

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: 12/15/2012 - 02/20/2013

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 October 30, 2012.

Company

ADAMS COUNTY EMERGENCY MANAGEMENT AGENCY
ANNE ARUNDEL, COUNTY OF
ATLANTIC, COUNTY OF
Aerbender, LLC
Albermarle, County of, Virginia
Allegheny County
Allegheny Power Service Corporation
Alltel Communications LLC-Southern VA
American Electric Power Service Corp.
Appalachia Engineering Services
Appalachian Broadcasting
Atlantic City Electric Company
Auburn Data Systems, LLC
B20 LLC
BAY BROADBAND COMMUNICATIONS LLC
Baltimore County of Maryland
Baltimore Gas and Electric Company
Bedford, County of
Berks, County of
Blue Ridge Carriers
CAMDEN COUNTY
CARROLL COUNTY
CBS Communications Services
CENTRE COUNTY
CHESTER, COUNTY OF
CLEARFIELD, COUNTY OF
CNG Transmission Corporation
COLUMBIA COUNTY
CTAB Holdings LLC
Calvert Cliffs Nuclear Power Plant
Calvert County Government

Company (Continued)

Cameron County Office of Emergency Servi
Capital Communications of America
Cellco Partnership - Bridgeville, PA/WV
Cellco Partnership - Southern Virginia
Cellco Prtnrshp - Phil. Tri-State Rgn
Chesterfield, County of
Clinton, County of
Columbia Gas Transmission Corporation
Commonwealth of Pennsylvania
Commonwealth of Pennsylvania-Radio Proj.
Comprehensive Wireless LLC
Conectiv Communications, Inc.
Converge Towers LLC
Coralinks
County of Burlington, Public Safety Cntr
County of Culpeper
County of Louisa, VA
County of Lycoming
County of Nelson
County of Salem
Cumberland, County of
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
Eastern Pennsylvania EMS Council
Egan LLC
ELK COUNTY
Enoch Pratt Free Library
Equitable Gas Company
Exelon Generation Company, L.L.C
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
Kreider Networks
Kryptic Technologies

Company (Continued)

LACKAWANNA COMMUNICATIONS
LEBANON COUNTY OF
Lancaster County of
Last Mile Inc.
Loudoun County, Virginia
M&T Bank
MAHANTANGO MOUNTAIN MICROWAVE
MARYLAND EMERG MANAGEMENT AGENCY COMM
MARYLAND STATE DEPT OF GENERAL SERVICES
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
Montgomery County Of
Montgomery, County of
Morgan, County of
National Radio Astronomy Observatory
New Cingular Wireless PCS - Maryland
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 POWER COMPANY
PA Communications
PENNSYLVANIA MICROWAVE NETWORK INC.
PENNSYLVANIA TURNPIKE COMMISSION
PSEG Services Corporation
Passaic Valley Microwave
Peco Energy Company
Pennsylvania Commonwealth State Police
Peoples Natural Gas Company
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
SCHUYLKILL, COUNTY OF
SCS Networks
SCTF NET

Company (Continued)

SECOM NET
SOUTHEASTERN PENNSYLVANIA TRANSIT AUTH
SPOTSYLVANIA COUNTY
SW Networks
San Juan Wireless
Snyder, County of
St. Mary's County of (MD)
Stafford, County of
State of Maryland, MIEMSS
State of WV DHHR/BPH STECS
Texas Eastern Communications, Inc.
Thought Transmissions, LLC
Transcontinental Gas Pipeline Corp.
Triangle Communications, Inc.
Turtle Networks 6384
Turtle Networks 6386
Turtle Networks 6444
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
Warrenton Fauquier Joint Communications
Washington Gas Light Company
Washington Suburban Sanitary Commission
Weblin Holdings LLC
Wico, LLC
Wireless Internet Work II.
World Class Wireless LLC
York County Dept of Emergency Services
Zango LLC
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: 11/12/2012
Job Number: 121030COMSJC01

Administrative Information

Status: TEMPORARY (Operation from 12/15/2012 to 02/20/2013)
Call Sign: TEMP02
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' 35.0" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 173.74 m / 570.0 ft

Link Information

Satellite Type: Geostationary
Mode: TO - Transmit-Only
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): 5.79 m / 19.0 ft

Antenna Information

Transmit - FCC32
Manufacturer: TIW
Model: 9 Meter
Gain / Diameter: 53.5 dBi / 9.0 m
3-dB / 15-dB Beamwidth: 0.36° / 0.67°

Max Available RF Power (dBW/4 kHz): 7.2
(dBW/MHz): 31.2

Maximum EIRP (dBW/4 kHz): 60.7
(dBW/MHz): 84.7
(dBW): 84.0

Interference Objectives: Long Term: -154.0 dBW/4 kHz 20%
Short Term: -131.0 dBW/4 kHz 0.0025%

Frequency Information

Transmit 6.7 GHz
Emission / Frequency Range (MHz): 850KFXD / 6703.0
850KFXD / 6706.0

Max Great Circle Coordination Distance: 507.1 km / 315.0 mi
Precipitation Scatter Contour Radius: 431.6 km / 268.1 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' 35.0" W	
Ground Elevation (AMSL)	173.74 m / 570.0 ft	
Antenna Centerline (AGL)	5.79 m / 19.0 ft	
Antenna Model	TIW 9 Meter	
Antenna Mode	Transmit 6.7 GHz	
Interference Objectives:	Long Term	-154.0 dBW/4 kHz 20%
	Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	7.2 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	207.10
5	0.00	96.84	-10.00	207.10
10	0.00	91.86	-10.00	207.10
15	0.00	86.88	-10.00	207.10
20	0.00	81.90	-10.00	207.10
25	0.00	76.92	-10.00	207.10
30	0.00	71.95	-10.00	207.10
35	0.00	66.97	-10.00	207.10
40	0.00	62.00	-10.00	207.10
45	0.00	57.03	-10.00	207.10
50	0.00	52.06	-10.00	207.10
55	0.00	47.09	-9.82	207.79
60	0.00	42.14	-8.62	212.59
65	0.00	37.19	-7.26	218.19
70	0.00	32.26	-5.72	224.84
75	0.00	27.34	-3.92	232.91
80	0.00	22.47	-1.79	243.02
85	0.00	17.65	0.83	255.60
90	0.00	12.98	4.17	274.11
95	0.00	8.66	8.56	301.31
100	0.00	5.61	13.27	507.05
105	0.00	6.15	12.28	371.03
110	0.00	9.60	7.45	294.11
115	0.00	13.27	3.93	272.70
120	0.00	16.89	1.31	258.14
125	0.00	20.41	-0.75	248.15
130	0.00	23.83	-2.43	239.94
135	0.00	27.11	-3.83	233.34
140	0.00	30.23	-5.01	227.97
145	0.00	33.14	-6.01	223.55
150	0.00	35.82	-6.85	219.92
155	0.00	38.20	-7.55	216.96
160	0.00	40.26	-8.12	214.61
165	0.00	41.93	-8.56	212.81
170	0.00	43.16	-8.88	211.54
175	0.00	43.92	-9.07	210.78
180	0.00	44.18	-9.13	210.53

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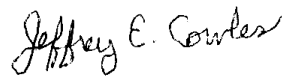
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Ground Elevation (AMSL)	173.74 m / 570.0 ft		
Antenna Centerline (AGL)	5.79 m / 19.0 ft		
Antenna Model	TIW 9 Meter		
Antenna Mode	Transmit 6.7 GHz		
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%	
Short Term	-131.0 dBW/4 kHz	0.0025%	
Max Available RF Power	7.2 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
185	0.00	43.92	-9.07	210.78
190	0.00	43.16	-8.88	211.54
195	0.00	41.93	-8.56	212.81
200	0.00	40.26	-8.12	214.61
205	0.00	38.20	-7.55	216.96
210	0.00	35.81	-6.85	219.92
215	0.00	33.14	-6.01	223.55
220	0.00	30.22	-5.01	227.97
225	0.00	27.11	-3.83	233.34
230	0.00	23.83	-2.43	239.93
235	0.00	20.42	-0.75	248.14
240	0.00	16.89	1.31	258.16
245	0.00	13.28	3.92	272.68
250	0.00	9.59	7.46	294.19
255	0.00	6.33	11.96	378.50
260	0.00	6.11	12.35	489.18
265	0.00	9.18	7.93	297.19
270	0.00	13.46	3.77	271.82
275	0.00	18.11	0.55	254.16
280	0.00	22.90	-2.00	242.02
285	0.00	27.76	-4.09	232.16
290	0.00	32.66	-5.85	224.24
295	0.00	37.59	-7.38	217.70
300	0.00	42.53	-8.72	212.18
305	0.00	47.48	-9.91	207.44
310	0.00	52.44	-10.00	207.10
315	0.00	57.40	-10.00	207.10
320	0.00	62.37	-10.00	207.10
325	0.00	67.34	-10.00	207.10
330	0.00	72.31	-10.00	207.10
335	0.00	77.28	-10.00	207.10
340	0.00	82.26	-10.00	207.10
345	0.00	87.23	-10.00	207.10
350	0.00	92.21	-10.00	207.10
355	0.00	97.18	-10.00	207.10

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: November 12, 2012