

WKBR-FM
BNPED-20071015AKQ
Summerville, South Carolina
Application for Modified Facilities for Noncommercial FM Station
On Channel 205 Class C1
by
Spirit Broadcasting Group, Inc.

Exhibit 18
Allocations

March 2013

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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Exhibit 18, Allocations, for Spirit Broadcasting Group, Inc., and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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30 March 2013

Narrative

This Exhibit provides details of the allocations for the proposed modified facilities of WKBR-FM, at Summerville, South Carolina. The authorization file number is BNPED-20071015AKQ, currently at Branchville, South Carolina. This proposal complies fully with the requirements of 74 C.F.R. 73.509. The change of community is described in a separate exhibit.

The changes are a new site, increased height, increased effective radiated power, and a new directional antenna pattern. This application is being filed in coordination with a modification application for new station WAGP, Beaufort, South Carolina. The licensee of WAGP, Community Broadcasting Corp. of Beaufort, Inc., has filed a minor modification application, file number BPED-20130306ABM. This WKBR-FM application is contingent upon the grant of the WAGP modification.

Allocations

This application proposes service to Summerville, South Carolina, on channel 205 as a Class C1 facility. The Allocations Table in this exhibit provides a list of the stations, construction permits, allocations, and applications studied. All are protected by this application with the exception of the licensed WAGP facilities. The facilities in this application are contingent upon grant of application BPED-20130306ABM, a coordinated application.

An Allocations Study is included as Figure 1. Where there are facilities whose overlap is less than 3.2 kilometers (2 miles) additional figures are provided, along with the output tables from the computer program FMOVER. Those facilities are identified below.

Figure/Table	Facility ID	Community	Channel and Relationship
2	WSCI	Charleston, South Carolina	207C second adjacent
3	WAGP.A	Beaufort, South Carolina	204C1 first adjacent
4	WNSC-FM	Rock Hill, South Carolina	205C1, co-channel
5	WLJK	Aiken, South Carolina	206C1, first adjacent

Modified WAGP Facilities

The proposed modification of WAGP facilities is limited to a change in the directional antenna pattern. The proposed modified WAGP antenna pattern requires no change in the installed WAGP antenna. While the installed antenna reaches 89.4% of the licensed pattern now, it can reach 95.1% of the proposed modified pattern. On Figure 1, the Allocations Study, the licensed WAGP pattern is shown, as well as the modified pattern. The proposed modified pattern and the licensed pattern are included as Figures 6 and 7 of this exhibit.

Directional Antenna

This application proposes a directional antenna. The pattern is tabulated and plotted as Figure 8 in this Exhibit. The antenna will comply with the requirements of §73.316. A

complete updated proof of performance from an antenna manufacturer will be provided in the license application.

The antenna will be mounted to the tower as specified in the manufacturer's mounting instructions. The antenna will not be mounted on the top of an antenna tower which includes a top-mounted platform larger than the nominal cross-sectional area of the tower in the horizontal plane. No other antenna of any type will be mounted on the same tower level as a directional antenna, and that no antenna of any type will be mounted within any horizontal or vertical distance specified by the antenna manufacturer as being necessary for proper directional operation. Antenna installation will be supervised by an engineer experienced in directional antennas. The supervising engineer will provide a statement of qualifications and a statement that the antenna was assembled and installed according to the manufacturer's instruction. A registered land surveyor will verify the orientation of the antenna and provide a statement that the antenna is properly oriented. There are no other FM or TV broadcasting antennas within 60 meters of the proposed site. There is an existing AM station 3.2 kilometers from the existing and proposed site.

Source of Data

Transmitter location, effective radiated power, directional antenna pattern, and elevation data are extracted from the Commission's CDBS. All contours for existing and proposed facilities are calculated using height above average terrain calculated at one degree horizontal increments. Terrain data is extracted from the V-Soft Communications NED 03 terrain database. The NED 03 database is derived from the USGS National Elevation Data 30 meter terrain database.

Population data is from 2010 U.S. Census PL data files. Population is counted by considering the location of the centroid of each census block. The data for each block is counted if it falls within the area being counted.

Area and Population

The area within the proposed 60 dBu F(50,50) service contour is calculated by a computer program which sums the areas within the contours based on 360 radials. The area of any significant water is then measured and subtracted. The resulting area is shown on a Figure at the end of this Exhibit. The population is calculated by the centroid method and is also listed on the Figure.

Table 1: Allocations

Allocation Study											
Spirit Broadcasting Group, Inc.											
REFERENCE		CH# 205C1- 88.9 MHZ, Pwr= 70 kW DA, HAAT= 96.2 M, COR= 124 M						DISPLAY DATES			
33 11 33.0 N.		Average Protected F(50-50)= 47.0 km						DATA 03-30-13			
80 33 51.0 W.		Standard Directional						SEARCH 03-30-13			
CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kw)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
205C3	WKBR-FM	CP	DEX	289.5	4.83	33 12 25.0	18.000	105.3	35.5	-136.4*	-138.7*
Branchville			SC	109.4	BNPED20071015AKQ	80 36 47.0	90	120	Spirit Broadcasting Group,		
Facility for which this application proposes a modification.											
204C1	WAGP	LIC	DCX	199.8	98.40	32 21 27.1	100.000	80.8	47.0	-14.2	-2.8
Beaufort			SC	19.6	BLED20090305AAF	80 55 11.2	103	105	Community Broadcasting Corp		
The instant application is contingent upon grant of BPED-20130306ABM, below, for modification of WAGP.											
207C	WSCI	LIC	DCY	110.1	86.05	32 55 28.0	100.000	11.7	80.7	27.0	0.0
Charleston			SC	290.5	BLED19921223KA	79 41 58.0	418	419	South Carolina Educational		
204C1	WAGP	APP	DCX	199.8	98.40	32 21 27.1	100.000	64.9	41.8	0.3	4.7
Beaufort			SC	19.6	BPED20130306ABM	80 55 11.2	103	105	Community Broadcasting Corp		
205C1	WNSC-FM	LIC	CY	347.2	187.46	34 50 23.0	100.000	162.5	64.2	0.6	46.0
Rock Hill			SC	167.0	BMLD20060215AAK	81 01 07.0	183	359	South Carolina Educational		
206C1	WLJK	LIC	HN	281.6	120.91	33 24 18.0	10.000	82.9	56.0	1.9	8.9
Aiken			SC	100.9	BLED19890814KA	81 50 15.0	419	498	South Carolina Educational		
205C2	NEW	CP	DEX	230.5	154.56	32 18 06.0	45.000	88.3	25.1	26.1	3.6
Claxton			GA	49.8	BNPED20071022BIT	81 49 57.0	76	123	Radio Training Network, In		
205C1	WKVC	LIC	DVN	62.0	218.19	34 05 41.0	100.000	159.1	61.7	11.8	22.9
North Myrtle Beach			SC	243.2	BLED19970924KA	78 28 27.0	177	188	Educational Media Foundation		
Vertical Polarization Only											
203C2	WFCH	LIC	CN	121.3	79.76	32 49 04.0	29.500	4.1	39.4	28.5	35.1
Charleston			SC	301.7	BLED19861217KA	79 50 08.0	93	96	Family Stations, Inc.		
06 2E	WCES-TV	LI	HN	273.1	160.65	33 15 33.0	7.900	43.3	86.6	129.9R	30.7M
Wrens			GA	92.2	BLEDT20090612ACF	82 17 09.0	429	544	Georgia Public Telecommuni		
259C1	WXST«	LIC	NCX	121.3	79.76	32 49 04.0	70.000	12.8	58.8	33.5R	46.3M
Hollywood			SC	301.7	BMLH20081014AAT	79 50 08.0	238	239	Apex Broadcasting, Inc.		
204C1	WKMH-FM	CP	DEX	304.8	150.37	33 57 22.0	51.000	65.1	41.5	50.7	53.7
Saluda			SC	124.0	BMPED20121031ABX	81 54 09.0	120	266	Spirit Broadcasting Group,		
203C2	WYFV	LIC	DCX	328.2	93.71	33 54 32.0	50.000	2.9	33.1	61.7	54.6
Cayce			SC	148.0	BLED20060310ACX	81 05 57.0	52	132	Bible Broadcasting Network		
202C2	WAFJ	LIC	CN	281.7	121.51	33 24 29.0	4.500	4.0	48.5	81.4	69.4
Belvedere			SC	101.0	BLED19931122KD	81 50 36.0	423	497	Radio Training Network, In		

Terrain database is NED 03 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM. In & Out distances between contours are shown at closest points. Reference Zone= - Zone 2, Co to 3rd adjacent. All separation margins (if shown) include rounding
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 protected contour.
« = Station meets FCC minimum distance spacing for its class.

Table 2: FMOVER protection of WSCI, Charleston, South Carolina

03-30-2013 Terrain Data: NED 03 SEC FMOVER Analysis

WKBRmod

WSCI BLE19921223KA

Channel = 205C1

Channel = 207C

Max ERP = 70 kW

Max ERP = 100 kW

RCAMSL = 124 M

RCAMSL = 419 M

N. Lat. 33 11 33.0

N. Lat. 32 55 28.0

W. Lng. 80 33 51.0

W. Lng. 79 41 58.0

Protected

Interfering

60 dBu

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
050.0	030.4920	0099.7	040.6	318.7	100.0000	0411.6	074.7	67.30	
051.0	032.0830	0099.7	041.0	319.0	100.0000	0411.5	073.9	67.55	
052.0	033.7145	0099.8	041.5	319.3	100.0000	0411.5	073.2	67.80	
053.0	035.3865	0100.0	041.9	319.6	100.0000	0411.6	072.4	68.06	
054.0	037.0989	0100.4	042.3	319.9	100.0000	0411.7	071.7	68.32	
055.0	038.8518	0100.3	042.7	320.2	100.0000	0411.7	070.9	68.58	
056.0	040.6451	0100.2	043.1	320.4	100.0000	0411.8	070.1	68.84	
057.0	042.4789	0100.4	043.5	320.6	100.0000	0411.8	069.3	69.11	
058.0	044.3531	0100.5	043.8	320.9	100.0000	0411.8	068.5	69.38	
059.0	046.2678	0100.6	044.2	321.1	100.0000	0411.7	067.7	69.66	
060.0	048.2230	0100.6	044.5	321.3	100.0000	0411.7	066.9	69.94	
061.0	050.2186	0100.6	044.9	321.5	100.0000	0411.7	066.1	70.22	
062.0	052.2547	0100.7	045.3	321.6	100.0000	0411.7	065.2	70.51	
063.0	054.3313	0100.6	045.6	321.8	100.0000	0411.7	064.4	70.80	
064.0	056.4483	0100.9	045.9	321.9	100.0000	0411.7	063.5	71.10	
065.0	058.6057	0101.4	046.4	322.2	100.0000	0411.7	062.7	71.41	
066.0	060.8037	0101.4	046.7	322.3	100.0000	0411.7	061.8	71.72	
067.0	063.0421	0100.7	046.9	322.2	100.0000	0411.7	061.0	72.02	
068.0	065.3209	0100.1	047.1	322.2	100.0000	0411.7	060.1	72.33	
069.0	067.6402	0099.8	047.3	322.2	100.0000	0411.7	059.3	72.64	
070.0	070.0000	0099.8	047.6	322.3	100.0000	0411.7	058.4	72.97	
071.0	070.0000	0099.8	047.6	322.0	100.0000	0411.7	057.6	73.26	
072.0	070.0000	0099.8	047.6	321.7	100.0000	0411.7	056.8	73.56	
073.0	070.0000	0099.7	047.6	321.4	100.0000	0411.7	056.1	73.85	
074.0	070.0000	0099.6	047.6	321.0	100.0000	0411.8	055.3	74.14	
075.0	070.0000	0099.3	047.5	320.6	100.0000	0411.8	054.6	74.42	
076.0	070.0000	0099.2	047.5	320.2	100.0000	0411.7	053.8	74.70	
077.0	070.0000	0099.3	047.5	319.8	100.0000	0411.7	053.1	74.98	
078.0	070.0000	0099.2	047.5	319.4	100.0000	0411.6	052.4	75.25	
079.0	070.0000	0099.1	047.5	318.9	100.0000	0411.5	051.6	75.52	
080.0	070.0000	0099.1	047.5	318.4	100.0000	0411.7	050.9	75.80	
081.0	070.0000	0098.9	047.5	317.9	100.0000	0411.8	050.3	76.06	
082.0	070.0000	0099.0	047.5	317.4	100.0000	0411.6	049.6	76.32	
083.0	070.0000	0099.0	047.5	316.8	100.0000	0411.5	048.9	76.57	
084.0	070.0000	0099.2	047.5	316.3	100.0000	0411.4	048.2	76.82	
085.0	070.0000	0099.2	047.5	315.6	100.0000	0411.4	047.6	77.07	
086.0	070.0000	0099.2	047.5	315.0	100.0000	0411.5	046.9	77.31	
087.0	070.0000	0099.2	047.5	314.3	100.0000	0411.9	046.3	77.56	
088.0	070.0000	0099.2	047.5	313.6	100.0000	0411.8	045.7	77.79	
089.0	070.0000	0099.3	047.5	312.8	100.0000	0411.7	045.1	78.03	
090.0	070.0000	0099.4	047.6	312.1	100.0000	0411.6	044.6	78.26	
091.0	070.0000	0099.4	047.6	311.3	100.0000	0411.3	044.0	78.47	

092.0	070.0000	0099.5	047.6	310.4	100.0000	0410.9	043.5	78.68
093.0	070.0000	0099.5	047.6	309.6	100.0000	0410.9	043.0	78.89
094.0	070.0000	0099.7	047.6	308.7	100.0000	0410.9	042.5	79.10
095.0	070.0000	0099.5	047.6	307.7	100.0000	0410.9	042.0	79.28
096.0	070.0000	0099.3	047.5	306.7	100.0000	0411.3	041.7	79.46
097.0	070.0000	0099.5	047.6	305.7	100.0000	0411.6	041.2	79.65
098.0	070.0000	0099.7	047.6	304.7	100.0000	0412.6	040.8	79.86
099.0	070.0000	0099.8	047.6	303.7	100.0000	0413.1	040.4	80.03
100.0	070.0000	0099.9	047.7	302.6	100.0000	0413.0	040.1	80.18
101.0	070.0000	0099.9	047.7	301.5	100.0000	0412.6	039.8	80.30
102.0	070.0000	0098.8	047.5	300.2	100.0000	0412.2	039.7	80.33
103.0	070.0000	0098.7	047.4	299.1	100.0000	0412.3	039.5	80.42
104.0	070.0000	0098.6	047.4	297.9	100.0000	0412.5	039.3	80.51
105.0	070.0000	0098.6	047.4	296.7	100.0000	0412.8	039.1	80.60
106.0	070.0000	0098.8	047.4	295.5	100.0000	0412.3	038.9	80.67
107.0	070.0000	0098.8	047.4	294.3	100.0000	0412.1	038.8	80.71
108.0	070.0000	0098.7	047.4	293.1	100.0000	0411.9	038.8	80.73
109.0	070.0000	0098.7	047.4	291.9	100.0000	0412.0	038.7	80.76
110.0	070.0000	0098.4	047.4	290.6	100.0000	0412.3	038.7	80.76
111.0	070.0000	0098.1	047.3	289.4	100.0000	0412.4	038.8	80.73
112.0	070.0000	0098.0	047.3	288.2	100.0000	0412.8	038.9	80.71
113.0	070.0000	0097.9	047.3	287.0	100.0000	0413.1	039.0	80.68
114.0	070.0000	0097.7	047.2	285.8	100.0000	0413.0	039.1	80.61
115.0	070.0000	0097.6	047.2	284.6	100.0000	0413.4	039.3	80.54
116.0	070.0000	0097.7	047.2	283.4	100.0000	0413.6	039.4	80.48
117.0	070.0000	0097.7	047.2	282.2	100.0000	0413.4	039.6	80.39
118.0	070.0000	0097.5	047.2	281.1	100.0000	0413.1	039.9	80.26
119.0	070.0000	0097.3	047.2	280.0	100.0000	0413.0	040.2	80.14
120.0	070.0000	0097.4	047.2	278.9	100.0000	0412.9	040.5	80.01
121.0	070.0000	0097.3	047.2	277.8	100.0000	0413.2	040.8	79.88
122.0	070.0000	0097.6	047.2	276.7	100.0000	0413.5	041.1	79.76
123.0	070.0000	0097.4	047.2	275.7	100.0000	0413.7	041.5	79.59
124.0	070.0000	0097.2	047.2	274.7	100.0000	0413.9	041.9	79.42
125.0	070.0000	0097.3	047.2	273.8	100.0000	0414.9	042.3	79.27
126.0	070.0000	0097.2	047.2	272.8	100.0000	0415.6	042.8	79.10
127.0	070.0000	0097.5	047.2	271.9	100.0000	0416.0	043.2	78.93
128.0	070.0000	0097.5	047.2	271.0	100.0000	0416.4	043.7	78.74
129.0	070.0000	0097.4	047.2	270.2	100.0000	0416.1	044.2	78.52
130.0	070.0000	0097.4	047.2	269.4	100.0000	0416.2	044.7	78.30
131.0	070.0000	0097.2	047.1	268.6	100.0000	0416.3	045.3	78.07
132.0	070.0000	0096.9	047.1	267.9	100.0000	0416.3	045.9	77.83
133.0	070.0000	0096.8	047.1	267.2	100.0000	0416.2	046.5	77.59
134.0	070.0000	0096.8	047.1	266.5	100.0000	0416.6	047.1	77.37
135.0	070.0000	0096.8	047.1	265.8	100.0000	0417.0	047.7	77.14
136.0	070.0000	0097.1	047.1	265.2	100.0000	0417.1	048.3	76.92
137.0	070.0000	0097.2	047.2	264.5	100.0000	0417.2	049.0	76.68
138.0	070.0000	0097.7	047.2	263.9	100.0000	0417.2	049.6	76.45
139.0	070.0000	0098.1	047.3	263.3	100.0000	0417.2	050.2	76.20
140.0	070.0000	0098.6	047.4	262.7	100.0000	0417.1	050.9	75.96
141.0	068.5516	0099.0	047.3	262.3	100.0000	0417.2	051.6	75.67
142.0	067.1183	0099.3	047.2	261.9	100.0000	0417.2	052.4	75.37
143.0	065.7001	0100.0	047.1	261.6	100.0000	0417.1	053.2	75.09
144.0	064.2971	0100.5	047.0	261.3	100.0000	0417.1	053.9	74.79
145.0	062.9093	0100.3	046.8	261.1	100.0000	0417.1	054.8	74.47
146.0	061.5366	0100.4	046.6	260.9	100.0000	0417.1	055.6	74.17
147.0	060.1790	0100.4	046.4	260.7	100.0000	0417.1	056.4	73.85
148.0	058.8366	0100.4	046.2	260.6	100.0000	0417.1	057.2	73.55
149.0	057.5093	0100.8	046.1	260.4	100.0000	0417.1	058.0	73.24
150.0	056.1971	0101.6	046.0	260.2	100.0000	0417.0	058.8	72.96
151.0	053.9127	0102.1	045.8	260.2	100.0000	0417.0	059.6	72.64
152.0	051.6757	0102.1	045.4	260.3	100.0000	0417.0	060.5	72.32
153.0	049.4861	0102.5	045.1	260.3	100.0000	0417.0	061.3	72.02
154.0	047.3439	0102.7	044.8	260.4	100.0000	0417.1	062.2	71.71

155.0	045.2491	0102.7	044.4	260.6	100.0000	0417.1	063.0	71.41
156.0	043.2017	0102.6	044.0	260.7	100.0000	0417.1	063.9	71.11
157.0	041.2017	0102.7	043.6	260.9	100.0000	0417.1	064.7	70.83
158.0	039.2491	0102.7	043.2	261.1	100.0000	0417.1	065.6	70.54
159.0	037.3439	0102.6	042.8	261.3	100.0000	0417.1	066.4	70.26
160.0	035.4861	0102.6	042.3	261.5	100.0000	0417.1	067.2	69.98
161.0	034.0457	0102.7	042.0	261.7	100.0000	0417.1	068.0	69.71
162.0	032.6351	0102.6	041.7	261.9	100.0000	0417.1	068.8	69.45
163.0	031.2544	0102.7	041.3	262.1	100.0000	0417.2	069.5	69.19
164.0	029.9035	0103.0	041.0	262.2	100.0000	0417.2	070.3	68.94
165.0	028.5825	0103.8	040.8	262.4	100.0000	0417.2	071.0	68.69
166.0	027.2913	0104.0	040.4	262.6	100.0000	0417.2	071.8	68.44
167.0	026.0299	0104.2	040.1	262.8	100.0000	0417.1	072.5	68.19
168.0	024.7984	0104.0	039.7	263.1	100.0000	0417.1	073.2	67.94
169.0	023.5967	0103.3	039.2	263.4	100.0000	0417.2	074.0	67.70

03-30-2013 Terrain Data: NED 03 SEC FMOver Analysis

WSCI BLEED19921223KA

WKBRmod

Channel = 207C
 Max ERP = 100 kW
 RCAMSL = 419 M
 N. Lat. 32 55 28.0
 W. Lng. 79 41 58.0
 Protected
 60 dBu

Channel = 205C1
 Max ERP = 70 kW
 RCAMSL = 124 M
 N. Lat. 33 11 33.0
 W. Lng. 80 33 51.0
 Interfering
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
231.0	100.0000	0412.4	080.7	167.3	025.6230	0104.3	082.5	47.67	
232.0	100.0000	0412.5	080.7	167.7	025.2173	0104.2	081.3	47.94	
233.0	100.0000	0412.7	080.7	168.1	024.6772	0103.9	080.0	48.19	
234.0	100.0000	0413.0	080.7	168.5	024.1443	0103.6	078.7	48.43	
235.0	100.0000	0413.4	080.7	169.0	023.6104	0103.3	077.5	48.69	
236.0	100.0000	0413.6	080.8	169.4	023.0953	0103.1	076.2	48.95	
237.0	100.0000	0413.7	080.8	169.9	022.5919	0103.0	074.9	49.22	
238.0	100.0000	0414.1	080.8	170.3	022.1517	0103.0	073.6	49.51	
239.0	100.0000	0414.9	080.9	170.8	021.7333	0103.1	072.3	49.80	
240.0	100.0000	0415.1	080.9	171.2	021.3454	0103.0	071.0	50.11	
241.0	100.0000	0414.9	080.9	171.6	020.9878	0102.9	069.7	50.42	
242.0	100.0000	0414.9	080.9	172.0	020.6208	0102.8	068.4	50.73	
243.0	100.0000	0415.0	080.9	172.4	020.2609	0102.7	067.0	51.05	
244.0	100.0000	0414.8	080.9	172.8	019.9213	0102.6	065.7	51.38	
245.0	100.0000	0415.0	080.9	173.2	019.5633	0102.5	064.4	51.71	
246.0	100.0000	0415.4	080.9	173.6	019.2048	0102.4	063.0	52.04	
247.0	100.0000	0415.5	080.9	174.0	018.8676	0102.4	061.7	52.41	
248.0	100.0000	0415.8	080.9	174.4	018.5281	0102.4	060.3	52.80	
249.0	100.0000	0416.3	081.0	174.9	018.1795	0102.5	059.0	53.20	
250.0	100.0000	0416.4	081.0	175.2	017.8657	0102.6	057.6	53.63	
251.0	100.0000	0416.6	081.0	175.6	017.5505	0102.7	056.3	54.07	
252.0	100.0000	0416.6	081.0	176.0	017.2523	0102.7	054.9	54.52	
253.0	100.0000	0416.8	081.0	176.4	016.9572	0102.6	053.5	54.95	
254.0	100.0000	0417.0	081.0	176.7	016.6633	0102.4	052.1	55.39	
255.0	100.0000	0417.0	081.0	177.1	016.3935	0102.4	050.8	55.85	
256.0	100.0000	0417.0	081.0	177.4	016.1320	0102.3	049.4	56.30	
257.0	100.0000	0416.9	081.0	177.7	015.8809	0102.1	048.0	56.74	
258.0	100.0000	0417.1	081.0	178.1	015.6272	0102.0	046.6	57.19	

259.0	100.0000	0417.1	081.0	178.4	015.3928	0101.8	045.2	57.65
260.0	100.0000	0417.0	081.0	178.6	015.1822	0101.7	043.8	58.14
261.0	100.0000	0417.1	081.0	178.9	014.9615	0101.7	042.4	58.64
262.0	100.0000	0417.2	081.0	179.2	014.7625	0101.7	041.0	59.16
263.0	100.0000	0417.1	081.0	179.4	014.5838	0101.7	039.6	59.71
264.0	100.0000	0417.2	081.0	179.7	014.4113	0101.8	038.2	60.27
265.0	100.0000	0417.1	081.0	179.9	014.2609	0101.9	036.8	60.86
266.0	100.0000	0416.9	081.0	180.0	014.1612	0101.9	035.4	61.47
267.0	100.0000	0416.3	081.0	180.1	014.1376	0102.0	034.0	62.12
268.0	100.0000	0416.3	081.0	180.2	014.0991	0102.0	032.6	62.78
269.0	100.0000	0416.2	081.0	180.3	014.0755	0102.0	031.1	63.48
270.0	100.0000	0416.2	081.0	180.4	014.0580	0102.0	029.7	64.25
271.0	100.0000	0416.4	081.0	180.4	014.0454	0102.0	028.3	65.08
272.0	100.0000	0416.0	080.9	180.3	014.0818	0102.0	026.9	65.98
273.0	100.0000	0415.5	080.9	180.1	014.1408	0102.0	025.5	66.94
274.0	100.0000	0414.7	080.8	179.8	014.3408	0101.8	024.1	67.98
275.0	100.0000	0413.8	080.8	179.3	014.6571	0101.7	022.7	69.10
276.0	100.0000	0413.6	080.8	178.9	014.9860	0101.7	021.3	70.27
277.0	100.0000	0413.5	080.8	178.4	015.3934	0101.8	019.9	71.49
278.0	100.0000	0413.2	080.7	177.6	015.9602	0102.2	018.5	72.81
279.0	100.0000	0412.8	080.7	176.7	016.7131	0102.4	017.1	74.17
280.0	100.0000	0413.0	080.7	175.6	017.5737	0102.7	015.8	75.56
281.0	100.0000	0413.0	080.7	174.2	018.7281	0102.4	014.4	76.99
282.0	100.0000	0413.3	080.7	172.5	020.2024	0102.7	013.1	79.04
283.0	100.0000	0413.5	080.8	170.2	022.2288	0103.0	011.7	81.39
284.0	100.0000	0413.5	080.8	167.2	025.7702	0104.3	010.5	84.23
285.0	100.0000	0413.3	080.7	163.1	031.0624	0102.7	009.2	87.12
286.0	100.0000	0413.1	080.7	157.7	039.7634	0102.8	008.1	90.45
287.0	100.0000	0413.1	080.7	150.6	054.8011	0102.0	007.0	94.23
288.0	100.0000	0412.8	080.7	140.9	068.6439	0098.9	006.2	97.29
289.0	100.0000	0412.6	080.7	128.5	070.0000	0097.5	005.6	99.08
290.0	100.0000	0412.2	080.7	113.9	070.0000	0097.7	005.3	99.93
291.0	100.0000	0412.2	080.7	098.8	070.0000	0099.8	005.4	99.80
292.0	100.0000	0412.0	080.6	085.3	070.0000	0099.2	005.9	98.26
293.0	100.0000	0411.9	080.6	074.4	070.0000	0099.5	006.6	96.10
294.0	100.0000	0412.1	080.7	066.0	060.7853	0101.4	007.6	93.23
295.0	100.0000	0412.3	080.7	059.7	047.6154	0100.6	008.7	89.84
296.0	100.0000	0412.6	080.7	055.0	038.7710	0100.3	009.9	86.70
297.0	100.0000	0412.7	080.7	051.4	032.7598	0099.8	011.1	83.78
298.0	100.0000	0412.5	080.7	048.8	029.0361	0099.5	012.4	81.24
299.0	100.0000	0412.3	080.7	046.8	026.6320	0099.3	013.7	79.04
300.0	100.0000	0412.2	080.7	045.2	024.7983	0099.5	015.1	77.35
301.0	100.0000	0412.6	080.7	043.8	023.2935	0099.5	016.4	75.92
302.0	100.0000	0412.8	080.7	042.8	022.1651	0099.5	017.8	74.56
303.0	100.0000	0413.1	080.7	041.9	021.2714	0099.4	019.2	73.24
304.0	100.0000	0413.1	080.7	041.4	020.6605	0099.4	020.6	72.00
305.0	100.0000	0412.3	080.7	041.1	020.3507	0099.4	022.0	70.84
306.0	100.0000	0411.4	080.6	040.8	020.1416	0099.4	023.4	69.74
307.0	100.0000	0411.2	080.6	040.6	019.9193	0099.4	024.8	68.68
308.0	100.0000	0411.0	080.6	040.5	019.7620	0099.4	026.2	67.68
309.0	100.0000	0410.8	080.6	040.4	019.6626	0099.4	027.6	66.74
310.0	100.0000	0411.0	080.6	040.3	019.5854	0099.4	029.0	65.87
311.0	100.0000	0411.1	080.6	040.3	019.5581	0099.4	030.4	65.07
312.0	100.0000	0411.6	080.6	040.2	019.5230	0099.4	031.8	64.33
313.0	100.0000	0411.8	080.6	040.3	019.5851	0099.4	033.2	63.67
314.0	100.0000	0411.9	080.6	040.4	019.6788	0099.4	034.6	63.03
315.0	100.0000	0411.5	080.6	040.6	019.8716	0099.4	036.0	62.43
316.0	100.0000	0411.5	080.6	040.8	020.0497	0099.4	037.4	61.85
317.0	100.0000	0411.5	080.6	040.9	020.2382	0099.4	038.8	61.28
318.0	100.0000	0411.8	080.6	041.1	020.4271	0099.4	040.2	60.72
319.0	100.0000	0411.5	080.6	041.4	020.7005	0099.4	041.6	60.20
320.0	100.0000	0411.7	080.6	041.6	020.9354	0099.4	043.0	59.68
321.0	100.0000	0411.8	080.6	041.9	021.2048	0099.4	044.4	59.18

322.0	100.0000	0411.7	080.6	042.2	021.5054	0099.5	045.8	58.70
323.0	100.0000	0411.8	080.6	042.5	021.8082	0099.5	047.2	58.23
324.0	100.0000	0411.8	080.6	042.8	022.1257	0099.5	048.5	57.78
325.0	100.0000	0411.8	080.6	043.1	022.4650	0099.5	049.9	57.33
326.0	100.0000	0411.8	080.6	043.4	022.8161	0099.5	051.3	56.87
327.0	100.0000	0411.8	080.6	043.7	023.1769	0099.5	052.7	56.42
328.0	100.0000	0411.8	080.6	044.1	023.5510	0099.5	054.0	55.97
329.0	100.0000	0411.9	080.6	044.4	023.9302	0099.5	055.4	55.53
330.0	100.0000	0411.7	080.6	044.8	024.3390	0099.5	056.7	55.09
331.0	100.0000	0411.7	080.6	045.2	024.7480	0099.6	058.1	54.67
332.0	100.0000	0411.9	080.6	045.5	025.1544	0099.5	059.5	54.25
333.0	100.0000	0412.3	080.7	045.9	025.5529	0099.5	060.8	53.84
334.0	100.0000	0412.8	080.7	046.2	025.9533	0099.4	062.2	53.45
335.0	100.0000	0412.7	080.7	046.6	026.4055	0099.4	063.5	53.08
336.0	100.0000	0412.6	080.7	047.0	026.8701	0099.3	064.8	52.74
337.0	100.0000	0412.7	080.7	047.4	027.3328	0099.4	066.2	52.42
338.0	100.0000	0413.0	080.7	047.8	027.7862	0099.5	067.5	52.09
339.0	100.0000	0413.0	080.7	048.2	028.2686	0099.5	068.8	51.78
340.0	100.0000	0412.4	080.7	048.6	028.7987	0099.5	070.1	51.47
341.0	100.0000	0412.2	080.7	049.0	029.3174	0099.6	071.4	51.17
342.0	100.0000	0412.0	080.6	049.5	029.8372	0099.6	072.7	50.87
343.0	100.0000	0411.8	080.6	049.9	030.3629	0099.7	074.0	50.58
344.0	100.0000	0411.6	080.6	050.3	031.0113	0099.8	075.3	50.30
345.0	100.0000	0411.6	080.6	050.7	031.6789	0099.7	076.6	50.03
346.0	100.0000	0411.4	080.6	051.2	032.3795	0099.7	077.9	49.76
347.0	100.0000	0411.1	080.6	051.6	033.0959	0099.8	079.1	49.50
348.0	100.0000	0411.1	080.6	052.1	033.8041	0099.8	080.4	49.24
349.0	100.0000	0411.0	080.6	052.5	034.5228	0099.8	081.7	48.98
350.0	100.0000	0410.8	080.6	052.9	035.2678	0099.9	082.9	48.73
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Table 3: FMOVER Protection of WAGP.A, Beaufort, South Carolina

03-30-2013 Terrain Data: NED 03 SEC FMOVER Analysis

WKBRmod

WAGP BPED20130306ABM

Channel = 205C1
 Max ERP = 70 kW
 RCAMSL = 124 M
 N. Lat. 33 11 33.0
 W. Lng. 80 33 51.0
 Protected
 60 dBu

Channel = 204C1
 Max ERP = 100 kW
 RCAMSL = 105.4 M
 N. Lat. 32 21 27.1
 W. Lng. 80 55 11.2
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
140.0	070.0000	0098.6	047.4	048.3	041.2937	0103.7	085.2	48.97	
141.0	068.5516	0099.0	047.3	048.2	041.2455	0103.6	084.3	49.20	
142.0	067.1183	0099.3	047.2	048.1	041.1993	0103.6	083.5	49.43	
143.0	065.7001	0100.0	047.1	048.0	041.1668	0103.6	082.7	49.65	
144.0	064.2971	0100.5	047.0	047.9	041.1176	0103.6	081.9	49.87	
145.0	062.9093	0100.3	046.8	047.7	041.0253	0103.5	081.1	50.08	
146.0	061.5366	0100.4	046.6	047.5	040.9486	0103.5	080.3	50.29	
147.0	060.1790	0100.4	046.4	047.2	040.8550	0103.4	079.5	50.50	
148.0	058.8366	0100.4	046.2	047.0	040.7580	0103.4	078.7	50.70	
149.0	057.5093	0100.8	046.1	046.8	040.6715	0103.4	078.0	50.91	
150.0	056.1971	0101.6	046.0	046.6	040.6055	0103.4	077.2	51.12	
151.0	053.9127	0102.1	045.8	046.3	040.4698	0103.4	076.5	51.31	
152.0	051.6757	0102.1	045.4	045.9	040.2974	0103.5	075.8	51.49	
153.0	049.4861	0102.5	045.1	045.5	040.1428	0103.6	075.1	51.67	
154.0	047.3439	0102.7	044.8	045.1	039.9679	0103.6	074.5	51.84	
155.0	045.2491	0102.7	044.4	044.6	039.7733	0103.6	073.9	51.99	
156.0	043.2017	0102.6	044.0	044.1	039.5718	0103.6	073.3	52.14	
157.0	041.2017	0102.7	043.6	043.6	039.3712	0103.6	072.8	52.28	
158.0	039.2491	0102.7	043.2	043.0	039.1567	0103.5	072.2	52.41	
159.0	037.3439	0102.6	042.8	042.5	038.9302	0103.6	071.7	52.53	
160.0	035.4861	0102.6	042.3	041.9	038.7050	0103.6	071.3	52.64	
161.0	034.0457	0102.7	042.0	041.4	038.5001	0103.6	070.8	52.76	
162.0	032.6351	0102.6	041.7	040.9	038.2858	0103.6	070.3	52.87	
163.0	031.2544	0102.7	041.3	040.3	038.0692	0103.6	069.9	52.98	
164.0	029.9035	0103.0	041.0	039.8	037.9193	0103.6	069.5	53.10	
165.0	028.5825	0103.8	040.8	039.3	037.8579	0103.7	069.0	53.23	
166.0	027.2913	0104.0	040.4	038.7	037.7865	0103.7	068.6	53.33	
167.0	026.0299	0104.2	040.1	038.1	037.7147	0103.6	068.3	53.42	
168.0	024.7984	0104.0	039.7	037.5	037.6354	0103.6	068.0	53.49	
169.0	023.5967	0103.3	039.2	036.8	037.5503	0103.5	067.8	53.53	
170.0	022.4249	0103.0	038.7	036.1	037.4673	0103.5	067.7	53.58	
171.0	021.5152	0103.1	038.4	035.5	037.3954	0103.4	067.4	53.64	
172.0	020.6242	0102.8	038.0	034.9	037.3184	0103.2	067.2	53.68	
173.0	019.7521	0102.6	037.6	034.3	037.2415	0103.2	067.0	53.72	
174.0	018.8989	0102.4	037.3	033.6	037.1647	0103.3	066.9	53.76	
175.0	018.0645	0102.5	036.9	033.0	037.0905	0103.3	066.7	53.80	
176.0	017.2489	0102.7	036.6	032.4	037.0162	0103.2	066.6	53.82	
177.0	016.4522	0102.4	036.2	031.8	036.9366	0103.1	066.6	53.81	
178.0	015.6743	0102.0	035.7	031.1	036.8567	0103.1	066.6	53.80	
179.0	014.9152	0101.7	035.3	030.4	036.7778	0103.0	066.6	53.78	
180.0	014.1750	0101.9	034.9	029.8	036.6860	0102.9	066.6	53.76	
181.0	013.8617	0102.2	034.8	029.3	036.5689	0102.8	066.5	53.80	

182.0	013.5520	0102.3	034.6	028.8	036.4479	0102.8	066.3	53.82
183.0	013.2458	0102.1	034.4	028.3	036.3236	0102.8	066.2	53.83
184.0	012.9430	0102.1	034.2	027.7	036.2018	0102.9	066.2	53.85
185.0	012.6438	0101.9	034.0	027.2	036.0775	0102.8	066.1	53.84
186.0	012.3480	0101.7	033.8	026.6	035.9532	0102.8	066.1	53.82
187.0	012.0557	0101.6	033.6	026.1	035.8312	0102.7	066.1	53.81
188.0	011.7670	0101.6	033.4	025.6	035.7101	0102.7	066.1	53.80
189.0	011.4818	0101.5	033.2	025.0	035.5899	0102.7	066.1	53.77
190.0	011.2000	0101.3	033.0	024.5	035.4697	0102.7	066.2	53.74
191.0	011.2448	0101.3	033.0	024.0	035.3621	0102.5	066.0	53.77
192.0	011.2898	0101.6	033.1	023.6	035.2558	0102.5	065.8	53.81
193.0	011.3348	0101.9	033.1	023.1	035.1483	0102.4	065.6	53.85
194.0	011.3799	0102.0	033.2	022.6	035.0382	0102.3	065.5	53.88
195.0	011.4251	0102.1	033.2	022.1	034.9272	0102.0	065.4	53.88
196.0	011.4704	0102.3	033.3	021.6	034.8157	0101.8	065.2	53.90
197.0	011.5158	0102.2	033.3	021.1	034.7027	0101.7	065.2	53.90
198.0	011.5613	0102.1	033.3	020.6	034.5893	0101.5	065.1	53.89
199.0	011.6068	0102.2	033.4	020.1	034.4759	0101.5	065.1	53.89
200.0	011.6525	0102.2	033.4	019.6	034.2927	0101.3	065.0	53.87
201.0	011.8936	0102.0	033.5	019.1	034.0944	0101.2	064.9	53.87
202.0	012.1372	0101.6	033.6	018.5	033.8951	0100.9	064.8	53.85
203.0	012.3833	0101.4	033.8	018.0	033.6945	0100.8	064.7	53.84
204.0	012.6319	0101.1	033.9	017.5	033.4934	0101.0	064.7	53.85
205.0	012.8829	0100.7	034.0	017.0	033.2924	0101.1	064.7	53.83
206.0	013.1364	0100.3	034.0	016.4	033.0920	0101.2	064.7	53.81
207.0	013.3923	0099.8	034.1	015.9	032.8925	0101.3	064.7	53.78
208.0	013.6507	0099.5	034.2	015.4	032.6912	0101.2	064.7	53.74
209.0	013.9116	0099.3	034.3	014.8	032.4905	0101.1	064.8	53.70
210.0	014.1750	0099.1	034.4	014.3	032.2891	0101.1	064.8	53.66
211.0	014.8442	0098.8	034.8	013.7	032.0696	0101.1	064.7	53.67
212.0	015.5289	0098.7	035.1	013.1	031.8444	0101.2	064.5	53.69
213.0	016.2290	0098.6	035.4	012.5	031.6191	0101.3	064.4	53.69
214.0	016.9445	0098.5	035.7	011.9	031.3909	0101.2	064.4	53.68
215.0	017.6754	0098.4	036.1	011.3	031.1614	0101.1	064.3	53.66
216.0	018.4218	0098.4	036.4	010.7	030.9309	0101.1	064.3	53.64
217.0	019.1837	0098.2	036.7	010.0	030.7044	0101.5	064.3	53.62
218.0	019.9609	0097.8	036.9	009.4	030.4384	0101.6	064.4	53.57
219.0	020.7536	0097.5	037.2	008.8	030.1706	0101.5	064.5	53.50
220.0	021.5618	0097.6	037.5	008.2	029.8938	0101.4	064.5	53.42
221.0	022.4249	0097.6	037.8	007.5	029.6135	0101.1	064.6	53.34
222.0	023.3050	0097.6	038.1	006.9	029.3385	0101.0	064.7	53.26
223.0	024.2021	0097.6	038.4	006.3	029.0677	0101.3	064.9	53.19
224.0	025.1161	0097.7	038.7	005.7	028.7942	0101.4	065.1	53.10
225.0	026.0470	0097.9	039.1	005.0	028.5204	0101.3	065.2	53.00
226.0	026.9949	0098.1	039.4	004.4	028.2513	0101.1	065.4	52.89
227.0	027.9597	0098.2	039.7	003.8	027.9901	0101.1	065.7	52.77
228.0	028.9414	0098.2	039.9	003.2	027.7382	0101.1	066.0	52.64
229.0	029.9401	0098.2	040.2	002.6	027.4909	0100.8	066.3	52.50
230.0	030.9558	0098.2	040.5	002.0	027.2481	0100.6	066.6	52.34
231.0	031.5169	0098.2	040.6	001.5	027.0435	0100.5	067.0	52.17
232.0	032.0830	0098.0	040.7	001.1	026.8549	0100.3	067.5	51.99
233.0	032.6542	0098.0	040.9	000.6	026.6642	0100.1	068.0	51.80
234.0	033.2305	0098.0	041.0	000.1	026.4746	0100.0	068.5	51.62
235.0	033.8118	0098.1	041.2	359.7	026.3310	0099.7	069.0	51.44
236.0	034.3981	0098.1	041.3	359.3	026.2145	0099.5	069.5	51.25
237.0	034.9894	0098.0	041.5	358.9	026.1034	0099.3	070.0	51.06
238.0	035.5858	0098.1	041.6	358.4	025.9905	0099.2	070.6	50.87
239.0	036.1873	0098.0	041.7	358.1	025.8893	0099.2	071.1	50.69
240.0	036.7938	0097.7	041.8	357.7	025.7956	0099.3	071.7	50.51
241.0	036.5910	0097.6	041.7	357.5	025.7368	0099.4	072.4	50.30
242.0	036.3889	0097.4	041.7	357.3	025.6832	0099.4	073.1	50.10
243.0	036.1873	0097.2	041.6	357.2	025.6357	0099.4	073.8	49.89
244.0	035.9862	0096.9	041.5	357.0	025.5923	0099.5	074.5	49.68

245.0	035.7858	0096.8	041.4	356.8	025.5454	0099.6	075.2	49.48
246.0	035.5858	0096.7	041.4	356.7	025.5044	0099.7	075.9	49.28
247.0	035.3865	0096.5	041.3	356.6	025.4707	0099.7	076.6	49.08
248.0	035.1877	0096.5	041.2	356.4	025.4328	0099.8	077.3	48.87
249.0	034.9894	0096.5	041.2	356.3	025.3964	0099.8	078.0	48.67
250.0	034.7917	0096.4	041.1	356.2	025.3674	0099.9	078.7	48.47
251.0	034.3981	0095.9	040.9	356.2	025.3631	0099.9	079.4	48.27
252.0	034.0066	0095.7	040.8	356.1	025.3521	0099.9	080.2	48.06
253.0	033.6174	0095.7	040.7	356.1	025.3360	0099.9	080.9	47.86
254.0	033.2305	0095.5	040.6	356.0	025.3322	0099.9	081.6	47.66
255.0	032.8458	0095.2	040.4	356.0	025.3334	0099.9	082.3	47.46
256.0	032.4633	0095.0	040.3	356.0	025.3321	0099.9	083.0	47.26
257.0	032.0830	0094.7	040.2	356.1	025.3385	0099.9	083.8	47.06
258.0	031.7050	0094.6	040.1	356.1	025.3388	0099.9	084.5	46.86
259.0	031.3293	0094.3	039.9	356.1	025.3491	0099.9	085.2	46.66

03-30-2013 Terrain Data: NED 03 SEC FMOver Analysis

WAGP BPED20130306ABM

WKBRmod

Channel = 204C1
 Max ERP = 100 kW
 RCAMSL = 105.4 M
 N. Lat. 32 21 27.1
 W. Lng. 80 55 11.2
 Protected
 60 dBu

Channel = 205C1
 Max ERP = 70 kW
 RCAMSL = 124 M
 N. Lat. 33 11 33.0
 W. Lng. 80 33 51.0
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)

320.0	025.0000	0096.9	038.6	222.6	023.8856	0097.6	085.7	46.16	
321.0	025.0000	0096.5	038.5	222.6	023.8040	0097.6	085.1	46.32	
322.0	025.0000	0096.4	038.5	222.5	023.7259	0097.6	084.4	46.49	
323.0	025.0000	0096.5	038.5	222.4	023.6588	0097.6	083.7	46.66	
324.0	025.0000	0096.7	038.5	222.3	023.5973	0097.6	083.1	46.83	
325.0	025.0000	0096.8	038.5	222.2	023.5180	0097.6	082.4	47.00	
326.0	025.0000	0096.6	038.5	222.1	023.4009	0097.6	081.8	47.16	
327.0	025.0000	0096.5	038.5	222.0	023.2842	0097.6	081.1	47.32	
328.0	025.0000	0096.5	038.5	221.8	023.1691	0097.6	080.5	47.48	
329.0	025.0000	0096.3	038.5	221.7	023.0273	0097.6	079.8	47.63	
330.0	025.0000	0096.2	038.4	221.5	022.8781	0097.6	079.2	47.77	
331.0	024.9500	0096.2	038.4	221.3	022.7289	0097.6	078.6	47.92	
332.0	024.9001	0096.3	038.4	221.2	022.5853	0097.6	077.9	48.07	
333.0	024.8502	0096.4	038.4	221.0	022.4248	0097.6	077.3	48.22	
334.0	024.8004	0096.5	038.4	220.8	022.2554	0097.6	076.7	48.36	
335.0	024.7506	0096.4	038.4	220.6	022.0556	0097.6	076.1	48.49	
336.0	024.7009	0096.3	038.4	220.3	021.8538	0097.6	075.5	48.62	
337.0	024.6512	0096.6	038.4	220.1	021.6778	0097.6	074.9	48.75	
338.0	024.6016	0096.8	038.4	219.9	021.4852	0097.5	074.3	48.88	
339.0	024.5520	0097.4	038.5	219.7	021.3295	0097.5	073.6	49.03	
340.0	024.5025	0097.8	038.5	219.5	021.1391	0097.5	073.0	49.17	
341.0	024.4234	0097.7	038.5	219.2	020.8997	0097.5	072.5	49.28	
342.0	024.3444	0097.6	038.5	218.9	020.6445	0097.6	071.9	49.38	
343.0	024.2655	0098.2	038.5	218.6	020.4430	0097.6	071.3	49.52	
344.0	024.1867	0098.4	038.5	218.3	020.2012	0097.7	070.8	49.64	
345.0	024.1081	0098.1	038.5	217.9	019.9048	0097.9	070.3	49.73	
346.0	024.0296	0097.8	038.4	217.5	019.6044	0098.0	069.8	49.81	
347.0	023.9512	0097.9	038.4	217.2	019.3316	0098.1	069.3	49.91	

348.0	023.8730	0098.3	038.4	216.8	019.0660	0098.2	068.8	50.01
349.0	023.7949	0098.6	038.5	216.5	018.7923	0098.3	068.2	50.11
350.0	023.7169	0098.7	038.4	216.1	018.4950	0098.4	067.8	50.19
351.0	023.9806	0098.8	038.5	215.8	018.2366	0098.4	067.2	50.29
352.0	024.2458	0099.1	038.7	215.4	017.9903	0098.4	066.6	50.40
353.0	024.5124	0099.5	038.8	215.1	017.7374	0098.4	066.1	50.51
354.0	024.7805	0099.8	039.0	214.7	017.4686	0098.4	065.5	50.62
355.0	025.0500	0100.2	039.1	214.3	017.1917	0098.5	065.0	50.71
356.0	025.3210	0100.0	039.2	213.9	016.8681	0098.5	064.5	50.77
357.0	025.5935	0099.5	039.2	213.4	016.5243	0098.5	064.1	50.82
358.0	025.8674	0099.2	039.2	212.9	016.1821	0098.6	063.6	50.86
359.0	026.1428	0099.4	039.3	212.5	015.8616	0098.7	063.2	50.94
000.0	026.4196	0099.9	039.5	212.0	015.5521	0098.7	062.6	51.02
001.0	026.8324	0100.3	039.7	211.6	015.2384	0098.7	062.1	51.10
002.0	027.2484	0100.6	039.9	211.1	014.9128	0098.8	061.6	51.18
003.0	027.6676	0101.0	040.1	210.6	014.5821	0098.9	061.1	51.26
004.0	028.0900	0101.1	040.2	210.1	014.2299	0099.1	060.7	51.31
005.0	028.5156	0101.3	040.3	209.5	014.0528	0099.2	060.3	51.42
006.0	028.9444	0101.4	040.5	209.0	013.9048	0099.3	059.8	51.52
007.0	029.3764	0101.0	040.5	208.4	013.7464	0099.5	059.5	51.60
008.0	029.8116	0101.3	040.7	207.8	013.5944	0099.6	059.1	51.70
009.0	030.2500	0101.6	040.9	207.2	013.4381	0099.8	058.7	51.80
010.0	030.6916	0101.5	041.0	206.5	013.2750	0100.0	058.4	51.88
011.0	031.0583	0101.1	041.0	205.9	013.1041	0100.3	058.2	51.93
012.0	031.4272	0101.2	041.1	205.2	012.9374	0100.6	057.9	52.00
013.0	031.7983	0101.2	041.2	204.5	012.7668	0100.9	057.7	52.04
014.0	032.1716	0101.1	041.3	203.9	012.5945	0101.1	057.4	52.08
015.0	032.5470	0101.1	041.4	203.2	012.4212	0101.4	057.2	52.11
016.0	032.9246	0101.2	041.5	202.4	012.2474	0101.5	057.0	52.14
017.0	033.3044	0101.1	041.6	201.7	012.0714	0101.7	056.9	52.14
018.0	033.6864	0100.8	041.6	201.0	011.8947	0102.0	056.8	52.13
019.0	034.0706	0101.1	041.8	200.3	011.7189	0102.1	056.6	52.14
020.0	034.4569	0101.5	041.9	199.5	011.6314	0102.2	056.5	52.17
021.0	034.6803	0101.6	042.0	198.8	011.5974	0102.1	056.4	52.17
022.0	034.9045	0102.0	042.1	198.0	011.5633	0102.1	056.3	52.18
023.0	035.1293	0102.4	042.2	197.3	011.5289	0102.2	056.3	52.20
024.0	035.3549	0102.5	042.3	196.5	011.4947	0102.4	056.3	52.20
025.0	035.5812	0102.7	042.4	195.8	011.4605	0102.3	056.3	52.17
026.0	035.8083	0102.7	042.4	195.0	011.4266	0102.1	056.4	52.12
027.0	036.0360	0102.8	042.5	194.3	011.3927	0102.1	056.5	52.06
028.0	036.2645	0102.8	042.6	193.5	011.3591	0102.0	056.6	52.00
029.0	036.4937	0102.8	042.6	192.8	011.3260	0101.9	056.7	51.93
030.0	036.7236	0102.9	042.7	192.1	011.2928	0101.6	056.9	51.84
031.0	036.8449	0103.1	042.7	191.3	011.2603	0101.3	057.1	51.74
032.0	036.9664	0103.1	042.8	190.6	011.2284	0101.3	057.3	51.64
033.0	037.0881	0103.3	042.8	189.9	011.2203	0101.3	057.6	51.55
034.0	037.2100	0103.2	042.8	189.2	011.4131	0101.5	057.8	51.53
035.0	037.3321	0103.3	042.9	188.6	011.6059	0101.5	058.1	51.50
036.0	037.4544	0103.5	042.9	187.9	011.8009	0101.5	058.4	51.47
037.0	037.5769	0103.5	043.0	187.2	011.9898	0101.6	058.8	51.42
038.0	037.6996	0103.6	043.0	186.6	012.1771	0101.7	059.1	51.36
039.0	037.8225	0103.7	043.0	186.0	012.3627	0101.7	059.5	51.30
040.0	037.9456	0103.6	043.1	185.3	012.5423	0101.8	059.9	51.23
041.0	038.3409	0103.6	043.1	184.7	012.7281	0102.0	060.2	51.17
042.0	038.7382	0103.6	043.2	184.1	012.9133	0102.1	060.6	51.11
043.0	039.1375	0103.5	043.3	183.5	013.0944	0102.1	061.0	51.03
044.0	039.5389	0103.6	043.4	182.9	013.2760	0102.1	061.5	50.94
045.0	039.9424	0103.6	043.5	182.3	013.4508	0102.2	061.9	50.85
046.0	040.3479	0103.5	043.5	181.8	013.6189	0102.3	062.4	50.75
047.0	040.7555	0103.4	043.6	181.2	013.7867	0102.3	062.9	50.65
048.0	041.1651	0103.6	043.7	180.7	013.9573	0102.1	063.3	50.54
049.0	041.5767	0103.6	043.8	180.2	014.1203	0102.0	063.8	50.42
050.0	041.9904	0103.7	043.9	179.7	014.4157	0101.8	064.4	50.33

051.0	042.7062	0103.3	044.0	179.2	014.7724	0101.7	064.9	50.26
052.0	043.4281	0103.4	044.1	178.7	015.1614	0101.7	065.4	50.22
053.0	044.1560	0103.2	044.3	178.2	015.5171	0101.9	066.0	50.16
054.0	044.8900	0103.2	044.4	177.7	015.8805	0102.1	066.6	50.10
055.0	045.6300	0103.3	044.6	177.3	016.2535	0102.4	067.1	50.05
056.0	046.3761	0103.5	044.7	176.8	016.6218	0102.4	067.7	49.97
057.0	047.1282	0103.6	044.9	176.3	016.9683	0102.6	068.3	49.89
058.0	047.8864	0103.5	045.0	175.9	017.2929	0102.7	068.9	49.79
059.0	048.6506	0103.6	045.1	175.5	017.6270	0102.7	069.6	49.69
060.0	049.4209	0103.6	045.3	175.2	017.9388	0102.6	070.2	49.56
061.0	050.7229	0103.7	045.5	174.7	018.2963	0102.5	070.8	49.46
062.0	052.0418	0103.9	045.8	174.3	018.6629	0102.4	071.5	49.35
063.0	053.3776	0103.9	046.0	173.9	019.0013	0102.4	072.1	49.24
064.0	054.7304	0104.1	046.2	173.5	019.3475	0102.5	072.8	49.12
065.0	056.1001	0104.1	046.5	173.1	019.6514	0102.5	073.5	48.99
066.0	057.4867	0103.6	046.6	172.8	019.8978	0102.6	074.2	48.84
067.0	058.8903	0103.7	046.8	172.5	020.1907	0102.7	075.0	48.70
068.0	060.3108	0103.7	047.0	172.2	020.4694	0102.8	075.7	48.55
069.0	061.7482	0103.7	047.2	171.9	020.7251	0102.8	076.4	48.39
070.0	063.2025	0103.5	047.4	171.6	020.9605	0102.9	077.2	48.22
071.0	066.5040	0103.4	047.8	171.2	021.3443	0103.0	077.9	48.10
072.0	069.8896	0103.5	048.3	170.8	021.7369	0103.1	078.7	47.97
073.0	073.3592	0103.4	048.7	170.4	022.0901	0103.0	079.5	47.82
074.0	076.9129	0103.3	049.1	170.0	022.4190	0103.0	080.3	47.65
075.0	080.5506	0103.3	049.6	169.7	022.8264	0103.0	081.1	47.50
076.0	084.2724	0103.5	050.0	169.3	023.2382	0103.2	081.9	47.35
077.0	088.0782	0103.5	050.4	169.0	023.5903	0103.3	082.8	47.18
078.0	091.9681	0103.5	050.8	168.7	023.9184	0103.5	083.7	47.01
079.0	095.9420	0103.5	051.2	168.5	024.2367	0103.6	084.5	46.82
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Table 4: FMOVER Protection of WNSC-FM, Rock Hill, South Carolina

03-30-2013 Terrain Data: NED 03 SEC FMOVER Analysis

WKBRmod

WNSC-FM BMLED20060215AAK

Channel = 205C1
 Max ERP = 70 kW
 RCAMSL = 124 M
 N. Lat. 33 11 33.0
 W. Lng. 80 33 51.0
 Protected
 60 dBu

Channel = 205C1
 Max ERP = 100 kW
 RCAMSL = 359 M
 N. Lat. 34 50 23.0
 W. Lng. 81 01 07.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
287.0	020.9446	0090.1	035.9	177.5	100.0000	0196.5	172.4	38.06	
288.0	021.0213	0089.9	035.9	177.4	100.0000	0196.7	171.8	38.17	
289.0	021.0981	0089.7	035.9	177.3	100.0000	0196.8	171.2	38.27	
290.0	021.1750	0089.6	035.9	177.2	100.0000	0197.0	170.6	38.38	
291.0	020.9446	0089.5	035.8	177.1	100.0000	0197.3	170.1	38.48	
292.0	020.7155	0089.5	035.8	177.0	100.0000	0197.5	169.5	38.58	
293.0	020.4877	0089.7	035.7	176.9	100.0000	0197.8	169.0	38.69	
294.0	020.2611	0089.7	035.6	176.8	100.0000	0198.1	168.5	38.78	
295.0	020.0357	0089.1	035.4	176.6	100.0000	0198.3	168.0	38.87	
296.0	019.8117	0088.9	035.3	176.5	100.0000	0198.6	167.5	38.96	
297.0	019.5889	0089.0	035.2	176.4	100.0000	0198.9	167.1	39.05	
298.0	019.3673	0088.9	035.1	176.2	100.0000	0198.9	166.6	39.14	
299.0	019.1470	0088.8	035.0	176.1	100.0000	0199.0	166.1	39.22	
300.0	018.9280	0088.7	034.9	175.9	100.0000	0199.0	165.7	39.30	
301.0	018.1713	0088.5	034.5	175.7	100.0000	0198.9	165.4	39.35	
302.0	017.4301	0088.3	034.2	175.5	100.0000	0198.9	165.1	39.40	
303.0	016.7043	0088.2	033.8	175.3	100.0000	0198.8	164.9	39.44	
304.0	015.9939	0088.0	033.4	175.0	100.0000	0198.9	164.6	39.48	
305.0	015.2989	0088.0	033.1	174.8	100.0000	0198.9	164.4	39.52	
306.0	014.6194	0087.9	032.7	174.6	100.0000	0198.8	164.2	39.55	
307.0	013.9554	0087.9	032.3	174.3	100.0000	0198.6	164.0	39.58	
308.0	013.3067	0087.9	032.0	174.1	100.0000	0198.2	163.9	39.60	
309.0	012.6735	0087.9	031.6	173.9	100.0000	0197.8	163.8	39.61	
310.0	012.0557	0087.9	031.2	173.7	100.0000	0197.6	163.6	39.63	
311.0	011.5670	0087.8	030.9	173.4	100.0000	0197.6	163.5	39.65	
312.0	011.0883	0087.9	030.6	173.2	100.0000	0197.7	163.4	39.68	
313.0	010.6197	0087.9	030.3	173.0	100.0000	0197.9	163.2	39.71	
314.0	010.1613	0088.0	030.0	172.8	100.0000	0198.1	163.2	39.73	
315.0	009.7129	0087.9	029.7	172.6	100.0000	0198.1	163.1	39.74	
316.0	009.2747	0088.1	029.4	172.4	100.0000	0198.0	163.0	39.75	
317.0	008.8466	0088.5	029.1	172.2	100.0000	0197.9	162.9	39.77	
318.0	008.4286	0088.6	028.8	172.0	100.0000	0197.7	162.9	39.77	
319.0	008.0208	0088.7	028.5	171.8	100.0000	0197.6	162.8	39.77	
320.0	007.6230	0088.8	028.2	171.6	100.0000	0197.6	162.8	39.77	
321.0	007.3483	0089.0	028.0	171.4	100.0000	0197.6	162.8	39.79	
322.0	007.0787	0089.2	027.8	171.2	100.0000	0197.6	162.7	39.80	
323.0	006.8141	0089.2	027.6	171.0	100.0000	0197.6	162.7	39.80	
324.0	006.5545	0089.3	027.4	170.8	100.0000	0197.7	162.6	39.81	
325.0	006.3000	0089.5	027.1	170.6	100.0000	0197.8	162.6	39.81	
326.0	006.0505	0089.7	026.9	170.5	100.0000	0198.2	162.6	39.82	
327.0	005.8061	0089.8	026.7	170.3	100.0000	0198.6	162.6	39.83	
328.0	005.5667	0090.0	026.5	170.1	100.0000	0198.9	162.7	39.83	

329.0	005.3323	0090.5	026.3	169.9	100.0000	0199.1	162.7	39.83
330.0	005.1030	0090.8	026.1	169.7	100.0000	0199.3	162.7	39.83
331.0	004.9902	0091.0	026.0	169.6	100.0000	0199.4	162.7	39.84
332.0	004.8787	0091.4	025.9	169.4	100.0000	0199.4	162.6	39.85
333.0	004.7685	0091.6	025.8	169.2	100.0000	0199.3	162.6	39.85
334.0	004.6595	0091.6	025.7	169.1	100.0000	0199.2	162.6	39.85
335.0	004.5517	0091.7	025.5	168.9	100.0000	0199.3	162.6	39.85
336.0	004.4453	0091.9	025.4	168.8	100.0000	0199.5	162.6	39.85
337.0	004.3401	0091.9	025.3	168.6	100.0000	0199.7	162.6	39.85
338.0	004.2361	0092.1	025.2	168.4	100.0000	0200.0	162.7	39.85
339.0	004.1334	0092.2	025.0	168.3	100.0000	0200.1	162.7	39.85
340.0	004.0320	0092.2	024.9	168.1	100.0000	0200.1	162.8	39.84
341.0	003.9651	0092.2	024.8	168.0	100.0000	0200.3	162.8	39.84
342.0	003.8987	0092.2	024.7	167.8	100.0000	0200.7	162.8	39.84
343.0	003.8329	0092.2	024.6	167.6	100.0000	0201.1	162.9	39.83
344.0	003.7677	0092.2	024.5	167.5	100.0000	0201.6	163.0	39.83
345.0	003.7030	0092.2	024.4	167.3	100.0000	0202.3	163.0	39.83
346.0	003.6389	0092.2	024.3	167.2	100.0000	0203.1	163.1	39.84
347.0	003.5753	0092.2	024.2	167.0	100.0000	0203.7	163.2	39.83
348.0	003.5123	0092.1	024.1	166.9	100.0000	0204.2	163.3	39.82
349.0	003.4499	0092.0	024.0	166.7	100.0000	0204.8	163.5	39.81
350.0	003.3880	0092.2	024.0	166.6	100.0000	0205.5	163.5	39.81
351.0	003.4034	0092.3	024.0	166.4	100.0000	0206.2	163.5	39.82
352.0	003.4189	0092.4	024.0	166.3	100.0000	0206.9	163.5	39.84
353.0	003.4344	0092.4	024.0	166.2	100.0000	0207.5	163.6	39.85
354.0	003.4499	0092.5	024.1	166.0	100.0000	0208.1	163.6	39.85
355.0	003.4654	0092.6	024.1	165.9	100.0000	0208.5	163.6	39.86
356.0	003.4810	0092.8	024.2	165.7	100.0000	0208.7	163.6	39.86
357.0	003.4967	0093.1	024.2	165.6	100.0000	0208.9	163.6	39.86
358.0	003.5123	0093.2	024.3	165.4	100.0000	0208.9	163.7	39.85
359.0	003.5280	0093.4	024.3	165.3	100.0000	0208.9	163.7	39.84
000.0	003.5437	0093.7	024.4	165.1	100.0000	0208.7	163.8	39.83
001.0	003.6869	0094.0	024.6	164.9	100.0000	0208.5	163.7	39.85
002.0	003.8329	0094.2	024.9	164.8	100.0000	0208.2	163.5	39.86
003.0	003.9818	0094.3	025.1	164.6	100.0000	0207.6	163.5	39.87
004.0	004.1334	0094.5	025.3	164.4	100.0000	0207.1	163.4	39.87
005.0	004.2879	0094.5	025.5	164.3	100.0000	0206.6	163.3	39.87
006.0	004.4453	0094.4	025.8	164.1	100.0000	0206.2	163.3	39.86
007.0	004.6055	0094.9	026.0	163.9	100.0000	0206.0	163.2	39.87
008.0	004.7685	0094.8	026.2	163.7	100.0000	0206.0	163.2	39.87
009.0	004.9343	0095.1	026.5	163.5	100.0000	0206.0	163.2	39.88
010.0	005.1030	0095.5	026.7	163.4	100.0000	0205.9	163.2	39.88
011.0	005.3517	0095.7	027.0	163.2	100.0000	0205.9	163.1	39.89
012.0	005.6062	0095.9	027.3	163.0	100.0000	0205.9	163.1	39.90
013.0	005.8667	0096.0	027.6	162.8	100.0000	0205.7	163.1	39.90
014.0	006.1331	0096.2	027.9	162.6	100.0000	0205.7	163.1	39.90
015.0	006.4054	0096.4	028.2	162.4	100.0000	0205.5	163.1	39.89
016.0	006.6837	0096.6	028.5	162.2	100.0000	0204.7	163.1	39.88
017.0	006.9678	0096.7	028.8	162.0	100.0000	0204.5	163.1	39.86
018.0	007.2579	0096.9	029.1	161.7	100.0000	0204.5	163.2	39.85
019.0	007.5539	0097.1	029.4	161.5	100.0000	0204.2	163.2	39.83
020.0	007.8558	0097.5	029.7	161.3	100.0000	0203.6	163.3	39.81
021.0	008.2595	0097.5	030.1	161.1	100.0000	0203.3	163.4	39.80
022.0	008.6733	0097.6	030.4	160.9	100.0000	0202.9	163.4	39.77
023.0	009.0972	0097.7	030.8	160.7	100.0000	0202.1	163.5	39.74
024.0	009.5313	0097.6	031.1	160.4	100.0000	0201.4	163.7	39.70
025.0	009.9754	0097.9	031.5	160.2	100.0000	0201.0	163.8	39.68
026.0	010.4297	0098.1	031.9	160.0	100.0000	0200.5	163.9	39.65
027.0	010.8941	0098.1	032.2	159.8	100.0000	0199.8	164.1	39.60
028.0	011.3686	0098.2	032.6	159.5	100.0000	0199.5	164.2	39.56
029.0	011.8533	0098.3	032.9	159.3	100.0000	0199.3	164.4	39.52
030.0	012.3480	0098.4	033.2	159.1	100.0000	0198.9	164.7	39.47
031.0	012.9731	0098.4	033.6	158.9	100.0000	0198.6	164.9	39.43

032.0	013.6137	0098.4	034.0	158.6	100.0000	0198.4	165.1	39.38
033.0	014.2697	0098.7	034.4	158.4	100.0000	0197.9	165.4	39.33
034.0	014.9411	0098.8	034.8	158.2	100.0000	0197.4	165.6	39.27
035.0	015.6279	0098.8	035.2	157.9	100.0000	0197.4	166.0	39.22
036.0	016.3302	0099.1	035.6	157.7	100.0000	0197.5	166.3	39.16
037.0	017.0480	0099.3	035.9	157.5	100.0000	0197.7	166.6	39.11
038.0	017.7811	0099.4	036.3	157.3	100.0000	0197.9	167.0	39.05
039.0	018.5297	0099.5	036.6	157.1	100.0000	0198.2	167.4	38.98
040.0	019.2937	0099.5	036.9	156.9	100.0000	0198.1	167.8	38.91
041.0	020.2988	0099.4	037.3	156.6	100.0000	0197.8	168.2	38.83
042.0	021.3293	0099.4	037.7	156.4	100.0000	0197.4	168.6	38.74
043.0	022.3853	0099.5	038.1	156.2	100.0000	0196.7	169.1	38.65
044.0	023.4669	0099.5	038.5	156.0	100.0000	0195.9	169.5	38.55
045.0	024.5739	0099.6	038.9	155.8	100.0000	0195.5	170.0	38.45
046.0	025.7065	0099.5	039.2	155.6	100.0000	0195.6	170.6	38.36

03-30-2013 Terrain Data: NED 03 SEC FMOver Analysis

WN5C-FM BMLED20060215AAK

WKBRmod

Channel = 205C1
 Max ERP = 100 kW
 RCAMSL = 359 M
 N. Lat. 34 50 23.0
 W. Lng. 81 01 07.0
 Protected
 60 dBu

Channel = 205C1
 Max ERP = 70 kW
 RCAMSL = 124 M
 N. Lat. 33 11 33.0
 W. Lng. 80 33 51.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
107.0	100.0000	0189.4	062.8	006.2	004.4770	0094.5	165.3	23.05	
108.0	100.0000	0189.2	062.8	006.1	004.4612	0094.5	164.3	23.23	
109.0	100.0000	0186.2	062.5	005.9	004.4328	0094.4	163.3	23.38	
110.0	100.0000	0184.6	062.3	005.8	004.4107	0094.4	162.2	23.55	
111.0	100.0000	0183.8	062.3	005.7	004.3917	0094.4	161.2	23.72	
112.0	100.0000	0184.6	062.3	005.6	004.3792	0094.4	160.1	23.90	
113.0	100.0000	0185.1	062.4	005.5	004.3640	0094.5	159.1	24.07	
114.0	100.0000	0184.6	062.3	005.3	004.3424	0094.5	158.1	24.23	
115.0	100.0000	0183.7	062.3	005.2	004.3178	0094.5	157.1	24.38	
116.0	100.0000	0184.6	062.3	005.1	004.3010	0094.5	156.0	24.54	
117.0	100.0000	0184.1	062.3	004.9	004.2756	0094.5	155.0	24.68	
118.0	100.0000	0183.9	062.3	004.8	004.2511	0094.5	154.0	24.83	
119.0	100.0000	0185.1	062.4	004.6	004.2316	0094.5	153.0	24.98	
120.0	100.0000	0186.4	062.5	004.5	004.2115	0094.5	151.9	25.13	
121.0	100.0000	0187.7	062.6	004.4	004.1903	0094.5	150.9	25.28	
122.0	100.0000	0188.4	062.7	004.2	004.1648	0094.5	149.9	25.43	
123.0	100.0000	0188.5	062.7	004.0	004.1347	0094.5	148.9	25.56	
124.0	100.0000	0187.9	062.7	003.8	004.1007	0094.4	148.0	25.68	
125.0	100.0000	0186.7	062.5	003.5	004.0622	0094.4	147.1	25.79	
126.0	100.0000	0186.2	062.5	003.3	004.0256	0094.3	146.2	25.90	
127.0	100.0000	0186.2	062.5	003.1	003.9908	0094.3	145.3	26.03	
128.0	100.0000	0187.8	062.6	002.9	003.9616	0094.3	144.3	26.18	
129.0	100.0000	0185.7	062.4	002.6	003.9145	0094.3	143.6	26.26	
130.0	100.0000	0184.6	062.3	002.3	003.8709	0094.2	142.7	26.36	
131.0	100.0000	0184.9	062.4	002.0	003.8328	0094.2	141.9	26.48	
132.0	100.0000	0186.6	062.5	001.8	003.7988	0094.1	140.9	26.62	
133.0	100.0000	0185.7	062.4	001.5	003.7527	0094.1	140.2	26.71	
134.0	100.0000	0182.5	062.2	001.1	003.6969	0094.0	139.6	26.76	

135.0	100.0000	0182.3	062.1	000.8	003.6519	0093.9	138.8	26.86
136.0	100.0000	0182.3	062.1	000.4	003.6070	0093.9	138.0	26.95
137.0	100.0000	0183.1	062.2	000.1	003.5641	0093.8	137.2	27.05
138.0	100.0000	0182.7	062.2	359.8	003.5406	0093.7	136.5	27.16
139.0	100.0000	0183.1	062.2	359.5	003.5354	0093.5	135.8	27.29
140.0	100.0000	0185.0	062.4	359.2	003.5306	0093.5	134.9	27.44
141.0	100.0000	0187.0	062.6	358.9	003.5258	0093.4	134.1	27.60
142.0	100.0000	0187.8	062.6	358.5	003.5203	0093.3	133.4	27.72
143.0	100.0000	0189.4	062.8	358.2	003.5149	0093.2	132.6	27.86
144.0	100.0000	0189.7	062.8	357.8	003.5089	0093.1	132.0	27.98
145.0	100.0000	0190.6	062.9	357.4	003.5031	0093.1	131.3	28.10
146.0	100.0000	0190.2	062.9	357.0	003.4966	0093.1	130.8	28.19
147.0	100.0000	0191.4	063.0	356.6	003.4905	0092.9	130.1	28.30
148.0	100.0000	0192.5	063.1	356.2	003.4843	0092.8	129.5	28.41
149.0	100.0000	0192.8	063.1	355.8	003.4777	0092.7	129.0	28.50
150.0	100.0000	0194.2	063.2	355.4	003.4712	0092.7	128.4	28.60
151.0	100.0000	0194.7	063.3	354.9	003.4645	0092.6	127.8	28.68
152.0	100.0000	0193.8	063.2	354.5	003.4572	0092.5	127.5	28.73
153.0	100.0000	0193.8	063.2	354.0	003.4501	0092.5	127.1	28.80
154.0	100.0000	0193.4	063.2	353.5	003.4428	0092.5	126.7	28.85
155.0	100.0000	0194.5	063.3	353.1	003.4358	0092.4	126.3	28.92
156.0	100.0000	0195.9	063.4	352.6	003.4287	0092.4	125.8	28.99
157.0	100.0000	0198.2	063.6	352.2	003.4216	0092.4	125.3	29.07
158.0	100.0000	0197.3	063.5	351.7	003.4140	0092.4	125.1	29.10
159.0	100.0000	0198.8	063.7	351.2	003.4066	0092.4	124.7	29.15
160.0	100.0000	0200.6	063.9	350.7	003.3991	0092.3	124.4	29.21
161.0	100.0000	0203.2	064.1	350.2	003.3917	0092.2	123.9	29.28
162.0	100.0000	0204.5	064.2	349.7	003.4040	0092.2	123.6	29.34
163.0	100.0000	0205.9	064.4	349.2	003.4353	0092.1	123.4	29.42
164.0	100.0000	0206.1	064.4	348.7	003.4672	0092.0	123.3	29.48
165.0	100.0000	0208.6	064.6	348.2	003.4991	0092.1	122.9	29.58
166.0	100.0000	0208.1	064.6	347.7	003.5318	0092.2	122.9	29.62
167.0	100.0000	0203.8	064.2	347.2	003.5645	0092.2	123.3	29.59
168.0	100.0000	0200.3	063.8	346.7	003.5968	0092.2	123.7	29.57
169.0	100.0000	0199.2	063.7	346.2	003.6292	0092.3	123.8	29.59
170.0	100.0000	0199.0	063.7	345.6	003.6616	0092.2	123.9	29.61
171.0	100.0000	0197.6	063.6	345.1	003.6936	0092.2	124.2	29.61
172.0	100.0000	0197.7	063.6	344.6	003.7261	0092.2	124.3	29.62
173.0	100.0000	0197.9	063.6	344.1	003.7586	0092.2	124.4	29.64
174.0	100.0000	0198.0	063.6	343.6	003.7911	0092.2	124.6	29.64
175.0	100.0000	0198.9	063.7	343.1	003.8239	0092.2	124.7	29.66
176.0	100.0000	0199.0	063.7	342.6	003.8563	0092.2	125.0	29.65
177.0	100.0000	0197.6	063.6	342.2	003.8874	0092.3	125.4	29.61
178.0	100.0000	0195.2	063.3	341.7	003.9173	0092.2	125.9	29.55
179.0	100.0000	0193.9	063.2	341.3	003.9477	0092.2	126.3	29.51
180.0	100.0000	0191.9	063.0	340.8	003.9770	0092.2	126.9	29.45
181.0	100.0000	0191.1	063.0	340.4	004.0070	0092.2	127.3	29.40
182.0	100.0000	0192.6	063.1	339.9	004.0427	0092.2	127.6	29.39
183.0	100.0000	0193.8	063.2	339.4	004.0903	0092.2	127.9	29.38
184.0	100.0000	0195.4	063.4	339.0	004.1384	0092.2	128.2	29.37
185.0	100.0000	0197.4	063.6	338.5	004.1872	0092.1	128.5	29.36
186.0	100.0000	0199.6	063.8	338.0	004.2363	0092.1	128.9	29.35
187.0	100.0000	0201.7	064.0	337.5	004.2850	0092.0	129.2	29.33
188.0	100.0000	0204.2	064.2	337.1	004.3346	0091.9	129.6	29.31
189.0	100.0000	0204.8	064.2	336.6	004.3793	0091.9	130.2	29.25
190.0	100.0000	0205.3	064.3	336.2	004.4235	0091.9	130.7	29.18
191.0	100.0000	0208.3	064.6	335.7	004.4731	0091.9	131.1	29.15
192.0	100.0000	0207.0	064.5	335.4	004.5116	0091.8	131.9	29.04
193.0	100.0000	0203.0	064.1	335.1	004.5416	0091.7	132.9	28.88
194.0	100.0000	0200.4	063.8	334.8	004.5740	0091.7	133.8	28.73
195.0	100.0000	0199.3	063.7	334.5	004.6096	0091.6	134.6	28.61
196.0	100.0000	0197.7	063.6	334.2	004.6426	0091.6	135.4	28.48
197.0	100.0000	0195.1	063.3	333.9	004.6717	0091.6	136.4	28.32

198.0	100.0000	0192.7	063.1	333.6	004.7001	0091.6	137.3	28.17
199.0	100.0000	0191.9	063.0	333.3	004.7323	0091.6	138.1	28.04
200.0	100.0000	0194.0	063.2	333.0	004.7727	0091.6	138.8	27.95
201.0	100.0000	0195.9	063.4	332.6	004.8116	0091.6	139.5	27.84
202.0	100.0000	0197.3	063.5	332.3	004.8482	0091.5	140.2	27.73
203.0	100.0000	0197.7	063.6	332.0	004.8809	0091.4	141.1	27.60
204.0	100.0000	0196.4	063.5	331.7	004.9068	0091.3	142.0	27.44
205.0	100.0000	0194.4	063.3	331.5	004.9290	0091.2	143.0	27.27
206.0	100.0000	0193.8	063.2	331.3	004.9554	0091.1	143.9	27.12
207.0	100.0000	0194.2	063.3	331.1	004.9840	0091.0	144.8	26.98
208.0	100.0000	0195.2	063.3	330.8	005.0137	0091.0	145.7	26.84
209.0	100.0000	0194.9	063.3	330.6	005.0379	0090.9	146.7	26.69
210.0	100.0000	0196.3	063.4	330.3	005.0670	0090.9	147.6	26.56
211.0	100.0000	0197.2	063.5	330.1	005.0938	0090.8	148.5	26.43
212.0	100.0000	0198.2	063.6	329.9	005.1367	0090.8	149.4	26.30
213.0	100.0000	0196.8	063.5	329.7	005.1696	0090.7	150.5	26.15
214.0	100.0000	0195.3	063.4	329.6	005.1995	0090.7	151.5	26.00
215.0	100.0000	0193.2	063.2	329.5	005.2230	0090.7	152.6	25.83
216.0	100.0000	0192.9	063.1	329.3	005.2579	0090.6	153.6	25.69
217.0	100.0000	0194.0	063.2	329.1	005.3009	0090.6	154.6	25.56
218.0	100.0000	0196.0	063.4	328.9	005.3492	0090.5	155.6	25.43
219.0	100.0000	0196.5	063.5	328.8	005.3849	0090.4	156.6	25.28
220.0	100.0000	0195.9	063.4	328.7	005.4095	0090.4	157.6	25.12
221.0	100.0000	0195.0	063.3	328.6	005.4310	0090.3	158.7	24.94
222.0	100.0000	0195.7	063.4	328.4	005.4617	0090.2	159.8	24.78
223.0	100.0000	0196.3	063.4	328.3	005.4906	0090.2	160.8	24.61
224.0	100.0000	0195.3	063.4	328.3	005.5054	0090.1	161.9	24.42
225.0	100.0000	0192.7	063.1	328.3	005.5063	0090.1	163.0	24.22
226.0	100.0000	0190.4	062.9	328.3	005.5075	0090.1	164.2	24.01
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Table 5: FMOVER Protection of WLJK, Aiken, South Carolina

03-30-2013 Terrain Data: NED 03 SEC FMOVER Analysis

WKBRmod

WLJK BLED19890814KA

Channel = 205C1

Channel = 206C1

Max ERP = 70 kW

Max ERP = 10 kW

RCAMSL = 124 M

RCAMSL = 498 M

N. Lat. 33 11 33.0

N. Lat. 33 24 18.0

W. Lng. 80 33 51.0

W. Lng. 81 50 15.0

Protected

Interfering

60 dBu

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
222.0	023.3050	0097.6	038.1	118.9	010.0000	0397.0	106.7	46.93	
223.0	024.2021	0097.6	038.4	119.0	010.0000	0397.2	106.0	47.12	
224.0	025.1161	0097.7	038.7	119.1	010.0000	0397.3	105.3	47.31	
225.0	026.0470	0097.9	039.1	119.2	010.0000	0397.5	104.5	47.52	
226.0	026.9949	0098.1	039.4	119.2	010.0000	0397.7	103.8	47.72	
227.0	027.9597	0098.2	039.7	119.3	010.0000	0397.8	103.0	47.93	
228.0	028.9414	0098.2	039.9	119.3	010.0000	0397.9	102.3	48.13	
229.0	029.9401	0098.2	040.2	119.3	010.0000	0397.9	101.5	48.34	
230.0	030.9558	0098.2	040.5	119.3	010.0000	0398.0	100.8	48.55	
231.0	031.5169	0098.2	040.6	119.3	010.0000	0397.8	100.1	48.74	
232.0	032.0830	0098.0	040.7	119.2	010.0000	0397.5	099.4	48.93	
233.0	032.6542	0098.0	040.9	119.1	010.0000	0397.3	098.7	49.12	
234.0	033.2305	0098.0	041.0	119.0	010.0000	0397.1	097.9	49.32	
235.0	033.8118	0098.1	041.2	118.9	010.0000	0397.0	097.2	49.51	
236.0	034.3981	0098.1	041.3	118.8	010.0000	0396.7	096.5	49.71	
237.0	034.9894	0098.0	041.5	118.7	010.0000	0396.5	095.8	49.90	
238.0	035.5858	0098.1	041.6	118.5	010.0000	0396.3	095.1	50.11	
239.0	036.1873	0098.0	041.7	118.4	010.0000	0396.1	094.4	50.30	
240.0	036.7938	0097.7	041.8	118.2	010.0000	0395.8	093.7	50.50	
241.0	036.5910	0097.6	041.7	117.9	010.0000	0395.5	093.2	50.67	
242.0	036.3889	0097.4	041.7	117.6	010.0000	0395.1	092.6	50.83	
243.0	036.1873	0097.2	041.6	117.3	010.0000	0394.7	092.0	50.99	
244.0	035.9862	0096.9	041.5	117.0	010.0000	0394.4	091.5	51.15	
245.0	035.7858	0096.8	041.4	116.7	010.0000	0394.3	091.0	51.32	
246.0	035.5858	0096.7	041.4	116.4	010.0000	0394.2	090.4	51.49	
247.0	035.3865	0096.5	041.3	116.1	010.0000	0394.3	089.9	51.65	
248.0	035.1877	0096.5	041.2	115.7	010.0000	0394.6	089.4	51.83	
249.0	034.9894	0096.5	041.2	115.4	010.0000	0394.5	088.9	51.99	
250.0	034.7917	0096.4	041.1	115.1	010.0000	0394.0	088.4	52.13	
251.0	034.3981	0095.9	040.9	114.6	010.0000	0393.7	088.1	52.24	
252.0	034.0066	0095.7	040.8	114.2	010.0000	0394.0	087.7	52.38	
253.0	033.6174	0095.7	040.7	113.9	010.0000	0394.2	087.3	52.53	
254.0	033.2305	0095.5	040.6	113.4	010.0000	0394.6	086.9	52.66	
255.0	032.8458	0095.2	040.4	113.0	010.0000	0394.9	086.6	52.78	
256.0	032.4633	0095.0	040.3	112.6	010.0000	0395.4	086.2	52.91	
257.0	032.0830	0094.7	040.2	112.2	010.0000	0395.6	085.9	53.01	
258.0	031.7050	0094.6	040.1	111.7	010.0000	0394.7	085.6	53.09	
259.0	031.3293	0094.3	039.9	111.3	010.0000	0393.9	085.4	53.15	
260.0	030.9558	0094.2	039.8	110.8	010.0000	0393.9	085.1	53.25	
261.0	030.0318	0093.9	039.5	110.3	010.0000	0394.0	085.0	53.28	
262.0	029.1218	0093.8	039.2	109.8	010.0000	0393.5	084.9	53.30	
263.0	028.2257	0093.6	039.0	109.3	010.0000	0393.7	084.8	53.33	

264.0	027.3438	0093.4	038.7	108.9	010.0000	0393.7	084.8	53.34
265.0	026.4758	0093.5	038.4	108.4	010.0000	0393.5	084.7	53.35
266.0	025.6218	0093.3	038.1	107.9	010.0000	0393.3	084.7	53.34
267.0	024.7818	0093.0	037.8	107.4	010.0000	0393.8	084.8	53.34
268.0	023.9557	0092.9	037.5	106.9	010.0000	0394.7	084.8	53.35
269.0	023.1437	0092.6	037.2	106.4	010.0000	0395.3	084.9	53.34
270.0	022.3457	0092.3	036.9	105.9	010.0000	0395.1	085.1	53.29
271.0	022.1484	0091.7	036.7	105.5	010.0000	0394.5	085.1	53.28
272.0	021.9520	0091.3	036.5	105.0	010.0000	0394.0	085.0	53.26
273.0	021.7564	0091.1	036.4	104.6	010.0000	0393.8	085.0	53.27
274.0	021.5618	0090.8	036.3	104.1	010.0000	0393.6	085.0	53.27
275.0	021.3679	0090.7	036.2	103.7	010.0000	0393.5	085.0	53.26
276.0	021.1750	0090.5	036.1	103.3	010.0000	0393.5	085.0	53.27
277.0	020.9829	0090.4	036.0	102.9	010.0000	0393.9	085.0	53.27
278.0	020.7918	0090.4	036.0	102.4	010.0000	0394.3	085.0	53.28
279.0	020.6014	0090.6	035.9	102.0	010.0000	0394.7	085.0	53.30
280.0	020.4120	0090.7	035.9	101.6	010.0000	0395.1	085.0	53.30
281.0	020.4877	0090.7	035.9	101.2	010.0000	0395.6	085.0	53.33
282.0	020.5635	0090.7	035.9	100.7	010.0000	0395.6	085.0	53.34
283.0	020.6394	0090.7	035.9	100.3	010.0000	0395.6	084.9	53.35
284.0	020.7155	0090.4	035.9	099.9	010.0000	0395.3	085.0	53.32
285.0	020.7918	0090.3	035.9	099.5	010.0000	0394.6	085.0	53.28
286.0	020.8681	0090.1	035.9	099.0	010.0000	0393.7	085.1	53.23
287.0	020.9446	0090.1	035.9	098.6	010.0000	0392.9	085.2	53.19
288.0	021.0213	0089.9	035.9	098.2	010.0000	0392.5	085.3	53.14
289.0	021.0981	0089.7	035.9	097.8	010.0000	0392.3	085.4	53.10
290.0	021.1750	0089.6	035.9	097.4	010.0000	0392.4	085.5	53.06
291.0	020.9446	0089.5	035.8	097.0	010.0000	0392.8	085.7	52.99
292.0	020.7155	0089.5	035.8	096.6	010.0000	0393.2	086.0	52.93
293.0	020.4877	0089.7	035.7	096.2	010.0000	0393.5	086.2	52.86
294.0	020.2611	0089.7	035.6	095.8	010.0000	0393.7	086.5	52.78
295.0	020.0357	0089.1	035.4	095.5	010.0000	0394.0	086.8	52.66
296.0	019.8117	0088.9	035.3	095.1	010.0000	0394.3	087.2	52.57
297.0	019.5889	0089.0	035.2	094.7	010.0000	0394.7	087.5	52.48
298.0	019.3673	0088.9	035.1	094.4	010.0000	0394.9	087.8	52.37
299.0	019.1470	0088.8	035.0	094.1	010.0000	0395.0	088.1	52.27
300.0	018.9280	0088.7	034.9	093.7	010.0000	0395.3	088.5	52.15
301.0	018.1713	0088.5	034.5	093.5	010.0000	0395.3	089.1	51.96
302.0	017.4301	0088.3	034.2	093.2	010.0000	0395.3	089.7	51.77
303.0	016.7043	0088.2	033.8	093.0	010.0000	0395.2	090.3	51.57
304.0	015.9939	0088.0	033.4	092.8	010.0000	0395.1	090.9	51.37
305.0	015.2989	0088.0	033.1	092.6	010.0000	0395.1	091.5	51.17
306.0	014.6194	0087.9	032.7	092.4	010.0000	0395.1	092.1	50.98
307.0	013.9554	0087.9	032.3	092.3	010.0000	0395.1	092.7	50.78
308.0	013.3067	0087.9	032.0	092.1	010.0000	0395.1	093.4	50.59
309.0	012.6735	0087.9	031.6	092.0	010.0000	0395.2	094.0	50.40
310.0	012.0557	0087.9	031.2	091.9	010.0000	0395.3	094.6	50.21
311.0	011.5670	0087.8	030.9	091.7	010.0000	0395.4	095.2	50.04
312.0	011.0883	0087.9	030.6	091.6	010.0000	0395.5	095.8	49.88
313.0	010.6197	0087.9	030.3	091.4	010.0000	0395.6	096.4	49.72
314.0	010.1613	0088.0	030.0	091.3	010.0000	0395.6	096.9	49.55
315.0	009.7129	0087.9	029.7	091.2	010.0000	0395.8	097.5	49.39
316.0	009.2747	0088.1	029.4	091.1	010.0000	0395.9	098.1	49.24
317.0	008.8466	0088.5	029.1	091.0	010.0000	0396.0	098.6	49.09
318.0	008.4286	0088.6	028.8	090.9	010.0000	0396.1	099.2	48.93
319.0	008.0208	0088.7	028.5	090.9	010.0000	0396.2	099.8	48.78
320.0	007.6230	0088.8	028.2	090.8	010.0000	0396.2	100.3	48.62
321.0	007.3483	0089.0	028.0	090.7	010.0000	0396.3	100.8	48.48
322.0	007.0787	0089.2	027.8	090.6	010.0000	0396.5	101.4	48.35
323.0	006.8141	0089.2	027.6	090.6	010.0000	0396.5	101.9	48.21
324.0	006.5545	0089.3	027.4	090.5	010.0000	0396.6	102.4	48.07
325.0	006.3000	0089.5	027.1	090.4	010.0000	0396.7	102.9	47.93
326.0	006.0505	0089.7	026.9	090.4	010.0000	0396.8	103.4	47.80

327.0	005.8061	0089.8	026.7	090.3	010.0000	0396.8	103.9	47.66
328.0	005.5667	0090.0	026.5	090.3	010.0000	0396.8	104.4	47.52
329.0	005.3323	0090.5	026.3	090.3	010.0000	0396.9	104.9	47.40
330.0	005.1030	0090.8	026.1	090.2	010.0000	0396.9	105.4	47.26
331.0	004.9902	0091.0	026.0	090.2	010.0000	0397.0	105.9	47.15
332.0	004.8787	0091.4	025.9	090.1	010.0000	0397.1	106.3	47.03
333.0	004.7685	0091.6	025.8	090.0	010.0000	0397.2	106.8	46.92
334.0	004.6595	0091.6	025.7	090.0	010.0000	0397.2	107.2	46.80
335.0	004.5517	0091.7	025.5	089.9	010.0000	0397.2	107.7	46.68
336.0	004.4453	0091.9	025.4	089.9	010.0000	0397.2	108.1	46.56
337.0	004.3401	0091.9	025.3	089.8	010.0000	0397.2	108.6	46.44
338.0	004.2361	0092.1	025.2	089.8	010.0000	0397.2	109.0	46.32
339.0	004.1334	0092.2	025.0	089.8	010.0000	0397.2	109.5	46.20
340.0	004.0320	0092.2	024.9	089.8	010.0000	0397.2	109.9	46.08
341.0	003.9651	0092.2	024.8	089.7	010.0000	0397.2	110.4	45.97

03-30-2013 Terrain Data: NED 03 SEC FMOver Analysis

WLJK BLED19890814KA

WKBRmod

Channel = 206C1
 Max ERP = 10 kW
 RCAMSL = 498 M
 N. Lat. 33 24 18.0
 W. Lng. 81 50 15.0
 Protected
 60 dBu

Channel = 205C1
 Max ERP = 70 kW
 RCAMSL = 124 M
 N. Lat. 33 11 33.0
 W. Lng. 80 33 51.0
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
041.0	010.0000	0376.2	054.9	308.7	012.8876	0087.9	105.0	38.39	
042.0	010.0000	0376.1	054.9	308.6	012.8952	0087.9	103.9	38.60	
043.0	010.0000	0375.9	054.9	308.6	012.9260	0087.9	103.0	38.81	
044.0	010.0000	0375.5	054.9	308.5	012.9675	0087.9	102.0	39.02	
045.0	010.0000	0375.4	054.9	308.5	013.0088	0087.9	101.1	39.24	
046.0	010.0000	0375.3	054.9	308.4	013.0584	0087.9	100.1	39.46	
047.0	010.0000	0373.6	054.8	308.2	013.1485	0087.9	099.2	39.70	
048.0	010.0000	0375.3	054.9	308.2	013.1737	0087.9	098.3	39.92	
049.0	010.0000	0377.3	055.0	308.2	013.2006	0087.9	097.3	40.15	
050.0	010.0000	0380.0	055.1	308.1	013.2198	0087.9	096.3	40.39	
051.0	010.0000	0379.3	055.1	308.0	013.3195	0087.9	095.4	40.64	
052.0	010.0000	0377.5	055.0	307.8	013.4486	0087.9	094.5	40.91	
053.0	010.0000	0377.4	055.0	307.6	013.5530	0087.9	093.6	41.17	
054.0	010.0000	0377.5	055.0	307.5	013.6595	0087.9	092.7	41.43	
055.0	010.0000	0379.9	055.1	307.3	013.7270	0088.0	091.7	41.70	
056.0	010.0000	0383.1	055.3	307.3	013.7847	0088.0	090.7	41.97	
057.0	010.0000	0384.5	055.4	307.1	013.8923	0087.9	089.8	42.24	
058.0	010.0000	0384.4	055.4	306.9	014.0431	0087.9	088.9	42.53	
059.0	010.0000	0384.1	055.4	306.6	014.2067	0087.9	088.0	42.81	
060.0	010.0000	0385.5	055.5	306.4	014.3438	0087.9	087.1	43.10	
061.0	010.0000	0385.2	055.4	306.1	014.5309	0087.9	086.2	43.39	
062.0	010.0000	0383.7	055.4	305.8	014.7558	0087.9	085.4	43.68	
063.0	010.0000	0382.9	055.3	305.5	014.9787	0088.0	084.6	43.97	
064.0	010.0000	0382.7	055.3	305.1	015.1993	0088.0	083.7	44.27	
065.0	010.0000	0383.1	055.3	304.8	015.4213	0088.0	082.9	44.56	
066.0	010.0000	0382.0	055.3	304.4	015.6902	0088.0	082.1	44.85	
067.0	010.0000	0381.9	055.2	304.1	015.9481	0088.0	081.3	45.14	
068.0	010.0000	0382.9	055.3	303.7	016.1976	0088.1	080.5	45.43	

069.0	010.0000	0383.6	055.3	303.3	016.4665	0088.1	079.7	45.73
070.0	010.0000	0384.6	055.4	302.9	016.7452	0088.2	078.9	46.02
071.0	010.0000	0385.2	055.4	302.5	017.0491	0088.2	078.1	46.32
072.0	010.0000	0387.4	055.6	302.1	017.3323	0088.3	077.3	46.62
073.0	010.0000	0389.9	055.7	301.7	017.6266	0088.4	076.4	46.92
074.0	010.0000	0391.6	055.8	301.3	017.9566	0088.4	075.7	47.22
075.0	010.0000	0395.1	056.0	300.9	018.2633	0088.5	074.8	47.53
076.0	010.0000	0399.9	056.3	300.5	018.5587	0088.6	074.0	47.85
077.0	010.0000	0403.7	056.5	300.0	018.8991	0088.7	073.1	48.16
078.0	010.0000	0400.3	056.3	299.4	019.0681	0088.8	072.6	48.36
079.0	010.0000	0397.5	056.1	298.7	019.2169	0088.8	072.1	48.53
080.0	010.0000	0395.9	056.0	298.0	019.3627	0088.9	071.6	48.72
081.0	010.0000	0394.9	056.0	297.4	019.5084	0089.0	071.0	48.91
082.0	010.0000	0395.0	056.0	296.7	019.6524	0088.9	070.5	49.10
083.0	010.0000	0394.5	055.9	296.0	019.8042	0088.9	070.0	49.28
084.0	010.0000	0395.4	056.0	295.4	019.9528	0089.0	069.4	49.47
085.0	010.0000	0397.2	056.1	294.7	020.1020	0089.2	068.8	49.68
086.0	010.0000	0398.8	056.2	294.0	020.2570	0089.6	068.3	49.90
087.0	010.0000	0398.8	056.2	293.3	020.4246	0089.8	067.9	50.07
088.0	010.0000	0398.2	056.2	292.5	020.5993	0089.6	067.5	50.21
089.0	010.0000	0396.8	056.1	291.7	020.7811	0089.6	067.2	50.33
090.0	010.0000	0397.2	056.1	290.9	020.9595	0089.6	066.8	50.48
091.0	010.0000	0396.1	056.0	290.1	021.1470	0089.6	066.5	50.60
092.0	010.0000	0395.2	056.0	289.3	021.1213	0089.7	066.3	50.67
093.0	010.0000	0395.2	056.0	288.5	021.0585	0089.8	066.0	50.74
094.0	010.0000	0395.1	056.0	287.7	020.9948	0090.0	065.8	50.81
095.0	010.0000	0394.4	055.9	286.8	020.9302	0090.1	065.6	50.85
096.0	010.0000	0393.6	055.9	286.0	020.8652	0090.1	065.5	50.88
097.0	010.0000	0392.7	055.9	285.1	020.7998	0090.2	065.4	50.90
098.0	010.0000	0392.4	055.8	284.3	020.7347	0090.3	065.3	50.92
099.0	010.0000	0393.6	055.9	283.4	020.6698	0090.5	065.1	50.96
100.0	010.0000	0395.4	056.0	282.5	020.6045	0090.8	065.0	51.01
101.0	010.0000	0395.6	056.0	281.7	020.5388	0090.7	065.0	51.00
102.0	010.0000	0394.7	056.0	280.8	020.4733	0090.7	065.0	50.97
103.0	010.0000	0393.8	055.9	279.9	020.4216	0090.7	065.1	50.93
104.0	010.0000	0393.5	055.9	279.1	020.5843	0090.6	065.2	50.93
105.0	010.0000	0394.0	055.9	278.2	020.7475	0090.4	065.3	50.93
106.0	010.0000	0395.2	056.0	277.4	020.9118	0090.4	065.4	50.94
107.0	010.0000	0394.5	056.0	276.5	021.0729	0090.4	065.6	50.91
108.0	010.0000	0393.3	055.9	275.7	021.2316	0090.6	065.9	50.87
109.0	010.0000	0393.8	055.9	274.9	021.3925	0090.7	066.1	50.85
110.0	010.0000	0393.6	055.9	274.1	021.5507	0090.8	066.3	50.81
111.0	010.0000	0393.8	055.9	273.2	021.7083	0091.0	066.6	50.77
112.0	010.0000	0395.4	056.0	272.4	021.8685	0091.3	066.9	50.75
113.0	010.0000	0394.9	056.0	271.7	022.0205	0091.4	067.2	50.68
114.0	010.0000	0394.1	055.9	270.9	022.1692	0091.8	067.6	50.61
115.0	010.0000	0394.0	055.9	270.1	022.3174	0092.2	068.1	50.54
116.0	010.0000	0394.3	055.9	269.4	022.8252	0092.4	068.5	50.53
117.0	010.0000	0394.4	055.9	268.7	023.4089	0092.7	068.9	50.53
118.0	010.0000	0395.6	056.0	267.9	024.0068	0092.9	069.4	50.52
119.0	010.0000	0397.1	056.1	267.2	024.6080	0093.0	069.8	50.51
120.0	010.0000	0399.8	056.2	266.5	025.2281	0093.2	070.2	50.51
121.0	010.0000	0400.9	056.3	265.8	025.8101	0093.4	070.7	50.47
122.0	010.0000	0400.1	056.3	265.2	026.3391	0093.4	071.3	50.39
123.0	010.0000	0401.6	056.3	264.5	026.9100	0093.5	071.9	50.32
124.0	010.0000	0402.3	056.4	263.9	027.4554	0093.4	072.5	50.24
125.0	010.0000	0403.3	056.4	263.3	027.9945	0093.6	073.1	50.15
126.0	010.0000	0403.6	056.5	262.7	028.5071	0093.7	073.8	50.06
127.0	010.0000	0404.5	056.5	262.1	029.0212	0093.7	074.4	49.95
128.0	010.0000	0405.3	056.5	261.6	029.5187	0093.8	075.1	49.83
129.0	010.0000	0406.9	056.6	261.0	030.0282	0093.9	075.8	49.72
130.0	010.0000	0409.3	056.8	260.4	030.5508	0094.1	076.4	49.62
131.0	010.0000	0409.9	056.8	259.9	030.9754	0094.2	077.2	49.48

132.0	010.0000	0409.0	056.8	259.5	031.1321	0094.2	078.0	49.27
133.0	010.0000	0407.6	056.7	259.1	031.2766	0094.3	078.8	49.06
134.0	010.0000	0407.8	056.7	258.7	031.4335	0094.4	079.6	48.86
135.0	010.0000	0409.8	056.8	258.3	031.6068	0094.5	080.4	48.68
136.0	010.0000	0409.1	056.8	257.9	031.7392	0094.6	081.3	48.47
137.0	010.0000	0409.8	056.8	257.5	031.8827	0094.7	082.1	48.26
138.0	010.0000	0411.5	056.9	257.1	032.0331	0094.7	082.9	48.05
139.0	010.0000	0411.6	056.9	256.8	032.1561	0094.7	083.8	47.83
140.0	010.0000	0411.0	056.9	256.5	032.2644	0094.8	084.7	47.60
141.0	010.0000	0411.2	056.9	256.2	032.3769	0094.9	085.6	47.38
142.0	010.0000	0411.7	056.9	255.9	032.4872	0095.0	086.5	47.15
143.0	010.0000	0413.6	057.0	255.6	032.6090	0095.1	087.4	46.93
144.0	010.0000	0416.4	057.2	255.3	032.7367	0095.1	088.2	46.71
145.0	010.0000	0418.5	057.3	255.0	032.8503	0095.2	089.1	46.49
146.0	010.0000	0421.0	057.4	254.7	032.9625	0095.2	090.0	46.26
147.0	010.0000	0423.0	057.5	254.4	033.0630	0095.4	091.0	46.04
148.0	010.0000	0424.6	057.6	254.2	033.1525	0095.4	091.9	45.81
149.0	010.0000	0426.0	057.7	254.0	033.2332	0095.5	092.9	45.57
150.0	010.0000	0427.3	057.8	253.8	033.3081	0095.6	093.8	45.34
151.0	010.0000	0428.7	057.9	253.6	033.3794	0095.6	094.8	45.11
152.0	010.0000	0430.6	058.0	253.4	033.4505	0095.6	095.8	44.88
153.0	010.0000	0432.9	058.1	253.2	033.5226	0095.6	096.7	44.65
154.0	010.0000	0435.3	058.2	253.1	033.5901	0095.7	097.7	44.43
155.0	010.0000	0437.1	058.3	252.9	033.6457	0095.8	098.7	44.20
156.0	010.0000	0439.0	058.4	252.8	033.6963	0095.8	099.7	43.98
157.0	010.0000	0440.3	058.5	252.7	033.7364	0095.8	100.7	43.76
158.0	010.0000	0442.0	058.6	252.6	033.7762	0095.9	101.7	43.54
159.0	010.0000	0443.6	058.7	252.5	033.8101	0095.9	102.8	43.32
160.0	010.0000	0444.5	058.8	252.5	033.8301	0095.9	103.8	43.11
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Figure 1: Allocation Study
Spirit Broadcasting Group, Inc.

FMCommander Full Allocation Study - NED 03 SEC

03-30-2013

WKBRmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR

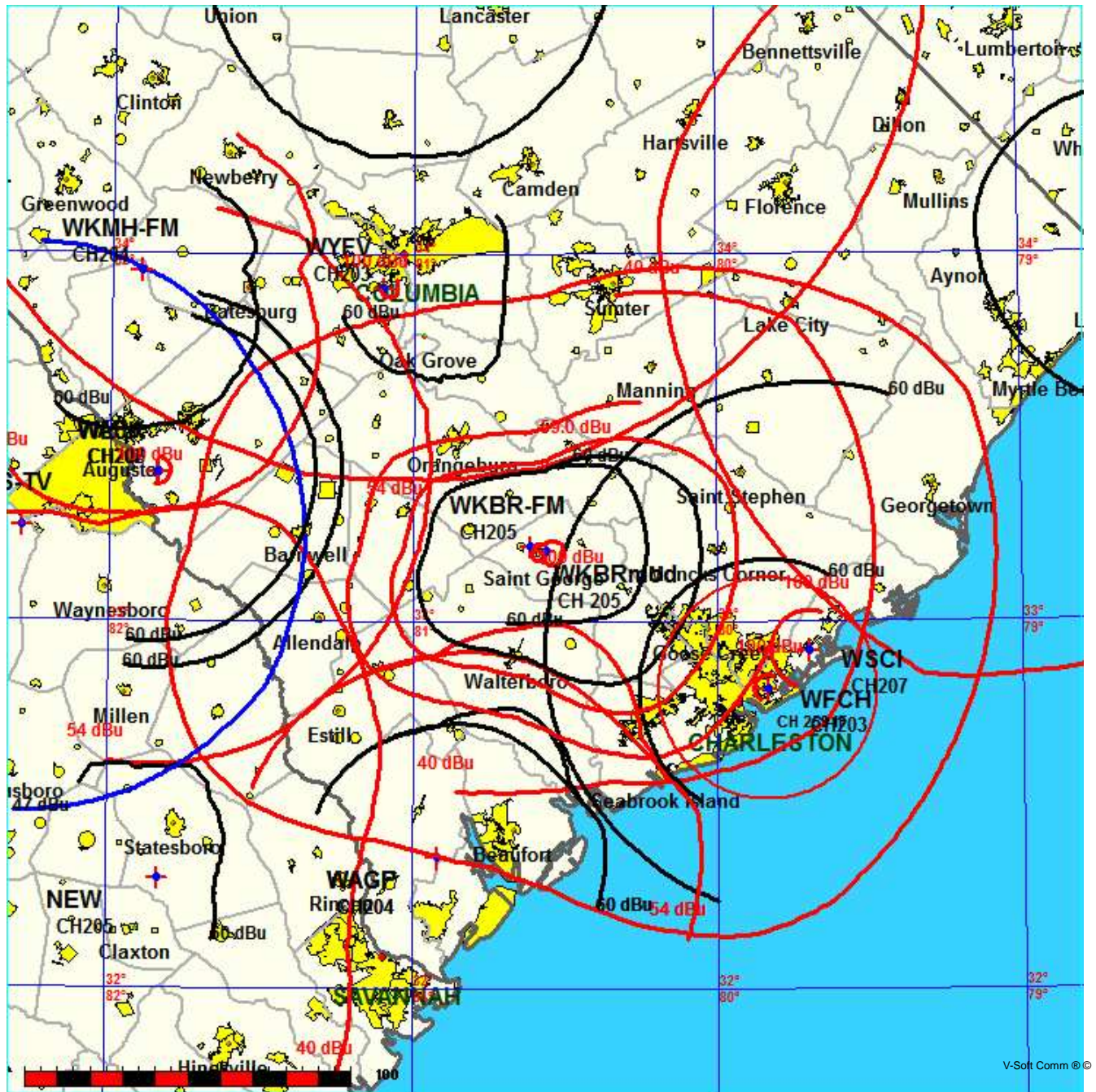


Figure 2: Allocation Study: WSCI
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBRmod's Overlaps (In= 27.0 km, Out= 0.02 km)

WKBRmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 100 dBu

WSCI CH 207 C DA BLED19921223KA
Lat= 32 55 28.0, Lng= 79 41 58.0
100.0 kW 418 M HAAT, 419 M COR
Prot.= 60 dBu, Intef.= 100 dBu

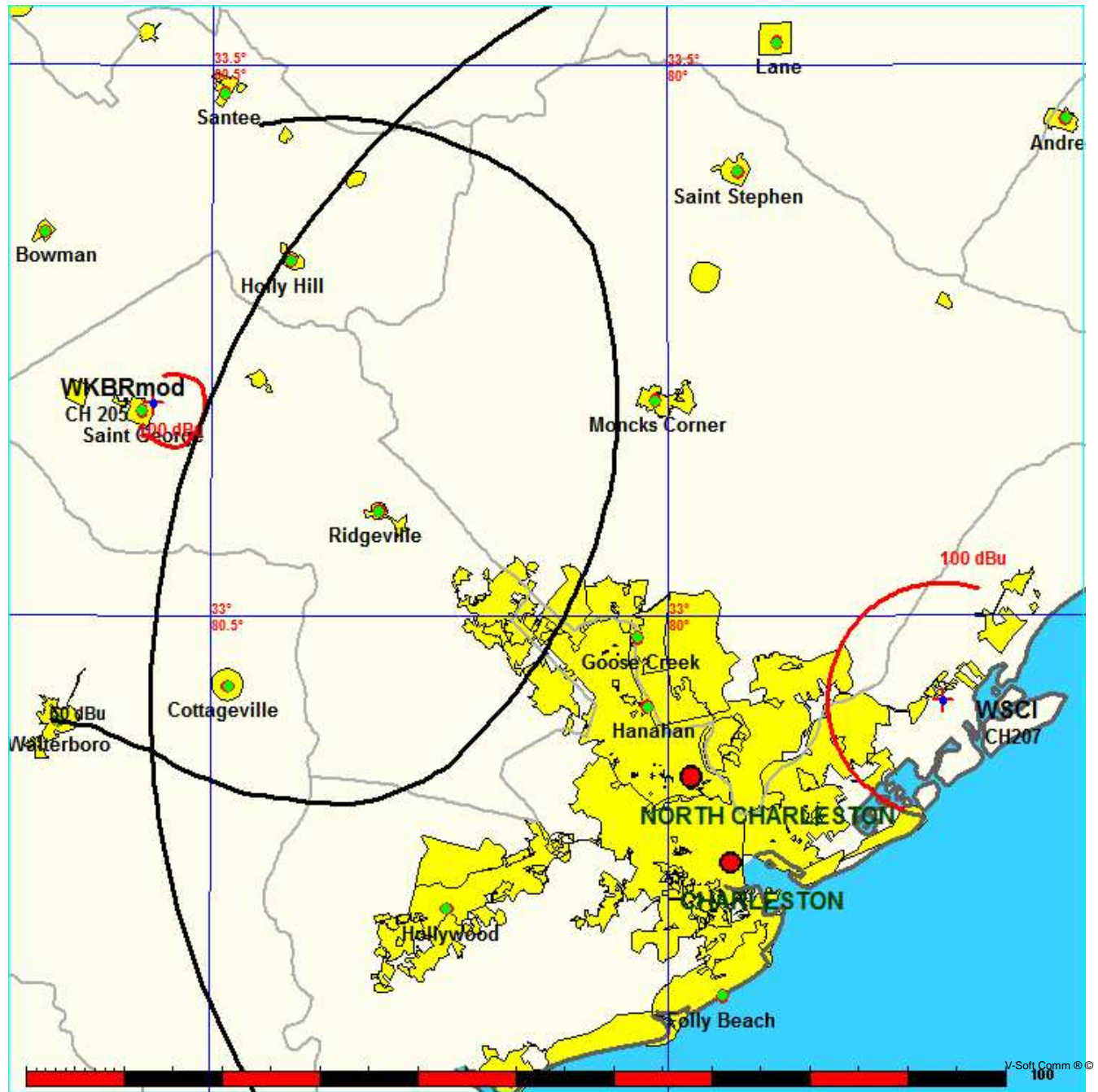


Figure 2A: Allocation Study: WSCI Detail
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBRmod's Overlaps (In= 27.0 km, Out= 0.02 km)

WKBRmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 100 dBu

WSCI CH 207 C DA BLED19921223KA
Lat= 32 55 28.0, Lng= 79 41 58.0
100.0 kW 418 M HAAT, 419 M COR
Prot.= 60 dBu, Intef.= 100 dBu

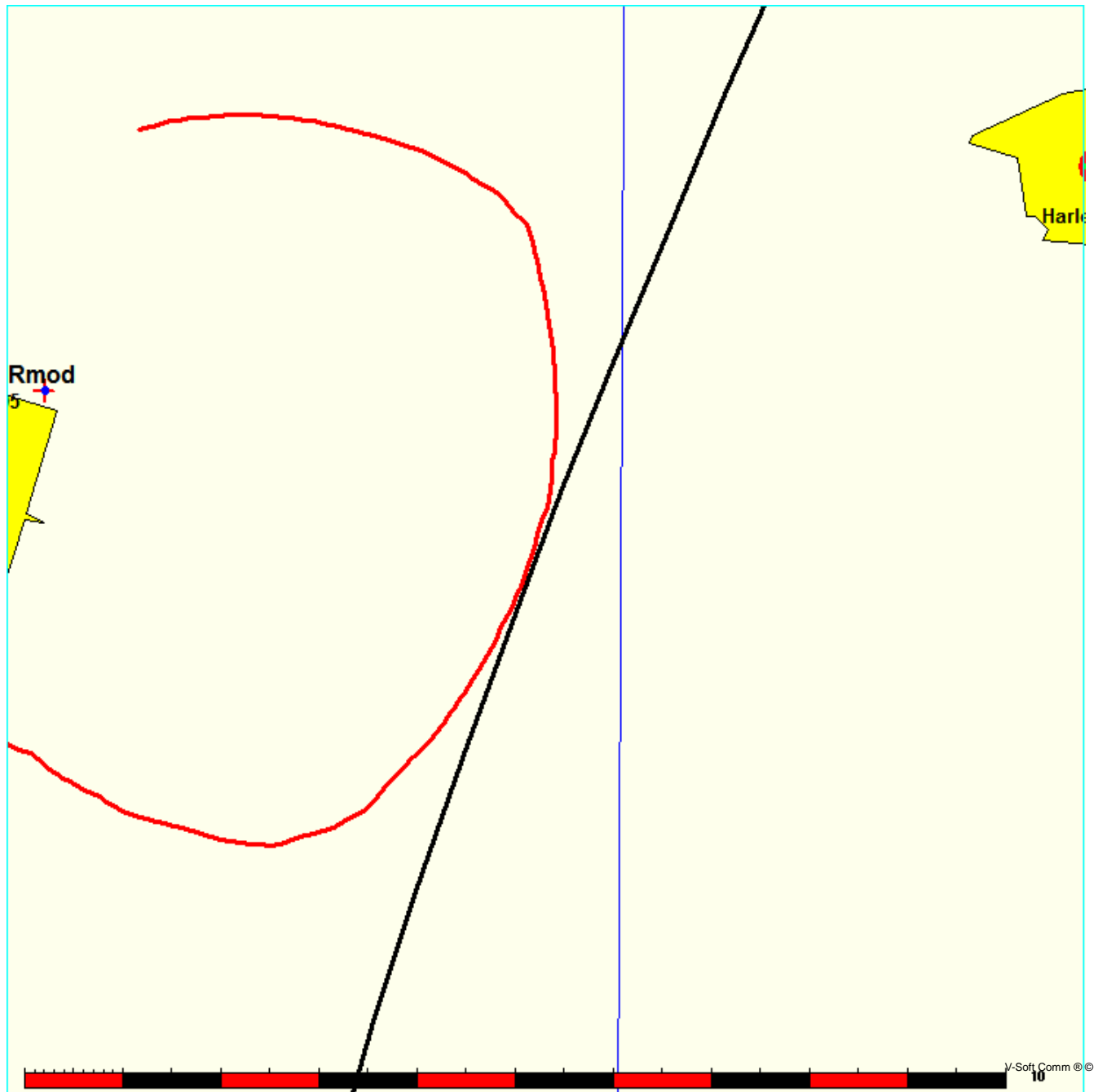


Figure 3: Allocation Study: WAGP Mod
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBRmod's Overlaps (In= 0.33 km, Out= 4.72 km)

WKBRmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WAGP-A CH 204 C1 DA BPED20130306ABM
Lat= 32 21 27.1, Lng= 80 55 11.2
100.0 kW 103 M HAAT, 105.4 M COR
Prot.= 60 dBu, Intef.= 54 dBu

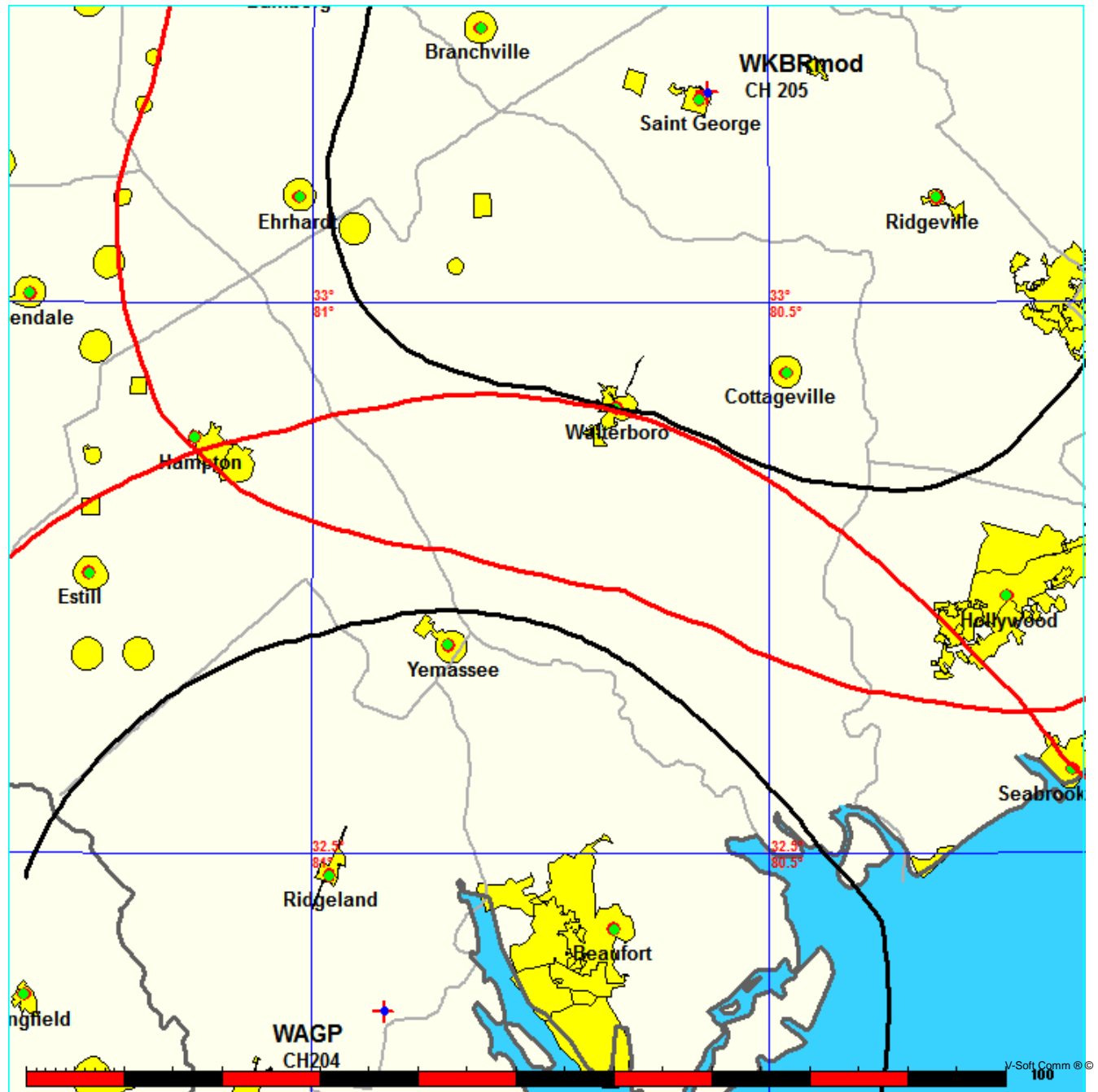


Figure 3A: Allocation Study: WAGP Mod: Detail
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBRmod's Overlaps (In= 0.33 km, Out= 4.72 km)

WKBRmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WAGP-A CH 204 C1 DA BPED20130306ABM
Lat= 32 21 27.1, Lng= 80 55 11.2
100.0 kW 103 M HAAT, 105.4 M COR
Prot.= 60 dBu, Intef.= 54 dBu

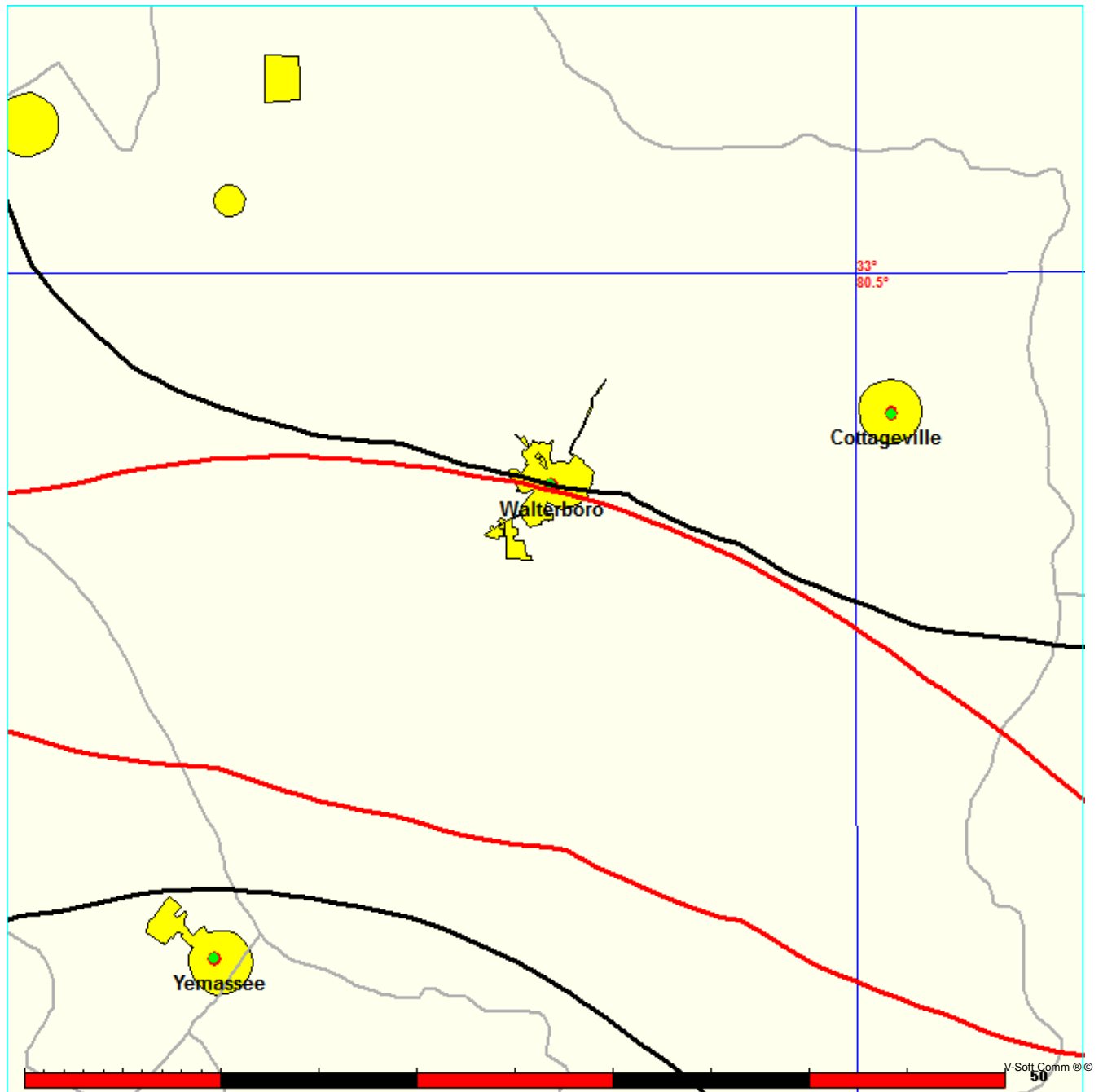


Figure 4: Allocation Study: WNSC-FM
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBKmod's Overlaps (In= 0.58 km, Out= 45.98 km)

WKBKmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WNSC-FM CH 205 C1 BMLED20060215AAK
Lat= 34 50 23.0, Lng= 81 01 07.0
100.0 kW 183 M HAAT, 359 M COR
Prot.= 60 dBu, Intef.= 40 dBu

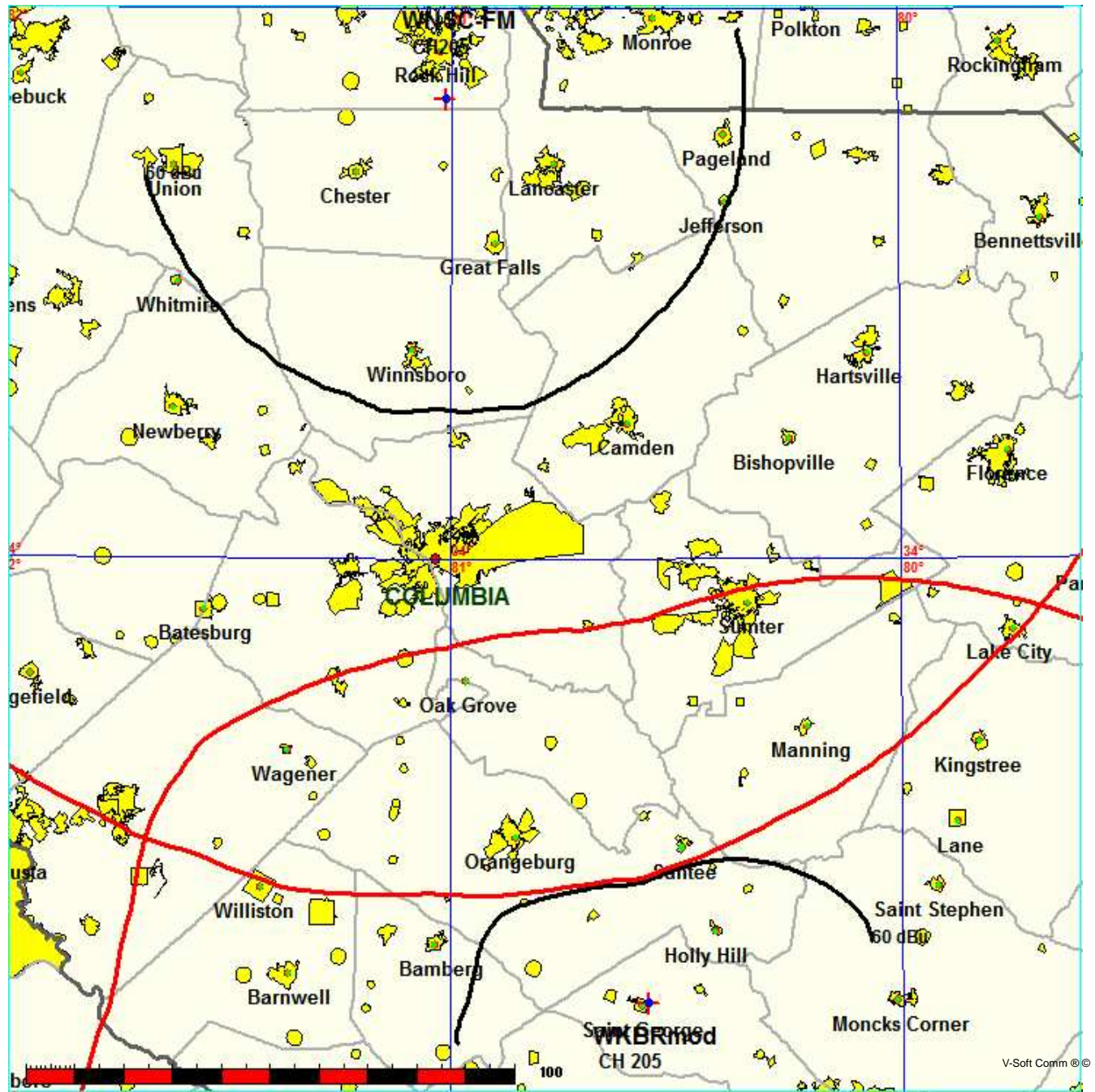


Figure 4A: Allocation Study: WNSC-FM: Detail
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBRmod's Overlaps (In= 0.58 km, Out= 45.98 km)

WKBRmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WNSC-FM CH 205 C1 BMLED20060215AAK
Lat= 34 50 23.0, Lng= 81 01 07.0
100.0 kW 183 M HAAT, 359 M COR
Prot.= 60 dBu, Intef.= 40 dBu

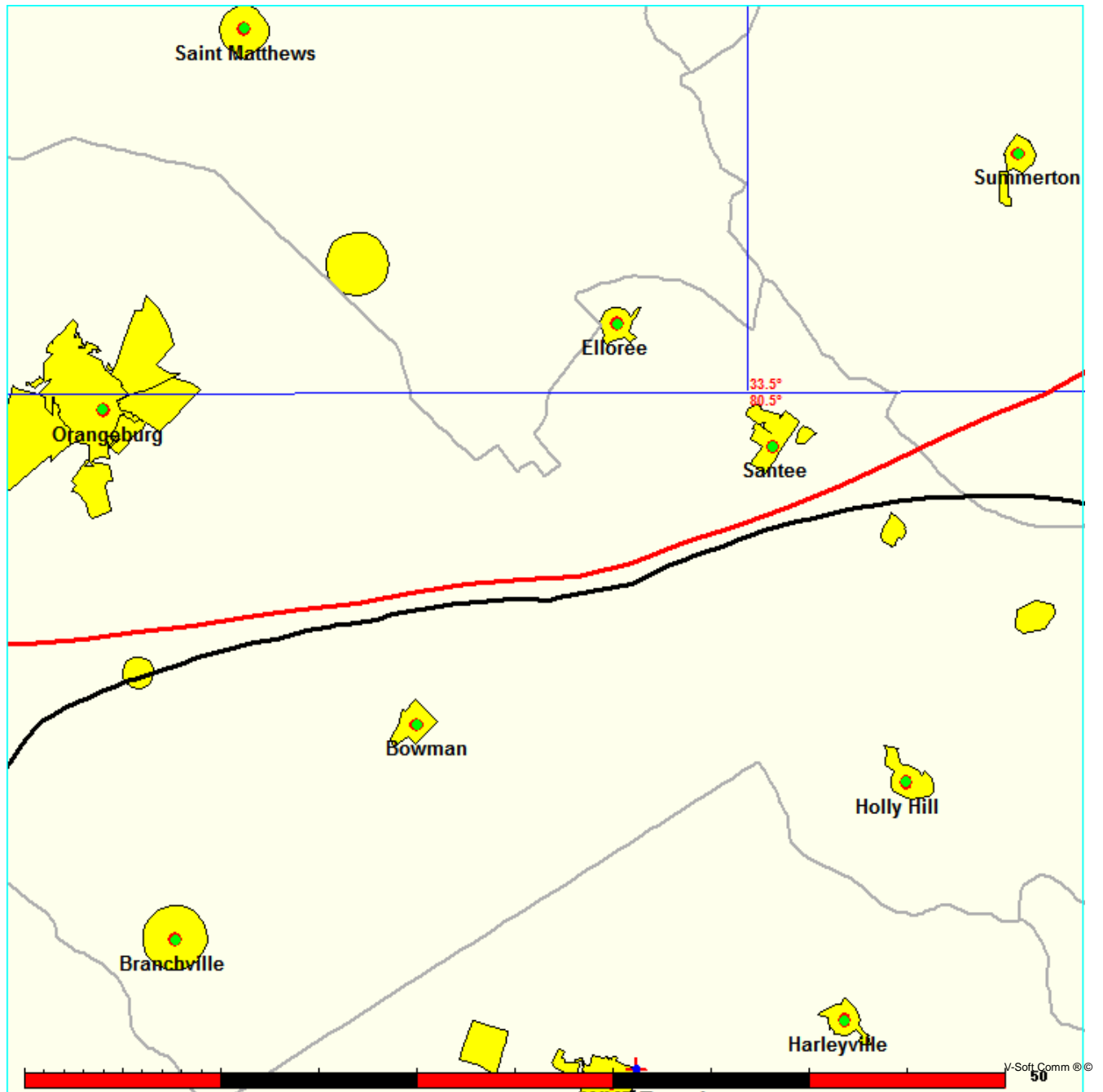


Figure 5: Allocation Study: WLJK
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBKmod's Overlaps (In= 1.91 km, Out= 8.95 km)

WKBKmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WLJK CH 206 C1 BLED19890814KA
Lat= 33 24 18.0, Lng= 81 50 15.0
10.0 kW 419 M HAAT, 498 M COR
Prot.= 60 dBu, Intef.= 54 dBu

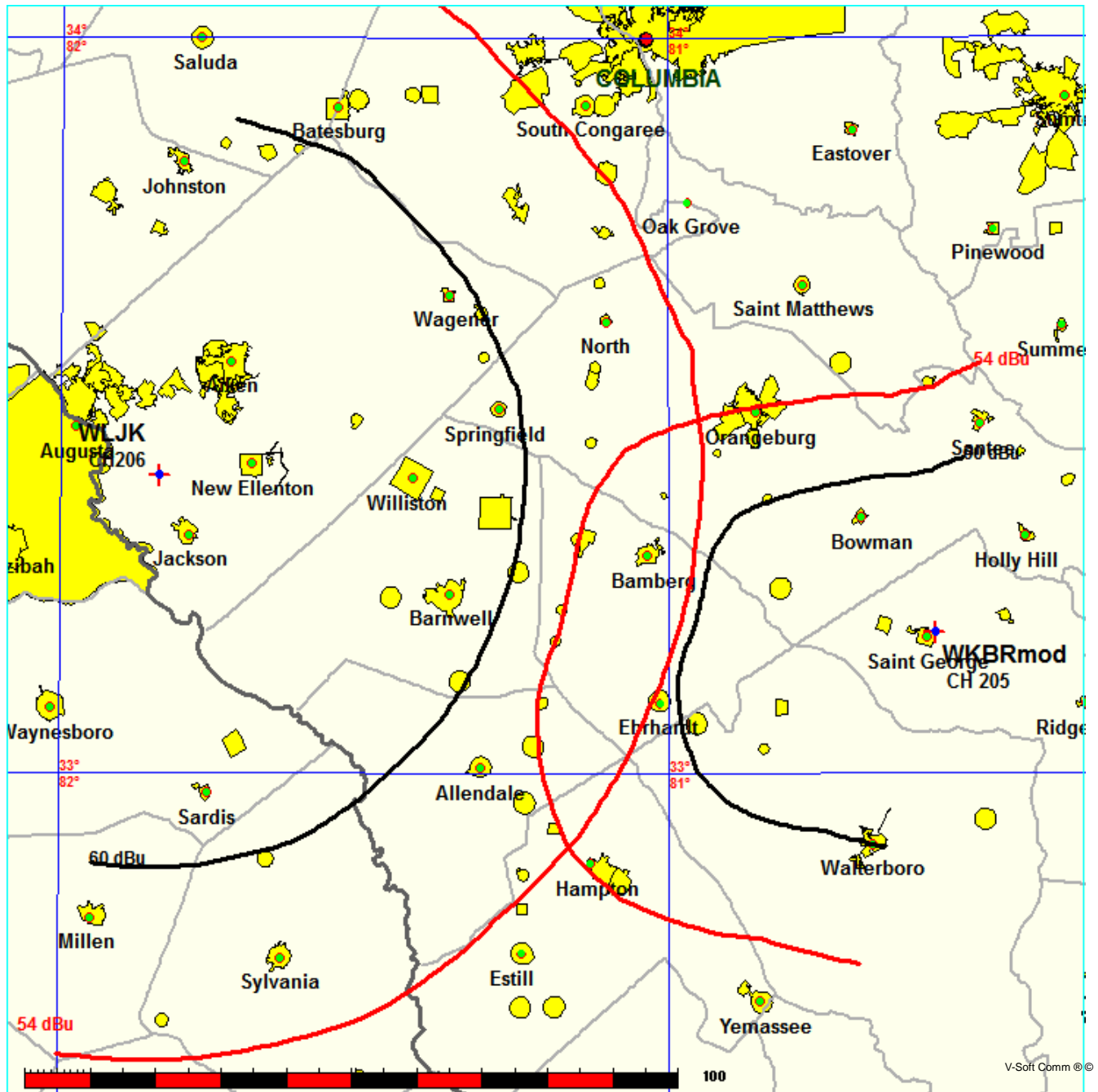


Figure 5A: Allocation Study: WLJK: Detail
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 03-30-2013 - NED 03 SEC
WKBKmod's Overlaps (In= 1.91 km, Out= 8.95 km)

WKBKmod CH 205 C1 DA
Lat= 33 11 33.0, Lng= 80 33 51.0
70.0 kW 96.2 M HAAT, 124 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WLJK CH 206 C1 BLED19890814KA
Lat= 33 24 18.0, Lng= 81 50 15.0
10.0 kW 419 M HAAT, 498 M COR
Prot.= 60 dBu, Intef.= 54 dBu

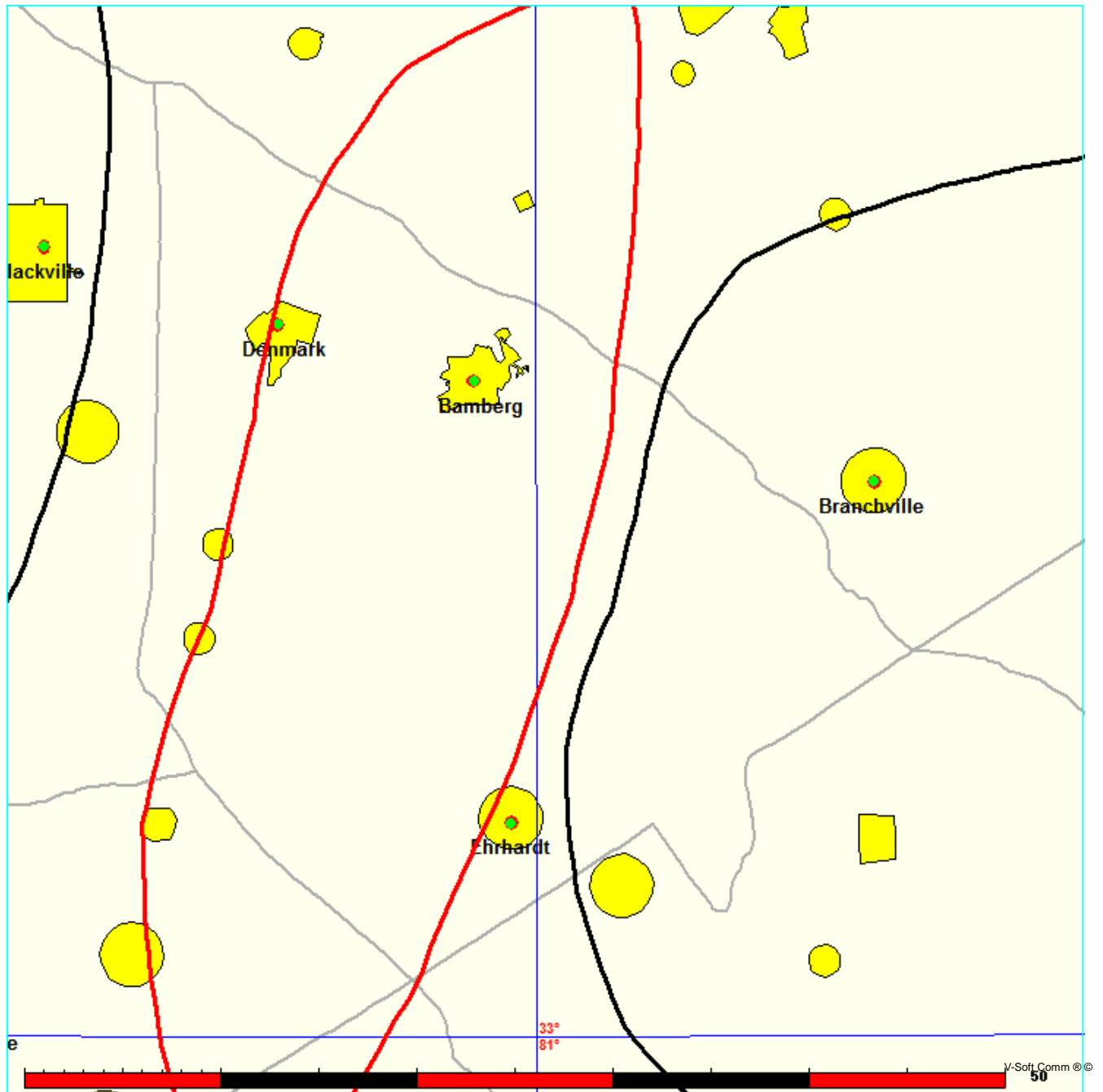


Figure 6: WAGP Proposed Antenna Pattern
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.514
10.0	0.554
20.0	0.587
30.0	0.606
40.0	0.616
50.0	0.648
60.0	0.703
70.0	0.795
80.0	1.0
90.0	1.0
100.0	1.0
110.0	1.0
120.0	1.0
130.0	1.0
140.0	1.0
150.0	0.825
160.0	0.656
170.0	0.522
180.0	0.415
190.0	0.33
195.0	0.33
200.0	0.295
205.0	0.33
210.0	0.37
217.0	0.434
218.0	0.444
219.0	0.454
220.0	0.464
230.0	0.583
240.0	0.68
250.0	0.68
260.0	0.68
270.0	0.597
280.0	0.5
290.0	0.5
300.0	0.5
310.0	0.5
320.0	0.5
330.0	0.5
340.0	0.495
350.0	0.487

Rotation Angle = 0

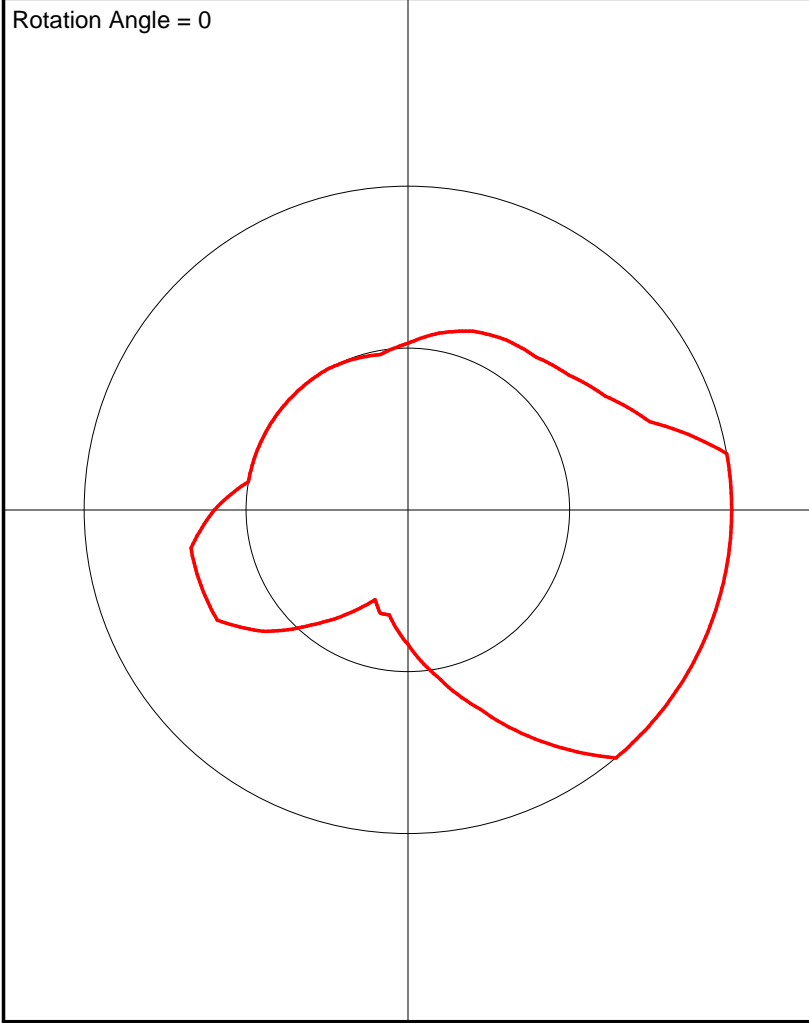


Figure 7: WAGP Licensed Antenna Pattern
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.52
10.0	0.65
20.0	0.8
30.0	1.0
40.0	1.0
50.0	0.9
60.0	0.75
70.0	0.8
80.0	1.0
90.0	1.0
100.0	1.0
110.0	1.0
120.0	1.0
130.0	1.0
140.0	1.0
150.0	0.825
160.0	0.656
170.0	0.522
180.0	0.415
190.0	0.33
200.0	0.295
210.0	0.37
220.0	0.464
230.0	0.583
240.0	0.68
250.0	0.68
260.0	0.68
270.0	0.597
280.0	0.5
290.0	0.5
300.0	0.5
310.0	0.5
320.0	0.5
330.0	0.5
340.0	0.5
350.0	0.5

Rotation Angle = 0

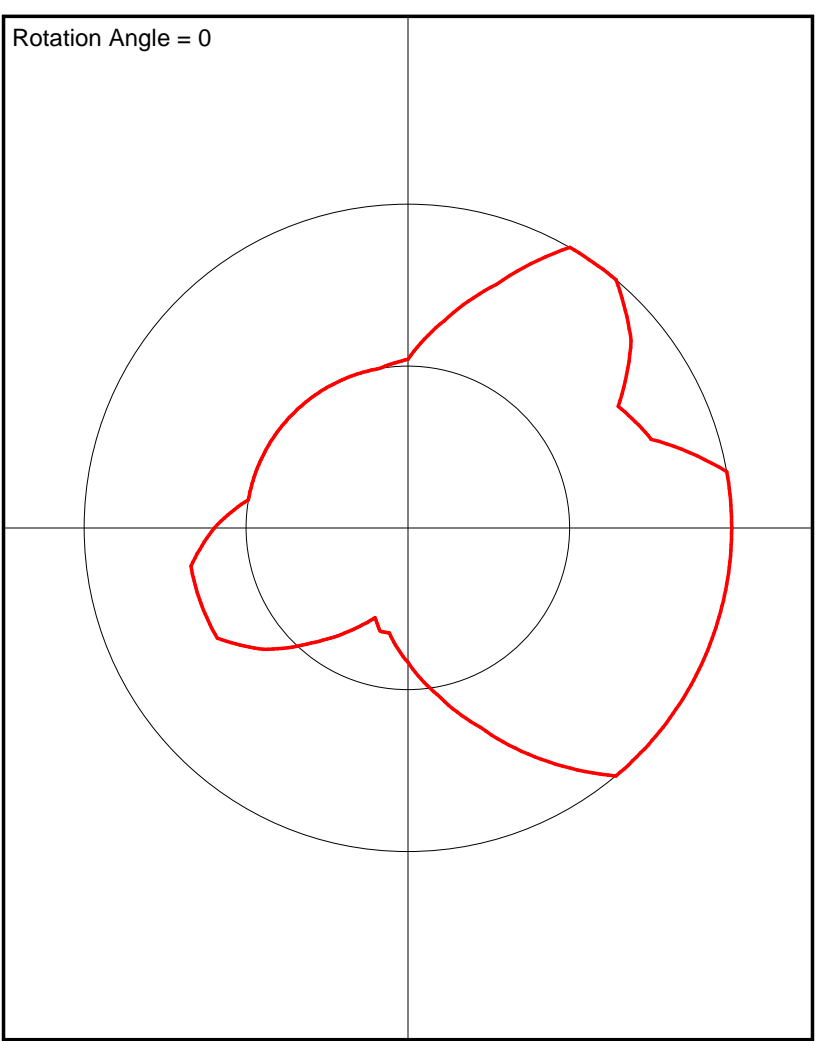


Figure 9: Proposed Antenna Pattern
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.225
10.0	0.27
20.0	0.335
30.0	0.42
40.0	0.525
50.0	0.66
60.0	0.83
70.0	1.0
80.0	1.0
90.0	1.0
100.0	1.0
110.0	1.0
120.0	1.0
130.0	1.0
140.0	1.0
150.0	0.896
160.0	0.712
170.0	0.566
180.0	0.45
190.0	0.4
200.0	0.408
210.0	0.45
220.0	0.555
230.0	0.665
240.0	0.725
250.0	0.705
260.0	0.665
270.0	0.565
280.0	0.54
290.0	0.55
300.0	0.52
310.0	0.415
320.0	0.33
330.0	0.27
340.0	0.24
350.0	0.22

Rotation Angle = 0

