

FREQUENCY COORDINATION AND INTERFERENCE
ANALYSIS REPORT TEMPORAY TRANSMIT ONLY EARTH STATION
OPERATION DATES: 7/14/2009 – 01/14/2010

Prepared for
CAPROCK COMMUNICATIONS CORP.
NEW ORLEANS, LA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
July 14, 2009

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.

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.

There are no unresolved interference cases involving this earth station.

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.

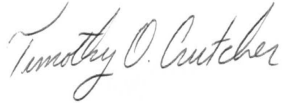
Verabal and written coordination for this earth station was conducted with the below listed carriers on 07/14/2009.

Company

Acadiana Cellular General Partnership
Bell Atlantic Mobile Allentown-Verizon W
Cellular South Licenses, Inc.
Cleco Power LLC
ERF Enterprise Network Services
East Ascension Telephone Company
Exxon Communications Company
Federal Communications Commission
Greater Lafourche Port Commission
Jefferson Parish Sheriff's Office
LOUISIANA STATE COMMUNICATION SECTION
Louisiana Dept. of Transportation and De
Louisiana RSA #7 Cell Gen Partnership
Louisiana, State Of
MCI Communication Services, Inc.
METROPOLITAN AREA NETWORKS, INC.
NEW ORLEANS EDUCATIONAL TELECOMM
New Cingular Wireless PCS, LLC - LA
PATHNET, INC. - DEBTOR IN POSSESSION
Plaquemines Parish Government
Sprint Spectrum LP Louisiana
Stratos Offshore Services Company
Verizon Wireless Personal Comm., LP

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: July 14, 2009

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

Date: 07/14/2009
Job Number: 090714COMSTC04

Administrative Information

Status: TEMPORARY (Operation from 07/17/2009 to 01/17/2010)
Licensee Name: CAPROCK COMMUNICATIONS CORP.

Site Information

NEW ORLEANS, LA

Latitude (NAD 83): 28° 58' 25.5" N
Longitude (NAD 83): 90° 17' 52.3" W
Climate Zone: B
Rain Zone: 1
Ground Elevation (AMSL): 0.0 m / 0.0 ft

Link Information

Satellite Type: Geostationary
Mode: TO - Transmit-Only
Modulation: Digital
Satellite Arc: 53° W to 53° West Longitude
Azimuth Range: 122.5° to 122.5°
Corresponding Elevation Angles: 37.2° / 37.2°
Antenna Centerline (AGL): 0.91 m / 3.0 ft

Antenna Information

Transmit

Manufacturer: SEATEL 9797
Gain / Diameter: 41.1 dBi / 2.4 m
3-dB / 15-dB Beamwidth: 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz): -8.3
(dBW/MHz): 15.7

Maximum EIRP (dBW/4 kHz): 32.8
(dBW/MHz): 56.8

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):
200KG7W / 5925.0 - 6048.0
200KG7W / 6109.0 - 6300.5
200KG7W / 6331.0 - 6389.5
200KG7W / 6420.0 - 6425.0

Max Great Circle Coordination Distance: 184.6 km / 114.7 mi
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

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Coordination Values	NEW ORLEANS, LA		
Licensee Name	CAPROCK COMMUNICATIONS CORP.		
Latitude (NAD 83)	28° 58' 25.5" N		
Longitude (NAD 83)	90° 17' 52.3" W		
Ground Elevation (AMSL)	0.0 m / 0.0 ft		
Antenna Centerline (AGL)	0.91 m / 3.0 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	-8.3 (dBW/4 kHz)		

			Transmit 6.1 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	115.31	-10.00	170.86
5	0.00	111.55	-10.00	170.86
10	0.00	107.72	-10.00	170.86
15	0.00	103.83	-10.00	170.86
20	0.00	99.89	-10.00	170.86
25	0.00	95.93	-10.00	170.86
30	0.00	91.96	-10.00	170.86
35	0.00	87.97	-10.00	170.86
40	0.00	84.00	-10.00	170.86
45	0.00	80.04	-10.00	170.86
50	0.00	76.10	-10.00	170.86
55	0.00	72.21	-10.00	170.86
60	0.00	68.38	-10.00	170.86
65	0.00	64.62	-10.00	170.86
70	0.00	60.95	-10.00	170.86
75	0.00	57.40	-10.00	170.86
80	0.00	54.00	-10.00	170.86
85	0.00	50.77	-10.00	170.86
90	0.00	47.76	-9.98	170.97
95	0.00	45.01	-9.33	174.12
100	0.00	42.58	-8.73	177.12
105	0.00	40.53	-8.20	179.83
110	0.00	38.93	-7.76	182.10
115	0.00	37.82	-7.44	183.73
120	0.00	37.25	-7.28	184.59
125	0.00	37.26	-7.28	184.58
130	0.00	37.83	-7.45	183.71
135	0.00	38.95	-7.76	182.06
140	0.00	40.57	-8.20	179.79
145	0.00	42.62	-8.74	177.06
150	0.00	45.06	-9.34	174.06
155	0.00	47.81	-9.99	170.92
160	0.00	50.82	-10.00	170.86
165	0.00	54.06	-10.00	170.86
170	0.00	57.47	-10.00	170.86
175	0.00	61.02	-10.00	170.86
180	0.00	64.69	-10.00	170.86
185	0.00	68.45	-10.00	170.86

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Antenna Centerline (AGL)	0.91 m / 3.0 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	-8.3 (dBW/4 kHz)		

			Transmit 6.1 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	72.28	-10.00	170.86
195	0.00	76.17	-10.00	170.86
200	0.00	80.11	-10.00	170.86
205	0.00	84.07	-10.00	170.86
210	0.00	88.04	-10.00	170.86
215	0.00	92.03	-10.00	170.86
220	0.00	96.00	-10.00	170.86
225	0.00	99.96	-10.00	170.86
230	0.00	103.90	-10.00	170.86
235	0.00	107.79	-10.00	170.86
240	0.00	111.62	-10.00	170.86
245	0.00	115.38	-10.00	170.86
250	0.00	119.05	-10.00	170.86
255	0.00	122.60	-10.00	170.86
260	0.00	126.00	-10.00	170.86
265	0.00	129.23	-10.00	170.86
270	0.00	132.24	-10.00	170.86
275	0.00	134.99	-10.00	170.86
280	0.00	137.42	-10.00	170.86
285	0.00	139.47	-10.00	170.86
290	0.00	141.07	-10.00	170.86
295	0.00	142.18	-10.00	170.86
300	0.00	142.75	-10.00	170.86
305	0.00	142.74	-10.00	170.86
310	0.00	142.17	-10.00	170.86
315	0.00	141.05	-10.00	170.86
320	0.00	139.43	-10.00	170.86
325	0.00	137.38	-10.00	170.86
330	0.00	134.94	-10.00	170.86
335	0.00	132.19	-10.00	170.86
340	0.00	129.18	-10.00	170.86
345	0.00	125.94	-10.00	170.86
350	0.00	122.53	-10.00	170.86
355	0.00	118.98	-10.00	170.86