FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for 300 New LLC HAUPPAUGE (4), 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.

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

10Band LLC

AMFM Radio Licenses, LLC

AQ2AT LLC

AT&T Corp.

Adams County Department of Emergency Svc

Albany, County of

Algonquin Gas Transmission, LLC

Altice USA, Inc

Archdiocese of New York Dept of Educatio

Atlantic Telecommunications

Avon Police Department

BJ'S Wholesale Club, Inc

Bayberry Administrative Services, LLC

Beasley Media Group, LLC

Bergen County Police Department

Bergen, County of

Berks County Department of Emergency Ser

Berkshire County Sheriff's Office

Bethel CT Police Department

Binghamton MSA Limited Partnership(PA)

Bloomfield Center Fire District

Blueline Communications

Buckeye Partners

Bucks County Dept. of Emergency Comm

Business Only Broadband, LLC

CBS Communications Services Inc

CMEEC

Capital Communications of America

Capital District Trans. Authority

Carbon, County of 911 Center

Cellco Partnership - (W-NY)

Cellco Partnership-Northern New Jersey

Central Hudson Gas & Electric Corp.

Central Massachusetts Emergency Medical

Cherry Hill, Township Of

Chester, County of

Chevra Hatzalah Inc.

City of Albany

City of Bethlehem

City of Bristol

City of Jersey City

City of New York

City of Providence RI Public Safety Comm

City of Springfield Police Department

City of Westfield

City of Worcester Emergency Comm Dept

Citywisper LLC

Clair Global

Clarity Connect, Inc.

Clearwire Spectrum Holdings III, LLC

Cobham Advanced Electronic Solutions Inc

Columbia, County

Columbia, County of

Comcast of Southeast Pennsylvania, Inc.

Commonwealth of Pennsylvania-Radio Proj.

Community Products, LLC

Comprehensive Wireless LLC

Connecticut, State of

Connoisseur Media Licenses, LLC

Conterra Ultra Broadband, LLC

Conxx, Inc.

County of Burlington

County of Burlington, Public Safety Cntr

County of Camden

County of Hunterdon

County of Mercer

County of Pike

County of Warren, NJ

County of York

Cuttyhunk Wi-Fi Group

D&E Communications, Inc.

DELAWARE RIVER PORT AUTHORITY

Delaware County (PA) Emergency Services

Direct Broadcast Services, Inc.

Dover. Township of

Dukes County Sheriff's Office

Dutchess County Emergency Response

ECW Wireless, LLC

East Brunswick, Township of, NJ

East Hampton Town Police Department

Eastern MLG LLC

Educational Media Foundation

Electric Railroad, LLC

Entercom License, LLC

Essex County Sheriff's Office (NJ)

Eversource Energy Service Company

Exelon Generation Company, LLC

FELHC, Inc.

Fairhaven Police

Fiberless Networks Corporation

Fishers Island Telephone

Fordham University(WFUV)

Franklin County Dept. of Emergency Servi

Franklin Regional Council of Governments

Frascogna, Carl

Fundamental Broadcasting LLC

GAW High-Speed Internet

GTT Americas LLC

Garden State Transmissions

Geodesic Networks LLC

Glastonbury Police Department

Global Crossing Telecommunications, Inc.

Gloucester Township

Gloucester, County of

Goosetown Network Services, LLC

Greater Boston Police Council

Greater Boston Radio Inc.

Greenwich, Town of (CT)

Guard Insurance Group

HUDSON VALLEY WIRELESS

Hamilton, Township of

Hardy Cellular Telephone Company

Hearst Properties Inc

High Voltage Communications LLC (CFN)

Highway Networks, LLC

Hudson County Prosecutors Office

ICON Technologies Inc.

Industrial Tower and Wireless, LLC

Jackson Twp. Police Department

Jefferson Microwave, LLC

Kryptick Technologies

L3Harris Technologies, Inc

LANline Communications, Inc.

Lackawanna County Dept. of Emergency Ser

Lackawanna, County of

Lake Mohegan Fire District

Lakewood Municipal Utilities Authority

Lancaster County-Wide Communications

Lehigh, County of

Luzerne County of PA

MPS Communications

Manchester. Township of

Marcus Communications

Maryland Public Broadcasting Commission

Massachusetts Commonwealth of

Massachusetts Water Resources Authority

Massachusetts, Commonwealth of

Mid-Hudson Cablevision

Mid-Hudson Data Corp

Middlesex, County of

Middletown, City of

Monmouth, County of

Monroe County Control Center (PA)

Montgomery County Of

Morris, County of

NBC Telemundo License LLC

NEPA Fiber LLC

NW Technologies, LLC

NY Dept of Health and Mental Hygiene

NYC DOT Staten Island Ferry

Nassau County Police Department

National Grid USA Service Comp (NIMO)

National Grid USA Service Company, Inc

Netrepid, Inc.

New Britain, City of

New Cingular Wireless PCS LLC - NJ

New Cingular Wireless PCS - Maryland

New Cingular Wireless PCS LLC - CT

New Cingular Wireless PCS LLC - DC

New Cingular Wireless PCS LLC - MA

New Cingular Wireless PCS LLC-DE/NH/RI

New Cingular Wireless PCS, LLC (NY)

New Cingular Wireless PCS, LLC - PA

New Haven, City of

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

New York City Police TARU

New York City Transit Authority

New York Communications Co., Inc.

New York Presbyterian Hospital

New York Public Radio

New York SMSA LP (Northern NJ)

New York SMSA Limited Partnership

New York State Electric & Gas Corp

Newark Police Department

Newark, City of

Norcom Communications Corp.

Norfolk County Fire Dispatch

Norton, Douglas R

Nstar Electric Company

Ocean County of - Div of Wireless Tech.

Ocean, County of

Office of Emergency Telecom Services, NJ

OpenCape Corporation

Orange County Dept of Emergency Services

Orange and Rockland Utilities, Inc.

Orangetown, Town of

PSEG Services Corporation

Parsippany Troy Hills Township

Peco Energy Company

Pennsylvania Turnpike Commission

PhillieCo, L.P.

Pierce Broadband, LLC

Pines Pantry, Inc.

Piscataway, Township Of

Plymouth County Sheriff Dept.

Pocono Mountain School District

Putnam County Bureau of Emerg. Services

Radio License Holding CBC, LLC

Red Rose Transit Authority

Rensselaer County

Rhode Island Public Radio

Ridgefield Police Department

Rockland, County of

SW Networks

Sanofi Pasteur

Saratoga County Office of Emergency Svcs

Schenectady County Unified Communication

Schuylkill, County of

Secom Net

Setauket Fire District

Shenandoah Personal Communications, LLC

SkyPacket Networks Inc.

Somerset County (M.I.S.)

Southampton, Town Of, Police Dept.

Southeastern Massachusetts Regional 911

Southeastern Pennsylvania Transit Auth

Southington Town of CT

Spectrum Holding Company LLC

Spot On Networks

Sprint Spectrum L.P.

Sprintcom, Inc

St Lukes Hospital - Monroe Campus

Stamford, City of

Standard Backhaul Communications LLC

Startouch, Inc.

State of New Jersey

State of New Jersey

State of New Jersey Infomation Technolog

State of New York, Div of State Police

State of Rhode Island, EMA

Suffolk County Police Department

Suffolk, County of

Sullivan County DPW

Susquehanna County

Sussex County Sheriffs Office

T-Mobile License LLC

TTWN Networks, LLC

Technology Analysis Corporation

Telecom Transport Management, Inc.

Telegia Communications Inc.

Toms River, Township of

Towerstream Corp.

Town of Colonie Police Department

Town of East Hampton

Town of Holden

Town of Lakeville

Town of Narragansett, Rhode Island

Town of North Haven

Town of Scituate Fire Department

Town of Smithtown Dept of Public Safety

Town of West Hartford

Town of Wethersfield

Township of Lakewood

Township of Middletown

Township of Old Bridge

Townsquare Media Monmouth-Ocean License

Townsquare Media Oneonta License, LLC

Transcontinental Gas Pipe Line Co., LLC

Transwave Communication Systems, Inc.

Triangle Communications, Inc.

USCOC of Cumberland, Inc.

Ulster County of

Union County New Jersey

Uniti Fiber LLC

Upward Broadband

VTel Wireless, Inc.

Verizon New England Inc.

Verizon New Jersey, Inc.

Verizon Wireless (VAW) LLC (NY)

Verizon Wireless (VAW) LLC - Northern NJ

Verizon Wireless (VAW) LLC-Pennsylvania

Vermont Transco, LLC

WHYY, Inc.

Walpole, Town of

Wayne County - DHS-EM

Wayne, County of

Wayne, Township of

Webline Holdings LLC

West Springfield, Town of Fire Dept

Westchester, County of

Whitman, Town of

Widmo Holdings LLC

Windsor Town Connecticut

Wireless Internetwork LLC

Woodbrigde PD

Wrentham, Town of

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: 201005COMSGE05

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' 15.0" N Longitude (NAD 83) 73° 15' 31.7" 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 60° W to 143° West Longitude

Azimuth Range 160.2° to 256.4° Corresponding Elevation Angles 40.9° / 6.5° Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information Receive - FCC32 Transmit - FCC32

Manufacturer VERTEX COMMUNICATIONS VERTEX COMMUNICATIONS

Model 9 KPK 9 KPK

Gain / Diameter 59.2 dBi / 9.0 m 60.4 dBi / 9.0 m 3-dB / 15-dB Beamwidth 0.20° / 0.38° 0.16° / 0.32°

Max Available RF Power (dBW/4 kHz) -14.0

(dBW/MHz) 10.0

Maximum EIRP (dBW/4 kHz) 46.4

(dBW/MHz) 70.4

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) 36M0G7W / 10950.0 - 11200.0 36M0G7W / 14000.0 - 14500.0 36M0G7W / 11450.0 - 12200.0

Max Great Circle Coordination Distance 467.6 km / 290.5 mi 201.5 km / 125.2 mi

Precipitation Scatter Contour Radius 578.1 km / 359.2 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 HAUPPAUGE, NY

Licensee Name 300 New LLC
Latitude (NAD 83) 40° 49' 15.0" N
Longitude (NAD 83) 73° 15' 31.7" W
Ground Elevation (AMSL) 46.0 m / 150.9 ft
Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Model VERTEX COMMUNICATIONS 9 KPK

Antenna Mode Receive 11.0 GHz Transmit 14.0 GHz
Interference Objectives: Long Term -156.0 dBW/MHz 20% -151.0 dBW/4 kHz

Max Available RF Power -14.0 (dBW/4 kHz)

			Receive 11.0 GHz		Transmit 14.0 GHz	
	Horizon	Antenna	Horizon	Coordination	Horizon	Coordination
Azimuth (°)	Elevation (°)	Discrimination (°)	Gain (dBi)	Distance (km)	Gain (dBi)	Distance (km)
0	0.00	103.48	-10.00	231.37	-10.00	115.80
5	0.00	108.44	-10.00	231.37	-10.00	115.80
10	0.00	113.40	-10.00	231.37	-10.00	115.80
15	0.00	118.36	-10.00	231.37	-10.00	115.80
20	0.00	123.32	-10.00	231.37	-10.00	115.80
25	0.00	122.44	-10.00	231.37	-10.00	115.80
30	0.00	119.20	-10.00	231.37	-10.00	115.80
35	0.00	115.83	-10.00	231.37	-10.00	115.80
40	0.00	112.34	-10.00	231.37	-10.00	115.80
45	0.00	108.77	-10.00	231.37	-10.00	115.80
50	0.00	105.12	-10.00	231.37	-10.00	115.80
55	0.00	101.42	-10.00	231.37	-10.00	115.80
60	0.00	97.68	-10.00	231.37	-10.00	115.80
65	0.00	93.91	-10.00	231.37	-10.00	115.80
70	0.00	90.14	-10.00	231.37	-10.00	115.80
75	0.00	86.36	-10.00	231.37	-10.00	115.80
80	0.00	82.59	-10.00	231.37	-10.00	115.80
85	0.00	78.85	-10.00	231.37	-10.00	115.80
90	0.00	75.15	-10.00	231.37	-10.00	115.80
95	0.00	71.49	-10.00	231.37	-10.00	115.80
100	0.00	67.91	-10.00	231.37	-10.00	115.80
105	0.00	64.42	-10.00	231.37	-10.00	115.80
110	0.00	61.04	-10.00	231.37	-10.00	115.80
115	0.00	57.79	-10.00	231.37	-10.00	115.80
120	0.00	54.71	-10.00	231.37	-10.00	115.80
125	0.00	51.83	-10.00	231.37	-10.00	115.80
130	0.00	49.18	-10.00	231.37	-10.00	115.80
135	0.00	46.82	-9.76	232.41	-9.76	116.40
140	0.00	44.79	-9.28	234.55	-9.28	117.60
145	0.00	43.14	-8.87	236.37	-8.87	118.62
150	0.00	41.91	-8.56	237.79	-8.56	119.41
155	0.00	41.15	-8.36	238.70	-8.36	119.91
160	0.00	40.88	-8.29	239.02	-8.29	120.09
165	0.35	40.76	-8.26	224.77	-8.26	108.60
170	0.54	41.32	-8.40	209.07	-8.40	100.00
175	0.92	41.66	-8.49	192.72	-8.49	100.00
180	1.20	41.61	-8.48	182.22	-8.48	100.00
185	1.31	41.27	-8.39	179.31	-8.39	100.00

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Antenna Model VERTEX COMMUNICATIONS 9 KPK

Antenna Mode Receive 11.0 GHz Transmit 14.0 GHz

Max Available RF Power -14.0 (dBW/4 kHz)

			Receive 11.0 GHz		Transmit 14.0 GHz	
	Horizon	Antenna	Horizon	Coordination	Horizon	Coordination
Azimuth (°)	Elevation (°)	Discrimination (°)	Gain (dBi)	Distance (km)	Gain (dBi)	Distance (km)
190	1.60	40.29	-8.13	171.29	-8.13	100.00
195	1.94	38.83	-7.73	159.44	-7.73	100.00
200	2.06	37.19	-7.26	158.33	-7.26	100.00
205	2.37	35.01	-6.61	153.83	-6.61	100.00
210	2.21	32.92	-5.93	161.25	-5.93	100.00
215	2.38	30.25	-5.02	161.73	-5.02	100.00
220	2.56	27.35	-3.92	163.29	-3.92	100.00
225	2.51	24.41	-2.69	174.01	-2.69	100.00
230	2.30	21.41	-1.27	186.39	-1.27	100.00
235	1.83	18.45	0.35	204.97	0.35	100.00
240	1.67	15.14	2.50	216.35	2.50	100.00
245	1.39	11.81	5.19	238.02	5.19	100.81
250	1.22	8.34	8.97	265.24	8.97	115.93
255	0.95	5.78	12.96	467.59	12.96	201.51
260	1.05	6.55	11.60	287.46	11.60	128.07
265	0.73	10.35	6.63	273.91	6.63	126.39
270	0.57	14.80	2.74	261.02	2.74	122.58
275	0.34	19.54	-0.27	264.58	-0.27	129.72
280	0.37	24.32	-2.65	249.25	-2.65	121.15
285	0.57	29.13	-4.61	223.68	-4.61	103.22
290	0.27	34.08	-6.31	241.13	-6.31	119.53
295	0.00	39.03	-7.79	241.33	-7.79	121.35
300	0.00	43.96	-9.08	235.45	-9.08	118.11
305	0.00	48.90	-10.00	231.37	-10.00	115.80
310	0.00	53.84	-10.00	231.37	-10.00	115.80
315	0.00	58.80	-10.00	231.37	-10.00	115.80
320	0.00	63.75	-10.00	231.37	-10.00	115.80
325	0.00	68.71	-10.00	231.37	-10.00	115.80
330	0.00	73.68	-10.00	231.37	-10.00	115.80
335	0.00	78.64	-10.00	231.37	-10.00	115.80
340	0.00	83.61	-10.00	231.37	-10.00	115.80
345	0.00	88.58	-10.00	231.37	-10.00	115.80
350	0.00	93.54	-10.00	231.37	-10.00	115.80
355	0.00	98.51	-10.00	231.37	-10.00	115.80

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