

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
All Mobile Video, Inc.
CARTERET, NJ
(E950372)
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
December 16, 2015

TABLE OF CONTENTS

1. CONCLUSIONS	3
2. SUMMARY OF RESULTS	4
3. SUPPLEMENTAL SHOWING	5
4. EARTH STATION COORDINATION DATA.....	11
5. CERTIFICATION.....	15

1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

Appalachian Broadcasting
Chester, County of
Middlesex, County of
National Tower Company LLC
Standard Backhaul Communications LLC
Webline Holdings LLC

No other carriers reported potential interference cases.

3. SUPPLEMENTAL SHOWING

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.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 11/10/2015.

Company

256Q Networks
ALGONQUIN GAS TRANSMISSION, LLC
ALLEGANY COLLEGE OF MARYLAND
AMFM Radio Licenses, LLC
AT&T Corporation
AWC Networks
Adams County Department of Emergency Svc
Affiniti PA, LLC
Allentown SMSA Limited Partnership
Allfirst Bank
Anadarko Petroleum Corporation
Appalachian Broadcasting
Archdiocese of New York Dept of Educatio
Atlantic Telecommunications
Atlantic, County of
Auburn Data Systems, LLC
BALTIMORE CITY DEPARTMENT OF PUBLIC WORK
BAY BROADBAND COMMUNICATIONS LLC
BFI Licenses, LLC
Baltimore County of Maryland
Baltimore Gas and Electric Company
Believe Wireless, LLC
Bergen, County of
Berks County Department of Emergency Ser
Binghamton MSA Limited Partnership(NY)
Binghamton MSA Limited Partnership(PA)
Blueline Communications
Broome County Emergency Services
Buckeye Partners
Bucks County Dept. of Emergency Comm
Business Only Broadband, LLC
CBS Communication Services Inc
CMEEC
CONNECTICUT STATE OF
Cape May County Municipal Utilities Auth
Cape May County, MIS Department
Capital Communications of America
Cellco Partnership-Northern New Jersey
Cellco Prtnrshp - Phil. Tri-State Rgn
Central Hudson Gas & Electric Corp.

Chester, County of
China Cat Productions LLC
City of Bethlehem
City of Bristol Mayor's Office
City of Jersey City
City of New Haven Police Services
City of New York
City of Springfield Police Department
Clarity Connect, Inc.
Clearwire Spectrum Holdings III, LLC
Columbia, County
Columbia, County of
Commonwealth of Pennsylvania-Radio Proj.
Community Products, LLC
Comprehensive Wireless LLC
Connect-Vision Ltd.
Connecticut State Police Department
Conterra Ultra Broadband, LLC
Converge Towers LLC
Coralinks
County of Burlington
County of Burlington, Public Safety Cntr
County of Camden
County of Lycoming
County of Mercer
County of Warren, NJ
County of York
Cumberland, County of
D&E Communications, Inc.
DAUPHIN COUNTY EMERGENCY MANAGEMENT
Delaware County (PA) Emergency Services
Delaware Division of Communications
Direct Broadcast Services, Inc.
Dover, Township of
EAST HAMPTON TOWN POLICE DEPARTMENT
ECW Wireless, LLC
EG Broadcast Newco Corp
East Brunswick, Township of, NJ
Eastern MLG LLC
Eduro Networks LLC
Egg Harbor Township Board of Education
Electric Railroad, LLC
Enoch Pratt Free Library
Essex County Sheriff's Office (NJ)
Eversource Energy Service Company
Exelon Generation Company, LLC
FELHC, INC
FORDHAM UNIVERSITY(WFUV)
Fishers Island Telephone
Franklin County Dept. of Emergency Servi
Fundamental Broadcasting LLC
GAW High Speed Internet
Garden State Transmissions
Geodesic Networks LLC
Global Crossing Telecommunications, Inc.
Global Telecom & Technology Americas

Globecomm License Sub LLC
Gloucester Township
Gloucester, County of
Goosetown Network Services, LLC
Greater Philadelphia Radio, Inc.
Green Line Networks
Greenwich, Town of (CT)
Hardy Cellular Telephone Company
High Voltage Communications LLC (CFN)
Highway Networks, LLC
Holy Name Hospital
Hopewell Radiology Group
Hudson County MIS Department
Hudson County Prosecutors Office
Jefferson Microwave, LLC
Juniata County Emergency Services
Kent County Levy Court
Kryptick Technologies
LANline Communications, Inc.
Lackawanna County Dept. of Emergency Ser
Lackawanna, County of
Lancaster County-Wide Communications
Lehigh, County of
Limitless Mobile, LLC
Local Media TV Philadelphia
MB Microwave, LLC
MONMOUTH, COUNTY OF
Mahwah Communications
Manchester, Township of
Maryland Port Administration
Maryland Public Broadcasting Commission
Maryland State Highway Administration
Maryland, State Of - MDOT-MTA
Maryland, State of - Dept.of Info & Tech
Metro Networks Communications, Inc.
Mid-Hudson Data Corp
Middlesex, County of
Millersburg Area School District
Monroe County Control Center (PA)
Montgomery County Of
Morgan, County of
Morris, County of
NBC Telemundo License LLC
NOROC Broadband LLC
NW Technologies, LLC
NY Dept of Health and Mental Hygiene
NYC DOT Staten Island Ferry
Nassau County Police Department
National Tower Company LLC
NeXXCom Wireless LLC
Nep Cellcorp Inc
Netrepid, Inc.
New Britain, City of
New Cingular Wireless PCS LLC -NJ
New Cingular Wireless PCS - Maryland
New Cingular Wireless PCS LLC - DC

New Cingular Wireless PCS LLC - MA
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 (NY)
New Cingular Wireless PCS, LLC - PA
New Jersey State Police
New Jersey Transit Rail Operations, Inc.
New Jersey Turnpike Authority-Pkwy Div
New Jersey, State of -NJ Transit
New Line Networks, LLC
New York City Police Department TARU
New York Communications Co., Inc
New York Presbyterian Hospital
New York SMSA LP (Northern NJ)
New York SMSA Limited Partnership
New York State Electric & Gas Corp
New York, City of (Police Department)
Newark Police Department
Nextlink Wireless, LLC
Norcom Communications Corp.
Norfolk Southern Railway
Northeast Pennsylvania SMSA LTD Prtnrsh
Northrop Grumman Systems Corp.
Northrop Grumman Systems Corporation Inc
Northumberland, County of
Norton, Douglas R
Ocean, County of - Div of Wireless Tech.
Office of Emergency Telecom Services, NJ
Orange County Dept of Emergency Services
Orange Poughkeepsie SMSA LTD Partnership
Orange and Rockland Utilities, Inc.
Orangetown, Town of
PEG Bandwidth, LLC
PISCATAWAY, TOWNSHIP OF
PSEG Services Corporation
Peco Energy Company
Pennsylvania 4 Sector 2 LP- PA Region
Pennsylvania Sports Entertainment Netwo.
Pennsylvania Turnpike Commission
PhillieCo, L.P.
Pines Pantry, Inc.
Pitt Power
Plexicomm, LLC
Port Authority of New York & New Jersey
Port Networks, LLC
QUALCOMM INC.
Qoncept Holdings LLC
RADIO ONE, INC - MD
Rendezvous Communications LLC
Rensselaer County
River Valley Internet LLC
Rockland, County of
SANOFI PASTEUR
SCHUYLKILL, COUNTY OF
SCS Networks

SCTF NET
SECOM NET
SOMERSET COUNTY (M.I.S.)
STAMFORD, CITY OF
STATE OF NEW JERSEY - OFFICE OF PUBLIC
SUFFOLK, COUNTY OF
SW Networks
Salem County Information Technology
Shenandoah Personal Communications, LLC
Somerset, County of - Emergency Managemen
Southeastern Pennsylvania Transit Auth
Southington Town of CT
Spot On Networks
Spotlight Media Corp., Inc.
Sprint Spectrum L.P.
Sprintcom, Inc
Standard Backhaul Communications LLC
State of Maryland, MIEMSS
State of New Jersey
State of New Jersey Information Technolog
State of New York, Div of State Police
Suffolk County Police Department
Sullivan County DPW
Sullivan, County of
Sussex County Council
Sussex County Sheriffs Office
T-Mobile License LLC
Telecom Transport Management, Inc
Telegia Communications Inc.
Thacher, Proffitt & Wood LLP
Thought Transmissions, LLC
Toms River, Township of
Towerstream Corp.
Town of Thomaston
Town of Wethersfield
Town of Woodbridge, Police Department
Township of Jackson
Township of Middletown
Townsquare Media Atlantic City III Licens
Townsquare Media Monmouth-Ocean License
Transcontinental Gas Pipeline Corp.
Turtle Networks 6559
Turtle Networks 6562
ULSTER COUNTY OF
USCOC of Cumberland, Inc.
Union County New Jersey
Union, County Of
United Health Services Hospital
Verizon New Jersey, Inc.
Verizon Wireless (VAW) LLC (NY)
Verizon Wireless (VAW) LLC - Maryland
Verizon Wireless (VAW) LLC - NJ
Verizon Wireless (VAW) LLC-Pennsylvania
WESTCHESTER, COUNTY OF
WHYY, Inc.
WIFI NY, LLC

WYOMING, COUNTY OF
Washington County Board of Education
Wayne County - DHS-EM
Wayne, Township of
Weblin Holdings LLC
West Haven, City of
White Rabbit Networks
Williams Energy Services
Wireless Internetwork LLC
World Class Wireless, LLC
Zen Networks, Inc
iSignal
xWave Engineering LLC

4. EARTH STATION COORDINATION DATA

This 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: 12/16/2015
Job Number: 151110COMSGE05

Administrative Information

Status ENGINEER PROPOSAL
Call Sign E950372
Licensee Code ALMOBV
Licensee Name All Mobile Video, Inc.

Site Information CARTERET, NJ

Venue Name
Latitude (NAD 83) 40° 34' 51.5" N
Longitude (NAD 83) 74° 12' 58.5" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 5.2 m / 17.1 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Digital
Satellite Arc 8° W to 139° West Longitude
Azimuth Range 106.0° to 253.0°
Corresponding Elevation Angles 9.3° / 10.3°
Antenna Centerline (AGL) 2.74 m / 9.0 ft

Antenna Information

		Receive - FCC32		Transmit - FCC32	
Manufacturer		Comsat/RSI		Comsat/RSI	
Model		810KS		810KS	
Gain / Diameter		58.5 dBi / 8.1 m		59.7 dBi / 8.1 m	
3-dB / 15-dB Beamwidth		0.19° / 0.38°		0.18° / 0.36°	
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)			-14.0 10.0	
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)			45.7 69.7	
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%

Frequency Information

	Receive 11.0 GHz	Transmit 14.0 GHz
Emission / Frequency Range (MHz)	128KG7D - 36M0G1W / 10950.0 - 11200.0 128KG7D - 36M0G1W / 11450.0 - 12200.0	128KG7D - 36M0G1W / 13750.0 - 14500.0
Max Great Circle Coordination Distance	420.5 km / 261.2 mi	195.9 km / 121.7 mi
Precipitation Scatter Contour Radius	539.2 km / 335.0 mi	100.0 km / 62.1 mi

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

CARTERET, NJ

Licensee Name All Mobile Video, Inc.
Latitude (NAD 83) 40° 34' 51.5" N
Longitude (NAD 83) 74° 12' 58.5" W
Ground Elevation (AMSL) 5.2 m / 17.1 ft
Antenna Centerline (AGL) 2.74 m / 9.0 ft
Antenna Model Comsat RSI 8.1 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 -14.0 (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	0.27	105.80	-10.00	224.85	-10.00	110.55
5	0.23	100.86	-10.00	228.79	-10.00	113.74
10	0.21	95.92	-10.00	229.98	-10.00	114.70
15	0.00	90.99	-10.00	231.37	-10.00	115.80
20	0.00	86.05	-10.00	231.37	-10.00	115.80
25	0.00	81.12	-10.00	231.37	-10.00	115.80
30	0.00	76.19	-10.00	231.37	-10.00	115.80
35	0.00	71.26	-10.00	231.37	-10.00	115.80
40	0.00	66.33	-10.00	231.37	-10.00	115.80
45	0.00	61.41	-10.00	231.37	-10.00	115.80
50	0.00	56.50	-10.00	231.37	-10.00	115.80
55	0.00	51.60	-10.00	231.37	-10.00	115.80
60	0.00	46.72	-9.74	232.52	-9.74	116.46
65	0.21	41.81	-8.53	236.55	-8.53	118.40
70	0.45	36.92	-7.18	219.98	-7.18	103.36
75	0.59	32.07	-5.65	217.91	-5.65	100.00
80	0.65	27.29	-3.90	222.87	-3.90	101.57
85	0.58	22.65	-1.87	236.27	-1.87	109.82
90	0.40	18.23	0.48	262.97	0.48	127.39
95	0.35	14.11	3.26	282.86	3.26	137.50
100	0.00	11.01	5.95	313.75	5.95	163.27
105	0.00	9.30	7.78	420.45	7.78	195.87
110	0.00	10.07	6.92	320.60	6.92	166.95
115	0.00	12.88	4.25	302.50	4.25	155.47
120	0.00	16.43	1.61	289.88	1.61	146.37
125	0.21	19.74	-0.38	277.36	-0.38	138.84
130	0.33	23.00	-2.05	256.45	-2.05	125.93
135	0.31	26.23	-3.47	251.45	-3.47	123.97
140	0.34	29.25	-4.65	242.63	-4.65	118.70
145	0.36	32.08	-5.65	235.74	-5.65	114.47
150	0.43	34.61	-6.48	225.30	-6.48	106.97
155	0.38	36.96	-7.19	226.29	-7.19	108.64
160	0.49	38.85	-7.73	214.80	-7.73	100.00
165	0.45	40.48	-8.18	215.71	-8.18	100.89
170	0.42	41.69	-8.50	217.65	-8.50	102.92
175	0.34	42.50	-8.71	223.95	-8.71	108.43
180	0.41	42.67	-8.75	217.35	-8.75	102.94
185	0.36	42.47	-8.70	221.63	-8.70	106.49

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

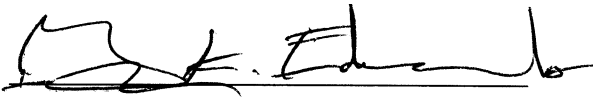
CARTERET, NJ

Licensee Name All Mobile Video, Inc.
Latitude (NAD 83) 40° 34' 51.5" N
Longitude (NAD 83) 74° 12' 58.5" W
Ground Elevation (AMSL) 5.2 m / 17.1 ft
Antenna Centerline (AGL) 2.74 m / 9.0 ft
Antenna Model Comsat RSI 8.1 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 -14.0 (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	0.33	41.78	-8.52	225.43	-8.52	109.44
195	0.28	40.64	-8.22	231.69	-8.22	114.20
200	0.25	39.06	-7.79	236.14	-7.79	117.28
205	0.00	37.29	-7.29	243.64	-7.29	122.61
210	0.00	34.96	-6.59	247.08	-6.59	124.39
215	0.00	32.36	-5.75	251.13	-5.75	126.54
220	0.00	29.51	-4.75	256.05	-4.75	129.12
225	0.00	26.46	-3.57	262.00	-3.57	130.96
230	0.00	23.25	-2.16	269.28	-2.16	134.82
235	0.00	19.90	-0.47	278.32	-0.47	139.79
240	0.00	16.43	1.61	289.88	1.61	146.36
245	0.00	13.01	4.14	301.80	4.14	155.07
250	0.00	10.74	6.23	315.67	6.23	164.32
255	0.00	10.52	6.45	372.44	6.45	179.49
260	0.00	12.47	4.60	304.74	4.60	156.74
265	0.00	15.80	2.03	292.27	2.03	147.76
270	0.00	19.84	-0.44	278.50	-0.44	139.88
275	0.00	24.22	-2.61	266.95	-2.61	133.57
280	0.00	28.80	-4.48	257.36	-4.48	129.80
285	0.00	33.49	-6.12	249.32	-6.12	125.58
290	0.00	38.25	-7.56	242.36	-7.56	121.91
295	0.00	43.05	-8.85	236.47	-8.85	118.67
300	0.00	47.89	-10.00	231.37	-10.00	115.80
305	0.00	52.75	-10.00	231.37	-10.00	115.80
310	0.25	57.61	-10.00	226.61	-10.00	111.99
315	0.27	62.50	-10.00	224.17	-10.00	110.00
320	0.30	67.40	-10.00	221.47	-10.00	107.77
325	0.39	72.31	-10.00	213.79	-10.00	101.31
330	0.41	77.23	-10.00	211.69	-10.00	100.00
335	0.39	82.15	-10.00	213.45	-10.00	101.01
340	0.39	87.08	-10.00	213.80	-10.00	101.31
345	0.34	92.00	-10.00	218.31	-10.00	105.14
350	0.30	96.93	-10.00	221.47	-10.00	107.77
355	0.28	101.85	-10.00	223.74	-10.00	109.65

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: 

Gary K. Edwards
Senior Manager
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: December 16, 2015