

# Exhibit 16.1

## Tabulation of Proposed NCE-FM Allocation

Tabulations of contours will be supplied upon request.  
Michiana Christian Broadcasters, Inc.

REFERENCE CH# 211B1- 90.1 MHz, Pwr= 25 kW, HAAT= 84.5 M, COR= 365 M  
42 10 47.0 N. Average Protected F(50-50)= 36.3 km  
85 09 10.0 W.

CH CITY	CALL	TYPE ANT STATE	AZI. --	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT (M)	INT(km) COR (M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
06-2C WLNSTV Lansing		LI HN MI	48.1 228.7	85.30 BLCT20020103AAA 2	42 41 19.0 84 22 35.0	100.000 305	25.5 577	104.0 Young Broadcasting Of Lans	195.5R	-44.2M
209A WOCR Olivet		LIC CN MI	32.6 212.8	34.66 BLED19890525KD	42 26 31.0 84 55 30.0	0.125 23	0.8 303	6.0 Board Of Trustees/olivet C	0.76	25.35
210B1 1205647 Butler		APP DCX IN	163.6 343.8	71.71 BNPED20071015AGN	41 33 37.0 84 54 33.0	7.000 66	19.4 356	13.1 Harvest Christian Fellowsh	15.55	1.00
210A WKDS Kalamazoo		LIC CN MI	281.7 101.4	35.33 BLED19830204AK	42 14 36.0 85 34 19.0	0.140 38	10.0 303	7.0 Kalamazoo Public Schools	6.94	1.36
SPECIAL NEGOTIATED SHORT-SPACED ALLOTMENT										
210A 1213030 Edon		APP DCX OH	153.4 333.7	66.91 BNPED20071022AXX	41 38 27.0 84 47 32.0	3.500 80	11.0 372	7.7 Club 1915, Inc.	19.66	2.19
209A 1227502 Bedford		APP DVX MI	332.7 152.6	34.27 BNPED20071022AXL	42 27 12.9 85 20 39.0	0.750 71	1.6 352	15.8 Holy Family Oratory Of St.	3.63	15.62
212B WBCL Fort Wayne		LIC CX IN	181.7 1.7	119.57 BLED20040528AHQ	41 06 13.0 85 11 46.0	26.000 211	76.1 457	51.5 Taylor University Broadcas	6.85	10.58
213B WKAR-FM East Lansing		LIC EY MI	46.0 226.5	84.03 BLED19861204KC	42 42 08.0 84 24 51.0	87.000 273	9.3 541	68.7 Michigan State University	39.85	11.77
Grandfathered at 87. kw @ 273 M										
211A WXPZ Clyde Township		CP DCX MI	296.7 116.0	96.86 BNPED19991029AAF	42 33 57.0 86 12 26.0	1.500 74	57.2 261	16.1 Larlen Communications Inc.	19.81	13.86
7/6/2005: Accepted on Ch 211A by Canada in 6/22/05 letter, not short-spaced.										
208B1 WOFR Schoolcraft		LIC DCX MI	259.2 78.8	40.39 BLED20021230AAW	42 06 38.0 85 37 57.0	10.000 42	2.3 305	22.7 Family Stations, Inc.	17.74	15.80
209A WHWE Howe		LIC CN IN	204.1 23.9	55.26 BLED19921208KA	41 43 32.0 85 25 30.0	0.100 17	0.7 287	5.6 Howe Military School	17.30	45.79
210A WYBV Wakarusa		LIC CX IN	215.1 34.7	97.06 BLED20060531AIM	41 27 50.0 85 49 22.0	1.750 100	30.8 357	20.9 Bible Broadcasting Network	31.60	22.32
209A NEW Lake Odessa		CP VX MI	2.2 182.2	62.62 BNPED19990928AAV	42 44 35.0 85 07 25.0	0.400 40	1.4 300	9.7 Great Lakes Community Broa	24.90	49.22
7/6/2005: Accepted on Ch 209A by Canada in 6/22/05 letter, not short-spaced.										

Terrain database is NGDC 30 SEC Distance + R = 73.215 or FCC spacings in KM, Distance + M = Margin in KM  
Contour distances are on direct line to and from reference station. Reference Zone = 1. With 3rd Adj Channels.  
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.

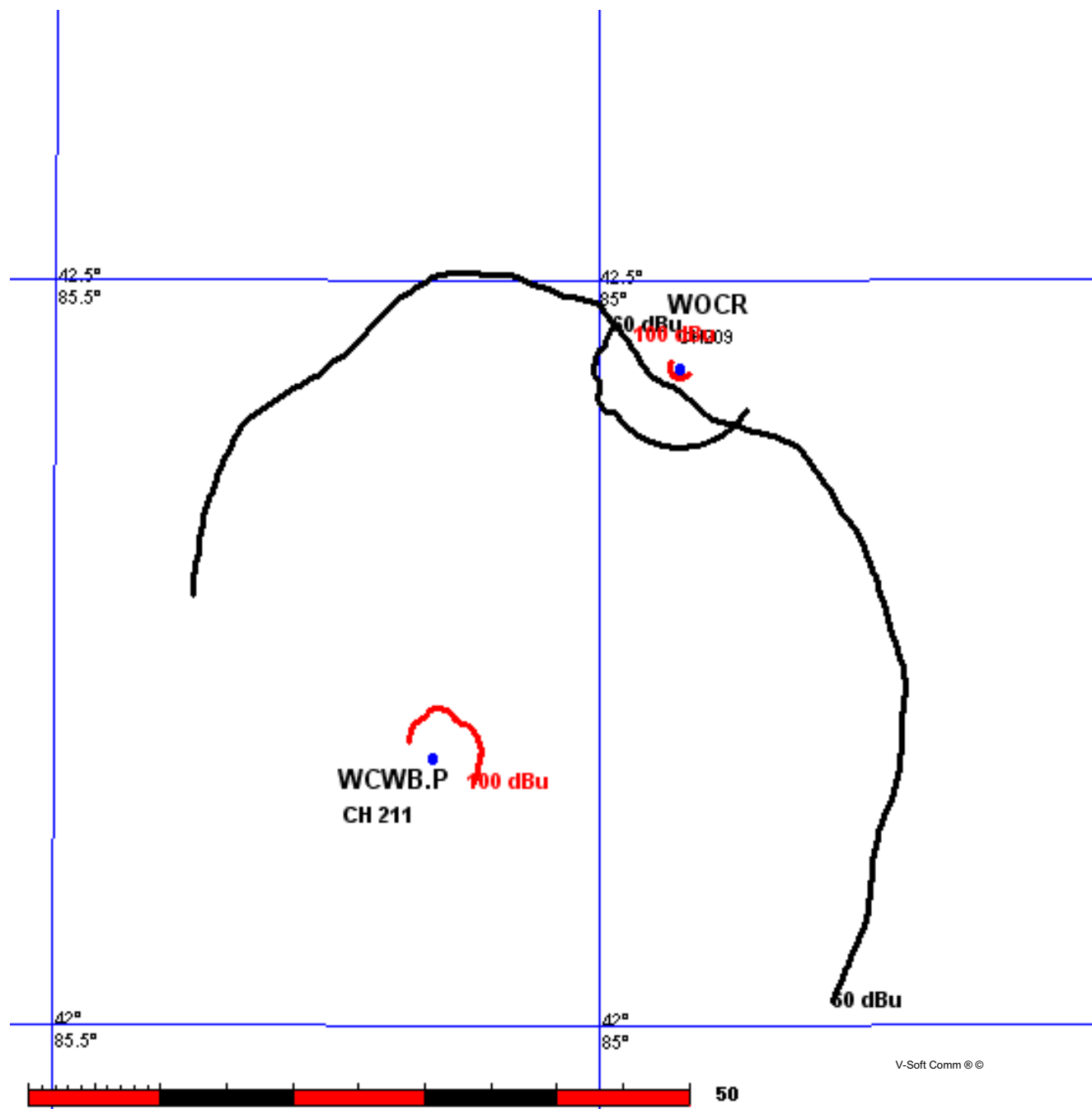
Denotes Select Contour Protection Studies included as **Exhibit(s) 16.2 to 16.6.**

## Exhibit 16.2 - Contour Protection Studies Toward WOCR(FM)

FMCommander Single Allocation Study  
04-24-2008

WCWB.P CH 211 B1  
25.0 kW 365 M COR DA  
Prot. = 60 dBu  
Intef. = 100 dBu

WOCR CH 209 A BLED19890525KD  
0.125 kW, 303 M COR  
Prot. = 60 dBu  
Intef. = 100 dBu



**Munn-Reese, Inc.**

Broadcast Engineering Consultants  
Coldwater, MI 49036

04-24-2008

NGDC 30 SEC Terrain Data

FMOver Analysis

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

Protected

60 dBu

WOOR

BLED19890525KD

Channel = 209A

Max ERP = 0.125 kW

RCAMSL = 303 M

N. Lat. 42 26 31.0

W. Lng. 84 55 30.0

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
348.0	011.6759	0088.3	031.0	272.8	000.1250	0036.0	025.2	37.39
349.0	011.8061	0089.3	031.3	273.7	000.1250	0035.6	024.8	37.62
350.0	011.9370	0090.6	031.6	274.7	000.1250	0035.7	024.3	37.96
351.0	012.5635	0091.4	032.2	276.3	000.1250	0035.8	023.9	38.27
352.0	013.2060	0092.2	032.7	277.9	000.1250	0035.2	023.5	38.42
353.0	013.8645	0092.9	033.2	279.5	000.1250	0034.7	023.1	38.60
354.0	014.5390	0093.6	033.7	281.1	000.1250	0033.9	022.7	38.72
355.0	015.2295	0094.2	034.2	282.7	000.1250	0032.1	022.3	38.60
356.0	015.9361	0094.3	034.5	284.1	000.1250	0030.7	021.8	38.61
357.0	016.6586	0094.3	034.9	285.5	000.1250	0030.2	021.3	38.85
358.0	017.3972	0094.2	035.2	286.9	000.1250	0029.8	020.8	39.15
359.0	018.1519	0094.3	035.6	288.4	000.1250	0029.0	020.4	39.52
000.0	018.9225	0094.5	035.9	289.9	000.1250	0028.7	019.9	39.90
001.0	019.4922	0094.6	036.2	291.2	000.1250	0028.7	019.4	40.30
002.0	020.0704	0093.9	036.3	292.2	000.1250	0028.5	018.8	40.75
003.0	020.6570	0093.0	036.4	293.0	000.1250	0028.2	018.3	41.23
004.0	021.2521	0091.9	036.4	293.8	000.1250	0027.8	017.7	41.71
005.0	021.8556	0090.6	036.4	294.5	000.1250	0027.4	017.1	42.22
006.0	022.4676	0089.1	036.3	295.0	000.1250	0027.1	016.5	42.74
007.0	023.0880	0088.3	036.4	296.0	000.1250	0026.5	015.9	43.23
008.0	023.7169	0087.9	036.5	297.2	000.1250	0025.5	015.3	43.72
009.0	024.3542	0087.1	036.6	298.2	000.1250	0024.7	014.7	44.29
010.0	025.0000	0086.1	036.6	299.0	000.1250	0024.1	014.1	45.01
011.0	025.0000	0084.8	036.4	298.9	000.1250	0024.2	013.4	45.89
012.0	025.0000	0084.3	036.2	299.3	000.1250	0024.0	012.8	46.77
013.0	025.0000	0084.0	036.2	300.0	000.1250	0023.7	012.2	47.68
014.0	025.0000	0083.7	036.1	300.5	000.1250	0023.6	011.6	48.64
015.0	025.0000	0083.1	036.0	300.9	000.1250	0023.5	010.9	49.67
016.0	025.0000	0083.0	036.0	301.6	000.1250	0023.3	010.3	50.70
017.0	025.0000	0083.2	036.0	302.9	000.1250	0023.1	009.7	51.74
018.0	025.0000	0083.6	036.1	304.3	000.1250	0022.8	009.1	52.80
019.0	025.0000	0083.8	036.2	305.8	000.1250	0022.4	008.5	53.90
020.0	025.0000	0084.0	036.2	307.3	000.1250	0021.8	007.9	55.05
021.0	024.0100	0084.1	035.9	306.4	000.1250	0022.1	007.3	56.57
022.0	023.0400	0084.0	035.6	305.0	000.1250	0022.7	006.6	58.30
023.0	022.0900	0084.0	035.2	303.1	000.1250	0023.1	005.9	60.16
024.0	021.1600	0084.2	034.9	300.8	000.1250	0023.5	005.2	62.18

## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
025.0	020.2500	0084.4	034.6	297.9	000.1250	0024.9	004.6	64.25
026.0	019.3600	0084.6	034.3	293.8	000.1250	0027.8	004.0	66.66
027.0	018.4900	0084.8	034.0	287.8	000.1250	0029.3	003.5	69.30
028.0	017.6400	0084.9	033.6	279.0	000.1250	0034.8	003.0	73.19
029.0	016.8100	0085.0	033.3	267.3	000.1250	0037.1	002.6	76.34
030.0	016.0000	0085.3	032.9	252.8	000.1250	0035.9	002.4	77.84
031.0	016.0000	0085.6	033.0	241.5	000.1250	0037.3	002.0	81.53
032.0	016.0000	0086.0	033.1	225.5	000.1250	0023.6	001.7	82.17
033.0	016.0000	0086.4	033.1	205.1	000.1250	0020.1	001.6	83.24
034.0	016.0000	0086.7	033.2	185.2	000.1250	0017.9	001.7	82.03
035.0	016.0000	0086.7	033.2	171.2	000.1250	0019.2	002.1	78.85
036.0	016.0000	0086.4	033.1	162.6	000.1250	0018.1	002.5	75.04
037.0	016.0000	0086.2	033.1	156.9	000.1250	0016.4	003.0	71.59
038.0	016.0000	0086.0	033.1	152.7	000.1250	0015.5	003.6	68.80
039.0	016.0000	0085.9	033.0	149.8	000.1250	0015.2	004.1	66.29
040.0	016.0000	0085.7	033.0	147.9	000.1250	0014.8	004.7	64.11
041.0	016.8100	0085.4	033.3	142.4	000.1250	0016.3	005.1	62.53
042.0	017.6400	0085.0	033.6	138.3	000.1250	0016.9	005.7	60.85
043.0	018.4900	0084.5	033.9	135.2	000.1250	0017.0	006.2	59.18
044.0	019.3600	0084.1	034.2	132.6	000.1250	0016.7	006.8	57.62
045.0	020.2500	0084.0	034.5	130.2	000.1250	0016.3	007.5	56.11
046.0	021.1600	0084.1	034.9	128.0	000.1250	0015.6	008.1	54.75
047.0	022.0900	0084.2	035.3	126.3	000.1250	0015.4	008.8	53.49
048.0	023.0400	0084.2	035.6	125.1	000.1250	0015.4	009.4	52.25
049.0	024.0100	0084.1	035.9	124.3	000.1250	0015.5	010.1	51.04
050.0	025.0000	0083.8	036.2	123.8	000.1250	0015.5	010.8	49.89
051.0	025.0000	0083.5	036.1	125.0	000.1250	0015.4	011.4	48.93
052.0	025.0000	0083.2	036.0	126.1	000.1250	0015.4	012.0	48.01
053.0	025.0000	0083.1	036.0	127.0	000.1250	0015.4	012.6	47.12
054.0	025.0000	0083.2	036.0	127.7	000.1250	0015.5	013.2	46.25
055.0	025.0000	0083.5	036.1	128.3	000.1250	0015.6	013.8	45.43
056.0	025.0000	0083.6	036.1	128.9	000.1250	0015.8	014.4	44.67
057.0	025.0000	0083.4	036.1	129.8	000.1250	0016.1	015.0	43.99
058.0	025.0000	0083.1	036.0	130.7	000.1250	0016.4	015.6	43.49
059.0	025.0000	0083.1	036.0	131.4	000.1250	0016.6	016.2	42.98
060.0	025.0000	0083.4	036.1	131.9	000.1250	0016.6	016.8	42.46
061.0	025.0000	0083.8	036.2	132.3	000.1250	0016.7	017.4	41.93
062.0	025.0000	0084.2	036.2	132.7	000.1250	0016.8	018.0	41.42
063.0	025.0000	0084.3	036.3	133.3	000.1250	0016.8	018.6	40.92
064.0	025.0000	0084.2	036.2	134.1	000.1250	0016.9	019.2	40.45
065.0	025.0000	0083.9	036.2	134.9	000.1250	0017.0	019.8	39.99
066.0	025.0000	0083.6	036.1	135.6	000.1250	0017.0	020.4	39.53
067.0	025.0000	0083.5	036.1	136.3	000.1250	0017.0	020.9	39.08
068.0	025.0000	0083.4	036.1	137.0	000.1250	0017.0	021.5	38.63
069.0	025.0000	0083.3	036.1	137.6	000.1250	0017.0	022.1	38.20
070.0	025.0000	0083.2	036.0	138.3	000.1250	0016.9	022.7	37.77
071.0	025.0000	0083.0	036.0	138.9	000.1250	0016.8	023.2	37.35
072.0	025.0000	0082.9	036.0	139.6	000.1250	0016.7	023.8	36.95
073.0	025.0000	0082.8	035.9	140.2	000.1250	0016.6	024.4	36.55
074.0	025.0000	0082.7	035.9	140.8	000.1250	0016.6	025.0	36.16
075.0	025.0000	0082.9	036.0	141.3	000.1250	0016.5	025.5	35.77

04-24-2008 NGDC 30 SEC Terrain Data

WOCR BLED19890525KD  
 Channel = 209A  
 Max ERP = 0.125 kW  
 RCAMSL = 303 M  
 N. Lat. 42 26 31.0  
 W. Lng. 84 55 30.0  
 Protected  
 60 dBu

WCWB.P  
 Channel = 211B1  
 Max ERP = 25 kW  
 RCAMSL = 365 M  
 N. Lat. 42 10 47.0  
 W. Lng. 85 09 10.0  
 Interfering  
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
168.0	000.1250	0018.3	006.0	040.5	016.3859	0085.5	030.7	62.73
169.0	000.1250	0018.7	006.0	040.4	016.2900	0085.6	030.7	62.75
170.0	000.1250	0019.1	006.0	040.2	016.1910	0085.6	030.6	62.77
171.0	000.1250	0019.2	006.0	040.1	016.0898	0085.6	030.5	62.79
172.0	000.1250	0018.9	006.0	040.0	016.0000	0085.7	030.4	62.81
173.0	000.1250	0018.3	006.0	039.9	016.0000	0085.7	030.3	62.85
174.0	000.1250	0017.6	006.0	039.7	016.0000	0085.7	030.3	62.90
175.0	000.1250	0017.4	006.0	039.6	016.0000	0085.8	030.2	62.94
176.0	000.1250	0017.4	006.0	039.4	016.0000	0085.8	030.1	62.98
177.0	000.1250	0017.4	006.0	039.3	016.0000	0085.8	030.0	63.03
178.0	000.1250	0017.5	006.0	039.1	016.0000	0085.8	030.0	63.07
179.0	000.1250	0017.8	006.0	039.0	016.0000	0085.9	029.9	63.11
180.0	000.1250	0018.1	006.0	038.8	016.0000	0085.9	029.8	63.15
181.0	000.1250	0018.2	006.0	038.7	016.0000	0085.9	029.8	63.19
182.0	000.1250	0018.3	006.0	038.5	016.0000	0085.9	029.7	63.22
183.0	000.1250	0018.4	006.0	038.4	016.0000	0086.0	029.7	63.26
184.0	000.1250	0018.0	006.0	038.2	016.0000	0086.0	029.6	63.30
185.0	000.1250	0017.9	006.0	038.0	016.0000	0086.0	029.5	63.33
186.0	000.1250	0017.9	006.0	037.9	016.0000	0086.0	029.5	63.37
187.0	000.1250	0018.3	006.0	037.7	016.0000	0086.1	029.4	63.40
188.0	000.1250	0018.9	006.0	037.5	016.0000	0086.1	029.4	63.43
189.0	000.1250	0019.6	006.0	037.3	016.0000	0086.1	029.3	63.47
190.0	000.1250	0020.1	006.0	037.2	016.0000	0086.1	029.3	63.50
191.0	000.1250	0020.7	006.0	037.0	016.0000	0086.2	029.2	63.53
192.0	000.1250	0021.1	006.0	036.8	016.0000	0086.2	029.2	63.56
193.0	000.1250	0021.4	006.0	036.6	016.0000	0086.2	029.1	63.59
194.0	000.1250	0021.9	006.0	036.4	016.0000	0086.3	029.1	63.61
195.0	000.1250	0022.6	006.0	036.2	016.0000	0086.3	029.1	63.64
196.0	000.1250	0023.2	006.0	036.0	016.0000	0086.4	029.0	63.67
197.0	000.1250	0023.5	006.0	035.8	016.0000	0086.4	029.0	63.70
198.0	000.1250	0023.4	006.0	035.6	016.0000	0086.5	028.9	63.72
199.0	000.1250	0022.8	006.0	035.5	016.0000	0086.6	028.9	63.75
200.0	000.1250	0022.0	006.0	035.3	016.0000	0086.6	028.9	63.77
201.0	000.1250	0021.3	006.0	035.1	016.0000	0086.7	028.9	63.79

## FMOver Analysis

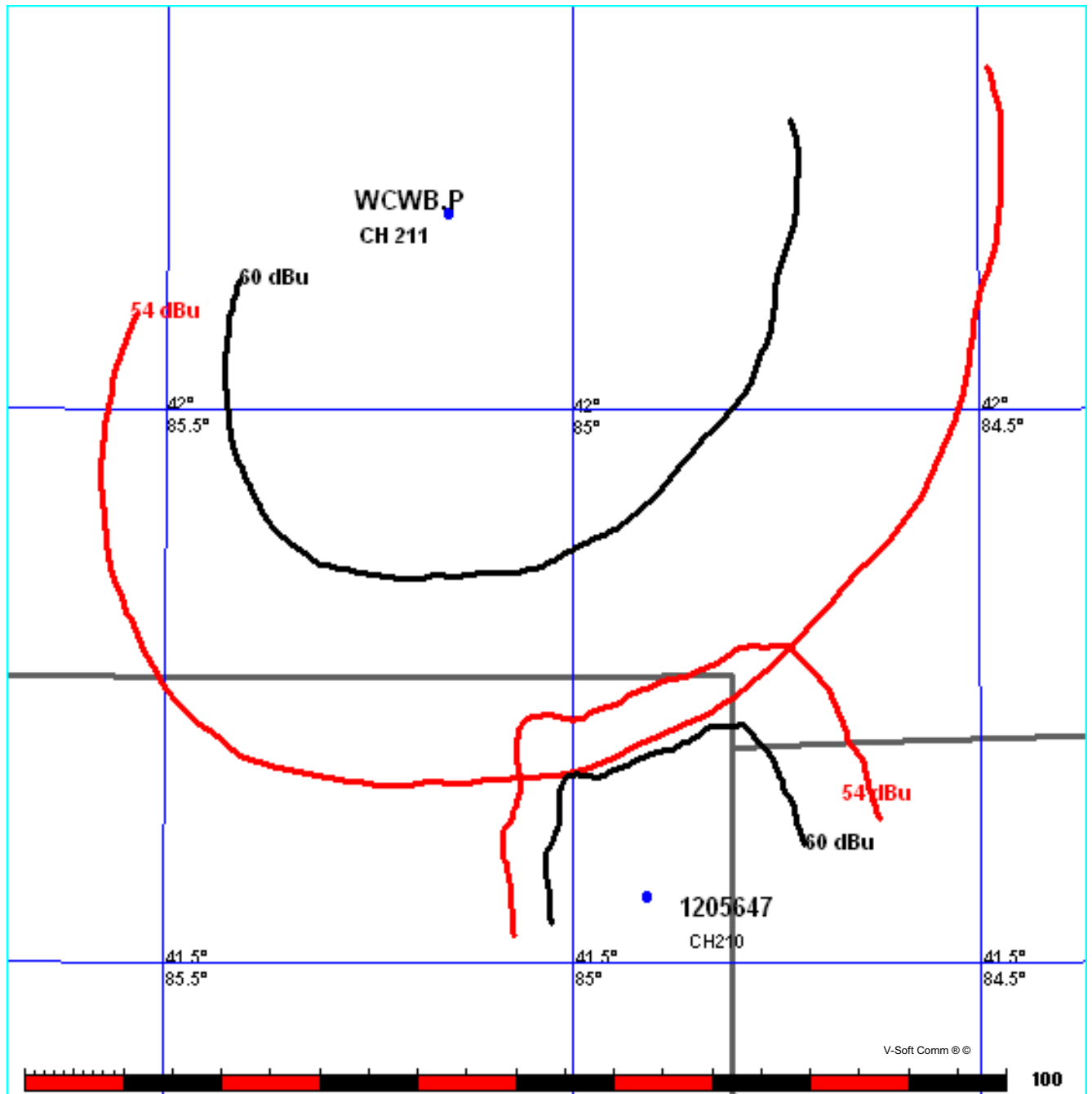
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
202.0	000.1250	0020.7	006.0	034.9	016.0000	0086.7	028.8	63.81
203.0	000.1250	0020.3	006.0	034.7	016.0000	0086.7	028.8	63.83
204.0	000.1250	0020.0	006.0	034.4	016.0000	0086.8	028.8	63.84
205.0	000.1250	0020.0	006.0	034.2	016.0000	0086.8	028.8	63.85
206.0	000.1250	0020.0	006.0	034.0	016.0000	0086.7	028.8	63.86
207.0	000.1250	0020.0	006.0	033.8	016.0000	0086.7	028.7	63.87
208.0	000.1250	0020.1	006.0	033.6	016.0000	0086.7	028.7	63.87
209.0	000.1250	0020.4	006.0	033.4	016.0000	0086.6	028.7	63.87
210.0	000.1250	0020.7	006.0	033.2	016.0000	0086.5	028.7	63.86
211.0	000.1250	0020.8	006.0	033.0	016.0000	0086.4	028.7	63.86
212.0	000.1250	0020.9	006.0	032.8	016.0000	0086.4	028.7	63.85
213.0	000.1250	0021.0	006.0	032.6	016.0000	0086.3	028.7	63.84
214.0	000.1250	0021.2	006.0	032.4	016.0000	0086.2	028.7	63.83
215.0	000.1250	0021.4	006.0	032.2	016.0000	0086.1	028.7	63.82
216.0	000.1250	0021.6	006.0	032.0	016.0000	0086.0	028.7	63.80
217.0	000.1250	0021.7	006.0	031.8	016.0000	0085.9	028.7	63.79
218.0	000.1250	0021.6	006.0	031.6	016.0000	0085.8	028.7	63.78
219.0	000.1250	0021.4	006.0	031.4	016.0000	0085.8	028.7	63.76
220.0	000.1250	0021.3	006.0	031.1	016.0000	0085.7	028.8	63.74
221.0	000.1250	0021.4	006.0	030.9	016.0000	0085.6	028.8	63.73
222.0	000.1250	0021.7	006.0	030.7	016.0000	0085.5	028.8	63.71
223.0	000.1250	0022.0	006.0	030.5	016.0000	0085.5	028.8	63.69
224.0	000.1250	0022.4	006.0	030.3	016.0000	0085.4	028.8	63.67
225.0	000.1250	0023.1	006.0	030.1	016.0000	0085.4	028.9	63.65
226.0	000.1250	0024.2	006.0	029.9	016.0470	0085.3	028.9	63.64
227.0	000.1250	0025.3	006.0	029.7	016.2055	0085.2	028.9	63.66
228.0	000.1250	0026.0	006.0	029.5	016.3634	0085.2	029.0	63.67
229.0	000.1250	0026.2	006.0	029.4	016.5209	0085.1	029.0	63.69
230.0	000.1250	0026.2	006.0	029.2	016.6784	0085.1	029.0	63.70
231.0	000.1250	0026.0	006.0	029.0	016.8340	0085.0	029.1	63.72
232.0	000.1250	0026.1	006.0	028.8	016.9902	0085.0	029.1	63.73
233.0	000.1250	0026.7	006.0	028.6	017.1448	0084.9	029.1	63.74
234.0	000.1250	0027.7	006.0	028.4	017.2979	0084.9	029.2	63.75
235.0	000.1250	0028.8	006.0	028.2	017.4510	0084.9	029.2	63.76
236.0	000.1250	0030.0	006.0	028.0	017.6022	0084.9	029.3	63.77
237.0	000.1250	0031.4	006.1	027.7	017.8529	0084.8	029.2	63.86
238.0	000.1250	0033.2	006.2	027.4	018.1326	0084.8	029.1	63.97
239.0	000.1250	0034.9	006.4	027.1	018.4181	0084.8	029.1	64.08
240.0	000.1250	0036.2	006.5	026.8	018.6811	0084.8	029.0	64.16
241.0	000.1250	0037.1	006.6	026.5	018.9122	0084.7	029.0	64.21
242.0	000.1250	0037.4	006.6	026.3	019.1038	0084.7	029.1	64.22
243.0	000.1250	0037.3	006.6	026.1	019.2557	0084.7	029.1	64.21
244.0	000.1250	0037.1	006.6	026.0	019.3929	0084.6	029.2	64.19
245.0	000.1250	0036.9	006.6	025.8	019.5288	0084.6	029.3	64.17
246.0	000.1250	0037.0	006.6	025.6	019.6925	0084.6	029.4	64.16
247.0	000.1250	0037.5	006.6	025.4	019.8924	0084.5	029.4	64.18
248.0	000.1250	0038.0	006.6	025.2	020.0883	0084.5	029.5	64.19
249.0	000.1250	0038.2	006.7	025.0	020.2621	0084.4	029.5	64.18
250.0	000.1250	0038.1	006.7	024.8	020.3897	0084.4	029.6	64.16
251.0	000.1250	0037.5	006.6	024.8	020.4673	0084.3	029.7	64.10
252.0	000.1250	0036.6	006.5	024.7	020.5030	0084.3	029.9	64.03

## Exhibit 16.3 - Contour Protection Studies Toward APP210B1 - Butler, IN

FMCommander Single Allocation Study  
04-24-2008

WCWB.P CH 211 B1  
25.0 kW 365 M COR DA  
Prot. = 60 dBu  
Intef. = 54 dBu

1205647 CH 210 B1 BNPED20071015AGN  
7.0 kW, 356 M COR DA  
Prot. = 60 dBu  
Intef. = 54 dBu



04-24-2008

NGDC 30 SEC Terrain Data

FMOver Analysis

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

Protected

60 dBu

1205647

BNPED20071015AGN

Channel = 210B1

Max ERP = 7 kW

RCAMSL = 356 M

N. Lat. 41 33 37.0

W. Lng. 84 54 33.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
119.0	025.0000	0079.2	035.2	011.6	002.8756	0041.8	052.8	41.73
120.0	025.0000	0079.5	035.3	011.5	002.8553	0041.8	052.2	41.86
121.0	025.0000	0079.7	035.3	011.3	002.8284	0041.8	051.6	41.98
122.0	025.0000	0079.6	035.3	011.0	002.7922	0041.8	051.0	42.08
123.0	025.0000	0079.3	035.3	010.7	002.7479	0041.9	050.5	42.16
124.0	025.0000	0078.9	035.2	010.4	002.6973	0041.9	049.9	42.23
125.0	025.0000	0078.5	035.1	010.0	002.6459	0042.0	049.4	42.30
126.0	025.0000	0078.3	035.0	009.6	002.6066	0042.1	048.9	42.38
127.0	025.0000	0078.0	035.0	009.2	002.5661	0042.2	048.4	42.47
128.0	025.0000	0077.7	034.9	008.8	002.5203	0042.3	047.9	42.54
129.0	025.0000	0077.1	034.8	008.3	002.4677	0042.5	047.4	42.60
130.0	025.0000	0076.4	034.7	007.8	002.4122	0042.7	047.0	42.66
131.0	025.0000	0075.9	034.6	007.3	002.3598	0043.0	046.5	42.73
132.0	025.0000	0075.8	034.5	006.8	002.3142	0043.2	046.0	42.83
133.0	025.0000	0076.1	034.6	006.5	002.2749	0043.4	045.5	42.94
134.0	025.0000	0076.6	034.7	006.1	002.2380	0043.6	045.0	43.06
135.0	025.0000	0077.0	034.8	005.7	002.1986	0043.8	044.4	43.17
136.0	025.0000	0077.3	034.8	005.3	002.1540	0044.0	043.9	43.27
137.0	025.0000	0077.5	034.9	004.8	002.1059	0044.2	043.5	43.36
138.0	025.0000	0077.7	034.9	004.3	002.0577	0044.4	043.0	43.44
139.0	025.0000	0078.2	035.0	003.8	002.0118	0044.5	042.5	43.54
140.0	025.0000	0078.9	035.2	003.3	001.9677	0044.7	042.0	43.65
141.0	025.0000	0079.6	035.3	002.8	001.9223	0044.9	041.4	43.75
142.0	025.0000	0080.3	035.5	002.3	001.8730	0045.1	040.9	43.85
143.0	025.0000	0080.8	035.5	001.7	001.8195	0045.4	040.5	43.93
144.0	025.0000	0081.1	035.6	001.1	001.7626	0045.6	040.0	43.99
145.0	025.0000	0081.5	035.7	000.4	001.7039	0045.9	039.6	44.04
146.0	025.0000	0081.9	035.8	359.7	001.6589	0045.9	039.2	44.07
147.0	025.0000	0082.4	035.9	359.0	001.6372	0045.9	038.8	44.16
148.0	025.0000	0082.9	036.0	358.3	001.6150	0045.8	038.4	44.25
149.0	025.0000	0083.4	036.1	357.6	001.5919	0045.8	038.0	44.32
150.0	025.0000	0083.8	036.2	356.8	001.5677	0045.7	037.6	44.39
151.0	025.0000	0084.1	036.2	356.0	001.5425	0045.6	037.3	44.42
152.0	025.0000	0084.3	036.2	355.1	001.5164	0045.5	037.0	44.43
153.0	025.0000	0084.3	036.3	354.2	001.4895	0045.1	036.7	44.38
154.0	025.0000	0084.3	036.2	353.3	001.4618	0044.6	036.5	44.27
155.0	025.0000	0084.1	036.2	352.3	001.4337	0044.1	036.4	44.16



## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
156.0	025.0000	0084.1	036.2	351.3	001.4059	0044.2	036.2	44.17
157.0	025.0000	0084.2	036.2	350.4	001.3783	0044.5	036.0	44.21
158.0	025.0000	0084.3	036.3	349.4	001.3502	0044.8	035.9	44.23
159.0	025.0000	0084.5	036.3	348.4	001.3219	0045.1	035.7	44.24
160.0	025.0000	0084.7	036.3	347.4	001.2936	0045.4	035.6	44.26
161.0	025.0000	0085.2	036.4	346.4	001.2655	0045.8	035.4	44.30
162.0	025.0000	0085.9	036.6	345.4	001.2373	0046.2	035.3	44.35
163.0	025.0000	0086.7	036.7	344.4	001.2090	0046.6	035.1	44.39
164.0	025.0000	0087.4	036.9	343.3	001.1805	0046.8	034.9	44.38
165.0	025.0000	0087.9	036.9	342.3	001.1521	0046.9	034.9	44.32
166.0	025.0000	0088.2	037.0	341.2	001.1239	0047.0	034.9	44.23
167.0	025.0000	0088.4	037.0	340.2	001.0961	0046.9	034.9	44.09
168.0	025.0000	0088.6	037.1	339.1	001.1443	0046.5	034.9	44.19
169.0	025.0000	0088.5	037.1	338.1	001.2056	0045.8	035.1	44.23
170.0	025.0000	0087.9	036.9	337.1	001.2653	0045.1	035.3	44.22
171.0	025.0000	0087.1	036.8	336.1	001.3242	0045.0	035.6	44.27
172.0	025.0000	0086.6	036.7	335.2	001.3841	0045.2	035.9	44.40
173.0	025.0000	0086.4	036.6	334.2	001.4452	0045.5	036.1	44.54
174.0	025.0000	0086.2	036.6	333.3	001.5070	0045.6	036.4	44.66
175.0	025.0000	0086.1	036.6	332.4	001.5690	0045.6	036.6	44.74
176.0	025.0000	0086.1	036.6	331.5	001.6317	0045.6	036.9	44.79
177.0	025.0000	0086.3	036.6	330.6	001.6965	0045.6	037.1	44.88
178.0	025.0000	0086.7	036.7	329.6	001.7213	0046.0	037.4	44.93
179.0	025.0000	0087.2	036.8	328.7	001.6853	0046.8	037.6	44.88
180.0	025.0000	0086.9	036.7	327.9	001.6547	0047.7	038.0	44.82
181.0	025.0000	0086.5	036.7	327.2	001.6258	0048.5	038.4	44.72
182.0	025.0000	0086.4	036.7	326.4	001.5968	0049.2	038.8	44.61
183.0	025.0000	0087.4	036.8	325.5	001.5617	0049.7	039.0	44.51
184.0	025.0000	0088.3	037.0	324.6	001.5280	0050.0	039.3	44.37
185.0	025.0000	0089.1	037.2	323.7	001.4963	0050.3	039.6	44.21
186.0	025.0000	0089.4	037.2	323.0	001.4691	0050.3	040.0	43.99
187.0	025.0000	0089.6	037.3	322.3	001.4437	0050.1	040.4	43.73
188.0	025.0000	0089.6	037.3	321.7	001.4204	0049.8	040.9	43.44
189.0	025.0000	0089.8	037.3	321.0	001.3970	0049.4	041.3	43.15
190.0	025.0000	0090.0	037.3	320.4	001.3749	0049.1	041.8	42.86
191.0	025.0000	0090.2	037.4	319.8	001.3495	0048.7	042.3	42.56
192.0	025.0000	0090.5	037.4	319.2	001.3165	0048.4	042.8	42.24
193.0	025.0000	0090.7	037.5	318.6	001.2859	0048.1	043.3	41.92
194.0	025.0000	0090.7	037.5	318.1	001.2590	0047.8	043.8	41.60
195.0	025.0000	0090.7	037.5	317.7	001.2343	0047.4	044.4	41.28
196.0	025.0000	0090.9	037.5	317.2	001.2088	0047.0	044.9	40.96
197.0	025.0000	0091.3	037.6	316.7	001.1826	0046.6	045.4	40.63
198.0	025.0000	0091.8	037.7	316.2	001.1567	0046.2	046.0	40.31
199.0	025.0000	0092.4	037.8	315.7	001.1310	0045.8	046.5	39.99
200.0	025.0000	0093.1	037.9	315.2	001.1062	0045.4	047.1	39.68
201.0	024.4697	0093.4	037.8	315.0	001.0956	0045.3	047.7	39.43
202.0	023.9450	0093.4	037.6	314.9	001.0894	0045.2	048.4	39.21
203.0	023.4261	0093.4	037.4	314.8	001.0847	0045.1	049.1	38.99
204.0	022.9128	0093.5	037.3	314.7	001.0792	0045.0	049.7	38.78
205.0	022.4052	0093.8	037.1	314.6	001.0736	0044.9	050.4	38.56
206.0	021.9034	0094.1	037.0	314.5	001.0688	0044.9	051.0	38.35

04-24-2008 NGDC 30 SEC Terrain Data

1205647 BNPED20071015AGN

Channel = 210B1

Max ERP = 7 kW

RCAMSL = 356 M

N. Lat. 41 33 37.0

W. Lng. 84 54 33.0

Protected

60 dBu

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
299.0	000.5190	0049.6	011.1	170.5	025.0000	0087.5	064.3	51.83
300.0	000.5410	0048.7	011.1	170.4	025.0000	0087.5	064.2	51.88
301.0	000.5694	0048.1	011.1	170.4	025.0000	0087.6	064.0	51.94
302.0	000.5985	0047.5	011.2	170.3	025.0000	0087.6	063.8	52.00
303.0	000.6283	0046.6	011.2	170.2	025.0000	0087.7	063.6	52.06
304.0	000.6589	0045.8	011.2	170.1	025.0000	0087.8	063.5	52.11
305.0	000.6902	0045.2	011.3	170.0	025.0000	0087.9	063.3	52.17
306.0	000.7222	0044.8	011.4	169.9	025.0000	0087.9	063.1	52.23
307.0	000.7549	0044.5	011.4	169.8	025.0000	0088.0	062.9	52.29
308.0	000.7884	0044.0	011.5	169.7	025.0000	0088.1	062.8	52.35
309.0	000.8226	0043.5	011.5	169.6	025.0000	0088.1	062.6	52.41
310.0	000.8575	0043.2	011.6	169.5	025.0000	0088.2	062.4	52.47
311.0	000.9027	0043.1	011.7	169.5	025.0000	0088.3	062.2	52.55
312.0	000.9490	0043.4	011.9	169.4	025.0000	0088.3	061.9	52.64
313.0	000.9965	0043.9	012.1	169.4	025.0000	0088.3	061.6	52.73
314.0	001.0451	0044.5	012.4	169.3	025.0000	0088.3	061.3	52.84
315.0	001.0949	0045.3	012.6	169.3	025.0000	0088.4	061.0	52.94
316.0	001.1459	0046.0	012.8	169.2	025.0000	0088.4	060.7	53.05
317.0	001.1980	0046.9	013.1	169.2	025.0000	0088.4	060.3	53.17
318.0	001.2513	0047.7	013.4	169.1	025.0000	0088.4	060.0	53.28
319.0	001.3058	0048.3	013.6	169.1	025.0000	0088.5	059.7	53.39
320.0	001.3614	0048.9	013.8	169.0	025.0000	0088.5	059.4	53.50
321.0	001.3968	0049.4	014.0	168.8	025.0000	0088.6	059.1	53.60
322.0	001.4327	0050.0	014.1	168.7	025.0000	0088.6	058.8	53.69
323.0	001.4690	0050.3	014.3	168.5	025.0000	0088.6	058.6	53.77
324.0	001.5058	0050.2	014.3	168.3	025.0000	0088.6	058.4	53.83
325.0	001.5430	0049.9	014.4	168.1	025.0000	0088.6	058.3	53.88
326.0	001.5807	0049.4	014.4	167.9	025.0000	0088.5	058.2	53.91
327.0	001.6189	0048.7	014.4	167.7	025.0000	0088.5	058.1	53.93
328.0	001.6575	0047.6	014.3	167.4	025.0000	0088.4	058.1	53.93
329.0	001.6965	0046.5	014.2	167.2	025.0000	0088.4	058.1	53.92
330.0	001.7360	0045.8	014.2	166.9	025.0000	0088.3	058.1	53.93
331.0	001.6650	0045.6	014.0	166.6	025.0000	0088.3	058.2	53.89
332.0	001.5954	0045.6	013.8	166.4	025.0000	0088.2	058.3	53.86

## FMOver Analysis

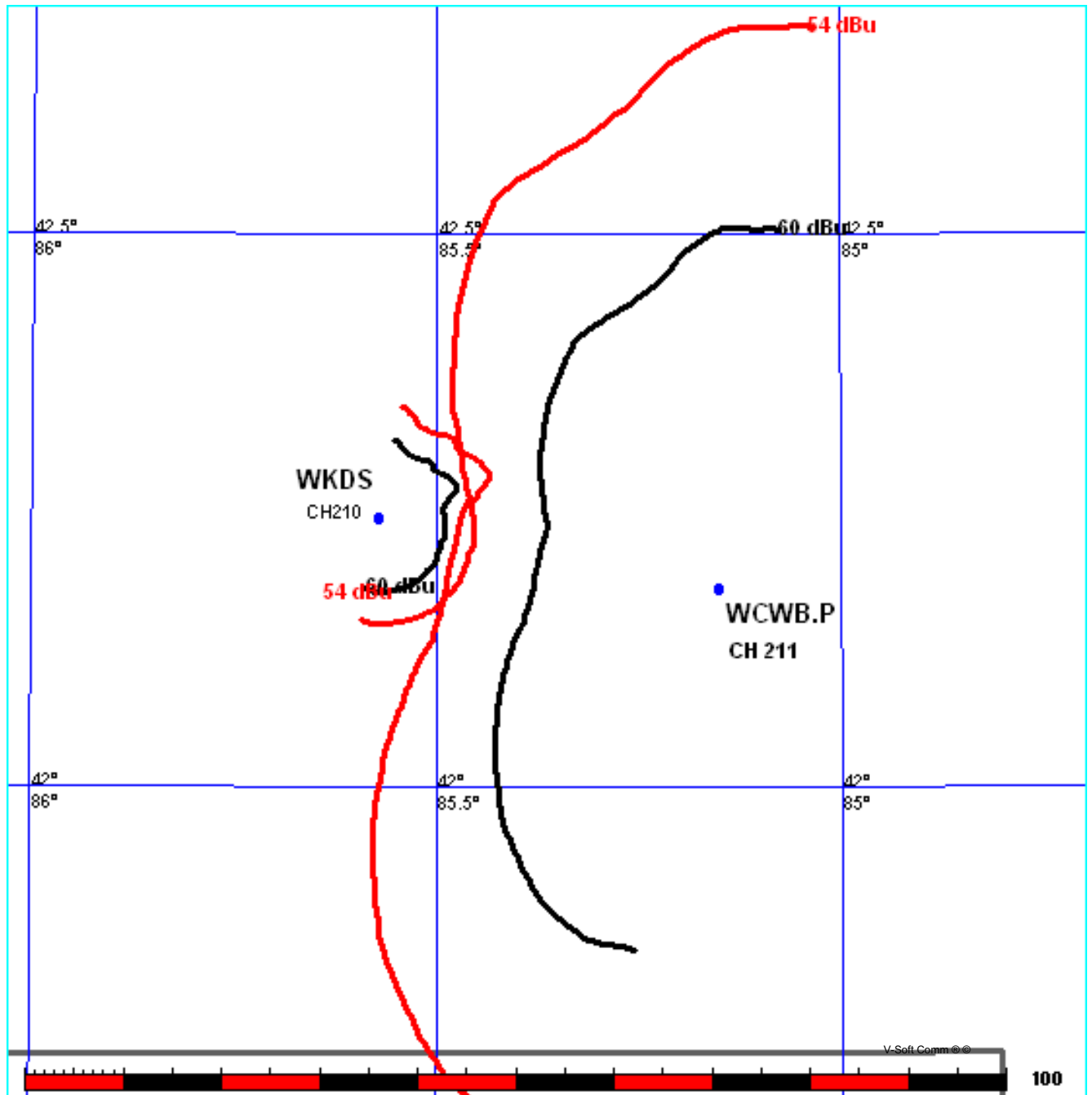
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
333.0	001.5273	0045.7	013.7	166.1	025.0000	0088.2	058.3	53.83
334.0	001.4607	0045.5	013.5	165.8	025.0000	0088.1	058.4	53.79
335.0	001.3955	0045.2	013.3	165.6	025.0000	0088.1	058.6	53.74
336.0	001.3319	0045.0	013.2	165.3	025.0000	0088.0	058.7	53.69
337.0	001.2697	0045.1	013.0	165.1	025.0000	0087.9	058.8	53.65
338.0	001.2091	0045.8	013.0	164.9	025.0000	0087.9	058.8	53.63
339.0	001.1499	0046.5	012.9	164.6	025.0000	0087.8	058.9	53.62
340.0	001.0922	0046.9	012.8	164.4	025.0000	0087.7	059.0	53.58
341.0	001.1183	0047.0	012.9	164.2	025.0000	0087.6	058.8	53.61
342.0	001.1448	0047.0	013.0	164.0	025.0000	0087.4	058.8	53.63
343.0	001.1715	0046.9	013.0	163.8	025.0000	0087.3	058.7	53.64
344.0	001.1986	0046.7	013.1	163.5	025.0000	0087.1	058.7	53.64
345.0	001.2260	0046.4	013.1	163.3	025.0000	0087.0	058.6	53.64
346.0	001.2537	0046.0	013.1	163.1	025.0000	0086.8	058.6	53.63
347.0	001.2817	0045.6	013.1	162.9	025.0000	0086.6	058.6	53.61
348.0	001.3100	0045.2	013.1	162.6	025.0000	0086.4	058.7	53.59
349.0	001.3386	0044.9	013.2	162.4	025.0000	0086.2	058.6	53.58
350.0	001.3675	0044.7	013.2	162.2	025.0000	0086.0	058.6	53.57
351.0	001.3962	0044.3	013.2	162.0	025.0000	0085.9	058.7	53.55
352.0	001.4251	0044.1	013.2	161.7	025.0000	0085.7	058.7	53.53
353.0	001.4543	0044.4	013.3	161.5	025.0000	0085.5	058.6	53.54
354.0	001.4838	0045.0	013.5	161.2	025.0000	0085.4	058.5	53.57
355.0	001.5136	0045.5	013.6	161.0	025.0000	0085.2	058.4	53.58
356.0	001.5437	0045.6	013.7	160.7	025.0000	0085.1	058.4	53.58
357.0	001.5741	0045.8	013.8	160.5	025.0000	0085.0	058.4	53.58
358.0	001.6047	0045.8	013.9	160.2	025.0000	0084.8	058.4	53.57
359.0	001.6357	0045.9	014.0	160.0	025.0000	0084.7	058.4	53.56
000.0	001.6670	0045.9	014.0	159.7	025.0000	0084.7	058.4	53.55
001.0	001.7549	0045.7	014.2	159.5	025.0000	0084.6	058.4	53.56
002.0	001.8451	0045.2	014.3	159.2	025.0000	0084.5	058.4	53.56
003.0	001.9375	0044.8	014.4	158.9	025.0000	0084.5	058.4	53.55
004.0	002.0321	0044.5	014.5	158.7	025.0000	0084.4	058.4	53.54
005.0	002.1291	0044.1	014.6	158.4	025.0000	0084.4	058.4	53.53
006.0	002.2283	0043.7	014.7	158.1	025.0000	0084.3	058.4	53.52
007.0	002.3297	0043.1	014.8	157.9	025.0000	0084.3	058.5	53.50
008.0	002.4334	0042.6	014.8	157.6	025.0000	0084.3	058.5	53.47
009.0	002.5394	0042.3	014.9	157.4	025.0000	0084.3	058.6	53.45
010.0	002.6476	0042.0	015.0	157.1	025.0000	0084.2	058.6	53.44
011.0	002.7862	0041.9	015.2	156.8	025.0000	0084.2	058.6	53.43
012.0	002.9285	0041.8	015.4	156.5	025.0000	0084.1	058.6	53.43
013.0	003.0742	0042.0	015.6	156.1	025.0000	0084.1	058.6	53.44
014.0	003.2235	0042.2	015.9	155.8	025.0000	0084.1	058.6	53.45
015.0	003.3763	0042.3	016.1	155.4	025.0000	0084.1	058.6	53.45
016.0	003.5327	0042.4	016.3	155.0	025.0000	0084.1	058.6	53.45
017.0	003.6926	0042.6	016.6	154.7	025.0000	0084.2	058.6	53.45
018.0	003.8560	0043.4	017.0	154.2	025.0000	0084.2	058.5	53.49
019.0	004.0230	0044.6	017.5	153.7	025.0000	0084.3	058.4	53.53
020.0	004.1935	0045.9	017.9	153.1	025.0000	0084.3	058.3	53.57
021.0	004.2392	0047.0	018.2	152.7	025.0000	0084.4	058.3	53.56
022.0	004.2850	0047.8	018.5	152.3	025.0000	0084.3	058.4	53.53
023.0	004.3312	0048.4	018.6	152.0	025.0000	0084.3	058.5	53.48

## Exhibit 16.4 - Contour Protection Studies Toward WKDS(FM)

FMCommander Single Allocation Study  
04-24-2008

WCWB.P CH 211 B1  
25.0 kW 365 M COR DA  
Prot. = 60 dBu  
Intef. = 54 dBu

WKDS CH 210 A BLED19830204AK  
0.14 kW, 303 M COR  
Prot. = 60 dBu  
Intef. = 54 dBu



04-24-2008

NGDC 30 SEC Terrain Data

FMOver Analysis

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

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)
237.0	005.8207	0092.3	027.1	151.3	000.1400	0046.0	024.9	40.28
238.0	005.5444	0091.9	026.7	150.6	000.1400	0045.9	024.4	40.62
239.0	005.2748	0091.4	026.3	149.7	000.1400	0045.9	023.9	40.96
240.0	005.0119	0090.9	026.0	148.9	000.1400	0045.9	023.5	41.29
241.0	004.8078	0090.5	025.7	148.1	000.1400	0045.9	023.0	41.62
242.0	004.6080	0090.1	025.4	147.3	000.1400	0045.9	022.6	41.94
243.0	004.4125	0089.7	025.1	146.4	000.1400	0045.9	022.2	42.27
244.0	004.2212	0089.3	024.8	145.5	000.1400	0045.9	021.8	42.56
245.0	004.0341	0088.9	024.5	144.5	000.1400	0045.7	021.4	42.81
246.0	003.8512	0088.3	024.2	143.4	000.1400	0045.3	021.1	43.01
247.0	003.6726	0087.8	023.8	142.3	000.1400	0044.7	020.7	43.15
248.0	003.4983	0087.3	023.5	141.1	000.1400	0044.0	020.4	43.27
249.0	003.3282	0087.0	023.2	139.9	000.1400	0043.8	020.1	43.44
250.0	003.1623	0086.8	022.9	138.7	000.1400	0043.9	019.9	43.70
251.0	003.0335	0086.4	022.6	137.6	000.1400	0044.0	019.6	43.93
252.0	002.9075	0086.0	022.3	136.4	000.1400	0043.8	019.3	44.09
253.0	002.7841	0085.7	022.1	135.1	000.1400	0043.7	019.1	44.27
254.0	002.6634	0085.4	021.8	133.9	000.1400	0043.8	018.9	44.45
255.0	002.5453	0085.2	021.6	132.6	000.1400	0043.6	018.7	44.58
256.0	002.4300	0084.9	021.3	131.3	000.1400	0043.6	018.6	44.70
257.0	002.3173	0084.6	021.0	129.9	000.1400	0043.7	018.4	44.84
258.0	002.2073	0084.1	020.7	128.5	000.1400	0043.6	018.3	44.91
259.0	002.0999	0083.6	020.4	127.0	000.1400	0043.3	018.3	44.90
260.0	001.9953	0083.1	020.1	125.5	000.1400	0043.0	018.2	44.87
261.0	001.9636	0082.6	019.9	124.4	000.1400	0042.6	018.1	44.90
262.0	001.9322	0082.1	019.8	123.3	000.1400	0042.0	017.9	44.88
263.0	001.9010	0081.6	019.7	122.2	000.1400	0041.3	017.8	44.82
264.0	001.8701	0081.0	019.5	121.0	000.1400	0040.9	017.7	44.79
265.0	001.8395	0080.5	019.3	119.8	000.1400	0040.8	017.7	44.83
266.0	001.8091	0080.0	019.2	118.7	000.1400	0040.8	017.6	44.90
267.0	001.7790	0079.7	019.1	117.5	000.1400	0040.6	017.5	44.92
268.0	001.7491	0079.5	019.0	116.4	000.1400	0040.3	017.4	44.92
269.0	001.7194	0079.4	018.9	115.3	000.1400	0039.9	017.4	44.87
270.0	001.6901	0079.3	018.8	114.2	000.1400	0039.3	017.3	44.79
271.0	001.6901	0079.2	018.8	113.2	000.1400	0039.0	017.2	44.81
272.0	001.6901	0079.1	018.8	112.1	000.1400	0038.9	017.1	44.88
273.0	001.6901	0078.8	018.7	111.0	000.1400	0039.2	017.0	45.02

## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
274.0	001.6901	0078.4	018.7	109.9	000.1400	0039.8	017.0	45.19
275.0	001.6901	0077.9	018.6	108.8	000.1400	0040.1	017.0	45.29
276.0	001.6901	0077.5	018.6	107.7	000.1400	0040.2	016.9	45.33
277.0	001.6901	0077.0	018.5	106.6	000.1400	0040.4	016.9	45.37
278.0	001.6901	0076.6	018.4	105.5	000.1400	0040.6	016.9	45.41
279.0	001.6901	0076.4	018.4	104.4	000.1400	0040.5	016.9	45.41
280.0	001.6901	0076.3	018.4	103.3	000.1400	0040.2	016.9	45.33
281.0	001.6900	0076.2	018.4	102.2	000.1400	0039.8	016.9	45.25
282.0	001.6900	0076.2	018.4	101.1	000.1400	0039.4	016.9	45.15
283.0	001.6900	0076.3	018.4	100.0	000.1400	0039.0	016.9	45.06
284.0	001.6900	0076.3	018.4	099.0	000.1400	0038.5	016.9	44.94
285.0	001.6900	0076.3	018.4	097.9	000.1400	0038.3	017.0	44.85
286.0	001.6900	0076.2	018.4	096.8	000.1400	0038.1	017.0	44.77
287.0	001.6900	0076.1	018.4	095.7	000.1400	0037.9	017.1	44.67
288.0	001.6900	0076.0	018.4	094.7	000.1400	0037.8	017.2	44.57
289.0	001.6900	0075.8	018.3	093.7	000.1400	0037.7	017.3	44.47
290.0	001.6900	0075.6	018.3	092.7	000.1400	0037.7	017.4	44.36
291.0	001.7782	0075.5	018.5	091.4	000.1400	0037.6	017.3	44.43
292.0	001.8687	0075.5	018.8	090.1	000.1400	0037.3	017.1	44.47
293.0	001.9614	0075.5	019.0	088.8	000.1400	0037.0	017.1	44.47
294.0	002.0564	0075.6	019.3	087.5	000.1400	0036.7	017.0	44.45
295.0	002.1536	0075.6	019.5	086.1	000.1400	0036.5	016.9	44.44
296.0	002.2530	0075.5	019.7	084.7	000.1400	0036.4	016.9	44.45
297.0	002.3547	0075.6	019.9	083.3	000.1400	0036.5	016.9	44.47
298.0	002.4586	0075.8	020.2	081.9	000.1400	0037.3	016.9	44.65
299.0	002.5648	0076.0	020.4	080.4	000.1400	0038.6	016.9	44.96
300.0	002.6732	0076.2	020.6	079.0	000.1400	0040.3	017.0	45.31
301.0	002.8140	0076.4	020.9	077.4	000.1400	0042.2	017.0	45.71
302.0	002.9584	0076.8	021.2	075.8	000.1400	0044.8	017.1	46.25
303.0	003.1064	0077.2	021.5	074.2	000.1400	0048.5	017.1	46.95
304.0	003.2580	0077.7	021.8	072.6	000.1400	0052.3	017.2	47.58
305.0	003.4133	0077.9	022.1	071.2	000.1400	0055.2	017.4	47.94
306.0	003.5721	0077.9	022.3	069.8	000.1400	0056.9	017.5	48.06
307.0	003.7346	0077.8	022.6	068.5	000.1400	0057.6	017.7	47.98
308.0	003.9006	0077.7	022.8	067.2	000.1400	0057.7	018.0	47.79
309.0	004.0703	0077.5	023.0	066.1	000.1400	0057.3	018.2	47.52
310.0	004.2436	0077.4	023.2	064.9	000.1400	0056.7	018.5	47.21
311.0	004.4669	0077.4	023.5	063.7	000.1400	0056.0	018.8	46.87
312.0	004.6959	0077.5	023.7	062.4	000.1400	0055.1	019.0	46.50
313.0	004.9306	0077.6	024.0	061.2	000.1400	0054.1	019.3	46.09
314.0	005.1711	0077.7	024.3	060.0	000.1400	0053.2	019.6	45.67
315.0	005.4173	0078.0	024.6	058.9	000.1400	0052.3	020.0	45.24
316.0	005.6692	0078.3	024.9	057.8	000.1400	0051.3	020.3	44.78
317.0	005.9268	0078.6	025.2	056.8	000.1400	0050.4	020.7	44.29
318.0	006.1901	0078.7	025.5	055.9	000.1400	0049.5	021.1	43.81
319.0	006.4592	0078.7	025.7	055.0	000.1400	0048.7	021.5	43.34
320.0	006.7340	0078.7	025.9	054.3	000.1400	0048.1	021.9	42.88
321.0	007.0862	0078.6	026.2	053.5	000.1400	0047.4	022.4	42.42
322.0	007.4474	0078.6	026.5	052.7	000.1400	0046.8	022.8	41.95
323.0	007.8176	0078.5	026.8	052.0	000.1400	0046.2	023.3	41.49
324.0	008.1968	0078.4	027.1	051.4	000.1400	0045.7	023.8	41.02

04-24-2008 NGDC 30 SEC 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

WCWB.P  
 Channel = 211B1  
 Max ERP = 25 kW  
 RCAMSL = 365 M  
 N. Lat. 42 10 47.0  
 W. Lng. 85 09 10.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
056.0	000.1400	0049.6	007.9	292.4	001.9070	0075.5	030.3	52.50
057.0	000.1400	0050.6	008.0	292.4	001.9058	0075.5	030.1	52.58
058.0	000.1400	0051.6	008.1	292.4	001.9043	0075.5	030.0	52.67
059.0	000.1400	0052.4	008.1	292.4	001.9010	0075.5	029.8	52.75
060.0	000.1400	0053.2	008.2	292.3	001.8955	0075.5	029.7	52.82
061.0	000.1400	0054.0	008.3	292.2	001.8891	0075.5	029.5	52.89
062.0	000.1400	0054.8	008.3	292.1	001.8820	0075.5	029.3	52.96
063.0	000.1400	0055.5	008.4	292.1	001.8739	0075.5	029.2	53.03
064.0	000.1400	0056.2	008.5	291.9	001.8634	0075.5	029.0	53.09
065.0	000.1400	0056.7	008.5	291.8	001.8513	0075.5	028.9	53.14
066.0	000.1400	0057.2	008.6	291.7	001.8378	0075.5	028.8	53.19
067.0	000.1400	0057.6	008.6	291.5	001.8223	0075.5	028.6	53.23
068.0	000.1400	0057.7	008.6	291.3	001.8036	0075.5	028.5	53.25
069.0	000.1400	0057.4	008.6	291.0	001.7811	0075.5	028.4	53.24
070.0	000.1400	0056.7	008.5	290.7	001.7540	0075.5	028.4	53.21
071.0	000.1400	0055.4	008.4	290.4	001.7214	0075.6	028.4	53.14
072.0	000.1400	0053.7	008.3	289.9	001.6900	0075.6	028.4	53.06
073.0	000.1400	0051.5	008.1	289.5	001.6900	0075.7	028.5	53.02
074.0	000.1400	0049.1	007.8	289.0	001.6900	0075.8	028.6	52.97
075.0	000.1400	0046.7	007.6	288.5	001.6900	0075.9	028.7	52.92
076.0	000.1400	0044.5	007.4	288.1	001.6900	0076.0	028.8	52.87
077.0	000.1400	0042.8	007.3	287.7	001.6900	0076.0	028.9	52.84
078.0	000.1400	0041.5	007.1	287.4	001.6900	0076.1	028.9	52.82
079.0	000.1400	0040.3	007.0	287.1	001.6900	0076.1	028.9	52.80
080.0	000.1400	0039.1	006.9	286.7	001.6900	0076.2	029.0	52.79
081.0	000.1400	0038.1	006.8	286.5	001.6900	0076.2	029.0	52.77
082.0	000.1400	0037.2	006.8	286.2	001.6900	0076.2	029.0	52.76
083.0	000.1400	0036.6	006.7	285.9	001.6900	0076.2	029.0	52.76
084.0	000.1400	0036.4	006.7	285.7	001.6900	0076.3	029.0	52.78
085.0	000.1400	0036.4	006.7	285.5	001.6900	0076.3	029.0	52.81
086.0	000.1400	0036.5	006.7	285.3	001.6900	0076.3	028.9	52.83
087.0	000.1400	0036.6	006.7	285.0	001.6900	0076.3	028.9	52.86
088.0	000.1400	0036.8	006.7	284.8	001.6900	0076.3	028.8	52.89
089.0	000.1400	0037.0	006.8	284.6	001.6900	0076.3	028.8	52.92

## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
090.0	000.1400	0037.3	006.8	284.4	001.6900	0076.3	028.7	52.95
091.0	000.1400	0037.5	006.8	284.2	001.6900	0076.3	028.7	52.98
092.0	000.1400	0037.6	006.8	284.0	001.6900	0076.3	028.6	53.00
093.0	000.1400	0037.7	006.8	283.7	001.6900	0076.3	028.6	53.02
094.0	000.1400	0037.8	006.8	283.5	001.6900	0076.3	028.6	53.04
095.0	000.1400	0037.9	006.8	283.3	001.6900	0076.3	028.5	53.05
096.0	000.1400	0038.0	006.8	283.0	001.6900	0076.3	028.5	53.07
097.0	000.1400	0038.1	006.8	282.8	001.6900	0076.3	028.5	53.08
098.0	000.1400	0038.3	006.9	282.6	001.6900	0076.2	028.5	53.09
099.0	000.1400	0038.6	006.9	282.3	001.6900	0076.2	028.4	53.11
100.0	000.1400	0039.0	006.9	282.1	001.6900	0076.2	028.4	53.13
101.0	000.1400	0039.3	007.0	281.8	001.6900	0076.2	028.4	53.15
102.0	000.1400	0039.7	007.0	281.6	001.6900	0076.2	028.3	53.17
103.0	000.1400	0040.1	007.0	281.3	001.6900	0076.2	028.3	53.18
104.0	000.1400	0040.4	007.0	281.1	001.6900	0076.2	028.3	53.20
105.0	000.1400	0040.6	007.1	280.8	001.6900	0076.2	028.3	53.21
106.0	000.1400	0040.5	007.1	280.6	001.6900	0076.2	028.3	53.20
107.0	000.1400	0040.3	007.0	280.3	001.6901	0076.2	028.3	53.18
108.0	000.1400	0040.2	007.0	280.1	001.6901	0076.3	028.3	53.17
109.0	000.1400	0040.1	007.0	279.9	001.6901	0076.3	028.4	53.15
110.0	000.1400	0039.8	007.0	279.6	001.6901	0076.3	028.4	53.13
111.0	000.1400	0039.3	006.9	279.4	001.6901	0076.3	028.5	53.09
112.0	000.1400	0038.9	006.9	279.2	001.6901	0076.4	028.5	53.06
113.0	000.1400	0038.9	006.9	278.9	001.6901	0076.4	028.6	53.05
114.0	000.1400	0039.2	006.9	278.7	001.6901	0076.5	028.6	53.05
115.0	000.1400	0039.7	007.0	278.4	001.6901	0076.5	028.6	53.06
116.0	000.1400	0040.2	007.0	278.2	001.6901	0076.6	028.6	53.07
117.0	000.1400	0040.5	007.1	277.9	001.6901	0076.6	028.6	53.07
118.0	000.1400	0040.7	007.1	277.7	001.6901	0076.7	028.6	53.07
119.0	000.1400	0040.8	007.1	277.4	001.6901	0076.8	028.6	53.05
120.0	000.1400	0040.8	007.1	277.2	001.6901	0076.9	028.7	53.04
121.0	000.1400	0040.9	007.1	277.0	001.6901	0077.0	028.7	53.02
122.0	000.1400	0041.2	007.1	276.7	001.6901	0077.1	028.8	53.02
123.0	000.1400	0041.8	007.2	276.5	001.6901	0077.3	028.8	53.03
124.0	000.1400	0042.4	007.2	276.2	001.6901	0077.4	028.8	53.04
125.0	000.1400	0042.9	007.3	275.9	001.6901	0077.5	028.8	53.04
126.0	000.1400	0043.1	007.3	275.7	001.6901	0077.6	028.8	53.03
127.0	000.1400	0043.3	007.3	275.4	001.6901	0077.7	028.9	53.01
128.0	000.1400	0043.6	007.3	275.2	001.6901	0077.8	029.0	52.99
129.0	000.1400	0043.7	007.3	275.0	001.6901	0078.0	029.0	52.97
130.0	000.1400	0043.7	007.3	274.8	001.6901	0078.0	029.1	52.94
131.0	000.1400	0043.6	007.3	274.6	001.6901	0078.1	029.2	52.90
132.0	000.1400	0043.6	007.3	274.4	001.6901	0078.2	029.2	52.86
133.0	000.1400	0043.7	007.3	274.2	001.6901	0078.3	029.3	52.83
134.0	000.1400	0043.8	007.4	274.0	001.6901	0078.4	029.4	52.80
135.0	000.1400	0043.7	007.3	273.8	001.6901	0078.5	029.5	52.76
136.0	000.1400	0043.8	007.3	273.6	001.6901	0078.5	029.6	52.72
137.0	000.1400	0043.9	007.4	273.4	001.6901	0078.6	029.6	52.69
138.0	000.1400	0044.0	007.4	273.2	001.6901	0078.7	029.7	52.65
139.0	000.1400	0043.9	007.4	273.1	001.6901	0078.8	029.8	52.60
140.0	000.1400	0043.8	007.4	272.9	001.6901	0078.8	029.9	52.55

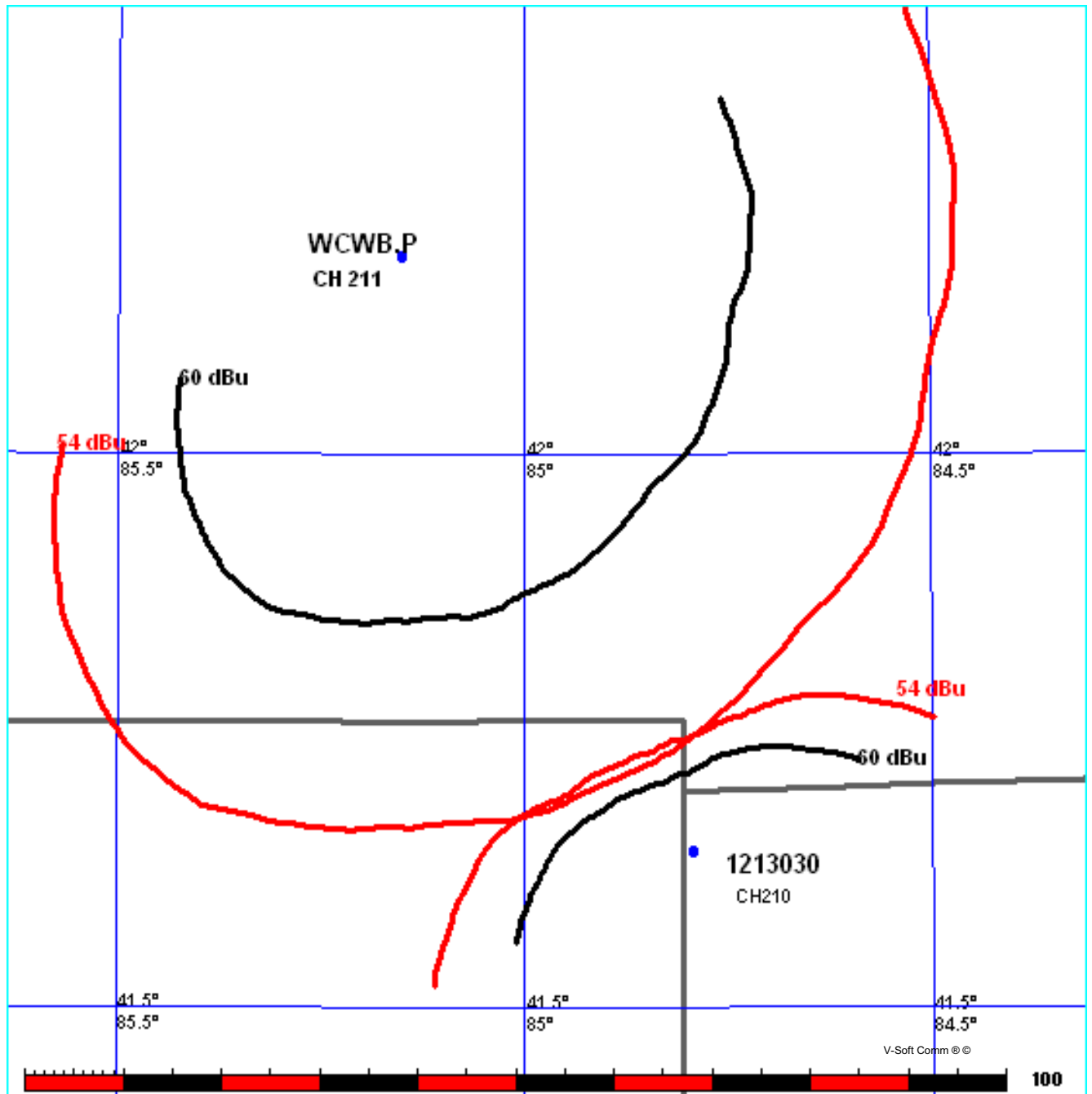


## Exhibit 16.5 - Contour Protection Studies Toward APP210A - Edon, OH

FMCommander Single Allocation Study  
04-24-2008

WCWB.P CH 211 B1  
25.0 kW 365 M COR DA  
Prot. = 60 dBu  
Intef. = 54 dBu

1213030 CH 210 A BNPED20071022AXX  
3.5 kW, 372 M COR DA  
Prot. = 60 dBu  
Intef. = 54 dBu



04-24-2008

NGDC 30 SEC Terrain Data

FMOver Analysis

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

Protected

60 dBu

1213030

BNPED20071022AXX

Channel = 210A

Max ERP = 3.5 kW

RCAMSL = 372 M

N. Lat. 41 38 27.0

W. Lng. 84 47 32.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
108.0	025.0000	0076.9	034.8	003.8	000.1341	0058.4	049.2	31.63
109.0	025.0000	0077.3	034.9	003.7	000.1336	0058.4	048.6	31.80
110.0	025.0000	0077.7	034.9	003.6	000.1330	0058.4	048.0	31.96
111.0	025.0000	0077.9	035.0	003.4	000.1323	0058.4	047.4	32.12
112.0	025.0000	0078.0	035.0	003.2	000.1313	0058.4	046.8	32.28
113.0	025.0000	0078.1	035.0	003.0	000.1301	0058.5	046.2	32.44
114.0	025.0000	0078.0	035.0	002.7	000.1287	0058.5	045.6	32.58
115.0	025.0000	0078.0	035.0	002.4	000.1273	0058.5	045.1	32.72
116.0	025.0000	0078.2	035.0	002.1	000.1260	0058.5	044.5	32.87
117.0	025.0000	0078.4	035.1	001.9	000.1247	0058.5	043.9	33.02
118.0	025.0000	0078.8	035.1	001.6	000.1234	0058.5	043.3	33.18
119.0	025.0000	0079.2	035.2	001.3	000.1221	0058.5	042.8	33.34
120.0	025.0000	0079.5	035.3	001.0	000.1206	0058.5	042.2	33.49
121.0	025.0000	0079.7	035.3	000.6	000.1188	0058.5	041.6	33.62
122.0	025.0000	0079.6	035.3	000.2	000.1167	0058.4	041.1	33.72
123.0	025.0000	0079.3	035.3	359.6	000.1145	0058.5	040.6	33.84
124.0	025.0000	0078.9	035.2	359.0	000.1123	0058.7	040.2	33.95
125.0	025.0000	0078.5	035.1	358.4	000.1100	0058.9	039.7	34.05
126.0	025.0000	0078.3	035.0	357.8	000.1078	0059.0	039.3	34.16
127.0	025.0000	0078.0	035.0	357.2	000.1056	0059.2	038.8	34.26
128.0	025.0000	0077.7	034.9	356.5	000.1031	0059.2	038.4	34.32
129.0	025.0000	0077.1	034.8	355.8	000.1018	0058.8	038.1	34.34
130.0	025.0000	0076.4	034.7	355.0	000.1041	0058.0	037.7	34.48
131.0	025.0000	0075.9	034.6	354.2	000.1065	0057.2	037.4	34.60
132.0	025.0000	0075.8	034.5	353.5	000.1086	0056.4	037.0	34.74
133.0	025.0000	0076.1	034.6	352.9	000.1107	0055.8	036.6	34.90
134.0	025.0000	0076.6	034.7	352.2	000.1127	0055.3	036.1	35.10
135.0	025.0000	0077.0	034.8	351.5	000.1145	0055.1	035.7	35.31
136.0	025.0000	0077.3	034.8	350.8	000.1164	0054.9	035.3	35.52
137.0	025.0000	0077.5	034.9	350.0	000.1185	0054.8	034.9	35.73
138.0	025.0000	0077.7	034.9	349.2	000.1178	0054.6	034.5	35.83
139.0	025.0000	0078.2	035.0	348.4	000.1171	0054.5	034.1	35.95
140.0	025.0000	0078.9	035.2	347.6	000.1165	0054.4	033.7	36.08
141.0	025.0000	0079.6	035.3	346.8	000.1158	0054.3	033.3	36.20
142.0	025.0000	0080.3	035.5	345.9	000.1150	0054.0	032.9	36.30
143.0	025.0000	0080.8	035.5	345.0	000.1142	0053.9	032.6	36.38
144.0	025.0000	0081.1	035.6	344.0	000.1134	0053.8	032.3	36.46

## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
145.0	025.0000	0081.5	035.7	343.0	000.1143	0053.6	032.1	36.58
146.0	025.0000	0081.9	035.8	342.0	000.1153	0053.1	031.8	36.65
147.0	025.0000	0082.4	035.9	340.9	000.1163	0052.5	031.6	36.71
148.0	025.0000	0082.9	036.0	339.9	000.1170	0051.8	031.3	36.73
149.0	025.0000	0083.4	036.1	338.8	000.1156	0051.3	031.1	36.69
150.0	025.0000	0083.8	036.2	337.6	000.1142	0051.1	030.9	36.68
151.0	025.0000	0084.1	036.2	336.5	000.1134	0051.2	030.8	36.73
152.0	025.0000	0084.3	036.2	335.3	000.1134	0051.5	030.7	36.83
153.0	025.0000	0084.3	036.3	334.1	000.1134	0052.1	030.7	36.94
154.0	025.0000	0084.3	036.2	333.0	000.1134	0052.6	030.7	37.01
155.0	025.0000	0084.1	036.2	331.8	000.1134	0053.1	030.8	37.06
156.0	025.0000	0084.1	036.2	330.6	000.1134	0053.8	030.8	37.14
157.0	025.0000	0084.2	036.2	329.4	000.1134	0054.4	030.9	37.22
158.0	025.0000	0084.3	036.3	328.3	000.1134	0054.8	031.0	37.24
159.0	025.0000	0084.5	036.3	327.1	000.1134	0055.2	031.1	37.25
160.0	025.0000	0084.7	036.3	326.0	000.1134	0055.6	031.2	37.27
161.0	025.0000	0085.2	036.4	324.8	000.1134	0055.9	031.2	37.28
162.0	025.0000	0085.9	036.6	323.6	000.1134	0056.2	031.3	37.29
163.0	025.0000	0086.7	036.7	322.4	000.1134	0056.5	031.4	37.31
164.0	025.0000	0087.4	036.9	321.2	000.1134	0056.9	031.5	37.30
165.0	025.0000	0087.9	036.9	320.1	000.1134	0057.2	031.7	37.26
166.0	025.0000	0088.2	037.0	319.0	000.1165	0057.5	031.9	37.31
167.0	025.0000	0088.4	037.0	318.0	000.1198	0057.7	032.2	37.34
168.0	025.0000	0088.6	037.1	317.0	000.1232	0057.9	032.5	37.37
169.0	025.0000	0088.5	037.1	316.0	000.1263	0058.1	032.9	37.34
170.0	025.0000	0087.9	036.9	315.2	000.1290	0058.2	033.3	37.25
171.0	025.0000	0087.1	036.8	314.5	000.1315	0058.3	033.8	37.14
172.0	025.0000	0086.6	036.7	313.7	000.1341	0058.3	034.3	37.03
173.0	025.0000	0086.4	036.6	312.9	000.1368	0058.4	034.7	36.94
174.0	025.0000	0086.2	036.6	312.2	000.1394	0058.5	035.2	36.84
175.0	025.0000	0086.1	036.6	311.4	000.1420	0058.5	035.6	36.74
176.0	025.0000	0086.1	036.6	310.7	000.1445	0058.6	036.1	36.65
177.0	025.0000	0086.3	036.6	310.0	000.1473	0058.7	036.5	36.57
178.0	025.0000	0086.7	036.7	309.2	000.1517	0058.9	036.9	36.54
179.0	025.0000	0087.2	036.8	308.5	000.1560	0059.0	037.4	36.50
180.0	025.0000	0086.9	036.7	307.9	000.1592	0059.1	037.9	36.39
181.0	025.0000	0086.5	036.7	307.4	000.1621	0059.2	038.5	36.26
182.0	025.0000	0086.4	036.7	306.9	000.1653	0059.2	039.0	36.14
183.0	025.0000	0087.4	036.8	306.2	000.1699	0059.3	039.4	36.11
184.0	025.0000	0088.3	037.0	305.5	000.1743	0059.4	039.9	36.06
185.0	025.0000	0089.1	037.2	304.8	000.1785	0059.5	040.4	35.98
186.0	025.0000	0089.4	037.2	304.3	000.1817	0059.5	040.9	35.86
187.0	025.0000	0089.6	037.3	303.8	000.1846	0059.5	041.5	35.72
188.0	025.0000	0089.6	037.3	303.4	000.1871	0059.5	042.1	35.56
189.0	025.0000	0089.8	037.3	303.0	000.1898	0059.4	042.6	35.41
190.0	025.0000	0090.0	037.3	302.6	000.1923	0059.3	043.2	35.25
191.0	025.0000	0090.2	037.4	302.3	000.1946	0059.2	043.8	35.08
192.0	025.0000	0090.5	037.4	301.9	000.1970	0059.1	044.4	34.91
193.0	025.0000	0090.7	037.5	301.6	000.1991	0058.9	045.0	34.73
194.0	025.0000	0090.7	037.5	301.4	000.2009	0058.8	045.6	34.54
195.0	025.0000	0090.7	037.5	301.1	000.2024	0058.7	046.3	34.35

## 04-24-2008 NGDC 30 SEC Terrain Data

1213030 BNPED20071022AXX

Channel = 210A

Max ERP = 3.5 kW

RCAMSL = 372 M

N. Lat. 41 38 27.0

W. Lng. 84 47 32.0

Protected

60 dBu

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
289.0	000.3517	0057.6	010.9	160.7	025.0000	0085.1	059.7	53.15
290.0	000.3342	0057.2	010.7	160.5	025.0000	0085.0	059.6	53.15
291.0	000.3205	0056.9	010.6	160.3	025.0000	0084.9	059.6	53.17
292.0	000.3071	0056.7	010.4	160.1	025.0000	0084.8	059.5	53.18
293.0	000.2939	0056.5	010.3	159.9	025.0000	0084.7	059.5	53.19
294.0	000.2811	0056.3	010.2	159.7	025.0000	0084.6	059.4	53.20
295.0	000.2686	0056.1	010.0	159.5	025.0000	0084.6	059.4	53.20
296.0	000.2563	0056.2	009.9	159.3	025.0000	0084.5	059.4	53.22
297.0	000.2443	0056.5	009.8	159.1	025.0000	0084.5	059.3	53.23
298.0	000.2326	0057.0	009.8	158.9	025.0000	0084.5	059.3	53.24
299.0	000.2212	0057.5	009.7	158.7	025.0000	0084.4	059.2	53.26
300.0	000.2101	0058.0	009.6	158.6	025.0000	0084.4	059.2	53.27
301.0	000.2033	0058.6	009.6	158.4	025.0000	0084.4	059.1	53.29
302.0	000.1966	0059.1	009.5	158.3	025.0000	0084.4	059.0	53.32
303.0	000.1900	0059.4	009.5	158.1	025.0000	0084.3	059.0	53.33
304.0	000.1835	0059.5	009.4	157.9	025.0000	0084.3	058.9	53.34
305.0	000.1772	0059.5	009.3	157.7	025.0000	0084.3	058.9	53.34
306.0	000.1709	0059.4	009.2	157.6	025.0000	0084.3	058.9	53.34
307.0	000.1648	0059.2	009.1	157.4	025.0000	0084.3	058.9	53.34
308.0	000.1588	0059.1	009.0	157.2	025.0000	0084.2	058.9	53.34
309.0	000.1529	0058.9	008.9	157.0	025.0000	0084.2	058.9	53.33
310.0	000.1471	0058.7	008.8	156.8	025.0000	0084.2	059.0	53.32
311.0	000.1435	0058.6	008.7	156.7	025.0000	0084.2	059.0	53.32
312.0	000.1400	0058.5	008.7	156.5	025.0000	0084.1	059.0	53.32
313.0	000.1365	0058.4	008.6	156.3	025.0000	0084.1	059.0	53.32
314.0	000.1331	0058.3	008.5	156.2	025.0000	0084.1	059.0	53.32
315.0	000.1297	0058.2	008.5	156.0	025.0000	0084.1	059.0	53.32
316.0	000.1263	0058.1	008.4	155.9	025.0000	0084.1	059.0	53.31
317.0	000.1230	0057.9	008.3	155.7	025.0000	0084.1	059.0	53.30
318.0	000.1198	0057.7	008.2	155.6	025.0000	0084.1	059.0	53.29
319.0	000.1166	0057.5	008.1	155.4	025.0000	0084.1	059.1	53.28
320.0	000.1134	0057.2	008.1	155.3	025.0000	0084.1	059.1	53.27
321.0	000.1134	0056.9	008.0	155.1	025.0000	0084.1	059.1	53.27
322.0	000.1134	0056.7	008.0	155.0	025.0000	0084.1	059.1	53.28

## FMOver Analysis

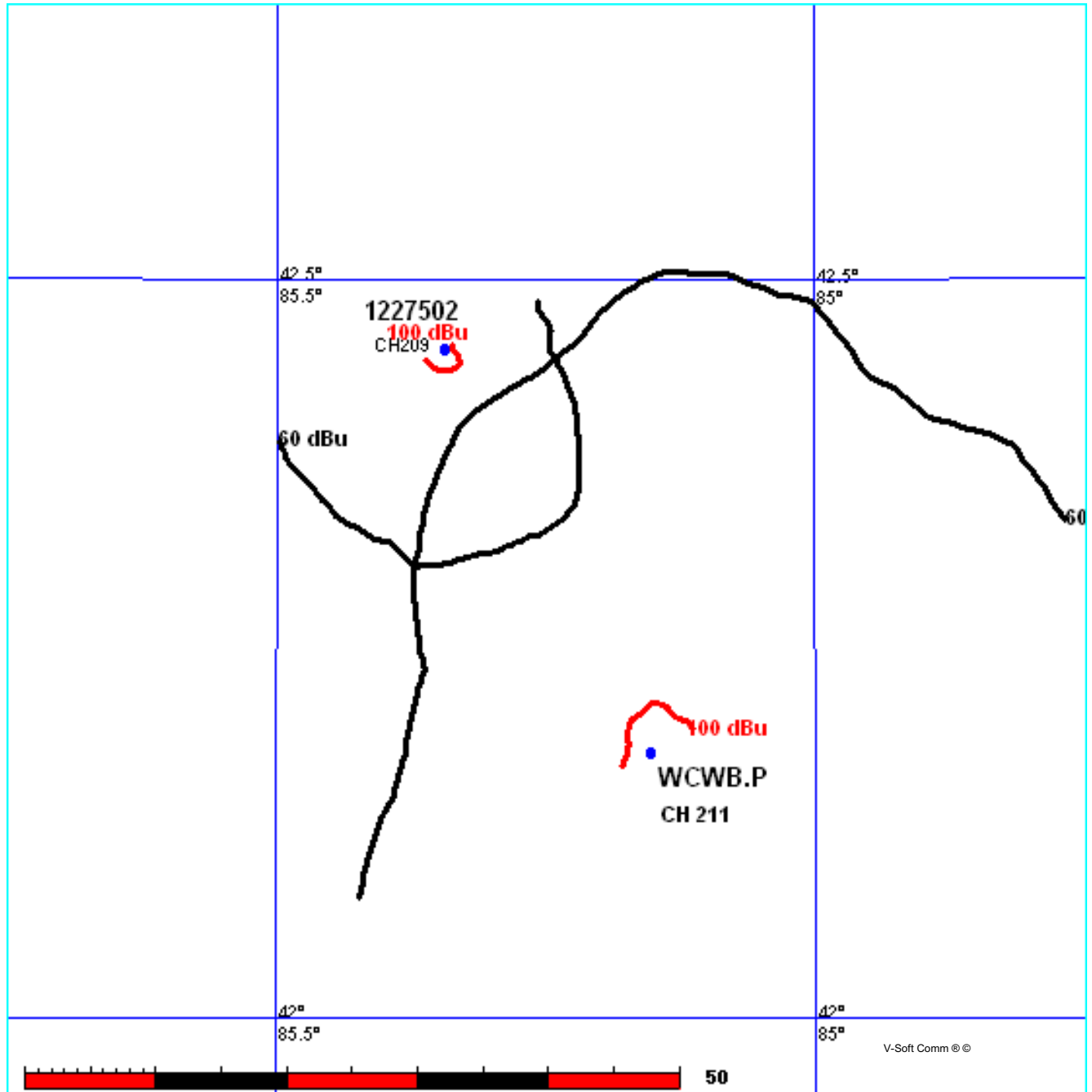
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
323.0	000.1134	0056.4	008.0	154.8	025.0000	0084.1	059.1	53.28
324.0	000.1134	0056.1	008.0	154.7	025.0000	0084.2	059.1	53.29
325.0	000.1134	0055.9	008.0	154.6	025.0000	0084.2	059.1	53.29
326.0	000.1134	0055.6	007.9	154.4	025.0000	0084.2	059.1	53.29
327.0	000.1134	0055.2	007.9	154.3	025.0000	0084.2	059.1	53.29
328.0	000.1134	0054.9	007.9	154.2	025.0000	0084.2	059.1	53.29
329.0	000.1134	0054.6	007.9	154.0	025.0000	0084.3	059.1	53.29
330.0	000.1134	0054.1	007.8	153.9	025.0000	0084.3	059.1	53.28
331.0	000.1134	0053.5	007.8	153.8	025.0000	0084.3	059.2	53.27
332.0	000.1134	0053.0	007.7	153.6	025.0000	0084.3	059.2	53.25
333.0	000.1134	0052.6	007.7	153.5	025.0000	0084.3	059.2	53.25
334.0	000.1134	0052.2	007.7	153.4	025.0000	0084.3	059.3	53.23
335.0	000.1134	0051.7	007.6	153.2	025.0000	0084.3	059.3	53.22
336.0	000.1134	0051.3	007.6	153.1	025.0000	0084.3	059.3	53.21
337.0	000.1134	0051.1	007.6	153.0	025.0000	0084.4	059.4	53.20
338.0	000.1147	0051.1	007.6	152.9	025.0000	0084.4	059.4	53.20
339.0	000.1159	0051.4	007.6	152.7	025.0000	0084.4	059.3	53.22
340.0	000.1172	0051.9	007.7	152.6	025.0000	0084.3	059.3	53.23
341.0	000.1163	0052.6	007.7	152.5	025.0000	0084.3	059.3	53.24
342.0	000.1153	0053.1	007.8	152.3	025.0000	0084.3	059.2	53.24
343.0	000.1143	0053.6	007.8	152.2	025.0000	0084.3	059.2	53.24
344.0	000.1134	0053.8	007.8	152.1	025.0000	0084.3	059.3	53.23
345.0	000.1142	0053.9	007.8	151.9	025.0000	0084.3	059.3	53.22
346.0	000.1151	0054.1	007.8	151.8	025.0000	0084.3	059.3	53.22
347.0	000.1159	0054.3	007.9	151.7	025.0000	0084.2	059.3	53.22
348.0	000.1168	0054.5	007.9	151.5	025.0000	0084.2	059.3	53.21
349.0	000.1176	0054.6	007.9	151.4	025.0000	0084.2	059.3	53.21
350.0	000.1185	0054.8	008.0	151.2	025.0000	0084.2	059.3	53.20
351.0	000.1159	0055.0	007.9	151.1	025.0000	0084.1	059.4	53.17
352.0	000.1134	0055.2	007.9	151.0	025.0000	0084.1	059.5	53.14
353.0	000.1103	0055.9	007.9	150.9	025.0000	0084.1	059.5	53.12
354.0	000.1072	0056.9	007.9	150.8	025.0000	0084.0	059.6	53.11
355.0	000.1041	0058.0	007.9	150.6	025.0000	0084.0	059.6	53.09
356.0	000.1012	0058.9	007.9	150.5	025.0000	0084.0	059.7	53.07
357.0	000.1048	0059.2	008.0	150.4	025.0000	0083.9	059.6	53.07
358.0	000.1084	0059.0	008.1	150.2	025.0000	0083.9	059.7	53.07
359.0	000.1121	0058.7	008.2	150.1	025.0000	0083.8	059.7	53.06
000.0	000.1159	0058.4	008.2	149.9	025.0000	0083.8	059.7	53.05
001.0	000.1206	0058.5	008.3	149.7	025.0000	0083.7	059.7	53.05
002.0	000.1253	0058.5	008.4	149.6	025.0000	0083.6	059.7	53.04
003.0	000.1301	0058.5	008.5	149.4	025.0000	0083.6	059.7	53.03
004.0	000.1350	0058.5	008.6	149.3	025.0000	0083.5	059.7	53.03
005.0	000.1400	0058.7	008.7	149.1	025.0000	0083.4	059.7	53.02
006.0	000.1451	0058.9	008.8	148.9	025.0000	0083.4	059.7	53.01
007.0	000.1503	0059.1	008.9	148.7	025.0000	0083.3	059.7	53.00
008.0	000.1555	0059.7	009.0	148.5	025.0000	0083.2	059.7	52.99
009.0	000.1609	0060.2	009.1	148.4	025.0000	0083.1	059.7	52.98
010.0	000.1663	0061.0	009.2	148.2	025.0000	0083.0	059.7	52.97
011.0	000.1742	0061.9	009.4	147.9	025.0000	0082.9	059.7	52.97
012.0	000.1823	0062.5	009.6	147.7	025.0000	0082.7	059.7	52.96
013.0	000.1905	0062.7	009.7	147.5	025.0000	0082.6	059.8	52.94

## Exhibit 16.6 - Contour Protection Studies Toward APP210A - Bedford, MI

FMCommander Single Allocation Study  
04-24-2008

WCWB.P CH 211 B1  
25.0 kW 365 M COR DA  
Prot. = 60 dBu  
Intef. = 100 dBu

1227502 CH 209 A BNPED20071022AXL  
0.75 kW, 352 M COR DA  
Prot. = 60 dBu  
Intef. = 100 dBu



**Munn-Reese, Inc.**

Broadcast Engineering Consultants  
Coldwater, MI 49036

04-24-2008

NGDC 30 SEC Terrain Data

FMOver Analysis

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

Protected

60 dBu

1227502

BNPED20071022AXL

Channel = 209A

Max ERP = 0.75 kW

RCAMSL = 352 M

N. Lat. 42 27 12.9

W. Lng. 85 20 39.0

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
288.0	001.6900	0076.0	018.4	183.9	000.7500	0092.1	024.8	53.69
289.0	001.6900	0075.8	018.3	183.7	000.7500	0092.0	024.5	53.90
290.0	001.6900	0075.6	018.3	183.4	000.7500	0092.0	024.2	54.11
291.0	001.7782	0075.5	018.5	183.7	000.7500	0092.0	023.9	54.39
292.0	001.8687	0075.5	018.8	184.0	000.7500	0092.1	023.5	54.68
293.0	001.9614	0075.5	019.0	184.3	000.7500	0092.2	023.1	54.97
294.0	002.0564	0075.6	019.3	184.6	000.7500	0092.3	022.7	55.28
295.0	002.1536	0075.6	019.5	184.9	000.7500	0092.4	022.3	55.59
296.0	002.2530	0075.5	019.7	185.1	000.7500	0092.4	021.9	55.89
297.0	002.3547	0075.6	019.9	185.3	000.7500	0092.5	021.5	56.21
298.0	002.4586	0075.8	020.2	185.5	000.7500	0092.5	021.1	56.54
299.0	002.5648	0076.0	020.4	185.8	000.7500	0092.6	020.7	56.87
300.0	002.6732	0076.2	020.6	186.0	000.7500	0092.7	020.3	57.22
301.0	002.8140	0076.4	020.9	186.3	000.7500	0092.9	019.8	57.60
302.0	002.9584	0076.8	021.2	186.6	000.7500	0093.2	019.3	58.00
303.0	003.1064	0077.2	021.5	187.0	000.7500	0093.3	018.9	58.40
304.0	003.2580	0077.7	021.8	187.3	000.7500	0093.3	018.4	58.78
305.0	003.4133	0077.9	022.1	187.5	000.7500	0093.2	017.9	59.16
306.0	003.5721	0077.9	022.3	187.6	000.7500	0093.2	017.5	59.53
307.0	003.7346	0077.8	022.6	187.6	000.7500	0093.2	017.0	59.90
308.0	003.9006	0077.7	022.8	187.6	000.7500	0093.2	016.6	60.29
309.0	004.0703	0077.5	023.0	187.5	000.7500	0093.2	016.1	60.67
310.0	004.2436	0077.4	023.2	187.4	000.7500	0093.3	015.7	61.06
311.0	004.4669	0077.4	023.5	187.4	000.7500	0093.3	015.2	61.48
312.0	004.6959	0077.5	023.7	187.4	000.7500	0093.3	014.7	61.83
313.0	004.9306	0077.6	024.0	187.4	000.7500	0093.3	014.2	62.42
314.0	005.1711	0077.7	024.3	187.3	000.7500	0093.3	013.7	63.05
315.0	005.4173	0078.0	024.6	187.2	000.7500	0093.3	013.2	63.73
316.0	005.6692	0078.3	024.9	187.0	000.7500	0093.3	012.7	64.45
317.0	005.9268	0078.6	025.2	186.8	000.7500	0093.2	012.1	65.20
318.0	006.1901	0078.7	025.5	186.3	000.7500	0093.0	011.6	65.95
319.0	006.4592	0078.7	025.7	185.7	000.7500	0092.6	011.1	66.70
320.0	006.7340	0078.7	025.9	185.0	000.7500	0092.4	010.7	67.50
321.0	007.0862	0078.6	026.2	184.3	000.7500	0092.2	010.1	68.38
322.0	007.4474	0078.6	026.5	183.5	000.7500	0092.0	009.6	69.29
323.0	007.8176	0078.5	026.8	182.4	000.7500	0092.0	009.1	70.24
324.0	008.1968	0078.4	027.1	181.1	000.7500	0091.2	008.6	71.13

## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
325.0	008.5849	0078.4	027.3	179.6	000.7500	0090.3	008.1	72.02
326.0	008.9820	0078.3	027.6	177.8	000.7500	0089.2	007.6	72.95
327.0	009.3881	0078.3	027.9	175.6	000.7500	0087.4	007.1	73.93
328.0	009.8032	0078.3	028.2	173.0	000.7500	0086.7	006.7	75.10
329.0	010.2272	0078.5	028.5	170.0	000.7500	0085.8	006.2	76.32
330.0	010.6602	0078.8	028.8	166.5	000.7500	0086.7	005.7	77.83
331.0	010.6602	0079.3	028.9	161.7	000.7500	0085.0	005.5	78.24
332.0	010.6602	0079.8	029.0	156.6	000.7500	0084.6	005.4	78.70
333.0	010.6602	0080.4	029.1	151.1	000.7500	0086.6	005.3	79.30
334.0	010.6602	0081.0	029.2	145.5	000.7500	0085.8	005.2	79.40
335.0	010.6602	0081.5	029.2	139.8	000.7446	0083.2	005.2	79.02
336.0	010.6602	0081.9	029.3	134.3	000.5859	0081.8	005.3	77.49
337.0	010.6602	0082.3	029.4	129.1	000.4568	0079.3	005.5	75.62
338.0	010.6602	0082.8	029.5	124.1	000.3666	0075.9	005.7	73.65
339.0	010.6602	0083.4	029.6	119.5	000.2930	0075.2	005.9	71.86
340.0	010.6602	0083.8	029.6	115.3	000.2453	0073.8	006.2	70.03
341.0	010.7847	0084.0	029.7	111.4	000.2032	0073.7	006.5	68.36
342.0	010.9098	0084.0	029.8	108.1	000.1753	0071.6	006.9	66.47
343.0	011.0357	0083.9	029.9	105.3	000.1547	0070.4	007.3	64.79
344.0	011.1623	0084.4	030.0	102.2	000.1338	0069.8	007.6	63.23
345.0	011.2896	0085.4	030.3	098.8	000.1141	0070.1	008.0	61.81
346.0	011.4176	0086.5	030.6	095.6	000.0995	0069.8	008.4	60.43
347.0	011.5464	0087.5	030.8	093.0	000.0879	0069.7	008.8	59.08
348.0	011.6759	0088.3	031.0	090.7	000.0786	0069.8	009.3	57.75
349.0	011.8061	0089.3	031.3	088.5	000.0785	0069.7	009.8	56.87
350.0	011.9370	0090.6	031.6	086.3	000.0827	0068.4	010.3	56.07
351.0	012.5635	0091.4	032.2	083.2	000.0888	0066.2	010.8	55.24
352.0	013.2060	0092.2	032.7	080.4	000.0943	0065.7	011.3	54.52
353.0	013.8645	0092.9	033.2	078.0	000.0951	0065.2	011.9	53.54
354.0	014.5390	0093.6	033.7	076.0	000.0951	0064.7	012.6	52.52
355.0	015.2295	0094.2	034.2	074.4	000.0951	0063.9	013.2	51.48
356.0	015.9361	0094.3	034.5	073.3	000.0951	0062.9	013.9	50.47
357.0	016.6586	0094.3	034.9	072.5	000.0951	0062.1	014.6	49.54
358.0	017.3972	0094.2	035.2	071.9	000.0951	0061.6	015.3	49.00
359.0	018.1519	0094.3	035.6	071.3	000.0951	0061.1	015.9	48.33
000.0	018.9225	0094.5	035.9	070.8	000.0951	0060.8	016.7	47.67
001.0	019.4922	0094.6	036.2	070.7	000.0951	0060.7	017.3	47.07
002.0	020.0704	0093.9	036.3	071.1	000.0951	0061.0	018.0	46.56
003.0	020.6570	0093.0	036.4	071.6	000.0951	0061.4	018.6	46.10
004.0	021.2521	0091.9	036.4	072.2	000.0951	0061.9	019.2	45.64
005.0	021.8556	0090.6	036.4	073.0	000.0951	0062.6	019.8	45.25
006.0	022.4676	0089.1	036.3	073.8	000.0951	0063.4	020.3	44.88
007.0	023.0880	0088.3	036.4	074.3	000.0951	0063.8	020.9	44.43
008.0	023.7169	0087.9	036.5	074.6	000.0951	0064.1	021.6	43.96
009.0	024.3542	0087.1	036.6	075.1	000.0951	0064.4	022.2	43.51
010.0	025.0000	0086.1	036.6	075.8	000.0951	0064.6	022.8	43.09
011.0	025.0000	0084.8	036.4	077.0	000.0951	0065.0	023.3	42.76
012.0	025.0000	0084.3	036.2	077.9	000.0951	0065.2	023.8	42.38
013.0	025.0000	0084.0	036.2	078.6	000.0951	0065.3	024.4	41.99
014.0	025.0000	0083.7	036.1	079.3	000.0951	0065.4	024.9	41.61
015.0	025.0000	0083.1	036.0	080.2	000.0947	0065.6	025.4	41.25



04-24-2008 NGDC 30 SEC Terrain Data

1227502 BNPED20071022AXL

Channel = 209A

Max ERP = 0.75 kW

RCAMSL = 352 M

N. Lat. 42 27 12.9

W. Lng. 85 20 39.0

Protected

60 dBu

WCWB.P

Channel = 211B1

Max ERP = 25 kW

RCAMSL = 365 M

N. Lat. 42 10 47.0

W. Lng. 85 09 10.0

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
108.0	000.1745	0071.5	010.1	347.3	011.5912	0087.8	028.0	63.03
109.0	000.1821	0072.1	010.2	347.4	011.6003	0087.8	027.8	63.18
110.0	000.1898	0072.9	010.4	347.5	011.6097	0087.9	027.5	63.34
111.0	000.1996	0073.5	010.5	347.6	011.6210	0088.0	027.3	63.51
112.0	000.2097	0074.0	010.7	347.6	011.6286	0088.0	027.0	63.67
113.0	000.2201	0074.1	010.8	347.6	011.6292	0088.0	026.8	63.82
114.0	000.2307	0074.0	011.0	347.6	011.6234	0088.0	026.6	63.96
115.0	000.2415	0073.8	011.1	347.5	011.6155	0087.9	026.4	64.10
116.0	000.2526	0073.8	011.2	347.5	011.6088	0087.9	026.1	64.24
117.0	000.2640	0074.2	011.3	347.5	011.6053	0087.9	025.9	64.40
118.0	000.2756	0074.7	011.5	347.4	011.6016	0087.8	025.7	64.57
119.0	000.2875	0075.1	011.6	347.4	011.5950	0087.8	025.4	64.73
120.0	000.2996	0075.2	011.7	347.3	011.5813	0087.7	025.2	64.88
121.0	000.3152	0075.2	011.9	347.2	011.5684	0087.6	024.9	65.04
122.0	000.3313	0075.1	012.0	347.1	011.5537	0087.5	024.7	65.19
123.0	000.3477	0075.3	012.2	347.0	011.5403	0087.4	024.4	65.36
124.0	000.3646	0075.9	012.3	346.9	011.5304	0087.3	024.2	65.55
125.0	000.3818	0076.7	012.5	346.8	011.5223	0087.3	023.9	65.75
126.0	000.3995	0077.7	012.8	346.7	011.5134	0087.2	023.6	65.96
127.0	000.4175	0078.4	012.9	346.6	011.4977	0087.1	023.3	66.16
128.0	000.4359	0078.9	013.1	346.4	011.4752	0086.9	023.0	66.34
129.0	000.4548	0079.3	013.3	346.2	011.4492	0086.7	022.7	66.51
130.0	000.4740	0079.8	013.5	346.0	011.4221	0086.5	022.5	66.69
131.0	000.4988	0080.5	013.7	345.9	011.4008	0086.4	022.1	66.91
132.0	000.5242	0081.0	013.9	345.7	011.3746	0086.2	021.8	67.12
133.0	000.5502	0081.4	014.1	345.4	011.3425	0085.9	021.5	67.31
134.0	000.5768	0081.7	014.3	345.1	011.3049	0085.5	021.2	67.49
135.0	000.6041	0082.0	014.5	344.8	011.2632	0085.2	020.9	67.66
136.0	000.6320	0082.5	014.7	344.5	011.2211	0084.8	020.6	67.85
137.0	000.6606	0082.8	014.9	344.1	011.1732	0084.5	020.3	68.04
138.0	000.6898	0083.0	015.1	343.6	011.1178	0084.2	020.1	68.21
139.0	000.7196	0083.0	015.3	343.2	011.0575	0084.0	019.8	68.38
140.0	000.7500	0083.3	015.5	342.7	010.9957	0083.9	019.5	68.59
141.0	000.7500	0083.9	015.5	342.0	010.9106	0084.0	019.3	68.68

## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
142.0	000.7500	0084.5	015.6	341.3	010.8248	0084.0	019.2	68.79
143.0	000.7500	0085.1	015.6	340.6	010.7353	0084.0	019.0	68.86
144.0	000.7500	0085.5	015.7	339.9	010.6602	0083.7	018.9	68.90
145.0	000.7500	0085.7	015.7	339.1	010.6602	0083.4	018.8	68.95
146.0	000.7500	0085.9	015.7	338.3	010.6602	0083.0	018.7	68.96
147.0	000.7500	0085.9	015.7	337.4	010.6602	0082.5	018.7	68.96
148.0	000.7500	0086.0	015.7	336.6	010.6602	0082.1	018.6	68.96
149.0	000.7500	0086.2	015.8	335.8	010.6602	0081.8	018.6	68.98
150.0	000.7500	0086.5	015.8	335.0	010.6602	0081.5	018.5	68.99
151.0	000.7500	0086.6	015.8	334.1	010.6602	0081.1	018.5	68.97
152.0	000.7500	0086.4	015.8	333.3	010.6602	0080.6	018.5	68.90
153.0	000.7500	0085.8	015.7	332.4	010.6602	0080.1	018.6	68.79
154.0	000.7500	0084.9	015.6	331.6	010.6602	0079.6	018.7	68.65
155.0	000.7500	0084.5	015.6	330.8	010.6602	0079.1	018.7	68.55
156.0	000.7500	0084.5	015.6	329.9	010.6268	0078.8	018.8	68.48
157.0	000.7500	0084.6	015.6	329.1	010.2683	0078.6	018.8	68.29
158.0	000.7500	0084.7	015.6	328.3	009.9191	0078.4	018.8	68.09
159.0	000.7500	0084.8	015.6	327.5	009.5762	0078.3	018.9	67.89
160.0	000.7500	0084.8	015.6	326.6	009.2436	0078.3	018.9	67.69
161.0	000.7500	0084.9	015.6	325.8	008.9182	0078.3	019.0	67.49
162.0	000.7500	0085.0	015.6	325.0	008.6017	0078.4	019.0	67.28
163.0	000.7500	0085.1	015.6	324.3	008.2973	0078.4	019.1	67.06
164.0	000.7500	0085.2	015.7	323.5	007.9997	0078.5	019.2	66.84
165.0	000.7500	0085.8	015.7	322.6	007.6858	0078.5	019.2	66.64
166.0	000.7500	0086.5	015.8	321.8	007.3786	0078.6	019.3	66.44
167.0	000.7500	0086.9	015.8	321.0	007.0944	0078.6	019.4	66.20
168.0	000.7500	0086.7	015.8	320.3	006.8480	0078.6	019.5	65.93
169.0	000.7500	0086.1	015.8	319.7	006.6504	0078.7	019.7	65.66
170.0	000.7500	0085.8	015.7	319.1	006.4765	0078.7	019.9	65.41
171.0	000.7500	0085.8	015.7	318.4	006.2941	0078.7	020.0	65.17
172.0	000.7500	0086.4	015.8	317.6	006.0968	0078.6	020.1	64.94
173.0	000.7500	0086.7	015.8	316.9	005.9132	0078.5	020.2	64.69
174.0	000.7500	0086.8	015.8	316.3	005.7493	0078.4	020.4	64.42
175.0	000.7500	0087.0	015.8	315.7	005.5860	0078.2	020.6	64.15
176.0	000.7500	0087.9	015.9	314.9	005.3975	0078.0	020.7	63.88
177.0	000.7500	0088.7	016.0	314.2	005.2139	0077.8	020.8	63.62
178.0	000.7500	0089.3	016.1	313.5	005.0497	0077.7	020.9	63.35
179.0	000.7500	0089.9	016.2	312.8	004.8919	0077.6	021.1	63.07
180.0	000.7500	0090.5	016.2	312.2	004.7378	0077.5	021.3	62.80
181.0	000.7500	0091.1	016.3	311.5	004.5906	0077.4	021.4	62.51
182.0	000.7500	0091.7	016.4	310.9	004.4510	0077.4	021.6	62.23
183.0	000.7500	0091.9	016.4	310.4	004.3372	0077.4	021.8	61.96
184.0	000.7500	0092.1	016.4	309.9	004.2324	0077.4	022.0	61.68
185.0	000.7500	0092.4	016.4	309.4	004.1462	0077.5	022.3	61.43
186.0	000.7500	0092.7	016.5	309.0	004.0643	0077.6	022.5	61.19
187.0	000.7500	0093.3	016.5	308.4	003.9746	0077.6	022.7	60.94
188.0	000.7500	0092.8	016.5	308.2	003.9328	0077.7	023.0	60.68
189.0	000.7500	0091.5	016.3	308.1	003.9226	0077.7	023.3	60.44
190.0	000.7500	0089.9	016.2	308.2	003.9308	0077.7	023.6	60.20
191.0	000.7500	0088.0	015.9	308.3	003.9546	0077.6	024.0	59.97
192.0	000.7500	0086.0	015.7	308.5	003.9777	0077.6	024.3	59.74