

Technical Exhibit
Minor Modification of WSPB
Bedford, MI
Channel 209B1
8.1 kW 71m HAAT
60m AGL

TABLE OF CONTENTS

	Technical Statement
Figure 1	Interference Study Table
Figure 2	Interference Study Maps
Figure 3	Community Coverage
Figure 4	Directional Antenna Pattern

Predicted Coverage Contours

The proposed HAAT and the predicted 60 dBu contours were calculated in accordance with Section 47 C.F.R. 73.313. The average terrain elevations were calculated using the NED 30m terrain database.

All contours displayed in exhibits are plotted every degree and in accordance with the propagation prediction curves of Section 73.333. Population figures are drawn from the 2000 US Census.

Interference Compliance

Contour protection, as required by C.F.R. Section 73.509 to co-channel and first, second and third adjacent channels is demonstrated herein by Figures 1 and 2.

International Borders

The Proposed is within 320 km of the Canadian border. It is fully spaced to all Canadian stations and allotments.

RF Electromagnetic Exposure Analysis

Using a worst case assumption of maximum downward radiation ($F=1.0$) the RF exposure at 2m above ground level is $80.23107 \mu\text{W}/\text{cm}^2$ or 8.0% of the controlled standard. The actual downward radiation is expected to be less with construction of the Proposed utilizing a multi-bay antenna.

The tower is fenced with RF warning signs. The power will be reduced or shut off to allow necessary access to the tower.

Figure 1

Minor Modification to WSPB											
REFERENCE		CH# 209B1 - 89.7 MHz, Pwr= 8.1 kW DA, HAAT= 71.3 M, COR= 352 M								DISPLAY DATES	
42 27 12.9 N.		Average Protected F(50-50)= 25.87 km								DATA 08-17-10	
85 20 39.0 W.		Standard Directional								SEARCH 08-18-10	
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*
209A Bedford	WSPB	APP MI	DCX	0.0 0.0	0.0 BMPED20090824ALI	42 27 12.9 85 20 39.0	0.750 71	30.9 352	9.3 Holy Family Oratory Of St.	-42.2*<	-47.8*<
209A Bedford	WSPB	CP MI	DVX	0.0 0.0	0.0 BNPED20071022AXL	42 27 12.9 85 20 39.0	0.750 71	30.9 352	9.3 Holy Family Oratory Of St.	-42.2*<	-47.8*<
209A Lansing	WLNZ	CP MI	DCX	63.7 244.3	72.2 BMPED20090831ACP	42 44 15.0 84 33 12.0	1.000 37	36.0 296	10.4 Lansing Community College	15.3	0.4
208B1 Schoolcraft	WOFR	LIC MI	DCX	212.0 31.8	44.9 BLED20021230AAW	42 06 38.0 85 37 57.0	10.000 42	26.2 305	20.9 Family Stations, Inc.	1.8	0.5
209A Grand Rapids	WAYG	CP MI	DCX	340.7 160.5	61.8 BPED20070807AEH	42 58 40.0 85 35 44.0	6.000 74	52.6 299	16.7 Cornerstone University	0.6	8.5
210A Kalamazoo	WKDS	LIC MI	_CN	218.8 38.6	30.0 BLED19830204AK	42 14 36.0 85 34 19.0	0.140 38	12.0 303	8.5 Kalamazoo Public Schools	3.5	1.0
209A Lansing	WLNZ	LIC MI	_V_	63.7 244.3	72.2 BLED20001006AAA	42 44 15.0 84 33 12.0	0.420 30	27.2 289	8.1 Lansing Community College	24.1	2.9
211B Coldwater	WYBA	APP MI	DCX	162.1 342.2	36.1 BPED20100716ACN	42 08 41.0 85 12 34.0	32.000 77	3.8 359	28.1 Bible Broadcasting Network	6.4	5.6
209A Howe	WHWE	LIC IN	_CN	184.7 4.7	81.1 BLED19921208KA	41 43 32.0 85 25 30.0	0.100 17	18.6 287	5.6 Howe Military School	39.5	6.2
206A Olivet	WOCR	CP MI	_CX	92.0 272.3	34.5 BPED20091123AFI	42 26 31.0 84 55 30.0	0.500 25	1.6 303	9.2 Board Of Trustees/Olivet C	8.4	22.8
206A Kalamazoo	WIDR	LIC MI	_CN	229.8 49.6	29.5 BLED19881031KA	42 16 55.0 85 37 05.0	0.100 57	0.7 319	7.6 Western Michigan University	17.2	20.4
210A Grand Rapids	WAYG	LIC MI	DCX	340.7 160.5	61.8 BLED20050809ACJ	42 58 40.0 85 35 44.0	4.900 63	29.6 288	20.4 Cornerstone University	21.2	25.9
211A Coldwater	WYBA	LIC MI	_VX	156.7 336.9	62.1 BLED20080716AAD	41 56 24.0 85 02 47.0	0.250 19	1.1 308	7.1 Bible Broadcasting Network	34.5	52.3
208C1 Mount Pleasant	WCMU-FM	LIC MI	_CN	20.3 200.7	132.8 BLED1085	43 34 24.0 84 46 21.0	100.000 128	83.2 371	54.1 Central Michigan University	37.1	61.2
06-T Chicago	WLFM-LP	LI IL	D_N	252.6 71.1	198.1 BLTVL20100111AIE	41 53 56.0 87 37 23.0	3.000 387	6.9 566	3.7 WLFM, LIC	195.5R	2.6M

Terrain database is NED 30 Meter , 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 = 1, 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.
 Reference station has protected zone issue: Canada

Figure 2
Minor Modification to WSPB

FMCommander Single Allocation Study - 08-19-2010 - NED 30 Meter
WSPB.c's Overlaps (In= 15.26 km, Out= 0.42 km)

WSPB.c CH 209 B1 DA
Lat= 42 27 12.9, Lng= 85 20 39.0
8.1 kW 71.3 M HAAT, 352 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WLNZ-C CH 209 A DA BMPED20090831ACP
Lat= 42 44 15.0, Lng= 84 33 12.0
1.0 kW 36.7 M HAAT, 296 M COR
Prot.= 60 dBu, Intef.= 40 dBu

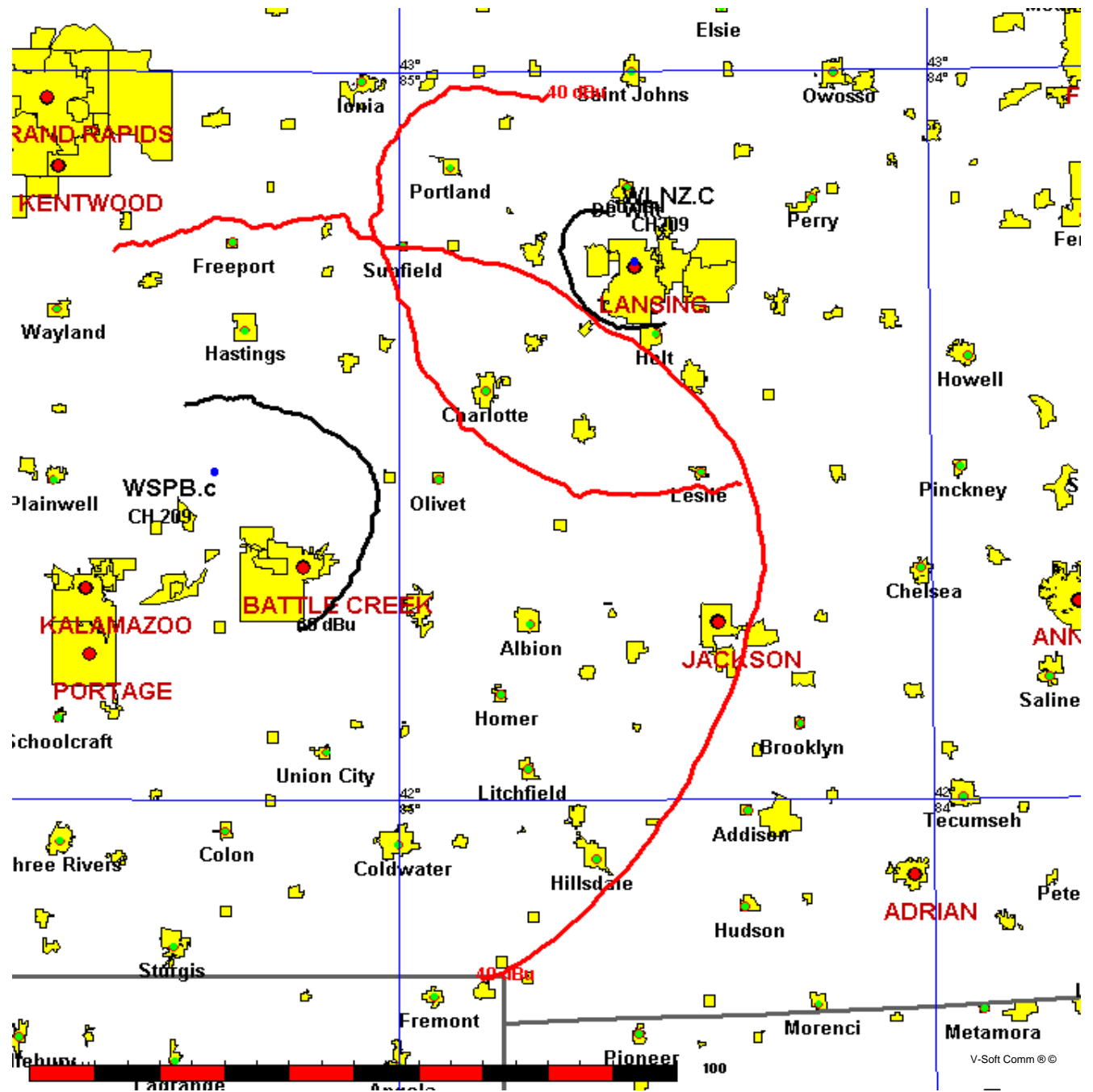


Figure 2-1

08-19-2010

NED 30 Meter Terrain Data

FMOver Analysis

WSPB. c
 Channel = 209B1
 Max ERP = 8.1 kW
 RCAMSL = 352 M
 N. Lat. 42 27 12.9
 W. Lng. 85 20 39.0
 Protected
 60 dBu

WLNZ-C BMPED20090831ACP
 Channel = 209A
 Max ERP = 1 kW
 RCAMSL = 296 M
 N. Lat. 42 44 15.0
 W. Lng. 84 33 12.0
 Interfering
 40 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
019.0	000.3172	0073.5	011.8	251.7	001.0000	0030.3	064.3	32.99	
020.0	000.3240	0073.9	011.9	251.6	001.0000	0030.3	064.1	33.03	
021.0	000.3322	0073.6	011.9	251.6	001.0000	0030.4	063.9	33.07	
022.0	000.3404	0074.5	012.0	251.5	001.0000	0030.4	063.7	33.12	
023.0	000.3488	0075.9	012.2	251.5	001.0000	0030.4	063.4	33.17	
024.0	000.3572	0073.9	012.1	251.3	001.0000	0030.3	063.3	33.19	
025.0	000.3658	0076.3	012.4	251.4	001.0000	0030.3	063.0	33.25	
026.0	000.3744	0075.9	012.4	251.3	001.0000	0030.4	062.8	33.29	
027.0	000.3832	0077.8	012.6	251.3	001.0000	0030.4	062.5	33.35	
028.0	000.3920	0076.0	012.6	251.1	001.0000	0030.4	062.4	33.38	
029.0	000.4010	0072.4	012.4	250.8	001.0000	0030.4	062.4	33.38	
030.0	000.4101	0068.9	012.2	250.5	001.0000	0030.5	062.4	33.39	
031.0	000.4315	0067.7	012.2	250.4	001.0000	0030.5	062.2	33.42	
032.0	000.4534	0064.3	012.1	250.2	001.0000	0030.4	062.2	33.42	
033.0	000.4759	0063.8	012.2	250.1	001.0000	0030.5	062.0	33.46	
034.0	000.4990	0063.7	012.3	250.0	001.0000	0030.5	061.8	33.51	
035.0	000.5226	0062.7	012.4	249.8	001.0000	0030.5	061.6	33.55	
036.0	000.5467	0060.0	012.3	249.6	001.0000	0030.6	061.6	33.57	
037.0	000.5714	0058.4	012.3	249.4	001.0000	0030.6	061.5	33.59	
038.0	000.5966	0057.9	012.3	249.3	001.0000	0030.6	061.3	33.63	
039.0	000.6224	0057.6	012.4	249.2	001.0000	0030.6	061.1	33.67	
040.0	000.6487	0057.9	012.6	249.1	001.0000	0030.7	060.9	33.72	
041.0	000.6826	0058.2	012.8	249.0	001.0000	0030.7	060.6	33.77	
042.0	000.7174	0058.3	012.9	248.8	001.0000	0030.7	060.4	33.83	
043.0	000.7530	0058.3	013.1	248.7	001.0000	0030.8	060.1	33.88	
044.0	000.7895	0057.9	013.2	248.6	001.0000	0030.8	059.9	33.93	
045.0	000.8269	0058.8	013.4	248.4	001.0000	0030.8	059.6	33.99	
046.0	000.8651	0059.4	013.6	248.3	001.0000	0030.8	059.3	34.05	
047.0	000.9041	0058.4	013.7	248.1	001.0000	0030.9	059.2	34.09	
048.0	000.9441	0058.3	013.8	247.9	001.0000	0031.0	059.0	34.14	
049.0	000.9849	0057.1	013.8	247.7	001.0000	0031.0	058.9	34.17	
050.0	001.0266	0056.8	013.9	247.5	001.0000	0031.1	058.7	34.21	
051.0	001.0803	0058.1	014.2	247.4	001.0000	0031.1	058.4	34.29	
052.0	001.1354	0057.7	014.3	247.2	001.0000	0031.1	058.2	34.34	
053.0	001.1919	0057.8	014.5	247.0	001.0000	0031.2	057.9	34.40	
054.0	001.2498	0059.0	014.9	246.8	001.0000	0031.3	057.6	34.49	
055.0	001.3090	0060.0	015.2	246.6	001.0000	0031.4	057.2	34.58	
056.0	001.3696	0060.8	015.4	246.4	001.0000	0031.5	056.9	34.67	
057.0	001.4316	0061.0	015.6	246.2	001.0000	0031.6	056.6	34.73	
058.0	001.4949	0061.0	015.8	245.9	001.0000	0031.6	056.4	34.79	
059.0	001.5596	0061.6	016.1	245.7	001.0000	0031.6	056.1	34.86	
060.0	001.6257	0061.8	016.3	245.4	001.0000	0031.6	055.9	34.92	
061.0	001.7102	0061.9	016.6	245.1	001.0000	0031.7	055.6	34.99	
062.0	001.7969	0061.7	016.8	244.8	001.0000	0031.7	055.4	35.04	
063.0	001.8857	0060.6	016.8	244.5	001.0000	0031.7	055.3	35.05	
064.0	001.9767	0061.3	017.2	244.2	001.0000	0031.7	055.0	35.13	
065.0	002.0698	0059.6	017.1	243.9	001.0000	0031.7	055.0	35.11	
066.0	002.1650	0059.2	017.3	243.6	001.0000	0031.7	054.8	35.15	
067.0	002.2624	0058.9	017.5	243.3	001.0000	0031.7	054.7	35.18	

Figure 2-1

068.0	002.3620	0058.9	017.7	242.9	001.0000	0031.6	054.5	35.21
069.0	002.4636	0058.2	017.8	242.6	001.0000	0031.7	054.5	35.23
070.0	002.5674	0057.7	017.9	242.2	001.0000	0031.7	054.4	35.25
071.0	002.7014	0057.7	018.1	241.9	001.0000	0031.5	054.2	35.27
072.0	002.8388	0060.0	018.7	241.4	001.0000	0031.4	053.7	35.36
073.0	002.9795	0063.0	019.4	240.9	001.0000	0031.2	053.1	35.46
074.0	003.1237	0061.7	019.4	240.6	001.0000	0031.0	053.1	35.42
075.0	003.2713	0063.4	019.9	240.1	001.0000	0030.6	052.8	35.44
076.0	003.4222	0064.0	020.2	239.6	001.0000	0030.3	052.5	35.43
077.0	003.5766	0063.8	020.4	239.2	001.0000	0030.2	052.5	35.44
078.0	003.7344	0064.1	020.6	238.7	001.0000	0030.2	052.3	35.47
079.0	003.8956	0065.0	021.0	238.2	001.0000	0030.3	052.2	35.52
080.0	004.0602	0066.2	021.4	237.7	001.0000	0030.1	051.9	35.54
081.0	004.2717	0066.8	021.7	237.1	001.0000	0030.3	051.8	35.61
082.0	004.4885	0067.9	022.1	236.6	001.0000	0030.6	051.5	35.71
083.0	004.7106	0067.3	022.3	236.1	001.0000	0030.3	051.6	35.66
084.0	004.9382	0067.5	022.6	235.6	001.0000	0030.2	051.5	35.65
085.0	005.1710	0066.7	022.7	235.1	001.0000	0030.4	051.6	35.66
086.0	005.4093	0068.1	023.1	234.5	001.0000	0030.5	051.4	35.71
087.0	005.6529	0069.6	023.6	233.8	001.0000	0030.6	051.3	35.77
088.0	005.9019	0069.3	023.8	233.3	001.0000	0030.5	051.3	35.74
089.0	006.1563	0069.0	024.0	232.8	001.0000	0030.2	051.4	35.66
090.0	006.4160	0068.2	024.1	232.4	001.0000	0029.8	051.6	35.59
091.0	006.5756	0068.6	024.3	231.9	001.0000	0029.4	051.7	35.57
092.0	006.7371	0068.8	024.4	231.4	001.0000	0029.2	051.9	35.54
093.0	006.9006	0069.2	024.6	230.9	001.0000	0029.1	052.0	35.51
094.0	007.0661	0070.0	024.9	230.4	001.0000	0029.2	052.1	35.49
095.0	007.2335	0069.6	025.0	230.0	001.0000	0029.0	052.4	35.43
096.0	007.4029	0069.3	025.0	229.6	001.0000	0029.3	052.6	35.37
097.0	007.5742	0070.0	025.3	229.1	001.0000	0029.9	052.8	35.34
098.0	007.7475	0070.3	025.5	228.6	001.0000	0030.3	053.0	35.34
099.0	007.9228	0069.6	025.5	228.3	001.0000	0030.5	053.3	35.30
100.0	008.1000	0069.8	025.6	227.9	001.0000	0031.2	053.6	35.35
101.0	008.1000	0068.9	025.5	227.7	001.0000	0031.4	054.0	35.28
102.0	008.1000	0069.3	025.6	227.4	001.0000	0031.6	054.3	35.24
103.0	008.1000	0070.4	025.7	227.0	001.0000	0031.7	054.6	35.20
104.0	008.1000	0071.3	025.9	226.6	001.0000	0031.8	054.9	35.14
105.0	008.1000	0069.1	025.5	226.6	001.0000	0031.7	055.5	35.01
106.0	008.1000	0068.1	025.3	226.5	001.0000	0031.8	055.9	34.92
107.0	008.1000	0068.3	025.4	226.3	001.0000	0031.8	056.3	34.84
108.0	008.1000	0069.5	025.6	225.9	001.0000	0031.7	056.6	34.76

WLNZ-C BNPED20090831ACP
Channel = 209A
Max ERP = 1 kW
RCAMSL = 296 M
N. Lat. 42 44 15.0
W. Lng. 84 33 12.0
Protected
60 dBu

WSPB. c
Channel = 209B1
Max ERP = 8.1 kW
RCAMSL = 352 M
N. Lat. 42 27 12.9
W. Lng. 85 20 39.0
Interfering
40 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
199.0	001.0000	0029.5	010.2	070.1	002.5801	0057.6	065.4	39.59	
200.0	001.0000	0029.6	010.2	070.0	002.5672	0057.7	065.3	39.61	
201.0	001.0000	0029.8	010.2	069.9	002.5568	0057.7	065.2	39.63	
202.0	001.0000	0029.9	010.2	069.8	002.5460	0057.8	065.0	39.65	
203.0	001.0000	0029.2	010.2	069.7	002.5350	0057.9	064.9	39.67	
204.0	001.0000	0028.3	010.2	069.6	002.5238	0057.9	064.8	39.69	
205.0	001.0000	0028.2	010.2	069.5	002.5124	0058.1	064.6	39.71	

Figure 2-1

206.0	001.0000	0028.2	010.2	069.4	002.5007	0058.2	064.5	39.73
207.0	001.0000	0027.5	010.2	069.2	002.4888	0058.3	064.4	39.75
208.0	001.0000	0027.3	010.2	069.1	002.4767	0058.2	064.3	39.76
209.0	001.0000	0026.8	010.2	069.0	002.4645	0058.2	064.2	39.76
210.0	001.0000	0026.7	010.2	068.9	002.4520	0058.2	064.0	39.77
211.0	001.0000	0026.3	010.2	068.8	002.4393	0058.3	063.9	39.79
212.0	001.0000	0026.4	010.2	068.6	002.4264	0058.5	063.8	39.81
213.0	001.0000	0027.0	010.2	068.5	002.4134	0058.5	063.7	39.81
214.0	001.0000	0027.1	010.2	068.4	002.4002	0058.6	063.6	39.82
215.0	001.0000	0027.6	010.2	068.2	002.3868	0058.7	063.5	39.83
216.0	001.0000	0027.7	010.2	068.1	002.3732	0058.8	063.4	39.84
217.0	001.0000	0028.6	010.2	068.0	002.3595	0058.9	063.3	39.85
218.0	001.0000	0029.3	010.2	067.8	002.3456	0058.9	063.2	39.84
219.0	001.0000	0030.3	010.2	067.7	002.3338	0058.8	063.1	39.86
220.0	001.0000	0030.5	010.2	067.6	002.3206	0058.8	063.0	39.85
221.0	001.0000	0030.2	010.2	067.4	002.3045	0058.7	063.0	39.83
222.0	001.0000	0029.5	010.2	067.3	002.2889	0058.8	062.9	39.82
223.0	001.0000	0029.5	010.2	067.1	002.2744	0058.9	062.8	39.82
224.0	001.0000	0030.1	010.2	067.0	002.2605	0058.9	062.7	39.83
225.0	001.0000	0031.1	010.3	066.9	002.2503	0059.0	062.5	39.86
226.0	001.0000	0031.7	010.4	066.8	002.2382	0059.0	062.4	39.88
227.0	001.0000	0031.7	010.4	066.6	002.2230	0059.1	062.3	39.88
228.0	001.0000	0031.0	010.3	066.4	002.2047	0059.2	062.4	39.84
229.0	001.0000	0030.0	010.2	066.2	002.1855	0059.1	062.4	39.77
230.0	001.0000	0029.0	010.2	066.1	002.1705	0059.2	062.4	39.76
231.0	001.0000	0029.1	010.2	065.9	002.1554	0059.3	062.3	39.75
232.0	001.0000	0029.5	010.2	065.7	002.1402	0059.4	062.3	39.75
233.0	001.0000	0030.3	010.2	065.6	002.1258	0059.5	062.2	39.75
234.0	001.0000	0030.5	010.2	065.4	002.1112	0059.5	062.1	39.73
235.0	001.0000	0030.4	010.2	065.3	002.0955	0059.4	062.1	39.70
236.0	001.0000	0030.3	010.2	065.1	002.0799	0059.5	062.1	39.68
237.0	001.0000	0030.5	010.2	064.9	002.0650	0059.6	062.0	39.68
238.0	001.0000	0030.3	010.2	064.8	002.0493	0059.8	062.1	39.66
239.0	001.0000	0030.2	010.2	064.6	002.0339	0060.2	062.0	39.66
240.0	001.0000	0030.5	010.2	064.5	002.0190	0060.5	062.0	39.67
241.0	001.0000	0031.2	010.3	064.3	002.0042	0060.8	061.9	39.69
242.0	001.0000	0031.6	010.4	064.1	001.9890	0061.2	061.8	39.70
243.0	001.0000	0031.7	010.4	064.0	001.9735	0061.3	061.8	39.68
244.0	001.0000	0031.7	010.4	063.8	001.9580	0061.1	061.8	39.63
245.0	001.0000	0031.8	010.4	063.6	001.9426	0060.7	061.8	39.57
246.0	001.0000	0031.6	010.4	063.5	001.9273	0060.5	061.8	39.51
247.0	001.0000	0031.2	010.3	063.3	001.9123	0060.5	061.9	39.46
248.0	001.0000	0030.9	010.3	063.1	001.8974	0060.5	061.9	39.42
249.0	001.0000	0030.7	010.3	063.0	001.8828	0060.6	062.0	39.37
250.0	001.0000	0030.5	010.2	062.8	001.8683	0060.7	062.0	39.34
251.0	001.0000	0030.4	010.2	062.6	001.8537	0060.9	062.0	39.31
252.0	001.0000	0030.1	010.2	062.5	001.8397	0061.1	062.1	39.28
253.0	001.0000	0029.5	010.2	062.3	001.8256	0061.5	062.2	39.25
254.0	001.0000	0029.3	010.2	062.2	001.8114	0061.6	062.2	39.22
255.0	001.0000	0029.5	010.2	062.0	001.7973	0061.7	062.2	39.19
256.0	001.0000	0029.5	010.2	061.8	001.7834	0061.7	062.3	39.14
257.0	001.0000	0029.8	010.2	061.7	001.7696	0061.7	062.3	39.09
258.0	001.0000	0030.0	010.2	061.5	001.7559	0061.8	062.4	39.05
259.0	001.0000	0030.2	010.2	061.4	001.7415	0061.8	062.4	39.02
260.0	001.0000	0031.2	010.3	061.2	001.7247	0061.9	062.3	39.00
261.0	001.0000	0032.0	010.4	061.0	001.7082	0062.0	062.3	38.98
262.0	001.0000	0032.0	010.4	060.8	001.6948	0061.9	062.3	38.92
263.0	001.0000	0032.0	010.4	060.7	001.6816	0061.9	062.4	38.86
264.0	001.0000	0032.1	010.5	060.5	001.6680	0061.9	062.4	38.81
265.0	001.0000	0032.3	010.5	060.3	001.6539	0061.9	062.5	38.77
266.0	001.0000	0032.7	010.5	060.2	001.6392	0061.8	062.5	38.72
267.0	001.0000	0033.2	010.6	060.0	001.6245	0061.8	062.5	38.67
268.0	001.0000	0033.7	010.7	059.8	001.6124	0061.9	062.5	38.64
269.0	001.0000	0033.8	010.7	059.6	001.6019	0061.9	062.6	38.59

Figure 2-1

270.0	001.0000	0034.2	010.8	059.5	001.5902	0061.9	062.7	38.55
271.0	001.0000	0034.8	010.8	059.3	001.5778	0061.8	062.7	38.50
272.0	001.0000	0035.1	010.9	059.1	001.5665	0061.7	062.7	38.44
273.0	001.0000	0035.4	010.9	058.9	001.5557	0061.6	062.8	38.39
274.0	001.0000	0036.1	011.0	058.7	001.5431	0061.5	062.8	38.33
275.0	001.0000	0037.7	011.3	058.5	001.5259	0061.3	062.8	38.29
276.0	001.0000	0038.2	011.3	058.3	001.5136	0061.1	062.8	38.23
277.0	001.0000	0038.8	011.4	058.1	001.5016	0061.1	062.9	38.17
278.0	001.0000	0039.3	011.5	057.9	001.4900	0060.9	063.0	38.11
279.0	001.0000	0039.2	011.5	057.8	001.4816	0060.9	063.1	38.05
280.0	001.0000	0038.4	011.4	057.7	001.4770	0060.9	063.3	37.98
281.0	001.0000	0037.0	011.2	057.7	001.4764	0060.9	063.6	37.90
282.0	001.0000	0037.4	011.2	057.5	001.4660	0061.0	063.7	37.85
283.0	001.0000	0037.5	011.2	057.4	001.4575	0061.0	063.8	37.79
284.0	001.0000	0037.6	011.2	057.3	001.4493	0061.0	063.9	37.73
285.0	001.0000	0038.2	011.3	057.1	001.4377	0061.0	064.0	37.67
286.0	001.0000	0038.8	011.4	056.9	001.4271	0061.0	064.1	37.61
287.0	001.0000	0039.8	011.6	056.7	001.4138	0060.9	064.2	37.55
288.0	001.0000	0039.7	011.6	056.6	001.4070	0060.9	064.3	37.49

Figure 2-2
Minor Modification to WSPB

FMCommander Single Allocation Study - 08-19-2010 - NED 30 Meter
WSPB.c's Overlaps (In= 1.85 km, Out= 0.46 km)

WSPB.c CH 209 B1 DA
Lat= 42 27 12.9, Lng= 85 20 39.0
8.1 kW 71.3 M HAAT, 352 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WOFR CH 208 B1 DA BLED20021230AAW
Lat= 42 06 38.0, Lng= 85 37 57.0
10.0 kW 42 M HAAT, 305 M COR
Prot.= 60 dBu, Intef.= 54 dBu

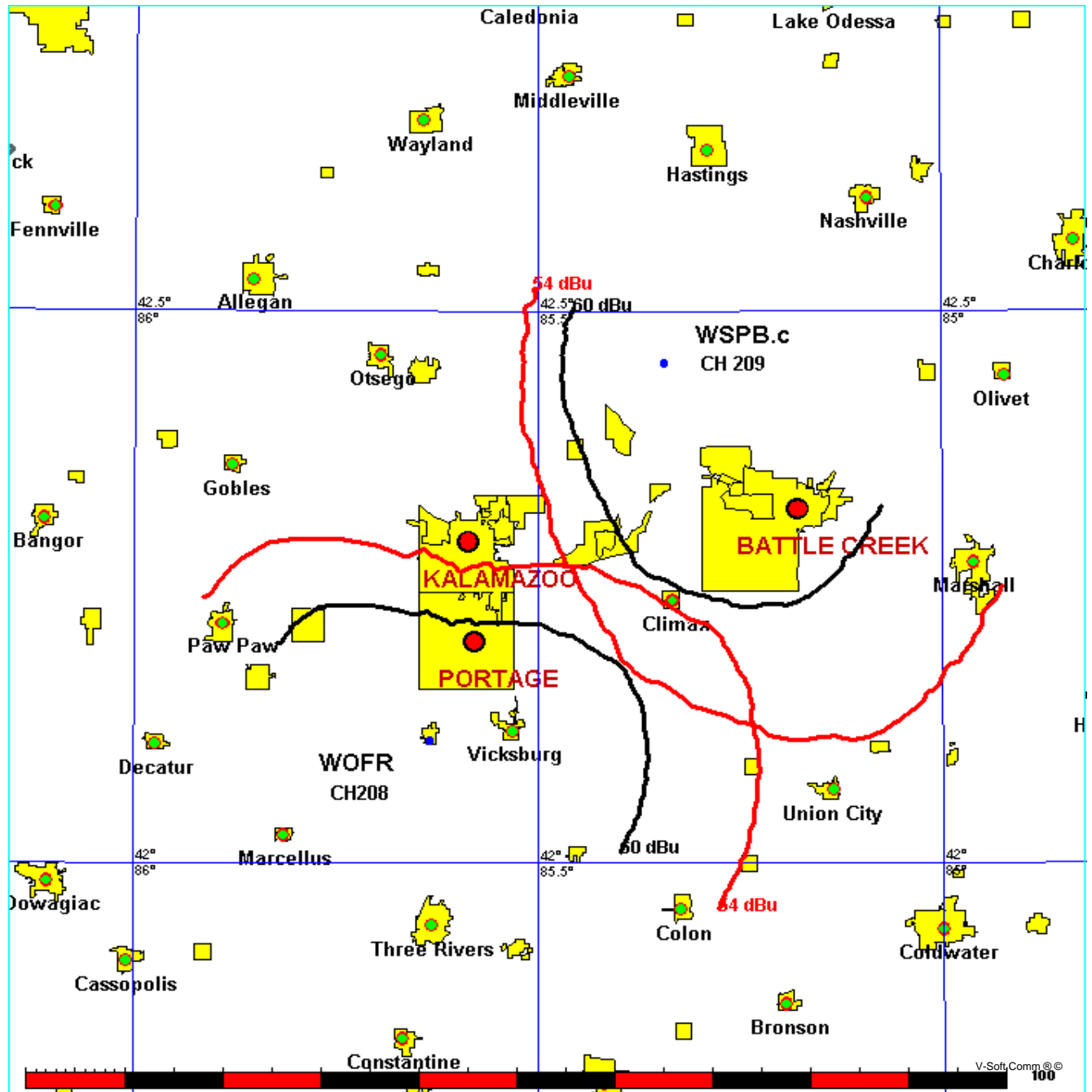


Figure 2-3

08-19-2010

NED 30 Meter Terrain Data

FMOver Analysis

WSPB. c

Channel = 209B1

Max ERP = 8.1 kW

RCAMSL = 352 M

N. Lat. 42 27 12.9

W. Lng. 85 20 39.0

Protected

60 dBu

WOFR BLED20021230AAW

Channel = 208B1

Max ERP = 10 kW

RCAMSL = 305 M

N. Lat. 42 06 38.0

W. Lng. 85 37 57.0

Interfering

54 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
167.0	004.6736	0082.9	024.5	063.9	007.0320	0042.1	032.6	52.17	
168.0	004.4644	0084.3	024.4	063.6	006.9508	0042.2	032.2	52.32	
169.0	004.2599	0083.9	024.1	062.9	006.7531	0042.0	031.9	52.28	
170.0	004.0602	0084.1	023.9	062.3	006.5906	0041.8	031.5	52.30	
171.0	003.8956	0084.5	023.7	061.7	006.4507	0042.0	031.2	52.38	
172.0	003.7344	0085.5	023.6	061.3	006.3398	0042.1	030.8	52.50	
173.0	003.5766	0085.6	023.4	060.6	006.1700	0041.9	030.5	52.48	
174.0	003.4223	0086.5	023.3	060.1	006.0393	0041.7	030.2	52.51	
175.0	003.2713	0087.2	023.1	059.6	005.9130	0041.8	029.9	52.60	
176.0	003.1237	0086.9	022.8	058.7	005.7435	0041.9	029.7	52.62	
177.0	002.9795	0086.7	022.6	057.9	005.5722	0042.3	029.5	52.68	
178.0	002.8388	0086.3	022.3	057.0	005.3946	0042.3	029.3	52.64	
179.0	002.7014	0086.5	022.0	056.2	005.2412	0042.4	029.1	52.65	
180.0	002.5674	0087.5	021.9	055.6	005.1135	0042.4	028.8	52.67	
181.0	002.4636	0088.1	021.8	054.9	004.9876	0042.5	028.6	52.72	
182.0	002.3620	0089.4	021.7	054.4	004.8839	0042.5	028.3	52.79	
183.0	002.2624	0090.8	021.7	053.8	004.7806	0042.5	028.0	52.85	
184.0	002.1650	0091.4	021.5	053.1	004.6426	0042.2	027.9	52.78	
185.0	002.0698	0091.7	021.3	052.2	004.4936	0042.1	027.7	52.71	
186.0	001.9767	0091.9	021.1	051.4	004.3420	0041.9	027.6	52.59	
187.0	001.8857	0091.1	020.8	050.4	004.1643	0041.6	027.6	52.37	
188.0	001.7969	0092.3	020.7	049.7	004.0479	0041.8	027.4	52.38	
189.0	001.7102	0089.9	020.1	048.4	003.8539	0042.0	027.6	52.10	
190.0	001.6257	0086.0	019.4	046.9	003.6392	0042.4	027.9	51.75	
191.0	001.5596	0084.7	019.1	046.0	003.4976	0042.8	028.0	51.58	
192.0	001.4949	0084.6	018.8	045.1	003.3827	0043.2	028.0	51.53	
193.0	001.4316	0084.4	018.6	044.3	003.2830	0043.6	028.0	51.47	
194.0	001.3696	0082.3	018.1	043.3	003.1628	0043.8	028.2	51.21	
195.0	001.3090	0081.2	017.8	042.4	003.0610	0043.1	028.4	50.84	
196.0	001.2498	0079.4	017.4	041.4	002.9552	0042.6	028.7	50.44	
197.0	001.1919	0078.4	017.0	040.6	002.8632	0042.5	028.8	50.17	
198.0	001.1354	0079.1	016.9	039.9	002.7934	0042.2	028.9	49.99	
199.0	001.0803	0079.3	016.7	039.3	002.7258	0041.9	028.9	49.78	
200.0	001.0266	0079.2	016.4	038.6	002.6582	0041.8	029.1	49.57	
201.0	000.9849	0078.6	016.1	037.9	002.5926	0041.8	029.2	49.36	
202.0	000.9441	0077.4	015.8	037.2	002.5260	0041.8	029.5	49.12	
203.0	000.9041	0076.0	015.5	036.5	002.4632	0041.8	029.8	48.87	
204.0	000.8651	0075.3	015.2	035.9	002.4073	0041.7	029.9	48.66	
205.0	000.8269	0076.5	015.1	035.4	002.3603	0041.5	030.0	48.53	
206.0	000.7895	0078.2	015.1	034.9	002.3155	0041.2	029.9	48.40	
207.0	000.7530	0076.8	014.8	034.3	002.2636	0041.3	030.2	48.18	
208.0	000.7174	0077.5	014.7	033.8	002.2188	0041.2	030.3	48.03	
209.0	000.6826	0077.3	014.5	033.3	002.1740	0041.0	030.5	47.82	
210.0	000.6487	0077.0	014.3	032.8	002.1314	0040.9	030.7	47.62	
211.0	000.6224	0076.3	014.1	032.3	002.0907	0040.9	030.8	47.44	
212.0	000.5966	0077.2	014.0	031.8	002.0522	0041.0	030.9	47.34	
213.0	000.5714	0077.4	013.9	031.4	002.0147	0041.1	031.0	47.22	
214.0	000.5467	0077.1	013.7	031.0	001.9790	0040.9	031.2	47.03	

Figure 2-3

215.0	000.5226	0075.2	013.4	030.6	001.9464	0040.8	031.5	46.79
216.0	000.4990	0075.2	013.3	030.2	001.9140	0040.7	031.7	46.62
217.0	000.4759	0074.2	013.0	029.8	001.8877	0040.8	032.0	46.46
218.0	000.4534	0073.2	012.8	029.5	001.8654	0040.8	032.2	46.30
219.0	000.4315	0072.4	012.6	029.1	001.8442	0040.8	032.5	46.15
220.0	000.4101	0072.7	012.5	028.8	001.8225	0040.8	032.6	46.04
221.0	000.4010	0072.7	012.4	028.4	001.8001	0040.8	032.7	45.95
222.0	000.3920	0073.1	012.4	028.1	001.7779	0040.8	032.8	45.86
223.0	000.3832	0072.1	012.2	027.8	001.7588	0040.9	033.0	45.76
224.0	000.3744	0071.9	012.1	027.5	001.7391	0040.9	033.2	45.65
225.0	000.3658	0071.7	012.0	027.2	001.7201	0040.9	033.3	45.54
226.0	000.3572	0071.7	012.0	026.9	001.7011	0041.0	033.4	45.46
227.0	000.3488	0071.8	011.9	026.6	001.6825	0041.0	033.5	45.36
228.0	000.3404	0071.1	011.8	026.3	001.6667	0040.8	033.7	45.21
229.0	000.3322	0070.9	011.7	026.0	001.6503	0040.7	033.9	45.09
230.0	000.3240	0071.1	011.7	025.8	001.6334	0040.6	034.0	44.97
231.0	000.3172	0071.7	011.7	025.5	001.6151	0040.4	034.1	44.85
232.0	000.3105	0072.2	011.6	025.2	001.5979	0040.4	034.2	44.76
233.0	000.3039	0071.7	011.5	024.9	001.5842	0040.5	034.4	44.67
234.0	000.2974	0071.6	011.5	024.7	001.5699	0040.6	034.6	44.58
235.0	000.2909	0070.8	011.4	024.5	001.5587	0040.6	034.8	44.48
236.0	000.2845	0070.3	011.3	024.3	001.5472	0040.6	034.9	44.38
237.0	000.2781	0070.3	011.2	024.1	001.5343	0040.6	035.1	44.29
238.0	000.2719	0070.4	011.1	023.9	001.5216	0040.7	035.3	44.20
239.0	000.2657	0070.7	011.1	023.7	001.5084	0040.7	035.4	44.11
240.0	000.2595	0071.4	011.1	023.4	001.4946	0040.7	035.5	44.03
241.0	000.2595	0071.1	011.1	023.2	001.4815	0040.8	035.7	43.95
242.0	000.2595	0071.3	011.1	022.9	001.4668	0040.8	035.8	43.87
243.0	000.2595	0071.5	011.1	022.7	001.4523	0040.8	035.9	43.78
244.0	000.2595	0071.5	011.1	022.4	001.4387	0040.7	036.0	43.67
245.0	000.2595	0070.7	011.0	022.3	001.4293	0040.5	036.2	43.55
246.0	000.2595	0070.5	011.0	022.1	001.4176	0040.3	036.3	43.41
247.0	000.2595	0070.2	011.0	021.9	001.4070	0040.1	036.5	43.28
248.0	000.2595	0069.5	011.0	021.7	001.3982	0040.0	036.6	43.18
249.0	000.2595	0068.4	010.9	021.6	001.3914	0040.1	036.8	43.10
250.0	000.2595	0067.9	010.8	021.4	001.3828	0040.1	037.0	43.01
251.0	000.2595	0067.5	010.8	021.3	001.3741	0040.2	037.1	42.94
252.0	000.2595	0066.7	010.8	021.2	001.3672	0040.3	037.3	42.87
253.0	000.2595	0066.0	010.7	021.1	001.3607	0040.4	037.5	42.80
254.0	000.2595	0065.0	010.6	021.0	001.3559	0040.4	037.7	42.74
255.0	000.2595	0064.7	010.6	020.8	001.3483	0040.6	037.9	42.68
256.0	000.2595	0064.2	010.6	020.7	001.3416	0040.7	038.0	42.63

08-19-2010 NED 30 Meter Terrain Data

WOFR BLED20021230AAW

Channel = 208B1

Max ERP = 10 kW

RCAMSL = 305 M

N. Lat. 42 06 38.0

W. Lng. 85 37 57.0

Protected

60 dBu

WSPB.c

Channel = 209B1

Max ERP = 8.1 kW

RCAMSL = 352 M

N. Lat. 42 27 12.9

W. Lng. 85 20 39.0

Interfering

54 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
347.0	003.1618	0028.3	013.4	226.9	000.3496	0071.8	036.7	41.81	
348.0	003.0382	0028.2	013.3	226.5	000.3526	0071.9	036.5	41.91	
349.0	002.9171	0028.0	013.1	226.2	000.3557	0071.8	036.4	41.99	

				Figure 2-3			
350.0	002.7984	0028.6	013.0	225.8	000.3589	0071.7	036.3 42.06
351.0	002.7009	0029.6	012.9	225.5	000.3618	0071.7	036.2 42.15
352.0	002.6051	0030.0	012.8	225.1	000.3648	0071.7	036.1 42.24
353.0	002.5110	0030.5	012.8	224.9	000.3670	0071.7	035.9 42.33
354.0	002.4187	0031.5	012.8	224.7	000.3684	0071.7	035.7 42.43
355.0	002.3281	0032.4	012.8	224.5	000.3700	0071.7	035.5 42.54
356.0	002.2392	0033.3	012.9	224.3	000.3716	0071.8	035.3 42.66
357.0	002.1520	0034.0	012.9	224.1	000.3738	0071.9	035.1 42.76
358.0	002.0666	0035.7	013.0	224.0	000.3744	0071.9	034.9 42.89
359.0	001.9829	0036.2	013.0	223.7	000.3771	0071.8	034.7 42.97
000.0	001.9010	0035.5	012.7	223.1	000.3820	0072.1	034.7 43.05
001.0	001.8361	0035.5	012.7	222.8	000.3853	0072.2	034.7 43.13
002.0	001.7724	0036.0	012.6	222.5	000.3880	0072.6	034.5 43.26
003.0	001.7098	0035.9	012.5	222.0	000.3916	0073.0	034.5 43.37
004.0	001.6484	0036.1	012.4	221.7	000.3949	0073.0	034.4 43.44
005.0	001.5880	0036.1	012.3	221.3	000.3985	0073.0	034.4 43.49
006.0	001.5288	0036.6	012.3	221.0	000.4014	0072.7	034.3 43.53
007.0	001.4707	0037.2	012.3	220.6	000.4042	0072.4	034.2 43.57
008.0	001.4138	0037.9	012.3	220.3	000.4070	0072.3	034.1 43.64
009.0	001.3579	0037.0	012.0	219.8	000.4141	0072.5	034.2 43.69
010.0	001.3032	0037.0	011.9	219.4	000.4226	0072.3	034.2 43.76
011.0	001.3032	0037.4	011.9	219.1	000.4283	0072.3	034.0 43.88
012.0	001.3032	0038.6	012.1	219.0	000.4320	0072.4	033.8 44.04
013.0	001.3032	0039.4	012.2	218.7	000.4372	0072.6	033.6 44.21
014.0	001.3032	0040.3	012.4	218.5	000.4424	0072.7	033.3 44.37
015.0	001.3032	0040.6	012.4	218.2	000.4492	0073.0	033.2 44.53
016.0	001.3032	0041.2	012.5	217.9	000.4554	0073.3	033.0 44.69
017.0	001.3032	0042.3	012.7	217.7	000.4611	0073.6	032.8 44.89
018.0	001.3032	0042.7	012.7	217.3	000.4686	0073.9	032.7 45.06
019.0	001.3032	0043.0	012.8	217.0	000.4764	0074.2	032.6 45.21
020.0	001.3032	0041.7	012.6	216.5	000.4873	0075.2	032.7 45.37
021.0	001.3579	0040.4	012.5	216.1	000.4967	0075.3	032.7 45.46
022.0	001.4138	0040.2	012.6	215.8	000.5045	0075.3	032.6 45.59
023.0	001.4707	0040.8	012.8	215.5	000.5114	0075.3	032.3 45.78
024.0	001.5288	0040.7	012.9	215.1	000.5199	0075.2	032.2 45.89
025.0	001.5880	0040.5	013.0	214.7	000.5287	0075.6	032.0 46.07
026.0	001.6484	0040.7	013.2	214.4	000.5375	0076.3	031.8 46.31
027.0	001.7098	0040.9	013.3	214.0	000.5466	0077.1	031.7 46.56
028.0	001.7724	0040.8	013.4	213.6	000.5565	0077.5	031.5 46.74
029.0	001.8361	0040.8	013.5	213.2	000.5666	0077.1	031.4 46.84
030.0	001.9010	0040.7	013.6	212.8	000.5771	0077.5	031.3 47.02
031.0	001.9829	0041.0	013.8	212.3	000.5879	0077.5	031.1 47.20
032.0	002.0666	0041.0	014.0	211.9	000.5992	0077.1	031.0 47.31
033.0	002.1520	0041.0	014.1	211.4	000.6110	0076.5	030.8 47.39
034.0	002.2392	0041.3	014.3	211.0	000.6233	0076.3	030.6 47.55
035.0	002.3281	0041.2	014.4	210.5	000.6360	0076.6	030.5 47.73
036.0	002.4187	0041.8	014.6	210.0	000.6499	0077.1	030.3 47.99
037.0	002.5110	0041.8	014.8	209.4	000.6673	0077.5	030.2 48.21
038.0	002.6051	0041.8	014.9	208.9	000.6852	0077.3	030.1 48.36
039.0	002.7009	0041.9	015.1	208.4	000.7042	0077.3	030.0 48.55
040.0	002.7984	0042.2	015.3	207.8	000.7244	0077.5	029.8 48.78
041.0	002.9074	0042.7	015.5	207.2	000.7461	0077.0	029.7 48.94
042.0	003.0184	0042.8	015.7	206.6	000.7680	0077.4	029.5 49.19
043.0	003.1315	0043.7	016.1	205.9	000.7941	0078.1	029.3 49.56
044.0	003.2467	0043.7	016.3	205.2	000.8177	0076.9	029.2 49.59
045.0	003.3640	0043.2	016.3	204.7	000.8389	0076.0	029.2 49.56
046.0	003.5046	0042.7	016.4	204.1	000.8608	0075.3	029.3 49.58
047.0	003.6482	0042.4	016.5	203.5	000.8845	0075.4	029.3 49.71
048.0	003.7946	0042.1	016.6	202.9	000.9080	0076.1	029.3 49.90
049.0	003.9438	0042.0	016.8	202.2	000.9342	0077.2	029.3 50.15
050.0	004.0960	0041.6	016.9	201.7	000.9578	0077.8	029.3 50.30
051.0	004.2706	0041.7	017.1	201.0	000.9863	0078.7	029.3 50.55
052.0	004.4489	0042.1	017.4	200.2	001.0196	0079.1	029.2 50.80
053.0	004.6308	0042.2	017.6	199.4	001.0562	0079.4	029.2 50.98

Figure 2-3

054.0	004.8164	0042.5	017.8	198.6	001.0996	0079.1	029.2	51.16
055.0	005.0056	0042.5	018.0	198.0	001.1381	0079.1	029.2	51.28
056.0	005.1984	0042.4	018.2	197.3	001.1765	0078.9	029.3	51.37
057.0	005.3949	0042.3	018.3	196.6	001.2138	0077.8	029.4	51.32
058.0	005.5950	0042.2	018.5	195.9	001.2533	0079.7	029.4	51.62
059.0	005.7988	0041.9	018.6	195.3	001.2882	0080.7	029.6	51.77
060.0	006.0062	0041.6	018.7	194.8	001.3233	0081.2	029.7	51.85
061.0	006.2616	0042.0	019.0	193.9	001.3750	0082.4	029.8	52.15
062.0	006.5222	0041.9	019.1	193.3	001.4159	0083.9	029.9	52.36
063.0	006.7881	0042.1	019.4	192.5	001.4640	0084.9	030.0	52.56
064.0	007.0594	0042.0	019.6	191.8	001.5065	0084.4	030.2	52.55
065.0	007.3359	0042.0	019.7	191.2	001.5490	0084.7	030.3	52.61
066.0	007.6178	0042.6	020.1	190.3	001.6074	0085.4	030.4	52.79
067.0	007.9050	0043.3	020.4	189.3	001.6806	0088.8	030.5	53.29
068.0	008.1975	0043.7	020.7	188.6	001.7467	0091.2	030.7	53.62
069.0	008.4953	0043.8	020.9	187.9	001.8062	0092.2	030.9	53.76
070.0	008.7984	0043.8	021.1	187.3	001.8590	0091.3	031.1	53.67
071.0	008.9151	0043.5	021.1	187.0	001.8844	0091.2	031.5	53.54
072.0	009.0326	0043.4	021.1	186.6	001.9173	0091.1	031.8	53.46
073.0	009.1508	0043.7	021.3	186.1	001.9634	0091.7	032.1	53.49
074.0	009.2698	0043.5	021.3	185.9	001.9899	0092.0	032.4	53.41
075.0	009.3896	0043.5	021.3	185.6	002.0182	0092.0	032.7	53.32
076.0	009.5102	0043.5	021.4	185.2	002.0508	0091.8	033.1	53.22

Figure 2-4
Minor Modification to WSPB

FMCommander Single Allocation Study - 08-19-2010 - NED 30 Meter
WSPB.c's Overlaps (In= 0.59 km, Out= 8.46 km)

WSPB.c CH 209 B1 DA
Lat= 42 27 12.9, Lng= 85 20 39.0
8.1 kW 71.3 M HAAT, 352 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WAYG-C CH 209 A DA BPED20070807AEH
Lat= 42 58 40.0, Lng= 85 35 44.0
6.0 kW 74 M HAAT, 299 M COR
Prot.= 60 dBu, Intef.= 40 dBu

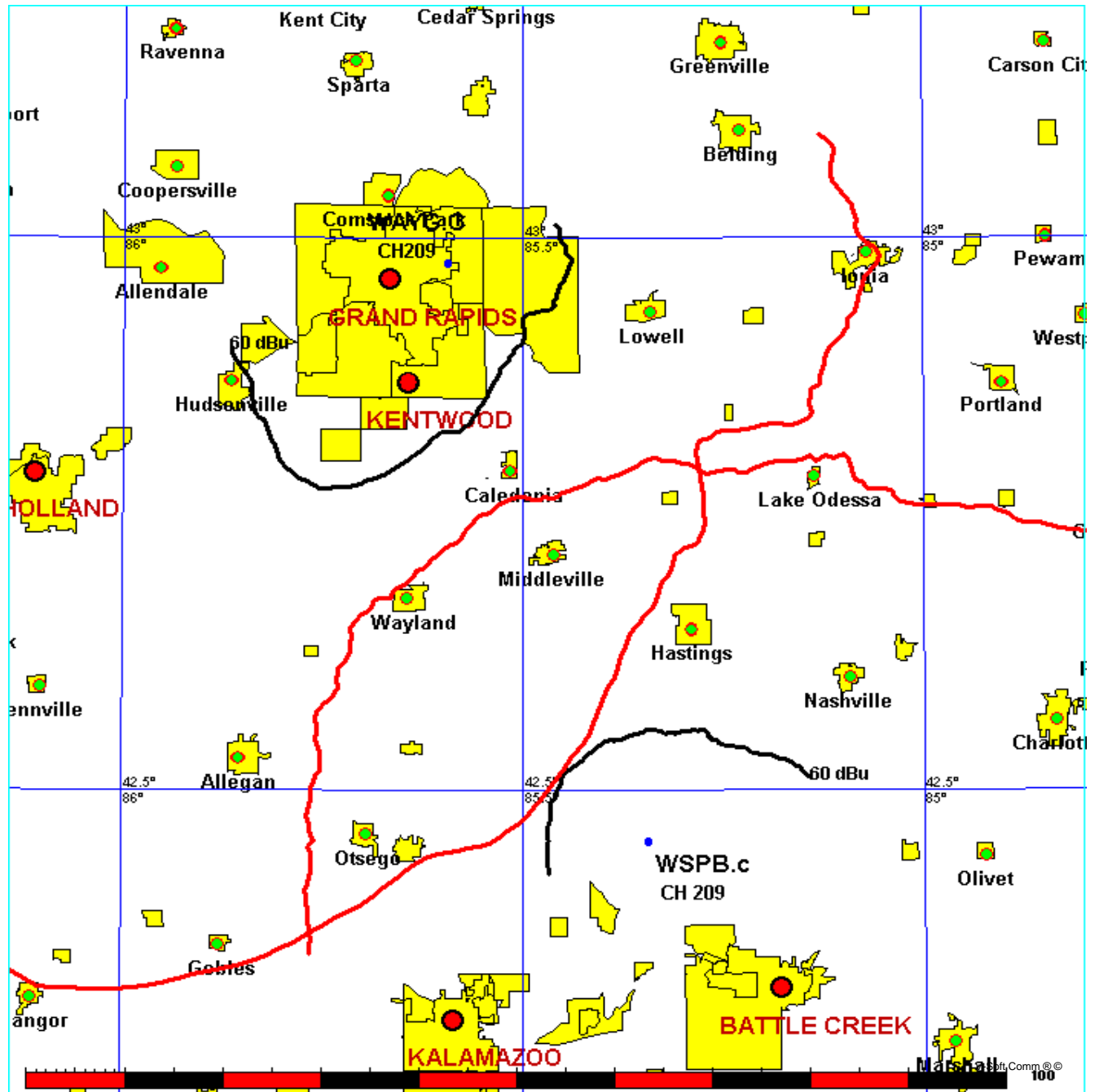


Figure 2-5

08-19-2010

NED 30 Meter Terrain Data

FMOver Analysis

WSPB. c
 Channel = 209B1
 Max ERP = 8.1 kW
 RCAMSL = 352 M
 N. Lat. 42 27 12.9
 W. Lng. 85 20 39.0
 Protected
 60 dBu

WAYG-C BPED20070807AEH
 Channel = 209A
 Max ERP = 6 kW
 RCAMSL = 299 M
 N. Lat. 42 58 40.0
 W. Lng. 85 35 44.0
 Interfering
 40 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
296.0	000.2595	0062.7	010.5	168.2	000.9708	0070.2	054.8	39.52	
297.0	000.2595	0064.4	010.6	168.2	000.9702	0070.2	054.6	39.59	
298.0	000.2595	0064.9	010.6	168.1	000.9666	0070.0	054.4	39.62	
299.0	000.2595	0065.7	010.7	168.0	000.9633	0069.9	054.2	39.65	
300.0	000.2595	0064.7	010.6	167.8	000.9558	0069.7	054.1	39.63	
301.0	000.2595	0064.9	010.6	167.7	000.9510	0069.6	054.0	39.64	
302.0	000.2595	0064.9	010.6	167.6	000.9456	0069.4	053.9	39.65	
303.0	000.2595	0066.0	010.7	167.5	000.9424	0069.3	053.7	39.69	
304.0	000.2595	0067.3	010.8	167.4	000.9396	0069.2	053.5	39.73	
305.0	000.2595	0069.5	011.0	167.4	000.9380	0069.2	053.2	39.80	
306.0	000.2595	0069.2	010.9	167.2	000.9315	0069.0	053.1	39.79	
307.0	000.2595	0069.3	010.9	167.1	000.9256	0068.9	053.0	39.80	
308.0	000.2595	0068.8	010.9	166.9	000.9183	0068.7	052.9	39.78	
309.0	000.2595	0068.1	010.9	166.7	000.9109	0068.4	052.8	39.75	
310.0	000.2595	0068.0	010.9	166.5	000.9043	0068.2	052.7	39.73	
311.0	000.2595	0068.6	010.9	166.4	000.8989	0068.1	052.6	39.74	
312.0	000.2595	0067.3	010.8	166.2	000.8901	0067.8	052.5	39.69	
313.0	000.2595	0064.9	010.6	165.9	000.8797	0067.5	052.6	39.59	
314.0	000.2595	0066.0	010.7	165.8	000.8749	0067.4	052.4	39.62	
315.0	000.2595	0065.6	010.7	165.6	000.8677	0067.4	052.3	39.60	
316.0	000.2595	0064.7	010.6	165.4	000.8596	0067.4	052.3	39.57	
317.0	000.2595	0064.2	010.6	165.2	000.8523	0067.4	052.2	39.56	
318.0	000.2595	0064.3	010.6	165.0	000.8457	0067.5	052.1	39.57	
319.0	000.2595	0065.4	010.7	164.8	000.8403	0067.7	052.0	39.60	
320.0	000.2595	0064.2	010.6	164.6	000.8320	0067.9	052.0	39.58	
321.0	000.2595	0064.5	010.6	164.4	000.8255	0068.0	051.9	39.58	
322.0	000.2595	0065.1	010.6	164.3	000.8192	0067.9	051.8	39.58	
323.0	000.2595	0064.6	010.6	164.1	000.8117	0067.7	051.7	39.54	
324.0	000.2595	0065.0	010.6	163.9	000.8050	0067.6	051.7	39.52	
325.0	000.2595	0065.1	010.6	163.7	000.7981	0067.4	051.6	39.49	
326.0	000.2595	0065.4	010.7	163.5	000.7912	0067.3	051.5	39.47	
327.0	000.2595	0064.5	010.6	163.3	000.7833	0067.2	051.5	39.41	
328.0	000.2595	0065.3	010.7	163.1	000.7768	0067.0	051.4	39.39	
329.0	000.2595	0066.1	010.7	162.9	000.7702	0066.7	051.3	39.36	
330.0	000.2595	0067.0	010.8	162.7	000.7635	0066.3	051.2	39.32	
331.0	000.2595	0067.7	010.8	162.5	000.7567	0066.0	051.1	39.28	
332.0	000.2595	0069.0	010.9	162.4	000.7500	0065.8	051.0	39.26	
333.0	000.2595	0068.6	010.9	162.1	000.7424	0065.6	051.0	39.20	
334.0	000.2595	0067.9	010.8	161.9	000.7347	0065.4	051.0	39.13	
335.0	000.2595	0068.4	010.9	161.7	000.7276	0065.1	050.9	39.08	
336.0	000.2595	0069.4	010.9	161.5	000.7205	0064.9	050.9	39.04	
337.0	000.2595	0069.5	011.0	161.3	000.7131	0064.6	050.8	38.98	
338.0	000.2595	0069.2	010.9	161.1	000.7057	0064.3	050.8	38.91	
339.0	000.2595	0068.8	010.9	160.9	000.6983	0064.1	050.9	38.83	
340.0	000.2595	0068.4	010.9	160.6	000.6911	0063.8	050.9	38.74	
341.0	000.2595	0066.3	010.7	160.4	000.6839	0063.5	051.0	38.63	
342.0	000.2595	0065.7	010.7	160.2	000.6769	0063.5	051.1	38.57	
343.0	000.2595	0066.2	010.7	160.0	000.6698	0063.5	051.1	38.53	

				Figure 2-5				
344.0	000.2595	0064.6	010.6	159.8	000.6634	0063.5	051.2	38.44
345.0	000.2595	0064.9	010.6	159.6	000.6568	0063.3	051.2	38.38
346.0	000.2595	0065.7	010.7	159.4	000.6500	0063.1	051.1	38.33
347.0	000.2595	0065.9	010.7	159.2	000.6434	0063.2	051.1	38.30
348.0	000.2595	0066.2	010.7	159.0	000.6368	0063.3	051.1	38.25
349.0	000.2595	0066.5	010.7	158.8	000.6302	0063.3	051.2	38.20
350.0	000.2595	0067.0	010.8	158.5	000.6235	0063.3	051.2	38.16
351.0	000.2595	0067.8	010.8	158.3	000.6167	0063.2	051.1	38.11
352.0	000.2595	0068.1	010.9	158.1	000.6102	0063.3	051.2	38.07
353.0	000.2595	0067.6	010.8	157.9	000.6043	0063.2	051.2	37.99
354.0	000.2595	0068.1	010.9	157.7	000.5978	0063.1	051.3	37.93
355.0	000.2595	0068.7	010.9	157.5	000.5912	0062.9	051.3	37.86
356.0	000.2595	0069.3	010.9	157.3	000.5847	0062.8	051.3	37.79
357.0	000.2595	0070.6	011.0	157.0	000.5777	0062.6	051.3	37.73
358.0	000.2595	0071.5	011.1	156.8	000.5709	0062.3	051.3	37.65
359.0	000.2595	0072.7	011.2	156.6	000.5640	0062.0	051.3	37.56
000.0	000.2595	0074.0	011.3	156.3	000.5569	0061.7	051.3	37.48
001.0	000.2595	0074.3	011.3	156.1	000.5507	0061.5	051.3	37.39
002.0	000.2595	0073.4	011.2	156.0	000.5458	0061.4	051.5	37.30
003.0	000.2595	0073.5	011.2	155.8	000.5401	0061.3	051.6	37.22
004.0	000.2595	0073.6	011.2	155.6	000.5345	0061.3	051.6	37.15
005.0	000.2595	0072.9	011.2	155.4	000.5297	0061.4	051.8	37.08
006.0	000.2595	0073.1	011.2	155.2	000.5242	0061.7	051.9	37.02
007.0	000.2595	0072.5	011.2	155.0	000.5197	0061.8	052.0	36.96
008.0	000.2595	0071.1	011.1	154.9	000.5162	0061.8	052.2	36.87
009.0	000.2595	0070.2	011.0	154.8	000.5124	0061.7	052.4	36.78
010.0	000.2595	0071.0	011.1	154.6	000.5065	0061.6	052.4	36.69
011.0	000.2657	0071.2	011.1	154.3	000.5004	0061.5	052.5	36.61
012.0	000.2719	0071.5	011.2	154.1	000.4941	0061.4	052.5	36.54
013.0	000.2781	0071.3	011.3	153.9	000.4886	0061.5	052.6	36.46
014.0	000.2845	0069.5	011.2	153.8	000.4854	0061.5	052.8	36.38
015.0	000.2909	0069.6	011.3	153.6	000.4798	0061.4	052.9	36.30
016.0	000.2974	0071.0	011.4	153.3	000.4724	0061.6	052.9	36.24
017.0	000.3039	0071.7	011.5	153.1	000.4660	0061.9	052.9	36.20
018.0	000.3105	0072.9	011.7	152.8	000.4588	0062.0	053.0	36.12
019.0	000.3172	0073.5	011.8	152.6	000.4526	0062.5	053.0	36.08
020.0	000.3240	0073.9	011.9	152.4	000.4468	0063.0	053.1	36.04
021.0	000.3322	0073.6	011.9	152.2	000.4418	0063.3	053.3	35.99
022.0	000.3404	0074.5	012.0	151.9	000.4353	0063.8	053.3	35.95
023.0	000.3488	0075.9	012.2	151.6	000.4279	0064.3	053.4	35.90
024.0	000.3572	0073.9	012.1	151.6	000.4259	0064.3	053.6	35.81
025.0	000.3658	0076.3	012.4	151.2	000.4171	0064.4	053.6	35.72

08-19-2010 NED 30 Meter Terrain Data

WAYG-C BPED20070807AEH
Channel = 209A
Max ERP = 6 kW
RCAMSL = 299 M
N. Lat. 42 58 40.0
W. Lng. 85 35 44.0
Protected
60 dBu

WSPB.c
Channel = 209B1
Max ERP = 8.1 kW
RCAMSL = 352 M
N. Lat. 42 27 12.9
W. Lng. 85 20 39.0
Interfering
40 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
116.0	000.2014	0078.3	010.9	348.6	000.2595	0066.6	054.5	33.56	
117.0	000.1985	0075.5	010.7	348.3	000.2595	0066.4	054.5	33.54	
118.0	000.1957	0073.2	010.5	348.1	000.2595	0066.2	054.5	33.54	

				Figure 2-5				
119.0	000.1929	0070.6	010.3	347.8	000.2595	0066.2	054.5	33.53
120.0	000.1901	0068.3	010.1	347.5	000.2595	0066.2	054.5	33.54
121.0	000.1901	0065.1	009.9	347.2	000.2595	0066.1	054.5	33.52
122.0	000.1901	0062.8	009.7	347.0	000.2595	0065.8	054.5	33.50
123.0	000.1901	0062.8	009.7	346.8	000.2595	0065.6	054.4	33.51
124.0	000.1901	0061.1	009.6	346.6	000.2595	0065.4	054.4	33.51
125.0	000.1901	0059.2	009.4	346.4	000.2595	0065.4	054.4	33.51
126.0	000.1901	0060.1	009.5	346.3	000.2595	0065.5	054.2	33.57
127.0	000.1901	0060.8	009.6	346.2	000.2595	0065.7	054.1	33.63
128.0	000.1901	0062.5	009.7	346.2	000.2595	0065.7	053.9	33.70
129.0	000.1901	0065.3	009.9	346.1	000.2595	0065.8	053.6	33.79
130.0	000.1901	0067.4	010.0	346.1	000.2595	0065.7	053.4	33.86
131.0	000.1953	0069.6	010.2	346.1	000.2595	0065.7	053.1	33.95
132.0	000.2005	0071.0	010.4	346.0	000.2595	0065.7	052.9	34.02
133.0	000.2058	0072.5	010.6	345.9	000.2595	0065.6	052.6	34.09
134.0	000.2112	0073.6	010.7	345.8	000.2595	0065.4	052.4	34.15
135.0	000.2166	0075.3	010.9	345.8	000.2595	0065.4	052.2	34.23
136.0	000.2221	0076.3	011.0	345.7	000.2595	0065.5	052.0	34.31
137.0	000.2277	0076.1	011.1	345.5	000.2595	0065.6	051.8	34.36
138.0	000.2333	0076.2	011.1	345.4	000.2595	0065.6	051.7	34.42
139.0	000.2390	0074.7	011.1	345.1	000.2595	0065.4	051.6	34.41
140.0	000.2448	0072.8	011.0	344.9	000.2595	0064.6	051.6	34.35
141.0	000.2576	0070.5	011.0	344.7	000.2595	0064.1	051.5	34.32
142.0	000.2707	0068.9	011.0	344.5	000.2595	0064.2	051.4	34.35
143.0	000.2841	0069.1	011.2	344.4	000.2595	0064.5	051.2	34.45
144.0	000.2978	0068.5	011.3	344.2	000.2595	0064.7	051.1	34.52
145.0	000.3119	0068.0	011.3	344.0	000.2595	0064.6	050.9	34.55
146.0	000.3263	0066.5	011.3	343.8	000.2595	0064.5	050.9	34.57
147.0	000.3410	0066.7	011.5	343.7	000.2595	0064.8	050.7	34.66
148.0	000.3560	0067.5	011.7	343.5	000.2595	0065.2	050.4	34.77
149.0	000.3714	0066.9	011.7	343.3	000.2595	0065.8	050.3	34.87
150.0	000.3871	0066.2	011.8	343.1	000.2595	0066.1	050.2	34.94
151.0	000.4119	0064.6	011.8	342.9	000.2595	0066.1	050.1	34.96
152.0	000.4374	0063.6	011.9	342.7	000.2595	0065.9	050.0	34.98
153.0	000.4637	0062.0	012.0	342.4	000.2595	0066.0	049.9	35.02
154.0	000.4908	0061.4	012.1	342.2	000.2595	0065.9	049.8	35.06
155.0	000.5186	0061.8	012.3	342.0	000.2595	0065.7	049.6	35.11
156.0	000.5472	0061.4	012.4	341.8	000.2595	0065.3	049.4	35.12
157.0	000.5766	0062.6	012.6	341.5	000.2595	0065.2	049.2	35.19
158.0	000.6067	0063.3	012.9	341.3	000.2595	0065.2	048.9	35.26
159.0	000.6377	0063.3	013.0	341.0	000.2595	0066.1	048.8	35.41
160.0	000.6693	0063.5	013.2	340.8	000.2595	0067.1	048.6	35.57
161.0	000.7030	0064.2	013.4	340.5	000.2595	0067.4	048.4	35.66
162.0	000.7375	0065.5	013.7	340.2	000.2595	0068.1	048.1	35.82
163.0	000.7729	0066.8	013.9	339.9	000.2595	0068.5	047.8	35.95
164.0	000.8090	0067.7	014.2	339.6	000.2595	0068.8	047.6	36.06
165.0	000.8460	0067.5	014.3	339.3	000.2595	0069.0	047.5	36.11
166.0	000.8838	0067.7	014.5	339.0	000.2595	0068.9	047.4	36.15
167.0	000.9225	0068.8	014.8	338.6	000.2595	0069.3	047.1	36.27
168.0	000.9619	0069.9	015.0	338.2	000.2595	0069.4	046.9	36.36
169.0	001.0022	0071.3	015.4	337.9	000.2595	0069.2	046.6	36.43
170.0	001.0433	0072.2	015.6	337.5	000.2595	0070.2	046.4	36.60
171.0	001.0955	0072.8	015.9	337.1	000.2595	0069.6	046.2	36.62
172.0	001.1490	0073.9	016.3	336.6	000.2595	0069.2	045.9	36.67
173.0	001.2037	0073.8	016.5	336.2	000.2595	0069.4	045.8	36.73
174.0	001.2597	0073.7	016.7	335.8	000.2595	0069.5	045.7	36.77
175.0	001.3170	0073.4	016.9	335.4	000.2595	0069.1	045.6	36.76
176.0	001.3755	0073.5	017.1	334.9	000.2595	0068.3	045.5	36.71
177.0	001.4353	0072.1	017.1	334.6	000.2595	0068.1	045.6	36.65
178.0	001.4964	0070.2	017.0	334.2	000.2595	0067.7	045.8	36.56
179.0	001.5588	0068.8	017.1	333.9	000.2595	0068.1	045.9	36.57
180.0	001.6224	0067.3	017.0	333.6	000.2595	0068.5	046.1	36.55
181.0	001.7033	0065.2	017.0	333.3	000.2595	0068.6	046.2	36.50
182.0	001.7861	0064.0	017.1	332.9	000.2595	0068.6	046.3	36.47

				Figure 2-5				
183.0	001.8709	0063.5	017.2	332.5	000.2595	0069.0	046.3	36.51
184.0	001.9576	0064.2	017.5	332.0	000.2595	0069.0	046.2	36.54
185.0	002.0463	0065.1	017.9	331.4	000.2595	0068.0	046.1	36.47
186.0	002.1370	0066.3	018.2	330.9	000.2595	0067.7	046.0	36.49
187.0	002.2297	0068.2	018.7	330.2	000.2595	0067.1	045.8	36.48
188.0	002.3243	0069.5	019.1	329.6	000.2595	0066.9	045.7	36.50
189.0	002.4209	0069.9	019.3	329.1	000.2595	0066.2	045.7	36.42
190.0	002.5194	0070.8	019.6	328.5	000.2595	0065.2	045.7	36.32
191.0	002.6454	0071.8	020.0	327.9	000.2595	0065.3	045.7	36.35
192.0	002.7744	0073.1	020.4	327.2	000.2595	0064.8	045.6	36.31
193.0	002.9065	0074.4	020.8	326.5	000.2595	0064.5	045.6	36.29
194.0	003.0417	0075.8	021.2	325.8	000.2595	0065.3	045.6	36.38
195.0	003.1799	0076.8	021.6	325.2	000.2595	0065.0	045.6	36.33
196.0	003.3212	0078.3	022.0	324.4	000.2595	0065.3	045.7	36.35
197.0	003.4656	0078.8	022.3	323.9	000.2595	0064.8	045.8	36.26
198.0	003.6131	0079.6	022.6	323.2	000.2595	0064.6	045.9	36.19
199.0	003.7636	0079.9	022.9	322.7	000.2595	0064.6	046.1	36.13
200.0	003.9172	0080.6	023.2	322.1	000.2595	0065.0	046.3	36.11
201.0	004.1056	0081.6	023.6	321.4	000.2595	0065.2	046.4	36.09
202.0	004.2984	0083.0	024.0	320.7	000.2595	0063.8	046.6	35.88
203.0	004.4956	0083.8	024.4	320.1	000.2595	0064.0	046.8	35.84
204.0	004.6972	0084.1	024.7	319.6	000.2595	0064.4	047.0	35.80
205.0	004.9033	0084.0	024.9	319.1	000.2595	0065.2	047.3	35.78

Figure 2-6
Minor Modification to WSPB

FMCommander Single Allocation Study - 08-19-2010 - NED 30 Meter
WSPB.c's Overlaps (In= 3.5 km, Out= 0.98 km)

WSPB.c CH 209 B1 DA
Lat= 42 27 12.9, Lng= 85 20 39.0
8.1 kW 71.3 M HAAT, 352 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WKDS CH 210 A BLED19830204AK
Lat= 42 14 36.0, Lng= 85 34 19.0
0.14 kW 38 M HAAT, 303 M COR
Prot.= 60 dBu, Intef.= 54 dBu

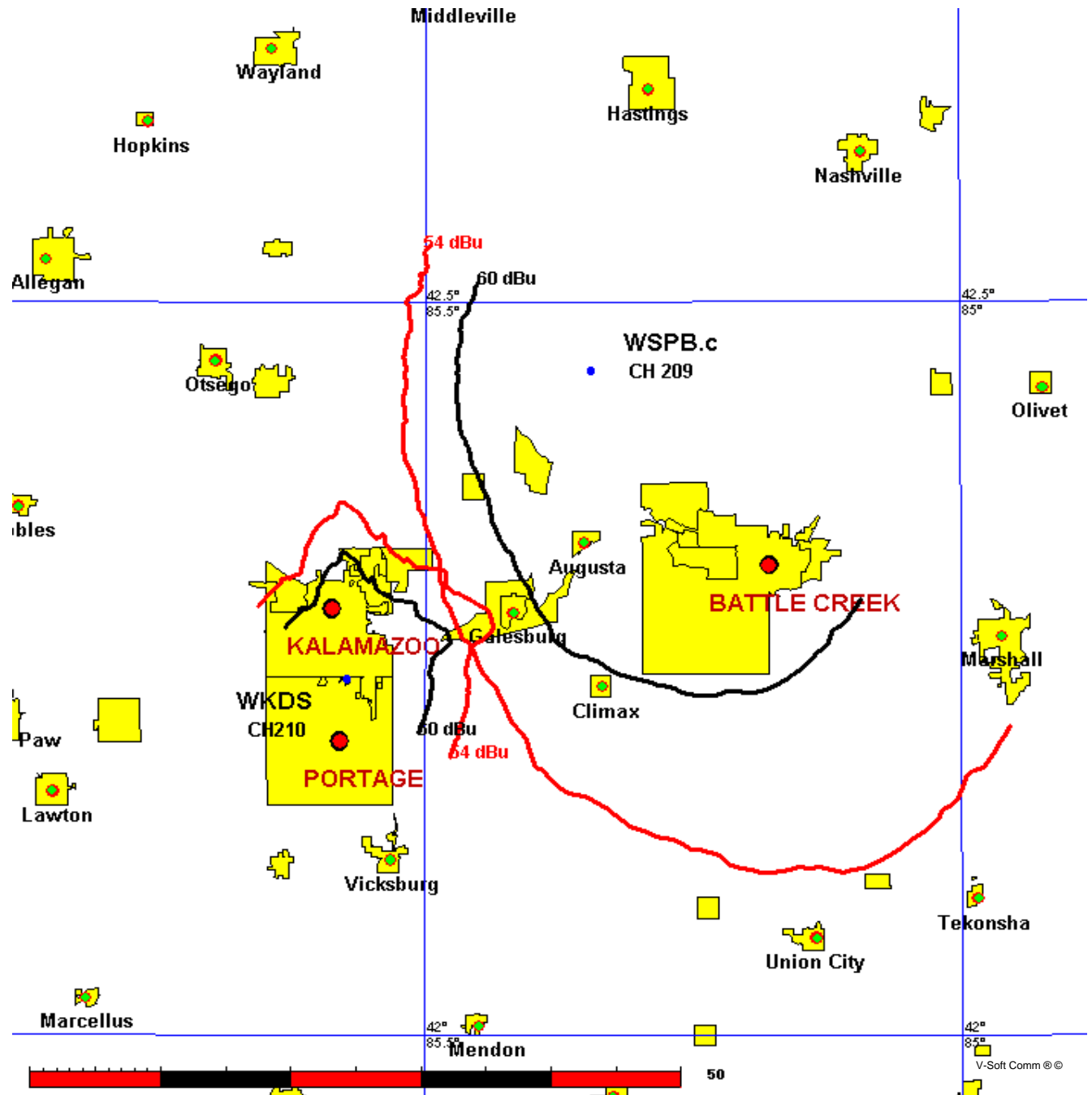


Figure 2-7

08-19-2010 NED 30 Meter Terrain Data FMOver Analysis

WSPB. c
Channel = 209B1
Max ERP = 8.1 kW
RCAMSL = 352 M
N. Lat. 42 27 12.9
W. Lng. 85 20 39.0
Protected
60 dBu

WKDS BLED19830204AK
Channel = 210A
Max ERP = 0.14 kW
RCAMSL = 303 M
N. Lat. 42 14 36.0
W. Lng. 85 34 19.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
174.0	003.4223	0086.5	023.3	089.3	000.1400	0033.6	021.2	40.23	
175.0	003.2713	0087.2	023.1	089.0	000.1400	0033.3	020.8	40.48	
176.0	003.1237	0086.9	022.8	088.3	000.1400	0033.0	020.4	40.74	
177.0	002.9795	0086.7	022.6	087.5	000.1400	0032.8	020.0	41.00	
178.0	002.8388	0086.3	022.3	086.7	000.1400	0032.6	019.6	41.26	
179.0	002.7014	0086.5	022.0	086.0	000.1400	0032.7	019.2	41.60	
180.0	002.5674	0087.5	021.9	085.4	000.1400	0032.8	018.9	41.93	
181.0	002.4636	0088.1	021.8	084.9	000.1400	0032.9	018.5	42.27	
182.0	002.3620	0089.4	021.7	084.6	000.1400	0033.1	018.1	42.63	
183.0	002.2624	0090.8	021.7	084.3	000.1400	0033.4	017.7	43.01	
184.0	002.1650	0091.4	021.5	083.6	000.1400	0033.8	017.4	43.38	
185.0	002.0698	0091.7	021.3	082.7	000.1400	0033.9	017.1	43.68	
186.0	001.9767	0091.9	021.1	081.7	000.1400	0034.3	016.8	44.06	
187.0	001.8857	0091.1	020.8	080.3	000.1400	0035.7	016.5	44.64	
188.0	001.7969	0092.3	020.7	079.6	000.1400	0036.4	016.2	45.07	
189.0	001.7102	0089.9	020.1	077.3	000.1400	0037.1	016.0	45.38	
190.0	001.6257	0086.0	019.4	074.5	000.1400	0043.2	016.0	46.81	
191.0	001.5596	0084.7	019.1	072.8	000.1400	0051.1	015.9	48.54	
192.0	001.4949	0084.6	018.8	071.6	000.1400	0054.2	015.7	49.24	
193.0	001.4316	0084.4	018.6	070.2	000.1400	0055.6	015.5	49.60	
194.0	001.3696	0082.3	018.1	068.1	000.1400	0055.9	015.5	49.66	
195.0	001.3090	0081.2	017.8	066.4	000.1400	0056.2	015.5	49.75	
196.0	001.2498	0079.4	017.4	064.4	000.1400	0056.4	015.5	49.74	
197.0	001.1919	0078.4	017.0	062.7	000.1400	0053.6	015.5	49.26	
198.0	001.1354	0079.1	016.9	061.5	000.1400	0052.6	015.4	49.19	
199.0	001.0803	0079.3	016.7	060.2	000.1400	0051.0	015.4	48.95	
200.0	001.0266	0079.2	016.4	058.8	000.1400	0050.5	015.4	48.84	
201.0	000.9849	0078.6	016.1	057.4	000.1400	0049.5	015.4	48.63	
202.0	000.9441	0077.4	015.8	055.8	000.1400	0047.4	015.5	48.11	
203.0	000.9041	0076.0	015.5	054.3	000.1400	0045.9	015.7	47.66	
204.0	000.8651	0075.3	015.2	052.9	000.1400	0044.6	015.8	47.33	
205.0	000.8269	0076.5	015.1	052.0	000.1400	0043.6	015.7	47.17	
206.0	000.7895	0078.2	015.1	051.1	000.1400	0042.5	015.6	47.03	
207.0	000.7530	0076.8	014.8	049.8	000.1400	0042.8	015.8	46.92	
208.0	000.7174	0077.5	014.7	048.7	000.1400	0041.8	015.8	46.68	
209.0	000.6826	0077.3	014.5	047.6	000.1400	0042.2	015.9	46.68	
210.0	000.6487	0077.0	014.3	046.5	000.1400	0043.6	016.0	46.89	
211.0	000.6224	0076.3	014.1	045.5	000.1400	0044.6	016.1	46.99	
212.0	000.5966	0077.2	014.0	044.6	000.1400	0045.5	016.1	47.18	
213.0	000.5714	0077.4	013.9	043.6	000.1400	0048.0	016.2	47.62	
214.0	000.5467	0077.1	013.7	042.7	000.1400	0048.5	016.4	47.61	
215.0	000.5226	0075.2	013.4	041.7	000.1400	0047.7	016.6	47.21	
216.0	000.4990	0075.2	013.3	040.9	000.1400	0047.2	016.7	47.01	
217.0	000.4759	0074.2	013.0	040.0	000.1400	0046.3	017.0	46.64	
218.0	000.4534	0073.2	012.8	039.3	000.1400	0045.2	017.2	46.23	
219.0	000.4315	0072.4	012.6	038.5	000.1400	0044.0	017.4	45.78	
220.0	000.4101	0072.7	012.5	037.8	000.1400	0043.5	017.5	45.57	
221.0	000.4010	0072.7	012.4	037.1	000.1400	0042.8	017.6	45.36	

				Figure 2-7							
222.0	000.3920	0073.1	012.4	036.4	000.1400	0043.1	017.6	45.36			
223.0	000.3832	0072.1	012.2	035.8	000.1400	0042.6	017.8	45.13			
224.0	000.3744	0071.9	012.1	035.1	000.1400	0042.2	017.9	44.93			
225.0	000.3658	0071.7	012.0	034.5	000.1400	0041.5	018.0	44.69			
226.0	000.3572	0071.7	012.0	033.9	000.1400	0040.8	018.1	44.43			
227.0	000.3488	0071.8	011.9	033.3	000.1400	0040.2	018.2	44.21			
228.0	000.3404	0071.1	011.8	032.8	000.1400	0039.7	018.4	43.97			
229.0	000.3322	0070.9	011.7	032.2	000.1400	0039.4	018.5	43.78			
230.0	000.3240	0071.1	011.7	031.7	000.1400	0039.1	018.7	43.61			
231.0	000.3172	0071.7	011.7	031.1	000.1400	0039.3	018.7	43.60			
232.0	000.3105	0072.2	011.6	030.6	000.1400	0039.8	018.8	43.64			
233.0	000.3039	0071.7	011.5	030.1	000.1400	0040.0	019.0	43.55			
234.0	000.2974	0071.6	011.5	029.6	000.1400	0039.9	019.1	43.41			
235.0	000.2909	0070.8	011.4	029.2	000.1400	0040.2	019.3	43.32			
236.0	000.2845	0070.3	011.3	028.8	000.1400	0040.1	019.5	43.14			
237.0	000.2781	0070.3	011.2	028.4	000.1400	0039.9	019.6	43.00			
238.0	000.2719	0070.4	011.1	028.0	000.1400	0040.5	019.8	43.01			
239.0	000.2657	0070.7	011.1	027.6	000.1400	0040.4	019.9	42.89			
240.0	000.2595	0071.4	011.1	027.1	000.1400	0040.7	020.0	42.85			
241.0	000.2595	0071.1	011.1	026.7	000.1400	0040.2	020.2	42.63			
242.0	000.2595	0071.3	011.1	026.2	000.1400	0039.1	020.3	42.30			
243.0	000.2595	0071.5	011.1	025.8	000.1400	0038.8	020.4	42.15			
244.0	000.2595	0071.5	011.1	025.3	000.1400	0039.2	020.5	42.16			
245.0	000.2595	0070.7	011.0	025.0	000.1400	0039.6	020.6	42.11			
246.0	000.2595	0070.5	011.0	024.6	000.1400	0040.2	020.8	42.13			
247.0	000.2595	0070.2	011.0	024.3	000.1400	0040.4	020.9	42.08			
248.0	000.2595	0069.5	011.0	024.0	000.1400	0040.4	021.1	41.92			
249.0	000.2595	0068.4	010.9	023.8	000.1400	0040.4	021.3	41.78			
250.0	000.2595	0067.9	010.8	023.5	000.1400	0040.7	021.4	41.72			
251.0	000.2595	0067.5	010.8	023.2	000.1400	0040.9	021.6	41.65			
252.0	000.2595	0066.7	010.8	023.0	000.1400	0040.6	021.8	41.44			
253.0	000.2595	0066.0	010.7	022.8	000.1400	0040.2	022.0	41.22			
254.0	000.2595	0065.0	010.6	022.6	000.1400	0040.0	022.1	41.03			
255.0	000.2595	0064.7	010.6	022.4	000.1400	0039.9	022.3	40.88			
256.0	000.2595	0064.2	010.6	022.1	000.1400	0039.9	022.5	40.76			
257.0	000.2595	0064.2	010.6	021.9	000.1400	0039.9	022.6	40.65			
258.0	000.2595	0063.9	010.6	021.7	000.1400	0040.2	022.8	40.58			
259.0	000.2595	0063.4	010.5	021.5	000.1400	0040.5	023.0	40.53			
260.0	000.2595	0063.4	010.5	021.2	000.1400	0040.9	023.1	40.49			
261.0	000.2595	0063.0	010.5	021.1	000.1400	0040.8	023.3	40.35			
262.0	000.2595	0063.0	010.5	020.8	000.1400	0040.8	023.4	40.23			
263.0	000.2595	0062.1	010.4	020.8	000.1400	0040.7	023.6	40.07			

08-19-2010 NED 30 Meter Terrain Data

WKDS BLED19830204AK
Channel = 210A
Max ERP = 0.14 kW
RCAMSL = 303 M
N. Lat. 42 14 36.0
W. Lng. 85 34 19.0
Protected
60 dBu

WSPB.c
Channel = 209B1
Max ERP = 8.1 kW
RCAMSL = 352 M
N. Lat. 42 27 12.9
W. Lng. 85 20 39.0
Interfering
54 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
354.0	000.1400	0059.5	008.7	233.2	000.3023	0072.0	024.5	47.71	
355.0	000.1400	0059.9	008.8	233.1	000.3031	0071.9	024.4	47.81	
356.0	000.1400	0062.6	008.9	233.3	000.3019	0072.0	024.2	47.98	

				Figure 2-7							
357.0	000.1400	0069.8	009.4	234.1	000.2970	0071.6	023.8	48.15			
358.0	000.1400	0072.5	009.6	234.2	000.2962	0071.4	023.5	48.29			
359.0	000.1400	0072.1	009.6	233.9	000.2979	0071.8	023.4	48.46			
000.0	000.1400	0071.2	009.5	233.6	000.3003	0072.1	023.3	48.60			
001.0	000.1400	0068.6	009.3	233.0	000.3041	0071.7	023.3	48.63			
002.0	000.1400	0066.6	009.2	232.5	000.3074	0071.8	023.2	48.72			
003.0	000.1400	0064.8	009.1	232.0	000.3106	0072.2	023.2	48.85			
004.0	000.1400	0062.9	009.0	231.5	000.3139	0071.8	023.2	48.87			
005.0	000.1400	0060.9	008.8	231.0	000.3173	0071.7	023.1	48.92			
006.0	000.1400	0057.1	008.5	230.2	000.3225	0071.2	023.2	48.86			
007.0	000.1400	0054.4	008.3	229.6	000.3275	0070.9	023.3	48.84			
008.0	000.1400	0051.8	008.1	228.9	000.3327	0070.9	023.4	48.85			
009.0	000.1400	0049.7	007.9	228.4	000.3374	0070.9	023.4	48.88			
010.0	000.1400	0048.1	007.7	227.9	000.3414	0071.3	023.5	48.94			
011.0	000.1400	0046.6	007.6	227.4	000.3453	0071.7	023.5	49.02			
012.0	000.1400	0046.7	007.6	227.2	000.3474	0071.8	023.4	49.13			
013.0	000.1400	0047.4	007.7	227.0	000.3489	0071.8	023.3	49.24			
014.0	000.1400	0050.2	007.9	227.1	000.3483	0071.8	023.0	49.46			
015.0	000.1400	0049.2	007.8	226.6	000.3518	0071.9	023.0	49.50			
016.0	000.1400	0045.2	007.5	225.9	000.3582	0071.7	023.2	49.36			
017.0	000.1400	0043.6	007.3	225.4	000.3620	0071.7	023.3	49.37			
018.0	000.1400	0042.2	007.2	225.0	000.3656	0071.7	023.4	49.37			
019.0	000.1400	0041.1	007.1	224.6	000.3689	0071.7	023.4	49.38			
020.0	000.1400	0040.7	007.1	224.3	000.3716	0071.8	023.4	49.45			
021.0	000.1400	0040.8	007.1	224.1	000.3739	0071.9	023.3	49.53			
022.0	000.1400	0039.9	007.0	223.7	000.3771	0071.8	023.3	49.53			
023.0	000.1400	0040.6	007.1	223.5	000.3790	0071.9	023.2	49.65			
024.0	000.1400	0040.3	007.0	223.2	000.3817	0072.1	023.2	49.72			
025.0	000.1400	0039.6	007.0	222.8	000.3847	0072.2	023.2	49.74			
026.0	000.1400	0038.8	006.9	222.5	000.3876	0072.5	023.3	49.79			
027.0	000.1400	0040.7	007.1	222.3	000.3892	0072.8	023.1	49.98			
028.0	000.1400	0040.5	007.1	222.0	000.3919	0073.0	023.1	50.06			
029.0	000.1400	0040.2	007.0	221.7	000.3947	0073.0	023.1	50.09			
030.0	000.1400	0040.0	007.0	221.4	000.3975	0073.0	023.1	50.13			
031.0	000.1400	0039.5	007.0	221.1	000.4004	0072.8	023.1	50.11			
032.0	000.1400	0039.2	006.9	220.8	000.4031	0072.5	023.1	50.10			
033.0	000.1400	0039.9	007.0	220.5	000.4056	0072.3	023.0	50.17			
034.0	000.1400	0040.9	007.1	220.2	000.4082	0072.5	022.9	50.29			
035.0	000.1400	0042.0	007.2	219.9	000.4117	0072.7	022.8	50.44			
036.0	000.1400	0042.9	007.3	219.6	000.4181	0072.3	022.7	50.53			
037.0	000.1400	0042.8	007.3	219.3	000.4250	0072.3	022.7	50.60			
038.0	000.1400	0043.5	007.3	219.0	000.4319	0072.4	022.6	50.73			
039.0	000.1400	0044.9	007.4	218.7	000.4390	0072.7	022.5	50.93			
040.0	000.1400	0046.3	007.6	218.3	000.4465	0072.9	022.4	51.13			
041.0	000.1400	0047.4	007.7	218.0	000.4543	0073.2	022.3	51.32			
042.0	000.1400	0048.0	007.7	217.6	000.4622	0073.6	022.2	51.48			
043.0	000.1400	0048.0	007.7	217.3	000.4700	0073.9	022.2	51.58			
044.0	000.1400	0046.3	007.6	217.0	000.4767	0074.2	022.4	51.53			
045.0	000.1400	0045.1	007.5	216.7	000.4834	0075.0	022.6	51.58			
046.0	000.1400	0044.1	007.4	216.4	000.4901	0075.3	022.7	51.60			
047.0	000.1400	0042.9	007.3	216.1	000.4964	0075.3	022.8	51.56			
048.0	000.1400	0042.3	007.2	215.8	000.5030	0075.2	022.9	51.55			
049.0	000.1400	0041.9	007.2	215.5	000.5097	0075.4	022.9	51.58			
050.0	000.1400	0043.0	007.3	215.2	000.5184	0075.2	022.9	51.68			
051.0	000.1400	0042.6	007.2	214.9	000.5251	0075.4	022.9	51.71			
052.0	000.1400	0043.6	007.3	214.5	000.5340	0076.0	022.9	51.89			
053.0	000.1400	0044.6	007.4	214.1	000.5432	0076.8	022.8	52.10			
054.0	000.1400	0045.7	007.5	213.8	000.5526	0077.5	022.8	52.28			
055.0	000.1400	0046.6	007.6	213.4	000.5622	0077.1	022.8	52.33			
056.0	000.1400	0047.6	007.7	213.0	000.5722	0077.5	022.7	52.48			
057.0	000.1400	0048.8	007.8	212.5	000.5829	0077.6	022.7	52.62			
058.0	000.1400	0049.8	007.9	212.1	000.5931	0077.4	022.6	52.68			
059.0	000.1400	0050.6	008.0	211.7	000.6033	0076.8	022.6	52.69			
060.0	000.1400	0051.0	008.0	211.4	000.6123	0076.5	022.7	52.69			

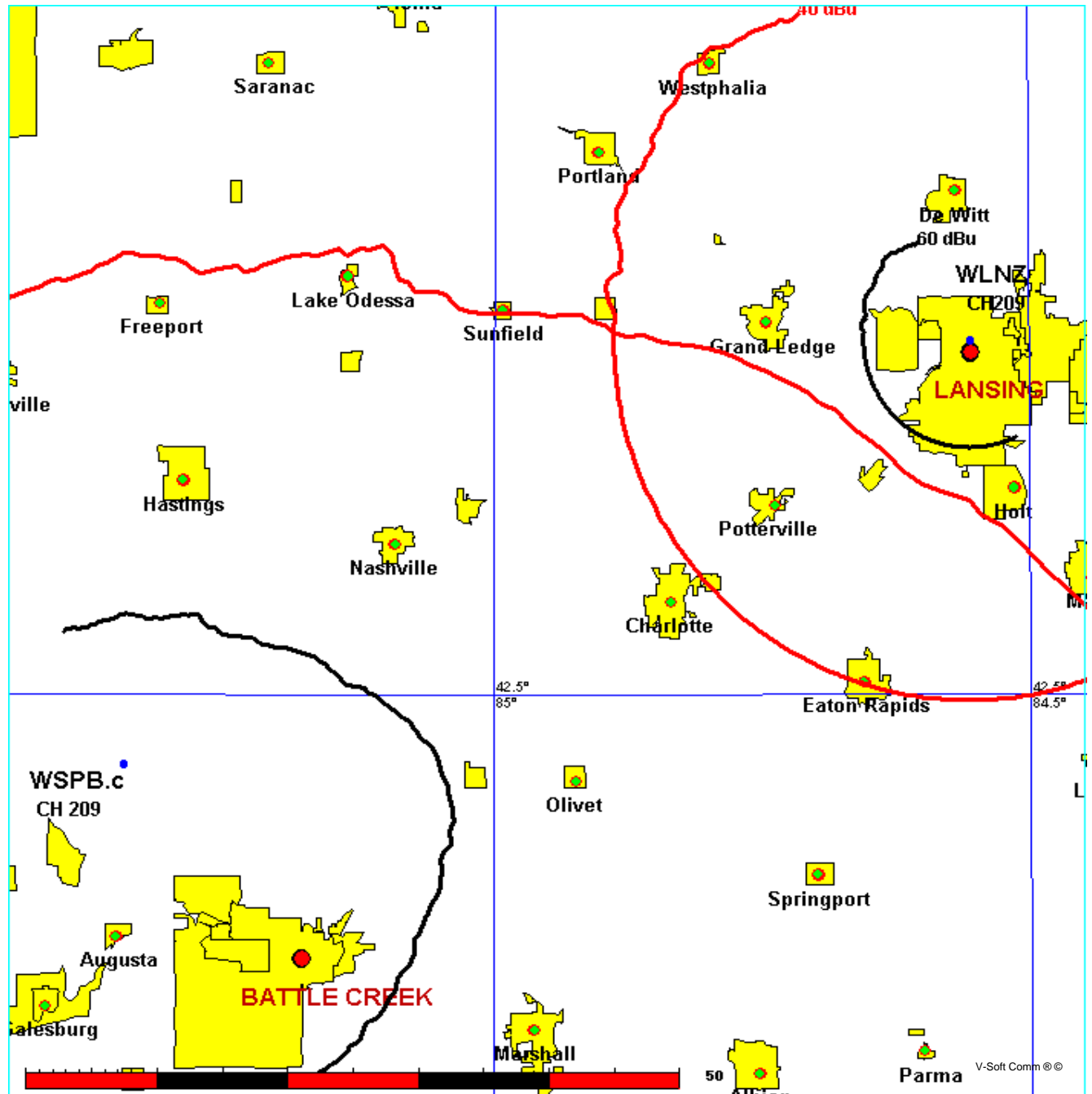
				Figure 2-7				
061.0	000.1400	0051.9	008.1	211.0	000.6232	0076.3	022.7	52.75
062.0	000.1400	0053.1	008.2	210.5	000.6349	0076.6	022.6	52.88
063.0	000.1400	0054.3	008.3	210.1	000.6469	0077.0	022.6	53.02
064.0	000.1400	0056.0	008.5	209.6	000.6635	0077.4	022.6	53.20
065.0	000.1400	0056.6	008.5	209.2	000.6762	0077.4	022.6	53.24
066.0	000.1400	0056.4	008.5	208.9	000.6860	0077.3	022.7	53.23
067.0	000.1400	0056.0	008.5	208.7	000.6944	0077.2	022.9	53.19
068.0	000.1400	0056.0	008.5	208.4	000.7039	0077.3	023.0	53.17
069.0	000.1400	0055.8	008.4	208.1	000.7128	0077.4	023.1	53.16
070.0	000.1400	0055.6	008.4	207.9	000.7218	0077.5	023.2	53.15
071.0	000.1400	0055.0	008.4	207.7	000.7281	0077.6	023.3	53.10
072.0	000.1400	0053.3	008.2	207.7	000.7278	0077.6	023.5	52.94
073.0	000.1400	0050.7	008.0	207.9	000.7220	0077.5	023.8	52.70
074.0	000.1400	0046.5	007.6	208.3	000.7071	0077.3	024.2	52.31
075.0	000.1400	0041.0	007.1	208.9	000.6856	0077.3	024.6	51.86
076.0	000.1400	0039.0	006.9	209.0	000.6819	0077.3	024.8	51.69
077.0	000.1400	0036.8	006.7	209.2	000.6770	0077.3	025.0	51.50
078.0	000.1400	0037.0	006.8	209.0	000.6843	0077.3	025.1	51.49
079.0	000.1400	0036.5	006.7	208.9	000.6877	0077.3	025.2	51.43
080.0	000.1400	0036.0	006.7	208.8	000.6903	0077.3	025.3	51.36
081.0	000.1400	0035.3	006.6	208.7	000.6922	0077.2	025.5	51.28
082.0	000.1400	0034.1	006.5	208.8	000.6908	0077.3	025.6	51.16
083.0	000.1400	0033.8	006.5	208.7	000.6946	0077.2	025.7	51.11

Figure 2-8
Minor Modification to WSPB

FMCommander Single Allocation Study - 08-19-2010 - NED 30 Meter
WSPB.c's Overlaps (In= 24.05 km, Out= 2.93 km)

WSPB.c CH 209 B1 DA
Lat= 42 27 12.9, Lng= 85 20 39.0
8.1 kW 71.3 M HAAT, 352 M COR
Prot.= 60 dBu, Intef.= 40 dBu

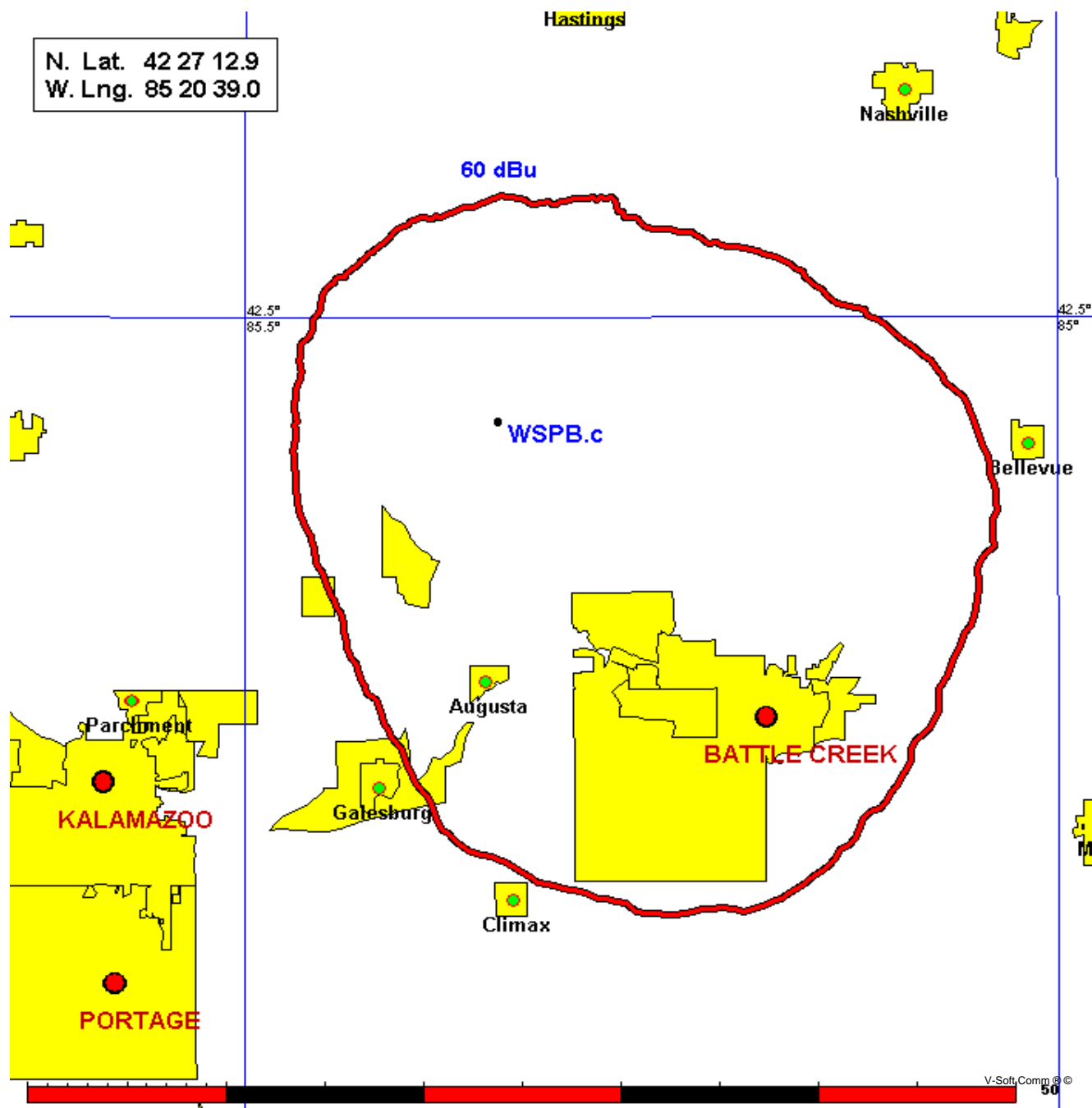
WLNZ CH 209 A BLED20001006AAA
Lat= 42 44 15.0, Lng= 84 33 12.0
0.42 kW 30 M HAAT, 289 M COR
Prot.= 60 dBu, Intef.= 40 dBu



Community Coverage
Minor Modification of WSPB

Coverage Study - NED 30 Meter
08-19-2010

WSPB-c CH209 B1, 8.1 kW, 71.3M HAAT, 352.0M COR AMSL
Service Contour = 60 dBu. Population = 108,318



WSPB. c

Figure 4

RMS(V) = .543

Graph i s Relative Field

Azi	Field	dBk	kW
000	0.179	-05.858	0.260
010	0.179	-05.858	0.260
020	0.200	-04.895	0.324
030	0.225	-03.871	0.410
040	0.283	-01.879	0.649
050	0.356	00.114	1.027
060	0.448	02.110	1.626
070	0.563	04.095	2.567
080	0.708	06.086	4.060
090	0.890	08.073	6.416
100	1.000	09.085	8.100
110	1.000	09.085	8.100
120	1.000	09.085	8.100
130	1.000	09.085	8.100
140	1.000	09.085	8.100
150	1.000	09.085	8.100
160	0.880	07.975	6.273
170	0.708	06.086	4.060
180	0.563	04.095	2.567
190	0.448	02.110	1.626
200	0.356	00.114	1.027
210	0.283	-01.879	0.649
220	0.225	-03.871	0.410
230	0.200	-04.895	0.324
240	0.179	-05.858	0.260
250	0.179	-05.858	0.260
260	0.179	-05.858	0.260
270	0.179	-05.858	0.260
280	0.179	-05.858	0.260
290	0.179	-05.858	0.260
300	0.179	-05.858	0.260
310	0.179	-05.858	0.260
320	0.179	-05.858	0.260
330	0.179	-05.858	0.260
340	0.179	-05.858	0.260
350	0.179	-05.858	0.260

