

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for

**Ascent Media Network Services, Inc.
Stamford, Connecticut**

Satellite Earth Station

Prepared By:
COMSEARCH
19700 JANELIA FARM BOULEVARD
ASHBURN, VIRGINIA 20147
JULY 28, 2005

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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

None

No 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.

Expedited coordination data for this earth station was e-mailed and/or faxed to the below listed carriers with a letter dated July 14, 2005.

Company

American Cellular Corporation
Ascent Media Network Services, Inc.
Atlantic City Electric Company
CONNECTICUT STATE POLICE DEPARTMENT
CONSOLIDATED EDISON COMPANY OF NEW YORK
Cellco Partnership - (W-NY)
Cellco Partnership - CT, W-MA
Cellco Partnership - Newark-Dallas-Route
Cellco Partnership- PA Region
Cellco Prtnrshp - Phil. Tri-State Rgn
Cingular Pennsylvania, LLC
Corban Networks, Inc.
Direct Broadcast Services, Inc.
FELHC, Inc.
Global Crossing North America, Inc.
Intermedia Services, LLC.
LB Tower Company LLC
Lenfest MNC, Inc.
MCI Worldcom Network Services, Inc.
Massachusetts, Commonwealth Public Works
NBC Telemundo License Co.
NEW JERSEY STATE POLICE
New Cingular Wireless PCS LLC -NJ
New Cingular Wireless PCS LLC -NE Reg
New York SMSA Limited Partnership
OCEAN, COUNTY OF
Ocean County Division of Wireless Tech
Orange Poughkeepsie SMSA LTD Partnership
PENNSYLVANIA TURNPIKE COMMISSION
PSEG Services Corporation
SBA BROADBAND SERVICES, INC.
SUFFOLK, COUNTY OF
Stevens Institute of Technology Trustees
Trinity Broadcasting Network Inc
Vanguard Cellular Pennsylvania, 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: 07/27/2005
Job Number: 050714COMSJC05

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign: E940244
Licensee Code: GWNSAC
Licensee Name: Ascent Media Network Services, Inc.

Site Information

STAMFORD, CONNECTICUT

Venue Name
Latitude (NAD 83): 41° 4' 34.3" N
Longitude (NAD 83): 73° 31' 12.4" W
Climate Zone: B
Rain Zone: 2
Ground Elevation (AMSL): 16.76 m / 55.0 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Analog and Digital
Satellite Arc: 62° W to 143° West Longitude
Azimuth Range: 162.8° to 256.2°
Corresponding Elevation Angles: 41.1° / 6.7°
Antenna Centerline (AGL): 6.4 m / 21.0 ft

Antenna Information

Receive - S41101

Transmit - S61101

Manufacturer	SCIENTIFIC-ATLANTA, INC	SCIENTIFIC-ATLANTA, INC
Model	8007	8007
Gain / Diameter	52.0 dBi / 11.0 m	54.4 dBi / 11.0 m
3-dB / 15-dB Beamwidth	0.40° / 0.78°	0.26° / 0.54°

36M0F8W

24M0G7W

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

3.0	-7.8
27.0	16.2

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

57.4	46.6
81.4	70.6
84.4	84.4

Interference Objectives: Long Term -156.0 dBW/MHz 20%
Short Term -146.0 dBW/MHz 0.01%

-154.0 dBW/4 kHz	20%
-131.0 dBW/4 kHz	0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz)	24M0G7W / 3700.0 - 4200.0	24M0G7W / 5925.0 - 6425.0
	36M0F8W / 3700.0 - 4200.0	36M0F8W / 5925.0 - 6425.0

Max Great Circle Coordination Distance: 538.1 km / 334.3 mi
Precipitation Scatter Contour Radius: 586.3 km / 364.3 mi

325.5 km / 202.2 mi
262.7 km / 163.2 mi

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Coordination Values

STAMFORD, CT

Licensee Name	Ascent Media Network Services, Inc.			
Latitude (NAD 83)	41° 4' 34.3" N			
Longitude (NAD 83)	73° 31' 12.4" W			
Ground Elevation (AMSL)	16.76 m / 55.0 ft			
Antenna Centerline (AGL)	6.4 m / 21.0 ft			
Antenna Model	SCIENTIFIC-ATLANTA, INC 8007			
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power			3.0 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.78	103.74	-10.00	280.37	-14.60	137.98
5	0.91	108.72	-10.00	263.61	-14.60	129.80
10	0.70	113.68	-12.21	272.59	-18.28	129.77
15	0.52	118.64	-15.91	268.09	-19.60	137.12
20	0.60	123.60	-19.16	235.90	-19.60	131.73
25	0.76	124.38	-19.63	214.92	-19.60	122.35
30	0.80	121.20	-17.72	223.17	-19.60	120.37
35	1.17	118.02	-15.42	207.53	-19.60	108.50
40	1.36	114.61	-12.76	214.25	-19.21	104.90
45	1.59	111.08	-10.65	216.10	-15.68	108.91
50	1.69	107.41	-10.00	215.23	-14.60	109.52
55	1.57	103.62	-10.00	221.62	-14.60	112.34
60	1.48	99.81	-10.00	226.30	-14.60	114.36
65	1.43	95.98	-10.00	228.94	-14.60	115.49
70	1.30	92.13	-10.00	236.54	-14.60	116.80
75	1.26	88.29	-10.00	238.83	-14.60	117.77
80	1.05	84.47	-10.00	250.62	-14.60	122.99
85	0.94	80.68	-10.00	261.50	-14.60	128.07
90	0.84	76.93	-10.00	272.10	-14.60	133.92
95	0.67	73.26	-10.00	296.34	-14.60	145.93
100	0.66	69.61	-10.00	297.83	-14.60	146.68
105	0.50	66.10	-10.00	320.91	-14.60	158.32
110	0.00	62.86	-10.00	412.20	-14.60	207.12
115	0.00	59.55	-10.00	412.20	-14.60	207.12
120	0.00	56.40	-10.00	412.20	-14.60	207.12
125	0.33	53.21	-10.00	370.32	-14.60	185.01
130	0.00	50.66	-10.00	412.20	-14.60	207.12
135	0.00	48.16	-10.00	412.20	-14.60	207.12
140	0.00	45.96	-10.00	412.20	-14.60	207.12
145	0.00	44.12	-10.00	412.20	-14.60	207.12
150	0.00	42.67	-9.14	423.05	-14.60	207.12
155	0.00	41.67	-8.34	433.38	-14.60	207.12
160	0.00	41.15	-7.92	438.89	-14.60	207.12
165	0.23	40.89	-7.71	430.34	-14.60	201.69
170	0.36	41.24	-7.99	382.44	-14.60	179.63
175	0.00	42.28	-8.83	427.04	-14.60	207.12
180	0.00	42.53	-9.02	424.51	-14.60	207.12

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Antenna Centerline (AGL): 6.4 m / 21.0 ft
Antenna Model: SCIENTIFIC-ATLANTA, INC 8007
Antenna Mode: Receive 4.0 GHz
Interference Objectives: Long Term: -156.0 dBW/MHz 20% Transmit 6.1 GHz: -154.0 dBW/4 kHz 20%
Short Term: -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%
Max Available RF Power: 3.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
185	0.00	42.28	-8.83	427.04	-14.60	207.12
190	0.00	41.56	-8.25	434.52	-14.60	207.12
195	0.00	40.39	-7.31	447.03	-14.60	207.12
200	0.00	38.79	-6.52	457.82	-13.63	212.83
205	0.00	36.83	-5.73	468.16	-12.06	222.38
210	0.00	34.53	-4.81	481.31	-10.23	233.93
215	0.00	31.96	-3.78	496.51	-8.17	247.41
220	0.33	28.89	-2.78	460.70	-5.71	238.49
225	0.60	25.68	-2.14	385.78	-3.14	211.17
230	0.76	22.39	-0.96	370.05	-2.60	198.23
235	0.96	18.94	0.43	349.21	-2.17	180.69
240	1.22	15.34	1.86	340.79	-0.74	175.06
245	1.40	11.69	5.31	360.08	1.71	180.04
250	1.58	8.00	9.00	386.28	6.40	199.28
255	1.78	5.04	13.92	538.11	11.32	325.52
260	1.82	6.18	11.82	396.89	9.22	204.68
265	2.00	9.97	6.05	320.49	3.45	163.66
270	2.10	14.54	2.46	282.45	-0.14	144.33
275	1.88	19.40	0.24	277.06	-2.36	141.75
280	1.67	24.31	-1.72	274.76	-2.60	148.07
285	1.36	29.27	-2.85	286.20	-6.01	144.62
290	0.99	34.24	-4.70	296.34	-9.99	141.38
295	0.90	39.18	-6.67	292.04	-13.94	132.62
300	1.01	44.11	-10.00	253.35	-14.60	124.24
305	1.16	49.05	-10.00	244.43	-14.60	120.21
310	1.18	54.01	-10.00	243.41	-14.60	119.76
315	1.15	58.98	-10.00	244.71	-14.60	120.33
320	1.10	63.95	-10.00	248.15	-14.60	121.87
325	1.19	68.92	-10.00	242.73	-14.60	119.46
330	1.28	73.89	-10.00	237.22	-14.60	117.08
335	1.20	78.87	-10.00	241.82	-14.60	119.06
340	1.75	83.84	-10.00	211.87	-14.60	108.00
345	1.85	88.82	-10.00	207.08	-14.60	105.80
350	1.71	93.80	-10.00	213.90	-14.60	108.92
355	1.27	98.78	-10.00	238.25	-14.60	117.52

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.



Jeffrey E. Cowles
Frequency Planner
COMSEARCH
19700 Janelia Farm Boulevard
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DATED: July 28, 2005