

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: 05/20/2014 - 09/01/2014

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 22, 2014.

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  
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  
Appalachia Engineering Services  
Appalachian Broadcasting  
Appalachian Power Company  
Atlantic Broadband (Penn), LLC  
Atlantic City Electric Company  
Auburn Data Systems, LLC  
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  
Believe Wireless, LLC  
Berks County Department of Emergency Ser  
Blue Ridge Carriers

Company (Continued)

CLEARFIELD, COUNTY OF  
CNG Transmission Corporation  
CROWN COMMUNICATION, INC.  
Cable Of The Carolinas  
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-Newark-Dallas Verizon  
Cellco Partnership-WDC/Baltimore  
Cellco Prtnrshp - Phil. Tri-State Rgn  
Centre, County of  
Charles, County of  
Chester, County of  
China Cat Productions LLC  
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  
DAUPHIN COUNTY EMERGENCY MANAGEMENT  
Delaware County (PA) Emergency Services  
Delaware Division of Communications  
Delmarva Power & 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  
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

Company (Continued)

JEFFERSON COUNTY OF PENNSYLVANIA  
Jefferson Microwave, LLC  
Juniata County Emergency Services  
KENTUCKY POWER COMPANY  
King and Queen County  
Kryptic Technologies  
Lancaster County-Wide Communications  
Last Mile Inc.  
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  
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  
Newgig Networks, LLC  
Norfolk Southern Railway  
Northumberland, County of  
OHIO VALLEY ELECTRIC COMPANY  
Old Dominion LLC  
PA Communications  
PEG Bandwidth, LLC  
PENNSYLVANIA TURNPIKE COMMISSION  
PSEG Services Corporation  
Peco Energy Company  
Penn Service Microwave Co., Inc.  
Peoples Natural Gas Company LLC  
Pitt Power  
Pitt Power  
Pittsburgh SMSA Limited Partnership  
Prince George's County  
Prince William, County of  
RAPPAHANNOCK ELECTRIC COOPERATIVE  
Radio One Inc  
Rural Broadband Network Services LLC  
SCS Networks  
SCTF NET  
SHENANDOAH VALLEY ELECTRIC COOPERATIVE  
SOMERSET COUNTY  
SW Networks

Company (Continued)

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  
TRF SERVICES LLC  
Texas Eastern Communications, LLC  
Thought Transmissions, LLC  
Turtle Networks 6559  
Turtle Networks 6562  
Turtle Networks 6569  
US Cellular Operating Company, LLC (WI)  
USCOC of Cumberland, Inc.  
Velox Networks LLC  
Verizon Maryland, Inc.  
Verizon Wireless (VAW) LLC - Delaware/NJ  
Verizon Wireless (VAW) LLC - Maryland  
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  
Webline Holdings LLC  
Wireless Internetwork LLC  
World Class Wireless, LLC  
York County Dept of Emergency Services  
Zen Networks, Inc  
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: 04/13/2014  
Job Number: 140322COMSJC04

---

### Administrative Information

Status: TEMPORARY (Operation from 05/20/2014 to 09/01/2014)  
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

Manufacturer: TIW  
Model: 19.0 Meter  
Gain / Diameter: 59.1 dBi / 19.0 m  
3-dB / 15-dB Beamwidth: 0.20° / 0.40°

### Transmit

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

Emission / Frequency Range (MHz):  
850KFXD / 6416.5  
850KFXD / 6422.0

### Transmit 6.1 GHz

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>

<b>Coordination Values</b>	<b>HAGERSTOWN, MD</b>	
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

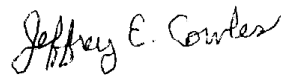
19700 Janelia Farm Boulevard, Ashburn, VA 20147  
(703)726-5500 <http://www.comsearch.com>

<b>Coordination Values</b>	<b>HAGERSTOWN, MD</b>	
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)	

			Transmit 6.1 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	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.



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

DATED: April 13, 2014