

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/Receive Earth Station
Operation Dates: 11/05/2012 - 01/15/2013

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 September 17, 2012.

Company

ADAMS COUNTY EMERGENCY MANAGEMENT AGENCY
ALLEGANY COLLEGE OF MARYLAND
ALLEGANY COUNTY GOVERNMENT
ART Licensing Corp.
AT&T COMMUNICATIONS OF MARYLAND INC
AT&T COMMUNICATIONS OF VIRGINIA INC
AT&T CORP
Aerbender, LLC
Airband Communications Inc
Albermarle, County of, Virginia
Allegheny County
Allentown SMSA Limited Partnership
Alltel Communications LLC-Southern VA
Alltel Communications of Petersburg Inc
Anadarko Petroleum Corporation
Atlantic Broadband (Delmar), LLC
Atlantic Broadband (Penn), LLC
Auburn Data Systems, LLC
BALTIMORE CITY DEPARTMENT OF PUBLIC WORK
BAY BROADBAND COMMUNICATIONS LLC
BLAIR COUNTY 911
Baltimore County of Maryland
Baltimore Gas and Electric Company
Bedford, County of
Believe Wireless, LLC
Berks, County of
Blaze Broadband
Blue Ridge Carriers
Bucks, County of
Buggs Island Telephone Cooperative, Inc.

Company (Continued)

CABELL COUNTY 911
CAMDEN COUNTY
CHESTER, COUNTY OF
CONXX, Inc.
CROWN COMMUNICATION, INC.
Cambria, County of
Cape May County Municipal Utilities Auth
Cape May County, MIS Department
Capital Communications of America
Cellco Partnership - Bridgeville, PA/WV
Cellco Partnership - Southern Virginia
Cellco Partnership- PA Region
Cellco Partnership-Newark-Dallas Verizon
Cellco Prtnrshp - Phil. Tri-State Rgn
Central Virginia Electric Cooperative
Chesterfield, County of
City of Laurel
City of Ocean City, MD
Clearwire Spectrum Holdings II, LLC
Clearwire Spectrum Holdings III, LLC
Clearwire Spectrum Holdings LLC
Commonwealth of Pennsylvania-Radio Proj.
Comprehensive Wireless LLC
Conterra Ultra Broadband, LLC
Converge Towers LLC
Coralinks
County of Burlington
County of Nelson
Cumberland, County of
D&E Communications, Inc.
DAUPHIN COUNTY EMERGENCY MANAGEMENT
Delaware Division of Communications
ECW Wireless, LLC
Eastern Energy Transport LLC
Eduro Networks LLC
Enoch Pratt Free Library
Exelon Generation Company, L.L.C
FEDERAL AVIATION ADMINISTRATION
FELHC, Inc.
Federal Communications Commission
FiberTower Network Services Corp.
First State Communications LLC
Franklin County Dept. of Emergency Servi
Frederick County
Fundamental Broadcasting LLC
GEORGE MASON UNIVERSITY INSTR FNDTION
GETWIRELESS.NET
GREATER PHILADELPHIA RADIO INC
Garden State Transmissions
Globecomm Systems, Inc.

Company (Continued)

Gloucester Township
Gray Television Licensee, Inc (WCAV)
Greene, County of (PA)
HENRICO COUNTY
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, COUNTY OF
Jefferson Microwave, LLC
Jubatus, LLC
Juniata County Emergency Services
Kent County Levy Court
Kentucky Commonwealth of KY Emerg Warnin
King George County
Kreider Networks
Kryptic Technologies
LACKAWANNA COMMUNICATIONS
LOWER SHORE BROADBAND COOPERATIVE
LYCOMING COUNTY
Lancaster County of
Last Mile Inc.
Lehigh, County of
Local Media TV Philadelphia
Loudoun County Public Schools
Loudoun County, Virginia
Loudoun Wireless LLC
M&T Bank
MAHANTANGO MOUNTAIN MICROWAVE
MB Microwave, LLC
MIT LINCOLN LABORATORY
MVC Research. LLC
Maryland Port Administration
Maryland Public Broadcasting Commission
Maryland State Highway Administration
Maryland, State of - Dept.of Info & Tech
MetroPCS AWS, LLC
Middle East Broadcasting Networks, Inc.
Mifflin County
Millersburg Area School District
Mobile Satellite Communications Inc
Montgomery, County of
NOROC Broadband LLC
National Radio Astronomy Observatory
Netrepid, Inc.
New Cingular Wireless PCS - Maryland
New Cingular Wireless PCS LLC - AL, MS,
New Cingular Wireless PCS LLC - DC

Company (Continued)

New Cingular Wireless PCS LLC - KY
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 of PA LLC
New Cingular Wireless PCS, LLC - PA
New Jersey State Dept of Transportation
New Jersey State Police
New Jersey Turnpike Authority-Pkwy Div
New Jersey, State of -NJ Transit
Newgig Networks, LLC
Nextlink Wireless, LLC
Norfolk Southern Railway
Northern Virginia Electric Cooperative
Ohio County Commission
PENNSYLVANIA MICROWAVE NETWORK INC.
PENNSYLVANIA TURNPIKE COMMISSION
Page County Broadband Authority
Peco Energy Company
Pennsylvania 3 Sector 2, L.P.
Peoples Natural Gas Company
Philly Sports Wireless
Pitt Power
Pittsburgh, City of (PA)
Pontis Communications, Inc.
Port Networks, LLC
Posen Pipeline Properties
Public Broadcasting Service
QUALCOMM INC.
RADIO ONE, INC - MD
RAYTHEON COMPANY
Radio One, Inc
RapidDSL & Wireless, Inc.
Roadstar Internet, Inc.
Rural Broadband Network Services LLC
SCHUYLKILL, COUNTY OF
SCTF NET
SECOM NET
SIGNAL MEDIA OF ARKANSAS
SOMERSET COUNTY
SOUTHEASTERN PENNSYLVANIA TRANSIT AUTH
SW Networks
Salem County Information Technology
Shenandoah Personal Communications, LLC
Shentel
Somerset County, Maryland
Southern Maryland Electric Cooperative I
Sprint Spectrum, LP

Company (Continued)

Stafford, County of
State of Maryland, MIEMSS
State of WV DHHR/BPH STECS
Sullivan, County of
Sussex County Council
Synergy Telecommunications Corp
T-Mobile License LLC
THE HERSHEY COMPANY
TOWNSQUARE MEDIA ATLANTIC CITY LICENSE,
TRF SERVICES LLC
TWO WAY RADIO INC.
Telecom Transport Management, Inc
Thought Transmissions, LLC
Turtle Networks 6384
Turtle Networks 6386
Turtle Networks 6423
Turtle Networks 6444
Turtle Networks 6467
UNIVERSITY OF MARYLAND
USCOC of Cumberland, Inc.
USCOC of Virginia RSA #3, Inc.
Union, County Of
Velox Networks LLC
Verizon Maryland, Inc.
Verizon New Jersey, Inc.
Verizon Virginia, Inc.
Verizon Wireless (VAW) LLC (NY)
Verizon Wireless (VAW) LLC- IN & KY Mkt
Verizon Wireless (VAW) LLC-Pennsylvania
Verizon Wireless VAW LLC-Southern VA
Virginia Broadband, LLC
Virginia Electric & Power Company
Virginia PCS Alliance, L.C.
Virginia RSA #7, Inc.
Virginia Tech Foundation , Inc.
WEST VIRGINIA RADIO CORPORATION
WHYY, INC.
WICOMICO BOARD OF EDUCATION
WPNT, Inc.
Warrenton Fauquier Joint Communications
Washington Gas Light Company
Washington Suburban Sanitary Commission
West Virginia PCS Alliance, L.C.
Western PA Internet Access, Inc.
Wireless Backhaul Infrastructure, LLC
Wireless Infrastructure Partners, LLC
Wireless Internet Work II.
Wireless Internetwork LLC
World Class Wireless LLC

Company (Continued)

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: 10/10/2012
Job Number: 120917COMSJC02

Administrative Information

Status: TEMPORARY (Operation from 11/05/2012 to 01/15/2013)
Call Sign: TEMP01
Licensee Code: INTELS
Licensee Name: Intelsat License LLC

Site Information

HAGERSTOWN, MARYLAND

Venue Name:
Latitude (NAD 83): 39° 35' 54.0" N
Longitude (NAD 83): 77° 45' 33.0" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 174.65 m / 573.0 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: 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): 9.45 m / 31.0 ft

Antenna Information

Manufacturer:
Model:
Gain / Diameter:
3-dB / 15-dB Beamwidth:

Receive

TIW
14.2 Meter
62.0 dBi / 14.2 m
0.20° / 0.40°

Transmit

TIW
14.2 Meter
65.1 dBi / 14.2 m
0.10° / 0.20°

Max Available RF Power (dBW/4 kHz)
(dBW/MHz)

-0.2
23.8

Maximum EIRP (dBW/4 kHz)
(dBW/MHz)
(dBW)

64.9
88.9
88.0

Interference Objectives: Long Term
Short Term
0.0025%

-156.0 dBW/MHz 20%
-146.0 dBW/MHz 0.01%

-151.0 dBW/4 kHz 20%
-128.0 dBW/4 kHz

Frequency Information

Emission / Frequency Range (MHz)

Receive 11.0 GHz

282KF2D / 11199.5
282KF2D / 11200.2
282KF2D / 11699.8
282KF2D / 11700.1

Transmit 14.0 GHz

816KF2D / 14250.0
816KF2D / 14499.8

Max Great Circle Coordination Distance
Precipitation Scatter Contour Radius

697.5 km / 433.4 mi
602.2 km / 374.2 mi

466.3 km / 289.7 mi
164.2 km / 102.0 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' 54.0" N		
Longitude (NAD 83)	77° 45' 33.0" W		
Ground Elevation (AMSL)	174.65 m / 573.0 ft		
Antenna Centerline (AGL)	9.45 m / 31.0 ft		
Antenna Model	TIW 14.2 Meter		
Antenna Mode	Receive 11.0 GHz		Transmit 14.0 GHz
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%
	Short Term	-146.0 dBW/MHz	0.01%
Max Available RF Power			-151.0 dBW/4 kHz 20% -128.0 dBW/4 kHz 0.0025% -0.2 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	231.37	-10.00	153.85
5	0.00	96.84	-10.00	231.37	-10.00	153.85
10	0.00	91.86	-10.00	231.37	-10.00	153.85
15	0.00	86.88	-10.00	231.37	-10.00	153.85
20	0.00	81.90	-10.00	231.37	-10.00	153.85
25	0.00	76.92	-10.00	231.37	-10.00	153.85
30	0.00	71.95	-10.00	231.37	-10.00	153.85
35	0.00	66.97	-10.00	231.37	-10.00	153.85
40	0.00	62.00	-10.00	231.37	-10.00	153.85
45	0.00	57.03	-10.00	231.37	-10.00	153.85
50	0.00	52.06	-10.00	231.37	-10.00	153.85
55	0.00	47.09	-9.82	232.14	-9.82	154.48
60	0.00	42.14	-8.62	237.52	-8.62	158.88
65	0.00	37.19	-7.26	243.78	-7.26	165.50
70	0.00	32.26	-5.72	251.29	-5.72	171.37
75	0.00	27.34	-3.92	260.19	-3.92	178.19
80	0.00	22.47	-1.79	271.24	-1.79	186.29
85	0.00	17.65	0.83	285.48	0.83	196.24
90	0.00	12.98	4.17	301.98	4.17	208.21
95	0.00	8.66	8.56	332.93	8.56	226.21
100	0.00	5.61	13.27	697.52	13.27	466.32
105	0.00	6.15	12.28	470.23	12.28	308.94
110	0.00	9.60	7.45	324.46	7.45	221.52
115	0.00	13.27	3.93	300.47	3.93	207.26
120	0.00	16.89	1.31	288.17	1.31	198.06
125	0.00	20.41	-0.75	276.81	-0.75	190.25
130	0.00	23.83	-2.43	267.88	-2.43	183.87
135	0.00	27.11	-3.83	260.66	-3.83	178.54
140	0.00	30.23	-5.01	254.75	-5.01	174.05
145	0.00	33.14	-6.01	249.86	-6.01	170.26
150	0.00	35.82	-6.85	245.83	-6.85	167.05
155	0.00	38.20	-7.55	242.41	-7.55	164.39
160	0.00	40.26	-8.12	239.78	-8.12	160.73
165	0.00	41.93	-8.56	237.77	-8.56	159.08
170	0.00	43.16	-8.88	236.35	-8.88	157.91
175	0.00	43.92	-9.07	235.50	-9.07	157.22
180	0.00	44.18	-9.13	235.21	-9.13	156.99
185	0.00	43.92	-9.07	235.49	-9.07	157.22

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Earth Station Data Sheet

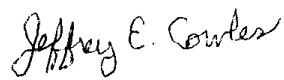
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Antenna Centerline (AGL)		9.45 m / 31.0 ft			
Antenna Model		TIW 14.2 Meter			
Antenna Mode		Receive 11.0 GHz		Transmit 14.0 GHz	
Interference Objectives: Long Term		-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
Short Term		-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power				-0.2 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	43.16	-8.88	236.35	-8.88	157.91
195	0.00	41.93	-8.56	237.77	-8.56	159.08
200	0.00	40.26	-8.12	239.78	-8.12	160.73
205	0.00	38.20	-7.55	242.41	-7.55	164.39
210	0.00	35.81	-6.85	245.83	-6.85	167.06
215	0.00	33.14	-6.01	249.87	-6.01	170.26
220	0.00	30.22	-5.01	254.75	-5.01	174.06
225	0.00	27.11	-3.83	260.66	-3.83	178.54
230	0.00	23.83	-2.43	267.87	-2.43	183.86
235	0.00	20.42	-0.75	276.80	-0.75	190.24
240	0.00	16.89	1.31	288.19	1.31	198.07
245	0.00	13.28	3.92	300.45	3.92	207.24
250	0.00	9.59	7.46	324.54	7.46	221.57
255	0.00	6.33	11.96	485.51	11.96	319.97
260	0.00	6.11	12.35	669.65	12.35	446.37
265	0.00	9.18	7.93	328.06	7.93	223.53
270	0.00	13.46	3.77	299.52	3.77	206.66
275	0.00	18.11	0.55	283.95	0.55	195.20
280	0.00	22.90	-2.00	270.15	-2.00	185.51
285	0.00	27.76	-4.09	259.36	-4.09	177.56
290	0.00	32.66	-5.85	250.63	-5.85	170.86
295	0.00	37.59	-7.38	243.24	-7.38	165.06
300	0.00	42.53	-8.72	237.07	-8.72	158.51
305	0.00	47.48	-9.91	231.75	-9.91	154.16
310	0.00	52.44	-10.00	231.37	-10.00	153.85
315	0.00	57.40	-10.00	231.37	-10.00	153.85
320	0.00	62.37	-10.00	231.37	-10.00	153.85
325	0.00	67.34	-10.00	231.37	-10.00	153.85
330	0.00	72.31	-10.00	231.37	-10.00	153.85
335	0.00	77.28	-10.00	231.37	-10.00	153.85
340	0.00	82.26	-10.00	231.37	-10.00	153.85
345	0.00	87.23	-10.00	231.37	-10.00	153.85
350	0.00	92.21	-10.00	231.37	-10.00	153.85
355	0.00	97.18	-10.00	231.37	-10.00	153.85

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, Va. 20147

DATED: October 10, 2012