

Prepared By

COMSEARCH

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

Prepared For

Lockheed Martin Corporation Carpentersville, New Jersey

Temporary Transmit-Only Earth Station
Operation Dates: 04/04/2014 - 07/10/2014

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 February 12, 2014.

Company

256Q Networks
AWC Networks
Appalachian Broadcasting
Atlantic City Electric Company
Auburn Data Systems, LLC
Bergen, County of
Berks County Department of Emergency Ser
Bucks County Dept. of Emergency Communic
Carbon, County of 911 Center
Chester, County of
China Cat Productions LLC
City of Bethlehem, Pennsylvania
Commonwealth of Pennsylvania
Commonwealth of Pennsylvania-Radio Proj.
Converge Towers LLC
Coralinks
County of Burlington, Public Safety Cntr
County of Camden
County of Hunterdon
County of Salem
County of Warren, NJ
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

Company (Continued)

Electric Railroad, LLC
Exelon Generation Company, L.L.C
FELHC, Inc.
Federal Communications Commission
Fundamental Broadcasting LLC
Gloucester, County of
High Voltage Communications LLC
Jefferson Microwave, LLC
Kreider Networks
Kryptic Technologies
LACKAWANNA, COUNTY OF
LEBANON COUNTY OF
Lancaster County of
Lehigh, County of
Luzerne County Department of Public Sfty
MONMOUTH, COUNTY OF
Mahwah Communications
Mifflin Mobilecom
Monroe County Control Center (PA)
Montgomery County Of
Morris, County of
NBC Telemundo License LLC
National Tower Company
New Cingular Wireless PCS LLC-DE/NH/RI
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 York City Transit Authority
New York, City of
New York, City of
Norfolk Southern Railway
Northumberland, County of
OCEAN, COUNTY OF
Ocean, County of - Div of Wireless Tech.
Orange and Rockland Utilities, Inc.
PEG Bandwidth
PENNSYLVANIA TURNPIKE COMMISSION
PIKE COUNTY COMMISSIONERS
PSEG Services Corporation
Peco Energy Company
Pennsylvania Commonwealth State Police
Pitt Power
Port Authority of New York & New Jersey
Qoncept Holdings LLC
SCHUYLKILL, COUNTY OF
SCRANTON TIMES, LP
SCS Networks
SCTF NET

Company (Continued)

SECOM NET
SOUTHEASTERN PENNSYLVANIA TRANSIT AUTH
STATE OF NEW JERSEY - OFFICE OF PUBLIC
SW Networks
Standard Backhaul Communications LLC
State of Maryland, MIEMSS
State of New York, Div of State Police
TRF SERVICES LLC
Texas Eastern Communications, LLC
Thought Transmissions, LLC
Townsquare Media Monmouth-Ocean License
Transcontinental Gas Pipeline Corp.
Triangle Communications, Inc.
Turtle Networks 6559
Turtle Networks 6562
WAYNE COUNTY PENNSYLVANIA
Weblin Holdings LLC
White Rabbit Networks
Wireless Internetwork LLC
World Class Wireless LLC
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
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Date: 02/23/2014
Job Number: 140212COMSJC02

Administrative Information

Status: TEMPORARY (Operation from 04/04/2014 to 07/10/2014)
Call Sign: TEMP07
Licensee Code: RCASTR
Licensee Name: Lockheed Martin Corporation

Site Information

CARPENTERSVILLE, NEW JERSEY

Venue Name
Latitude (NAD 83): 40° 38' 39.4" N
Longitude (NAD 83): 75° 11' 27.6" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 54.86 m / 180.0 ft

Link Information

Satellite Type: Geostationary
Mode: TO - Transmit-Only
Modulation: Analog and Digital
Satellite Arc: 18° W to 132° West Longitude
Azimuth Range: 112.8° to 246.9°
Corresponding Elevation Angles: 15.9° / 16.2°
Antenna Centerline (AGL): 9.14 m / 30.0 ft

Antenna Information

Transmit

Manufacturer: TIW
Model: 14.2 Meter
Gain / Diameter: 57.5 dBi / 14.2 m
3-dB / 15-dB Beamwidth: 0.20° / 0.50°

Max Available RF Power: (dBW/4 kHz) 4.2
(dBW/MHz) 28.2

Maximum EIRP: (dBW/4 kHz) 61.7
(dBW/MHz) 85.7
(dBW) 85.0

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 / 6535.0

Max Great Circle Coordination Distance: 155.7 km / 96.7 mi
Precipitation Scatter Contour Radius: 284.5 km / 176.8 mi

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Coordination Values

CARPENTERSVILLE, NJ

Licensee Name Lockheed Martin Corporation
Latitude (NAD 83) 40° 38' 39.4" N
Longitude (NAD 83) 75° 11' 27.6" W
Ground Elevation (AMSL) 54.86 m / 180.0 ft
Antenna Centerline (AGL) 9.14 m / 30.0 ft
Antenna Model TIW 14.2 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 4.2 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	3.52	112.22	-10.00	100.00
5	4.01	107.39	-10.00	100.00
10	4.15	102.51	-10.00	100.00
15	2.87	97.58	-10.00	100.00
20	2.87	92.71	-10.00	100.00
25	3.07	87.84	-10.00	100.00
30	3.50	82.95	-10.00	100.00
35	3.79	78.06	-10.00	100.00
40	3.82	73.17	-10.00	100.00
45	3.86	68.30	-10.00	100.00
50	3.66	63.45	-10.00	100.00
55	3.45	58.63	-10.00	100.00
60	3.33	53.82	-10.00	100.00
65	3.16	49.05	-10.00	100.00
70	2.88	44.35	-9.17	100.28
75	3.16	39.57	-7.93	100.00
80	3.14	34.92	-6.58	104.93
85	3.07	30.39	-5.07	111.96
90	3.08	25.98	-3.37	118.42
95	2.95	21.88	-1.50	127.76
100	2.73	18.28	0.45	137.87
105	2.74	15.26	2.41	145.67
110	2.60	13.59	3.67	154.49
115	2.77	13.33	3.88	151.76
120	2.69	15.03	2.57	147.48
125	2.32	18.20	0.50	146.56
130	1.61	22.03	-1.57	155.59
135	2.18	24.78	-2.85	136.03
140	2.74	27.34	-3.92	122.60
145	2.33	30.44	-5.09	125.85
150	2.25	33.04	-5.98	124.11
155	1.92	35.57	-6.78	127.91
160	2.20	37.24	-7.28	120.32
165	2.65	38.35	-7.59	110.46
170	2.47	39.64	-7.95	112.66
175	1.94	40.84	-8.28	122.17
180	1.90	41.11	-8.35	122.72
185	1.86	40.92	-8.30	124.02

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Coordination Values

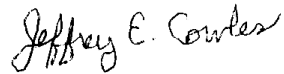
CARPENTERSVILLE, NJ

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Max Available RF Power 4.2 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	1.24	40.83	-8.27	138.18
195	1.32	39.60	-7.94	137.34
200	2.35	37.10	-7.24	117.49
205	1.72	35.75	-6.83	132.49
210	1.78	33.44	-6.11	133.78
215	2.16	30.58	-5.14	128.96
220	3.42	26.81	-3.71	110.92
225	3.60	23.70	-2.37	112.85
230	4.84	19.63	-0.32	102.00
235	4.35	16.73	1.41	115.21
240	4.47	13.59	3.67	122.33
245	3.78	12.55	4.53	134.51
250	2.48	14.05	3.31	155.66
255	2.26	16.06	1.86	153.77
260	2.60	18.78	0.16	139.28
265	3.20	22.14	-1.63	122.75
270	3.30	26.27	-3.48	114.00
275	2.81	30.87	-5.24	116.11
280	2.82	35.40	-6.72	110.48
285	3.08	39.95	-8.04	100.75
290	3.59	44.54	-9.22	100.00
295	4.24	49.19	-10.00	100.00
300	5.02	53.89	-10.00	100.00
305	5.51	58.70	-10.00	100.00
310	5.46	63.59	-10.00	100.00
315	5.56	68.48	-10.00	100.00
320	4.72	73.43	-10.00	100.00
325	3.93	78.36	-10.00	100.00
330	3.38	83.25	-10.00	100.00
335	3.19	88.13	-10.00	100.00
340	3.12	93.00	-10.00	100.00
345	3.01	97.87	-10.00	100.00
350	3.24	102.74	-10.00	100.00
355	3.48	107.62	-10.00	100.00

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
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DATED: February 23, 2014