

**COMSEARCH**

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

Prepared For  
**Intelsat North America LLC**  
**CLARKSBURG, MARYLAND**

Temporary Transmit/Receive Earth Station  
Operation Dates: 11/10/2010 - 05/10/2010

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 August 1, 2010.

Company

ALLTEL Communications of VA No. 1, Inc.  
ALLTEL Communications, LLC  
AT&T COMMUNICATIONS OF MARYLAND INC  
AT&T COMMUNICATIONS OF VIRGINIA INC  
AT&T CORP  
Allegheny Power Service Corporation  
Alltel Communications LLC - Verizon SOVA  
Alltel Communications of Virginia #1 LLC  
Alltel Communications of Virginia, Inc.  
Atlantic Broadband (Delmar), LLC  
Atlantic Broadband (Penn), LLC  
Atlantic City Electric Company  
BAY BROADBAND COMMUNICATIONS LLC  
BEDFORD COUNTY 911  
Baltimore County of Maryland  
Baltimore Gas and Electric Company  
Borough of Huntingdon  
CHESTER, COUNTY OF  
COLLEGE OF SOUTHERN MARYLAND  
Carolina Power & Light Company  
Cellco Partnership - Southern Virginia  
Cellco Partnership- PA Region  
Cellco Partnership-Newark-Dallas Verizon  
Cellco Partnership-Washington/Baltimore  
Cellco Prtnrshp - Phil. Tri-State Rgn  
Charles City County Sheriffs Office  
Charles, County of  
Chesterfield, County of  
Commonwealth of Virginia  
Conterra Ultra Broadband, LLC

Company (Continued)

County of Frederick  
County of Stafford  
County of York  
DAUPHIN COUNTY EMERGENCY MANAGEMENT  
DELAWARE STATE - DTI  
Delmarva Power & Light Company  
Enoch Pratt Free Library  
Exelon Generation Company, L.L.C  
Federal Communications Commission  
Frederick County  
Gloucester County  
Gloucester, County of  
Goochland County  
HANOVER COUNTY  
HENRICO COUNTY  
Hampton Roads Planning District Commissi  
Hardy Cellular Telephone Company  
Harrisonburg-Rockingham ECC  
International Communications Group, Inc.  
King and Queen County  
LB Tower Company LLC  
Last Mile Inc.  
Local Communications Network, Inc.  
Loudoun, County of  
MCI Communications Services Inc.  
METROPOLITAN AREA NETWORKS, INC.  
Maryland Public Broadcasting Commission  
Maryland State Highway Administration  
Maryland, State of - Budget & Management  
Mecklenburg Electric Cooperative  
NTELOS Telephone, Inc.  
National Radio Astronomy Observatory  
New Cingular Wireless PCS LLC -NJ  
New Cingular Wireless PCS - VA/DC/MD  
New Cingular Wireless PCS LLC - DC  
New Cingular Wireless PCS LLC- DE/NH/RI  
New Cingular Wireless PCS, LLC - PA  
New Jersey, State of -NJ Transit  
New Kent County  
Norfolk Southern Railway  
Northern Virginia Electric Cooperative  
Open Range Communications  
PENNSYLVANIA TURNPIKE COMMISSION  
PRINCE WILLIAM COUNTY  
PSEG Services Corporation  
Peach Acquisitions LLC  
Peco Energy Company  
Penn Service Microwave Co., Inc.  
Petersburg Cellular Partnership  
Prince George's County

Company (Continued)

RAPPAHANNOCK ELECTRIC COOPERATIVE  
RCTC Wholesale Corporation - Verizon  
RICHMOND, CITY OF  
SCTF NET  
SHENANDOAH VALLEY ELECTRIC COOPERATIVE  
South & Central Wireless, LLC - SOVA  
Southern Maryland Electric Cooperative I  
State of Maryland, MIEMSS  
State of WV DHHR/BPH STECS  
Texas Eastern Communications, Inc.  
UNIVERSITY OF NORTH CAROLINA  
USCOC of Cumberland, Inc.  
USCOC of North Carolina RSA #7, Inc.  
USCOC of Virginia RSA #2, Inc.  
USCOC of Virginia RSA #3, Inc.  
Verizon Maryland, Inc.  
Verizon Virginia, Inc.  
Virginia Broadband, LLC  
Virginia Cellular LLC  
Virginia Electric & Power Company  
Virginia PCS Alliance, L.C.  
Virginia RSA #7, Inc.  
WASHINGTON SUBURBAN SANITARY COMMISSION  
WITF Inc.  
Washington D.C. SMSA L.P.  
Washington Gas Light Company  
Wireless Strategies, Inc.  
York County

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  
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Date: 10/20/2010  
Job Number: 100801COMSJC02

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### Administrative Information

Status: TEMPORARY (Operation from 11/10/2010 to 05/10/2011)  
Call Sign: TEMP05  
Licensee Code: INTNOA  
Licensee Name: Intelsat North America LLC

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### Site Information

**CLARKSBURG, MARYLAND**

Venue Name  
Latitude (NAD 83): 39° 13' 7.4" N  
Longitude (NAD 83): 77° 16' 10.9" W  
Climate Zone: A  
Rain Zone: 2  
Ground Elevation (AMSL): 140.82 m / 462.0 ft

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### Link Information

Satellite Type: Low Earth Orbit  
Mode: TR - Transmit-Receive  
Modulation: Analog and Digital  
Minimum Elevation Angle: 5.0°  
Azimuth Range: 0.0° to 360°  
Antenna Centerline (AGL): 12.8 m / 42.0 ft

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### Antenna Information

		<b>Receive</b>		<b>Transmit</b>	
Manufacturer		TIW		TIW	
Model		19.2 Meter		19.2 Meter	
Gain / Diameter		55.6 dBi / 19.2 m		59.1 dBi / 19.2 m	
3-dB / 15-dB Beamwidth		0.20° / 0.60°		0.20° / 0.40°	
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)			11.1 34.4	
Maximum EIRP	(dBW/4 kHz) (dBW/MHz) (dBW)			70.2 93.5 93.5	
Interference Objectives:	Long Term Short Term	-156.0 dBW/MHz -146.0 dBW/MHz	20% 0.01%	-154.0 dBW/4 kHz -131.0 dBW/4 kHz	20% 0.0025%

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### Frequency Information

	<b>Receive 4.0 GHz</b>	<b>Transmit 6.1 GHz</b>
Emission / Frequency Range (MHz)	180KFXD / 3947.5 180KFXD / 3952.5	850KFXD / 6173.7 850KFXD / 6176.3
Max Great Circle Coordination Distance	452.7 km / 281.3 mi	350.2 km / 217.6 mi
Precipitation Scatter Contour Radius	469.5 km / 291.7 mi	456.2 km / 283.4 mi

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## Earth Station Data Sheet

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### Coordination Values

### CLARKSBURG, MD

Licensee Name Intelsat North America LLC  
Latitude (NAD 83) 39° 13' 7.4" N  
Longitude (NAD 83) 77° 16' 10.9" W  
Ground Elevation (AMSL) 140.82 m / 462.0 ft  
Antenna Centerline (AGL) 12.8 m / 42.0 ft  
Antenna Model TIW 19.2 Meter  
Antenna Mode Receive 4.0 GHz Transmit 6.1 GHz  
Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%  
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%  
Max Available RF Power 11.1 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	1.17	98.13	4.50	313.10	4.50	198.30
5	1.09	93.13	4.50	313.10	4.50	198.30
10	1.01	88.13	4.50	317.80	4.50	203.20
15	1.17	83.13	4.50	308.70	4.50	193.70
20	1.29	78.13	4.50	302.40	4.50	187.20
25	1.31	73.13	4.50	302.90	4.50	187.80
30	1.14	68.13	4.50	314.80	4.50	200.10
35	1.44	63.13	4.50	299.00	4.50	183.70
40	1.48	58.13	4.50	285.20	4.50	169.30
45	1.54	53.13	4.50	294.80	4.50	179.30
50	1.22	48.13	4.50	309.20	4.50	193.30
55	0.85	43.13	4.50	327.40	4.50	213.90
60	0.76	38.13	4.50	332.30	4.50	218.30
65	0.82	33.13	4.50	333.10	4.50	219.10
70	0.96	28.13	4.50	320.80	4.50	206.40
75	0.82	23.13	4.50	330.20	4.50	216.10
80	0.82	18.13	4.50	330.90	4.50	216.80
85	0.79	13.14	4.50	332.30	4.50	218.30
90	0.74	8.14	4.50	335.30	4.50	221.40
95	0.67	3.17	4.50	338.40	4.50	224.60
100	0.73	1.91	4.50	337.60	4.50	223.80
105	0.84	6.87	4.50	328.80	4.50	214.60
110	0.76	11.87	4.50	333.10	4.50	219.10
115	0.81	16.87	4.50	337.60	4.50	223.80
120	0.81	21.87	4.50	329.50	4.50	215.30
125	0.89	26.87	4.50	324.00	4.50	209.70
130	0.83	31.87	4.50	325.40	4.50	211.10
135	0.66	36.87	4.50	343.30	4.50	229.80
140	0.49	41.87	4.50	356.40	4.50	243.40
145	0.37	46.87	4.50	364.00	4.50	251.40
150	0.30	51.87	4.50	379.60	4.50	267.80
155	0.26	56.87	4.50	379.60	4.50	267.80
160	0.36	61.87	4.50	379.60	4.50	267.80
165	0.37	66.87	4.50	370.00	4.50	257.70
170	0.32	71.87	4.50	452.70	4.50	350.20
175	0.00	76.87	4.50	452.70	4.50	350.20
180	0.00	81.87	4.50	452.70	4.50	350.20

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### Coordination Values

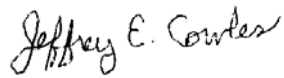
### CLARKSBURG, MD

Licensee Name	Intelsat North America LLC			
Latitude (NAD 83)	39° 13' 7.4" N			
Longitude (NAD 83)	77° 16' 10.9" W			
Ground Elevation (AMSL)	140.82 m / 462.0 ft			
Antenna Centerline (AGL)	12.8 m / 42.0 ft			
Antenna Model	TIW 19.2 Meter			
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power			11.1 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
185	0.00	86.87	4.50	452.70	4.50	350.20
190	0.00	91.87	4.50	452.70	4.50	350.20
195	0.00	96.87	4.50	452.70	4.50	350.20
200	0.00	101.87	4.50	452.70	4.50	350.20
205	0.00	106.87	4.50	452.70	4.50	350.20
210	0.35	111.87	4.50	372.60	4.50	260.50
215	0.58	116.87	4.50	356.40	4.50	243.40
220	0.74	121.87	4.50	331.60	4.50	217.60
225	0.87	126.87	4.50	323.40	4.50	209.00
230	0.97	131.87	4.50	314.20	4.50	199.50
235	1.00	136.87	4.50	309.70	4.50	194.80
240	1.16	141.87	4.50	308.10	4.50	193.20
245	1.24	146.87	4.50	307.60	4.50	192.60
250	1.03	151.87	4.50	317.20	4.50	202.60
255	1.37	156.87	4.50	303.40	4.50	188.30
260	1.74	161.86	4.50	292.50	4.50	176.90
265	1.95	166.84	4.50	283.20	4.50	167.20
270	2.29	171.79	4.50	274.70	4.50	158.20
275	2.53	176.57	4.50	263.60	4.50	146.80
280	2.61	177.62	4.50	254.70	4.50	137.30
285	2.56	172.99	4.50	249.30	4.50	131.60
290	2.59	168.04	4.50	246.00	4.50	128.20
295	2.59	163.07	4.50	245.50	4.50	127.60
300	2.59	158.09	4.50	248.10	4.50	130.30
305	2.38	153.10	4.50	255.30	4.50	138.00
310	2.14	148.12	4.50	269.90	4.50	153.30
315	2.14	143.12	4.50	286.90	4.50	171.00
320	1.62	138.13	4.50	298.10	4.50	182.70
325	1.37	133.13	4.50	297.60	4.50	182.20
330	1.25	128.13	4.50	304.50	4.50	184.20
335	1.31	123.13	4.50	302.90	4.50	187.80
340	1.35	118.13	4.50	299.50	4.50	184.20
345	1.36	113.13	4.50	300.90	4.50	185.70
350	1.26	108.13	4.50	305.00	4.50	189.90
355	1.24	103.13	4.50	307.60	4.50	192.60

## 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.

A handwritten signature in black ink that reads "Jeffrey E. Cowles". The signature is written in a cursive style. To the right of the signature is a vertical red line.

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

DATED: September 20, 2010