## 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: 07/20/2012 - 09/20/2012

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 July 9, 2012.

#### Company

ADAMS COUNTY EMERGENCY MANAGEMENT AGENCY AMERICAN ELECTRIC POWER SERVICE CORP. ANNE ARUNDEL, COUNTY OF

ATLANTIC, COUNTY OF

Aerbender, LLC

Albermarle, County of, Virginia

Allegheny County

Allegheny Power Service Corporation
Alltel Communications LLC-Southern VA

Appalachia Engineering Services

Appalachian Broadcasting

Atlantic City Electric Company

Auburn Data Systems, LLC

B<sub>20</sub> LLC

BAY BROADBAND COMMUNICATIONS LLC

Baltimore County of Maryland

Baltimore Gas and Electric Company

Bedford, County of

Berks, County of

**CAMDEN COUNTY** 

CARROLL COUNTY

**CBS** Communications Services

**CENTRE COUNTY** 

CHESTER, COUNTY OF

CLEARFIELD, COUNTY OF

**CLINTON COUNTY** 

**CNG Transmission Corporation** 

**COLUMBIA COUNTY** 

CTAB Holdings LLC

Calvert Cliffs Nuclear Power Plant

**Calvert County Government** 

Cameron County Office of Emergency Servi

Cellco Partnership - Bridgeville, PA/WV

Cellco Partnership - Southern Virginia

Cellco Prtnrshp - Phil. Tri-State Rgn

Chesterfield, County of

Columbia Gas Transmission Corporation

Commonwealth of Pennsylvania

Commonwealth of Pennsylvania-Radio Proj.

Comprehensive Wireless LLC

Conectiv Communications, Inc.

Coralinks

County of Burlington, Public Safety Cntr

County of Culpeper

County of Louisa, VA

County of Nelson

County of Salem

County of Stafford

Cumberland, County of

DAUPHIN COUNTY EMERGENCY MANAGEMENT

**DELAWARE STATE - DTI** 

Delaware County (PA) Emergency Services

Delmarva Power & Light Company

EASTERN PENNSYLVANIA EMS COUNCIL

ECW Wireless, LLC

EG Broadcast Newco Corp

Eastern MLG LLC

Egan LLC

**Enoch Pratt Free Library** 

Equitable Gas Company

Exelon Generation Company, L.L.C

FELHC, Inc.

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

LACKAWANNA COMMUNICATIONS

LANCASTER COUNTY OF

LEBANON COUNTY OF

LYCOMING COUNTY

Last Mile Inc.

Loudoun, County of

M&T Bank

MAHANTANGO MOUNTAIN MICROWAVE

MARYLAND EMERG MANAGEMENT AGENCY COMM

MARYLAND STATE DEPT OF GENERAL SERVICES

MARYLAND, STATE OF - MDOT - MTA

MONTGOMERY COUNTY OF

MVC Research, LLC

Maryland Public Broadcasting Commission

Maryland State Highway Administration

Maryland, State of - DNR

Maryland, State of - Dept.of Info & Tech

Mifflin County

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

Pittsburgh SMSA Limited Partnership

Potomac Electric Power Company

Prince George's County

Prince William, County of

RAPPAHANNOCK ELECTRIC COOPERATIVE

RCYM Holdings LLC

SCHUYLKILL, COUNTY OF

SCS Networks

SCTF NET

SECOM NET

SOUTHEASTERN PENNSYLVANIA TRANSIT AUTH

SPOTSYLVANIA COUNTY

SW Networks

San Juan Wireless

Snyder, County of

St. Mary's 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

WASHINGTON SUBURBAN SANITARY COMMISSION

Warrenton Fauguier Joint Communications

Washington Gas Light Company

Webline Holdings LLC

Wico, LLC

Wireless Backhaul Infrastructure, LLC

Wireless Internetwork LLC

World Class Wireless LLC

York County Dept of Emergency Services

Zango LLC

Zen Networks, Inc.

iSignal

3G Wireless, LLC

ABC, INC.

ABC, Inc. - WPVI-TV

**AERIAL VIDEO SYSTEMS** 

ALASCOM, INC.

AT&T California

American Broadcasting Companies, Inc.

Ascent Media Network Services, LLC

BALTIMORE (WNUV-TV) LICENSEE, INC.

BON-TELE NETWORK INC

BROADCAST COMMUNICATIONS INC

Bellsouth Telecommunications, Inc.

BFI Licenses, LLC

Borgeson, Tom R.

Broadcast Sports Inc.

C-SPAN

CATHOLIC BROADCASTING OF SCRANTON, INC

**CBS** Broadcasting Inc

CBS TELEVISION LICENSES LLC

CNG Communications, Inc.

COMMONWEALTH PUBLIC BROADCASTING

CP Communications PA. 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

Cornerstone Television, Inc/WPCB-TV

Cowboys Stadium LP

DCI II, INC.

Delmarva Broadcast Service

Detroit Free Press. Inc.

Direct Broadcast Services, Inc.

**ENGLE BROADCASTING** 

ENTRAVISION HOLDINGS, LLC

Fishman Brothers Enterprises

FOX TELEVISION STATIONS, INC.

FOX TELEVISION STATIONS, INC.

Federal Communications Commission

GOODYEAR TIRE AND RUBBER COMPANY

GRAY TELEVISION LICENSEE, INC (WHSV)

GSN New. Inc.

HARRISBURG TELEVISION, INC.

HF Enterprises, Inc

Hallco Unlimited, Inc.

Hawaiian Telcom, Inc.

Heiden Mr., William

INDIANA BELL TELEPHONE COMPANY INC

Illinois Bell Telephone Company

Information & Display Systems, Inc.

Information Super Station, LLC

International Communications Group, Inc.

JONES BROADCASTING, LLC

Kentucky RSA #3 Cellular General Partner

Kentucky RSA #4 Cellular General Partner

LENFEST BROADCASTING, LLC

MARANATHA BROADCASTING COMPANY

MEDIA GENERAL COMMUNICATIONS HOLDINGS, L

MERCURY COMMUNICATIONS

Metro Networks Communications, Inc.

Metrosat Communications Inc.

Michigan Bell Telephone Company

Moreen, Steven K

NBC TELEMUNDO LICENSE LLC

NEW ENGLAND DIGITAL DISTRIBUTION, INC.

NEW ENGLAND SATELLITE SYSTEMS INC

NEW JERSEY PUBLIC BROADCASTING AUTHORITY

NEXSTAR BROADCASTING, INC.

NRJ TV Philly License Co, LLC

**NSM Surveillance** 

National Cable Satellite Corporation

National Radio Astronomy Observatory

Navajo Communications Company

Newport Television LLC

NorthWest Suburbs Community Access Corp

Ohio Bell Telephone Company

On Scene Video Production

**Onboard Images** 

PALM TELEVISION, L.P.

Peak Media of PA Licensee, LLC

Penn Service Microwave Co., Inc.

Plateau Telecommunications, Inc.

Plum TV. LLC

Production & Satellite Services, Inc.

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

RF Technology, LLC

Radiofone, Inc.

Randy Hermes Production

Regulus Media Services, Inc.

Remote Broadcasts, Inc.

SHENANDOAH VALLEY EDUCATIONAL TV CORP

SIGNAL ABOVE LLC

Scripps Media, Inc. - WMAR TV

Southwestern Bell Telephone L.P.

Speedshotz, Inc.

State of WV DHHR/BPH STECS

TCCSA, Inc -Trinity Broadcasting Network

THE PENNSYLVANIA STATE UNIVERSITY

TRIBUNE TELEVISION COMPANY

Total RF Marketing Inc

Tribune Television Company

UNIVISION PHILADELPHIA LLC

Unisat, Inc.

United Telephone - Southeast

VERIZON SOUTH INC.

VIRGINIA BROADCASTING CORPORATION

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

WBAL HEARST-ARGYLE TV, INC. (CA CORP.)

WBOC, INC.

WCWB Licensee L.L.C.

WEST VIRGINIA EDUCATIONAL BROADCASTING

WEST VIRGINIA MEDIA HOLDINGS, LLC

WGAL Hearst- Argyle Television, Inc.

WHYY, INC.

WITF Inc.

WITHERS BROADCASTING CO OF CLARKSBURG

WITHERS BROADCASTING COMPANY

WPGH LICENSEE, LLC

WPXI-TV HOLDINGS, INC

WTAE Hearst Television Inc.

WUPV LICENSE SUBSIDIARY, LLC

Westar Satellite Services LP

Western Pacific Broadcasting, LLC

Western Technical Services

Wexler Video, Inc.

Winged Vision

Wisconsin Bell, Inc.

Wolfe Air Aviation

## Society of Broadcast Engineers:

District of Columbia

Maryland - Baltimore

Pennsylvania – Allentown

Central PA

North Central

Northeast

South Central

Western

New York - New York City

West Virginia – Entire State

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: 07/12/2012

Job Number: 120709COMSJC02

**Administrative Information** 

Status TEMPORARY (Operation from 07/20/2012 to 09/20/2012)

Call Sign TEMP09 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
Manufacturer TIW

Model 9.0 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) 84.0 (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 7.0 GHz

Emission / Frequency Range (MHz) 850KFXD / 6723.75 850KFXD / 7026.25

Max Great Circle Coordination Distance 507.1 km / 315.0 mi Precipitation Scatter Contour Radius 431.6 km / 268.1 mi

# **COMSEARCH**

## **Earth Station Data Sheet**

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

Coordination ValuesHAGERSTOWN, MDLicensee NameIntelsat License LLCLatitude (NAD 83)39° 35' 54.0" NLongitude (NAD 83)77° 45' 35.0" WGround Elevation (AMSL)173.74 m / 570.0 ftAntenna Centerline (AGL)5.79 m / 19.0 ft

Antenna Model TIW 9 Meter

Antenna Mode Transmit 7.0 GHz

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

Max Available RF Power 7.2 (dBW/4 kHz)

Transmit 7.0 GHz

	Horizon	Antenna	Horizon	Coordination	
Azimuth (°)	Elevation (°)	Discrimination (°)	Gain (dBi)	Distance (km)	
0	0.00	101.81	-10.00	207.10	<del></del>
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 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 70	0.00	37.19	-7.26 5.70	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	
185	0.00	43.92	-9.13 -9.07	210.78	
100	0.00	40.32	-5.01	210.70	

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Antenna Mode Transmit 7.0 GHz

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

Max Available RF Power 7.2 (dBW/4 kHz)

Transmit 7.0 GHz

		Transmit 7.0 GHZ						
	Horizon	Antenna	Horizon	Coordination				
Azimuth (°)	Elevation (°)	Discrimination (°)	Gain (dBi)	Distance (km)				
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

Jeffrey E. Cowles

Engineer III, Telecommunications

COMSEARCH

19700 Janelia Farm Blvd.

Ashburn, Va. 20147

DATED: July 12, 2012