

KA258 SES-STA-20120824-00785 IB2012001990  
Intelsat License LLC

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
Request for Special Temporary Authority for Earth Station, Call Sign KA258

1. Applicant

<b>Name:</b>	Intelsat License LLC	<b>Phone Number:</b>	202-944-7848
<b>DBA Name:</b>		<b>Fax Number:</b>	202-944-7870
<b>Street:</b>	c/o Intelsat Corporation 3400 International Drive, N.W.	<b>E-Mail:</b>	susan.crandall@intelsat.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20008 -3006
<b>Attention:</b>	Susan H. Crandall		



File # SES-STA-20120824-00785  
Call Sign KA258 Grant Date 24 Sept. 2012  
(or other identifier)  
Term Dates  
From 9/21/2012 To: 10/20/2012  
Approved: Paul E. Klaus

**2. Contact**

<b>Name:</b>	Susan H. Crandall	<b>Phone Number:</b>	202-944-7848
<b>Company:</b>	Intelsat Corporation	<b>Fax Number:</b>	202-944-7870
<b>Street:</b>	3400 International Drive, N.W.	<b>E-Mail:</b>	susan.crandall@intelsat.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20008 -3006
<b>Attention:</b>	Susan H. Crandall	<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?

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 54.0 N

9. State MD	10. Longitude (dd mm ss.s h) 77 45 33.0 W
11. Please supply any need attachments. Attachment 1: STA Request                      Attachment 2: Exhibits A – C                      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.) <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, from September 21, 2012 through October 20, 2012, to use its Hagerstown, Maryland Ku-band earth station, call sign KA258, to provide launch and early orbit phase services for the Astra-2F satellite that is expected to be launched on September 21, 2012.</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. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing Susan H. Crandall	15. Title of Person Signing Asst. General 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-PER, 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.**

August 24, 2012

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



Re: Request for Special Temporary Authority  
Hagerstown, Maryland Earth Station KA258

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests a grant of Special Temporary Authority (“STA”)<sup>1</sup> for 30 days, from September 21, 2012 through October 20, 2012, to use its Hagerstown, Maryland Ku-band earth station -- call sign KA258<sup>2</sup> -- to provide launch and early orbit phase (“LEOP”) services for the Astra-2F satellite that is expected to be launched on September 21, 2012.<sup>3</sup> The LEOP period is expected to last approximately six days.<sup>4</sup>

The Astra-2F LEOP operations will be performed in the following frequency bands: 17311.0 MHz and 18088.5 MHz in the uplink (RHCP or LHCP), and 11711.5 MHz, 11452.0 MHz, 12491.0 MHz in the downlink (RHCP or LHCP). The maximum uplink EIRP transmitted during the LEOP operations will be 85 dBW, with an emission designator of 800KFF2D. The LEOP operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path. As such, there would be no risk of

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<sup>1</sup> Intelsat has filed its STA request, an FCC Form 159, a \$180.00 filing fee and this supporting letter electronically via the International Bureau’s Filing System (“IBFS”).

<sup>2</sup> Intelsat currently is operating earth station KA258 at Hagerstown under Special Temporary Authority pending grant of a permanent modification application for a change in the antenna’s location. See *Intelsat License LLC Request for Extension of Special Temporary Authority*, File No. SES-STA-20120320-00284 (filed Mar. 20, 2012); *Intelsat License LLC Request for Extension of Special Temporary Authority*, File No. SES-STA-20120221-00186 (filed Feb. 21, 2012); *Policy Branch Information: Actions Taken*, Report No. SES-01421, File No. SES-STA-20120118-00067 (Feb. 1, 2012) (Public Notice).

<sup>3</sup> The permanent orbital location for Astra-2F, which is licensed by Luxembourg, will be 28.2° E.L. The in-orbit testing location will be 43.5° E.L.

<sup>4</sup> Intelsat is seeking authority through October 20, 2012 to accommodate a possible launch delay.

Ms. Marlene H. Dortch  
August 24, 2012  
Page 2

interference with respect to lawfully operating, co-frequency radiocommunication facilities. Nevertheless, 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 Astra-2F LEOP mission is as follows:

Ph.: (202) 944-7701 – East Coast Operations Center (primary)  
(310) 525-5900 – West Coast Operations Center (back-up)

Request to speak with Harry Burnham or Kevin Bell.

In addition, Intelsat attaches Exhibits A-C, which contain a waiver request as well as technical information indicating 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 or government 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. Intelsat also notes that for purposes of the Astra-2F LEOP mission, it is seeking to operate in the frequencies listed in the request at power levels not to exceed 26.5 dBW.

Grant of this STA request will allow Intelsat to help launch the Astra-2F satellite to the 28.2° E.L. location. This, in turn, will help ensure continuity of service at that location and thereby promotes the public interest.

Please direct any questions regarding this STA request to the undersigned at (202) 944-7848.

Respectfully submitted,



Susan H. Crandall  
Assistant General Counsel  
Intelsat Corporation

Cc: Paul Blais

**EXHIBIT A**

**INTELSAT LICENSE LLC**

**SPECIAL TEMPORARY AUTHORITY REQUEST**

**EARTH STATION KA258**

**LEOP SERVICES FOR ASTRA-2F SATELLITE**

**August 24, 2012**

## 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 operate with a non-U.S. licensed space station *to serve the United States*" must demonstrate that effective competitive opportunities exist and must provide the same technical information 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.

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>2</sup> The Commission may grant a waiver for good cause shown.<sup>3</sup> The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.<sup>4</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>5</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. With respect to Section 25.114, Intelsat seeks authority only to provide LEOP services for the Astra-2F 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 Astra-2F satellite, nor is Intelsat in contractual privity with that operator. Rather, an affiliate of Intelsat has a contract with EADS Astrium, the manufacturer of the Astra-2F satellite, to conduct LEOP services for the satellite.

The information that Intelsat is not including is not required to determine potential harmful interference. The Schedule S information for this satellite would pertain to the operation of the Astra-2F 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

<sup>1</sup> 47 C.F.R. § 25.137 (emphasis added).

<sup>2</sup> 47 C.F.R. §§ 25.137 and 25.114.

<sup>3</sup> 47 C.F.R. §1.3.

<sup>4</sup> *N.E. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) ("*Northeast Cellular*").

<sup>5</sup> *WAT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.



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. 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. Section 25.137 is designed to ensure that “U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services” in other countries. 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 the information required by Section 25.137 is not implicated here. For example, Section 25.137(d) 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>6</sup> The underlying purpose in having to post a bond—*i.e.*, to prevent warehousing of orbital locations by operators seeking to serve the United States—would not be served by requiring Intelsat to post a bond in order to provide approximately ten days of LEOP services to the Astra-2F satellite.

It is Intelsat’s understanding that Astra-2F is licensed by Luxembourg, which is a WTO-member country. Thus, the purposes of Section 25.137—to ensure that U.S. satellite operators enjoy “effective competitive opportunities” to serve foreign markets and to prevent warehousing of orbital locations serving the United States—will not be undermined by grant of this waiver request.

Finally, Intelsat notes that it expects to operate with the Astra-2F satellite using its U.S. earth station for a period of approximately ten 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 ten 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>6</sup> See 47 C.F.R. §25.137(d)(4).

**EXHIBIT B**

**INTELSAT LICENSE LLC**

**SPECIAL TEMPORARY AUTHORITY REQUEST**

**EARTH STATION KA258**

**LEOP SERVICES FOR ASTRA-2F SATELLITE**

**August 24, 2012**

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/Receive Earth Station  
Operation Dates: 09/05/2012 – 11/05/2012

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 July 26, 2012.

### Company

ACC License, LLC  
ADAMS COUNTY EMERGENCY MANAGEMENT AGENCY  
ALLEGANY COUNTY GOVERNMENT  
APC Realty and Equipment CO LLC  
ARLINGTON COUNTY EMERGENCY COMM CTR  
ART Licensing Corp.  
AT&T CORP  
Airband Communications Inc  
B.F. SAUL COMPANY  
BUSINESS INFORMATION GROUP, INC.  
Believe Wireless, LLC  
Blaze Broadband  
Boeing Company  
CAMP HILL SCHOOL DISTRICT  
CBS Broadcasting Inc  
CECIL COUNTY PUBLIC SCHOOLS  
CNG Transmission Corporation  
CRISPUS ATTUCKS ASSOCIATION  
Calvert County Government  
Cambria, County of  
Cape May County Municipal Utilities Auth  
Cape May County, MIS Department  
Carlisle Area School District  
City of Altoona  
Clearwire Spectrum Holdings III, LLC  
Commissioners of Caroline County  
Conterra Ultra Broadband, LLC  
Cumberland County, New Jersey  
Cumberland Valley School District  
DOVER AREA SCHOOL DISTRICT  
Delmarva Power & Light Company

Company (Continued)

ECW Wireless, LLC  
 East Pennsboro Area School  
 Eastern Lancaster County School District  
 Eduro Networks LLC  
 Enoch Pratt Free Library  
 Federal Communications Commission  
 Franklin County Dept. of Emergency Servi  
 GETWIRELESS.NET  
 George Washington University  
 Glenville State University  
 HALIFAX AREA SCHOOL DISTRICT  
 Harrison County Emergency Services  
 Hope Gas, Inc.  
 Kreider Networks  
 LANCASTER GENERAL HOSPITAL  
 Last Mile Inc.  
 Loudoun Wireless LLC  
 Loudoun, County of  
 MARYLAND, STATE OF - MDOT - MTA  
 MLS ENGINEERING  
 MetroPCS AWS, LLC  
 NBC TELEMUNDO LICENSE LLC  
 NEXSTAR BROADCASTING, INC.  
 National Radio Astronomy Observatory  
 Netrepid, Inc.  
 New Cingular Wireless PCS LLC - AZ  
 New Cingular Wireless PCS LLC - DC  
 New Cingular Wireless PCS LLC- WW/NC/SC  
 New Cingular Wireless PCS, LLC - PA  
 Nextlink Wireless, LLC  
 Northern York County School District  
 PENNSYLVANIA MICROWAVE NETWORK INC.  
 PENNSYLVANIA TURNPIKE COMMISSION  
 Prince William, County of  
 RapidDSL & Wireless, Inc.  
 Red Rose Transit Authority  
 Red Zebra Broadcasting Licensee, LLC  
 Roadstar Internet, Inc.  
 SHIPPENSBURG AREA SCHOOL DISTRICT  
 SOMERSET COUNTY  
 SUSQUEHANNA TOWNSHIP SCHOOL DISTRICT  
 Shenandoah Personal Communications Co  
 Sprint Spectrum, LP  
 State of WV DHHR/BPH STECS  
 Steelton-Highspire School District  
 Telecom Transport Management, Inc  
 Turtle Networks 6444  
 WASHINGTON CABLE SYSTEMS INC  
 WINEMILLER COMMUNICATIONS, INC.  
 WKYSFM, INC  
 Washington Metro Area Transit Police Dep

Company (Continued)

West Virginia PCS Alliance, L.C.  
Western PA Internet Access, Inc.  
Mindstream D&E Systems, Inc.  
Wireless Internetwork LLC  
World Class Wireless LLC  
York County Dept of Emergency Services  
York Water Co

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

The following 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: 08/23/2012  
 Job Number: 120726COMSJC04

#### Administrative Information

Status TEMPORARY (Operation from 09/05/2012 to 11/05/2012)  
 Call Sign TEMP11  
 Licensee Code INTELS  
 Licensee Name Intelsat License LLC

#### Site Information

**HAGERSTOWN, MARYLAND**

Venue Name  
 Latitude (NAD 83) 39° 35' 54.0" N  
 Longitude (NAD 83) 77° 45' 33.0" W  
 Climate Zone A  
 Rain Zone 2  
 Ground Elevation (AMSL) 174.65 m / 573.0 ft

#### Link Information

Satellite Type Geostationary  
 Mode TO - Transmit-Only  
 Modulation Digital  
 Satellite Arc 6° W to 149° West Longitude  
 Azimuth Range 101.9° to 257.8°  
 Corresponding Elevation Angles 5.3° / 5.7°  
 Antenna Centerline (AGL) 9.45 m / 31.0 ft

#### Antenna Information

#### Transmit

Manufacturer TIW  
 Model 14.2 Meter  
 Gain / Diameter 65.1 dBi / 14.2 m  
 3-dB / 15-dB Beamwidth 0.10° / 0.20°

Max Available RF Power (dBW/4 KHz) -0.4  
 (dBW/MHz) 23.6

Maximum EIRP (dBW/4 KHz) 64.7  
 (dBW/MHz) 88.7

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

#### Frequency Information

**Transmit 18.0 GHz**

Emission / Frequency Range (MHz) 832KFXD / 17311.0

Max Great Circle Coordination Distance 444.4 km / 276.1 mi  
 Precipitation Scatter Contour Radius 186.6 km / 116.0 mi

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

<b>Coordination Values</b>	<b>HAGERSTOWN, MD</b>
Licensee Name	Intelsat License LLC
Latitude (NAD 83)	39° 35' 54.0" N
Longitude (NAD 83)	77° 45' 33.0" W
Ground Elevation (AMSL)	174.65 m / 573.0 ft
Antenna Centerline (AGL)	9.45 m / 31.0 ft
Antenna Model	TIW 14.2 Meter
Antenna Mode	Transmit 18.0 GHz
Interference Objectives: Long Term	-154.0 dBW/4 KHz
Interference Objectives: Short Term	-131.0 dBW/4 KHz
Max Available RF Power	-0.4 (dBW/4 KHz)
	20%
	0.0025%

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	152.75
5	0.00	96.84	-10.00	152.75
10	0.00	91.86	-10.00	152.75
15	0.00	86.88	-10.00	152.75
20	0.00	81.90	-10.00	152.75
25	0.00	76.92	-10.00	152.75
30	0.00	71.95	-10.00	152.75
35	0.00	66.97	-10.00	152.75
40	0.00	62.00	-10.00	152.75
45	0.00	57.03	-10.00	152.75
50	0.00	52.06	-10.00	152.75
55	0.00	47.09	-9.82	153.31
60	0.00	42.14	-8.62	157.23
65	0.00	37.19	-7.26	162.24
70	0.00	32.26	-5.72	167.47
75	0.00	27.34	-3.92	173.65
80	0.00	22.47	-1.79	181.18
85	0.00	17.65	0.83	190.66
90	0.00	12.98	4.17	202.98
95	0.00	8.66	8.56	220.51
100	0.00	5.61	13.27	444.41
105	0.00	6.15	12.28	302.62
110	0.00	9.60	7.45	215.96
115	0.00	13.27	3.93	202.04
120	0.00	16.89	1.31	192.42
125	0.00	20.41	-0.75	184.91
130	0.00	23.83	-2.43	178.90
135	0.00	27.11	-3.83	173.98
140	0.00	30.23	-5.01	169.88
145	0.00	33.14	-6.01	166.47
150	0.00	35.82	-6.85	163.61
155	0.00	38.20	-7.55	161.26
160	0.00	40.26	-8.12	159.37
165	0.00	41.93	-8.56	157.41
170	0.00	43.16	-8.88	156.38
175	0.00	43.92	-9.07	155.76
180	0.00	44.18	-9.13	155.55

# COMSEARCH

## Earth Station Data Sheet

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

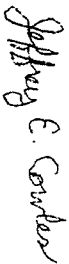
Coordination Values	HAGERSTOWN, MD
Licensee Name	Intelsat License LLC
Latitude (NAD 83)	39° 35' 54.0" N
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Antenna Mode	Transmit 18.0 GHz
Interference Objectives: Long Term	-154.0 dBW/4 KHz
Short Term	-131.0 dBW/4 KHz
Max Available RF Power	20%
	0.0025%

Azimuth (°)	Horizon		Antenna Discrimination (°)	Transmit 18.0 GHz	
	Elevation (°)			Horizon Gain (dBi)	Coordination Distance (km)
185	0.00		43.92	-9.07	155.76
190	0.00		43.16	-8.88	156.38
195	0.00		41.93	-8.56	157.41
200	0.00		40.26	-8.12	159.37
205	0.00		38.20	-7.55	161.26
210	0.00		35.81	-6.85	163.62
215	0.00		33.14	-6.01	166.47
220	0.00		30.22	-5.01	169.89
225	0.00		27.11	-3.83	173.98
230	0.00		23.83	-2.43	178.90
235	0.00		20.42	-0.75	184.91
240	0.00		16.89	1.31	192.44
245	0.00		13.28	3.92	202.03
250	0.00		9.59	7.46	216.01
255	0.00		6.33	11.96	312.84
260	0.00		6.11	12.35	426.25
265	0.00		9.18	7.93	217.91
270	0.00		13.46	3.77	201.46
275	0.00		18.11	0.55	189.65
280	0.00		22.90	-2.00	180.44
285	0.00		27.76	-4.09	173.08
290	0.00		32.66	-5.85	167.00
295	0.00		37.59	-7.38	161.85
300	0.00		42.53	-8.72	156.90
305	0.00		47.48	-9.91	153.03
310	0.00		52.44	-10.00	152.75
315	0.00		57.40	-10.00	152.75
320	0.00		62.37	-10.00	152.75
325	0.00		67.34	-10.00	152.75
330	0.00		72.31	-10.00	152.75
335	0.00		77.28	-10.00	152.75
340	0.00		82.26	-10.00	152.75
345	0.00		87.23	-10.00	152.75
350	0.00		92.21	-10.00	152.75
355	0.00		97.18	-10.00	152.75



**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.



Jeffrey E. Cowles  
Engineer III, Telecommunications  
COMSEARCH  
19700 Janelia Farm Blvd.  
Ashburn, Va. 20147

DATED: August 23, 2012

**EXHIBIT C**

**INTELSAT LICENSE LLC**

**SPECIAL TEMPORARY AUTHORITY REQUEST**

**EARTH STATION KA258**

**LEOP SERVICES FOR ASTRA-2F SATELLITE**

**August 24, 2012**

Prepared By

## COMSEARCH

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(703)726-5500 <http://www.comsearch.com>

Prepared For  
**Intelsat License LLC**  
**Hagerstown, Maryland**

Temporary Transmit/Receive Earth Station  
Operation Dates: 09/05/2012 - 11/05/2012

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 July 30, 2012.

### Company

ACC License, LLC  
ADAMS COUNTY EMERGENCY MANAGEMENT AGENCY  
ALLEGANY COUNTY GOVERNMENT  
APC Realty and Equipment CO LLC  
ARLINGTON COUNTY EMERGENCY COMM CTR  
ART Licensing Corp.  
AT&T CORP  
Airband Communications Inc  
B.F. SAUL COMPANY  
BUSINESS INFORMATION GROUP, INC.  
Believe Wireless, LLC  
Blaze Broadband  
Boeing Company  
CAMP HILL SCHOOL DISTRICT  
CBS Broadcasting Inc  
CECIL COUNTY PUBLIC SCHOOLS  
CNG Transmission Corporation  
CRISPUS ATTUCKS ASSOCIATION  
Calvert County Government  
Cambria, County of  
Cape May County Municipal Utilities Auth  
Cape May County, MIS Department  
Carlisle Area School District  
City of Altoona  
Clearwire Spectrum Holdings III, LLC  
Commissioners of Caroline County  
Conterra Ultra Broadband, LLC  
Cumberland County, New Jersey  
Cumberland Valley School District  
DOVER AREA SCHOOL DISTRICT  
Delmarva Power & Light Company

Company (Continued)

ECW Wireless, LLC  
 East Pennsboro Area School  
 Eastern Lancaster County School District  
 Eduro Networks LLC  
 Enoch Pratt Free Library  
 Federal Communications Commission  
 Franklin County Dept. of Emergency Servi  
 GETWIRELESS.NET  
 George Washington University  
 Glenville State University  
 HALIFAX AREA SCHOOL DISTRICT  
 Harrison County Emergency Services  
 Hope Gas, Inc.  
 Kreider Networks  
 LANCASTER GENERAL HOSPITAL  
 Last Mile Inc.  
 Loudoun Wireless LLC  
 Loudoun, County of  
 MARYLAND, STATE OF - MDOT - MTA  
 MLS ENGINEERING  
 MetroPCS AWS, LLC  
 NBC TELEMUNDO LICENSE LLC  
 NEXSTAR BROADCASTING, INC.  
 National Radio Astronomy Observatory  
 Netrepid, Inc.  
 New Cingular Wireless PCS LLC - AZ  
 New Cingular Wireless PCS LLC - DC  
 New Cingular Wireless PCS LLC- WW/NC/SC  
 New Cingular Wireless PCS, LLC - PA  
 Nextlink Wireless, LLC  
 Northern York County School District  
 PENNSYLVANIA MICROWAVE NETWORK INC.  
 PENNSYLVANIA TURNPIKE COMMISSION  
 Prince William, County of  
 RapidDSL & Wireless, Inc.  
 Red Rose Transit Authority  
 Red Zebra Broadcasting Licensee, LLC  
 Roadstar Internet, Inc.  
 SHIPPENSBURG AREA SCHOOL DISTRICT  
 SOMERSET COUNTY  
 SUSQUEHANNA TOWNSHIP SCHOOL DISTRICT  
 Shenandoah Personal Communications Co  
 Sprint Spectrum, LP  
 State of WV DHHR/BPH STECS  
 Steelton-Highspire School District  
 Telecom Transport Management, Inc  
 Turtle Networks 6444  
 WASHINGTON CABLE SYSTEMS INC  
 WINEMILLER COMMUNICATIONS, INC.  
 WKYSFM, INC  
 Washington Metro Area Transit Police Dep

Company (Continued)

West Virginia PCS Alliance, L.C.  
Western PA Internet Access, Inc.  
Mindstream D&E Systems, Inc.  
Wireless Internetwork LLC  
World Class Wireless LLC  
York County Dept of Emergency Services  
York Water Co

Society of Broadcast Engineers Coordinators

Maryland & DC – James Snyder  
Pennsylvania – Central (Rick Markey)  
Pennsylvania – SE, Delaware, and S. New Jersey (Jeff DePolo)  
Pennsylvania – S. Central (Matt Lightner)  
Pennsylvania – Western/Pittsburgh (Otto Schellin)  
West Virginia – Entire State (Randy Kerbawy)

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

The following 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: 08/23/2012  
 Job Number: 120730COMSJC03

**Administrative Information**

Status: TEMPORARY (Operation from 09/05/2012 to 11/05/2012)  
 Call Sign: TEMP11  
 License Code: INTELS  
 License Name: Intelsat License LLC

**Site Information**

Venue Name: **HAGERSTOWN, MARYLAND**  
 Latitude (NAD 83): 39° 35' 54.0" N  
 Longitude (NAD 83): 77° 45' 33.0" W  
 Climate Zone: A  
 Rain Zone: 2  
 Ground Elevation (AMSL): 174.65 m / 573.0 ft

**Link Information**

Satellite Type: Geostationary  
 Mode: TO - Transmit-Only  
 Modulation: Digital  
 Satellite Arc: 6° W to 149° West Longitude  
 Azimuth Range: 101.9° to 257.8°  
 Corresponding Elevation Angles: 5.3° / 5.7°  
 Antenna Centerline (AGL): 9.45 m / 31.0 ft

**Antenna Information**

	<b>Transmit</b>
Manufacturer	TIW
Model	14.2 Meter
Gain / Diameter	65.1 dBi / 14.2 m
3-dB / 15-dB Beamwidth	0.10° / 0.20°

Max Available RF Power: (dBW/4 KHz) -0.4  
 (dBW/MHz) 23.6

Maximum EIRP: (dBW/4 KHz) 64.7  
 (dBW/MHz) 88.7  
 (dBW) 88.0

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

**Frequency Information**

Emission / Frequency Range (MHz) **Transmit 18.0 GHz**  
 832KFXD / 18088.5

Max Great Circle Coordination Distance: 444.4 km / 276.1 mi  
 Precipitation Scatter Contour Radius: 186.6 km / 116.0 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' 54.0" N	
Longitude (NAD 83)		77° 45' 33.0" W	
Ground Elevation (AMSL)		174.65 m / 573.0 ft	
Antenna Centerline (AGL)		9.45 m / 31.0 ft	
Antenna Model		TIW 14.2 Meter	
Antenna Mode		Transmit 18.0 GHz	
Interference Objectives:	Long Term	-154.0 dBW/4 KHz	20%
	Short Term	-131.0 dBW/4 KHz	0.0025%
Max Available RF Power -0.4 (dBW/4 KHz)			

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	152.75
5	0.00	96.84	-10.00	152.75
10	0.00	91.86	-10.00	152.75
15	0.00	86.88	-10.00	152.75
20	0.00	81.90	-10.00	152.75
25	0.00	76.92	-10.00	152.75
30	0.00	71.95	-10.00	152.75
35	0.00	66.97	-10.00	152.75
40	0.00	62.00	-10.00	152.75
45	0.00	57.03	-10.00	152.75
50	0.00	52.06	-10.00	152.75
55	0.00	47.09	-9.82	153.31
60	0.00	42.14	-8.62	157.23
65	0.00	37.19	-7.26	162.24
70	0.00	32.26	-5.72	167.47
75	0.00	27.34	-3.92	173.65
80	0.00	22.47	-1.79	181.18
85	0.00	17.65	0.83	190.66
90	0.00	12.98	4.17	202.98
95	0.00	8.66	8.56	220.51
100	0.00	5.61	13.27	444.41
105	0.00	6.15	12.28	302.62
110	0.00	9.60	7.45	215.96
115	0.00	13.27	3.93	202.04
120	0.00	16.89	1.31	192.42
125	0.00	20.41	-0.75	184.91
130	0.00	23.83	-2.43	178.90
135	0.00	27.11	-3.83	173.98
140	0.00	30.23	-5.01	169.88
145	0.00	33.14	-6.01	166.47
150	0.00	35.82	-6.85	163.61
155	0.00	38.20	-7.55	161.26
160	0.00	40.26	-8.12	159.37
165	0.00	41.93	-8.56	157.41
170	0.00	43.16	-8.88	156.38
175	0.00	43.92	-9.07	155.76
180	0.00	44.18	-9.13	155.55
185	0.00	43.92	-9.07	155.76

**COMSEARCH**  
**Earth Station Data Sheet**  
 19700 Janelia Farm Boulevard, Ashburn, VA 20147  
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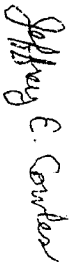
Coordination Values	HAGERSTOWN, MD
Licensee Name	Intelsat License LLC
Latitude (NAD 83)	39° 35' 54.0" N
Longitude (NAD 83)	77° 45' 33.0" W
Ground Elevation (AMSL)	174.65 m / 573.0 ft
Antenna Centerline (AGL)	9.45 m / 31.0 ft
Antenna Model	TIW 14.2 Meter
Antenna Mode	Transmit 18.0 GHz
Interference Objectives: Long Term	-154.0 dBW/4 KHz
Interference Objectives: Short Term	-131.0 dBW/4 KHz
Max Available RF Power	0.0025%
	Short Term
	-0.4 (dBW/4 KHz)

Azimuth (°)	Horizon		Antenna Discrimination (°)	Transmit 18.0 GHz	
	Elevation (°)	Elevation (°)		Horizon Gain (dB)	Coordination Distance (km)
190	0.00	0.00	43.16	-8.88	156.38
195	0.00	0.00	41.93	-8.56	157.41
200	0.00	0.00	40.26	-8.12	159.37
205	0.00	0.00	38.20	-7.55	161.26
210	0.00	0.00	35.81	-6.85	163.62
215	0.00	0.00	33.14	-6.01	166.47
220	0.00	0.00	30.22	-5.01	169.89
225	0.00	0.00	27.11	-3.83	173.98
230	0.00	0.00	23.83	-2.43	178.90
235	0.00	0.00	20.42	-0.75	184.91
240	0.00	0.00	16.89	1.31	192.44
245	0.00	0.00	13.28	3.92	202.03
250	0.00	0.00	9.59	7.46	216.01
255	0.00	0.00	6.33	11.96	312.84
260	0.00	0.00	6.11	12.35	426.25
265	0.00	0.00	9.18	7.93	217.91
270	0.00	0.00	13.46	3.77	201.46
275	0.00	0.00	18.11	0.55	189.65
280	0.00	0.00	22.90	-2.00	180.44
285	0.00	0.00	27.76	-4.09	173.08
290	0.00	0.00	32.66	-5.85	167.00
295	0.00	0.00	37.59	-7.38	161.85
300	0.00	0.00	42.53	-8.72	156.90
305	0.00	0.00	47.48	-9.91	153.03
310	0.00	0.00	52.44	-10.00	152.75
315	0.00	0.00	57.40	-10.00	152.75
320	0.00	0.00	62.37	-10.00	152.75
325	0.00	0.00	67.34	-10.00	152.75
330	0.00	0.00	72.31	-10.00	152.75
335	0.00	0.00	77.28	-10.00	152.75
340	0.00	0.00	82.26	-10.00	152.75
345	0.00	0.00	87.23	-10.00	152.75
350	0.00	0.00	92.21	-10.00	152.75
355	0.00	0.00	97.18	-10.00	152.75



**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.



Jeffrey E. Cowles  
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COMSEARCH  
19700 Janelia Farm Blvd.  
Ashburn, Va. 20147

DATED: August 23, 2012