

Exhibit A

Frequency Coordination

Per 47 C.F.R. Ch. 1 §25.130(b), attached is a “Frequency Coordination and Interference Analysis Report” performed pursuant to 47 C.F.R. Ch. 1 §25.203.

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
GCI Communications Corp.
DUTCH HARBOR, AK
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
October 17, 2018

TABLE OF CONTENTS

1. CONCLUSIONS	3
2. SUMMARY OF RESULTS	4
3. SUPPLEMENTAL SHOWING	5
4. EARTH STATION COORDINATION DATA.....	6
5. CERTIFICATION.....	10

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

There were no great circle interference cases identified during the interference study of the proposed earth station.

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.

Coordination data for this earth station was sent on 10/02/2018.

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: 10/02/2018
Job Number: 181002COMSTC15

Administrative Information

Call Sign: E900261
Licensee Code: P3203
Licensee Name: GCI Communications Corp.

Site Information **DUTCH HARBOR, AK**

Latitude (NAD 83): 53° 53' 51.6" N
Longitude (NAD 83): 166° 32' 20.0" W
Climate Zone: B
Rain Zone: 2
Ground Elevation (AMSL): 14.94 m / 49.0 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 101° W to 232° West Longitude
Azimuth Range: 110.2° to 249.7°
Corresponding Elevation Angles: 5.5° / 5.5°
Antenna Centerline (AGL): 4.45 m / 14.6 ft

Antenna Information

Receive - V40903

Transmit - V60903

Manufacturer	VERTEX COMMUNICATIONS	VERTEX COMMUNICATIONS
Model	9 KPC	9 KPC
Gain / Diameter	50.1 dBi / 9.0 m	53.5 dBi / 9.0 m
3-dB / 15-dB Beamwidth	0.54° / 1.20°	0.40° / 0.80°

			45K0G7W - 108MG7W		
			<u>45K0D7W - 108MD7W</u>		
Max Available RF Power	(dBW/4 kHz)		-2.7	-18.29	
	(dBW/MHz)		21.3	5.71	
Maximum EIRP	(dBW/4 kHz)		50.8	35.21	
	(dBW/MHz)		61.31	59.21	
	(dBW)		61.31	79.52	
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)	45K0G7W - 108MG7W / 3700.0 - 4200.0	45K0G7W - 108MG7W / 5925.0 - 6425.0
	45K0D7W - 108MD7W / 3700.0 - 4200.0	45K0D7W - 108MD7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance	719.4 km / 447.0 mi	391.7 km / 243.4 mi
Precipitation Scatter Contour Radius	609.9 km / 379.0 mi	101.3 km / 62.9 mi

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Coordination Values

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Latitude (NAD 83) 53° 53' 51.6" N
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Ground Elevation (AMSL) 14.94 m / 49.0 ft
Antenna Centerline (AGL) 4.45 m / 14.6 ft
Antenna Model VERTEX COMMUNICATIONS 9 KPC
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 -2.7 (dBW/4 kHz)

Azimuth (°)	Receive 4.0 GHz		Transmit 6.1 GHz			
	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	15.16	109.88	-13.90	100.00	-10.50	100.00
5	17.62	104.83	-13.90	100.00	-10.50	100.00
10	15.70	100.02	-13.90	100.00	-10.50	100.00
15	14.17	95.12	-13.90	100.00	-10.50	100.00
20	12.63	90.18	-13.90	100.00	-10.50	100.00
25	11.33	85.21	-13.90	100.00	-10.50	100.00
30	10.56	80.22	-13.90	100.00	-10.50	100.00
35	8.19	75.20	-13.90	106.06	-10.50	100.00
40	6.05	70.18	-13.90	110.91	-10.50	100.00
45	2.29	65.22	-13.90	167.50	-10.50	100.00
50	0.00	60.33	-13.90	366.88	-10.50	197.94
55	0.76	55.32	-13.90	253.93	-10.50	133.34
60	3.23	50.22	-13.90	141.41	-10.50	100.00
65	1.25	45.34	-12.97	218.93	-9.57	116.11
70	0.83	40.40	-11.98	259.55	-8.58	135.70
75	0.00	35.55	-10.12	410.71	-6.72	220.17
80	1.00	30.48	-5.38	288.96	-4.69	139.13
85	0.93	25.56	-3.12	320.07	-2.72	152.30
90	2.59	20.38	-1.05	233.96	-0.65	114.00
95	5.45	15.18	1.99	180.04	2.39	100.00
100	6.90	10.28	6.82	193.95	6.22	100.00
105	4.91	5.21	10.67	245.26	11.07	116.51
110	5.77	0.36	40.10	657.05	41.35	387.94
115	5.70	2.40	19.50	429.54	19.11	227.17
120	6.52	4.32	13.46	262.34	12.86	127.26
125	6.97	6.41	8.27	202.42	8.67	100.04
130	7.52	8.30	7.10	192.83	7.50	100.00
135	6.80	11.16	5.94	189.25	5.34	100.00
140	4.63	15.20	1.98	192.61	2.38	100.00
145	3.24	18.41	0.05	215.56	0.45	106.05
150	2.36	20.96	-1.28	242.72	-0.88	115.73
155	3.35	21.54	-1.52	201.74	-1.12	100.00
160	1.54	24.55	-2.72	275.28	-2.32	130.94
165	3.37	23.78	-2.41	195.37	-2.01	100.00
170	4.52	23.37	-2.25	170.74	-1.85	100.00
175	4.94	23.38	-2.25	165.74	-1.85	100.00
180	5.36	23.11	-2.14	160.20	-1.74	100.00
185	2.86	25.46	-3.08	209.24	-2.68	103.51

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Max Available RF Power -2.7 (dBW/4 kHz)

Azimuth (°)	Receive 4.0 GHz		Transmit 6.1 GHz			
	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	2.24	25.63	-3.15	234.59	-2.75	114.58
195	2.53	24.61	-2.74	225.05	-2.34	110.49
200	1.41	24.67	-2.77	283.05	-2.37	134.56
205	1.94	22.88	-2.05	257.00	-1.65	121.86
210	1.58	21.70	-1.58	282.31	-1.18	133.94
215	0.93	20.54	-1.11	340.73	-0.71	161.90
220	2.28	17.34	0.70	260.94	1.10	123.28
225	3.74	13.91	3.19	218.05	3.59	107.13
230	5.22	10.34	6.76	212.61	6.16	101.81
235	6.44	6.88	7.35	199.20	7.75	100.00
240	5.13	5.50	10.10	258.86	10.50	127.89
245	1.35	6.08	8.95	509.22	9.35	272.66
250	0.27	5.24	10.61	719.38	11.01	391.74
255	0.52	7.24	7.10	532.88	7.50	253.00
260	0.74	11.29	5.81	459.25	5.21	212.82
265	1.21	15.83	1.60	338.62	2.00	160.30
270	1.11	20.70	-1.18	319.89	-0.78	151.64
275	1.01	25.62	-3.15	308.16	-2.75	146.63
280	0.47	30.63	-5.53	374.59	-4.75	183.42
285	0.51	35.56	-10.12	318.55	-6.72	167.86
290	1.11	40.45	-11.99	233.07	-8.59	122.35
295	1.63	45.38	-12.98	199.56	-9.58	109.14
300	1.09	50.39	-13.90	221.34	-10.50	117.41
305	0.50	55.40	-13.90	286.06	-10.50	151.35
310	1.29	60.34	-13.90	210.76	-10.50	114.57
315	2.07	65.30	-13.90	174.81	-10.50	100.00
320	3.56	70.26	-13.90	134.33	-10.50	100.00
325	3.48	75.26	-13.90	136.02	-10.50	100.00
330	3.69	80.26	-13.90	131.63	-10.50	100.00
335	4.37	85.25	-13.90	122.89	-10.50	100.00
340	5.40	90.25	-13.90	116.39	-10.50	100.00
345	8.72	95.24	-13.90	104.88	-10.50	100.00
350	10.83	100.21	-13.90	100.00	-10.50	100.00
355	12.77	105.12	-13.90	100.00	-10.50	100.00

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.



Timothy O. Crutcher
Frequency Planner
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: October 17, 2018