

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
GCI Communications Corp
STONY RIVER, AK
Satellite Earth Station

Prepared By:
COMSEARCH
21515 Ridgetop Circle, Suite 300
Sterling, VA 20166
July 10, 2026

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

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

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 07/10/2026.

Company

United Utilities, Inc.

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: 07/10/2026
Job Number: 260710COMSGE04

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign: E220158
Licensee Code: P3203
Licensee Name: GCI Communications Corp

Site Information

STONY RIVER, AK

Venue Name: CLINIC
Latitude (NAD 83): 61° 47' 17.9" N
Longitude (NAD 83): 156° 35' 10.9" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 77.78 m / 255.2 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 97° W to 216° West Longitude
Azimuth Range: 117.4° to 242.5°
Corresponding Elevation Angles: 5.2° / 5.3°
Antenna Centerline (AGL): 2.44 m / 8.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer	GD Satcom	GD Satcom
Model	2244	2244
Gain / Diameter	38.2 dBi / 2.4 m	42.2 dBi / 2.4 m
3-dB / 15-dB Beamwidth	2.30° / 4.60°	1.10° / 2.60°

6K72G7W / 6K72D7W 108MG7W / 108MD7W

Max Available RF Power	(dBW/4 kHz)	-2.7	-24.3
	(dBW/MHz)	21.3	-0.3

Maximum EIRP	(dBW/4 kHz)	39.5	17.9
	(dBW/MHz)	63.5	41.9
	(dBW)	41.7	62.2

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)	6K72G7W - 108MG7W / 3700.0 - 4200.0	6K72G7W - 108MG7W / 5925.0 - 6425.0
	6K72D7W - 180MD7W / 3700.0 - 4200.0	6K72D7W - 108MD7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance	517.7 km / 321.6 mi	293.3 km / 182.2 mi
Precipitation Scatter Contour Radius	616.0 km / 382.7 mi	101.5 km / 63.1 mi

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Coordination Values

STONY RIVER, AK

Licensee Name GCI Communications Corp
Latitude (NAD 83) 61° 47' 17.9" N
Longitude (NAD 83) 156° 35' 10.9" W
Ground Elevation (AMSL) 77.78 m / 255.2 ft
Antenna Centerline (AGL) 2.44 m / 8.0 ft
Antenna Model GD Satcom 2244
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 (°)	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	0.48	117.25	-10.00	252.48	-10.00	141.40
5	0.00	112.26	-10.00	285.28	-10.00	170.66
10	0.00	107.28	-10.00	285.28	-10.00	170.66
15	0.00	102.30	-10.00	285.28	-10.00	170.66
20	0.00	97.32	-10.00	285.28	-10.00	170.66
25	0.26	92.35	-10.00	277.59	-10.00	162.30
30	0.36	87.36	-10.00	265.86	-10.00	152.29
35	0.44	82.38	-10.00	256.23	-10.00	144.39
40	0.80	77.39	-10.00	231.28	-10.00	126.50
45	1.07	72.40	-10.00	218.12	-10.00	115.80
50	0.82	67.42	-10.00	230.45	-10.00	125.85
55	0.39	62.46	-10.00	262.06	-10.00	149.14
60	0.39	57.48	-10.00	262.55	-10.00	149.54
65	0.00	52.53	-10.00	285.28	-10.00	170.66
70	0.00	47.57	-9.93	285.70	-9.93	170.92
75	0.00	42.61	-8.74	293.43	-8.74	175.56
80	0.00	37.66	-7.40	302.38	-7.40	180.75
85	0.00	32.72	-5.87	313.53	-5.87	186.64
90	0.00	27.80	-4.10	326.10	-4.10	193.44
95	0.00	22.92	-2.00	341.47	-2.00	201.46
100	0.00	18.09	0.56	360.95	0.56	209.71
105	0.00	13.38	3.84	386.81	3.84	223.32
110	0.00	8.99	8.16	422.55	8.16	243.24
115	0.00	5.69	13.12	517.65	13.12	293.31
120	0.00	5.82	12.88	487.41	12.88	272.66
125	0.00	7.83	9.65	442.32	9.65	250.03
130	0.00	9.76	7.26	415.08	7.26	238.93
135	0.00	11.55	5.43	399.27	5.43	230.42
140	0.00	13.22	3.97	387.88	3.97	223.89
145	0.00	14.74	2.79	378.38	2.79	218.81
150	0.00	16.10	1.83	370.83	1.83	214.83
155	0.00	17.27	1.07	364.85	1.07	211.72
160	0.00	18.25	0.47	360.20	0.47	209.33
165	0.00	19.03	0.02	356.73	0.02	207.56
170	0.00	19.59	-0.30	354.31	-0.30	206.33
175	0.00	19.93	-0.49	352.87	-0.49	205.60
180	0.00	20.05	-0.55	352.39	-0.55	205.36
185	0.00	19.93	-0.49	352.88	-0.49	205.61

COMSEARCH

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Coordination Values

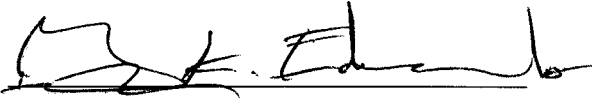
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Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%
Max Available RF Power -2.7 (dBW/4 kHz)

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)
190	0.00	19.59	-0.30	354.31	-0.30	206.33
195	0.00	19.03	0.02	356.72	0.02	207.55
200	0.00	18.25	0.47	360.19	0.47	209.32
205	0.00	17.27	1.07	364.83	1.07	211.71
210	0.00	16.10	1.83	370.80	1.83	214.82
215	0.00	14.74	2.78	378.36	2.78	218.80
220	0.00	13.22	3.97	387.86	3.97	223.88
225	0.00	11.55	5.43	399.28	5.43	230.42
230	0.00	9.75	7.27	414.92	7.27	238.97
235	0.00	7.84	9.64	441.55	9.64	249.98
240	0.00	5.81	12.89	485.89	12.89	271.67
245	0.00	5.83	12.87	465.60	12.87	267.22
250	0.00	9.16	7.95	420.73	7.95	242.23
255	0.00	13.56	3.69	385.66	3.69	222.70
260	0.00	18.26	0.46	360.14	0.46	209.30
265	0.36	23.02	-2.05	320.61	-2.05	185.85
270	0.61	27.87	-4.13	279.03	-4.13	154.17
275	0.75	32.79	-5.89	258.38	-5.89	140.28
280	0.94	37.73	-7.42	237.60	-7.42	128.16
285	0.92	42.69	-8.76	231.29	-8.76	124.99
290	0.96	47.66	-9.95	222.74	-9.95	119.60
295	0.80	52.65	-10.00	231.56	-10.00	126.72
300	0.55	57.64	-10.00	246.60	-10.00	136.92
305	0.42	62.62	-10.00	258.40	-10.00	146.14
310	0.28	67.61	-10.00	275.39	-10.00	160.40
315	0.42	72.58	-10.00	259.00	-10.00	146.63
320	0.72	77.56	-10.00	236.24	-10.00	130.34
325	0.93	82.54	-10.00	224.01	-10.00	120.69
330	0.97	87.52	-10.00	221.81	-10.00	118.89
335	0.69	92.51	-10.00	237.61	-10.00	131.38
340	0.35	97.49	-10.00	266.93	-10.00	153.19
345	0.00	102.46	-10.00	285.28	-10.00	170.66
350	0.00	107.44	-10.00	285.28	-10.00	170.66
355	0.55	112.44	-10.00	246.79	-10.00	137.07

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
21515 Ridgetop Circle, Suite 300
Sterling, VA 20166

DATED: July 10, 2026