

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 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		

Fbo SES-STA-20150612-00360
Grant Date 7-1-15
Call Sign (or other identifier)
Term Dates From 7-2-15 To 8-1-15
Approver: Susan H Crandall

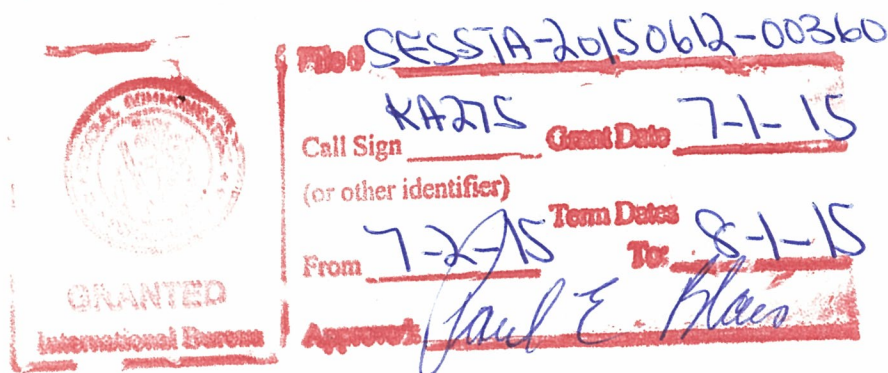
GRANTED
International Bureau

Applicant: Intelsat License LLC
Call Sign: KA275
File No.: SES-STA-20150612-00360
Special Temporary Authority (STA)

Intelsat License LLC ("Intelsat") is granted a Special Temporary Authority (STA), for 30 days, beginning July 2, 2015, to use its Hagerstown, Maryland C-band earth station, Call Sign KA275, to provide launch and early orbit phase (LEOP) services for StarOne-C4 satellite licensed by Brazil to its in-orbit test location at 70.0° W.L. on the center frequencies: (Earth-to-space) 6420.5 MHz and 6422.5 MHz (RHCP), and (space-to-Earth) 4198.5 MHz and 4199.5 MHz (LHCP), under the following conditions:

1. All operations must be within the coordinated emission and power limits.
2. 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 StarOne-C4 satellite LEOP mission is as follows: Ph.: (703) 559-7701 –East Coast Operations Center (primary); (310) 525-5591- West Coast Operations Center (back-up). Requests to speak with Harry Burnham or Kevin Bell.
3. All operations under this grant of STA shall be on an unprotected and non-harmful interference basis. Intelsat's KA275 shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radio communication system.
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. This STA can only be used to provide launch and early orbit phase ("LEOP") services for the StarOne-C4 satellite.
6. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat License LLC's risk.

This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.



The stamp is a red ink document from the Federal Communications Commission. It features a circular seal on the left with the text 'FEDERAL COMMUNICATIONS COMMISSION' and 'GRANTED International Bureau'. To the right, a rectangular box contains the following information: 'File # SES-STA-20150612-00360', 'Call Sign KA275', 'Grant Date 7-1-15', 'From 7-2-15', 'Term Dates To 8-1-15', and 'Approver Paul E. Miles'.

File #	SES-STA-20150612-00360		
Call Sign	KA275	Grant Date	7-1-15
(or other identifier)			
From	7-2-15	Term Dates	To 8-1-15
Approver	Paul E. Miles		

2. Contact	
Name: Cynthia J. Grady	Phone Number: 703-559-6949
Company: Intelsat Corporation	Fax Number: 703-559-8539
Street: 7900 Tysons One Place	E-Mail: cynthia.grady@intelsat.com
City: McLean	State: VA
Country: USA	Zipcode: 22102 -5972
Attention:	Relationship: Legal Counsel
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number or Submission ID	
4a. Is a fee submitted with this application? <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 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 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.)	<p>Intelsat License herein requests a grant of Special Temporary Authority for 30 days, commencing July 8, 2015, to use its Hagerstown, Maryland C-band earth station, call sign KA275, to provide launch and early orbit phase services for the StarOne-C4 satellite. StarOne-C4 is expected to be launched July 8, 2015.</p>		
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		
<p>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).</p>			

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.

June 8, 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 30 days, commencing July 8, 2015, to use its Hagerstown, Maryland C-band earth station—call sign KA275—to provide launch and early orbit phase (“LEOP”) services for the StarOne-C4 satellite. StarOne-C4 is expected to be launched July 8, 2015.² The LEOP period is expected to last approximately 10 days.³

The StarOne-C4 LEOP operations will be performed in the following frequency bands: 6420.50 MHz and 6422.50 MHz in the uplink (RHCP), and 4198.5 MHz and 4199.5 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 StarOne-C4 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 and the in-orbit testing location for StarOne-C4, which Intelsat understands is licensed by Brazil, will be at 70.0° W.L.

³ Intelsat is seeking authority for 30 days to accommodate a possible launch delay.

⁴ Space Systems Loral (“SSL”), the manager of the StarOne-C4 LEOP mission, will handle the coordination.

Ms. Marlene H. Dortch
June 8, 2015
Page 2

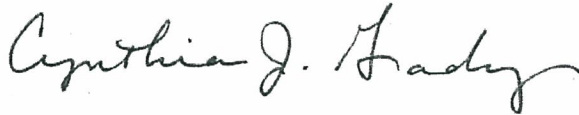
electromagnetic environment and will not cause harmful interference into any lawfully operating terrestrial facility, as well as a waiver request. Intelsat also notes that for purposes of the StarOne-C4 LEOP mission, it is seeking to operate in the frequencies listed in the request at power levels not to exceed 28.9 dBW. The technical information submitted with this STA request reflects a power level as high as 35.6 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 StarOne-C4 LEOP mission, SSL will serve as the mission manager. 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 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 StarOne-C4 satellite. This, in turn, will help ensure continuity of service at the 70.0° 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 StarOne-C4 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 StarOne-C4 satellite, nor is Intelsat in contractual privity with that operator. Rather, an affiliate of Intelsat has a contract with Boeing, the manufacturer of the StarOne-C4 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 StarOne-C4 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 provide approximately ten days of LEOP services to the StarOne-C4 satellite.

It is Intelsat’s understanding that StarOne-C4 is licensed by Brazil, 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: 06/30/2015 - 10/02/2015

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 May 15, 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
Argos Engineering, LLC
Atlantic Broadband (Penn), LLC
Atlantic City Electric Company
Atlantic, County of
Auburn Data Systems, LLC
Augusta, County of
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
Believe Wireless, LLC

Company (Continued)

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 Broadcasting Company
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
Garden State Transmissions
Geodesic Networks LLC

Company (Continued)

Gloucester, County of
Greene, County of (PA)
Hanover, County of
Hardy Cellular Telephone Company
Harrisonburg-Rockingham ECC
High Voltage Communications LLC (CFN)
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
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
New Line Networks, LLC
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
Pitt Power
Pittsburgh SMSA Limited Partnership
Prince George's County
Prince William, County of

Company (Continued)

RAPPAHANNOCK ELECTRIC COOPERATIVE
Radio One Inc
Rendezvous Communications LLC
Rural Broadband Network Services LLC
SCS Networks
SCTF NET
SHENANDOAH VALLEY ELECTRIC COOPERATIVE
SW Networks
Somerset, County of
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
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
Washington, County of
Weblin Holdings LLC
Wireless Internetwork LLC
World Class Wireless, LLC

Company (Continued)

YAB Mobile
iSignal
xWave Engineering LLC

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: 05/29/2015
Job Number: 150515COMSJC02

Administrative Information

Status TEMPORARY (Operation from 06/30/2015 to 10/02/2015)
Call Sign TEMP10
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 / 6420.5
850KFXD / 6422.5

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
185	0.00	43.92	-9.07	204.54

COMSEARCH

Earth Station Data Sheet

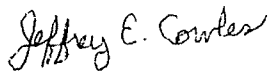
19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

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)
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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