

FREQUENCY COORDINATION AND INTERFERENCE
ANALYSIS REPORT TEMPORARY EARTH STATION
OPERATION DATES: 9/24/2010 – 10/10/2010

Prepared for
Lowery Satellite Services, Inc.
LOUISVILLE, KY
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
September 22, 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 limited to the satellite and transponder specified in this report.

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.

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 below listed carriers on 09/21/2010 and 09/22/2010.

Company – OF Band

BLUE GRASS ENERGY COOPERATIVE
CLERMONT COUNTY COMMUNICATION CENTER
Cellco Partnership - Kentucky
Cincinnati New Orleans and Texas Pacific
Duke Energy Carolinas LLC
East Kentucky Power Cooperative, Inc.
Federal Communications Commission
Hoosier Energy Rec, Inc.
Indiana, State of (IPSC)
KENTUCKY UTILITIES COMPANY
Kentucky Commonwealth of KY Emerg Warnin
LOUISVILLE GAS & ELECTRIC COMPANY
Louisville Metro Government
MADISON COUNTY OF
New Cingular Wireless PCS LLC - KY
New Par
Norfolk Southern Railway
OHIO VALLEY ELECTRIC COMPANY
OWEN ELECTRIC COOPERATIVE
Office of Information Technology/MARCS
Southwest Ohio Reg. Transit Authority
Texas Eastern Communications, Inc.

Company – TV Band - LTTS

3G Wireless, LLC
AERIAL VIDEO SYSTEMS
ALASCOM, INC.
AT&T California
AT&T Corp
Ascent Media Network Services, LLC
BROADCAST COMMUNICATIONS INC
Bellsouth Telecommunications, Inc.
Borgeson, Tom R.
Broadcast Sports Inc.
CNG Communications, Inc.
Carolina Telephone and Telegraph Co
Casper, John
CenturyTel of the Southwest, Inc.
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citywide News Network, Inc.
Cohen, Elana
Cowboys Stadium LP
DCI II, INC.
Direct Broadcast Services, Inc.

Company – TV Band – LTTS (Cont)

Doggicam Systems, Inc.
Federal Communications Commission
Frontier Communications Northwest Inc.
GOODYEAR TIRE AND RUBBER COMPANY
GSN NEWS INC
Global Microwave Systems Inc.
GTE Southwest Inc. dba Verizon Southwest
PO Box 152092
HF Enterprises, Inc
Hallco Unlimited, Inc.
Hawaiian Telcom (debtor-in-possession)
Heiden Mr., William
INDIANA BELL TELEPHONE COMPANY INC
Illinois Bell Telephone Company
Information & Display Systems, Inc.
Information Super Station, LLC
International Communications Group, Inc.
Kentucky RSA #3 Cellular General Partner
Kentucky RSA #4 Cellular General Partner
Memphis Police Department
MERCURY COMMUNICATIONS
METRO NETWORKS COMMUNICATIONS INC
Michigan Bell Telephone Company
Moreen, Steven K
NEW ENGLAND DIGITAL DISTRIBUTION, INC.
NEW ENGLAND SATELLITE SYSTEMS INC
NSM Surveillance
Navajo Communications Company
NorthWest Suburbs Community Access Corp
Ohio Bell Telephone Company
On Scene Video Production
Onboard Images
Penn Service Microwave Co., Inc.
Plateau Telecommunications, Inc.
Plum TV, LLC
Production & Satellite Services, Inc.
Public Television Communications Center
QUICK LINK CONNECTIONS INC
QWEST CORPORATION
RANDY HERMES PRODUCTIONS
RCC Minnesota Inc. - MN NE ND SD
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
RF Technology, LLC
Radiofone, Inc.
Regulus Media Services, Inc.
Remote Broadcasts, Inc.
Southwestern Bell Telephone L.P.
Speedshotz, Inc

Company – TV Band – LTTS (Cont)

TLC Productions
Total RF Marketing Inc
UNION PACIFIC RAILROAD
Unisat, Inc.
UNITED STATES CELLULAR OPERATING COMPANY LLC
United Telephone - Southeast
VERIZON SOUTH INC.
Verizon California Inc.
Verizon Maryland, Inc.
Verizon New England Inc.
Verizon New Jersey, Inc.
Verizon New York, Inc.
Verizon North Inc.
Verizon Northwest Inc.
Verizon Pennsylvania, Inc.
Verizon Virginia, Inc.
Verizon Washington DC, Inc.
Village Video Productions Inc
Vyvx, LLC
WOLFE AIR AVIATION
Westar Satellite Services LP
Western Technical Services
Wexler Video, Inc.
Winged Vision
Wisconsin Bell, Inc.
WIRELESS VIDEO INC.

SBE - Coordinators

Indiana

Central
Evansville
South Bend

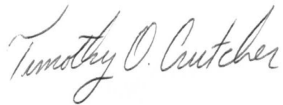
Kentucky

Central
Louisville

Ohio

Cleveland
Eastern
Mansfield
Northwest
Southwest
Youngstown

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: September 22, 2010

The following 3 pages present the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

Date: 09/22/2010
Job Number: 100922COMSTC02

Administrative Information

Status TEMPORARY (Operation from 09/24/2010 to 10/10/2010)
Licensee Name Lowery Satellite Services, Inc.

Site Information

LOUISVILLE, KY
Venue Name KENTUCKY HORSE PARK
Latitude (NAD 83) 38° 9' 6.0" N
Longitude (NAD 83) 84° 31' 2.0" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 264.8 m / 868.8 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Digital
Satellite Arc 27.5° W to 27.5° West Longitude
Azimuth Range 111.8° to 111.8°
Corresponding Elevation Angles 17.0° / 17.0°
Antenna Centerline (AGL) 3.66 m / 12.0 ft

Antenna Information

Transmit
Manufacturer ANDREW CORP.
Gain / Diameter 46.2 dBi / 4.5 m
3-dB / 15-dB Beamwidth 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz) -19.5
(dBW/MHz) 4.5

Maximum EIRP (dBW/4 kHz) 26.7
(dBW/MHz) 50.7
(dBW) 66.2

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

Frequency Information

Transmit 6.7 GHz
Emission / Frequency Range (MHz) 36M0G7W / 6513.5

Max Great Circle Coordination Distance 126.3 km / 78.5 mi
Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

Coordination Values**LOUISVILLE, KY**

Licensee Name Lowery Satellite Services, Inc.
Latitude (NAD 83) 38° 9' 6.0" N
Longitude (NAD 83) 84° 31' 2.0" W
Ground Elevation (AMSL) 264.8 m / 868.8 ft
Antenna Centerline (AGL) 3.66 m / 12.0 ft
Antenna Mode Transmit 6.7 GHz
Interference Objectives: Long Term -154.0 dBW/4 kHz 20%
Short Term -131.0 dBW/4 kHz 0.0025%
Max Available RF Power -19.5 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.96	110.95	-10.00	100.00
5	0.96	106.17	-10.00	100.00
10	1.22	101.39	-10.00	100.00
15	1.37	96.59	-10.00	100.00
20	1.40	91.78	-10.00	100.00
25	1.32	86.97	-10.00	100.00
30	1.06	82.17	-10.00	100.00
35	0.94	77.37	-10.00	100.00
40	0.67	72.61	-10.00	100.00
45	0.62	67.84	-10.00	100.00
50	0.59	63.09	-10.00	100.00
55	0.78	58.33	-10.00	100.00
60	0.87	53.61	-10.00	100.00
65	0.87	48.94	-10.00	100.00
70	0.88	44.32	-9.16	100.00
75	0.84	39.78	-7.99	100.00
80	0.82	35.35	-6.71	100.00
85	0.82	31.05	-5.30	100.00
90	0.66	27.06	-3.81	103.38
95	0.66	23.33	-2.20	107.64
100	0.64	20.13	-0.60	112.57
105	0.63	17.74	0.78	117.00
110	0.57	16.56	1.52	121.67
115	0.48	16.84	1.34	126.29
120	0.53	18.35	0.41	120.38
125	0.47	21.03	-1.07	120.04
130	0.42	24.42	-2.69	119.88
135	0.50	28.18	-4.25	109.47
140	0.51	32.30	-5.73	105.11
145	0.38	36.67	-7.11	111.53
150	0.36	41.12	-8.35	109.91
155	0.27	45.69	-9.50	113.59
160	0.00	50.36	-10.00	118.35
165	0.00	55.01	-10.00	118.35
170	0.00	59.70	-10.00	118.35
175	0.21	64.39	-10.00	117.18
180	0.25	69.13	-10.00	113.91
185	0.28	73.89	-10.00	111.61

Coordination Values	LOUISVILLE, KY
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Ground Elevation (AMSL)	264.8 m / 868.8 ft
Antenna Centerline (AGL)	3.66 m / 12.0 ft
Antenna Mode	Transmit 6.7 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-19.5 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.28	78.66	-10.00	111.62
195	0.28	83.44	-10.00	112.17
200	0.38	88.23	-10.00	103.95
205	0.39	93.02	-10.00	102.88
210	0.31	97.80	-10.00	109.40
215	0.38	102.59	-10.00	104.27
220	0.36	107.36	-10.00	105.66
225	0.36	112.13	-10.00	105.66
230	0.43	116.88	-10.00	100.04
235	0.33	121.59	-10.00	108.16
240	0.35	126.28	-10.00	106.64
245	0.22	130.90	-10.00	116.48
250	0.25	135.49	-10.00	114.29
255	0.00	139.92	-10.00	118.35
260	0.23	144.41	-10.00	115.75
265	0.24	148.67	-10.00	114.74
270	0.00	152.56	-10.00	118.35
275	0.00	156.22	-10.00	118.35
280	0.00	159.35	-10.00	118.35
285	0.00	161.68	-10.00	118.35
290	0.27	163.14	-10.00	112.60
295	0.27	162.95	-10.00	112.61
300	0.75	161.84	-10.00	100.00
305	0.34	158.87	-10.00	107.07
310	0.47	155.62	-10.00	100.00
315	0.83	152.00	-10.00	100.00
320	0.47	147.69	-10.00	100.00
325	0.53	143.39	-10.00	100.00
330	0.62	138.97	-10.00	100.00
335	0.58	134.40	-10.00	100.00
340	0.64	129.79	-10.00	100.00
345	0.64	125.12	-10.00	100.00
350	0.68	120.42	-10.00	100.00
355	0.80	115.70	-10.00	100.00