192.30



## 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: May 4, 2018