



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 Riverside, CA Earth Station E040125 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-20180727-02077  
 Call Sign E040125 Grant Date 9-6-18  
 (or other identifier)  
 Term Dates From: 9-6-18 To: 10-6-18  
 Approved: Susan H. Crandall

**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?  
 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. CityNuevo**      **8. Latitude**  
(dd mm ss.s h)      33 47 43.6 N

9. State CA	10. Longitude (dd mm ss.s h) 117 5 20.4 W
11. Please supply any need attachments. Attachment 1: LEOP 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 August 17, 2018, to use its Riverside, California C-band earth station, call sign E040125, to provide launch and early orbit phase services for the Telstar 18V satellite. Telstar 18V is expected to launch on August 17, 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"; for these purposes. <p style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></p>	
14. Name of Person Signing Cynthia J. Grady	15. Title of Person Signing Regulatory 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).	

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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: E040125  
File No.: SES-STA-20180727-02077  
Special Temporary Authority (STA)

Intelsat License LLC ("Intelsat") is granted STA for 30 days starting September 06, 2018 to operate its earth station in Riverside, California 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-20180727-02077  
Call Sign E040125 Grant Date 9-6-18  
(or other identifier)  
Term Dates  
From: 9-6-18 To: 10-6-18  
Approved: Paul E. [Signature]

July 24, 2018

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

Re: Request for Special Temporary Authority  
Riverside, California Earth Station E040125

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 Riverside, California C-band earth station—call sign E040125—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

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<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: E000296, KA275, 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.

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<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.

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<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 Nuevo, California

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 May 8, 2018.

#### Company

ABC Holding Company Inc.  
AT&T Mobility Spectrum LLC - Arizona  
AT&T Mobility Spectrum LLC - N CA  
AT&T Mobility Spectrum LLC - Southern CA  
Air Sites 2000 LLC  
Alltel Comm Southwest Holdings Inc.  
Anaheim City, of  
Arizona Public Service Company (APS)  
Arizona, State Of  
BNSF Railway Company  
CCO SoCal I, LLC  
California Internet Solutions, Inc.  
California, State of  
Calvary Chapel of Costa Mesa  
Cellco Partnership - Southern California  
City of Casa Grande  
City of Los Angeles Dept Water & Power  
City of Montebello  
City of Yuma  
Coachella Valley Water District  
Coast Community College District  
Commnet Four Corners, LLC  
DM Ventures, Inc. dba Warp2Biz  
DRS Global Enterprise Solutions, Inc.  
Entravision Holdings, LLC  
Federal Communication Commission  
Fresno MSA Limited Partnership  
Frontier California Inc.  
Gila River Cellular General Partnership  
Glendale City California  
Global Telecom & Technology Americas, In  
GovNET Licenses LLC  
ION Media Los Angeles License, Inc.  
Imperial Irrigation District  
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 Regional Interoperable Comm  
Los Angeles SMSA Ltd. Partnership  
MHO Networks  
Maricopa County Wireless Systems  
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 -San Diego  
New Cingular Wireless PCS, LLC - SE Cal  
Nextel License Holdings 4 Inc.  
Nextel of California Inc.  
Norris, Samuel O  
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  
Phoenix, City of  
Pinal, County of  
Qwest Corporation  
Regional 3Cs  
Riverside, County of  
San Bernardino County of California  
San Diego Broadband  
San Diego Gas & Electric Company  
San Diego, City of  
San Diego, County of  
Skyriver Communications  
Southern California Edison Company  
Southern California Gas Company  
Southern California Regional Rail Auth.  
Spectrum Link, Inc.  
Sprint Spectrum L.P.  
Sprint Telephony PCS, L.P.  
Station Venture Operations, LP  
T-Mobile License LLC  
TV Microwaves Company  
Table Top Telephone Company  
Telink Networks SW, LLC  
Time Warner Cable Pacific West LLC  
Tucson Electric Power Company  
Turn Wireless, LLC  
Ultimate Internet Access, Inc  
Union Pacific Railroad Company  
University of California, HPWREN  
Vectus, Inc  
Verizon Wireless (VAW) LLC (Southern CA)  
Verizon Wireless (VAW) LLC-N CA/NV

Verizon Wireless(VAW) LLC-AZ/CO/NM/NV/UT  
Western Broadband Inc.  
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: 05/14/2018  
Job Number: 180428COMSGE02

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### Administrative Information

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

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### Site Information

#### NUEVO, CA

Venue Name  
Latitude (NAD 83): 33° 47' 43.6" N  
Longitude (NAD 83): 117° 5' 20.4" W  
Climate Zone: A  
Rain Zone: 4  
Ground Elevation (AMSL): 566.62 m / 1859.0 ft

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### Link Information

Satellite Type: Geostationary  
Mode: TO - Transmit-Only  
Modulation: Analog and Digital  
Satellite Arc: 45° W to 190° West Longitude  
Azimuth Range: 100.2° to 260.3°  
Corresponding Elevation Angles: 6.2° / 5.5°  
Antenna Centerline (AGL): 7.32 m / 24.0 ft

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### Antenna Information

#### Transmit - FCC32

Manufacturer: Vertex  
Model: 11 KPC  
Gain / Diameter: 55.5 dBi / 11.0 m  
3-dB / 15-dB Beamwidth: 0.29° / 0.54°

Max Available RF Power (dBW/4 kHz): 8.6  
(dBW/MHz): 32.6

Maximum EIRP (dBW/4 kHz): 64.1  
(dBW/MHz): 88.1

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): 1M00FXD / 6423.0 - 6425.0

Max Great Circle Coordination Distance: 536.2 km / 333.1 mi  
Precipitation Scatter Contour Radius: 321.4 km / 199.7 mi

Coordination Values		NUEVO, CA	
Licensee Name		Intelsat License LLC	
Latitude (NAD 83)		33° 47' 43.6" N	
Longitude (NAD 83)		117° 5' 20.4" W	
Ground Elevation (AMSL)		566.62 m / 1859.0 ft	
Antenna Centerline (AGL)		7.32 m / 24.0 ft	
Antenna Model		Vertex 11 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	8.6 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.91	99.68	-10.00	160.90
5	2.23	95.18	-10.00	125.83
10	1.88	90.19	-10.00	133.16
15	2.42	85.20	-10.00	122.25
20	2.49	80.21	-10.00	120.85
25	2.56	75.22	-10.00	119.49
30	3.50	70.22	-10.00	102.07
35	3.34	65.23	-10.00	105.02
40	3.36	60.23	-10.00	104.68
45	3.28	55.24	-10.00	106.09
50	2.88	50.27	-10.00	113.58
55	2.50	45.31	-9.40	122.87
60	2.77	40.31	-8.14	122.67
65	3.44	35.29	-6.69	115.99
70	3.10	30.33	-5.05	128.10
75	3.19	25.36	-3.10	133.79
80	3.76	20.33	-0.70	132.86
85	3.33	15.45	2.28	152.87
90	3.39	10.56	6.41	174.12
95	2.51	6.34	11.94	220.14
100	2.99	3.18	19.45	491.65
105	3.63	5.38	13.72	205.53
110	3.84	9.29	7.80	171.48
115	3.70	13.36	3.86	152.77
120	3.87	17.17	1.13	137.08
125	3.84	21.02	-1.07	130.12
130	4.49	24.32	-2.65	114.61
135	3.88	28.30	-4.29	117.10
140	4.24	31.47	-5.45	107.49
145	4.11	34.76	-6.53	105.27
150	4.48	37.41	-7.32	100.00
155	4.67	39.84	-8.01	100.00
160	4.09	42.53	-8.72	100.00
165	4.55	43.90	-9.06	100.00
170	4.85	44.86	-9.30	100.00
175	5.79	44.68	-9.25	100.00
180	6.19	44.52	-9.21	100.00
185	6.91	43.57	-8.98	100.00

<b>Coordination Values</b>	<b>NUEVO, CA</b>	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	33° 47' 43.6" N	
Longitude (NAD 83)	117° 5' 20.4" W	
Ground Elevation (AMSL)	566.62 m / 1859.0 ft	
Antenna Centerline (AGL)	7.32 m / 24.0 ft	
Antenna Model	Vertex 11 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	8.6 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	7.27	42.53	-8.72	100.00
195	6.99	41.64	-8.49	100.00
200	6.27	40.64	-8.22	100.00
205	5.71	38.99	-7.77	100.00
210	5.71	36.45	-7.04	100.00
215	6.70	32.84	-5.91	100.00
220	7.49	29.16	-4.62	100.00
225	7.03	26.16	-3.44	100.00
230	5.65	23.57	-2.31	102.80
235	6.10	19.58	-0.30	106.16
240	5.73	16.02	1.88	118.62
245	5.59	12.21	4.83	131.75
250	5.18	8.50	8.77	152.31
255	4.95	4.62	15.38	193.71
260	4.51	1.01	31.92	536.17
265	4.74	4.76	15.05	195.22
270	4.38	9.77	7.26	156.75
275	4.51	14.74	2.79	134.59
280	4.14	19.75	-0.39	128.11
285	3.19	24.80	-2.86	133.33
290	2.77	29.82	-4.86	133.59
295	1.04	34.95	-6.59	172.46
300	0.82	39.93	-8.03	176.75
305	0.00	44.97	-9.32	215.43
310	0.00	49.93	-10.00	212.66
315	0.00	54.89	-10.00	212.66
320	0.00	59.86	-10.00	212.66
325	0.00	64.83	-10.00	212.66
330	0.00	69.80	-10.00	212.66
335	0.00	74.78	-10.00	212.66
340	0.00	79.75	-10.00	212.66
345	0.00	84.73	-10.00	212.66
350	0.00	89.71	-10.00	212.66
355	0.00	94.68	-10.00	212.66

## 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 14, 2018