

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
SOLO SATELLITE COMMUNICATIONS
MEMPHIS, TN
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
February 12, 2010

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. Operation will be restricted to the satellite and frequency shown in the attached frequency coordination data.

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-only earth station.

Company

New Cingular Wireless PCS, LLC - KS/MO
Verizon Wireless Tennessee Partnership

No other carriers reported potential interference cases.

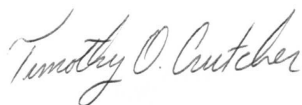
Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Verbal and written coordination was conducted with the carriers listed below on 02/11/2010.

Company

ALLTEL New License Sub LLC
AT&T COMM. OF THE SOUTH CENTRAL STATES
Arkansas State Police
Cellular South Licenses, Inc.
City of Memphis Light Gas and Water
ENTERGY SERVICES INC
Federal Communications Commission
Gibson Electric Membership Corp.
Great Western Communications, LLC
International Communications Group, Inc.
MEMPHIS CITY COMMUNICATIONS MAINTENANCE
MEMPHIS CITY OF LIGHT GAS AND WATER
METROPOLITAN AREA NETWORKS, INC.
Metronet Communications
Microwave Service Company
Mississippi Authority for ED TV
New Cingular Wireless PCS LLC - AL, MS,
New Cingular Wireless PCS, LLC - KS/MO
Southwest Tennessee EMC
Sprintcom, Inc
T-Mobile License LLC
TENNESSEE STATE DEPT OF TRANSPORTATION
UNITED WEHCO INC.
Verizon Wireless Mississippi, LLC
Verizon Wireless Tennessee Partnership

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: February 12, 2010

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)726-5665 <http://www.comsearch.com>

Date: 02/12/2010
Job Number: 100211COMSTC02

Administrative Information

Status: TEMPORARY (Operation from 02/17/2010 to 02/27/2010)
Licensee Name: SOLO SATELLITE COMMUNICATIONS

Site Information

MEMPHIS, TN

Venue Name: THE RAQUET CLUB OF MEMPHIS
Latitude (NAD 83): 35° 6' 49.0" N
Longitude (NAD 83): 89° 53' 22.0" W
Climate Zone: A
Rain Zone: 1
Ground Elevation (AMSL): 91.0 m / 298.6 ft

Link Information

Satellite Type: Geostationary
Mode: TO - Transmit-Only
Modulation: Digital
Satellite Arc: 55° W to 55° West Longitude
Azimuth Range: 129.5° to 130.0°
Corresponding Elevation Angles: 35.0° / 35.4°
Antenna Centerline (AGL): 3.66 m / 12.0 ft

Antenna Information

Transmit

Manufacturer: GIGASAT FA-370/60/140
Gain / Diameter: 45.6 dBi / 3.7 m
3-dB / 15-dB Beamwidth: 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz): -14.0
(dBW/MHz): 10.0

Maximum EIRP (dBW/4 kHz): 31.6
(dBW/MHz): 55.6

Interference Objectives: Long Term: -154.0 dBW/4 kHz 20%
Short Term: -131.0 dBW/4 kHz 0.0025%

Frequency Information

Transmit 6.1 GHz

Emission / Frequency Range (MHz): 9M00G7W / 6351.0

Max Great Circle Coordination Distance: 135.6 km / 84.2 mi
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

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Coordination Values	MEMPHIS, TN
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Latitude (NAD 83)	35° 6' 49.0" N
Longitude (NAD 83)	89° 53' 22.0" W
Ground Elevation (AMSL)	91.0 m / 298.6 ft
Antenna Centerline (AGL)	3.66 m / 12.0 ft
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-14.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Transmit 6.1 GHz Coordination Distance (km)
0	0.00	121.40	-10.00	132.84
5	0.00	117.65	-10.00	132.84
10	0.00	113.80	-10.00	132.84
15	0.00	109.87	-10.00	132.84
20	0.00	105.88	-10.00	132.84
25	0.00	101.85	-10.00	132.84
30	0.00	97.78	-10.00	132.84
35	0.00	93.70	-10.00	132.84
40	0.00	89.61	-10.00	132.84
45	0.00	85.51	-10.00	132.84
50	0.00	81.43	-10.00	132.84
55	0.22	77.34	-10.00	131.31
60	0.21	73.31	-10.00	131.93
65	0.00	69.37	-10.00	132.84
70	0.21	65.39	-10.00	131.92
75	0.00	61.62	-10.00	132.84
80	0.00	57.89	-10.00	132.84
85	0.00	54.28	-10.00	132.84
90	0.00	50.83	-10.00	132.84
95	0.00	47.57	-9.93	133.02
100	0.00	44.56	-9.22	133.69
105	0.00	41.84	-8.54	135.59
110	0.37	39.17	-7.82	125.05
115	0.38	37.22	-7.27	125.79
120	0.64	35.53	-6.76	110.86
125	0.59	34.70	-6.51	113.79
130	0.62	34.42	-6.42	112.89
135	0.60	34.81	-6.54	113.23
140	0.67	35.73	-6.83	109.18
145	0.63	37.32	-7.30	109.69
150	0.71	39.32	-7.86	104.89
155	0.70	41.80	-8.53	103.42
160	0.84	44.53	-9.22	100.00
165	0.84	47.65	-9.95	100.00
170	0.61	51.14	-10.00	103.63
175	0.48	54.73	-10.00	110.38
180	0.42	58.42	-10.00	114.87
185	0.42	62.20	-10.00	114.88

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Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-14.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.42	66.07	-10.00	114.87
195	0.54	70.00	-10.00	106.73
200	0.54	74.01	-10.00	106.73
205	0.67	78.06	-10.00	101.11
210	0.47	82.17	-10.00	110.78
215	0.33	86.29	-10.00	122.01
220	0.30	90.39	-10.00	124.68
225	0.33	94.50	-10.00	122.03
230	0.25	98.59	-10.00	128.70
235	0.00	102.62	-10.00	132.84
240	0.00	106.65	-10.00	132.84
245	0.00	110.63	-10.00	132.84
250	0.00	114.54	-10.00	132.84
255	0.00	118.38	-10.00	132.84
260	0.00	122.11	-10.00	132.84
265	0.00	125.72	-10.00	132.84
270	0.00	129.17	-10.00	132.84
275	0.00	132.43	-10.00	132.84
280	0.00	135.44	-10.00	132.84
285	0.00	138.16	-10.00	132.84
290	0.00	140.51	-10.00	132.84
295	0.00	142.44	-10.00	132.84
300	0.00	143.86	-10.00	132.84
305	0.00	144.72	-10.00	132.84
310	0.00	144.97	-10.00	132.84
315	0.00	144.60	-10.00	132.84
320	0.00	143.63	-10.00	132.84
325	0.00	142.11	-10.00	132.84
330	0.00	140.09	-10.00	132.84
335	0.00	137.66	-10.00	132.84
340	0.00	134.89	-10.00	132.84
345	0.00	131.82	-10.00	132.84
350	0.00	128.52	-10.00	132.84
355	0.00	125.04	-10.00	132.84