

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/Receive Earth Station
Operation Dates: 10/26/2010 - 11/26/2010

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 October 21, 2010.

Company

ABC Radio Networks Assets, LLC
ABC, Inc. - WPVI-TV
ACCELACOM-BALTIMORE LLC
ADAMS COUNTY EMERGENCY MANAGEMENT AGENCY
ART Licensing Corp.
AT&T CORP
Airband Communications Inc
American Broadcasting Companies, Inc.
BUSINESS INFORMATION GROUP, INC.
Believe Wireless, LLC
Boeing Company
Borough of Fort Lee, New Jersey
Borough of Sayreville
Business Only Broadband, LLC
CABLEVISION LIGHTPATH
CAMP HILL SCHOOL DISTRICT
CAMPUS TELEVIDEO
CBS Broadcasting Inc
CBS Communications Services
CECIL COUNTY PUBLIC SCHOOLS
COLUMBIA UNIVERSITY IN THE CITY NEW YORK
CRISPUS ATTUCKS ASSOCIATION
Cape May County Municipal Utilities Auth
Cape May County, MIS Department
Capital Area Intermedia Unit
Carlisle Area School District
City of Bethlehem
City of Jersey City
City of Jersey City, Police Department
Clearwire Spectrum Holdings III, LLC

Company (Continued)

Commissioners of Caroline County, MD
Conterra Ultra Broadband, LLC
County of Bergen, Bergen Cnty Police Dep
County of Hunterdon
County of Orange Div of Wireless Tech
Cumberland County, New Jersey
Cumberland Valley School District
DOVER AREA SCHOOL DISTRICT
DREXEL UNIVERSITY
DREXEL UNIVERSITY
Delmarva Power & Light Company
East Pennsboro Area School
Eastern Lancaster County School District
Enoch Pratt Free Library
Entergy Nuclear Indian Point 2, LLC
FIRST BOSTON CORPORATION
FORDHAM UNIVERSITY
Federal Communications Commission
Federal Home Loan Bank of New York
FiberTower Network Services Corp.
Franklin County Dept. of Emergency Servi
Freehold Township Police Department
Greenwich, Town of
HALIFAX AREA SCHOOL DISTRICT
HISPANIC INFORMATION AND TELECOMM NETWRK
Hopewell Radiology Group
Hotwire Communications
IDT Corporation - IDT Spectrum
J & R ELECTRONIC INC
LANCASTER GENERAL HOSPITAL
LAWRENCE SCHOOL DISTRICT
Last Mile Inc.
MARYLAND, STATE OF - MDOT - MTA
METRO NETWORKS COMMUNICATIONS INC
MINEOLA UNION FREE SCHOOL DISTRICT
MONTGOMERY, McCracken, Walker & Rhoads
MPX INC
MTA - Long Island Railroad
Microwave Satellite Technologies, Inc.
Millennium Shore License Holdco, LLC
Monmouth County, NJ
NBC TELEMUNDO LICENSE CO.
NBC Telemundo License Co.
NEW JERSEY PUBLIC BROADCASTING AUTHORITY
NEW YORK CITY HOUSING AUTHORITY
NEW YORK CITY DEPT OF INFO TECH & TELECO
NEW YORK CITY POLICE DEPARTMENT
NEW YORK UNIVERSITY
NEXTEL COMM. OF THE MID-ATLANTIC
NEXTEL OF NEW YORK, INC

Company (Continued)

NW TECHNOLOGIES, LLC
NYU MEDICAL CENTER
Nassau County Government
Nassau County Police Department
Netrepid, Inc.
New Cingular Wireless PCS, LLC - PA
New Jersey Telcomm
New York Health and Hospitals Corp/North
New York Methodist Hospital
New York Power Authority
New York Presbyterian Hospital
New York SMSA Limited Partnership
New York State Police
Northern York County School District
OCEAN, COUNTY OF
Open Range Communications
PENNSYLVANIA MICROWAVE NETWORK INC.
PENNSYLVANIA TURNPIKE COMMISSION
PPL Telecom, LLC.
Philadelphia, City of
Plymouth Township Police Department
Port Authority of New York & New Jersey
Pottsville Area School District
RCN Telecom Services, LLC
READING HOSPITAL & MEDICAL CENTER
Red Rose Transit Authority
Rutgers, The State University of N.J.
SECOM NET
SHIPPENSBURG AREA SCHOOL DISTRICT
SONSHINE FAMILY TELEVISION CORPORATION
SOUTHEASTERN PENNSYLVANIA TRANSIT AUTH
SPEAR LEEDS AND KELLOGG INC
ST. LUKE'S HOSPITAL
SUSQUEHANNA TOWNSHIP SCHOOL DISTRICT
Sachem Central School District
Sesame Workshop
Sprint Spectrum LP DBA Sprint PCS
St. Joseph Medical Center
St. Lukes Cornwall Hospital
Steelton-Highspire School District
T-Mobile License LLC
T-Mobile License LLC
TELEMARK NETWORKS, INC
THE BROOKLYN HOSPITAL CENTER
THOMAS OLSZEWSKI, INC
TRIBUNE TELEVISION COMPANY
Telecom Transport Management, Inc
The Goldman Sachs Group, Inc.
Time Inc.
Towerstream Corp
Trans Video Communications, Inc

Company (Continued)

ULTRAVISION INC
University of Medicine & Dentistry of NJ
Verizon New Jersey, Inc.
WESTCHESTER, COUNTY OF
WINEMILLER COMMUNICATIONS, INC.
WLIG TV INC
WYCKOFF HEIGHTS MEDICAL CENTER
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
(703)726-5500 <http://www.comsearch.com>

Date: 10/21/2010
Job Number: 101021COMSJC01

Administrative Information

Status TEMPORARY (Operation from 10/26/2010 to 11/26/2010)
Call Sign TEMP11
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 63.9 dBi / 14.2 m
3-dB / 15-dB Beamwidth 0.10° / 0.20°

Max Available RF Power (dBW/4 kHz) 31.1
(dBW/MHz) 31.1

Maximum EIRP (dBW/4 kHz) 95.0
(dBW/MHz) 95.0

Interference Objectives: Long Term -151.0 dBW/4 kHz 20%
Short Term -128.0 dBW/4 kHz 0.0025%

Frequency Information**Transmit 18.0 GHz**

Emission / Frequency Range (MHz) 1K03F3D / 17306.4
4K10G2D / 17306.4

Max Great Circle Coordination Distance 250.3 km / 155.5 mi
Precipitation Scatter Contour Radius 513.6 km / 319.1 mi

COMSEARCH

Earth Station Data Sheet

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

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 Meters
Antenna Mode Transmit 18.0 GHz
Interference Objectives: Long Term -151.0 dBW/4 kHz 20%
Short Term -128.0 dBW/4 kHz 0.0025%
Max Available RF Power 31.1 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	3.54	112.22	-10.00	153.79
5	3.44	107.35	-10.00	155.60
10	4.05	102.50	-10.00	144.56
15	4.33	97.62	-10.00	140.64
20	3.97	92.72	-10.00	145.81
25	3.25	87.83	-10.00	159.79
30	3.56	82.95	-10.00	153.27
35	3.60	78.07	-10.00	152.69
40	3.62	73.19	-10.00	152.13
45	3.66	68.31	-10.00	151.48
50	3.42	63.48	-10.00	155.99
55	3.51	58.62	-10.00	154.24
60	3.29	53.83	-10.00	159.06
65	3.08	49.07	-10.00	163.28
70	3.20	44.28	-9.15	164.63
75	3.00	39.61	-7.95	174.18
80	2.76	35.05	-6.62	185.30
85	2.54	30.60	-5.14	196.53
90	2.27	26.37	-3.53	210.24
95	2.23	22.30	-1.71	220.40
100	2.55	18.41	0.38	224.49
105	2.55	15.42	2.29	234.37
110	2.11	14.08	3.29	250.31
115	2.43	13.66	3.61	244.78
120	2.11	15.55	2.21	243.91
125	2.45	18.11	0.55	227.81
130	2.22	21.59	-1.36	222.57
135	2.16	24.80	-2.86	216.09
140	2.65	27.42	-3.95	200.09
145	2.25	30.50	-5.11	202.78
150	2.21	33.07	-5.99	199.43
155	1.91	35.58	-6.78	202.61
160	2.13	37.30	-7.29	195.00
165	2.60	38.39	-7.61	183.82
170	2.41	39.69	-7.97	186.18
175	1.90	40.87	-8.29	195.77
180	1.90	41.11	-8.35	195.49
185	1.85	40.92	-8.30	196.96

COMSEARCH

Earth Station Data Sheet

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

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 18.0 GHz
Interference Objectives: Long Term	-151.0 dBW/4 kHz 20%
Short Term	-128.0 dBW/4 kHz 0.0025%
Max Available RF Power	31.1 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	1.24	40.83	-8.27	213.92
195	1.36	39.56	-7.93	212.06
200	2.31	37.14	-7.25	191.73
205	1.76	35.72	-6.82	206.50
210	1.78	33.43	-6.10	209.28
215	2.34	30.43	-5.08	200.98
220	2.98	27.15	-3.85	193.73
225	4.04	23.36	-2.21	181.19
230	4.93	19.56	-0.29	177.70
235	4.30	16.77	1.39	195.81
240	4.35	13.69	3.59	207.16
245	3.60	12.73	4.38	225.03
250	2.38	14.15	3.23	243.80
255	2.22	16.10	1.83	239.15
260	2.59	18.79	0.15	222.56
265	3.08	22.21	-1.66	202.62
270	2.75	26.53	-3.59	199.79
275	2.58	30.96	-5.27	195.17
280	2.85	35.38	-6.72	182.86
285	3.20	39.91	-8.03	169.70
290	3.81	44.49	-9.21	152.14
295	4.44	49.15	-10.00	139.19
300	5.32	53.85	-10.00	129.00
305	5.47	58.70	-10.00	128.48
310	5.49	63.59	-10.00	128.29
315	5.43	68.49	-10.00	128.83
320	4.59	73.44	-10.00	137.16
325	3.78	78.36	-10.00	149.16
330	3.36	83.25	-10.00	157.29
335	3.12	88.13	-10.00	162.42
340	2.98	93.00	-10.00	165.37
345	3.16	97.87	-10.00	161.68
350	3.35	102.75	-10.00	157.39
355	3.44	107.62	-10.00	155.65

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 21, 2010