

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
STA Request to Use Hagerstown, MD Earth Station (KA275) to Provide IOT Services to Intelsat 35e Satellite

1. Applicant

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



File # SES-STA-20170613-00646  
Call Sign N9475 Grant Date 6-26-17  
(or other identifier)  
Term Dates 8-15-17  
From: 7/6/17 To: 8-15-17  
Approved: [Signature]

Applicant: Intelsat License LLC  
Call Sign: KA275  
File No.: SES-STA-20170613-00646

Intelsat License LLC ("Intelsat") is granted special temporary authority, for 30 days, beginning July 16, 2017 to operate its Hagerstown, Maryland fixed earth station to provide in-orbit testing ("IOT") functions to Intelsat 35e at the 33.0° W.L. orbital location in the 5925-5929 MHz, 6080-6107 MHz, 6169-6181 MHz, 6199-6210 MHz, 6258-6299 MHz, 6332-6359 MHz, and 6392-6425 MHz (Earth-to-space) frequency bands under the following conditions:

1. All operators of satellites will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs; Currently the 24x7 contact information for the Intelsat 35e 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.
2. Operations, shall not cause harmful interference to or claim protection from other lawfully operating stations and it shall cease transmission(s) immediately upon notice of such interference.
3. In the event of any harmful interference under this grant of STA, Intelsat must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.
4. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Intelsat applications.
5. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat's risk.
6. Should an emergency situation exists and the applicant must notify FCC OperationCenter@fcc.gov of the situation with a copy to paul.blais@fcc.gov.

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 immediately.



File # SES-STA-20170613-00646  
Call Sign KA275 Grant Date 6-26-17  
(or other identifier)  
Term Dates  
From: 7-16-17 To: 8-15-17  
Approved: Paul E. Blais

**2. Contact**

**Name:** Cynthia J. Grady      **Phone Number:** 703-559-6949  
**Company:** Intelsat Corporation      **Fax Number:** 703-559-8539  
**Street:** 7900 Tysons One Place      **E-Mail:** cynthia.grady@intelsat.com  
**City:** McLean      **State:** VA  
**Country:** USA      **Zipcode:** 22102 -5972  
**Attention:**      **Relationship:** 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 Hagerstown

8. Latitude  
(dd mm ss.s h)    39 35 55.0 N

9. State MD	10. Longitude (dd mm ss.s h) 77 45 35.0 W
11. Please supply any need attachments. Attachment 1: STA Request      Attachment 2: Exhibit A      Attachment 3:	
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 30 days, commencing July 16, 2017, to use its Hagerstown, Maryland C-band earth station, call sign KA275, to provide in-orbit testing services to Intelsat 35e at 33.0 W.L. Intelsat 35e is expected to be launched on June 26, 2017.	
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 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**

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.**

June 13, 2017

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 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 July 16, 2017, to use its Hagerstown, Maryland C-band earth station—call sign KA275—to provide in-orbit testing (“IOT”) services to Intelsat 35e at 33.0° W.L.<sup>2</sup> Intelsat 35e is expected to be launched on June 26, 2017. The IOT is expected to last approximately 45 days.

The proposed operations will be performed using the following frequencies: 5925-5929 MHz, 6080-6107 MHz, 6169-6181 MHz, 6199-6210 MHz, 6258-6299 MHz, 6332-6359 MHz, and 6392-6425 MHz. The proposed operations will be coordinated with all operators of satellites that are potentially affected by these operations at the IOT location.<sup>3</sup> All operators of potentially affected satellites 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 Intelsat 35e 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.

---

<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”).

<sup>2</sup> See Policy Branch Information; Satellite Space Applications Accepted for Filing, Report No. SAT-01223, File No. SAT-STA-20170314-00050 (Mar. 14, 2017) (Public Notice). The permanent orbital location for Intelsat 35e will be at 34.5° W.L. See Policy Branch Information; Actions Taken, Report No. SAT-01191, SAT-LOA-20160408-00034 (Oct. 7, 2016) (Public Notice).

<sup>3</sup> Intelsat will handle the coordination.

Ms. Marlene H. Dortch  
June 13, 2017  
Page 2

In further support of this request, Intelsat herewith attaches Exhibit A, which contains 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. 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 in-orbit test the Intelsat 35e satellite. This, in turn, will help provide additional capacity to customers at the 34.5° W.L. orbital location and thereby promotes the public interest.

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

Respectfully submitted,

*/s/ Cynthia J. Grady*

Cynthia J. Grady  
Regulatory Counsel  
Intelsat Corporation

cc: Paul Blais

**FREQUENCY COORDINATION AND INTERFERENCE  
ANALYSIS REPORT**

Prepared for  
**Intelsat License LLC**  
**HAGERSTOWN, MD**  
**KA275**  
**Satellite Earth Station**

Prepared By:  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147  
May 24, 2017



## TABLE OF CONTENTS

1. CONCLUSIONS .....	3
2. SUMMARY OF RESULTS .....	4
3. SUPPLEMENTAL SHOWING .....	5
4. EARTH STATION COORDINATION DATA.....	8
5. CERTIFICATION.....	12

## 1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

## 2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-only earth station.

Company

AT&T Corp.  
State of Maryland, MIEMSS

No other carriers reported potential interference cases.

### 3. SUPPLEMENTAL SHOWING

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.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 04/05/2017.

Company

256Q Networks  
AB Services LLC  
AT&T Communications of Virginia, LLC  
AT&T Corp.  
AT&T Wireless Services 3 LLC - PA  
AWC Networks  
Adams County Department of Emergency Svc  
Affiniti PA, LLC  
Albermarle, County of, Virginia  
Appalachia Engineering Services  
Aratika LLC  
Argos Engineering, LLC  
Atlantic Broadband (Penn), LLC  
Augusta, 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  
CNG Transmission Corporation  
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  
Centre Communications Inc.  
Centre, County of  
Charles, County of  
Chester, County of  
City of Fredericksburg  
Clearfield, County of  
Clinton, County of  
Columbia Gas Transmission, LLC

Columbia, County  
Commonwealth of Pennsylvania-Radio Proj.  
Comprehensive Wireless LLC  
Conterra Ultra Broadband, LLC  
Coralinks  
County of Fayette  
County of Frederick  
County of Lycoming  
County of York  
DSRC  
Dauphin County Emergency Management  
Delaware County (PA) Emergency Services  
Delaware Division of Communications  
Delmarva Broadcasting Company  
Delmarva Power and Light Company  
ECW Wireless, LLC  
Eastern MLG LLC  
Enoch Pratt Free Library  
Exelon Generation Company, LLC  
FELHC, Inc.  
Frederick County  
Fulton County of (PA)  
Fundamental Broadcasting LLC  
Garden State Transmissions  
Getwireless.Net  
Great Scott Broadcasting  
Greene, County of (PA)  
Hanover, County of  
Hardy Cellular Telephone Company  
Hardy County OEM/E911  
Harrisonburg-Rockingham ECC  
High Voltage Communications LLC (CFN)  
Huntingdon County, Pa  
Indiana, County of  
Jefferson County of Pennsylvania  
Jefferson Microwave, LLC  
Juniata County Emergency Services  
Kryptick Technologies  
Lancaster County-Wide Communications  
Limitless Mobile, LLC  
Loudoun, County of  
MVC Research. LLC  
Maryland Public Broadcasting Commission  
Maryland State Highway Administration  
Maryland, State of - Dept.of Info & Tech  
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 Line Networks, LLC  
Norfolk Southern Railway  
Northumberland County DPS/911

Old Dominion LLC  
PA Communications  
PSEG Services Corporation  
Peco Energy Company  
Pennsylvania Turnpike Commission  
Pepco Holdings Inc.  
Perry, County of  
Perseus Technology Holdings USA Inc.  
Pittsburgh SMSA Limited Partnership  
Preston County Office of Emergency Manag  
Prince George's County  
Prince William, County of  
Radio One Inc  
Rappahannock Electric Cooperative  
Rural Broadband Network Services LLC  
SCS Networks  
SW Networks  
Shenandoah Personal Communications, LLC  
Shenandoah Valley Electric Cooperative  
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  
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-Southern VA  
Virginia Broadband, LLC  
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  
Westmoreland, County of  
Wicomico County  
Wireless Internetwork LLC  
World Class Wireless, LLC  
YAB Mobile  
iSignal  
xWave Engineering LLC

## **4. EARTH STATION COORDINATION DATA**

This section presents the data pertinent to frequency coordination of the proposed 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: 05/24/2017  
Job Number: 170405COMSGE02

---

### Administrative Information

Status ENGINEER PROPOSAL  
Call Sign KA275  
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 23° W to 43° West Longitude  
Azimuth Range 114.2° to 132.6°  
Corresponding Elevation Angles 18.1° / 31.9°  
Antenna Centerline (AGL) 12.5 m / 41.0 ft

---

### Antenna Information Transmit - FCC32

Manufacturer GD Satcom  
Model 19 meter  
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)  
800KFXD / 5925.0 - 5929.0  
800KFXD / 6080.0 - 6107.0  
800KFXD / 6169.0 - 6181.0  
800KFXD / 6199.0 - 6210.0  
800KFXD / 6258.0 - 6299.0  
800KFXD / 6332.0 - 6359.0  
800KFXD / 6392.0 - 6425.0

Max Great Circle Coordination Distance 233.6 km / 145.1 mi  
Precipitation Scatter Contour Radius 240.5 km / 149.4 mi



# COMSEARCH

## Earth Station Data Sheet

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

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	112.97	-10.00	192.30
5	0.00	108.25	-10.00	192.30
10	0.00	103.52	-10.00	192.30
15	0.00	98.78	-10.00	192.30
20	0.00	94.03	-10.00	192.30
25	0.00	89.28	-10.00	192.30
30	0.00	84.53	-10.00	192.30
35	0.00	79.78	-10.00	192.30
40	0.00	75.05	-10.00	192.30
45	0.00	70.32	-10.00	192.30
50	0.00	65.61	-10.00	192.30
55	0.00	60.92	-10.00	192.30
60	0.00	56.27	-10.00	192.30
65	0.00	51.65	-10.00	192.30
70	0.00	47.10	-9.82	192.97
75	0.00	42.61	-8.74	197.13
80	0.00	38.23	-7.56	201.63
85	0.00	33.98	-6.28	204.87
90	0.00	29.94	-4.91	210.22
95	0.00	26.20	-3.46	216.10
100	0.00	22.91	-2.00	222.28
105	0.00	20.28	-0.68	228.11
110	0.00	18.61	0.26	232.36
115	0.00	18.15	0.53	233.61
120	0.00	19.00	0.03	231.33
125	0.00	20.99	-1.05	226.45
130	0.00	23.85	-2.44	220.41
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	38.30	-7.58	201.55
160	0.00	41.10	-8.35	198.63
165	0.00	44.23	-9.14	195.58
170	0.00	47.61	-9.94	192.52
175	0.00	51.20	-10.00	192.30
180	0.00	54.95	-10.00	192.30
185	0.00	58.83	-10.00	192.30

# COMSEARCH

## Earth Station Data Sheet

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

### Coordination Values

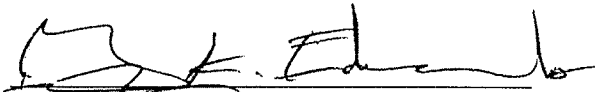
### HAGERSTOWN, MD

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	62.80	-10.00	192.30
195	0.00	66.86	-10.00	192.30
200	0.00	70.98	-10.00	192.30
205	0.00	75.15	-10.00	192.30
210	0.00	79.35	-10.00	192.30
215	0.00	83.58	-10.00	192.30
220	0.00	87.82	-10.00	192.30
225	0.00	92.06	-10.00	192.30
230	0.00	96.30	-10.00	192.30
235	0.00	100.53	-10.00	192.30
240	0.00	104.73	-10.00	192.30
245	0.00	108.90	-10.00	192.30
250	0.00	113.02	-10.00	192.30
255	0.00	117.08	-10.00	192.30
260	0.00	121.07	-10.00	192.30
265	0.00	124.95	-10.00	192.30
270	0.00	128.70	-10.00	192.30
275	0.00	132.29	-10.00	192.30
280	0.00	135.68	-10.00	192.30
285	0.00	138.82	-10.00	192.30
290	0.00	141.63	-10.00	192.30
295	0.00	144.04	-10.00	192.30
300	0.00	145.96	-10.00	192.30
305	0.00	147.31	-10.00	192.30
310	0.00	148.01	-10.00	192.30
315	0.00	148.02	-10.00	192.30
320	0.00	147.34	-10.00	192.30
325	0.00	144.75	-10.00	192.30
330	0.00	140.46	-10.00	192.30
335	0.00	136.04	-10.00	192.30
340	0.00	131.53	-10.00	192.30
345	0.00	126.96	-10.00	192.30
350	0.00	122.33	-10.00	192.30
355	0.00	117.66	-10.00	192.30

## 5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, 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 24, 2017