

**WKRI**  
**Cokesbury, South Carolina**  
**Application for Modified Facilities**  
**Noncommercial FM Station**  
**On Channel 220 Class C3**  
**by**  
**Spirit Broadcasting Group, Inc.**

**Exhibit 15**  
**Allocations**

**October 2010**

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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 15, 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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14 October 2010

### Narrative

This Exhibit provides details of the allocations for the proposed modified facilities for WKRI, Cokesbury, South Carolina. This proposal complies fully with the requirements of 47 C.F.R. §73.509 for noncommercial reserved channels and §73.207 for nonreserved channels, with the exception of one nonreserved channel facility protected under the provisions of §73.215.

This application proposes a new site to replace the construction permit site, which has become unavailable. WKRI is authorized with a construction permit in file number BMPED-20100925ADM, modifying an original grant in BNPED-20071015AKW. Both proposed the same site. A separate exhibit is provided to describe the efforts first to retain the present site and then to find a replacement which maintains the authorized coverage area.

### Allocations

This application proposes service to Cokesbury, South Carolina, on channel 220 as a Class C3 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.

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. The only facilities requiring such study are identified below.

Figure/Table	Facility ID	Community	Channel and Relationship
2	WLHR-FM CP	Lavonia, Georgia	221A, first adjacent

A nonreserved commercial channel spacings study is included as Figure 3. The minimum spacings for all first, second and third adjacent channel facilities, except for WLHR-FM CP are met at the proposed site. WLHR-FM CP is a contour protection facility authorized under §73.215. The separation circle for WLHR-FM CP is a two color dashed line, to show the minimum spacing under §73.215 rather than the spacing under §73.207.

### Protection of Nonreserved Facilities under §73.215

There is one station, a construction permit, on nonreserved first adjacent channel 221 that is protected under the provisions of §73.215. Figure 2 is a contour protection study of the WLHR-FM CP authorized facilities. Figure 2A is a detail showing of the lack of overlap of contours.

Table 1 lists nonreserved channel separations with the Required separation (utilizing rounding) and Margin for all facilities where the distances exceed the requirements of §73.207. For and the lack of overlap of contours distance is shown. The distance between the proposed WKRI site and each WLHR-FM site exceeds the §73.215(e) short spaced minimum of 72 kilometers for first adjacent Class A to Class C3 facilities.

### 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. The USGS National Elevation Dataset has been developed by merging the highest-resolution, best-quality elevation data available across the United States into a seamless raster format. NED is the result of the maturation of the USGS effort to provide 1:24,000-scale Digital Elevation Model (DEM) data for the conterminous US and 1:63,360-scale DEM data for Alaska.

All population data is from 2000 U.S. Census SF1 data files. Population is counted by considering the location of the centroid of each census bloc. 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. Both authorized and proposed contours are shown.

Table 1: Allocations

Timothy L. Warner, Inc.  
Asheville, North Carolina

## Allocation Study

Spirit Broadcasting Group, Inc.

REFERENCE		CH# 220C3- 91.9 MHz, Pwr= 20.5 kw, HAAT= 108.0 M, Average Protected F(50-50)= 38.8 km						COR= 285 M		DISPLAY DATES	
34 21 26.0 N. 82 09 14.0 W.		Omni-directional								DATA 10-14-10 SEARCH 10-14-10	
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)	
220C3 WKRI Cokesbury		CP	NCX SC	196.5 16.5	8.5 BMPED20100924ADM	34 17 01.0 82 10 49.0	25.000 96	112.2	37.6	-141.9*<	-139.0*<
223C WESC-FM« Greenville		LIC	CY SC	334.6 154.3	96.1 BLH19800811AB	35 08 16.0 82 36 31.0	100.000 610	17.0	102.3	95.5R	0.58M
221A WLHR-FM Lavonia		CP	NCX GA	270.5 90.0	86.2 BPH20100511ACW	34 21 37.0 83 05 26.0	5.000 109	42.0	27.3	6.2	0.6
One Step Application											
221A WLHR-FM« Lavonia		LIC	CX GA	272.0 91.4	89.3 BLH20080221ACW	34 22 51.0 83 07 28.0	5.600 103	41.0	26.6	88.5R	0.8M
221C3 WWNU« Irmo		LIC	ZCX SC	107.7 288.2	99.5 BMLH20070221AAG	34 04 55.0 81 07 36.0	15.000 130	55.4	36.1	98.5R	1.0M
06NT W06AP Maggie Valley, Etc.		LI	DHN NC	326.1 145.5	155.9 BLTTV19791109IC	35 31 04.0 83 06 56.0	0.015 402	9.0	85.6	94.7R	61.2M
219A WLPE Augusta		LIC	NCX GA	166.2 346.4	89.6 BLED20031003ACP	33 34 21.0 81 55 23.0	1.150 180	34.7	23.2	14.4	5.1
Augusta Radio Fellowship I											
06NT W06AJ Franklin, Etc.		LI	DHN NC	305.2 124.4	158.9 BLTT19820202JP	35 10 22.0 83 34 53.0	0.467 924	9.0	85.6	94.7R	64.3M
wyff Hearst Television In											
218C2 WTBI-FM Greenville		LIC	CX SC	333.0 152.8	59.1 BLED20071214ADL	34 49 51.0 82 26 55.0	22.500 128	4.5	42.6	18.2	12.7
220C2 WRCM Wingate		LIC	ZCX NC	59.6 240.5	156.6 BLED20080623AAF	35 03 34.0 80 40 14.0	30.000 151	93.2	33.4	26.0	14.2
Columbia Bible College Bro											
219A WUGA Athens		LIC	CN GA	244.5 63.9	111.8 BLED19951207KB	33 55 13.0 83 14 46.0	6.000 99	46.5	30.2	26.5	22.4
Georgia Public Telecommuni											
220C WUOT Knoxville		LIC	CX TN	318.6 137.5	244.9 BLED20050519AGZ	35 59 44.0 83 57 23.0	65.000 534	184.5	85.3	27.0	54.4
University Of Tennessee											
06 2E WCES-TV Wrens		LI	HN GA	185.7 5.7	122.4 BLEDT20090612ACF	33 15 33.0 82 17 09.0	7.900 429	9.0	85.6	94.7R	27.8M
Georgia Public Telecommuni											
220C3 NEW Ridgeville		CP	ZVX SC	127.8 308.7	187.3 BNPED20071018AHS	33 18 55.4 80 33 38.7	25.000 92	110.8	36.3	35.4	37.7
Evangelical Broadcasting G											
220A WZZG Toombsboro		LIC	NCX GA	213.1 32.6	169.2 BLED20090304ADN	33 04 37.8 83 08 48.3	2.300 146	73.5	23.7	57.4	35.6
Augusta Radio Fellowship I											
222A WAEG« Evans		LIC	CX GA	184.8 4.8	85.4 BLH20090622ADY	33 35 24.5 82 13 52.5	6.000 100	2.7	27.6	41.5R	43.9M
Perry Broadcasting Of Augu											
219C2 WSGE Dallas		LIC	DCX NC	38.4 219.0	149.4 BLED20060921ADE	35 24 26.0 81 07 48.0	7.500 260	67.5	45.5	44.2	45.9
Gaston College											
217C1 WLTR Columbia		LIC	C SC	103.0 283.7	115.2 BMLED20041208AAT	34 07 07.0 80 56 12.0	100.000 232	8.6	65.5	65.8	45.5
South Carolina Educational											
219A WVNG Tallulah Falls		CP	DCX GA	294.3 113.5	135.0 BMPED20080821ADR	34 50 52.0 83 30 01.0	0.065 380	30.4	20.1	64.9	54.7
Toccoa Foundation, Inc.											

Terrain database is USGS 03 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 = 2, 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 protected contour.  
« = Station meets FCC minimum distance spacing for its class.  
< = Contour Overlap

Table 2: FMOVER protection of WLHR-FM CP, Lavonia, Georgia

10-14-2010 Terrain Data USGS 03 sec FMOVER Analysis

WKRI mod\_F

WLHR-FM.C BPH20100511ACW

Channel = 220C3  
 Max ERP = 20.5 kw  
 RCAMSL = 285 M  
 N. Lat. 34 21 26.0  
 W. Lng. 82 09 14.0  
 Protected  
 60 dBu

Channel = 221A  
 Max ERP = 5 kw  
 RCAMSL = 342 M  
 N. Lat. 34 21 37.0  
 W. Lng. 83 05 26.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
210.0	020.5000	0105.0	038.3	116.4	005.0000	0092.0	075.0	42.04	
211.0	020.5000	0104.7	038.3	116.3	005.0000	0092.0	074.4	42.22	
212.0	020.5000	0104.4	038.2	116.3	005.0000	0092.0	073.7	42.40	
213.0	020.5000	0104.8	038.3	116.3	005.0000	0092.0	073.1	42.60	
214.0	020.5000	0105.1	038.3	116.2	005.0000	0092.0	072.4	42.79	
215.0	020.5000	0104.4	038.2	116.1	005.0000	0092.1	071.8	42.98	
216.0	020.5000	0103.7	038.1	115.9	005.0000	0092.2	071.1	43.16	
217.0	020.5000	0103.5	038.1	115.8	005.0000	0092.3	070.5	43.36	
218.0	020.5000	0102.6	037.9	115.6	005.0000	0092.4	069.8	43.54	
219.0	020.5000	0101.8	037.8	115.3	005.0000	0092.5	069.2	43.73	
220.0	020.5000	0102.4	037.9	115.3	005.0000	0092.6	068.6	43.92	
221.0	020.5000	0102.6	037.9	115.2	005.0000	0092.6	067.9	44.11	
222.0	020.5000	0102.5	037.9	115.0	005.0000	0092.6	067.3	44.30	
223.0	020.5000	0101.8	037.8	114.7	005.0000	0092.5	066.7	44.47	
224.0	020.5000	0101.3	037.7	114.5	005.0000	0092.4	066.1	44.64	
225.0	020.5000	0101.3	037.7	114.3	005.0000	0092.3	065.5	44.82	
226.0	020.5000	0101.2	037.7	114.1	005.0000	0092.2	064.8	44.99	
227.0	020.5000	0101.3	037.7	113.9	005.0000	0092.2	064.2	45.18	
228.0	020.5000	0101.8	037.8	113.7	005.0000	0092.2	063.6	45.37	
229.0	020.5000	0102.5	037.9	113.5	005.0000	0092.2	062.9	45.58	
230.0	020.5000	0103.8	038.1	113.4	005.0000	0092.3	062.3	45.80	
231.0	020.5000	0104.7	038.3	113.3	005.0000	0092.3	061.6	46.02	
232.0	020.5000	0105.4	038.4	113.1	005.0000	0092.4	061.0	46.24	
233.0	020.5000	0106.0	038.5	112.8	005.0000	0092.5	060.3	46.46	
234.0	020.5000	0106.2	038.5	112.5	005.0000	0092.7	059.7	46.67	
235.0	020.5000	0106.9	038.6	112.3	005.0000	0092.7	059.1	46.90	
236.0	020.5000	0108.2	038.8	112.1	005.0000	0092.7	058.4	47.14	
237.0	020.5000	0109.9	039.0	111.9	005.0000	0092.7	057.7	47.39	
238.0	020.5000	0111.4	039.3	111.7	005.0000	0092.7	057.0	47.63	
239.0	020.5000	0112.0	039.3	111.3	005.0000	0092.6	056.4	47.85	
240.0	020.5000	0110.6	039.1	110.7	005.0000	0093.3	056.0	48.04	
241.0	020.5000	0109.9	039.0	110.2	005.0000	0094.0	055.6	48.26	
242.0	020.5000	0109.7	039.0	109.7	005.0000	0094.7	055.1	48.50	
243.0	020.5000	0109.0	038.9	109.2	005.0000	0095.5	054.6	48.72	
244.0	020.5000	0108.7	038.9	108.6	005.0000	0096.1	054.2	48.94	
245.0	020.5000	0106.8	038.6	107.9	005.0000	0097.2	053.9	49.12	
246.0	020.5000	0105.7	038.4	107.3	005.0000	0098.1	053.6	49.31	
247.0	020.5000	0105.8	038.4	106.7	005.0000	0098.6	053.1	49.51	
248.0	020.5000	0106.9	038.6	106.3	005.0000	0098.9	052.6	49.75	
249.0	020.5000	0106.4	038.5	105.6	005.0000	0099.6	052.2	49.93	
250.0	020.5000	0104.1	038.2	104.8	005.0000	0101.5	052.1	50.11	
251.0	020.5000	0103.0	038.0	104.1	005.0000	0103.3	051.9	50.33	
252.0	020.5000	0101.9	037.8	103.4	005.0000	0104.9	051.7	50.52	
253.0	020.5000	0100.3	037.5	102.6	005.0000	0106.3	051.6	50.65	
254.0	020.5000	0099.2	037.4	101.8	005.0000	0106.7	051.4	50.75	
255.0	020.5000	0098.0	037.2	101.1	005.0000	0106.7	051.3	50.79	
256.0	020.5000	0096.3	036.9	100.3	005.0000	0105.9	051.3	50.74	
257.0	020.5000	0093.9	036.5	99.5	005.0000	0104.2	051.4	50.58	
258.0	020.5000	0092.7	036.2	98.7	005.0000	0102.1	051.4	50.44	
259.0	020.5000	0093.1	036.3	98.1	005.0000	0100.0	051.1	50.40	
260.0	020.5000	0094.0	036.5	97.4	005.0000	0098.5	050.7	50.42	
261.0	020.5000	0095.5	036.7	96.8	005.0000	0096.4	050.3	50.43	



262.0	020.5000	0096.9	037.0	096.2	005.0000	0094.8	049.9	50.46
263.0	020.5000	0097.2	037.0	095.5	005.0000	0093.9	049.7	50.46
264.0	020.5000	0096.9	037.0	094.7	005.0000	0093.2	049.6	50.43
265.0	020.5000	0096.5	036.9	094.0	005.0000	0092.8	049.5	50.42
266.0	020.5000	0096.8	037.0	093.2	005.0000	0093.4	049.4	50.52
267.0	020.5000	0098.3	037.2	092.5	005.0000	0095.0	049.1	50.78
268.0	020.5000	0100.9	037.6	091.8	005.0000	0097.0	048.6	51.11
269.0	020.5000	0102.3	037.9	091.0	005.0000	0099.1	048.3	51.37
270.0	020.5000	0102.7	037.9	090.3	005.0000	0100.4	048.2	51.51
271.0	020.5000	0102.9	038.0	089.5	005.0000	0101.9	048.2	51.63
272.0	020.5000	0103.3	038.0	088.7	005.0000	0102.7	048.2	51.70
273.0	020.5000	0102.7	037.9	087.9	005.0000	0103.9	048.3	51.74
274.0	020.5000	0100.7	037.6	087.1	005.0000	0104.8	048.7	51.66
275.0	020.5000	0098.4	037.2	086.4	005.0000	0105.2	049.2	51.51
276.0	020.5000	0098.0	037.2	085.7	005.0000	0105.3	049.3	51.45
277.0	020.5000	0098.3	037.2	084.9	005.0000	0106.1	049.4	51.48
278.0	020.5000	0097.8	037.1	084.2	005.0000	0106.7	049.6	51.44
279.0	020.5000	0097.1	037.0	083.5	005.0000	0106.7	049.9	51.33
280.0	020.5000	0096.6	036.9	082.9	005.0000	0107.6	050.1	51.30
281.0	020.5000	0096.1	036.9	082.2	005.0000	0108.2	050.4	51.23
282.0	020.5000	0096.4	036.9	081.5	005.0000	0107.9	050.6	51.15
283.0	020.5000	0097.6	037.1	080.7	005.0000	0107.0	050.6	51.07
284.0	020.5000	0099.5	037.4	079.9	005.0000	0106.0	050.6	51.02
285.0	020.5000	0100.7	037.6	079.1	005.0000	0105.9	050.7	50.98
286.0	020.5000	0101.8	037.8	078.3	005.0000	0105.7	050.8	50.92
287.0	020.5000	0103.5	038.1	077.5	005.0000	0103.9	050.9	50.76
288.0	020.5000	0104.8	038.3	076.8	005.0000	0102.9	051.0	50.62
289.0	020.5000	0106.3	038.5	076.0	005.0000	0101.8	051.2	50.49
290.0	020.5000	0107.3	038.7	075.3	005.0000	0100.0	051.4	50.26
291.0	020.5000	0109.2	038.9	074.5	005.0000	0099.0	051.6	50.13
292.0	020.5000	0112.3	039.4	073.6	005.0000	0098.4	051.6	50.06
293.0	020.5000	0114.1	039.6	072.8	005.0000	0097.1	051.9	49.87
294.0	020.5000	0114.3	039.7	072.2	005.0000	0096.0	052.3	49.63
295.0	020.5000	0112.2	039.4	071.9	005.0000	0095.6	053.0	49.35
296.0	020.5000	0108.9	038.9	071.7	005.0000	0095.5	053.8	49.03
297.0	020.5000	0106.0	038.5	071.5	005.0000	0095.4	054.6	48.74
298.0	020.5000	0104.5	038.2	071.2	005.0000	0095.4	055.2	48.50
299.0	020.5000	0103.2	038.0	070.9	005.0000	0095.4	055.8	48.26
300.0	020.5000	0101.7	037.8	070.6	005.0000	0095.4	056.5	48.02
301.0	020.5000	0100.7	037.6	070.3	005.0000	0095.6	057.1	47.81
302.0	020.5000	0100.7	037.6	069.9	005.0000	0095.8	057.6	47.64
303.0	020.5000	0101.5	037.7	069.4	005.0000	0095.5	058.1	47.46
304.0	020.5000	0102.6	037.9	068.8	005.0000	0094.8	058.5	47.26
305.0	020.5000	0104.1	038.2	068.3	005.0000	0094.0	058.9	47.06
306.0	020.5000	0103.6	038.1	068.0	005.0000	0093.9	059.5	46.84
307.0	020.5000	0103.0	038.0	067.7	005.0000	0093.9	060.1	46.62
308.0	020.5000	0103.4	038.1	067.4	005.0000	0093.9	060.6	46.44
309.0	020.5000	0102.3	037.9	067.2	005.0000	0093.9	061.3	46.22
310.0	020.5000	0101.2	037.7	067.1	005.0000	0093.8	062.0	45.99
311.0	020.5000	0096.6	036.9	067.4	005.0000	0093.9	062.9	45.70
312.0	020.5000	0092.6	036.2	067.7	005.0000	0093.9	063.8	45.42
313.0	020.5000	0091.2	036.0	067.7	005.0000	0093.9	064.5	45.22
314.0	020.5000	0088.8	035.5	067.8	005.0000	0093.9	065.2	44.99
315.0	020.5000	0085.2	034.9	068.1	005.0000	0093.9	066.0	44.75
316.0	020.5000	0082.1	034.2	068.4	005.0000	0094.2	066.8	44.52
317.0	020.5000	0080.4	033.9	068.5	005.0000	0094.3	067.5	44.33
318.0	020.5000	0078.8	033.6	068.5	005.0000	0094.4	068.2	44.14
319.0	020.5000	0077.8	033.4	068.5	005.0000	0094.3	068.8	43.96
320.0	020.5000	0078.2	033.5	068.3	005.0000	0094.1	069.3	43.79
321.0	020.5000	0079.9	033.8	067.9	005.0000	0093.9	069.8	43.65
322.0	020.5000	0082.9	034.4	067.3	005.0000	0093.9	070.2	43.53
323.0	020.5000	0085.7	035.0	066.7	005.0000	0093.3	070.6	43.37
324.0	020.5000	0086.5	035.1	066.5	005.0000	0092.9	071.2	43.18
325.0	020.5000	0086.1	035.0	066.4	005.0000	0092.8	071.8	43.00
326.0	020.5000	0085.8	035.0	066.4	005.0000	0092.6	072.4	42.82
327.0	020.5000	0085.8	035.0	066.3	005.0000	0092.4	073.0	42.64
328.0	020.5000	0086.3	035.1	066.1	005.0000	0092.0	073.6	42.45
329.0	020.5000	0087.1	035.2	066.0	005.0000	0091.5	074.2	42.26

10-14-2010 Terrain Data USGS 03 sec FMOVer Analysis

WLHR-FM.C BPH20100511ACW

WKRImod\_F

Channel = 221A  
 Max ERP = 5 kw  
 RCAMSL = 342 M  
 N. Lat. 34 21 37.0  
 W. Lng. 83 05 26.0  
 Protected  
 60 dBu

Channel = 220C3  
 Max ERP = 20.5 kw  
 RCAMSL = 285 M  
 N. Lat. 34 21 26.0  
 W. Lng. 82 09 14.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kw)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
030.0	005.0000	0120.1	029.5	290.2	020.5000	0107.7	075.9	48.75	
031.0	005.0000	0120.5	029.5	290.2	020.5000	0107.6	075.3	48.90	
032.0	005.0000	0119.9	029.5	290.1	020.5000	0107.4	074.9	49.04	
033.0	005.0000	0120.1	029.5	290.0	020.5000	0107.3	074.4	49.18	
034.0	005.0000	0118.9	029.4	289.8	020.5000	0107.1	073.9	49.30	
035.0	005.0000	0117.9	029.3	289.6	020.5000	0106.9	073.4	49.43	
036.0	005.0000	0118.2	029.3	289.5	020.5000	0106.8	072.9	49.57	
037.0	005.0000	0118.0	029.3	289.4	020.5000	0106.7	072.4	49.71	
038.0	005.0000	0117.5	029.2	289.2	020.5000	0106.5	072.0	49.84	
039.0	005.0000	0116.6	029.1	289.0	020.5000	0106.3	071.5	49.95	
040.0	005.0000	0114.1	028.8	288.7	020.5000	0105.8	071.2	50.04	
041.0	005.0000	0112.9	028.7	288.4	020.5000	0105.3	070.7	50.13	
042.0	005.0000	0111.9	028.6	288.2	020.5000	0105.0	070.3	50.24	
043.0	005.0000	0111.6	028.6	288.0	020.5000	0104.7	069.9	50.36	
044.0	005.0000	0110.4	028.4	287.7	020.5000	0104.5	069.5	50.47	
045.0	005.0000	0109.8	028.4	287.4	020.5000	0104.2	069.1	50.56	
046.0	005.0000	0107.4	028.1	287.0	020.5000	0103.6	068.8	50.62	
047.0	005.0000	0105.3	027.8	286.6	020.5000	0102.9	068.5	50.67	
048.0	005.0000	0104.4	027.7	286.4	020.5000	0102.4	068.2	50.74	
049.0	005.0000	0104.1	027.7	286.1	020.5000	0102.0	067.8	50.84	
050.0	005.0000	0104.3	027.7	285.9	020.5000	0101.7	067.4	50.94	
051.0	005.0000	0104.7	027.7	285.7	020.5000	0101.4	066.9	51.06	
052.0	005.0000	0101.8	027.4	285.2	020.5000	0100.9	066.8	51.08	
053.0	005.0000	0101.5	027.3	284.9	020.5000	0100.7	066.4	51.17	
054.0	005.0000	0100.8	027.3	284.6	020.5000	0100.4	066.1	51.25	
055.0	005.0000	0099.0	027.0	284.2	020.5000	0099.9	065.9	51.28	
056.0	005.0000	0099.0	027.0	283.9	020.5000	0099.3	065.5	51.36	
057.0	005.0000	0098.4	027.0	283.6	020.5000	0098.6	065.2	51.40	
058.0	005.0000	0093.3	026.3	282.9	020.5000	0097.4	065.4	51.28	
059.0	005.0000	0089.0	025.7	282.2	020.5000	0096.6	065.5	51.20	
060.0	005.0000	0087.3	025.5	281.8	020.5000	0096.3	065.4	51.22	
061.0	005.0000	0088.0	025.6	281.5	020.5000	0096.2	065.0	51.32	
062.0	005.0000	0089.5	025.8	281.4	020.5000	0096.1	064.6	51.46	
063.0	005.0000	0089.8	025.8	281.1	020.5000	0096.1	064.3	51.55	
064.0	005.0000	0089.0	025.7	280.7	020.5000	0096.2	064.1	51.61	
065.0	005.0000	0089.5	025.8	280.4	020.5000	0096.4	063.7	51.72	
066.0	005.0000	0091.6	026.1	280.2	020.5000	0096.5	063.3	51.88	
067.0	005.0000	0093.8	026.3	280.0	020.5000	0096.6	062.8	52.04	
068.0	005.0000	0093.9	026.4	279.6	020.5000	0096.7	062.5	52.13	
069.0	005.0000	0095.0	026.5	279.3	020.5000	0096.9	062.2	52.26	
070.0	005.0000	0095.8	026.6	279.0	020.5000	0097.1	061.8	52.38	
071.0	005.0000	0095.4	026.6	278.6	020.5000	0097.4	061.7	52.46	
072.0	005.0000	0095.7	026.6	278.2	020.5000	0097.7	061.4	52.56	
073.0	005.0000	0097.5	026.8	277.9	020.5000	0097.9	061.0	52.71	
074.0	005.0000	0098.7	027.0	277.6	020.5000	0098.0	060.7	52.83	
075.0	005.0000	0099.5	027.1	277.2	020.5000	0098.2	060.4	52.94	
076.0	005.0000	0101.8	027.4	276.9	020.5000	0098.4	060.0	53.10	
077.0	005.0000	0103.0	027.5	276.5	020.5000	0098.4	059.7	53.21	
078.0	005.0000	0105.0	027.8	276.1	020.5000	0098.1	059.3	53.33	
079.0	005.0000	0106.0	027.9	275.7	020.5000	0097.9	059.0	53.41	
080.0	005.0000	0106.1	027.9	275.3	020.5000	0098.1	058.9	53.47	
081.0	005.0000	0107.5	028.1	274.8	020.5000	0098.6	058.6	53.60	
082.0	005.0000	0108.2	028.2	274.4	020.5000	0099.7	058.4	53.74	
083.0	005.0000	0107.3	028.1	273.9	020.5000	0101.0	058.4	53.83	
084.0	005.0000	0106.7	028.0	273.4	020.5000	0102.1	058.4	53.90	
085.0	005.0000	0106.0	027.9	272.9	020.5000	0102.8	058.4	53.95	

086.0	005.0000	0105.2	027.8	272.4	020.5000	0103.1	058.5	53.95
087.0	005.0000	0105.0	027.8	271.9	020.5000	0103.2	058.4	53.97
088.0	005.0000	0103.7	027.6	271.5	020.5000	0103.0	058.6	53.91
089.0	005.0000	0102.3	027.5	271.0	020.5000	0102.9	058.7	53.84
090.0	005.0000	0100.9	027.3	270.5	020.5000	0102.8	058.9	53.78
091.0	005.0000	0099.1	027.1	270.1	020.5000	0102.8	059.1	53.69
092.0	005.0000	0096.4	026.7	269.6	020.5000	0102.6	059.5	53.55
093.0	005.0000	0094.0	026.4	269.2	020.5000	0102.4	059.8	53.41
094.0	005.0000	0092.8	026.2	268.8	020.5000	0102.2	060.0	53.33
095.0	005.0000	0093.4	026.3	268.3	020.5000	0101.5	060.0	53.30
096.0	005.0000	0094.5	026.4	267.9	020.5000	0100.5	059.9	53.26
097.0	005.0000	0096.9	026.8	267.4	020.5000	0099.2	059.7	53.26
098.0	005.0000	0099.8	027.1	266.8	020.5000	0098.0	059.4	53.28
099.0	005.0000	0103.0	027.5	266.3	020.5000	0097.1	059.1	53.32
100.0	005.0000	0105.4	027.8	265.8	020.5000	0096.6	059.0	53.34
101.0	005.0000	0106.7	028.0	265.3	020.5000	0096.4	058.9	53.34
102.0	005.0000	0106.7	028.0	264.8	020.5000	0096.6	059.1	53.30
103.0	005.0000	0105.6	027.9	264.4	020.5000	0096.7	059.4	53.21
104.0	005.0000	0103.5	027.6	264.1	020.5000	0096.9	059.8	53.08
105.0	005.0000	0100.9	027.3	263.7	020.5000	0097.0	060.2	52.92
106.0	005.0000	0099.1	027.0	263.4	020.5000	0097.1	060.6	52.79
107.0	005.0000	0098.4	027.0	263.0	020.5000	0097.2	060.9	52.70
108.0	005.0000	0097.1	026.8	262.7	020.5000	0097.2	061.3	52.59
109.0	005.0000	0095.7	026.6	262.4	020.5000	0097.1	061.6	52.46
110.0	005.0000	0094.2	026.4	262.1	020.5000	0097.0	062.0	52.32
111.0	005.0000	0093.0	026.2	261.8	020.5000	0096.8	062.4	52.18
112.0	005.0000	0092.7	026.2	261.4	020.5000	0096.3	062.6	52.07
113.0	005.0000	0092.4	026.2	261.1	020.5000	0095.7	062.9	51.94
114.0	005.0000	0092.2	026.1	260.8	020.5000	0095.1	063.2	51.82
115.0	005.0000	0092.6	026.2	260.4	020.5000	0094.5	063.4	51.71
116.0	005.0000	0092.2	026.1	260.1	020.5000	0094.1	063.7	51.59
117.0	005.0000	0091.9	026.1	259.8	020.5000	0093.8	064.0	51.47
118.0	005.0000	0091.8	026.1	259.5	020.5000	0093.4	064.3	51.36
119.0	005.0000	0091.3	026.0	259.2	020.5000	0093.2	064.6	51.25
120.0	005.0000	0091.0	026.0	258.9	020.5000	0093.0	065.0	51.14
121.0	005.0000	0091.4	026.0	258.6	020.5000	0092.8	065.2	51.05
122.0	005.0000	0093.0	026.2	258.2	020.5000	0092.6	065.4	50.99
123.0	005.0000	0095.7	026.6	257.7	020.5000	0092.9	065.5	50.98
124.0	005.0000	0097.2	026.8	257.2	020.5000	0093.4	065.7	50.95
125.0	005.0000	0096.5	026.7	257.0	020.5000	0093.8	066.1	50.86
126.0	005.0000	0096.4	026.7	256.8	020.5000	0094.4	066.4	50.78
127.0	005.0000	0096.7	026.7	256.5	020.5000	0095.0	066.8	50.72
128.0	005.0000	0098.8	027.0	256.1	020.5000	0096.1	067.0	50.73
129.0	005.0000	0100.4	027.2	255.7	020.5000	0096.9	067.2	50.70
130.0	005.0000	0103.0	027.5	255.2	020.5000	0097.7	067.4	50.69
131.0	005.0000	0105.8	027.9	254.7	020.5000	0098.3	067.6	50.66
132.0	005.0000	0106.6	028.0	254.5	020.5000	0098.7	068.0	50.58
133.0	005.0000	0106.0	027.9	254.3	020.5000	0098.9	068.4	50.45
134.0	005.0000	0105.0	027.8	254.2	020.5000	0099.0	068.9	50.32
135.0	005.0000	0103.6	027.6	254.1	020.5000	0099.1	069.4	50.17
136.0	005.0000	0102.0	027.4	254.1	020.5000	0099.1	070.0	50.02
137.0	005.0000	0100.7	027.3	254.0	020.5000	0099.2	070.5	49.88
138.0	005.0000	0099.3	027.1	253.9	020.5000	0099.2	071.0	49.73
139.0	005.0000	0098.7	027.0	253.8	020.5000	0099.3	071.4	49.61
140.0	005.0000	0099.9	027.1	253.6	020.5000	0099.6	071.8	49.51
141.0	005.0000	0101.6	027.4	253.3	020.5000	0100.0	072.1	49.43
142.0	005.0000	0102.8	027.5	253.0	020.5000	0100.2	072.5	49.33
143.0	005.0000	0102.2	027.4	253.0	020.5000	0100.3	073.0	49.19
144.0	005.0000	0102.0	027.4	252.9	020.5000	0100.5	073.5	49.07
145.0	005.0000	0102.6	027.5	252.7	020.5000	0100.7	073.9	48.96
146.0	005.0000	0101.8	027.4	252.6	020.5000	0100.8	074.4	48.82
147.0	005.0000	0101.0	027.3	252.6	020.5000	0100.8	074.9	48.68
148.0	005.0000	0100.4	027.2	252.6	020.5000	0100.9	075.4	48.55
149.0	005.0000	0098.8	027.0	252.6	020.5000	0100.8	075.9	48.40

Figure 1: Allocation Study  
Spirit Broadcasting Group, Inc.

FMCommander Full Allocation Study - USGS 03 SEC

10-14-2010

WKRImod\_F CH 220 C3

Lat= 34 21 26.0, Lng= 82 09 14.0

20.5 kW 108 M HAAT, 285 M COR

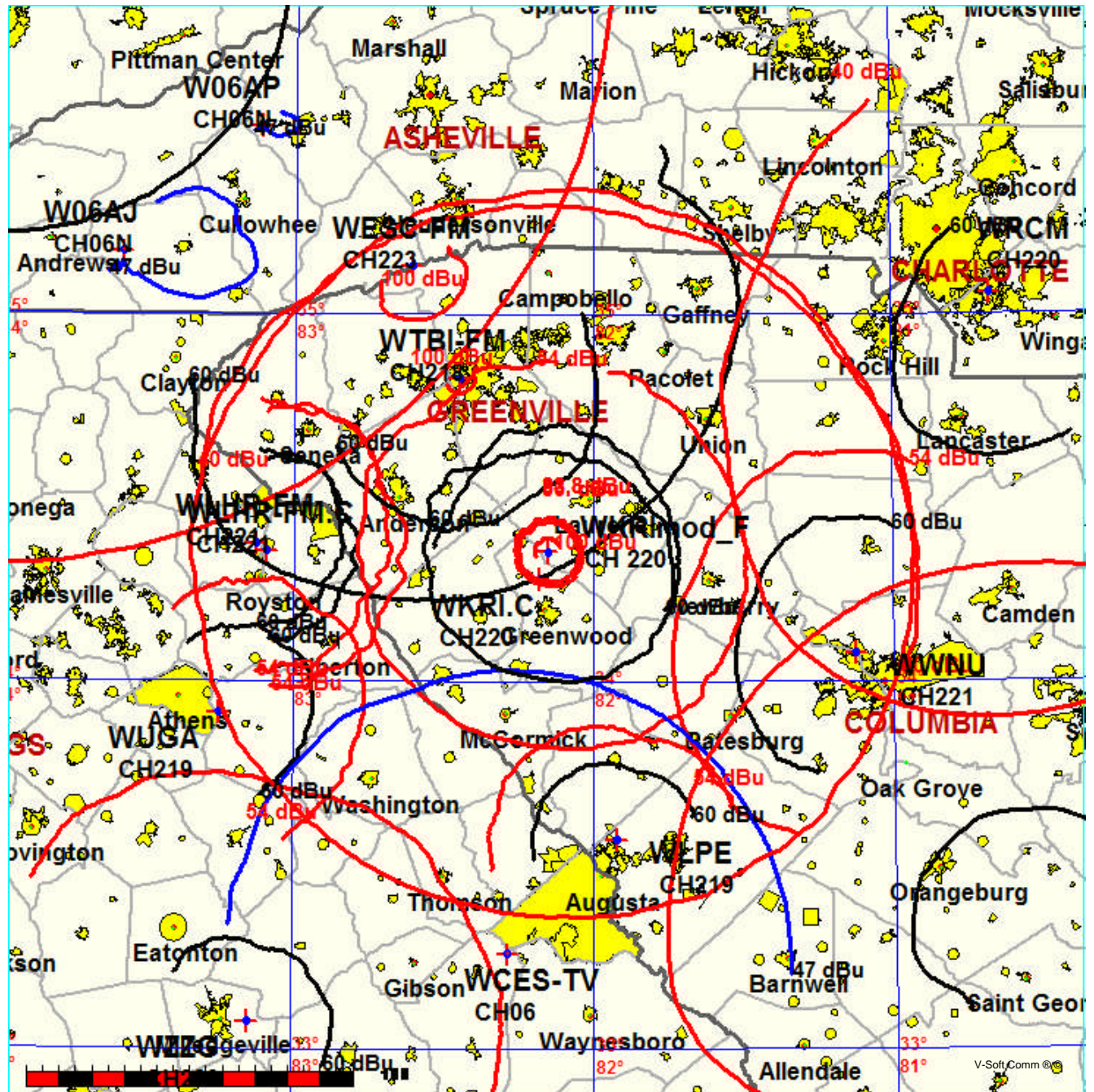




Figure 2: Allocation Study: WLHR-FM CP  
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 10-14-2010 - USGS 03 SEC  
WKRImod\_F's Overlaps (In= 6.22 km, Out= 0.6 km)

WKRImod\_F CH 220 C3  
Lat= 34 21 26.0, Lng= 82 09 14.0  
20.5 kW 108 M HAAT, 285 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

WLHR-FM.C CH 221 A 73.215 N BPH20100511ACW  
Lat= 34 21 37.0, Lng= 83 05 26.0  
5.0 kW 109 M HAAT, 342 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

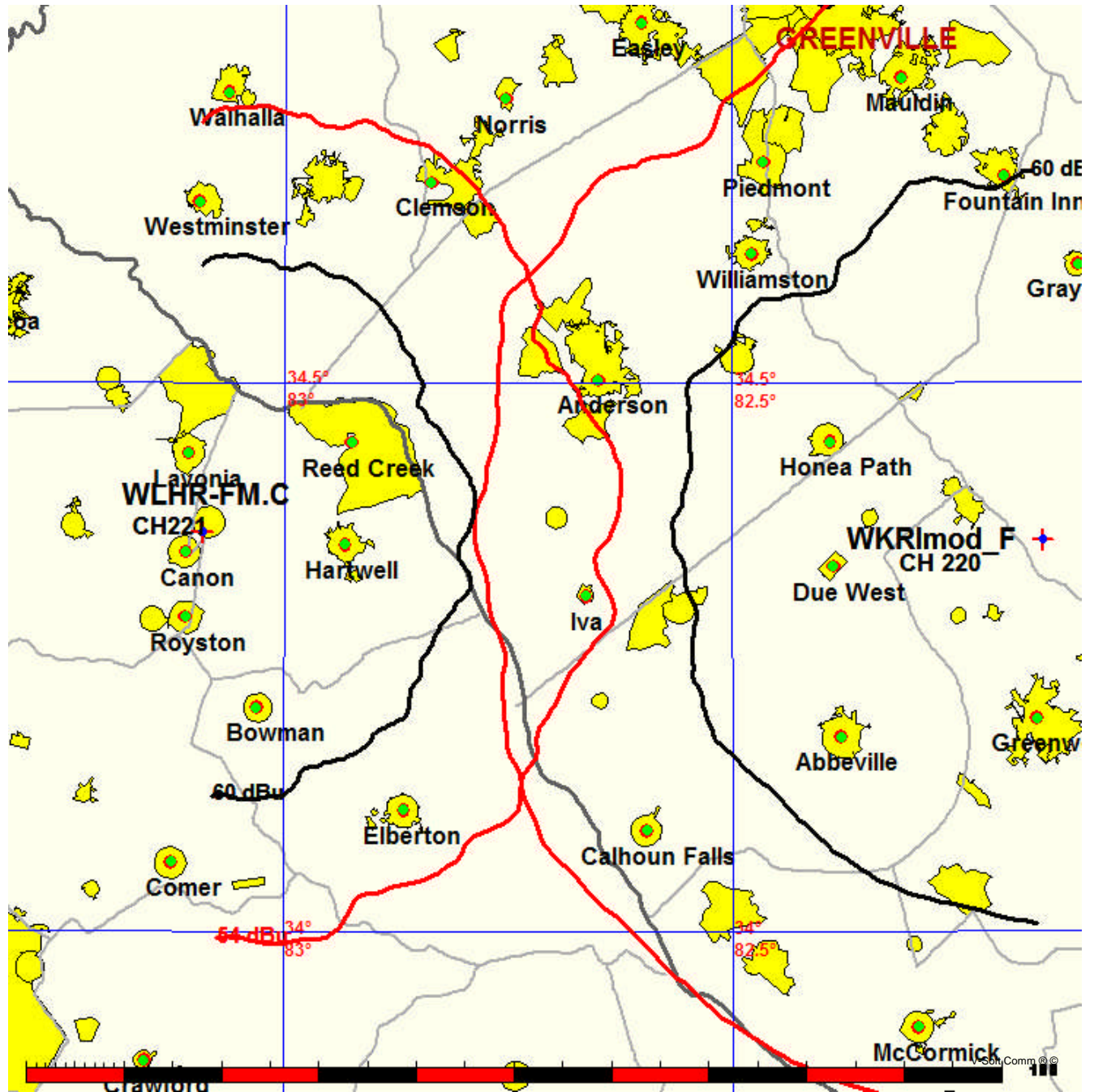
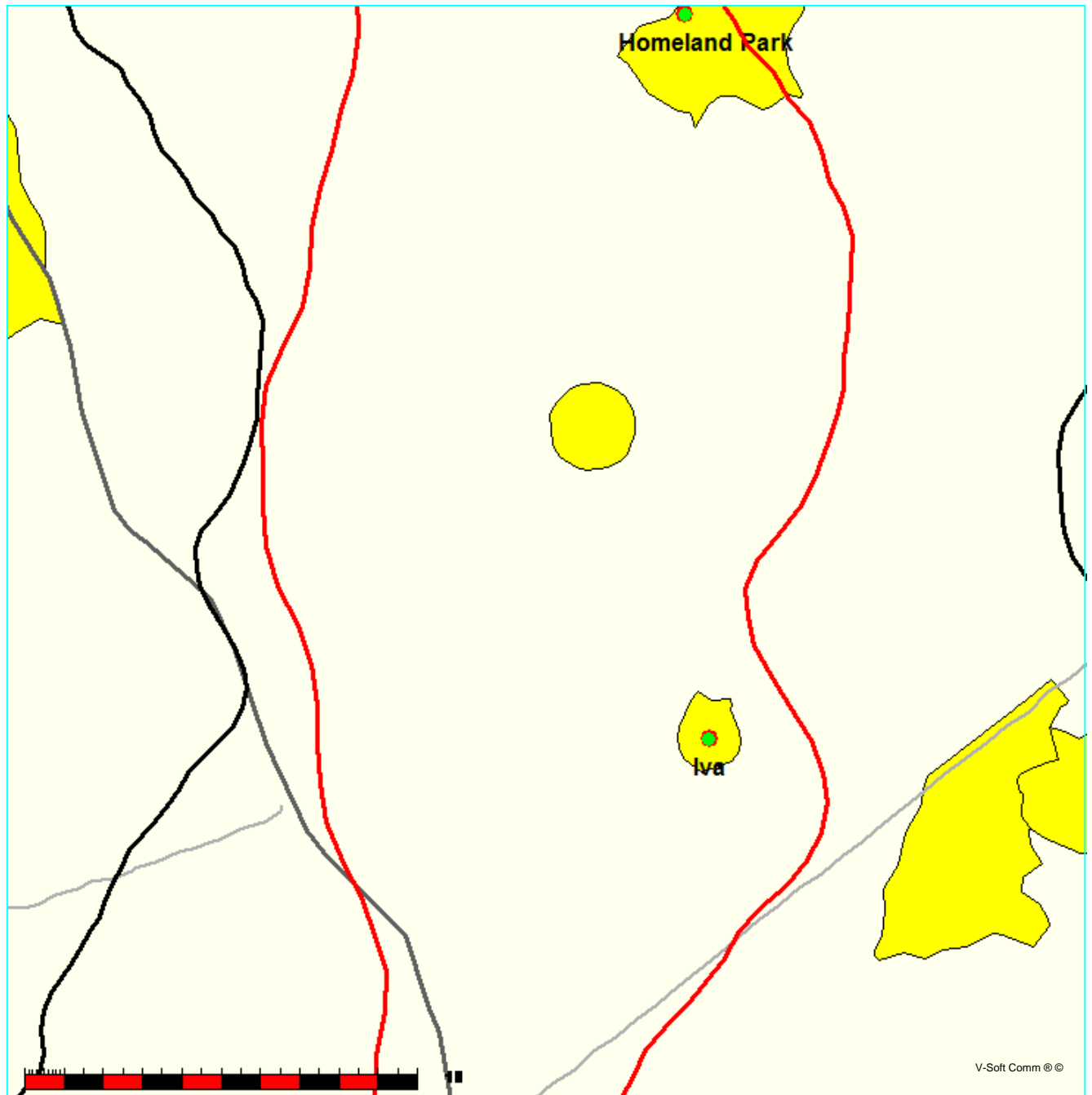


Figure 2A: Allocation Study: WLHR-FM CP Detail  
Spirit Broadcasting Group, Inc.

FMCommander Single Allocation Study - 10-14-2010 - USGS 03 SEC  
WKRImod\_F's Overlaps (In= 6.22 km, Out= 0.6 km)

WKRImod\_F CH 220 C3  
Lat= 34 21 26.0, Lng= 82 09 14.0  
20.5 kW 108 M HAAT, 285 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

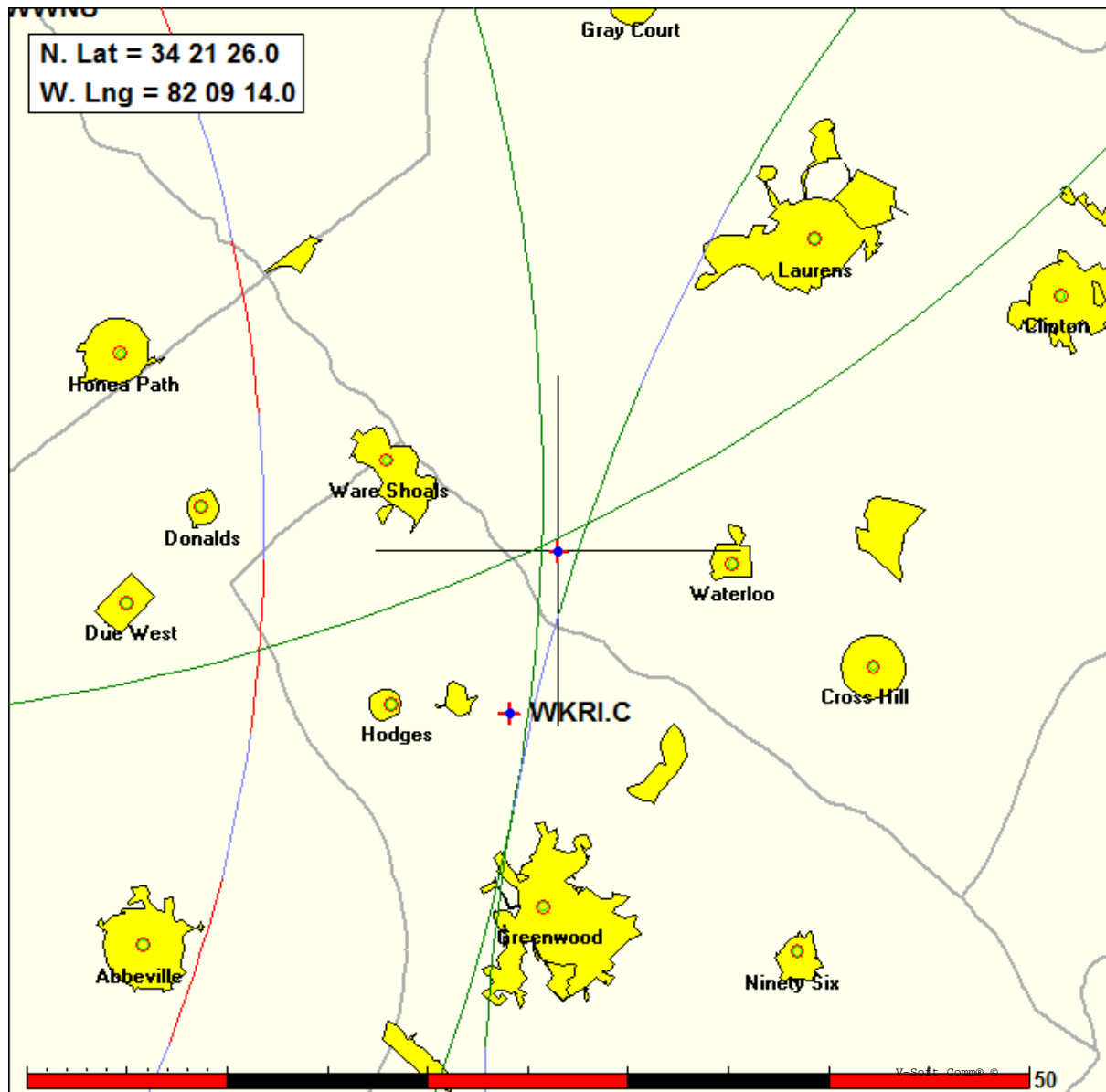
WLHR-FM.C CH 221 A 73.215 N BPH20100511ACW  
Lat= 34 21 37.0, Lng= 83 05 26.0  
5.0 kW 109 M HAAT, 342 M COR  
Prot.= 60 dBu, Intef.= 54 dBu



CH 220 C3 91.9 MHz

Current Spacings to 3rd Adj.

Figure 3: Spacing Study  
Spirit Broadcasting Group, Inc.



Data Date:10-14-10 Job Date:10-14-10								
Call	CH#	Type	Location		Azi	D-KM	FCC	Margin
WKRI	220C3	CP -N	Cokesbury	SC	196.5	8.5	152.5	-144.0
WLHR-FM	221A	CP -N	Lavonia	GA	270.5	86.2	88.5	-2.3
WESC-FM	223C	LIC	Greenville	SC	334.6	96.1	95.5	0.58
WLHR-FM	221A	LIC	Lavonia	GA	272.0	89.3	88.5	0.8
WWNU	221C3	LIC-Z	Irmo	SC	107.7	99.5	98.5	1.0

