

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: 04/14/2014 - 08/01/2014

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 February 14 and 26, 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
BEAVER SPRINGS FAITH BAPTIST CHURCH, INC
BFI Licenses, LLC
BLAIR COUNTY 911
Baltimore County of Maryland
Baltimore Gas and Electric Company
Bedford, County of
Believe Wireless, LLC
Berks County Department of Emergency Ser
Blue Ridge Carriers

Company (Continued)

CARROLL, COUNTY OF
CLEARFIELD, COUNTY OF
CNG Transmission Corporation
CROWN COMMUNICATION, INC.
Cable Of The Carolinas
Cambria, County of
Capital Communications of America
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
CP Communications, LLC
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, L.L.C
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

Company (Continued)

Huntingdon, County of
INDIANA, COUNTY OF
JEFFERSON COUNTY OF PENNSYLVANIA
Jefferson Microwave, LLC
Juniata County Emergency Services
KENTUCKY POWER COMPANY
King and Queen County
Kryptic Technologies
Lancaster County of
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
Metrosat Communications Inc.
Mifflin Mobilecom
National Tower Company
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
OHIO VALLEY ELECTRIC COMPANY
Old Dominion LLC
PA Communications
PEG Bandwidth
PENNSYLVANIA TURNPIKE COMMISSION
PSEG Services Corporation
Peco Energy Company
Penn Service Microwave Co., Inc.
Peoples Natural Gas Company LLC
Pitt Power
Pittsburgh SMSA Limited Partnership
Prince George's County
Prince William, County of
RAPPAHANNOCK ELECTRIC COOPERATIVE
Radio One Inc
RF Technology, LLC
Rural Broadband Network Services LLC
SCS Networks
SCTF NET
SHENANDOAH VALLEY ELECTRIC COOPERATIVE
SOMERSET COUNTY

Company (Continued)

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
TRF SERVICES LLC
Texas Eastern Communications, LLC
Thought Transmissions, LLC
Turtle Networks 6559
US Cellular Operating Company, LLC (WI)
USCOC of Cumberland, Inc.
Velox Networks LLC
Verizon Delaware Inc
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
ANNE ARUNDEL, COUNTY OF
ATLANTIC, COUNTY OF
AWC Networks
Albermarle, County of, Virginia
Allegheny Power Service Corporation
Alltel Communications LLC-Southern VA
CBS Communications Services Inc.
COLUMBIA COUNTY
CTAB Holdings LLC
Calvert Cliffs Nuclear Power Plant
Calvert, County of
Cameron County Office of Emergency Servi
Capital Communications of America

Company (Continued)

Cellco Partnership - Bridgeville, PA/WV
Cellco Partnership - Southern Virginia
Cellco Prtnrshp - Phil. Tri-State Rgn
Chesterfield, County of
Conectiv Communications, Inc.
County of Culpeper
County of Louisa, VA
County of Lycoming
County of Salem
Cumberland, County of
Eastern Pennsylvania EMS Council
Egan LLC
Equitable Gas Company
Franklin County Dept. of Emergency Servi
George Washington University
Harrison County Emergency Services
Howard, County of
Kentucky Commonwealth of KY Emerg Warnin
LEBANON COUNTY OF
M&T Bank
MARYLAND EMERG MANAGEMENT AGENCY COMM
MARYLAND STATE DEPT OF GENERAL SERVICES
Maryland, State Of - MDOT - MTA
Maryland, State of - DNR
Mifflin County
Montgomery County Of
Montgomery, County of
Morgan, County of
Nelson, County of
New Jersey State Police
Northumberland, County of
Pennsylvania Commonwealth State Police
Pennsylvania Sports Entertainment Netwo.
Peoples TWP LLC
Potomac Electric Power Company
RCYM Holdings LLC
Redi-Call Communications Company
SCHUYLKILL, COUNTY OF
SECOM NET
SOUTHEAST OHIO EMERGENCY MEDICAL
SOUTHEASTERN PENNSYLVANIA TRANSIT AUTH
Snyder, County of
Transcontinental Gas Pipeline Corp.
Triangle Communications, Inc.
USCOC of Virginia RSA #3, Inc.
WASHINGTON COUNTY E-911
Warrenton Fauquier Joint Communications
Weblin Holdings LLC
Westmoreland County Public Safety
Wireless Internetwork LLC
World Class Wireless LLC

Company (Continued)

Zango LLC
3G Wireless, LLC
ABC, Inc. - WPVI-TV
AERIAL VIDEO SYSTEMS
ANNE ARUNDEL, COUNTY OF
AT&T California
Alascom Inc
Ascent Media Network Services, LLC
Bellsouth Telecommunications, Inc.
Borgeson, Tom R.
Broadcast Sports Inc.
C-SPAN
CBS Broadcasting Inc
CBS TELEVISION LICENSES LLC
Carolina Telephone and Telegraph Co
Casper, John
CenturyTel of the Southwest, Inc.
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citywide News Network, Inc.
Cohen, Elana
County of Fairfax, Virginia
Cowboys Stadium LP
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 Telcom, 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
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

Company (Continued)

Ohio Bell Telephone Company
On Scene Video Production
Onboard Images
Pacific Television Center
Philadelphia, City of
Plateau Telecommunications, Inc.
Plum TV, LLC
Production & Satellite Services, Inc.
Proxy Aviation
Public Television Communications Center
QUICK LINK CONNECTIONS INC
Qwest Corporation
RCC Minnesota Inc. - MN NE ND SD
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
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 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: 03/10/2014
Job Number: 140214COMSJC04

Administrative Information

Status: TEMPORARY (Operation from 04/14/2014 to 08/01/2014)
Call Sign: TEMP08
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 / 6425.0
850KFXD / 6429.5

Transmit 6.1 GHz

Max Great Circle Coordination Distance: 552.8 km / 343.4 mi
Precipitation Scatter Contour Radius: 0.0 km / 0.0 mi

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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 19.0 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

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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.



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

DATED: March 10, 2014