

Channel Study

REFERENCE		CH# 223D - 92.5 MHz, Pwr= 0.001 kW DA, HAAT= 56.9 M, COR= 362 M								DISPLAY DATES	
33 52 47.4 N.		Average Protected F(50-50)= 2.5 km								DATA 10-25-19	
84 44 29.7 W.		Standard Directional								SEARCH 10-25-19	
CH CITY	CALL	TYPE STATE	ANT	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
225C1 Atlanta	WZGC	LIC N GA		102.1 282.4	38.09 BMLH20080226ABQ	33 48 26.4 84 20 21.5	66.000 340	10.0 612	73.0 Entercom License, LLC	26.5	-34.9*<
223C3 Zebulon	WEKS	LIC GA		166.3 346.4	84.59 BLH20060714AAC	33 08 20.4 84 31 30.7	12.000 145	103.3 380	37.6 Legacy Media - South Atlan	-21.3*<	38.9
223D Lithia Springs	W223BP!	LIC GA		138.6 318.6	8.56 BLFT20120313AAR	33 49 19.4 84 40 48.8	0.120 35	324	---Reference--- Immanuel Broadcasting Netw		
223D Lithia Springs	W223BP.au!	USR D GA		0.0 0.0	0.00	33 52 47.4 84 44 29.7	0.001 57	362	---Reference---		
222D Marietta	W222AF.P	USR D GA		110.0 290.2	37.44	33 45 51.0 84 21 42.0	0.250 299	34.9 577	23.3	0.6	11.4
220A Atlanta	WCLK<	LIC N GA		102.1 282.4	38.08 BLED20130403AAI	33 48 26.4 84 20 21.7	0.480 302	1.5 588	28.0 Clark Atlanta University	8.0R	30.1M
223D Bainbridge	W290AS	CP D GA		57.3 237.4	20.26 BPFT20160728AFT	33 58 41.4 84 33 24.8	0.250	8.3 429	2.3 Educational Media Foundati	11.7	16.3
222D Marietta	W222AF	LIC D GA		102.1 282.4	37.95 BMLFT20190710AAD	33 48 27.4 84 20 26.7	0.099	23.0 529	15.3 Immanuel Broadcasting Netw	13.3	20.4
221A Carrollton	WBTR-FM	CP GA		216.1 36.0	43.25 BPH20170228AAQ	33 33 54.4 85 01 01.8	1.650 194	2.2 498	25.7 Wyai, Inc.	39.1	17.5
222C0 Chattanooga	WDEF-FM	LIC TN		339.3 158.9	149.14 BMLH20050831ADG	35 08 06.3 85 19 24.9	100.000 360	130.8 743	87.5 Jackson Telecasters, Inc.	18.1	61.2
221A Carrollton	WBTR-FM	LIC GA		216.1 36.0	43.25 BLH19861029KC	33 33 54.3 85 01 01.7	0.580 194	1.6 498	20.2 Wyai, Inc.	39.7	23.0
223D Lawrenceville	W223CQ	LIC GA		79.2 259.5	64.40 BLFT20190221AAJ	33 59 12.0 84 03 25.0	0.250	34.6 366	10.3 Radio Training Network, In	29.5	52.5
224D Rome	W224DS	CP D GA		311.3 131.0	59.83 BMPFT20190705AAI	34 14 02.3 85 13 49.8	0.120	23.4 442	15.4 Woman's World Broadcasting	36.3	44.0
221D North Canton	W221AW	LIC GA		24.4 204.5	48.05 BLFT20050420ABJ	34 16 26.3 84 31 31.7	0.010 272	0.2 602	10.6 Immanuel Broadcasting Netw	47.6	37.5
223C Greenville	WESC-FM	LIC SC		53.8 235.0	240.51 BLH19800811AB	35 08 16.4 82 36 30.4	100.000 610	184.7 1274	81.4 Clear Channel Broadcasting	55.6	157.5

Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference Zone= East Zone, Co to 3rd adjacent.
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
 < = Contour Overlap

***Note:** The facility contemplated herein is being filed contingently with an application for W222AF, Marietta, GA according to the guidelines of 47 C.F.R. 73.3517(e). The proposed contingent facilities are marked with a "P" following the call sign. Also as part of this filing, the construction permit for W290AS is being withdrawn.

Exhibit 13-B

FMCommander Single Allocation Study - 10-25-2019 - FCC NGDC 30 Sec
W223BP.P's Overlaps (In= 0.61 km, Out= 11.37 km)

W223BP.P CH 223 D DA
Lat= 33 52 47.4, Lng= 84 44 29.7
0.001 kW 56.9 m HAAT, 362 m COR
Prot.= 60 dBu, Intef.= 54 dBu

W222AF.CH 222 D DA
Lat= 33 45 51.0, Lng= 84 21 42.0
0.25 kW 299.2 m HAAT, 577 m COR
Prot.= 60 dBu, Intef.= 54 dBu

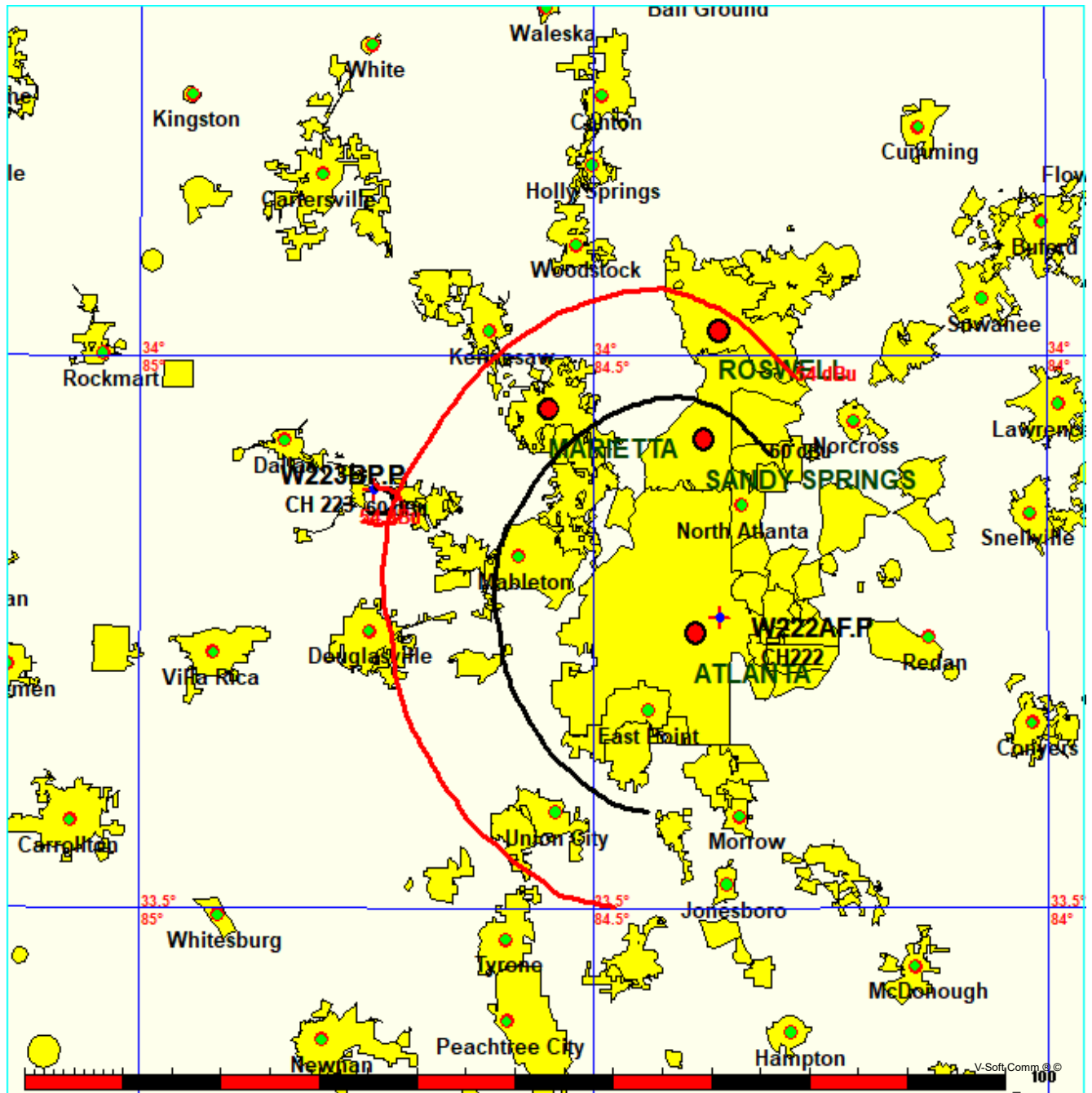


Exhibit 13-B1

Lithia Springs, GA

W222AF.P vs. W223BP.P

10-24-2019

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

W223BP

Channel = 223D
Max ERP = 0.001 kW
RCAMSL = 362 m
N. Lat. 33 52 47.4
W. Lng. 84 44 29.7
Protected
60 dBu

W222AF.P

Channel = 222D
Max ERP = 0.25 kW
RCAMSL = 577 m
N. Lat. 33 45 51.7
W. Lng. 84 21 41.7
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
080.0	000.0000	0083.7	000.2	290.4	000.2500	0321.0	037.3	52.91	
081.0	000.0000	0084.4	000.2	290.4	000.2500	0321.0	037.3	52.91	
082.0	000.0000	0084.4	000.2	290.3	000.2500	0321.0	037.3	52.91	
083.0	000.0000	0084.7	000.2	290.3	000.2500	0321.0	037.3	52.91	
084.0	000.0000	0084.9	000.2	290.4	000.2500	0321.0	037.2	52.92	
085.0	000.0000	0084.9	000.3	290.4	000.2500	0321.0	037.2	52.93	
086.0	000.0000	0084.7	000.3	290.4	000.2500	0321.0	037.2	52.95	
087.0	000.0000	0084.5	000.3	290.4	000.2500	0321.0	037.1	52.96	
088.0	000.0000	0084.2	000.4	290.4	000.2500	0321.0	037.1	52.97	
089.0	000.0000	0084.2	000.4	290.4	000.2500	0321.0	037.0	53.01	
090.0	000.0000	0084.4	000.5	290.5	000.2500	0321.0	037.0	53.05	
091.0	000.0000	0084.6	000.6	290.5	000.2500	0321.0	036.9	53.09	
092.0	000.0000	0084.7	000.7	290.5	000.2500	0321.0	036.8	53.13	
093.0	000.0000	0084.5	000.8	290.5	000.2500	0321.0	036.7	53.17	
094.0	000.0000	0084.5	000.9	290.6	000.2500	0321.0	036.6	53.22	
095.0	000.0000	0084.3	001.0	290.6	000.2500	0321.0	036.5	53.27	
096.0	000.0000	0084.5	001.1	290.6	000.2500	0321.0	036.4	53.32	
097.0	000.0000	0085.0	001.2	290.6	000.2500	0321.0	036.2	53.38	
098.0	000.0000	0085.2	001.3	290.6	000.2500	0321.0	036.1	53.43	
099.0	000.0000	0085.1	001.5	290.6	000.2500	0321.0	036.0	53.51	
100.0	000.0001	0085.2	001.6	290.6	000.2500	0321.0	035.9	53.56	
101.0	000.0001	0085.7	001.6	290.6	000.2500	0321.0	035.8	53.57	
102.0	000.0001	0086.4	001.6	290.6	000.2500	0321.0	035.8	53.57	
103.0	000.0001	0086.4	001.6	290.5	000.2500	0321.0	035.8	53.57	
104.0	000.0001	0086.2	001.6	290.5	000.2500	0321.0	035.9	53.54	
105.0	000.0001	0086.2	001.6	290.4	000.2500	0321.0	035.8	53.57	
106.0	000.0001	0086.7	001.7	290.4	000.2500	0321.0	035.8	53.60	
107.0	000.0001	0088.3	001.7	290.3	000.2500	0321.0	035.7	53.63	
108.0	000.0002	0089.8	001.8	290.3	000.2500	0321.0	035.6	53.66	
109.0	000.0002	0090.9	001.8	290.2	000.2500	0321.0	035.6	53.69	
110.0	000.0002	0091.3	001.9	290.2	000.2500	0321.0	035.5	53.71	
111.0	000.0002	0090.8	001.9	290.1	000.2500	0321.0	035.5	53.73	
112.0	000.0002	0090.3	002.0	290.1	000.2500	0321.0	035.5	53.74	
113.0	000.0002	0090.1	002.0	290.0	000.2500	0321.0	035.4	53.76	
114.0	000.0002	0090.5	002.0	290.0	000.2500	0321.1	035.4	53.78	
115.0	000.0002	0091.1	002.1	289.9	000.2500	0321.1	035.4	53.80	
116.0	000.0003	0091.6	002.1	289.8	000.2500	0321.1	035.3	53.82	
117.0	000.0003	0092.1	002.2	289.8	000.2500	0321.1	035.3	53.83	
118.0	000.0003	0092.7	002.2	289.7	000.2500	0321.1	035.3	53.85	
119.0	000.0003	0093.8	002.2	289.6	000.2500	0321.2	035.2	53.87	
120.0	000.0003	0094.9	002.3	289.5	000.2500	0321.2	035.2	53.89	
121.0	000.0003	0095.5	002.3	289.5	000.2500	0321.3	035.2	53.90	
122.0	000.0004	0095.2	002.4	289.4	000.2500	0321.3	035.1	53.91	

Exhibit 13-B1

Lithia Springs, GA

123.0	000.0004	0094.6	002.4	289.3	000.2500	0321.3	035.1	53.92
124.0	000.0004	0094.3	002.4	289.2	000.2500	0321.4	035.1	53.93
125.0	000.0004	0094.7	002.4	289.2	000.2500	0321.4	035.1	53.94
126.0	000.0004	0095.2	002.5	289.1	000.2500	0321.5	035.1	53.95
127.0	000.0005	0095.2	002.5	289.0	000.2500	0321.5	035.1	53.96
128.0	000.0005	0094.9	002.5	288.9	000.2500	0321.6	035.0	53.96
129.0	000.0005	0094.5	002.5	288.8	000.2500	0321.6	035.0	53.97
130.0	000.0005	0094.0	002.6	288.8	000.2500	0321.7	035.0	53.97
131.0	000.0005	0093.1	002.6	288.7	000.2500	0321.7	035.0	53.97
132.0	000.0006	0092.0	002.6	288.6	000.2500	0321.7	035.0	53.97
133.0	000.0006	0090.8	002.6	288.5	000.2500	0321.8	035.1	53.97
134.0	000.0006	0089.7	002.6	288.5	000.2500	0321.8	035.1	53.96
135.0	000.0006	0088.8	002.6	288.4	000.2500	0321.8	035.1	53.96
136.0	000.0006	0088.1	002.6	288.3	000.2500	0321.8	035.1	53.95
137.0	000.0006	0087.2	002.7	288.2	000.2500	0321.9	035.1	53.95
138.0	000.0007	0086.0	002.7	288.2	000.2500	0321.9	035.1	53.94
139.0	000.0007	0084.7	002.7	288.1	000.2500	0321.9	035.1	53.93
140.0	000.0007	0083.6	002.7	288.0	000.2500	0321.9	035.2	53.92
141.0	000.0007	0082.5	002.7	288.0	000.2500	0321.9	035.2	53.91
142.0	000.0007	0081.3	002.7	287.9	000.2500	0321.9	035.2	53.90
143.0	000.0008	0080.1	002.7	287.8	000.2500	0321.9	035.2	53.89
144.0	000.0008	0079.5	002.7	287.8	000.2500	0321.9	035.3	53.88
145.0	000.0008	0079.9	002.7	287.7	000.2500	0321.9	035.3	53.87
146.0	000.0008	0081.0	002.7	287.6	000.2500	0321.9	035.3	53.87
147.0	000.0008	0081.7	002.7	287.5	000.2500	0322.0	035.3	53.86
148.0	000.0008	0081.9	002.8	287.4	000.2500	0322.0	035.3	53.85
149.0	000.0009	0081.7	002.8	287.4	000.2500	0322.0	035.3	53.84
150.0	000.0009	0080.9	002.8	287.3	000.2500	0322.0	035.4	53.82
151.0	000.0009	0079.2	002.8	287.3	000.2500	0322.0	035.4	53.80
152.0	000.0009	0076.6	002.7	287.2	000.2500	0322.0	035.5	53.78
153.0	000.0009	0073.7	002.7	287.2	000.2500	0322.0	035.5	53.75
154.0	000.0009	0071.4	002.7	287.2	000.2500	0322.0	035.6	53.73
155.0	000.0009	0069.7	002.7	287.2	000.2500	0322.0	035.6	53.71
156.0	000.0009	0068.6	002.6	287.1	000.2500	0322.0	035.7	53.69
157.0	000.0009	0067.7	002.6	287.1	000.2500	0321.9	035.7	53.67
158.0	000.0010	0066.5	002.6	287.1	000.2500	0321.9	035.7	53.65
159.0	000.0010	0065.0	002.6	287.0	000.2500	0321.9	035.8	53.62
160.0	000.0010	0063.6	002.6	287.0	000.2500	0321.9	035.8	53.60
161.0	000.0010	0062.9	002.6	287.0	000.2500	0321.9	035.9	53.58
162.0	000.0010	0062.9	002.6	286.9	000.2500	0321.9	035.9	53.57
163.0	000.0010	0063.1	002.6	286.9	000.2500	0321.9	035.9	53.55
164.0	000.0010	0063.0	002.6	286.8	000.2500	0321.9	036.0	53.53
165.0	000.0010	0062.3	002.6	286.8	000.2500	0321.9	036.0	53.51
166.0	000.0010	0061.9	002.6	286.8	000.2500	0321.9	036.1	53.49
167.0	000.0010	0062.0	002.6	286.7	000.2500	0321.9	036.1	53.47
168.0	000.0010	0062.1	002.6	286.7	000.2500	0321.9	036.1	53.46
169.0	000.0010	0061.9	002.6	286.7	000.2500	0321.9	036.2	53.44