FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for

PROACTIVE COMMUNICATIONS, INC.
KILLEEN, TEXAS

Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, Virginia 20147
January 21, 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 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

Alltel Communications, LLC – Central Texas
Lower Colorado River Authority
New Cingular Wireless PCS LLC – N. Texas
T-Mobile USA, Inc.
Westar Satellite Services LP

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 December 5, 2012.

Company

AirCanopy Internet Services, Inc.
Alltel Communications Investments, Inc
Alltel Communications LLC - Central TX
Alltel Communications of Texas, LP
Austin Energy
Austin, City of
BLANCO, COUNTY OF
BURNET COUNTY, OFFICE OF EMERGENCY MGMT
Bastrop County, Office of Emergency Mgmt
Brazos Electric Power Cooperative Inc
COMANCHE COUNTY ELECTRIC COOPERATIVE
Central Telephone Company of Texas
Cingular Wireless of Texas RSA #16 LP
Dallas MTA, L.P.
GTE Mobilnet of Texas RSA #17 LTD Prtnsh
HARRIS METHODIST HEALTH SERVICES
Hilco Electric Coop
LLANO, COUNTY OF
Lower Colorado River Authority
New Cingular Wireless PCS LLC - N Texas
New Cingular Wireless PCS LLC - S Texas
Pedernales Electric Cooperative Inc
RAYTHEON COMPANY
San Antonio MTA, L.P.
T-MOBILE USA, INC.
T-Mobile License LLC
Totelcom Communications, LLC
Verizon Wireless (VAW) LLC-Central Texas
Verizon Wireless Texas LLC - Houston GC
Verizon Wireless(VAW) LLC-AZ/CO/NM/NV/UT
West Central Wireless
Westar Satellite Services LP

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:	01/21/2013
Job Number:	121205COMSJC02

Administrative Information

Status	ENGINEER PROPOSAL
Call Sign	E060406
Licensee Code	PROACT
Licensee Name	PROACTIVE COMMUNICATIONS, INC.

Site Information — KILLEEN, TEXAS

Venue Name	
Latitude (NAD 83)	31° 4' 30.5" N
Longitude (NAD 83)	97° 42' 39.8" W
Climate Zone	A
Rain Zone	2
Ground Elevation (AMSL)	263.65 m / 865.0 ft

Link Information

Satellite Type	Geostationary
Mode	TR - Transmit-Receive
Modulation	Digital
Satellite Arc	58° W to 139° West Longitude
Azimuth Range	121.9° to 239.6°
Corresponding Elevation Angles	34.0° / 32.8°
Antenna Centerline (AGL)	1.8 m / 5.9 ft

Antenna Information		Receive		Transmit	
Manufacturer		Channel Master		Channel Master	
Model		WR137		WR137	
Gain / Diameter		38.0 dBi / 2.4 m		42.2 dBi / 2.4 m	
3-dB / 15-dB Beamwidth		2.10° / 4.20°		1.30° / 2.60°	
Max Available RF Power	(dBW/4 kHz)			-10.1	
	(dBW/MHz)			13.9	
Maximum EIRP	(dBW/4 kHz)			32.1	
	(dBW/MHz)			56.1	
	(dBW)			55.2	
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)	819KG7W / 3700.0 - 4200.0	819KG7W / 5925.0 - 5958.5 819KG7W / 5991.0 - 6018.0 819KG7W / 6080.0 - 6425.0
Max Great Circle Coordination Distance	298.7 km / 185.6 mi	146.5 km / 91.0 mi
Precipitation Scatter Contour Radius	487.2 km / 302.7 mi	100.0 km / 62.1 mi

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Coordination Values	**KILLEEN, TX**			
Licensee Name	PROACTIVE COMMUNICATIONS, INC.			
Latitude (NAD 83)	31° 4' 30.5" N			
Longitude (NAD 83)	97° 42' 39.8" W			
Ground Elevation (AMSL)	263.65 m / 865.0 ft			
Antenna Centerline (AGL)	1.8 m / 5.9 ft			
Antenna Model	Channel Master WR137			
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			-10.1 (dBW/4 kHz)	

			Receive 4.0 GHz		Transmit 6.1 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	115.23	-10.00	285.28	-10.00	142.81
5	0.00	112.00	-10.00	285.28	-10.00	142.81
10	0.00	107.98	-10.00	285.28	-10.00	142.81
15	0.00	103.91	-10.00	285.28	-10.00	142.81
20	0.00	99.81	-10.00	285.28	-10.00	142.81
25	0.00	95.68	-10.00	285.28	-10.00	142.81
30	0.00	91.54	-10.00	285.28	-10.00	142.81
35	0.00	87.40	-10.00	285.28	-10.00	142.81
40	0.00	83.26	-10.00	285.28	-10.00	142.81
45	0.00	79.14	-10.00	285.28	-10.00	142.81
50	0.00	75.05	-10.00	285.28	-10.00	142.81
55	0.00	70.99	-10.00	285.28	-10.00	142.81
60	0.00	66.99	-10.00	285.28	-10.00	142.81
65	0.00	63.06	-10.00	285.28	-10.00	142.81
70	0.25	59.11	-10.00	278.76	-10.00	138.09
75	0.32	55.33	-10.00	270.70	-10.00	133.76
80	0.33	51.70	-10.00	269.00	-10.00	132.60
85	0.33	48.26	-10.00	269.12	-10.00	132.68
90	0.33	45.03	-9.34	273.59	-9.34	133.51
95	0.27	42.12	-8.61	285.71	-8.61	140.90
100	0.23	39.52	-7.92	294.32	-7.92	146.09
105	0.43	37.13	-7.24	274.25	-7.24	132.09
110	0.57	35.26	-6.68	265.53	-6.68	125.28
115	0.68	33.96	-6.27	260.81	-6.27	121.37
120	0.80	33.26	-6.05	254.36	-6.05	116.47
125	0.93	33.21	-6.03	246.05	-6.03	110.53
130	1.07	33.82	-6.23	238.26	-6.23	105.02
135	1.19	35.08	-6.63	232.00	-6.63	100.81
140	1.27	36.93	-7.19	226.27	-7.19	100.00
145	1.27	39.34	-7.87	222.76	-7.87	100.00
150	1.33	42.08	-8.60	217.13	-8.60	100.00
155	1.33	45.00	-9.33	213.54	-9.33	100.00
160	1.33	47.55	-9.93	210.68	-9.93	100.00
165	1.32	49.66	-10.00	210.71	-10.00	100.00
170	1.40	51.14	-10.00	208.40	-10.00	100.00
175	1.44	52.05	-10.00	207.28	-10.00	100.00
180	1.44	52.36	-10.00	207.28	-10.00	100.00
185	1.31	52.17	-10.00	210.94	-10.00	100.00

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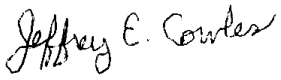
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power			-10.1 (dBW/4 kHz)	

			Receive 4.0 GHz		Transmit 6.1 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	1.30	51.23	-10.00	211.18	-10.00	100.00
195	1.22	49.74	-10.00	213.43	-10.00	100.00
200	1.23	47.64	-9.95	213.67	-9.95	100.00
205	1.10	45.16	-9.37	220.25	-9.37	100.00
210	1.10	42.23	-8.64	224.14	-8.64	100.00
215	0.96	39.37	-7.88	233.92	-7.88	104.15
220	0.94	36.80	-7.15	239.25	-7.15	107.14
225	0.80	34.78	-6.53	251.12	-6.53	114.89
230	0.68	33.32	-6.07	262.10	-6.07	121.97
235	0.63	32.41	-5.77	267.27	-5.77	125.09
240	0.45	32.30	-5.73	282.22	-5.73	133.88
245	0.34	32.81	-5.90	293.98	-5.90	142.37
250	0.29	33.93	-6.26	298.75	-6.26	146.51
255	0.34	35.53	-6.77	288.19	-6.77	139.67
260	0.35	37.71	-7.41	282.65	-7.41	136.80
265	0.37	40.31	-8.13	275.68	-8.13	133.13
270	0.58	43.14	-8.87	251.18	-8.87	118.43
275	0.43	46.49	-9.69	259.62	-9.69	125.66
280	0.43	49.98	-10.00	257.26	-10.00	124.45
285	0.45	53.63	-10.00	255.20	-10.00	123.00
290	0.35	57.48	-10.00	266.62	-10.00	130.97
295	0.35	61.39	-10.00	267.42	-10.00	131.52
300	0.31	65.40	-10.00	271.60	-10.00	133.12
305	0.26	69.48	-10.00	278.13	-10.00	137.64
310	0.27	73.60	-10.00	276.20	-10.00	136.29
315	0.22	77.77	-10.00	282.45	-10.00	140.74
320	0.00	81.98	-10.00	285.28	-10.00	142.81
325	0.00	86.17	-10.00	285.28	-10.00	142.81
330	0.00	90.38	-10.00	285.28	-10.00	142.81
335	0.00	94.58	-10.00	285.28	-10.00	142.81
340	0.00	98.77	-10.00	285.28	-10.00	142.81
345	0.00	102.95	-10.00	285.28	-10.00	142.81
350	0.00	107.09	-10.00	285.28	-10.00	142.81
355	0.00	111.18	-10.00	285.28	-10.00	142.81

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.



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19700 Janelia Farm Boulevard
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DATED: January 21, 2013