

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 Using Fillmore, CA Earth Station E4132 to Provide LEOP Services for GSAT-7A

1. Applicant

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

30 days "with conditions"



File # SES-STA-2018-1127-03343

Call Sign E4132 Grant Date 12/07/2018
(or other identifier)

Term Dates
From: 12/14/2018 To: 01/13/2019

Approved: [Signature]

2. Contact	
Name: Cynthia J. Grady	Phone Number: 703-559-6949
Company: Intelsat US LLC	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?	
<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 checked="" 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 checked="" type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input checked="" type="radio"/> Other	
6. Requested Use Prior Date	
7. City/Fillmore	
8. Latitude (dd mm ss.s h) 34 24 22.0 N	

9. State CA	10. Longitude (dd mm ss.s h) 118 53 34.0 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.) <div style="border: 1px solid black; padding: 5px;"> <p>Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, commencing December 14, 2018, to use its Fillmore, California C-band earth station, call sign E4132, to provide launch and early orbit phase services for the GSAT-7A satellite. GSAT-7A is expected to launch on December 14, 2018.</p> </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"; party to the application; for these purposes. <p style="text-align: right;">Yes <input checked="" type="radio"/> No <input type="radio"/></p>	
14. Name of Person Signing Cynthia J. Grady	15. Title of Person Signing Senior Counsel, Intelsat US LLC
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.

Applicant: Intelsat License LLC
Call Sign: E4132
File No.: SES-STA-20181127-03343
Special Temporary Authority ("STA")

Intelsat License LLC is granted STA, for 30 days, commencing December 14, 2018, to provide launch and early orbit phase ("LEOP") services for the GSAT-7A satellite at in-orbit testing and final orbital location at 63°E in the frequencies: 6415.00 MHz and 6417.16 MHz (CP) (Earth-to-space), and 4186.848 MHz and 4189.344 MHz (CP) (space-to-Earth) from geographic coordinates 34° 24' 22"N, 118° 53' 34"W in Fillmore, CA under the following conditions:

1. 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.
2. In the event of any harmful interference under this grant of STA, Intelsat License LLC must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.
3. The LEOP operations must be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path. 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. Currently the 24x7 contact information for the Azerspace-2 satellite 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.
4. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Intelsat License LLC applications.
5. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat License LLC'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 immediately.



"with conditions"

File # SES-STA-20181127-03343

Call Sign E4132 Grant Date 12/07/2018
(or other identifier)

Term Dates
From: 12/14/2018 To: 01/13/2019

Approved: [Signature]



INTELSAT.

Envision. Connect. Transform.

E4132
Intelsat License LLC

SES-STA-20181127-03343

IB2018010370

November 27, 2018

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

Re: Request for Special Temporary Authority
Fillmore, California Earth Station E4132

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests a grant of Special Temporary Authority (“STA”)¹ for 30 days, commencing December 14, 2018, to use its Fillmore, California C-band earth station—call sign E4132—to provide launch and early orbit phase (“LEOP”) services for the GSAT-7A satellite. GSAT-7A is expected to launch on December 14, 2018.² Intelsat expects the LEOP period to last approximately 10 days.

The GSAT-7A LEOP operations will be performed at the following frequencies: 6415.00 MHz and 6417.16 MHz (CP) in the uplink, and 4186.848 and 4189.344 MHz (CP) 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.³ 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 GSAT-7A 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.

¹ Intelsat has filed its STA request, FCC Form 159, a \$210.00 filing fee, and this supporting letter electronically via the International Bureau’s Filing System (“IBFS”).

² The in-orbit testing and final location for GSAT-7A, which Intelsat understands is licensed by India, will be 63.0° E.L.

³ Indian Space Research Organisation (“ISRO”), the manager of the GSAT-7A mission, will handle the coordination.

Ms. Marlene H. Dortch
November 27, 2018
Page 2

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 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 GSAT-7A LEOP mission, ISRO will serve as the mission manager. ISRO 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 ISRO. Intelsat will perform the ranging sessions by sending a tone to the spacecraft periodically. 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 GSAT-7A satellite. This will help provide services at the 63.0° E.L. 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
Senior 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.¹ 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.²

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.³ The Commission may grant a waiver for good cause shown.⁴ The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.⁵ 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.⁶ 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 GSAT-7A 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 GSAT-7A satellite. Intelsat has a contract with Indian Space Research Organisation, the manufacturer of the GSAT-7A satellite, to conduct LEOP services.

¹ 47 C.F.R. § 25.137.

² 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").

³ 47 C.F.R. §§ 25.137 and 25.114.

⁴ 47 C.F.R. § 1.3.

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

⁶ *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 GSAT-7A 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.⁷ 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.⁸ 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 30 days of LEOP services to the GSAT-7A satellite.

It is Intelsat's understanding that GSAT-7A is licensed by India, 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 GSAT-7A 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.

⁷ 47 C.F.R. § 25.137(a).

⁸ 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
Fillmore, California**

Temporary Transmit-Only Earth Station
Operation Dates: 11/17/2018 - 12/17/2018

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 September 18, 2018.

Company

ABC Holding Company Inc.
AT&T Mobility Spectrum LLC - N CA
AT&T Mobility Spectrum LLC - Southern CA
Air Sites 2000 LLC
American Tower, LLC
Anaheim City, of
Arizona Public Service Company (APS)
BNS Electronics, Inc.
CCO SoCal I, LLC
California Internet Solutions, Inc.
California Internet, L.P.
California Resources Corporation
California State University, Northridge
California, State of
Calvary Chapel of Costa Mesa
City of Los Angeles Dept Water & Power
City of Montebello
Coast Community College District
Communication Services, Inc.
Conterra Ultra Broadband, LLC
DM Ventures, Inc. dba Warp2Biz
Entravision Holdings, LLC
Exxon Communications Company
Federal Communication Commission
Fresno MSA Limited Partnership
Frontier California Inc.
Frontier Communications of the Southwest
GTE Mobilnet of Santa Barbara LTD Ptsh
Glendale City California
Global Telecom & Technology Americas, In
Go Creative Wireless
GovNET Licenses LLC
ION Media Los Angeles License, Inc.
KTLA, LLC
Kern Ed Telecom Consortium

Kern, County of
LDM Engineering
Los Angeles City Info Technology Agency
Los Angeles County Dept of Public Works
Los Angeles County FCC Licensing Section
Los Angeles County Metro Transit Auth
Los Angeles Regional Interoperable Comm
Los Angeles SMSA Ltd. Partnership
Los Angeles Unified School District
MHO Networks
Metropolitan Water Dist of So California
Mobile Relay Associates Inc.
New Cingular Wireless PCS LLC - AZ
New Cingular Wireless PCS - Los Angeles
New Cingular Wireless PCS LLC - N CAL
New Cingular Wireless PCS, LLC - SE Cal
Nextel License Holdings 4 Inc.
Nextel of California Inc.
Nextweb Inc
Northrop Grumman Systems Corp.
Nrj TV La License Co, LLC
Olympic Wireless, LLC
Orange, County of, CA
Pacific Bell Tel Com dba AT&T California
Pacific Lightwave Inc
Regents of the University of California
Riverside, County of
San Bernardino County of California
San Diego Broadband
San Diego Gas & Electric Company
Santa Barbara Cellular Systems, Ltd.
Santa Barbara, County of
Sentinel Peak Resources California LLC
Skyriver Communications
Southern California Edison Company
Southern California Gas Company
Southern California Regional Rail Auth.
Spectrum Link, Inc.
T-Mobile License LLC
TV Microwaves Company
Turn Wireless, LLC
Ultimate Internet Access, Inc
Union Pacific Railroad Company
University of California, HPWREN
Vectus, Inc
Ventura, County of
Verizon Wireless (VAW) LLC (Southern CA)
Verizon Wireless (VAW) LLC-N CA/NV
Verizon Wireless(VAW) LLC-AZ/CO/NM/NV/UT
Wiline Spectrum Holdings LLC
Wisprenn

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: 09/18/2018
 Job Number: 180918COMSGE15

Administrative Information

Status: TEMPORARY (Operation from 11/17/2018 to 12/17/2018)
 Call Sign: TEMP12
 Licensee Code: INTELS
 Licensee Name: Intelsat License LLC

Site Information

FILLMORE, CA
 Venue Name
 Latitude (NAD 83): 34° 24' 22.0" N
 Longitude (NAD 83): 118° 53' 34.0" W
 Climate Zone: A
 Rain Zone: 4
 Ground Elevation (AMSL): 331.09 m / 1086.3 ft

Link Information

Satellite Type: Geostationary
 Mode: TO - Transmit-Only
 Modulation: Digital
 Satellite Arc: 45.6° W to 192.2° West Longitude
 Azimuth Range: 99.6° to 260.4°
 Corresponding Elevation Angles: 5.1° / 5.0°
 Antenna Centerline (AGL): 8.23 m / 27.0 ft

Antenna Information

Transmit - FCC32
 Manufacturer: Scientific-Atlanta
 Model: 3311
 Gain / Diameter: 54.0 dBi / 10.3 m
 3-dB / 15-dB Beamwidth: 0.40° / 0.60°

Max Available RF Power (dBW/4 kHz): 10.0
 (dBW/MHz): 34.0

Maximum EIRP (dBW/4 kHz): 64.0
 (dBW/MHz): 88.0

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 / 6415.0
 1M00FXD / 6417.16

Max Great Circle Coordination Distance: 535.5 km / 332.7 mi
 Precipitation Scatter Contour Radius: 377.8 km / 234.7 mi

Coordination Values	FILLMORE, CA	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	34° 24' 22.0" N	
Longitude (NAD 83)	118° 53' 34.0" W	
Ground Elevation (AMSL)	331.09 m / 1086.3 ft	
Antenna Centerline (AGL)	8.23 m / 27.0 ft	
Antenna Model	Scientific-Atlanta 10.3 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	10.0 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	9.23	99.59	-10.00	100.00
5	10.68	94.61	-10.00	100.00
10	11.53	89.63	-10.00	100.00
15	9.69	84.65	-10.00	100.00
20	7.91	79.64	-10.00	100.00
25	9.98	74.69	-10.00	100.00
30	9.81	69.70	-10.00	100.00
35	10.40	64.75	-10.00	100.00
40	10.04	59.75	-10.00	100.00
45	9.30	54.74	-10.00	100.00
50	8.25	49.70	-10.00	100.00
55	7.02	44.66	-9.25	100.00
60	8.47	39.75	-7.98	100.00
65	9.70	34.90	-6.57	100.00
70	9.19	29.89	-4.89	100.00
75	8.53	24.86	-2.89	100.00
80	7.11	19.73	-0.38	100.49
85	5.27	14.63	2.87	132.56
90	4.58	9.64	7.40	161.57
95	5.46	4.65	15.32	195.16
100	4.77	0.47	40.28	525.95
105	3.79	5.08	14.34	213.40
110	3.63	9.18	7.93	184.19
115	2.67	13.72	3.57	183.23
120	2.31	17.83	0.72	177.38
125	1.52	22.14	-1.63	187.27
130	2.21	25.42	-3.13	158.97
135	2.38	28.89	-4.52	148.56
140	2.46	32.24	-5.71	141.79
145	2.77	35.22	-6.67	133.29
150	2.42	38.43	-7.62	135.14
155	2.83	40.74	-8.25	126.47
160	2.84	42.99	-8.83	124.19
165	3.34	44.34	-9.17	113.76
170	2.95	46.01	-9.57	119.26
175	2.90	46.86	-9.77	119.44
180	2.60	47.42	-9.90	124.52
185	2.02	47.72	-9.97	134.07

Coordination Values		FILLMORE, CA
Licensee Name		Intelsat License LLC
Latitude (NAD 83)		34° 24' 22.0" N
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Antenna Centerline (AGL)		8.23 m / 27.0 ft
Antenna Model		Scientific-Atlanta 10.3 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	10.0 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	2.12	46.80	-9.76	134.19
195	0.87	46.57	-9.70	173.10
200	0.26	45.15	-9.37	214.86
205	0.93	42.25	-8.65	174.79
210	0.65	39.75	-7.98	192.37
215	0.87	36.59	-7.08	184.97
220	0.00	33.92	-6.26	235.05
225	0.00	30.45	-5.09	240.59
230	0.00	26.83	-3.72	247.31
235	0.00	23.09	-2.08	255.01
240	0.00	19.24	-0.11	265.69
245	0.00	15.33	2.36	279.98
250	0.00	11.35	5.63	300.44
255	0.00	7.37	10.31	333.05
260	0.00	5.06	14.40	535.49
265	0.00	6.84	11.13	339.08
270	0.00	10.85	6.11	303.65
275	0.92	15.18	2.47	224.33
280	1.16	19.99	-0.52	203.12
285	2.42	24.75	-2.84	155.22
290	4.00	29.64	-4.80	118.45
295	3.78	34.64	-6.49	115.93
300	4.19	39.63	-7.95	104.05
305	3.71	44.64	-9.24	106.76
310	3.07	49.65	-10.00	115.29
315	2.67	54.65	-10.00	122.82
320	2.97	59.64	-10.00	117.12
325	4.02	64.62	-10.00	100.00
330	5.35	69.62	-10.00	100.00
335	6.18	74.62	-10.00	100.00
340	6.77	79.62	-10.00	100.00
345	7.57	84.62	-10.00	100.00
350	7.96	89.62	-10.00	100.00
355	8.29	94.61	-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: October 22, 2018