

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: 06/26/2014 - 10/01/2014

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 April 13, 2014.

Company

256Q Networks  
AWC Networks  
Adams County Department of Emergency Svc  
Affiniti PA, LLC  
Albermarle, County of, Virginia  
Allegheny Power Service Corporation  
Alltel Communications LLC-Southern VA  
Anne Arundel, County of  
Appalachia Engineering Services  
Appalachian Broadcasting  
Appalachian Power Company  
Atlantic City Electric Company  
Atlantic, County of  
Auburn Data Systems, LLC  
B20 LLC  
BAY BROADBAND COMMUNICATIONS LLC  
Baltimore County of Maryland  
Baltimore Gas and Electric Company  
Bedford, County of  
Berks County Department of Emergency Service  
BFI Licenses, LLC  
Blue Ridge Carriers  
CBS Communications Services Inc.  
CLEARFIELD, COUNTY OF  
CNG Transmission Corporation  
CTAB Holdings LLC  
Calvert Cliffs Nuclear Power Plant  
Calvert, County of  
Cameron County Office of Emergency Servi  
Capital Communications of America  
Carroll, County of

Company (Continued)

Cellco Partnership - Bridgeville, PA/WV  
Cellco Partnership - Southern Virginia  
Cellco Prtnrshp - Phil. Tri-State Rgn  
Centre, County of  
Chester, County of  
Chesterfield, County of  
Clinton, County of  
Columbia Gas Transmission Corporation  
Columbia, County  
Commonwealth of Pennsylvania  
Commonwealth of Pennsylvania-Radio Proj.  
Comprehensive Wireless LLC  
Conectiv Communications, Inc.  
Converge Towers LLC  
Coralinks  
County of Camden  
County of Culpeper  
County of Fayette  
County of Louisa, VA  
County of Lycoming  
County of Salem  
Cumberland, County of  
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  
Eastern Pennsylvania EMS Council  
Egan LLC  
Enoch Pratt Free Library  
Equitable Gas Company  
Exelon Generation Company, LLC  
FELHC, Inc.  
Federal Communications Commission  
Franklin County Dept. of Emergency Servi  
Fundamental Broadcasting LLC  
George Washington University  
Gloucester, County of  
Hanover, County of  
Hardy Cellular Telephone Company  
Harrison County Emergency Services  
Harrisonburg-Rockingham ECC  
High Voltage Communications LLC  
Howard, County of  
INDIANA, COUNTY OF  
JEFFERSON COUNTY OF PENNSYLVANIA  
Jefferson Microwave, LLC  
Kentucky Commonwealth of KY Emerg Warnin  
Kryptic Technologies

Company (Continued)

LEBANON COUNTY OF  
Lancaster County-Wide Communications  
Loudoun, County of  
M&T Bank  
MARYLAND EMERG MANAGEMENT AGENCY COMM  
MARYLAND STATE DEPT OF GENERAL SERVICES  
MetroSat Communications, Inc.  
MVC Research. LLC  
Maryland Public Broadcasting Commission  
Maryland State Highway Administration  
Maryland, State Of - MDOT - MTA  
Maryland, State of - DNR  
Maryland, State of - Dept.of Info & Tech  
Mifflin County  
Mifflin Mobilecom  
Montgomery County Of  
Montgomery, County of  
Morgan, County of  
National Tower Company LLC  
Nelson, County of  
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 State Police  
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  
PENNSYLVANIA TURNPIKE COMMISSION  
PSEG Services Corporation  
Peco Energy Company  
Pennsylvania Commonwealth State Police  
Pennsylvania Sports Entertainment Netwo.  
Peoples Natural Gas Company LLC  
Peoples TWP LLC  
Pitt Power  
Pittsburgh SMSA Limited Partnership  
Potomac Electric Power Company  
Prince George's County  
Prince William, County of  
RAPPAHANNOCK ELECTRIC COOPERATIVE  
RCYM Holdings LLC  
Redi-Call Communications Company  
SCHUYLKILL, COUNTY OF  
SCS Networks  
SCTF NET

Company (Continued)

SECOM NET  
SOUTHEAST OHIO EMERGENCY MEDICAL  
SW Networks  
Snyder, County of  
Southeastern Pennsylvania Transit Auth  
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  
Torellco LLC  
Transcontinental Gas Pipeline Corp.  
Triangle Communications, Inc.  
Turtle Networks 6559  
Turtle Networks 6562  
US Cellular Operating Company, LLC (WI)  
USCOC of Cumberland, Inc.  
USCOC of Virginia RSA #3, Inc.  
Verizon Wireless VAW LLC-Southern VA  
Virginia Cellular LLC  
Virginia Department of State Police  
Virginia Electric & Power Company  
Virginia PCS Alliance, L.C.  
WASHINGTON COUNTY E-911  
WV DHHR BPH, Office of EMS, Com. Div.  
Warrenton Fauquier Joint Communications  
Washington Gas Light Company  
Washington Suburban Sanitary Commission  
Weblin Holdings LLC  
Westmoreland County Public Safety  
Wireless Internetwork LLC  
World Class Wireless, LLC  
Zango LLC  
Zen Networks, Inc  
iSignal  
3G Wireless, LLC  
ABC, Inc. - WPVI-TV  
AERIAL VIDEO SYSTEMS  
AT&T California  
Alascom Inc  
Anne Arundel, County of  
Ascent Media Network Services, LLC  
Bellsouth Telecommunications, Inc.  
Borgeson, Tom R.  
Broadcast Sports Inc.  
C-SPAN  
CBS Broadcasting Inc  
CBS TELEVISION LICENSES LLC  
CNG Communications, Inc.  
Carolina Telephone and Telegraph Co

Company (Continued)

Casper, John  
CenturyTel of the Southwest, Inc.  
Chicago Comnet Corp  
Cincinnati Bell Wireless LLC  
Citywide News Network, Inc.  
Cohen, Elana  
Commonwealth of Pennsylvania-Radio Proj.  
County of Fairfax, Virginia  
Cowboys Stadium LP  
CP Communications, LLC  
DCI II, INC.  
Direct Broadcast Services, Inc.  
Fox Television Stations, Inc.  
GOODYEAR TIRE AND RUBBER COMPANY  
GSN New, Inc  
Global Microwave Systems Inc  
HF Enterprises, Inc  
Hallco Unlimited, Inc.  
Hawaiian Telecom, Inc.  
Heiden, William  
Illinois Bell Telephone Company  
Indiana Bell Telephone Company  
Information & Display Systems, Inc.  
Information Super Station, LLC  
International Communications Group, Inc.  
Kentucky RSA #3 Cellular General Partner  
Kentucky RSA #4 Cellular General Partner  
Loop, Inc.  
MERCURY COMMUNICATIONS  
Metro Networks Communications, Inc.  
Michigan Bell Telephone Company  
Moreen, Steven K  
NBC Telemundo License Co.  
NBC Telemundo License LLC  
NEW ENGLAND DIGITAL DISTRIBUTION, INC.  
NEW ENGLAND SATELLITE SYSTEMS INC  
NSM Surveillance  
National Cable Satellite Corporation  
Navajo Communications Company  
NorthWest Suburbs Community Access Corp  
Ohio Bell Telephone Company  
On Scene Video Production  
Onboard Images  
Pacific Television Center  
Penn Service Microwave Co., Inc.  
Philadelphia, City of  
Plateau Telecommunications, Inc.  
Plum TV, LLC  
Production & Satellite Services, Inc.  
Proxy Aviation  
Public Television Communications Center

Company (Continued)

QUICK LINK CONNECTIONS INC  
Qwest Corporation  
RCC Minnesota Inc. - MN NE ND SD  
REMOTE FACILITIES CONSULTING SERVICES  
RF Central, LLC  
RF Film, Inc  
RF Technology, LLC  
Radiofone, Inc.  
Randy Hermes Production  
Regulus Media Services, Inc.  
Remote Broadcasts, Inc.  
Southwestern Bell Telephone L.P.  
Speedshotz, Inc  
Texas A&M University, Athletic Department  
The City of Baltimore, Police Department  
Total RF Marketing Inc  
Unisat, Inc.  
United Telephone - Southeast  
VERIZON SOUTH INC.  
Verizon California Inc.  
Verizon Maryland, Inc.  
Verizon New England Inc.  
Verizon New Jersey, Inc.  
Verizon New York, Inc.  
Verizon North Inc.  
Verizon Northwest Inc.  
Verizon Pennsylvania, Inc.  
Verizon Virginia, Inc.  
Verizon Washington DC, Inc.  
Village Video Productions Inc  
Vyvx, LLC  
Westar Satellite Services LP  
Western Technical Services  
Wexler Video, Inc.  
Winged Vision Inc  
Wisconsin Bell, Inc.  
Wolfe Air Aviation

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: 05/16/2014  
Job Number: 140413COMSJC03

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### Administrative Information

Status: TEMPORARY (Operation from 06/26/2014 to 10/01/2014)  
Call Sign: TEMP10  
Licensee Code: INTELS  
Licensee Name: Intelsat License LLC

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### 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

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### 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

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### 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%

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### Frequency Information

Emission / Frequency Range (MHz): 850KFXD / 6429.0  
850KFXD / 6431.0

### Transmit 6.0 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

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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 Meter	
Antenna Mode		Transmit 6.0 GHz	
Interference Objectives:	Long Term	-154.0 dBW/4 kHz	20%
	Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power		5.6 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.0 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



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Antenna Centerline (AGL)		12.5 m / 41.0 ft	
Antenna Model		TIW 19 Meter	
Antenna Mode		Transmit 6.0 GHz	
Interference Objectives:	Long Term	-154.0 dBW/4 kHz	20%
	Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power		5.6 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.0 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.



Jeffrey E. Cowles  
Engineer III, Telecommunications  
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Ashburn, Virginia 20147

DATED: May 16, 2014