

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Louisiana Television Broadcasting, Inc.
BATON ROUGE, LA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
August 07, 2018

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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

Cellular South Licenses, LLC
Cleco Power LLC
Loop LLC
St. Tammany Parish Sheriff's Office
T-Mobile License LLC
Uniti Fiber PEG, LLC
Verizon Wireless (VAW) / LA

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 07/25/2018.

Company

Acadiana Cellular General Partnership
Alltel Communications LLC - LA/MS/AR/FL
Alltel Communications Wireless Inc.-CTX
Alltel Communications Wireless of LA, In
Alpha Media Licensee LLC
Beauregard Electric Cooperative Inc
Cellular South Licenses, LLC
Central Louisiana License Co, LLC
Cleco Power LLC
Cooperative Energy
Delta Media Corporation
Dixie Electric Membership Corporation
Dixie Electric Power Association
ERF Wireless Bundled Services, Inc.
Energy XXI LLC
Energy Services Inc
FiberLight LLC
GTE Mobilnet of South Texas LTD Partners
GTE Mobilnet of Texas RSA #17 LTD Prtnsh
Greater Lafourche Port Commission
Hancock County Sheriff's Office
Hancock, County of
Harrison County Emergency Communications
JD Bank
Jefferson Parish Sheriff's Office
Lafayette MSA Limited Partnership
Lake Charles Harbor Police
Loop LLC
Louisiana Dept of Transportation and Dev
Louisiana Generating, LLC
Louisiana RSA #7 Cell Gen Partnership
Louisiana, State Of
Mississippi Authority for ED TV
Mississippi State Dept of Transportation
Network Usa
New Cingular Wireless PCS LLC - AL, MS
New Cingular Wireless PCS, LLC - LA, GM
New Orleans City
New Orleans City Police Department
Nexus Systems Inc.

Plaquemines Parish Government
RigNet SatCom, Inc.
South East Texas Regional Planning Com
Southern Company Services, Inc.
Southern Light, LLC
Sprint Spectrum L.P.
Sprint Spectrum LP DBA Sprint PCS
Sprint Spectrum LP Louisiana
St. Bernard Port, Harbor & Terminal Dist
St. Tammany Parish Sheriff's Office
Star Telephone Company
State of Mississippi Wireless Communicat
T-Mobile License LLC
Tampnet Inc.
Tampnet Licensee LLC
Telelink Inc.
Texas Eastern Communications, LLC
Townsquare Media of Lafayette, LLC
Transcontinental Gas Pipeline Corp.
Trunkline Gas Company LLC
Uniti Fiber PEG, LLC
Verizon Wireless (VAW) / LA
Verizon Wireless (VAW) LLC - Mississippi
Verizon Wireless (VAW) LLC-C TX/LA/AR
Verizon Wireless Louisiana LLC
Verizon Wireless Personal Comm LP-LA/MS
WWL-TV, Inc.

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: 08/07/2018
Job Number: 180725COMSGE06

Administrative Information

Status ENGINEER PROPOSAL
Call Sign E4868
Licensee Code LOUTEL
Licensee Name Louisiana Television Broadcasting, Inc.

Site Information

BATON ROUGE, LA
Venue Name
Latitude (NAD 83) 30° 25' 53.7" N
Longitude (NAD 83) 91° 11' 7.4" W
Climate Zone B
Rain Zone 1
Ground Elevation (AMSL) 10.67 m / 35.0 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Analog
Satellite Arc 70° W to 145° West Longitude
Azimuth Range 142.6° to 249.7°
Corresponding Elevation Angles 47.7° / 22.6°
Antenna Centerline (AGL) 6.71 m / 22.0 ft

Antenna Information

	Receive - S41001	Transmit - S61001
Manufacturer	SCIENTIFIC-ATLANTA, INC	SCIENTIFIC-ATLANTA, INC
Model	8002-SHORT MOUNT	8002-SHORT MOUNT
Gain / Diameter	50.8 dBi / 10.0 m	53.5 dBi / 10.0 m
3-dB / 15-dB Beamwidth	0.60° / 1.00°	0.32° / 0.70°
Max Available RF Power (dBW/4 kHz) (dBW/MHz)		1.0 25.0
Maximum EIRP (dBW/4 kHz) (dBW/MHz)		54.5 78.5
Interference Objectives:	Long Term -156.0 dBW/MHz 20% Short Term -146.0 dBW/MHz 0.01%	-154.0 dBW/4 kHz 20% -131.0 dBW/4 kHz 0.0025%

Frequency Information

	Receive 4.0 GHz	Transmit 6.1 GHz
Emission / Frequency Range (MHz)	36M0F8W / 3700.0 - 4200.0	36M0F8W / 5925.0 - 6425.0
Max Great Circle Coordination Distance	520.3 km / 323.3 mi	274.8 km / 170.7 mi
Precipitation Scatter Contour Radius	573.6 km / 356.4 mi	204.4 km / 127.0 mi

COMSEARCH

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Coordination Values

BATON ROUGE, LA

Licensee Name Louisiana Television Broadcasting, Inc.
Latitude (NAD 83) 30° 25' 53.7" N
Longitude (NAD 83) 91° 11' 7.4" W
Ground Elevation (AMSL) 10.67 m / 35.0 ft
Antenna Centerline (AGL) 6.71 m / 22.0 ft
Antenna Model SCIENTIFIC-ATLANTA, INC 8002-SHORT MOUNT
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 1.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	108.71	-10.20	409.73	-9.50	225.86
5	0.00	113.27	-10.20	409.73	-9.50	225.86
10	0.00	117.11	-10.20	409.73	-10.76	218.07
15	0.00	114.25	-10.20	409.73	-9.50	225.86
20	0.00	111.26	-10.20	409.73	-9.50	225.86
25	0.00	108.17	-10.20	409.73	-9.50	225.86
30	0.00	104.99	-10.20	409.73	-9.50	225.86
35	0.00	101.74	-10.20	409.73	-9.50	225.86
40	0.00	98.43	-10.20	409.73	-9.50	225.86
45	0.00	95.10	-10.20	409.73	-9.50	225.86
50	0.00	91.74	-10.20	409.73	-9.50	225.86
55	0.00	88.37	-10.20	409.73	-9.50	225.86
60	0.00	85.01	-10.20	409.73	-9.50	225.86
65	0.00	81.67	-10.20	409.73	-9.50	225.86
70	0.00	78.37	-10.20	409.73	-9.50	225.86
75	0.00	75.12	-10.20	409.73	-9.50	225.86
80	0.00	71.93	-10.20	409.73	-9.50	225.86
85	0.00	68.83	-10.20	409.73	-9.50	225.86
90	0.00	65.84	-10.20	409.73	-9.50	225.86
95	0.00	62.98	-10.20	409.73	-9.50	225.86
100	0.00	60.27	-10.20	409.73	-9.50	225.86
105	0.00	57.74	-10.20	409.73	-9.50	225.86
110	0.00	55.42	-10.20	409.73	-9.50	225.86
115	0.00	53.35	-10.20	409.73	-9.50	225.86
120	0.00	51.55	-10.20	409.73	-9.50	225.86
125	0.00	50.06	-10.20	409.73	-9.50	225.86
130	0.00	48.91	-9.98	412.43	-9.50	225.86
135	0.00	48.12	-9.82	414.39	-9.50	225.86
140	0.00	47.72	-9.74	415.39	-9.50	225.86
145	0.00	47.71	-9.74	415.41	-9.50	225.86
150	0.00	48.10	-9.82	414.44	-9.50	225.86
155	0.00	48.88	-9.98	412.51	-9.50	225.86
160	0.00	50.02	-10.20	409.73	-9.50	225.86
165	0.00	51.50	-10.20	409.73	-9.50	225.86
170	0.00	53.12	-10.20	409.73	-9.50	225.86
175	0.00	54.18	-10.20	409.73	-9.50	225.86
180	0.00	54.54	-10.20	409.73	-9.50	225.86
185	0.00	54.18	-10.20	409.73	-9.50	225.86

COMSEARCH

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Coordination Values

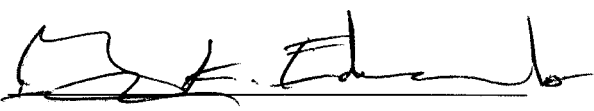
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Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%
Max Available RF Power 1.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	53.12	-10.20	409.73	-9.50	225.86
195	0.00	51.43	-10.20	409.73	-9.50	225.86
200	0.00	49.20	-10.04	411.69	-9.50	225.86
205	0.00	46.53	-9.51	418.38	-9.50	225.86
210	0.00	43.49	-8.90	426.11	-9.20	227.76
215	0.00	40.16	-8.23	434.74	-8.53	231.97
220	0.00	36.61	-7.52	444.16	-7.14	240.94
225	0.00	32.95	-6.38	459.69	-6.09	247.92
230	0.00	29.60	-5.04	478.03	-5.34	252.98
235	0.00	26.71	-3.88	495.00	-4.18	259.29
240	0.00	24.46	-2.98	508.66	-3.17	266.47
245	0.00	23.03	-2.41	517.52	-2.32	272.77
250	0.00	22.58	-2.23	520.34	-2.05	274.80
255	0.00	23.16	-2.47	516.67	-2.40	272.17
260	0.00	24.71	-3.09	507.09	-3.33	265.36
265	0.00	27.06	-4.02	492.91	-4.32	258.31
270	0.00	30.02	-5.21	475.60	-5.50	251.86
275	0.00	33.43	-6.57	457.08	-6.19	247.28
280	0.00	37.16	-7.63	442.69	-7.36	239.51
285	0.00	41.12	-8.42	432.23	-8.72	230.75
290	0.00	45.26	-9.25	421.59	-9.50	225.86
295	0.00	49.52	-10.10	410.90	-9.50	225.86
300	0.00	53.88	-10.20	409.73	-9.50	225.86
305	0.00	58.32	-10.20	409.73	-9.50	225.86
310	0.00	62.80	-10.20	409.73	-9.50	225.86
315	0.00	67.33	-10.20	409.73	-9.50	225.86
320	0.00	71.89	-10.20	409.73	-9.50	225.86
325	0.00	76.48	-10.20	409.73	-9.50	225.86
330	0.00	81.08	-10.20	409.73	-9.50	225.86
335	0.00	85.69	-10.20	409.73	-9.50	225.86
340	0.00	90.31	-10.20	409.73	-9.50	225.86
345	0.00	94.92	-10.20	409.73	-9.50	225.86
350	0.00	99.53	-10.20	409.73	-9.50	225.86
355	0.00	104.13	-10.20	409.73	-9.50	225.86

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: August 07, 2018