


APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Request for 180-Day STA for Hagerstown, Maryland Earth Station KA275

1. Applicant

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

File # SES-STA-2015-0316-00158
KA275 Grant Date 4-27-15
Call Sign (or other identifier)
From 4-27-15 Term Dates To: 10-27-15
Approved: [Signature]




GRANTED
International Bureau

Applicant: Intelsat License LLC
File No.: SES-STA-20150316-00158
Call Sign: KA275

Intelsat License LLC is granted special temporary authority, for 180 days, from April 27, 2015, to operate its earth station, Call Sign KA275, located in, Hagerstown, Maryland, to provide launch and early orbit phase services for the ABS-3 satellite, licensed and registered by Papua New Guinea, as it travels to its permanent orbital location 3.0° W.L. Communications will be on the following center frequencies: 6420 MHz and 6425 MHz (LHCP) in the (Earth-to-space), and 4194.5 MHz and 4197.0 MHz (LHCP) in the (space-to-Earth) and under the following conditions:

1. Intelsat License LLC will coordinate with operators of co-frequency satellites in the drift path.
2. Operations in the uplink frequencies will be within the coordinated parameters of the antenna's current license.
- 3 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.
4. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Intelsat License LLC's 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.

 GRANTED International Bureau	File # <u>SES-STA-20150316-00158</u>
	Call Sign <u>KA275</u> Grant Date <u>4-27-15</u>
	(or other identifier)
	From <u>4-27-15</u> Term Dates To <u>10-24-15</u>
	Approved: <u>[Signature]</u>

2. Contact	
Name:	Susan H. Crandall
Company:	Intelsat Corporation
Street:	7900 Tysons One Place
City:	McLean
Country:	USA
Attention:	
Phone Number:	703-559-7848
Fax Number:	703-559-8539
E-Mail:	susan.crandall@intelsat.com
State:	VA
Zipcode:	22102 -5972
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 checked="" 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 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: 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 180 days, commencing upon grant, to use its Hagerstown, Maryland C-band earth station, call sign KA275, to provide launch and early orbit phase services for the ABS-3A satellite. ABS-3A was successfully launched on March 1, 2015.</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.	Yes <input checked="" type="radio"/> No <input type="radio"/>
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

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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.

March 16, 2015

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”)¹ for 180 days, commencing upon grant, to use its Hagerstown, Maryland C-band earth station—call sign KA275—to provide launch and early orbit phase (“LEOP”) services for the ABS-3A satellite. The ABS-3A satellite was successfully launched on March 1, 2015.² The LEOP period is expected to last approximately 240 days.³

The ABS-3A LEOP operations will be performed in the following frequency bands: 6420.00 MHz and 6425.0 MHz in the uplink (LHCP), and 4194.5 MHz and 4197.0 MHz in the downlink (LHCP). The LEOP operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path.⁴ 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 ABS-3A 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 hereby attaches Exhibits A and B, which contain technical information that demonstrates that the operation of the earth station will be compatible with its

¹ Intelsat has filed its STA request, an FCC Form 159, a \$195.00 filing fee, and this supporting letter electronically via the International Bureau’s Filing System (“IBFS”).

² The permanent orbital location for ABS-3A, which Intelsat understands is licensed by Papua New Guinea, will be at 3° W.L. The in-orbit testing location will be 3° W.L.

³ Intelsat is seeking authority for 180 days to accommodate the longer orbit-raising time period required for an electric propulsion satellite.

⁴ Intelsat will handle the coordination.

Ms. Marlene H. Dortch
March 16, 2015
Page 2

electromagnetic environment and will not cause harmful interference into any lawfully operating terrestrial facility, as well as a waiver request. Intelsat also notes that for purposes of the ABS-3A LEOP mission, it is seeking to operate in the frequencies listed in the request at power levels not to exceed 25.5 dBW. The technical information submitted with this STA request reflects a power level as high as 34.0 dBW because Intelsat might operate at this level in the event an emergency necessitates the use of a higher power level in order to command the satellite. 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 ABS-3A LEOP mission, Boeing will serve as the mission manager. Boeing 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 Boeing. 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 ABS-3A satellite. This, in turn, will result in the provision of VSAT, TV distribution, IP trunking, cellular backhaul, and maritime services from the 3° 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,



Cynthia J. Grady
Regulatory Counsel
Intelsat Corporation

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 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.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. With respect to Section 25.114, Intelsat seeks authority only to provide LEOP services for the ABS-3A 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 ABS-3A satellite, nor is Intelsat in contractual privity with that operator. Rather, an affiliate of Intelsat has a contract with Boeing, the manufacturer of the ABS-3A satellite, to conduct LEOP services for the satellite.

¹ 47 C.F.R. § 25.137 (emphasis added).

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*, DA 13-593, File No. SAT-STA-20130220-00023 (released Apr. 1, 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*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

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 ABS-3A 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. 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.⁷ 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 use its earth station to provide temporary and intermittent LEOP services to the ABS-3A satellite.

It is Intelsat’s understanding that ABS-3A is licensed by Papua New Guinea, 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.

⁷ See 47 C.F.R. §25.137(d)(4).

Prepared By

COMSEARCH

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

Prepared For

**Intelsat License LLC
Hagerstown, Maryland**

Temporary Transmit-Only Earth Station
Operation Dates: 03/05/2015 - 09/05/2015

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 March 3, 2015.

Company

256Q Networks
AB Services LLC
AT&T COMMUNICATIONS OF MARYLAND INC
AT&T Communications of Virginia, LLC
AT&T Corporation
AWC Networks
Adams County Department of Emergency Svc
Affiniti PA, LLC
Alltel Communications LLC - Ohio Region
Alltel Communications LLC - Western PA
Alltel Communications LLC-E OH WV
Alltel Communications LLC-Southern VA
Alltel Communications LLC-TriState Rgn
Alltel Communications of Petersburg Inc
American Electric Power Service Co
Appalachia Engineering Services
Appalachian Broadcasting
Atlantic Broadband (Penn), LLC
Atlantic City Electric Company
Atlantic, County of
Auburn Data Systems, LLC
Augusta, County of
B20 LLC
BAY BROADBAND COMMUNICATIONS LLC
BLAIR COUNTY 911
Baltimore County of Maryland
Baltimore Gas and Electric Company
Beaver Springs Faith Baptist Church, Inc
Bedford, County of

Company (Continued)

Believe Wireless, LLC
Berks County Department of Emergency Ser
Blue Ridge Carriers
Blueline Communications
CLEARFIELD, COUNTY OF
CNG Transmission Corporation
CROWN COMMUNICATION, INC.
Cambria, County of
Capital Communications of America
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, County of
Charles, County of
Chester, County of
Chester, County of
China Cat Productions LLC
Citynet
Clinton, County of
Columbia Gas Transmission Corporation
Commonwealth of Pennsylvania
Commonwealth of Pennsylvania-Radio Proj.
Comprehensive Wireless LLC
Conterra Ultra Broadband, LLC
Converge Towers LLC
Coral Reef Technologies Ltd
Coralinks
County of Camden
County of Fayette
County of Frederick
County of Lycoming
County of York
DAUPHIN COUNTY EMERGENCY MANAGEMENT
Delaware County (PA) Emergency Services
Delaware Division of Communications
Delmarva Power and Light Company
ECW Wireless, LLC
EG Broadcast Newco Corp
Eastern MLG LLC
Electric Railroad, LLC
Enoch Pratt Free Library
Exelon Generation Company, LLC
FELHC, INC
Federal Communications Commission
Frederick County
Fundamental Broadcasting LLC

Company (Continued)

Garden State Transmissions
Geodesic Networks LLC
Gloucester, County of
Greene, County of (PA)
Hanover, County of
Hardy Cellular Telephone Company
Harrisonburg-Rockingham ECC
High Voltage Communications LLC
Huntingdon, County of
Indiana, County of
JEFFERSON COUNTY OF PENNSYLVANIA
Jefferson Microwave, LLC
Juniata County Emergency Services
Kentucky Power Company
King and Queen County
Kryptick Technologies
Lancaster County-Wide Communications
Limitless Mobile, LLC
Loudoun, County of
MGW Networks, LLC
MVC Research, LLC
Maryland Public Broadcasting Commission
Maryland State Highway Administration
Maryland, State of - Dept.of Info & Tech
Mifflin Mobilecom
Montgomery County Of
Motorola Solutions, Inc.
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 - Ohio
New Cingular Wireless PCS LLC - VA
New Cingular Wireless PCS LLC- WV/NC/SC
New Cingular Wireless PCS LLC-DE/NH/RI
New Cingular Wireless PCS, LLC - PA
New Jersey Turnpike Authority-Pkwy Div
New Jersey, State of -NJ Transit
Norfolk Southern Railway
Northumberland, County of
OHIO VALLEY ELECTRIC COMPANY
Old Dominion LLC
PA Communications
PEG Bandwidth, LLC
PSEG Services Corporation
Peco Energy Company
Penn Service Microwave Co., Inc.
Pennsylvania Turnpike Commission
Peoples Natural Gas Company LLC

Company (Continued)

Pitt Power
Pittsburgh SMSA Limited Partnership
Prince George's County
Prince William, County of
RAPPAHANNOCK ELECTRIC COOPERATIVE
Radio One Inc
Rendezvous Communications LLC
Rural Broadband Network Services LLC
SCS Networks
SCTF NET
SHENANDOAH VALLEY ELECTRIC COOPERATIVE
SOMERSET COUNTY
SW Networks
Southern Maryland Electric Cooperative I
Spotsylvania, County of
St. Mary's County of (MD)
Stafford, County of
Standard Backhaul Communications LLC
State of Maryland, MIEMSS
Texas Eastern Communications, LLC
Thought Transmissions, LLC
Torelco LLC
Turtle Networks 6562
Turtle Networks 6569
US Cellular Operating Company, LLC (WI)
USCOC of Cumberland, Inc.
USCOC of Virginia RSA #3, Inc.
USOC of Pennsylvania RSA No 10 B2 Inc.
Velox Networks LLC
Verizon Maryland, Inc.
Verizon Wireless (VAW) LLC - Delaware/NJ
Verizon Wireless (VAW) LLC - Maryland
Verizon Wireless (VAW) LLC - W/B/V Mkts
Verizon Wireless (VAW) LLC-Pennsylvania
Verizon Wireless VAW LLC - West Virginia
Verizon Wireless VAW LLC-Southern VA
Virginia RSA 5 Limited Partnership
Virginia Broadband, LLC
Virginia Cellular LLC
Virginia Department of State Police
Virginia Electric & Power Company
Virginia PCS Alliance, L.C.
WHEELING POWER COMPANY
WITF Inc.
WV DHHR BPH, Office of EMS, Com. Div.
Washington D.C. SMSA L.P.
Washington Gas Light Company
Washington Suburban Sanitary Commission

Company (Continued)

Weblin Holdings LLC
Wireless Internetwork LLC
World Class Wireless, LLC
YAB Mobile
iSignal

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: 03/04/2015
Job Number: 150303COMSJC04

Administrative Information

Status TEMPORARY (Operation from 03/05/2015 to 09/05/2015)
Call Sign TEMP09
Licensee Code INTELS
Licensee Name Intelsat License LLC

Site Information **HAGERSTOWN, MARYLAND**

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

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Analog and Digital
Satellite Arc 6° W to 149° West Longitude
Azimuth Range 101.9° to 257.8°
Corresponding Elevation Angles 5.3° / 5.7°
Antenna Centerline (AGL) 12.5 m / 41.0 ft

Antenna Information		Transmit
Manufacturer		TIW
Model		19.0 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)	5.6
	(dBW/MHz)	29.6

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 **Transmit 6.1 GHz**

Emission / Frequency Range (MHz)	850KFXD / 6420.0
	850KFXD / 6425.0

Max Great Circle Coordination Distance 552.8 km / 343.4 mi
Precipitation Scatter Contour Radius 369.4 km / 229.5 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	TIW 19.0 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	5.6 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	202.62
5	0.00	96.84	-10.00	202.62
10	0.00	91.86	-10.00	202.62
15	0.00	86.88	-10.00	202.62
20	0.00	81.90	-10.00	202.62
25	0.00	76.92	-10.00	202.62
30	0.00	71.95	-10.00	202.62
35	0.00	66.97	-10.00	202.62
40	0.00	62.00	-10.00	202.62
45	0.00	57.03	-10.00	202.62
50	0.00	52.06	-10.00	202.62
55	0.00	47.09	-9.82	203.29
60	0.00	42.14	-8.62	206.27
65	0.00	37.19	-7.26	211.60
70	0.00	32.26	-5.72	217.96
75	0.00	27.34	-3.92	225.69
80	0.00	22.47	-1.79	235.39
85	0.00	17.65	0.83	248.04
90	0.00	12.98	4.17	265.01
95	0.00	8.66	8.56	291.02
100	0.00	5.61	13.27	552.79
105	0.00	6.15	12.28	385.58
110	0.00	9.60	7.45	284.12
115	0.00	13.27	3.93	263.67
120	0.00	16.89	1.31	249.82
125	0.00	20.41	-0.75	240.32
130	0.00	23.83	-2.43	232.43
135	0.00	27.11	-3.83	226.10
140	0.00	30.23	-5.01	220.95
145	0.00	33.14	-6.01	216.73
150	0.00	35.82	-6.85	213.26
155	0.00	38.20	-7.55	210.44
160	0.00	40.26	-8.12	208.19
165	0.00	41.93	-8.56	206.48
170	0.00	43.16	-8.88	205.27
175	0.00	43.92	-9.07	204.55
180	0.00	44.18	-9.13	205.93

COMSEARCH

Earth Station Data Sheet

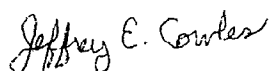
19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

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	TIW 19.0 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	5.6 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
185	0.00	43.92	-9.07	204.54
190	0.00	43.16	-8.88	205.27
195	0.00	41.93	-8.56	206.48
200	0.00	40.26	-8.12	208.19
205	0.00	38.20	-7.55	210.44
210	0.00	35.81	-6.85	213.26
215	0.00	33.14	-6.01	216.73
220	0.00	30.22	-5.01	220.96
225	0.00	27.11	-3.83	226.10
230	0.00	23.83	-2.43	232.42
235	0.00	20.42	-0.75	240.31
240	0.00	16.89	1.31	249.84
245	0.00	13.28	3.92	263.65
250	0.00	9.59	7.46	284.19
255	0.00	6.33	11.96	396.43
260	0.00	6.11	12.35	531.75
265	0.00	9.18	7.93	287.06
270	0.00	13.46	3.77	262.82
275	0.00	18.11	0.55	246.67
280	0.00	22.90	-2.00	234.42
285	0.00	27.76	-4.09	224.96
290	0.00	32.66	-5.85	217.39
295	0.00	37.59	-7.38	211.14
300	0.00	42.53	-8.72	205.88
305	0.00	47.48	-9.91	202.95
310	0.00	52.44	-10.00	202.62
315	0.00	57.40	-10.00	202.62
320	0.00	62.37	-10.00	202.62
325	0.00	67.34	-10.00	202.62
330	0.00	72.31	-10.00	202.62
335	0.00	77.28	-10.00	202.62
340	0.00	82.26	-10.00	202.62
345	0.00	87.23	-10.00	202.62
350	0.00	92.21	-10.00	202.62
355	0.00	97.18	-10.00	202.62

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.



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DATED: March 4, 2015