

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
300 New LLC
HAUPPAUGE (1), NY
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
October 29, 2020

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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

Capital Communications of America

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 10/05/2020.

Company

AT&T Corp.
Algonquin Gas Transmission, LLC
Auburn Data Systems, LLC
Berks County Department of Emergency Ser
Blueline Communications
Bucks County Dept. of Emergency Comm
Capital Communications of America
Central Hudson Gas & Electric Corp.
City of New York
Commonwealth of Pennsylvania-Radio Proj.
Connecticut, State of
Consolidated Edison Company of New York
County of Warren, NJ
Direct Broadcast Services, Inc.
Dutchess County Emergency Response
East Hampton Town Police Department
Eastern MLG LLC
Electric Railroad, LLC
Essex County Sheriff's Office (NJ)
Eversource Energy Service Company
FELHC, Inc.
Fascogna, Carl
Garden State Transmissions
Goosetown Network Services, LLC
Hammarlund Research LLC
Higher Ground LLC
Jefferson Microwave, LLC
Kryptick Technologies
Marcus Communications
Marcus Spectrum Holdings, LLC
Middlesex, County of
Monmouth, County of
Monroe County Control Center (PA)
Montgomery County Of
Morris, County of
Nassau County Police Department
New Cingular Wireless PCS LLC - CT
New Cingular Wireless PCS, LLC (NY)
New Jersey State Police
New Jersey Transit Rail Operations, Inc.

New Jersey, State of -NJ Transit
New Line Networks, LLC
New York City Police Department
New York Communications Co., Inc
Office of Emergency Telecom Services, NJ
Orange County Dept of Emergency Services
Orange Poughkeepsie SMSA LTD Partnership
Orange and Rockland Utilities, Inc.
PSEG Services Corporation
Peco Energy Company
Putnam County Bureau of Emerg. Services
Qoncept Holdings LLC
SW Networks
Southampton, Town Of, Police Dept.
Spectrum Holding Company LLC
Suffolk County Police Department
Texas Eastern Communications, LLC
Transcontinental Gas Pipe Line Co., LLC
Transwave Communication Systems, Inc.
Ulster County of
Uniti Fiber LLC
Webline Holdings LLC
Westchester, County of
Wireless Internetwork LLC
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: 10/29/2020
Job Number: 201005COMSGE04

Administrative Information

Status ENGINEER PROPOSAL
Call Sign
Licensee Code 300NEW
Licensee Name 300 New LLC

Site Information HAUPPAUGE, NY

Venue Name
Latitude (NAD 83) 40° 49' 14.3" N
Longitude (NAD 83) 73° 15' 31.0" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 46.0 m / 150.9 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Digital
Satellite Arc 41° W to 143° West Longitude
Azimuth Range 136.0° to 256.4°
Corresponding Elevation Angles 32.5° / 6.5°
Antenna Centerline (AGL) 5.49 m / 18.0 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°	
Max Available RF Power (dBW/4 kHz)		-11.8	
(dBW/MHz)		12.2	
Maximum EIRP (dBW/4 kHz)		42.6	
(dBW/MHz)		66.6	
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%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz)	36M0G7W / 3700.0 - 4200.0	36M0G7W / 5925.0 - 6425.0
Max Great Circle Coordination Distance	524.5 km / 325.9 mi	220.6 km / 137.1 mi
Precipitation Scatter Contour Radius	588.7 km / 365.8 mi	100.0 km / 62.1 mi

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Coordination Values

HAUPPAUGE, NY

Licensee Name 300 New LLC
Latitude (NAD 83) 40° 49' 14.3" N
Longitude (NAD 83) 73° 15' 31.0" W
Ground Elevation (AMSL) 46.0 m / 150.9 ft
Antenna Centerline (AGL) 5.49 m / 18.0 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 -11.8 (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	0.00	103.48	-10.00	285.28	-14.60	126.45
5	0.00	108.44	-10.00	285.28	-14.60	126.45
10	0.00	113.40	-12.04	272.62	-18.00	117.57
15	0.00	115.76	-13.61	263.35	-19.60	113.49
20	0.00	111.71	-11.03	278.82	-16.31	121.95
25	0.00	107.61	-10.00	285.28	-14.60	126.45
30	0.00	103.45	-10.00	285.28	-14.60	126.45
35	0.00	99.27	-10.00	285.28	-14.60	126.45
40	0.00	95.07	-10.00	285.28	-14.60	126.45
45	0.00	90.85	-10.00	285.28	-14.60	126.45
50	0.00	86.63	-10.00	285.28	-14.60	126.45
55	0.00	82.42	-10.00	285.28	-14.60	126.45
60	0.00	78.23	-10.00	285.28	-14.60	126.45
65	0.00	74.06	-10.00	285.28	-14.60	126.45
70	0.00	69.93	-10.00	285.28	-14.60	126.45
75	0.00	65.86	-10.00	285.28	-14.60	126.45
80	0.00	61.85	-10.00	285.28	-14.60	126.45
85	0.00	57.93	-10.00	285.28	-14.60	126.45
90	0.00	54.12	-10.00	285.28	-14.60	126.45
95	0.00	50.45	-10.00	285.28	-14.60	126.45
100	0.00	46.95	-10.00	285.28	-14.60	126.45
105	0.00	43.68	-9.94	285.64	-14.60	126.45
110	0.00	40.68	-7.54	301.38	-14.60	126.45
115	0.00	38.03	-6.21	310.53	-13.02	130.64
120	0.00	35.80	-5.32	317.41	-11.24	134.20
125	0.00	34.08	-4.63	322.31	-9.86	138.10
130	0.00	32.95	-4.18	325.55	-8.96	140.79
135	0.00	32.47	-3.99	326.93	-8.58	141.95
140	0.00	32.68	-4.07	326.34	-8.74	141.45
145	0.00	33.55	-4.42	323.83	-9.44	139.35
150	0.00	35.04	-5.02	319.57	-10.63	135.89
155	0.00	37.06	-5.83	313.85	-12.25	132.70
160	0.00	39.05	-6.62	307.70	-13.84	128.46
165	0.37	40.31	-7.25	282.00	-14.60	112.76
170	0.61	41.25	-8.00	254.67	-14.60	100.00
175	1.09	41.49	-8.19	226.92	-14.60	100.00
180	1.29	41.52	-8.21	220.22	-14.60	100.00
185	1.65	40.93	-7.74	211.91	-14.60	100.00

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Coordination Values

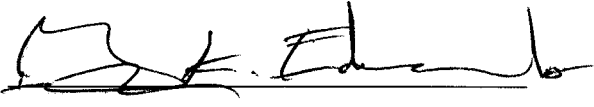
HAUPPAUGE, NY

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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 -11.8 (dBW/4 kHz)

Azimuth (°)	Horizon		Receive 4.0 GHz		Transmit 6.1 GHz	
	Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	1.96	39.93	-6.97	207.13	-14.55	100.00
195	2.13	38.66	-6.46	205.74	-13.52	100.00
200	2.39	36.89	-5.76	205.80	-12.11	100.00
205	2.68	34.74	-4.90	203.90	-10.39	100.00
210	2.79	32.43	-3.97	205.99	-8.54	100.00
215	2.96	29.78	-2.96	204.96	-6.42	100.00
220	2.72	27.21	-2.44	212.67	-4.37	100.00
225	2.56	24.38	-1.75	220.28	-2.60	100.00
230	2.51	21.26	-0.50	228.65	-2.60	100.00
235	2.14	18.23	0.71	246.05	-1.89	100.00
240	1.80	15.05	1.98	265.96	-0.62	100.00
245	1.64	11.65	5.35	298.10	1.75	109.28
250	1.43	8.20	8.80	336.63	6.20	129.33
255	1.09	5.65	12.71	524.52	10.11	220.65
260	1.10	6.51	11.49	373.46	8.89	146.72
265	0.89	10.26	6.00	337.52	3.14	133.50
270	0.67	14.76	2.24	322.78	-0.36	134.16
275	0.36	19.54	0.18	337.30	-2.42	147.11
280	0.23	24.35	-1.74	338.78	-2.60	158.71
285	0.50	29.15	-2.83	295.92	-5.92	125.58
290	0.36	34.07	-4.63	301.40	-9.85	126.44
295	0.00	39.03	-6.61	307.74	-13.83	128.49
300	0.00	43.96	-10.00	285.28	-14.60	126.45
305	0.00	48.90	-10.00	285.28	-14.60	126.45
310	0.00	53.84	-10.00	285.28	-14.60	126.45
315	0.00	58.80	-10.00	285.28	-14.60	126.45
320	0.00	63.75	-10.00	285.28	-14.60	126.45
325	0.00	68.71	-10.00	285.28	-14.60	126.45
330	0.00	73.68	-10.00	285.28	-14.60	126.45
335	0.00	78.64	-10.00	285.28	-14.60	126.45
340	0.00	83.61	-10.00	285.28	-14.60	126.45
345	0.00	88.58	-10.00	285.28	-14.60	126.45
350	0.00	93.54	-10.00	285.28	-14.60	126.45
355	0.00	98.51	-10.00	285.28	-14.60	126.45

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: October 29, 2020