

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: 12/03/2013 - 02/20/2014

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 October 24, 2013

Company

ADAMS COUNTY EMERGENCY MANAGEMENT AGENCY  
ALLEGANY COUNTY GOVERNMENT  
APC Realty and Equipment CO LLC  
Airband Communications Inc  
Arlington County Emergency Comm Ctr  
B.F. SAUL COMPANY  
BUSINESS INFORMATION GROUP, INC.  
Believe Wireless, LLC  
Blaze Broadband  
Blue Ridge Carriers  
Boeing Company  
CAMP HILL SCHOOL DISTRICT  
CBS Broadcasting Inc  
CBS Communications Services Inc.  
CECIL COUNTY PUBLIC SCHOOLS  
CNG Transmission Corporation  
CRISPUS ATTUCKS ASSOCIATION  
Cable Of The Carolinas  
Calvert County Government  
Cambria, County of  
Cape May County Municipal Utilities Auth  
Cape May County, MIS Department  
Carlisle Area School District  
City of Altoona  
Clearwire Spectrum Holdings III, LLC  
Commissioners of Caroline County  
Conterra Ultra Broadband, LLC  
Cumberland County, New Jersey  
Cumberland Valley School District

Company (Continue)

DELAWARE RIVER & BAY AUTHORITY  
DOVER AREA SCHOOL DISTRICT  
Delmarva Power & Light Company  
ECW Wireless, LLC  
East Pennsboro Area School  
Eastern Lancaster County School District  
Eduro Networks LLC  
Enoch Pratt Free Library  
Federal Communications Commission  
Franklin County Dept. of Emergency Servi  
GETWIRELESS.NET  
George Washington University  
Glennville State University  
HALIFAX AREA SCHOOL DISTRICT  
Harrison County Emergency Services  
High Voltage Communications LLC  
Hope Gas, Inc.  
LANCASTER GENERAL HOSPITAL  
Last Mile Inc.  
Loudoun Wireless LLC  
Loudoun, County of  
MLS ENGINEERING  
MVC Research. LLC  
Maryland Port Administration  
Maryland, State Of - MDOT - MTA  
MetroPCS AWS, LLC  
NBC TELEMUNDO LICENSE LLC  
NEXSTAR BROADCASTING, INC.  
National Radio Astronomy Observatory  
National Tower Company  
Netrepid, Inc.  
New Cingular Wireless PCS LLC - AZ  
New Cingular Wireless PCS - Maryland  
New Cingular Wireless PCS LLC- WV/NC/SC  
New Cingular Wireless PCS, LLC - PA  
Northern York County School District  
Old Dominion LLC  
PEG Bandwidth  
PENNSYLVANIA TURNPIKE COMMISSION  
Prince William, County of  
Radio One Inc, LLC  
RapidDSL & Wireless, Inc.  
Red Rose Transit Authority  
Red Zebra Broadcasting Licensee, LLC  
Roadstar Internet, Inc.  
SHIPPENSBURG AREA SCHOOL DISTRICT  
SOMERSET COUNTY  
SUSQUEHANNA TOWNSHIP SCHOOL DISTRICT  
Shenandoah Personal Communications, LLC  
Sprint Spectrum L.P  
State of WV DHHR/BPH STECS  
Steelton-Highspire School District

Company (Continued)

T-Mobile License LLC  
THE HERSHEY COMPANY  
Telecom Transport Management, Inc  
WASHINGTON CABLE SYSTEMS INC  
WKYSFM, INC  
Washington Metro Area Transit Police Dep  
West Virginia PCS Alliance, L.C.  
Western PA Internet Access, Inc.  
Windstream D&E Systems, Inc.  
Wireless Internetwork LLC  
World Class Wireless LLC  
York County Dept of Emergency Services  
York Water Co

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: 10/31/2013  
Job Number: 131024COMSJC05

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### Administrative Information

Status: TEMPORARY (Operation from 12/03/2013 to 02/20/2014)  
Call Sign: TEMP02  
Licensee Code: INTELS  
Licensee Name: Intelsat License LLC

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### 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

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### 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): 9.45 m / 31.0 ft

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### Antenna Information

Manufacturer: TIW  
Model: 14.2 Meter  
Gain / Diameter: 65.1 dBi / 14.2 m  
3-dB / 15-dB Beamwidth: 0.10° / 0.20°

### Transmit

Max Available RF Power	(dBW/4 kHz)	-0.4
	(dBW/MHz)	23.6
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%

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### Frequency Information

Emission / Frequency Range (MHz):  
850KFXD / 17308.0  
850KFXD / 18091.5

### Transmit 18.0 GHz

Max Great Circle Coordination Distance: 444.4 km / 276.1 mi  
Precipitation Scatter Contour Radius: 186.6 km / 116.0 mi

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## Earth Station Data Sheet

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<b>Coordination Values</b>	<b>HAGERSTOWN, MD</b>	
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	Transmit 18.0 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	-0.4 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	152.75
5	0.00	96.84	-10.00	152.75
10	0.00	91.86	-10.00	152.75
15	0.00	86.88	-10.00	152.75
20	0.00	81.90	-10.00	152.75
25	0.00	76.92	-10.00	152.75
30	0.00	71.95	-10.00	152.75
35	0.00	66.97	-10.00	152.75
40	0.00	62.00	-10.00	152.75
45	0.00	57.03	-10.00	152.75
50	0.00	52.06	-10.00	152.75
55	0.00	47.09	-9.82	153.31
60	0.00	42.14	-8.62	157.23
65	0.00	37.19	-7.26	162.24
70	0.00	32.26	-5.72	167.47
75	0.00	27.34	-3.92	173.65
80	0.00	22.47	-1.79	181.18
85	0.00	17.65	0.83	190.66
90	0.00	12.98	4.17	202.98
95	0.00	8.66	8.56	220.51
100	0.00	5.61	13.27	444.41
105	0.00	6.15	12.28	302.62
110	0.00	9.60	7.45	215.96
115	0.00	13.27	3.93	202.04
120	0.00	16.89	1.31	192.42
125	0.00	20.41	-0.75	184.91
130	0.00	23.83	-2.43	178.90
135	0.00	27.11	-3.83	173.98
140	0.00	30.23	-5.01	169.88
145	0.00	33.14	-6.01	166.47
150	0.00	35.82	-6.85	163.61
155	0.00	38.20	-7.55	161.26
160	0.00	40.26	-8.12	159.37
165	0.00	41.93	-8.56	157.41
170	0.00	43.16	-8.88	156.38
175	0.00	43.92	-9.07	155.76
180	0.00	44.18	-9.13	155.55

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## Earth Station Data Sheet

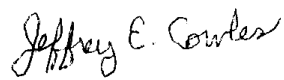
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Antenna Model	TIW 14.2 Meter	
Antenna Mode	Transmit 18.0 GHz	
Interference Objectives:	Long Term	-154.0 dBW/4 kHz    20%
	Short Term	-131.0 dBW/4 kHz    0.0025%
Max Available RF Power	-0.4 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
185	0.00	43.92	-9.07	155.76
190	0.00	43.16	-8.88	156.38
195	0.00	41.93	-8.56	157.41
200	0.00	40.26	-8.12	159.37
205	0.00	38.20	-7.55	161.26
210	0.00	35.81	-6.85	163.62
215	0.00	33.14	-6.01	166.47
220	0.00	30.22	-5.01	169.89
225	0.00	27.11	-3.83	173.98
230	0.00	23.83	-2.43	178.90
235	0.00	20.42	-0.75	184.91
240	0.00	16.89	1.31	192.44
245	0.00	13.28	3.92	202.03
250	0.00	9.59	7.46	216.01
255	0.00	6.33	11.96	312.84
260	0.00	6.11	12.35	426.25
265	0.00	9.18	7.93	217.91
270	0.00	13.46	3.77	201.46
275	0.00	18.11	0.55	189.65
280	0.00	22.90	-2.00	180.44
285	0.00	27.76	-4.09	173.08
290	0.00	32.66	-5.85	167.00
295	0.00	37.59	-7.38	161.85
300	0.00	42.53	-8.72	156.90
305	0.00	47.48	-9.91	153.03
310	0.00	52.44	-10.00	152.75
315	0.00	57.40	-10.00	152.75
320	0.00	62.37	-10.00	152.75
325	0.00	67.34	-10.00	152.75
330	0.00	72.31	-10.00	152.75
335	0.00	77.28	-10.00	152.75
340	0.00	82.26	-10.00	152.75
345	0.00	87.23	-10.00	152.75
350	0.00	92.21	-10.00	152.75
355	0.00	97.18	-10.00	152.75

## 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: October 31, 2013