

**NEW**  
**BMPED-20091023ALA**  
**Pineville, Kentucky**  
**Application for Modified Facilities for Noncommercial FM Station**  
**On Channel 211 Class C2**  
**by**  
**Eastern Kentucky University**

**Exhibit 18**  
**Allocations**

**May 2011**

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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 Eastern Kentucky University, 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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25 May 2011

### Narrative

This Exhibit provides details of the allocations for the proposed modified facilities of a new station to serve Pineville, Kentucky. The authorization file number is BMPED-20091023ALA. This proposal complies fully with the requirements of 47 C.F.R. 73.509.

The changes in this amendment include a site change, a decrease of height above ground, a decrease in height above mean sea level and above average terrain, a decrease in effective radiated power, a modification of the directional antenna pattern.

### Allocations

This application proposes service to Pineville, Kentucky, on channel 211 as a Class C2 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 10 kilometers (6 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	WDVX.C	Clinton, Tennessee	210C3 first adjacent
3	WJSO	Pikeville, Kentucky	211C2 co-channel

### Directional Antenna

This application proposes a directional antenna. The pattern is tabulated and plotted as a Figure in this Exhibit. The antenna will comply with the requirements of §73.316. A complete proof of performance from the 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. The closest AM broadcasting antennas is nondirectional WANO at 1.8 kilometers. This proposal is in compliance with the requirement in § 73.316(e) to comply with §73.1692. The proposed tower is an existing structure. There will be no increase in overall height of the structure.

#### 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 2010 U.S. Census PL 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.

Table 1: Allocations

Timothy L. Warner, Inc.  
Asheville, North Carolina

Eastern Kentucky University  
Allocation Study

REFERENCE CH# 211C2- 90.1 MHz, Pwr= 5.2 kW DA, HAAT= 226.8 M, COR= 688 M DISPLAY DATES  
36 45 13.0 N. Average Protected F(50-50)= 39.7 km DATA 05-25-11  
83 42 30.0 W. Standard Directional SEARCH 05-25-11

CH CITY	CALL	TYPE STATE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
211C2 NEW Pineville		CP	DCX KY	245.8 65.8	6.1 BMPED20091023ALA	36 43 52.0 83 46 15.0	5.500 258	103.0 705	40.5 Eastern Kentucky University	-124.2*<	-113.2*<
210C3 WDVX Clinton		CP	CY TN	217.3 36.9	77.4 BPED20090626AAH	36 11 53.0 84 13 51.0	0.200 597	52.3 1089	33.9 Cumberland Communities	3.0	10.4 Com
210C3 WDVX Clinton Vertical Polarization Only		LIC	VN TN	217.3 36.9	77.4 BLED19961231KA	36 11 53.0 84 13 51.0	0.200 598	52.3 1089	33.9 Cumberland Communities	3.0	10.4 Com
211C3 WJSO Pikeville		LIC	C KY	52.2 232.9	130.0 BMLLED20031106AGD	37 27 52.0 82 32 45.0	3.800 139	75.9 480	23.1 The Moody Bible Institute	23.2	17.4
211C WEPR Greenville		LIC	C SC	149.5 330.2	232.8 BMLLED20100628BQG	34 56 29.0 82 24 38.0	85.000 361	173.2 669	73.9 South Carolina Educational	20.1	57.6
212A WCSK Kingsport		LIC	CN TN	103.8 284.5	103.4 BLED19810803AJ	36 31 37.0 82 35 12.0	0.195 280	31.0 719	21.0 Kingsport City Schools Bd.	31.9	22.5
213C1 WTHL Somerset		LIC	DC KY	299.4 118.9	86.2 BLED19990930AAI	37 07 52.0 84 33 15.0	50.000 180	6.4 485	54.9 Somerset Educational Broad	36.9	27.5
211C1 WJCR-FM Upton		LIC	CN KY	290.8 109.4	219.8 BLED19920310KA	37 25 57.0 86 01 50.0	100.000 117	147.3 327	51.9 Fm 90.1, Inc.	29.8	61.5
212A WUTK-FM Knoxville Vertical Polarization Only		LIC	VN TN	192.4 12.3	91.0 BLED19950410KI	35 57 09.0 83 55 34.0	0.800 21	13.4 316	9.6 University Of Tennessee	48.1	36.8
212C1 WMKY Morehead		LIC	DCX KY	9.5 189.7	160.3 BLED20031022ALF	38 10 38.0 83 24 17.0	37.000 276	87.0 571	59.2 Morehead State University	37.0	47.2
208C WETS-FM Johnson City		LIC	C TN	103.7 284.7	145.1 BMLLED20060802ATX	36 26 02.0 82 08 08.0	66.000 692	13.6 1318	95.9 East Tennessee State Unive	91.2	45.5
264A WBGQ« Bulls Gap		LIC	C TN	131.2 311.5	62.9 BLH20010122AAF	36 22 48.0 83 10 47.0	0.330 384	33.7 809	105.0 Cherokee Broadcasting	14.5R	48.4M
214C2 WGSN Newport		LIC	DVX TN	158.5 338.8	101.1 BLED20080926ABP	35 54 20.0 83 17 48.0	1.000 700	1.9 1113	47.4 Bible Believers Network In	59.1	50.0
211A WKTS Kingston		LIC	V TN	215.6 35.0	134.5 BLED20010327AAK	35 45 57.0 84 34 33.0	0.055 193	40.8 462	12.3 Foothills Broadcasting, In	70.1	51.3

Terrain database is NED 03 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
adjacent. Contour distances are on direct line to and from reference station. Reference Zone= - Zone 2, Co to 3rd

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 WDVX.C, Clinton, Tennessee**

05-25-2011 Terrain Data: NED 03 SEC FMOVER Analysis

NewMod3

WDVX-C BPED20090626AAH

Channel = 211C2  
 Max ERP = 5.2 kW  
 RCAMSL = 688 M  
 N. Lat. 36 45 13.0  
 W. Lng. 83 42 30.0  
 Protected  
 60 dBu

Channel = 210C3  
 Max ERP = 0.2 kW  
 RCAMSL = 1089 M  
 N. Lat. 36 11 53.0  
 W. Lng. 84 13 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)
157.0	005.2000	0235.3	040.2	068.3	000.2000	0698.8	067.3	48.44	
158.0	005.2000	0236.3	040.3	068.3	000.2000	0699.4	066.6	48.68	
159.0	005.2000	0235.5	040.2	068.3	000.2000	0698.9	065.9	48.90	
160.0	005.2000	0228.1	039.7	067.8	000.2000	0694.3	065.2	49.05	
161.0	005.0862	0232.2	039.8	067.9	000.2000	0695.0	064.5	49.29	
162.0	004.9737	0230.5	039.5	067.6	000.2000	0691.9	063.8	49.46	
163.0	004.8625	0226.9	039.1	067.2	000.2000	0688.7	063.2	49.64	
164.0	004.7525	0233.0	039.4	067.3	000.2000	0689.4	062.5	49.88	
165.0	004.6437	0239.2	039.6	067.5	000.2000	0690.4	061.8	50.13	
166.0	004.5363	0244.8	039.7	067.5	000.2000	0691.1	061.1	50.38	
167.0	004.4300	0244.0	039.5	067.2	000.2000	0688.8	060.4	50.58	
168.0	004.3251	0251.8	039.8	067.4	000.2000	0689.7	059.7	50.84	
169.0	004.2214	0247.8	039.4	066.8	000.2000	0688.9	059.1	51.04	
170.0	004.1189	0259.8	039.9	067.2	000.2000	0688.8	058.3	51.32	
171.0	003.9540	0253.5	039.2	066.4	000.2000	0691.2	057.8	51.54	
172.0	003.7924	0241.5	038.1	065.2	000.2000	0692.5	057.4	51.68	
173.0	003.6343	0238.9	037.6	064.5	000.2000	0690.4	057.0	51.83	
174.0	003.4794	0249.1	037.9	064.6	000.2000	0690.7	056.2	52.10	
175.0	003.3280	0256.9	038.1	064.5	000.2000	0690.3	055.6	52.33	
176.0	003.1799	0258.8	037.8	064.0	000.2000	0687.9	055.0	52.50	
177.0	003.0352	0261.2	037.6	063.5	000.2000	0685.4	054.5	52.65	
178.0	002.8939	0248.3	036.4	062.1	000.2000	0684.5	054.4	52.68	
179.0	002.7559	0238.1	035.4	060.8	000.2000	0682.3	054.3	52.69	
180.0	002.6213	0228.1	034.3	059.5	000.2000	0687.0	054.3	52.76	
181.0	002.5190	0224.5	033.8	058.7	000.2000	0698.8	054.1	52.99	
182.0	002.4186	0226.1	033.6	058.2	000.2000	0698.5	053.7	53.12	
183.0	002.3204	0223.9	033.1	057.4	000.2000	0693.8	053.5	53.14	
184.0	002.2241	0217.9	032.3	056.3	000.2000	0696.0	053.5	53.16	
185.0	002.1299	0214.1	031.6	055.4	000.2000	0694.1	053.5	53.15	
186.0	002.0378	0209.3	030.9	054.5	000.2000	0699.0	053.5	53.20	
187.0	001.9476	0204.8	030.3	053.5	000.2000	0703.5	053.6	53.24	
188.0	001.8595	0207.4	030.1	053.1	000.2000	0706.1	053.3	53.38	
189.0	001.7735	0210.8	030.0	052.6	000.2000	0708.1	053.0	53.52	
190.0	001.6895	0212.0	029.8	052.0	000.2000	0706.2	052.8	53.56	
191.0	001.6365	0213.8	029.7	051.5	000.2000	0706.7	052.5	53.66	
192.0	001.5845	0215.4	029.6	051.0	000.2000	0707.9	052.3	53.77	
193.0	001.5332	0216.1	029.4	050.4	000.2000	0709.5	052.1	53.86	
194.0	001.4828	0210.6	028.8	049.6	000.2000	0713.6	052.3	53.84	
195.0	001.4332	0200.9	027.9	048.6	000.2000	0715.1	052.7	53.70	
196.0	001.3845	0193.0	027.2	047.7	000.2000	0715.0	053.0	53.57	
197.0	001.3367	0193.6	027.0	047.2	000.2000	0714.5	053.0	53.60	
198.0	001.2896	0190.5	026.6	046.5	000.2000	0715.9	053.1	53.57	
199.0	001.2434	0169.9	025.1	045.4	000.2000	0717.8	054.2	53.19	
200.0	001.1981	0147.8	023.4	044.2	000.2000	0717.3	055.6	52.68	



201.0	001.1634	0128.8	021.8	043.2	000.2000	0719.3	056.8	52.25
202.0	001.1292	0116.8	020.8	042.4	000.2000	0724.4	057.7	52.00
203.0	001.0955	0096.9	018.7	041.4	000.2000	0729.6	059.5	51.43
204.0	001.0624	0084.8	017.2	040.7	000.2000	0734.4	060.8	51.03
205.0	001.0297	0086.1	017.2	040.4	000.2000	0736.2	060.7	51.08
206.0	000.9976	0089.9	017.5	040.2	000.2000	0738.4	060.4	51.23
207.0	000.9660	0109.1	019.3	040.4	000.2000	0736.9	058.5	51.86
208.0	000.9348	0126.1	020.5	040.3	000.2000	0737.6	057.3	52.31
209.0	000.9042	0142.6	021.6	040.2	000.2000	0739.2	056.2	52.73
210.0	000.8741	0152.9	022.1	039.9	000.2000	0742.2	055.6	52.98
211.0	000.8699	0153.5	022.1	039.5	000.2000	0743.8	055.5	53.03
212.0	000.8656	0164.8	022.8	039.2	000.2000	0741.4	054.8	53.28
213.0	000.8614	0179.6	023.7	038.9	000.2000	0737.6	053.8	53.56
214.0	000.8571	0183.7	023.9	038.5	000.2000	0734.7	053.6	53.62
215.0	000.8529	0182.0	023.8	038.0	000.2000	0732.0	053.7	53.55
216.0	000.8487	0175.7	023.4	037.6	000.2000	0729.3	054.1	53.38
217.0	000.8445	0161.7	022.5	037.1	000.2000	0726.7	054.9	53.03
218.0	000.8403	0143.6	021.3	036.7	000.2000	0724.3	056.2	52.54
219.0	000.8362	0125.8	020.0	036.4	000.2000	0721.7	057.5	52.03
220.0	000.8320	0116.5	019.2	036.1	000.2000	0718.7	058.2	51.73
221.0	000.8134	0109.5	018.5	035.8	000.2000	0715.4	059.0	51.43
222.0	000.7950	0093.2	016.8	035.7	000.2000	0713.7	060.7	50.80
223.0	000.7768	0071.1	014.4	035.7	000.2000	0713.6	063.2	49.98
224.0	000.7588	0068.5	014.0	035.5	000.2000	0711.2	063.5	49.83
225.0	000.7410	0074.8	014.6	035.2	000.2000	0707.1	063.0	49.93
226.0	000.7235	0091.7	016.2	034.7	000.2000	0701.2	061.5	50.37
227.0	000.7061	0122.8	018.9	033.9	000.2000	0701.2	058.9	51.27
228.0	000.6890	0161.8	021.5	033.0	000.2000	0694.8	056.5	52.06
229.0	000.6720	0188.8	022.9	032.2	000.2000	0686.8	055.2	52.41
230.0	000.6553	0206.2	023.7	031.5	000.2000	0687.5	054.6	52.65
231.0	000.6758	0226.1	024.9	030.7	000.2000	0695.4	053.6	53.13
232.0	000.6966	0244.8	026.0	029.8	000.2000	0699.8	052.7	53.52
233.0	000.7177	0260.1	027.0	029.0	000.2000	0694.6	052.0	53.70
234.0	000.7391	0271.8	027.7	028.1	000.2000	0688.8	051.5	53.80
235.0	000.7608	0279.6	028.3	027.4	000.2000	0683.2	051.2	53.83
236.0	000.7828	0278.6	028.4	026.8	000.2000	0681.9	051.3	53.77
237.0	000.8052	0255.1	027.4	026.9	000.2000	0682.0	052.4	53.37
238.0	000.8278	0229.0	026.3	027.1	000.2000	0682.3	053.7	52.91
239.0	000.8508	0199.8	024.8	027.5	000.2000	0683.9	055.2	52.38
240.0	000.8741	0175.7	023.5	027.8	000.2000	0685.7	056.5	51.95
241.0	000.9195	0144.0	021.7	028.4	000.2000	0691.1	058.2	51.39
242.0	000.9660	0113.8	019.7	029.1	000.2000	0695.6	060.1	50.78
243.0	001.0136	0150.1	022.7	027.2	000.2000	0682.5	057.9	51.40
244.0	001.0624	0181.5	024.9	025.5	000.2000	0670.4	056.3	51.81
245.0	001.1123	0202.9	026.5	024.2	000.2000	0664.7	055.4	52.07
246.0	001.1634	0213.0	027.4	023.2	000.2000	0661.9	055.0	52.16
247.0	001.2156	0212.2	027.6	022.7	000.2000	0661.9	055.2	52.10
248.0	001.2690	0209.0	027.7	022.3	000.2000	0663.2	055.5	52.01
249.0	001.3235	0217.1	028.5	021.4	000.2000	0663.2	055.3	52.08
250.0	001.3792	0213.8	028.5	021.0	000.2000	0662.4	055.6	51.95
251.0	001.4497	0213.7	028.9	020.4	000.2000	0663.0	055.8	51.89
252.0	001.5219	0212.1	029.1	019.9	000.2000	0663.4	056.1	51.80
253.0	001.5960	0215.0	029.6	019.1	000.2000	0660.7	056.1	51.74
254.0	001.6717	0218.1	030.1	018.4	000.2000	0654.1	056.3	51.61
255.0	001.7493	0211.0	029.9	018.3	000.2000	0653.0	056.8	51.40
256.0	001.8286	0199.7	029.4	018.4	000.2000	0654.2	057.5	51.16
257.0	001.9096	0197.1	029.5	018.0	000.2000	0651.3	057.9	50.99
258.0	001.9924	0207.3	030.6	016.9	000.2000	0646.3	057.8	50.95
259.0	002.0770	0210.2	031.1	016.2	000.2000	0645.5	058.0	50.86
260.0	002.1633	0215.8	031.9	015.3	000.2000	0640.8	058.2	50.74
261.0	002.2754	0229.2	033.3	013.8	000.2000	0628.2	058.1	50.59
262.0	002.3904	0231.4	033.8	013.1	000.2000	0623.2	058.5	50.41
263.0	002.5081	0222.3	033.6	013.1	000.2000	0623.6	059.1	50.18

264.0	002.6287	0225.3	034.2	012.4	000.2000	0616.9	059.5	49.97
265.0	002.7521	0238.6	035.4	011.1	000.2000	0603.6	059.7	49.73
266.0	002.8784	0267.4	037.6	009.0	000.2000	0585.0	059.8	49.48
267.0	003.0075	0281.0	038.7	007.8	000.2000	0577.0	060.2	49.23
268.0	003.1394	0274.5	038.7	007.7	000.2000	0576.1	060.9	48.99
269.0	003.2741	0268.0	038.6	007.6	000.2000	0575.4	061.5	48.75
270.0	003.4117	0263.8	038.7	007.5	000.2000	0573.2	062.2	48.50
271.0	003.5737	0261.5	038.9	007.2	000.2000	0569.4	062.8	48.23
272.0	003.7393	0262.8	039.3	006.8	000.2000	0562.1	063.5	47.91
273.0	003.9088	0264.7	039.8	006.3	000.2000	0555.3	064.1	47.57
274.0	004.0820	0259.1	039.8	006.3	000.2000	0554.9	064.8	47.33
275.0	004.2589	0255.6	039.9	006.1	000.2000	0553.5	065.5	47.06
276.0	004.4396	0252.4	040.0	006.0	000.2000	0551.9	066.2	46.79
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05-25-2011      Terrain Data: NED 03 SEC      FMOver Analysis

WDVX-C    BPED20090626AAH

NewMod3

Channel = 210C3  
 Max ERP = 0.2 kW  
 RCAMSL = 1089 M  
 N. Lat. 36 11 53.0  
 W. Lng. 84 13 51.0  
 Protected  
 60 dBu

Channel = 211C2  
 Max ERP = 5.2 kW  
 RCAMSL = 688 M  
 N. Lat. 36 45 13.0  
 W. Lng. 83 42 30.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
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337.0	000.2000	0343.4	022.8	233.9	000.7376	0271.2	068.9	43.43	
338.0	000.2000	0341.0	022.7	233.8	000.7347	0269.8	068.6	43.49	
339.0	000.2000	0352.0	023.1	234.0	000.7387	0271.7	068.1	43.74	
340.0	000.2000	0363.4	023.4	234.2	000.7428	0273.4	067.6	43.99	
341.0	000.2000	0372.0	023.7	234.3	000.7452	0274.2	067.1	44.20	
342.0	000.2000	0368.8	023.6	234.1	000.7412	0272.7	066.8	44.25	
343.0	000.2000	0360.2	023.3	233.8	000.7342	0269.6	066.5	44.21	
344.0	000.2000	0342.6	022.8	233.2	000.7223	0263.0	066.3	43.98	
345.0	000.2000	0328.5	022.3	232.7	000.7120	0256.1	066.1	43.76	
346.0	000.2000	0334.8	022.5	232.8	000.7125	0256.5	065.6	43.93	
347.0	000.2000	0351.4	023.1	233.0	000.7183	0260.5	065.1	44.30	
348.0	000.2000	0369.7	023.6	233.3	000.7246	0264.3	064.5	44.68	
349.0	000.2000	0377.2	023.8	233.3	000.7250	0264.6	064.0	44.86	
350.0	000.2000	0388.7	024.2	233.4	000.7272	0265.8	063.5	45.10	
351.0	000.2000	0397.0	024.4	233.5	000.7274	0265.9	063.0	45.28	
352.0	000.2000	0413.1	024.8	233.6	000.7312	0268.0	062.4	45.60	
353.0	000.2000	0426.8	025.2	233.7	000.7336	0269.3	061.8	45.86	
354.0	000.2000	0435.0	025.5	233.7	000.7332	0269.1	061.3	46.04	
355.0	000.2000	0432.7	025.4	233.5	000.7274	0265.9	061.0	46.03	
356.0	000.2000	0426.3	025.2	233.1	000.7196	0261.4	060.7	45.92	
357.0	000.2000	0425.5	025.2	232.8	000.7143	0257.9	060.4	45.90	
358.0	000.2000	0425.2	025.2	232.6	000.7091	0253.9	060.0	45.87	
359.0	000.2000	0431.4	025.4	232.5	000.7067	0251.8	059.5	45.96	
000.0	000.2000	0452.6	026.0	232.7	000.7110	0255.4	058.8	46.39	
001.0	000.2000	0470.4	026.5	232.8	000.7140	0257.7	058.1	46.76	
002.0	000.2000	0483.6	026.9	232.9	000.7148	0258.2	057.5	47.03	
003.0	000.2000	0498.1	027.4	232.9	000.7160	0259.1	056.8	47.33	
004.0	000.2000	0516.1	028.0	233.1	000.7188	0260.8	056.1	47.71	
005.0	000.2000	0535.0	028.6	233.2	000.7217	0262.6	055.3	48.10	
006.0	000.2000	0551.8	029.1	233.2	000.7226	0263.2	054.6	48.42	

007.0	000.2000	0566.4	029.5	233.2	000.7216	0262.6	053.9	48.66
008.0	000.2000	0578.9	029.9	233.1	000.7189	0260.9	053.3	48.83
009.0	000.2000	0585.3	030.1	232.8	000.7131	0256.9	052.8	48.86
010.0	000.2000	0591.3	030.2	232.5	000.7067	0251.9	052.3	48.83
011.0	000.2000	0603.0	030.5	232.3	000.7023	0248.7	051.7	48.93
012.0	000.2000	0612.0	030.8	232.0	000.6963	0244.6	051.2	48.97
013.0	000.2000	0622.6	031.1	231.7	000.6907	0240.0	050.7	48.99
014.0	000.2000	0630.5	031.3	231.4	000.6836	0233.5	050.2	48.89
015.0	000.2000	0638.7	031.5	231.0	000.6763	0226.5	049.6	48.76
016.0	000.2000	0645.0	031.7	230.6	000.6679	0218.4	049.2	48.54
017.0	000.2000	0646.6	031.7	230.1	000.6575	0208.0	048.8	48.13
018.0	000.2000	0651.0	031.8	229.6	000.6615	0200.0	048.4	47.94
019.0	000.2000	0659.5	032.1	229.2	000.6686	0193.1	048.0	47.86
020.0	000.2000	0663.5	032.2	228.7	000.6773	0181.3	047.6	47.51
021.0	000.2000	0662.5	032.2	228.1	000.6878	0164.0	047.3	46.83
022.0	000.2000	0663.2	032.2	227.5	000.6981	0141.1	047.1	45.84
023.0	000.2000	0661.7	032.1	226.8	000.7092	0115.9	046.9	44.61
024.0	000.2000	0664.1	032.2	226.2	000.7196	0097.1	046.6	43.44
025.0	000.2000	0667.9	032.3	225.6	000.7301	0084.5	046.3	42.53
026.0	000.2000	0674.3	032.5	225.0	000.7404	0075.3	045.9	41.84
027.0	000.2000	0682.2	032.7	224.4	000.7509	0068.5	045.5	41.35
028.0	000.2000	0687.6	032.9	223.8	000.7623	0068.5	045.2	41.52
029.0	000.2000	0694.8	033.1	223.2	000.7738	0069.3	044.9	41.80
030.0	000.2000	0699.7	033.2	222.5	000.7862	0080.6	044.6	43.10
031.0	000.2000	0692.5	033.0	221.7	000.8004	0099.9	044.7	44.86
032.0	000.2000	0685.6	032.8	220.9	000.8146	0110.1	044.8	45.66
033.0	000.2000	0695.1	033.1	220.3	000.8273	0114.9	044.4	46.20
034.0	000.2000	0701.5	033.3	219.5	000.8339	0119.6	044.2	46.62
035.0	000.2000	0704.0	033.3	218.8	000.8370	0129.4	044.1	47.23
036.0	000.2000	0717.4	033.7	218.1	000.8401	0142.7	043.7	48.13
037.0	000.2000	0726.1	034.0	217.3	000.8434	0156.8	043.4	49.00
038.0	000.2000	0731.9	034.1	216.5	000.8467	0169.5	043.3	49.72
039.0	000.2000	0738.9	034.3	215.7	000.8500	0179.4	043.1	50.28
040.0	000.2000	0741.1	034.4	214.9	000.8534	0181.9	043.1	50.43
041.0	000.2000	0732.7	034.1	214.1	000.8566	0182.7	043.4	50.35
042.0	000.2000	0726.1	034.0	213.4	000.8597	0185.9	043.6	50.40
043.0	000.2000	0720.3	033.8	212.7	000.8628	0173.5	043.9	49.72
044.0	000.2000	0717.1	033.7	211.9	000.8659	0164.1	044.1	49.19
045.0	000.2000	0718.3	033.7	211.2	000.8691	0155.5	044.2	48.73
046.0	000.2000	0717.4	033.7	210.5	000.8722	0150.8	044.4	48.43
047.0	000.2000	0714.4	033.6	209.8	000.8812	0151.9	044.6	48.42
048.0	000.2000	0715.0	033.6	209.0	000.9029	0143.3	044.8	48.01
049.0	000.2000	0714.2	033.6	208.3	000.9241	0131.5	045.0	47.38
050.0	000.2000	0711.3	033.5	207.7	000.9443	0121.5	045.3	46.81
051.0	000.2000	0707.8	033.4	207.1	000.9638	0110.7	045.6	46.11
052.0	000.2000	0706.2	033.4	206.4	000.9839	0096.4	045.9	45.01
053.0	000.2000	0706.5	033.4	205.8	001.0047	0087.7	046.1	44.25
054.0	000.2000	0700.8	033.2	205.2	001.0220	0085.3	046.6	43.96
055.0	000.2000	0695.7	033.1	204.7	001.0391	0087.3	047.0	44.06
056.0	000.2000	0696.1	033.1	204.1	001.0589	0085.4	047.3	43.86
057.0	000.2000	0694.7	033.1	203.5	001.0774	0086.8	047.6	43.95
058.0	000.2000	0697.1	033.1	202.9	001.0980	0098.3	047.9	44.89
059.0	000.2000	0694.7	033.1	202.4	001.1151	0108.6	048.3	45.56
060.0	000.2000	0683.6	032.8	202.1	001.1256	0115.0	048.9	45.79
061.0	000.2000	0682.5	032.7	201.6	001.1425	0121.2	049.3	46.06
062.0	000.2000	0684.4	032.8	201.1	001.1611	0127.8	049.6	46.36
063.0	000.2000	0686.0	032.8	200.5	001.1793	0137.1	049.9	46.79
064.0	000.2000	0688.1	032.9	200.0	001.1974	0147.4	050.3	47.26
065.0	000.2000	0692.4	033.0	199.5	001.2225	0158.7	050.6	47.81
066.0	000.2000	0691.2	033.0	199.0	001.2416	0169.0	051.0	48.22
067.0	000.2000	0688.5	032.9	198.7	001.2585	0176.8	051.5	48.47
068.0	000.2000	0696.0	033.1	198.1	001.2860	0189.3	051.8	49.02
069.0	000.2000	0704.5	033.3	197.5	001.3145	0193.1	052.1	49.17

070.0	000.2000	0709.8	033.5	196.9	001.3390	0193.6	052.5	49.13
071.0	000.2000	0709.8	033.5	196.6	001.3569	0193.5	052.9	49.00
072.0	000.2000	0706.7	033.4	196.3	001.3703	0193.1	053.5	48.82
073.0	000.2000	0710.7	033.5	195.9	001.3917	0193.3	053.9	48.73
074.0	000.2000	0714.1	033.6	195.4	001.4118	0196.7	054.3	48.78
075.0	000.2000	0722.4	033.9	194.9	001.4375	0201.8	054.7	48.93
076.0	000.2000	0731.7	034.1	194.4	001.4639	0207.1	055.1	49.09
077.0	000.2000	0729.9	034.1	194.1	001.4758	0209.6	055.7	49.02
078.0	000.2000	0726.6	034.0	194.0	001.4851	0210.8	056.2	48.88
079.0	000.2000	0728.4	034.0	193.7	001.5002	0212.4	056.8	48.79
080.0	000.2000	0730.7	034.1	193.4	001.5153	0214.7	057.3	48.73
081.0	000.2000	0733.5	034.2	193.1	001.5304	0215.9	057.8	48.62
082.0	000.2000	0738.0	034.3	192.7	001.5472	0216.5	058.3	48.50
083.0	000.2000	0747.3	034.5	192.3	001.5695	0216.1	058.8	48.36
084.0	000.2000	0754.9	034.8	191.9	001.5889	0215.6	059.3	48.20
085.0	000.2000	0755.3	034.8	191.7	001.5984	0216.0	059.9	48.02
086.0	000.2000	0761.1	034.9	191.4	001.6142	0215.9	060.4	47.86
087.0	000.2000	0761.5	034.9	191.3	001.6223	0215.5	061.0	47.65
088.0	000.2000	0761.1	034.9	191.1	001.6288	0214.9	061.6	47.42
089.0	000.2000	0756.8	034.8	191.1	001.6295	0214.8	062.2	47.20
090.0	000.2000	0755.7	034.8	191.1	001.6339	0214.2	062.8	46.97
091.0	000.2000	0756.1	034.8	190.9	001.6396	0213.4	063.4	46.74
092.0	000.2000	0760.2	034.9	190.8	001.6494	0212.8	064.0	46.54
093.0	000.2000	0764.5	035.0	190.6	001.6588	0212.7	064.6	46.36
094.0	000.2000	0767.7	035.1	190.4	001.6663	0212.3	065.2	46.16
095.0	000.2000	0768.1	035.1	190.4	001.6696	0212.2	065.8	45.95
096.0	000.2000	0769.4	035.2	190.3	001.6735	0212.0	066.4	45.75
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**Table 3: FMOVER protection of WJSO, Pikeville, Kentucky**

05-25-2011 Terrain Data: NED 03 SEC FMOVER Analysis

NewMod3

WJSO BMLED20031106AGD

Channel = 211C2  
 Max ERP = 5.2 kW  
 RCAMSL = 688 M  
 N. Lat. 36 45 13.0  
 W. Lng. 83 42 30.0  
 Protected  
 60 dBu

Channel = 211C3  
 Max ERP = 3.8 kW  
 RCAMSL = 480 M  
 N. Lat. 37 27 52.0  
 W. Lng. 82 32 45.0  
 Interfering  
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
352.0	005.2000	0290.4	043.7	252.2	003.8000	0099.6	114.8	31.60	
353.0	005.2000	0277.4	042.9	251.7	003.8000	0096.4	114.2	31.59	
354.0	005.2000	0264.3	042.1	251.3	003.8000	0095.9	113.7	31.68	
355.0	005.2000	0257.4	041.6	251.0	003.8000	0096.0	113.1	31.79	
356.0	005.2000	0246.8	041.0	250.5	003.8000	0097.1	112.6	31.92	
357.0	005.2000	0242.3	040.7	250.3	003.8000	0099.3	112.0	32.10	
358.0	005.2000	0238.5	040.4	250.1	003.8000	0102.0	111.4	32.30	
359.0	005.2000	0225.6	039.6	249.5	003.8000	0102.7	111.0	32.40	
000.0	005.2000	0225.3	039.5	249.4	003.8000	0100.5	110.3	32.45	
001.0	005.2000	0231.7	040.0	249.5	003.8000	0101.9	109.5	32.65	
002.0	005.2000	0236.3	040.3	249.5	003.8000	0102.0	108.8	32.80	
003.0	005.2000	0218.1	039.0	248.7	003.8000	0088.9	108.6	32.39	
004.0	005.2000	0196.3	037.4	247.8	003.8000	0087.2	108.8	32.31	
005.0	005.2000	0199.2	037.6	247.7	003.8000	0087.2	108.1	32.44	
006.0	005.2000	0209.3	038.4	247.9	003.8000	0086.8	107.1	32.61	
007.0	005.2000	0205.0	038.1	247.6	003.8000	0086.7	106.7	32.69	
008.0	005.2000	0186.5	036.6	246.7	003.8000	0082.2	106.9	32.50	
009.0	005.2000	0179.3	036.0	246.3	003.8000	0081.3	106.7	32.50	
010.0	005.2000	0181.1	036.1	246.1	003.8000	0080.5	106.1	32.59	
011.0	005.2000	0166.7	034.7	245.3	003.8000	0070.6	106.4	32.19	
012.0	005.2000	0173.5	035.4	245.4	003.8000	0071.9	105.5	32.41	
013.0	005.2000	0164.3	034.5	244.8	003.8000	0063.9	105.6	32.10	
014.0	005.2000	0166.5	034.7	244.7	003.8000	0062.5	105.0	32.17	
015.0	005.2000	0159.6	034.0	244.2	003.8000	0058.1	105.0	32.00	
016.0	005.2000	0155.4	033.5	243.8	003.8000	0057.3	104.8	31.99	
017.0	005.2000	0156.2	033.6	243.6	003.8000	0056.9	104.4	32.07	
018.0	005.2000	0153.8	033.4	243.3	003.8000	0057.2	104.1	32.12	
019.0	005.2000	0152.4	033.2	243.0	003.8000	0057.1	103.8	32.18	
020.0	005.2000	0150.5	033.0	242.7	003.8000	0055.0	103.6	32.14	
021.0	005.2000	0152.4	033.2	242.5	003.8000	0053.8	103.1	32.19	
022.0	005.2000	0172.1	035.3	243.0	003.8000	0057.3	101.1	32.71	
023.0	005.2000	0174.1	035.5	242.8	003.8000	0056.3	100.5	32.78	
024.0	005.2000	0176.0	035.7	242.6	003.8000	0054.5	100.0	32.82	
025.0	005.2000	0175.8	035.6	242.3	003.8000	0052.3	099.6	32.80	
026.0	005.2000	0182.0	036.2	242.2	003.8000	0051.7	098.8	32.94	
027.0	005.2000	0201.2	037.8	242.4	003.8000	0053.2	097.2	33.34	
028.0	005.2000	0203.6	037.9	242.2	003.8000	0051.5	096.6	33.38	
029.0	005.2000	0211.3	038.5	242.0	003.8000	0050.4	095.8	33.52	
030.0	005.2000	0215.1	038.8	241.8	003.8000	0048.9	095.2	33.58	
031.0	005.2000	0217.5	039.0	241.5	003.8000	0046.7	094.7	33.60	
032.0	005.2000	0228.0	039.7	241.3	003.8000	0045.1	093.7	33.74	
033.0	005.2000	0229.0	039.8	241.0	003.8000	0042.6	093.3	33.71	
034.0	005.2000	0235.1	040.2	240.7	003.8000	0042.5	092.6	33.85	

035.0	005.2000	0236.1	040.3	240.3	003.8000	0042.8	092.3	33.95
036.0	005.2000	0218.9	039.1	239.6	003.8000	0040.0	093.1	33.64
037.0	005.2000	0217.5	039.0	239.2	003.8000	0039.1	092.9	33.64
038.0	005.2000	0238.3	040.4	239.1	003.8000	0039.2	091.3	33.99
039.0	005.2000	0266.9	042.2	239.1	003.8000	0039.2	089.4	34.41
040.0	005.2000	0284.6	043.3	238.9	003.8000	0040.3	088.1	34.75
041.0	005.2000	0272.3	042.6	238.3	003.8000	0045.2	088.6	34.89
042.0	005.2000	0263.9	042.0	237.7	003.8000	0049.3	088.9	35.03
043.0	005.2000	0269.9	042.4	237.3	003.8000	0048.5	088.3	35.12
044.0	005.2000	0267.5	042.3	236.8	003.8000	0046.0	088.3	35.00
045.0	005.2000	0236.8	040.3	236.1	003.8000	0042.9	090.0	34.44
046.0	005.2000	0205.7	038.1	235.5	003.8000	0047.9	092.1	34.22
047.0	005.2000	0190.3	036.9	235.0	003.8000	0054.6	093.2	34.26
048.0	005.2000	0178.8	035.9	234.5	003.8000	0064.7	094.1	34.50
049.0	005.2000	0169.6	035.0	234.1	003.8000	0071.2	094.9	34.60
050.0	005.2000	0142.0	032.0	233.6	003.8000	0072.2	097.9	33.97
051.0	005.2000	0123.1	030.0	233.2	003.8000	0075.3	099.9	33.67
052.0	005.2000	0129.7	030.7	232.9	003.8000	0080.0	099.2	34.00
053.0	005.2000	0139.7	031.8	232.6	003.8000	0082.6	098.1	34.34
054.0	005.2000	0152.7	033.2	232.3	003.8000	0082.4	096.7	34.66
055.0	005.2000	0175.9	035.6	231.8	003.8000	0076.6	094.3	34.98
056.0	005.2000	0199.6	037.6	231.3	003.8000	0065.5	092.4	34.96
057.0	005.2000	0216.9	038.9	230.8	003.8000	0052.3	091.1	34.65
058.0	005.2000	0230.4	039.9	230.3	003.8000	0047.2	090.3	34.60
059.0	005.2000	0237.0	040.3	229.9	003.8000	0049.9	089.9	34.81
060.0	005.2000	0226.4	039.6	229.5	003.8000	0053.8	090.8	34.81
061.0	005.2000	0222.3	039.3	229.1	003.8000	0056.4	091.2	34.83
062.0	005.2000	0229.3	039.8	228.6	003.8000	0054.2	090.9	34.80
063.0	005.2000	0244.0	040.8	228.0	003.8000	0055.9	090.1	35.06
064.0	005.2000	0258.3	041.7	227.4	003.8000	0057.5	089.4	35.30
065.0	005.2000	0266.6	042.2	226.9	003.8000	0052.4	089.2	35.12
066.0	005.2000	0282.4	043.2	226.2	003.8000	0042.1	088.5	34.76
067.0	005.2000	0283.9	043.3	225.7	003.8000	0036.0	088.7	34.40
068.0	005.2000	0268.1	042.3	225.5	003.8000	0036.8	089.8	34.18
069.0	005.2000	0248.0	041.0	225.4	003.8000	0038.2	091.3	33.94
070.0	005.2000	0235.7	040.3	225.2	003.8000	0041.0	092.3	33.85
071.0	005.2000	0223.9	039.4	225.1	003.8000	0043.3	093.3	33.73
072.0	005.2000	0206.7	038.2	225.0	003.8000	0043.6	094.8	33.44
073.0	005.2000	0197.6	037.5	224.9	003.8000	0045.6	095.7	33.32
074.0	005.2000	0191.9	037.0	224.7	003.8000	0046.8	096.4	33.23
075.0	005.2000	0181.1	036.1	224.6	003.8000	0046.8	097.5	33.00
076.0	005.2000	0170.6	035.1	224.6	003.8000	0046.8	098.7	32.76
077.0	005.2000	0153.0	033.3	224.9	003.8000	0045.4	100.6	32.33
078.0	005.2000	0132.8	031.0	225.3	003.8000	0039.8	102.8	31.66
079.0	005.2000	0130.0	030.7	225.2	003.8000	0041.9	103.3	31.65
080.0	005.2000	0134.9	031.2	224.8	003.8000	0046.6	103.2	31.87
081.0	005.2000	0137.0	031.5	224.4	003.8000	0046.1	103.4	31.82
082.0	005.2000	0144.9	032.4	223.9	003.8000	0043.2	103.0	31.77
083.0	005.2000	0151.6	033.1	223.4	003.8000	0042.4	102.8	31.77
084.0	005.2000	0168.4	034.9	222.5	003.8000	0028.1	101.8	31.43
085.0	005.2000	0186.0	036.5	221.6	003.8000	0028.0	101.0	31.58
086.0	005.2000	0200.2	037.7	220.9	003.8000	0029.9	100.7	31.65
087.0	005.2000	0211.5	038.6	220.2	003.8000	0033.1	100.5	31.82
088.0	005.2000	0216.9	038.9	219.8	003.8000	0030.2	100.8	31.64
089.0	005.2000	0220.0	039.2	219.5	003.8000	0024.8	101.2	31.56
090.0	005.2000	0220.3	039.2	219.2	003.8000	0021.4	101.7	31.45
091.0	005.2000	0220.0	039.2	219.0	003.8000	0017.3	102.2	31.34
092.0	005.2000	0210.5	038.5	219.1	003.8000	0018.9	103.2	31.15
093.0	005.2000	0203.8	038.0	219.1	003.8000	0019.2	104.0	30.98
094.0	005.2000	0214.3	038.8	218.5	003.8000	0009.4	104.1	30.96
095.0	005.2000	0225.3	039.6	217.9	003.8000	0004.8	104.3	30.94
096.0	005.2000	0222.1	039.3	217.8	003.8000	0005.5	105.0	30.80
097.0	005.2000	0235.5	040.2	217.2	003.8000	0014.1	105.1	30.77

098.0	005.2000	0247.8	041.0	216.7	003.8000	0024.0	105.3	30.72
099.0	005.2000	0236.4	040.3	216.8	003.8000	0020.2	106.3	30.53
100.0	005.2000	0229.9	039.9	216.9	003.8000	0019.3	107.1	30.37
101.0	005.2000	0227.9	039.7	216.8	003.8000	0021.4	107.8	30.23
102.0	005.2000	0235.3	040.2	216.4	003.8000	0030.6	108.2	30.18
103.0	005.2000	0236.1	040.3	216.2	003.8000	0033.7	108.8	30.21
104.0	005.2000	0241.3	040.6	215.9	003.8000	0038.3	109.4	30.33
105.0	005.2000	0243.5	040.8	215.7	003.8000	0038.0	110.0	30.20
106.0	005.2000	0251.8	041.3	215.3	003.8000	0034.8	110.5	29.94
107.0	005.2000	0259.1	041.7	215.0	003.8000	0033.5	111.0	29.77
108.0	005.2000	0268.9	042.3	214.6	003.8000	0032.9	111.6	29.64
109.0	005.2000	0279.3	043.0	214.1	003.8000	0037.6	112.1	29.77
110.0	005.2000	0287.7	043.5	213.8	003.8000	0043.8	112.7	29.97
111.0	005.2000	0280.2	043.0	213.9	003.8000	0041.2	113.6	29.68

05-25-2011 Terrain Data: NED 03 SEC FMOver Analysis

WJSO BMLED20031106AGD

NewMod3

Channel = 211C3  
 Max ERP = 3.8 kW  
 RCAMSL = 480 M  
 N. Lat. 37 27 52.0  
 W. Lng. 82 32 45.0  
 Protected  
 60 dBu

Channel = 211C2  
 Max ERP = 5.2 kW  
 RCAMSL = 688 M  
 N. Lat. 36 45 13.0  
 W. Lng. 83 42 30.0  
 Interfering  
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
173.0	003.8000	0086.5	023.8	062.1	005.2000	0231.1	119.9	35.65	
174.0	003.8000	0100.5	025.6	062.8	005.2000	0241.6	118.8	36.12	
175.0	003.8000	0106.2	026.3	063.1	005.2000	0244.7	118.2	36.34	
176.0	003.8000	0094.0	024.8	062.3	005.2000	0234.9	118.3	36.07	
177.0	003.8000	0092.1	024.6	062.1	005.2000	0231.5	118.0	36.05	
178.0	003.8000	0108.6	026.5	062.9	005.2000	0242.7	116.8	36.59	
179.0	003.8000	0119.7	027.7	063.3	005.2000	0248.9	115.9	36.94	
180.0	003.8000	0110.8	026.8	062.8	005.2000	0241.5	115.9	36.77	
181.0	003.8000	0120.2	027.7	063.1	005.2000	0245.8	115.0	37.06	
182.0	003.8000	0121.4	027.8	063.1	005.2000	0244.9	114.5	37.15	
183.0	003.8000	0126.6	028.3	063.2	005.2000	0246.2	113.9	37.33	
184.0	003.8000	0137.3	029.3	063.5	005.2000	0251.7	113.0	37.69	
185.0	003.8000	0138.1	029.4	063.4	005.2000	0249.9	112.5	37.76	
186.0	003.8000	0115.0	027.2	062.3	005.2000	0235.0	113.2	37.20	
187.0	003.8000	0096.3	025.1	061.3	005.2000	0224.6	114.0	36.75	
188.0	003.8000	0085.5	023.7	060.6	005.2000	0220.9	114.5	36.56	
189.0	003.8000	0089.2	024.2	060.7	005.2000	0220.7	113.9	36.69	
190.0	003.8000	0106.7	026.3	061.4	005.2000	0225.1	112.2	37.17	
191.0	003.8000	0104.2	026.0	061.1	005.2000	0223.4	112.0	37.17	
192.0	003.8000	0100.2	025.6	060.8	005.2000	0221.0	112.0	37.11	
193.0	003.8000	0104.8	026.1	060.9	005.2000	0221.3	111.3	37.28	
194.0	003.8000	0122.8	028.0	061.4	005.2000	0225.2	109.7	37.76	
195.0	003.8000	0132.3	028.8	061.6	005.2000	0225.6	108.8	38.01	
196.0	003.8000	0119.3	027.6	060.9	005.2000	0221.9	109.2	37.79	
197.0	003.8000	0133.4	028.9	061.2	005.2000	0224.2	108.0	38.18	
198.0	003.8000	0139.5	029.5	061.3	005.2000	0224.4	107.2	38.38	
199.0	003.8000	0128.4	028.5	060.7	005.2000	0220.7	107.6	38.17	
200.0	003.8000	0115.4	027.3	060.1	005.2000	0225.4	108.2	38.15	
201.0	003.8000	0108.6	026.5	059.6	005.2000	0232.7	108.4	38.30	

202.0	003.8000	0100.8	025.6	059.2	005.2000	0236.8	108.8	38.31
203.0	003.8000	0086.3	023.8	058.4	005.2000	0235.4	110.1	37.96
204.0	003.8000	0086.9	023.9	058.2	005.2000	0233.6	109.7	37.99
205.0	003.8000	0083.8	023.5	057.9	005.2000	0229.7	109.9	37.86
206.0	003.8000	0084.0	023.5	057.8	005.2000	0227.7	109.6	37.86
207.0	003.8000	0068.6	021.4	057.0	005.2000	0217.1	111.2	37.18
208.0	003.8000	0058.6	019.9	056.5	005.2000	0208.8	112.3	36.72
209.0	003.8000	0057.2	019.7	056.3	005.2000	0204.6	112.3	36.60
210.0	003.8000	0056.3	019.5	056.1	005.2000	0201.1	112.3	36.51
211.0	003.8000	0053.6	019.1	055.8	005.2000	0195.8	112.6	36.31
212.0	003.8000	0053.8	019.1	055.7	005.2000	0192.7	112.4	36.26
213.0	003.8000	0052.5	018.9	055.5	005.2000	0188.5	112.5	36.14
214.0	003.8000	0040.2	016.2	054.8	005.2000	0170.1	114.9	35.16
215.0	003.8000	0033.6	014.7	054.4	005.2000	0160.9	116.1	34.64
216.0	003.8000	0037.3	015.5	054.4	005.2000	0161.1	115.3	34.81
217.0	003.8000	0016.9	014.0	054.1	005.2000	0154.1	116.6	34.33
218.0	003.8000	0004.7	014.0	054.0	005.2000	0152.0	116.6	34.28
219.0	003.8000	0017.7	014.0	053.8	005.2000	0149.9	116.5	34.23
220.0	003.8000	0032.2	014.4	053.8	005.2000	0148.7	116.0	34.28
221.0	003.8000	0028.4	014.0	053.6	005.2000	0145.6	116.4	34.12
222.0	003.8000	0028.3	014.0	053.5	005.2000	0144.1	116.3	34.08
223.0	003.8000	0035.7	015.2	053.5	005.2000	0144.0	115.1	34.31
224.0	003.8000	0043.3	016.9	053.5	005.2000	0144.3	113.4	34.64
225.0	003.8000	0044.2	017.1	053.4	005.2000	0143.1	113.1	34.65
226.0	003.8000	0038.6	015.8	053.1	005.2000	0141.0	114.4	34.35
227.0	003.8000	0053.9	019.1	053.2	005.2000	0141.6	111.1	35.01
228.0	003.8000	0056.1	019.5	053.1	005.2000	0140.2	110.6	35.05
229.0	003.8000	0055.8	019.5	052.9	005.2000	0139.1	110.7	35.01
230.0	003.8000	0048.5	018.0	052.7	005.2000	0137.5	112.0	34.68
231.0	003.8000	0055.5	019.4	052.5	005.2000	0136.2	110.7	34.91
232.0	003.8000	0079.4	022.9	052.4	005.2000	0134.7	107.2	35.59
233.0	003.8000	0079.4	022.9	052.2	005.2000	0132.2	107.2	35.50
234.0	003.8000	0071.7	021.8	052.0	005.2000	0129.4	108.3	35.18
235.0	003.8000	0053.8	019.1	051.8	005.2000	0127.4	111.0	34.56
236.0	003.8000	0042.8	016.8	051.7	005.2000	0126.2	113.3	34.07
237.0	003.8000	0046.9	017.7	051.6	005.2000	0124.2	112.4	34.18
238.0	003.8000	0047.8	017.9	051.4	005.2000	0123.4	112.2	34.18
239.0	003.8000	0039.6	016.0	051.3	005.2000	0123.3	114.1	33.83
240.0	003.8000	0041.7	016.5	051.2	005.2000	0122.9	113.7	33.90
241.0	003.8000	0042.6	016.7	051.0	005.2000	0123.0	113.5	33.94
242.0	003.8000	0050.1	018.4	050.7	005.2000	0126.5	111.9	34.34
243.0	003.8000	0057.2	019.7	050.4	005.2000	0132.4	110.7	34.77
244.0	003.8000	0057.8	019.8	050.2	005.2000	0136.8	110.7	34.93
245.0	003.8000	0066.2	021.0	049.9	005.2000	0144.5	109.6	35.41
246.0	003.8000	0079.5	022.9	049.4	005.2000	0158.0	107.9	36.23
247.0	003.8000	0083.0	023.4	049.2	005.2000	0165.9	107.6	36.56
248.0	003.8000	0086.4	023.8	048.9	005.2000	0171.5	107.3	36.81
249.0	003.8000	0093.4	024.7	048.5	005.2000	0174.5	106.5	37.07
250.0	003.8000	0102.5	025.8	048.1	005.2000	0178.0	105.7	37.39
251.0	003.8000	0095.9	025.0	048.0	005.2000	0178.6	106.6	37.19
252.0	003.8000	0098.3	025.3	047.7	005.2000	0181.3	106.5	37.29
253.0	003.8000	0099.5	025.5	047.5	005.2000	0183.9	106.5	37.36
254.0	003.8000	0095.1	024.9	047.4	005.2000	0185.0	107.2	37.23
255.0	003.8000	0103.5	026.0	046.9	005.2000	0191.1	106.5	37.58
256.0	003.8000	0105.2	026.2	046.7	005.2000	0195.2	106.5	37.69
257.0	003.8000	0129.3	028.5	045.8	005.2000	0209.7	104.7	38.61
258.0	003.8000	0123.5	028.0	045.7	005.2000	0211.9	105.4	38.48
259.0	003.8000	0098.2	025.3	046.3	005.2000	0201.1	107.9	37.52
260.0	003.8000	0092.6	024.6	046.3	005.2000	0201.0	108.7	37.32
261.0	003.8000	0113.4	027.0	045.4	005.2000	0223.5	107.0	38.41
262.0	003.8000	0123.9	028.0	044.8	005.2000	0242.7	106.5	39.11
263.0	003.8000	0137.4	029.3	044.2	005.2000	0262.6	105.8	39.87
264.0	003.8000	0137.8	029.3	044.0	005.2000	0267.6	106.1	39.93



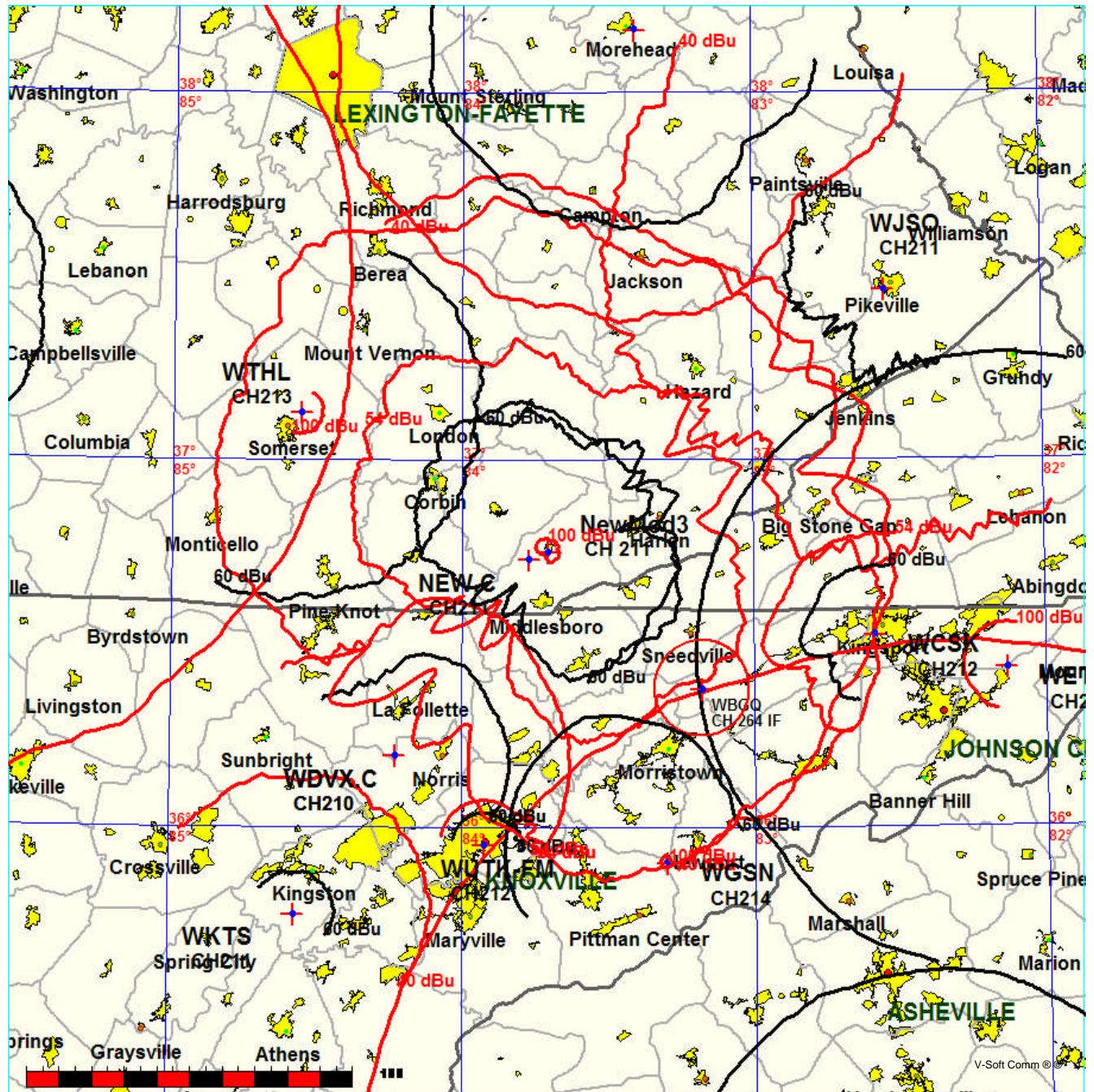
265.0	003.8000	0135.4	029.1	043.9	005.2000	0269.3	106.6	39.84
266.0	003.8000	0129.8	028.6	043.8	005.2000	0269.5	107.3	39.64
267.0	003.8000	0135.4	029.1	043.5	005.2000	0271.6	107.2	39.71
268.0	003.8000	0128.4	028.5	043.5	005.2000	0271.6	108.1	39.48
269.0	003.8000	0128.7	028.5	043.3	005.2000	0271.3	108.4	39.39
270.0	003.8000	0135.7	029.1	042.9	005.2000	0269.3	108.3	39.36
271.0	003.8000	0131.1	028.7	042.9	005.2000	0269.2	109.0	39.17
272.0	003.8000	0137.5	029.3	042.4	005.2000	0266.1	108.9	39.09
273.0	003.8000	0137.6	029.3	042.3	005.2000	0264.5	109.3	38.95
274.0	003.8000	0139.4	029.5	042.0	005.2000	0263.9	109.6	38.85
275.0	003.8000	0146.8	030.2	041.6	005.2000	0264.9	109.6	38.89
276.0	003.8000	0142.8	029.8	041.6	005.2000	0264.9	110.2	38.72
277.0	003.8000	0149.3	030.4	041.1	005.2000	0269.8	110.3	38.83
278.0	003.8000	0152.8	030.8	040.8	005.2000	0274.8	110.6	38.90
279.0	003.8000	0149.5	030.5	040.8	005.2000	0275.0	111.2	38.75
280.0	003.8000	0139.5	029.5	041.1	005.2000	0270.5	112.1	38.39
281.0	003.8000	0136.4	029.2	041.1	005.2000	0270.7	112.7	38.25
282.0	003.8000	0138.3	029.4	040.9	005.2000	0274.2	113.1	38.26
283.0	003.8000	0139.2	029.5	040.7	005.2000	0276.5	113.5	38.22
284.0	003.8000	0137.5	029.3	040.7	005.2000	0277.2	114.0	38.11
285.0	003.8000	0138.4	029.4	040.5	005.2000	0279.3	114.4	38.06
286.0	003.8000	0137.2	029.3	040.5	005.2000	0280.0	114.9	37.96
287.0	003.8000	0143.1	029.8	040.1	005.2000	0283.9	115.2	38.01
288.0	003.8000	0143.3	029.9	040.0	005.2000	0284.7	115.6	37.92
289.0	003.8000	0139.7	029.5	040.0	005.2000	0284.4	116.2	37.77
290.0	003.8000	0151.6	030.7	039.4	005.2000	0277.8	116.3	37.58
291.0	003.8000	0148.6	030.4	039.5	005.2000	0278.9	116.9	37.48
292.0	003.8000	0141.7	029.7	039.7	005.2000	0283.2	117.6	37.42
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Eastern Kentucky University  
Figure 1: Allocation Study

FMCommander Full Allocation Study - NED 03 SEC

05-25-2011

NewMod3 CH 211 C2 DA  
Lat= 36 45 13.0, Lng= 83 42 30.0  
5.2 kW 226.8 M HAAT, 688 M COR

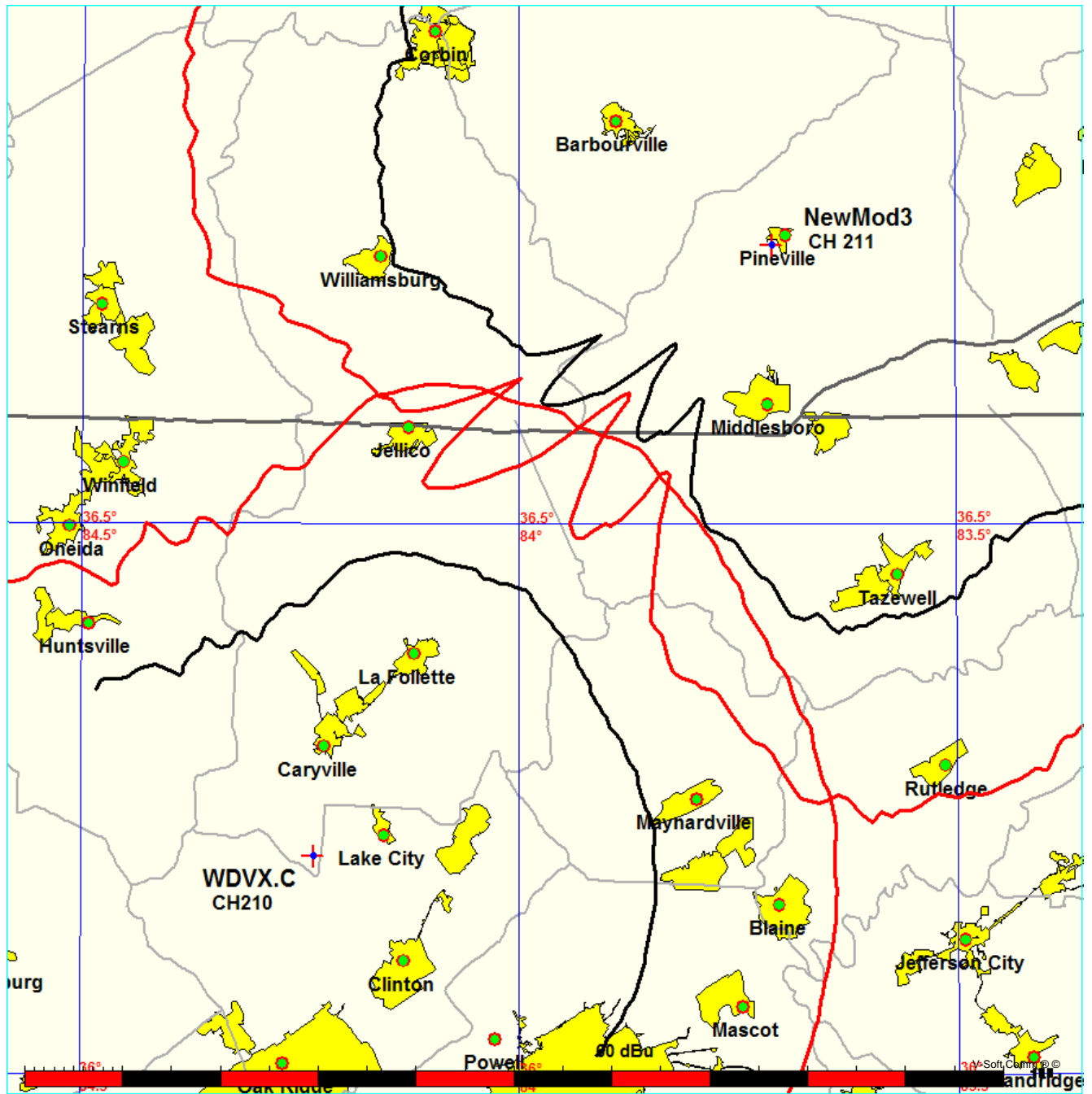


Eastern Kentucky University  
Figure 2: Allocation Study: WDVX.C

FMCommander Single Allocation Study - 05-25-2011 - NED 03 SEC  
NewMod3's Overlaps (In= 2.96 km, Out= 10.43 km)

NewMod3 CH 211 C2 DA  
Lat= 36 45 13.0, Lng= 83 42 30.0  
5.2 kW 226.8 M HAAT, 688 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

WDVX-C CH 210 C3 BPED20090626AAH  
Lat= 36 11 53.0, Lng= 84 13 51.0  
0.2 kW 597 M HAAT, 1089 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

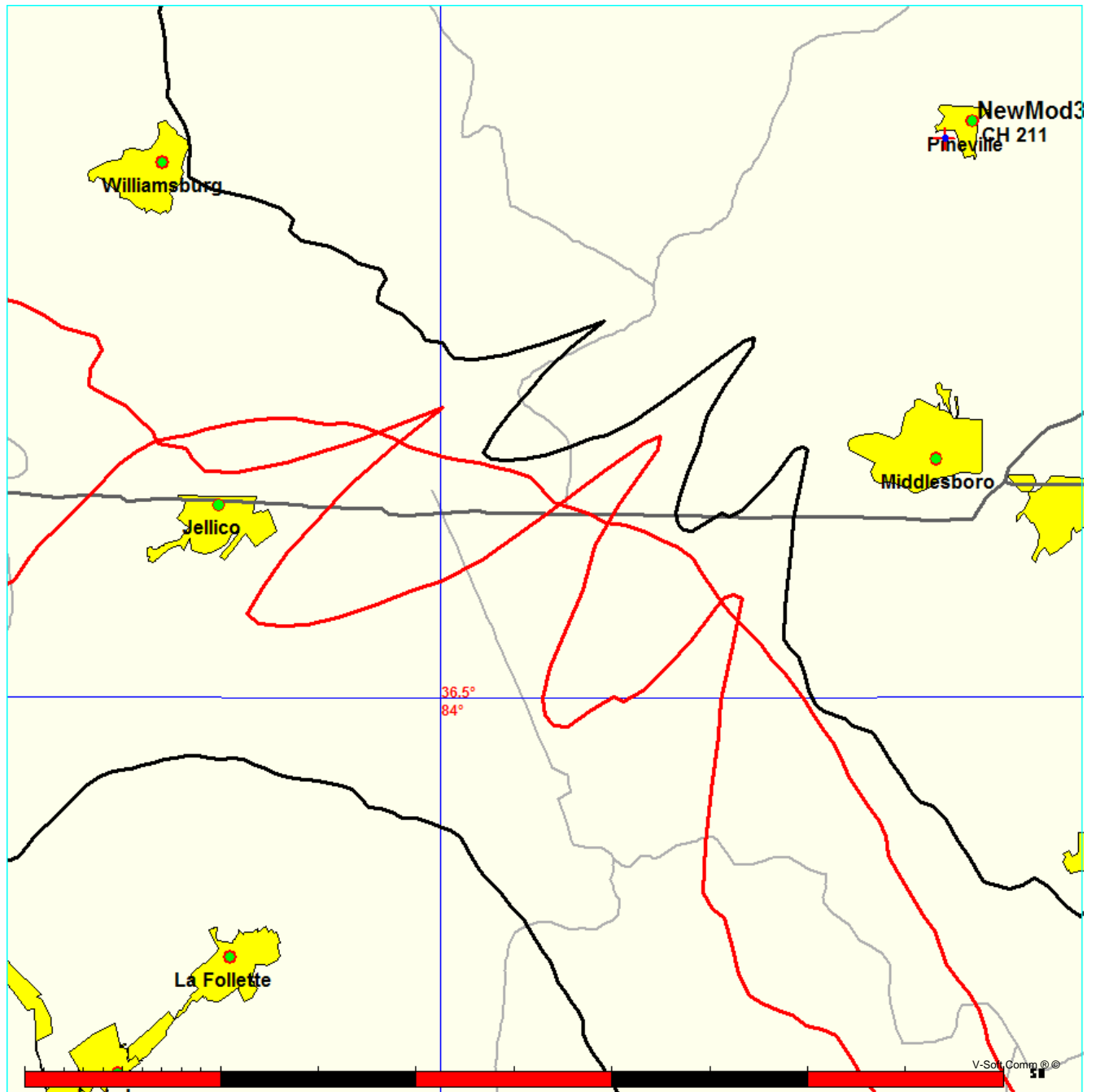


Eastern Kentucky University  
Figure 2A: Allocation Study: WDVX.C Detail

FMCommander Single Allocation Study - 05-25-2011 - NED 03 SEC  
NewMod3's Overlaps (In= 2.96 km, Out= 10.43 km)

NewMod3 CH 211 C2 DA  
Lat= 36 45 13.0, Lng= 83 42 30.0  
5.2 kW 226.8 M HAAT, 688 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

WDVX-C CH 210 C3 BPED20090626AAH  
Lat= 36 11 53.0, Lng= 84 13 51.0  
0.2 kW 597 M HAAT, 1089 M COR  
Prot.= 60 dBu, Intef.= 54 dBu



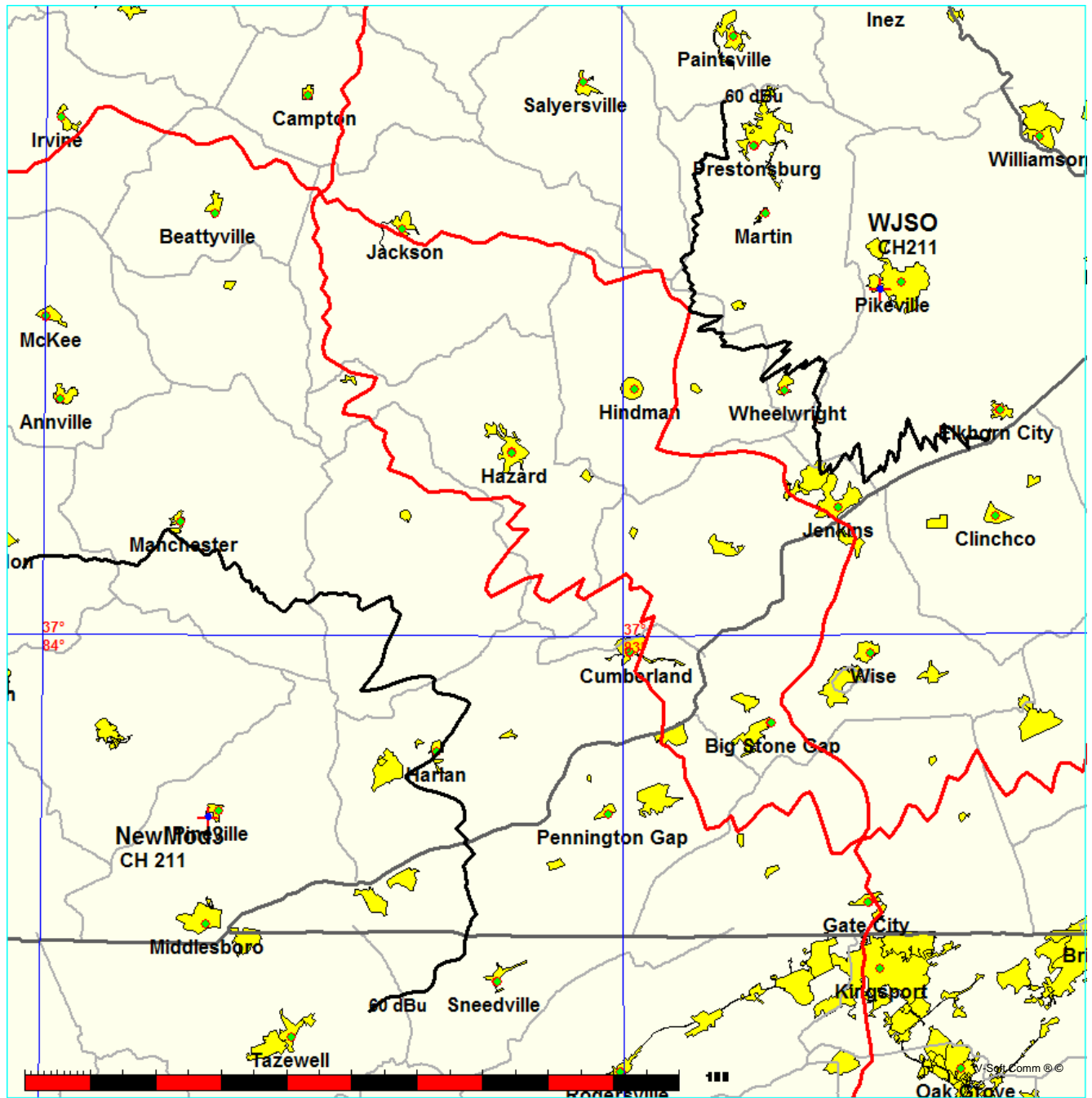


Eastern Kentucky University  
Figure 3: Allocation Study: WJSO

FMCommander Single Allocation Study - 05-25-2011 - NED 03 SEC  
NewMod3's Overlaps (In= 23.16 km, Out= 17.41 km)

NewMod3 CH 211 C2 DA  
Lat= 36 45 13.0, Lng= 83 42 30.0  
5.2 kW 226.8 M HAAT, 688 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

WJSO CH 211 C3 BMLED20031106AGD  
Lat= 37 27 52.0, Lng= 82 32 45.0  
3.8 kW 139 M HAAT, 480 M COR  
Prot.= 60 dBu, Intef.= 40 dBu



Eastern Kentucky University  
Figure 3A: Allocation Study: WJSO Detail

FMCommander Single Allocation Study - 05-25-2011 - NED 03 SEC  
NewMod3's Overlaps (In= 23.16 km, Out= 17.41 km)

NewMod3 CH 211 C2 DA  
Lat= 36 45 13.0, Lng= 83 42 30.0  
5.2 kW 226.8 M HAAT, 688 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

WJSO CH 211 C3 BMLED20031106AGD  
Lat= 37 27 52.0, Lng= 82 32 45.0  
3.8 kW 139 M HAAT, 480 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

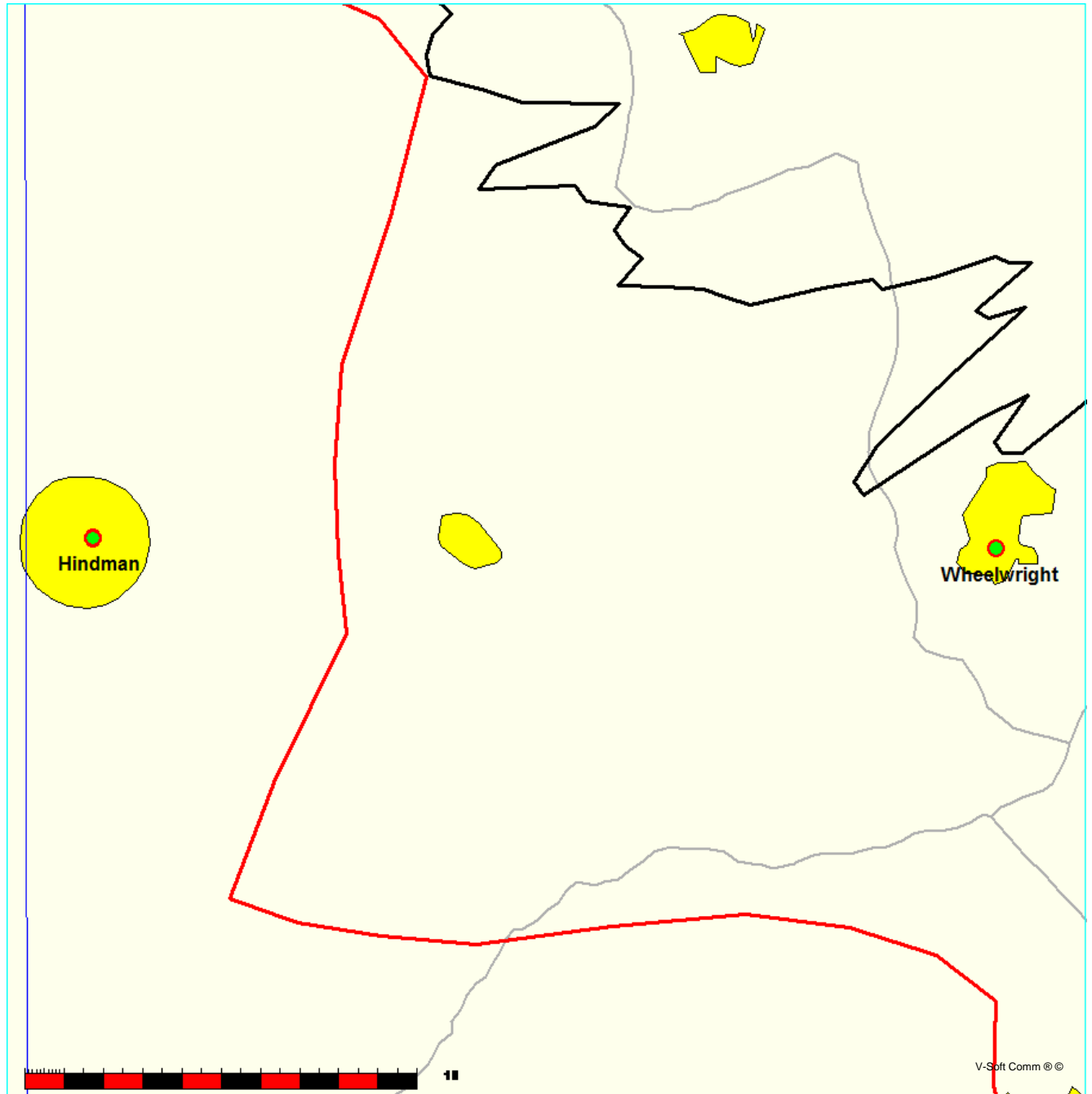
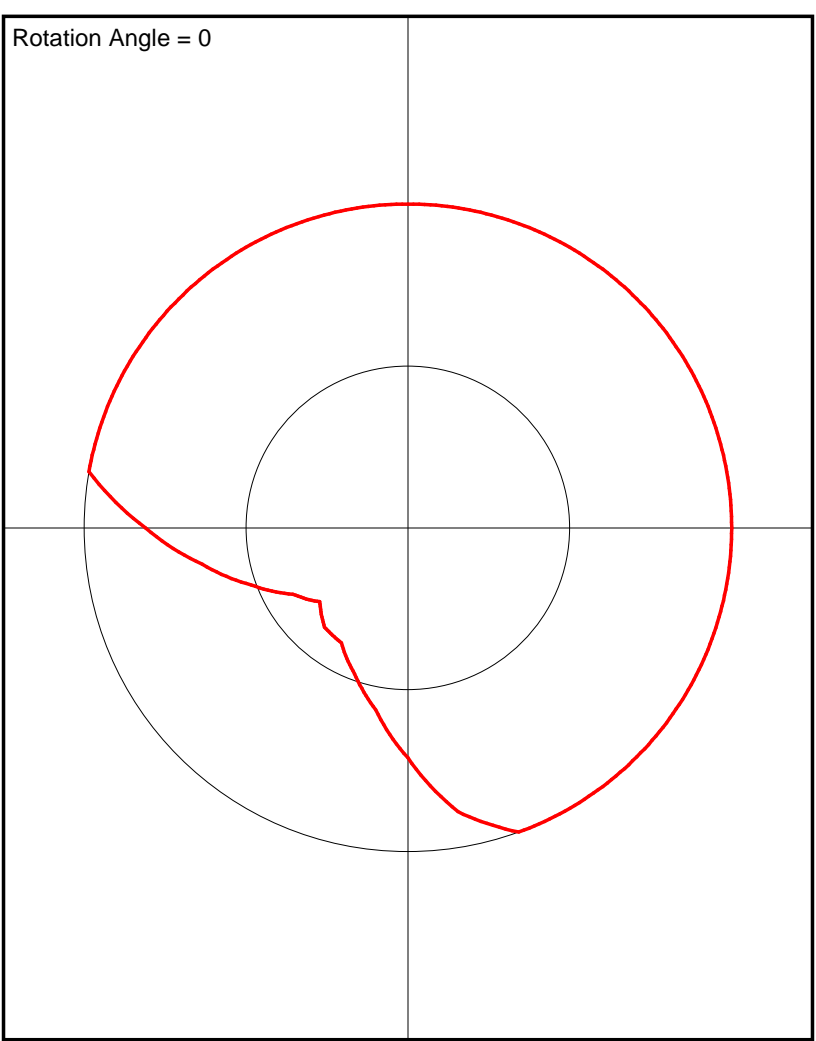


Figure 4: Directional Antenna Pattern

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	1.0
20.0	1.0
30.0	1.0
40.0	1.0
50.0	1.0
60.0	1.0
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	1.0
160.0	1.0
170.0	0.89
180.0	0.71
190.0	0.57
200.0	0.48
210.0	0.41
220.0	0.4
230.0	0.355
240.0	0.41
250.0	0.515
260.0	0.645
270.0	0.81
280.0	1.0
290.0	1.0
300.0	1.0
310.0	1.0
320.0	1.0
330.0	1.0
340.0	1.0
350.0	1.0

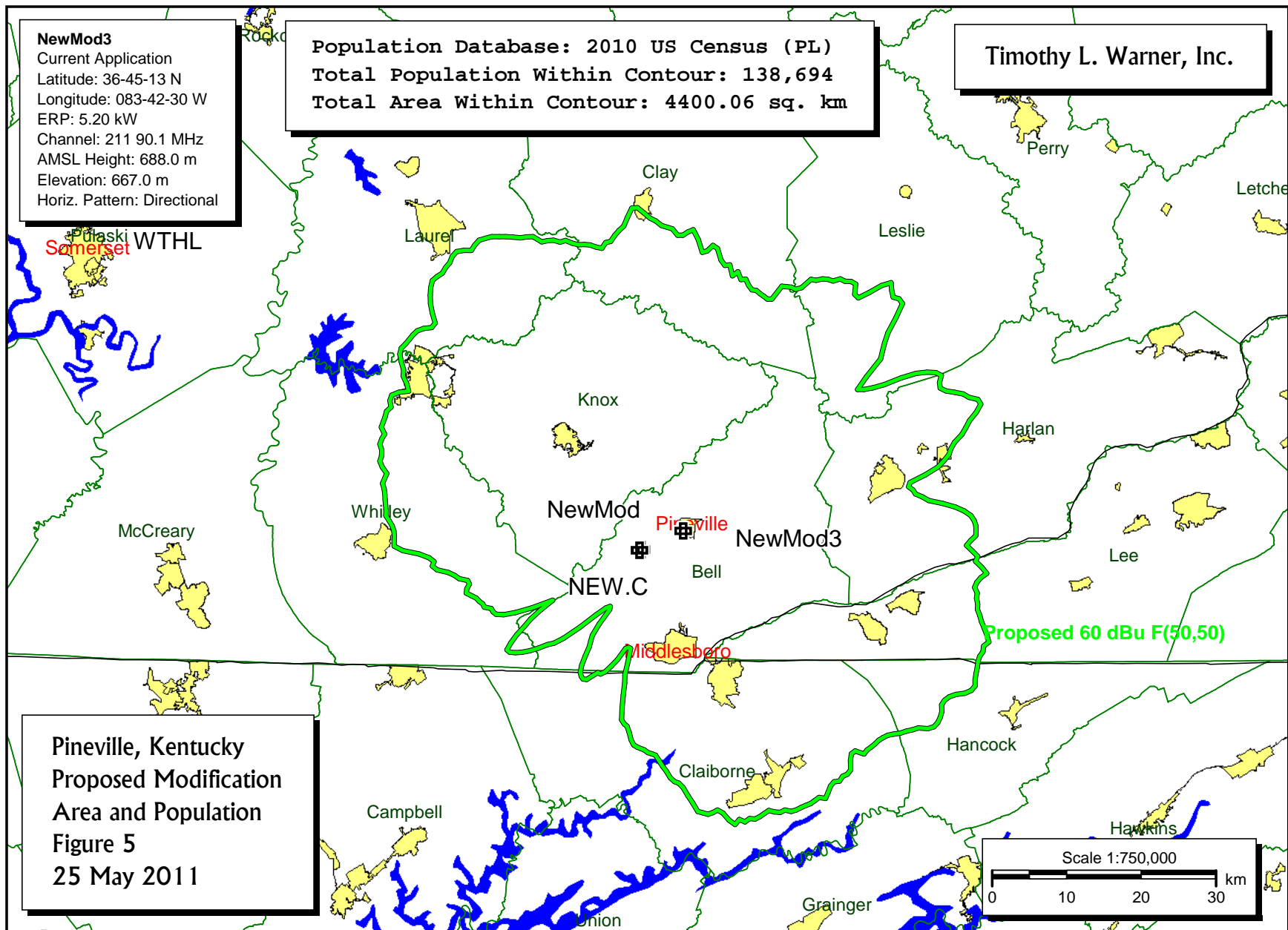
Rotation Angle = 0



**NewMod3**  
Current Application  
Latitude: 36-45-13 N  
Longitude: 083-42-30 W  
ERP: 5.20 kW  
Channel: 211 90.1 MHz  
AMSL Height: 688.0 m  
Elevation: 667.0 m  
Horiz. Pattern: Directional

Population Database: 2010 US Census (PL)  
Total Population Within Contour: 138,694  
Total Area Within Contour: 4400.06 sq. km

Timothy L. Warner, Inc.



Pineville, Kentucky  
Proposed Modification  
Area and Population  
Figure 5  
25 May 2011