

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Cebridge Acquisition LP - Carthage, MO
CARTHAGE, MO
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
October 24, 2013

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1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the 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 modifications to this earth station site. There are no unresolved interference cases with this earth station site.

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 10/22/2013.

<u>Company</u>
Comsearch

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: 10/24/2013
Job Number: 131022COMSGE07

Administrative Information

Status	ENGINEER PROPOSAL
Call Sign	KJ82
Licensee Code	COXCAR
Licensee Name	Cebridge Acquisition LP - Carthage, MO

Site Information **CARTHAGE, MO**

Venue Name	
Latitude (NAD 83)	37° 8' 39.2" N
Longitude (NAD 83)	94° 18' 34.5" W
Climate Zone	A
Rain Zone	2
Ground Elevation (AMSL)	329.06 m / 1079.6 ft

Link Information

Satellite Type	Geostationary
Mode	RO - Receive-Only
Modulation	Analog
Satellite Arc	60° W to 143° West Longitude
Azimuth Range	131.5° to 242.0°
Corresponding Elevation Angles	34.0° / 23.8°
Antenna Centerline (AGL)	4.57 m / 15.0 ft

Antenna Information **Receive - T40503**

Manufacturer	ANTENNA TECH CORP
Model	SIMULSAT 5M
Gain / Diameter	44.0 dBi / 5.0 m
3-dB / 15-dB Beamwidth	0.80° / 1.60°

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

Frequency Information **Receive 4.0 GHz**

Emission / Frequency Range (MHz)	36M0G7W / 3700.0 - 4200.0
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Max Great Circle Coordination Distance	339.1 km / 210.7 mi
Precipitation Scatter Contour Radius	497.3 km / 308.9 mi

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Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	115.40	-10.00	285.28
5	0.00	119.56	-10.00	285.28
10	0.00	115.68	-10.00	285.28
15	0.00	111.72	-10.00	285.28
20	0.00	107.70	-10.00	285.28
25	0.00	103.63	-10.00	285.28
30	0.00	99.52	-10.00	285.28
35	0.00	95.39	-10.00	285.28
40	0.00	91.25	-10.00	285.28
45	0.00	87.10	-10.00	285.28
50	0.00	82.96	-10.00	285.28
55	0.00	78.84	-10.00	285.28
60	0.00	74.75	-10.00	285.28
65	0.00	70.70	-10.00	285.28
70	0.00	66.70	-10.00	285.28
75	0.00	62.77	-10.00	285.28
80	0.00	58.92	-10.00	285.28
85	0.00	55.20	-10.00	285.28
90	0.00	51.61	-10.00	285.28
95	0.00	48.20	-9.64	287.58
100	0.00	45.01	-9.00	291.71
105	0.00	42.09	-8.42	295.54
110	0.00	39.51	-7.90	298.98
115	0.00	37.34	-7.47	301.90
120	0.00	35.65	-7.13	304.19
125	0.00	34.52	-6.81	306.40
130	0.00	34.00	-6.60	307.82
135	0.00	34.13	-6.65	307.46
140	0.00	34.90	-6.96	305.36
145	0.00	36.26	-7.25	303.37
150	0.00	38.14	-7.63	300.81
155	0.00	40.47	-8.09	297.69
160	0.00	42.68	-8.54	294.76
165	0.00	44.48	-8.90	292.39
170	0.00	45.82	-9.16	290.65
175	0.00	46.65	-9.33	289.58
180	0.00	46.93	-9.39	289.22
185	0.00	46.65	-9.33	289.58

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Earth Station Data Sheet

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Coordination Values

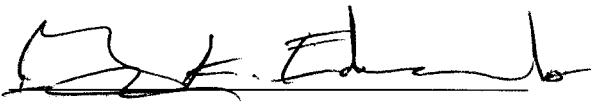
CARTHAGE, MO

Licensee Name	Cebridge Acquisition LP - Carthage, MO		
Latitude (NAD 83)	37° 8' 39.2" N		
Longitude (NAD 83)	94° 18' 34.5" W		
Ground Elevation (AMSL)	329.06 m / 1079.6 ft		
Antenna Centerline (AGL)	4.57 m / 15.0 ft		
Antenna Model	ANTENNA TECH CORP SIMULSAT 5M		
Antenna Mode	Receive 4.0 GHz		
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	
Short Term	-146.0 dBW/MHz	0.01%	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	45.82	-9.16	290.65
195	0.00	44.48	-8.90	292.40
200	0.00	42.68	-8.54	294.76
205	0.00	40.47	-8.09	297.69
210	0.00	37.92	-7.58	301.11
215	0.00	35.08	-7.02	304.98
220	0.00	31.99	-5.80	314.04
225	0.00	28.98	-4.59	322.59
230	0.00	26.51	-3.60	329.71
235	0.00	24.76	-2.85	335.19
240	0.00	23.88	-2.33	339.08
245	0.00	23.97	-2.38	338.68
250	0.00	25.02	-3.01	334.07
255	0.00	26.91	-3.76	328.55
260	0.00	29.49	-4.80	321.13
265	0.00	32.59	-6.04	311.74
270	0.00	36.08	-7.22	303.61
275	0.00	39.85	-7.97	298.53
280	0.00	43.82	-8.76	293.26
285	0.00	47.96	-9.59	287.89
290	0.00	52.21	-10.00	285.28
295	0.00	56.55	-10.00	285.28
300	0.00	60.96	-10.00	285.28
305	0.00	65.42	-10.00	285.28
310	0.00	69.91	-10.00	285.28
315	0.00	74.44	-10.00	285.28
320	0.00	78.99	-10.00	285.28
325	0.00	83.56	-10.00	285.28
330	0.00	88.13	-10.00	285.28
335	0.00	92.70	-10.00	285.28
340	0.00	97.27	-10.00	285.28
345	0.00	101.84	-10.00	285.28
350	0.00	106.38	-10.00	285.28
355	0.00	110.91	-10.00	285.28

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 24, 2013