Exhibit 18.1
Tabulation of Proposed NCE-FM Allocation

Interlochen Center For The Arts

REFERENCE CH# 203C1 - 88.5 MHz, Pwr= 50 kW DA, HAAT= 250.4 M, COR= 471 M DISPLAY DATES
45 34 05.0 N. Average Protected F(50-50)= 61.55 km DATA 10-31-11
85 04 27.0 W. Standard Directional SEARCH 11-03-11

CH CITY	CALL STATE	TYPE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
203C1 WIAB	APP DCX		0.0	0.0		45 34 05.0	50.000	152.3	63.3	-216.3*	-216.3*
Mackinaw City	MI		0.0	BPED20100707EAA		85 04 27.0	240	462	Interlochen Center For The		
11/16/2010: Accepted on channel 203-C1 by Industry Canada in 10/22/2010 letter. Note: not short-spaced.											
203C2 WIAB	LIC DEX		72.1	35.9		45 40 00.0	20.000	108.4	37.2	-128.3*	-140.7*
Mackinaw City	MI		252.4	BLED20030407ACF		84 38 05.0	131	338	Interlochen Center For The		
201C2 WBLW	LIC DVX		150.2	50.9		45 10 12.0	5.000	3.6	42.9	0.2	3.1
Gaylord	MI		330.4	BLED20060921ACV		84 45 04.0	260	586	Grace Baptist Church		
203A WSFP	LIC _CX		117.3	120.1		45 03 50.0	0.480	57.3	18.0	23.5	0.4
Rust Township	MI		298.3	BLED20060710ADK		83 42 57.0	144	371	Michigan Community Radio		
203C1 WNLI	LIC _CN		248.5	194.3		44 54 14.0	50.000	137.1	51.6	0.5	7.1
Sturgeon Bay	WI		66.9	BLED19981106KA		87 22 13.0	158	354	Bethesda Christian Broadca		
Proposed as Class C1 to Canada 971006-Accepted by Canada 971224											
204C WIAA	LIC _CN		199.5	152.2		44 16 33.0	100.000	101.7	69.6	0.6	9.1
Interlochen	MI		19.1	BLED19900105KB		85 42 49.0	315	658	Interlochen Center For The		
202C3 WTCY	APP DVX		219.6	86.5		44 57 59.0	4.400	22.6	15.0	17.2	2.4
Greilickville	MI		39.1	BPED20111025AIW		85 46 28.0	207	410	Baraga Broadcasting, Inc.		
202C3 WTCY	LIC DVX		219.6	86.5		44 57 59.0	7.000	19.2	12.8	20.7	4.6
Greilickville	MI		39.1	BLED20110426ABJ		85 46 28.0	135	338	Baraga Broadcasting, Inc.		
201B CBON18«	OPE _CN		27.8	129.8		46 35 50.0	1.700	2.2	35.8	114.5R	15.3M
Sault Ste Marie	ON		208.4			84 16 53.0	67	356			
Proposed as Class B by Canada 951122-Accepted by Commission 951208											
06 VACANT«	GR _HN		4.6	269.4		47 59 00.0	0.115	80.2	51.8	132.0R	137.4M
Wawa	ON		184.8	BPFS20081205AEZ		84 47 00.0	150	150			
06Z2 1022600-D«	AP _HN		4.6	269.4		47 59 00.0	4.000	80.2	51.8	132.0R	137.4M
Wawa	ON		184.8	BPFS20041025ADT		84 47 00.0	150	471			
205B AL0111«	AL ___		56.7	140.4		46 15 00.0	50.000	6.4	65.0	114.5R	25.9M
Thessalon	ON		237.8			83 33 00.0	150	349			
203C AL4347«	AL ___		70.3	331.9		46 30 00.0	100.000	197.8	97.0	301.5R	30.4M
Sudbury	ON		253.2			81 00 00.0	600	600			
11/1/2006: Proposed change to 203B at a different location in 10/24/2006 letter. 11/2/2006: Change to 203B accepted by IB in 11/02/2006 letter. 12/5/2006: 10/24/06 referral superceded by 11/23/06 referral to change location and class. 12/5/2006: Changed to 203B accepted by IB in 12/5/06 letter.											
205C2 WCRR	APP _CX		292.5	118.6		45 58 00.0	24.500	5.9	52.5	47.5	57.5
Manistique	MI		111.5	BMPED20111028AFT		86 29 17.2	217	425	Christianradiobroadcasting		
06Z2 CBCE-TV	AP _HN		79.3	243.2		45 56 01.0	3.000	80.2	82.5	162.7R	80.4M
Little Current	ON		261.5	BPFS20041021ABA		81 59 33.0	300	516			
06 VACANT	GR _HN		79.3	243.2		45 56 01.0	0.600	80.2	51.8	132.0R	111.2M
Little Current	ON		261.5	BPFS20081203ABJ		81 59 33.0	300	300			

Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= - Zone 2, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.
« = Station meets FCC minimum distance spacing for its class.

Yellow Highlighted Text denotes the WIAB(FM) - Mackinaw City, MI license and pending application to be amended by this proposal. This facility(s) need not be protected by this Form 340 filing.

Blue Highlighted Text denotes §73.509 Contour Protections as included in ***Exhibit(s) 18.2*** to ***18.7***. The applicant would like to note that contour protection towards WNLI.L - Sturgeon Bay, MI categorically maintains the contour overlap wholly over water as noted in the attached showings.

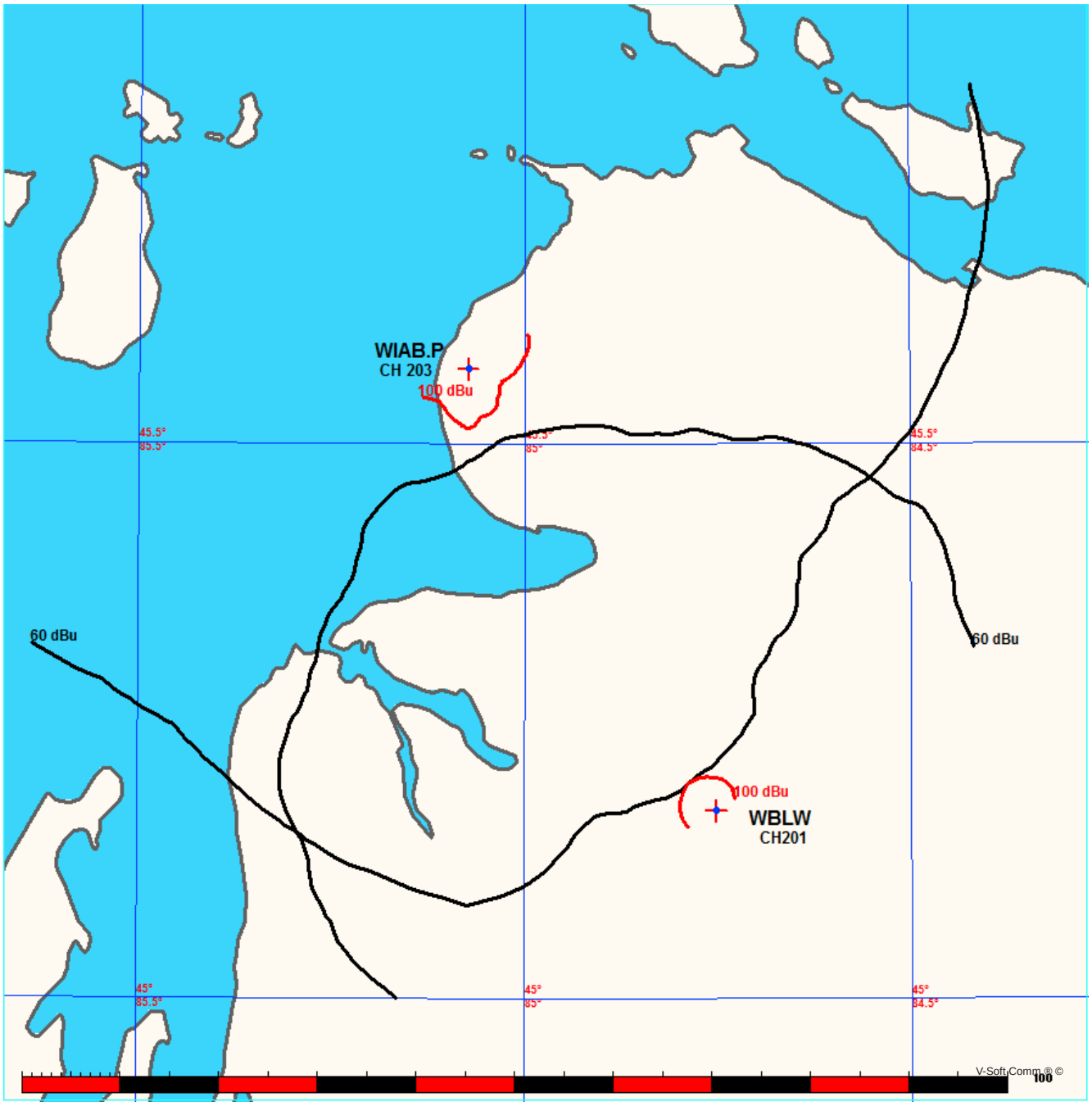
Exhibit 18.2
Contour Protection Studies Toward WBLW(FM) - Gaylord, MI

Interlochen Center For The Arts

FMCommander Single Allocation Study - 11-04-2011 - USGS 03 SEC
WIAB.P's Overlaps (In= 0.24 km, Out= 3.06 km)

WIAB.P CH 203 C1 DA
Lat= 45 34 05.0, Lng= 85 04 27.0
50.0 kW 250.4 M HAAT, 471 M COR
Prot.= 60 dBu, Intef.= 100 dBu

WBLW CH 201 C2 DA BLED20060921ACV
Lat= 45 10 12.0, Lng= 84 45 04.0
5.0 kW 260 M HAAT, 586 M COR
Prot.= 60 dBu, Intef.= 100 dBu



MUNN–REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 18.2
Contour Protection Studies Toward WBLW(FM) - Gaylord, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WIAB.P	WBLW BLED20060921ACV
Channel = 203C1	Channel = 201C2
Max ERP = 50 kW	Max ERP = 5 kW
RCAMSL = 471 M	RCAMSL = 586 M
N. Lat. 45 34 05.0	N. Lat. 45 10 12.0
W. Lng. 85 04 27.0	W. Lng. 84 45 04.0
Protected	Interfering
60 dBu	100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
108.0	007.3089	0201.7	040.6	022.6	002.4904	0278.1	034.4	62.99	
109.0	006.9535	0200.7	040.1	021.8	002.5278	0276.4	033.6	63.36	
110.0	006.6069	0200.6	039.7	021.1	002.5623	0275.3	032.9	63.74	
111.0	006.6069	0201.2	039.7	021.2	002.5577	0275.4	032.2	64.08	
112.0	006.6069	0200.9	039.7	021.2	002.5595	0275.3	031.5	64.44	
113.0	006.6069	0201.8	039.8	021.3	002.5545	0275.5	030.8	64.80	
114.0	006.6069	0201.6	039.7	021.2	002.5582	0275.4	030.1	65.19	
115.0	006.6069	0199.4	039.6	020.8	002.5789	0275.1	029.5	65.62	
116.0	006.6069	0197.6	039.4	020.4	002.5991	0274.9	028.8	66.05	
117.0	006.6069	0195.8	039.3	020.0	002.6211	0274.7	028.1	66.50	
118.0	006.6069	0193.5	039.1	019.4	002.6422	0273.9	027.5	66.93	
119.0	006.6069	0191.2	038.9	018.8	002.6658	0272.9	026.8	67.36	
120.0	006.6069	0191.1	038.9	018.5	002.6764	0272.8	026.2	67.83	
121.0	006.9535	0191.4	039.4	019.2	002.6513	0273.4	025.4	68.33	
122.0	007.3089	0191.5	039.8	019.8	002.6284	0274.6	024.6	68.87	
123.0	007.6732	0189.1	040.0	019.9	002.6236	0274.7	023.9	69.40	
124.0	008.0464	0188.9	040.4	020.4	002.5995	0274.9	023.1	69.94	
125.0	008.4284	0191.3	040.9	021.4	002.5484	0275.7	022.3	70.50	
126.0	008.8192	0190.6	041.3	021.8	002.5298	0276.3	021.5	71.09	
127.0	009.2190	0188.6	041.5	021.8	002.5270	0276.4	020.8	71.68	
128.0	009.6275	0185.2	041.6	021.5	002.5424	0275.9	020.1	72.27	
129.0	010.0450	0181.6	041.6	021.1	002.5654	0275.2	019.3	72.87	
130.0	010.4713	0176.3	041.5	020.0	002.6185	0274.8	018.7	73.47	
131.0	011.0206	0171.5	041.5	019.2	002.6528	0273.4	018.0	74.03	
132.0	011.5839	0168.7	041.6	018.7	002.6718	0272.8	017.3	74.65	
133.0	012.1612	0167.4	041.9	018.5	002.6780	0272.7	016.5	75.30	
134.0	012.7526	0165.5	042.1	018.0	002.6960	0272.2	015.8	75.95	
135.0	013.3581	0162.1	042.1	016.8	002.7419	0271.6	015.1	76.56	
136.0	013.9775	0160.4	042.3	016.1	002.7710	0271.6	014.4	77.27	
137.0	014.6111	0160.7	042.7	016.0	002.7742	0271.6	013.5	78.36	
138.0	015.2586	0163.6	043.4	016.9	002.7384	0271.6	012.5	79.71	
139.0	015.9202	0170.4	044.5	019.7	002.6328	0274.4	011.3	81.50	
140.0	016.5959	0174.4	045.3	021.2	002.5593	0275.4	010.3	83.14	

Exhibit 18.2
Contour Protection Studies Toward WBLW(FM) - Gaylord, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
141.0	016.7931	0175.6	045.5	020.0	002.6190	0274.8	009.5	84.59
142.0	016.9915	0177.4	045.8	018.8	002.6650	0272.9	008.6	86.07
143.0	017.1911	0180.4	046.1	017.8	002.7032	0271.9	007.8	87.71
144.0	017.3919	0181.0	046.3	015.0	002.8114	0271.4	007.0	89.35
145.0	017.5938	0181.6	046.4	011.4	002.9535	0266.9	006.3	90.97
146.0	017.7969	0183.0	046.7	007.2	003.1101	0258.4	005.6	92.66
147.0	018.0011	0183.9	046.8	001.4	003.3249	0246.7	005.0	94.32
148.0	018.2065	0184.8	047.0	353.8	003.6226	0242.9	004.4	96.18
149.0	018.4131	0183.8	047.0	343.5	003.9649	0267.7	004.1	97.83
150.0	018.6209	0182.7	047.0	332.0	004.3027	0297.4	004.0	98.92
151.0	019.2270	0181.3	047.2	319.8	004.5651	0307.4	003.9	99.57
152.0	019.8428	0180.8	047.4	307.1	004.8722	0325.3	003.9	99.93
153.0	020.4683	0179.2	047.6	296.1	004.9300	0302.1	004.2	98.87
154.0	021.1036	0176.6	047.6	287.9	004.7892	0298.8	004.7	97.32
155.0	021.7485	0172.9	047.5	282.7	004.7072	0307.7	005.4	95.75
156.0	022.4032	0168.8	047.3	279.3	004.6601	0316.9	006.2	94.13
157.0	023.0675	0165.4	047.2	276.5	004.6355	0323.2	007.0	92.67
158.0	023.7416	0163.1	047.2	273.7	004.6108	0322.5	007.7	91.28
159.0	024.4254	0160.6	047.1	271.6	004.5929	0318.4	008.5	89.85
160.0	025.1189	0159.7	047.3	268.8	004.5792	0304.0	009.2	88.27
161.0	025.1189	0158.6	047.1	268.1	004.5792	0299.7	010.0	86.77
162.0	025.1189	0156.6	046.9	268.2	004.5792	0300.0	010.9	85.38
163.0	025.1189	0155.3	046.7	267.9	004.5792	0298.0	011.7	84.02
164.0	025.1189	0155.8	046.8	266.7	004.5792	0290.2	012.5	82.64
165.0	025.1189	0158.9	047.2	264.3	004.5792	0280.3	013.2	81.28
166.0	025.1189	0162.4	047.6	262.0	004.5792	0277.4	014.0	80.17
167.0	025.1189	0167.6	048.2	259.4	004.5678	0277.8	014.8	79.20
168.0	025.1189	0174.8	049.0	256.4	004.5149	0270.6	015.6	78.29
169.0	025.1189	0182.0	049.6	254.3	004.4755	0265.7	016.5	77.34
170.0	025.1189	0189.1	050.2	252.6	004.4453	0262.7	017.4	76.44
171.0	025.1189	0197.6	050.9	250.8	004.4133	0262.5	018.4	75.59
172.0	025.1189	0204.9	051.5	249.5	004.3828	0258.6	019.4	74.62
173.0	025.1189	0210.7	052.0	248.8	004.3567	0256.8	020.4	73.74
174.0	025.1189	0215.4	052.4	248.4	004.3433	0255.9	021.4	72.92
175.0	025.1189	0219.0	052.7	248.4	004.3415	0255.8	022.3	72.17
176.0	025.1189	0222.1	053.0	248.5	004.3446	0256.0	023.3	71.46
177.0	025.1189	0224.2	053.1	248.8	004.3556	0256.7	024.2	70.80
178.0	025.1189	0226.7	053.3	249.0	004.3645	0257.1	025.2	70.14
179.0	025.1189	0230.3	053.6	249.1	004.3684	0257.3	026.1	69.47
180.0	025.1189	0233.2	053.8	249.4	004.3771	0258.1	027.1	68.86
181.0	024.0962	0235.0	053.6	250.5	004.4089	0261.9	027.9	68.50
182.0	023.0949	0236.4	053.3	251.7	004.4303	0263.3	028.7	68.08
183.0	022.1148	0238.3	053.0	252.9	004.4502	0262.7	029.4	67.61
184.0	021.1559	0241.3	052.9	253.8	004.4673	0264.0	030.2	67.20
185.0	020.2183	0245.2	052.7	254.6	004.4825	0267.2	031.0	66.87

Exhibit 18.2
Contour Protection Studies Toward WBLW(FM) - Gaylord, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WBLW BLED20060921ACV	WIAB.P
Channel = 201C2	Channel = 203C1
Max ERP = 5 kW	Max ERP = 50 kW
RCAMSL = 586 M	RCAMSL = 471 M
N. Lat. 45 10 12.0	N. Lat. 45 34 05.0
W. Lng. 84 45 04.0	W. Lng. 85 04 27.0
Protected	Interfering
60 dBu	100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
285.0	004.7434	0299.2	043.4	206.7	010.0217	0277.2	036.9	67.77	
286.0	004.7590	0296.9	043.3	206.9	009.9893	0277.3	036.2	68.12	
287.0	004.7746	0297.7	043.4	207.2	009.8919	0277.6	035.5	68.43	
288.0	004.7902	0298.7	043.5	207.6	009.7926	0277.8	034.7	68.75	
289.0	004.8059	0297.1	043.4	207.6	009.7683	0277.9	034.0	69.11	
290.0	004.8216	0296.7	043.4	207.8	009.7168	0278.0	033.2	69.46	
291.0	004.8393	0297.9	043.5	208.2	009.6184	0278.3	032.5	69.79	
292.0	004.8570	0299.8	043.7	208.6	009.5036	0278.6	031.7	70.12	
293.0	004.8748	0301.5	043.8	209.0	009.3938	0278.9	031.0	70.47	
294.0	004.8926	0302.5	043.9	209.3	009.3111	0279.1	030.3	70.86	
295.0	004.9104	0302.0	043.9	209.4	009.2753	0279.1	029.5	71.28	
296.0	004.9283	0302.1	043.9	209.6	009.2261	0279.2	028.7	71.72	
297.0	004.9461	0301.4	043.9	209.7	009.2095	0279.3	028.0	72.19	
298.0	004.9641	0298.9	043.8	209.5	009.2589	0279.2	027.2	72.71	
299.0	004.9820	0295.8	043.6	209.2	009.3422	0279.0	026.4	73.26	
300.0	005.0000	0296.2	043.7	209.3	009.3115	0279.1	025.7	73.77	
301.0	004.9820	0296.5	043.7	209.2	009.3288	0279.0	024.9	74.31	
302.0	004.9641	0298.0	043.7	209.3	009.3095	0279.1	024.1	74.86	
303.0	004.9461	0301.8	043.9	209.7	009.2079	0279.3	023.4	75.39	
304.0	004.9283	0306.4	044.2	210.2	009.0957	0279.5	022.6	75.93	
305.0	004.9104	0310.7	044.4	210.6	009.0258	0279.8	021.8	76.51	
306.0	004.8926	0316.6	044.7	211.3	008.9150	0280.2	021.0	77.10	
307.0	004.8748	0323.9	045.1	212.2	008.7663	0280.7	020.2	77.69	
308.0	004.8570	0331.5	045.5	213.3	008.6048	0281.4	019.4	78.29	
309.0	004.8393	0335.2	045.7	213.6	008.5478	0281.6	018.6	78.93	
310.0	004.8216	0336.1	045.8	213.4	008.5765	0281.5	017.8	79.60	
311.0	004.7951	0336.7	045.8	213.1	008.6334	0281.2	017.0	80.27	
312.0	004.7687	0338.3	045.8	212.8	008.6743	0281.1	016.2	80.96	
313.0	004.7424	0339.0	045.8	212.3	008.7551	0280.7	015.4	81.65	
314.0	004.7161	0338.7	045.7	211.5	008.8888	0280.3	014.6	82.34	
315.0	004.6900	0337.1	045.6	210.1	009.1001	0279.5	013.9	83.34	
316.0	004.6638	0333.5	045.3	208.1	009.6355	0278.2	013.2	84.46	
317.0	004.6378	0325.5	044.8	204.8	010.5928	0275.3	012.6	85.56	

Exhibit 18.2
Contour Protection Studies Toward WBLW(FM) - Gaylord, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
318.0	004.6118	0317.7	044.3	201.1	011.6741	0271.9	012.2	86.60
319.0	004.5859	0312.3	043.9	197.8	012.8188	0269.6	011.7	87.68
320.0	004.5601	0306.7	043.5	194.1	014.2030	0267.0	011.2	88.71
321.0	004.5401	0303.0	043.3	190.7	015.5744	0260.7	010.8	89.62
322.0	004.5201	0300.9	043.1	187.3	018.1461	0252.4	010.3	90.75
323.0	004.5002	0300.3	043.1	183.9	021.2390	0241.0	009.9	91.83
324.0	004.4803	0301.0	043.1	180.4	024.6567	0234.1	009.4	93.07
325.0	004.4604	0299.2	042.9	176.1	025.1189	0222.4	009.1	93.26
326.0	004.4406	0299.3	042.9	171.8	025.1189	0203.7	008.8	93.11
327.0	004.4208	0300.4	042.9	167.3	025.1189	0169.5	008.5	92.15
328.0	004.4011	0301.3	042.9	162.4	025.1189	0155.6	008.2	91.83
329.0	004.3814	0302.3	043.0	157.3	023.2749	0164.6	008.0	92.36
330.0	004.3618	0302.9	043.0	152.0	019.8295	0180.8	008.0	92.62
331.0	004.3319	0300.4	042.8	146.7	017.9436	0183.7	008.2	91.90
332.0	004.3022	0297.4	042.5	141.9	016.9646	0176.9	008.5	90.71
333.0	004.2726	0293.7	042.3	137.5	014.9507	0161.6	008.9	88.52
334.0	004.2430	0292.8	042.1	133.3	012.3643	0166.7	009.3	87.37
335.0	004.2136	0290.5	041.9	129.7	010.3574	0177.7	009.7	86.34
336.0	004.1843	0287.4	041.7	126.7	009.0811	0189.4	010.3	85.35
337.0	004.1551	0285.5	041.5	123.8	007.9523	0188.6	010.8	83.87
338.0	004.1260	0283.7	041.4	121.2	007.0159	0191.6	011.3	82.56
339.0	004.0969	0280.4	041.1	119.2	006.6069	0191.1	012.0	81.27
340.0	004.0680	0277.8	040.9	117.3	006.6069	0195.3	012.6	80.52
341.0	004.0383	0274.5	040.7	115.8	006.6069	0197.8	013.3	79.68
342.0	004.0087	0271.8	040.4	114.5	006.6069	0200.8	014.0	78.94
343.0	003.9792	0269.6	040.2	113.2	006.6069	0201.8	014.6	78.18
344.0	003.9498	0265.1	039.9	112.5	006.6069	0201.3	015.4	77.65
345.0	003.9206	0259.7	039.5	112.0	006.6069	0200.9	016.1	76.98
346.0	003.8914	0252.3	039.0	112.0	006.6069	0200.9	017.0	76.26
347.0	003.8623	0246.5	038.6	111.9	006.6069	0201.0	017.8	75.60
348.0	003.8334	0244.7	038.4	111.1	006.6069	0201.2	018.4	75.08
349.0	003.8045	0243.4	038.3	110.4	006.6069	0200.9	019.1	74.54
350.0	003.7758	0242.9	038.2	109.6	006.7359	0200.6	019.7	74.12
351.0	003.7351	0243.8	038.2	108.8	007.0345	0200.8	020.3	73.83
352.0	003.6946	0243.2	038.0	108.2	007.2224	0201.3	020.9	73.46
353.0	003.6543	0241.8	037.9	107.9	007.3490	0202.0	021.6	73.04
354.0	003.6142	0243.6	037.9	107.1	007.6302	0203.7	022.2	72.82
355.0	003.5744	0247.2	038.0	106.1	007.9912	0205.7	022.8	72.68
356.0	003.5347	0250.5	038.1	105.3	008.3124	0208.7	023.3	72.54
357.0	003.4953	0251.9	038.1	104.8	008.5113	0210.7	024.0	72.26
358.0	003.4561	0250.1	037.9	104.8	008.5192	0210.7	024.7	71.76
359.0	003.4172	0248.3	037.7	104.8	008.5124	0210.7	025.4	71.26
000.0	003.3784	0248.2	037.6	104.6	008.5870	0211.1	026.0	70.86
001.0	003.3407	0247.1	037.5	104.6	008.5946	0211.2	026.7	70.40
002.0	003.3032	0244.9	037.3	104.7	008.5404	0210.9	027.4	69.91
003.0	003.2659	0245.2	037.2	104.6	008.5968	0211.2	028.0	69.52

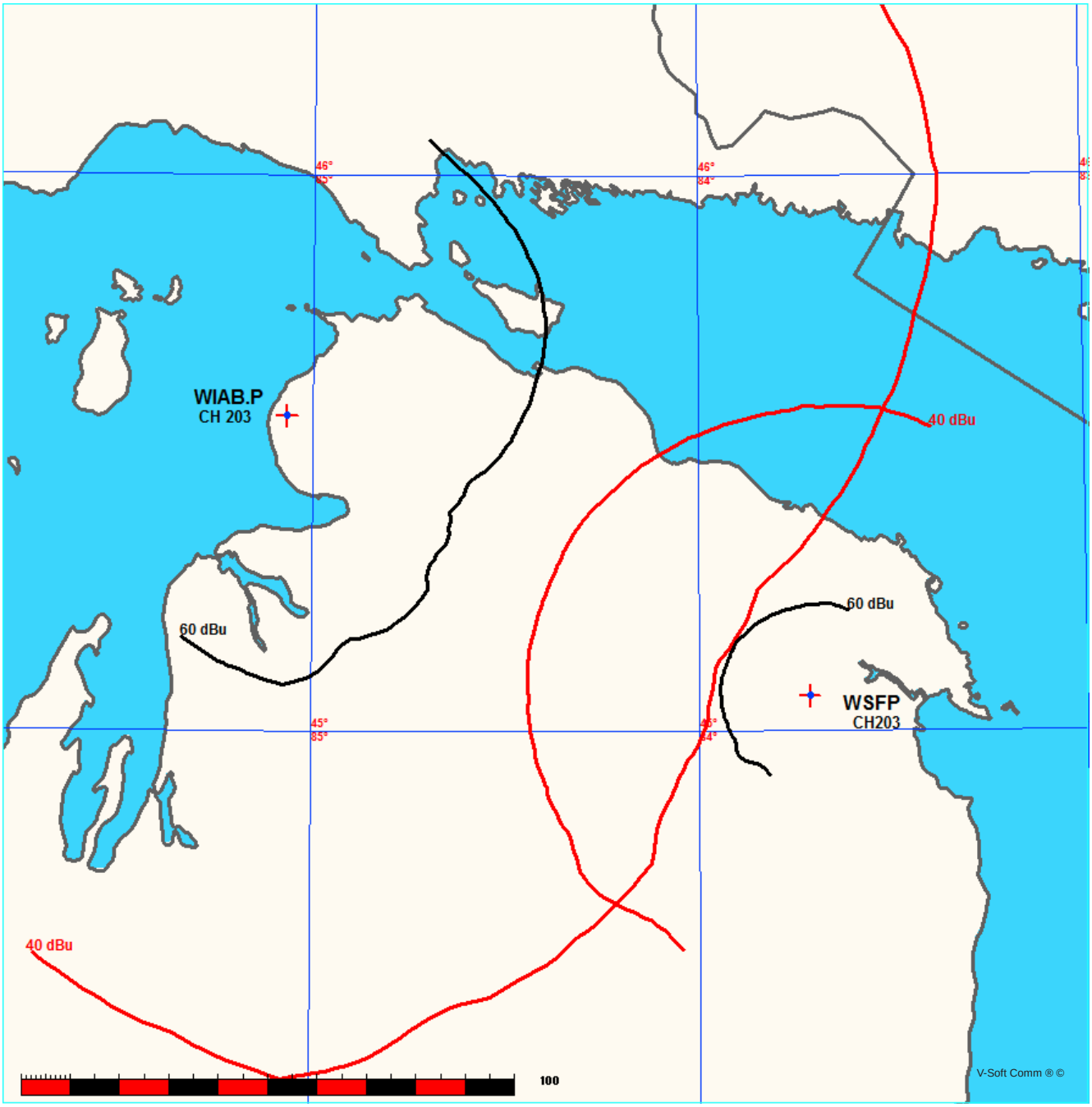
Exhibit 18.3
Contour Protection Studies Toward WSFP(FM) - Rust Twp, MI

Interlochen Center For The Arts

FMCommander Single Allocation Study - 11-04-2011 - USGS 03 SEC
WIAB.P's Overlaps (In= 23.5 km, Out= 0.37 km)

WIAB.P CH 203 C1 DA
Lat= 45 34 05.0, Lng= 85 04 27.0
50.0 kW 250.4 M HAAT, 471 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WSFP CH 203 A BLED20060710ADK
Lat= 45 03 50.0, Lng= 83 42 57.0
0.48 kW 144 M HAAT, 371 M COR
Prot.= 60 dBu, Intef.= 40 dBu



MUNN–REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 18.3
Contour Protection Studies Toward WSFP(FM) - Rust Twp, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WIAB.P	WSFP BLED20060710ADK
Channel = 203C1	Channel = 203A
Max ERP = 50 kW	Max ERP = 0.48 kW
RCAMSL = 471 M	RCAMSL = 371 M
N. Lat. 45 34 05.0	N. Lat. 45 03 50.0
W. Lng. 85 04 27.0	W. Lng. 83 42 57.0
Protected	Interfering
60 dBu	40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
075.0	033.5540	0209.1	054.5	322.9	000.4800	0134.9	088.3	30.12	
076.0	032.0332	0210.0	054.2	322.4	000.4800	0134.9	087.5	30.33	
077.0	030.5476	0210.8	053.8	322.0	000.4800	0134.9	086.8	30.54	
078.0	029.0974	0211.5	053.4	321.4	000.4800	0134.9	086.2	30.73	
079.0	027.6824	0210.8	052.9	320.9	000.4800	0135.0	085.6	30.90	
080.0	026.3027	0209.4	052.3	320.2	000.4800	0134.9	085.1	31.05	
081.0	025.2319	0208.3	051.9	319.6	000.4800	0134.8	084.5	31.21	
082.0	024.1833	0207.9	051.5	319.1	000.4800	0134.7	084.0	31.36	
083.0	023.1570	0209.3	051.2	318.6	000.4800	0134.5	083.4	31.52	
084.0	022.1529	0210.5	050.9	318.0	000.4800	0134.4	082.9	31.68	
085.0	021.1711	0211.3	050.5	317.5	000.4800	0134.3	082.4	31.82	
086.0	020.2116	0212.2	050.2	316.9	000.4800	0134.4	081.9	31.96	
087.0	019.2743	0213.2	049.8	316.3	000.4800	0134.4	081.5	32.09	
088.0	018.3592	0213.3	049.4	315.7	000.4800	0134.4	081.1	32.20	
089.0	017.4664	0212.8	048.9	315.0	000.4800	0134.6	080.8	32.29	
090.0	016.5959	0212.2	048.4	314.3	000.4800	0134.7	080.6	32.36	
091.0	015.9202	0212.2	048.0	313.7	000.4800	0135.0	080.3	32.47	
092.0	015.2586	0212.6	047.7	313.1	000.4800	0135.4	080.0	32.57	
093.0	014.6111	0212.3	047.3	312.4	000.4800	0135.8	079.8	32.65	
094.0	013.9775	0213.2	046.9	311.8	000.4800	0136.1	079.6	32.74	
095.0	013.3581	0214.5	046.6	311.2	000.4800	0136.5	079.3	32.83	
096.0	012.7526	0215.2	046.3	310.6	000.4800	0136.9	079.1	32.90	
097.0	012.1612	0216.1	045.9	310.0	000.4800	0137.3	079.0	32.97	
098.0	011.5839	0215.4	045.5	309.3	000.4800	0137.9	079.0	33.00	
099.0	011.0206	0213.8	044.9	308.6	000.4800	0138.4	079.1	33.00	
100.0	010.4713	0214.3	044.5	308.0	000.4800	0138.9	079.0	33.03	
101.0	010.0450	0214.1	044.2	307.4	000.4800	0139.1	079.0	33.04	
102.0	009.6275	0212.7	043.7	306.7	000.4800	0139.0	079.1	33.01	
103.0	009.2190	0211.8	043.3	306.1	000.4800	0138.9	079.2	32.98	
104.0	008.8192	0211.4	042.9	305.5	000.4800	0138.9	079.3	32.95	
105.0	008.4284	0210.0	042.4	304.8	000.4800	0138.9	079.5	32.89	
106.0	008.0464	0206.1	041.7	304.2	000.4800	0138.9	079.9	32.77	
107.0	007.6732	0204.0	041.2	303.6	000.4800	0138.7	080.2	32.66	

Exhibit 18.3
Contour Protection Studies Toward WSFP(FM) - Rust Twp, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
108.0	007.3089	0201.7	040.6	303.0	000.4800	0138.5	080.6	32.55
109.0	006.9535	0200.7	040.1	302.4	000.4800	0138.3	080.9	32.45
110.0	006.6069	0200.6	039.7	301.9	000.4800	0138.1	081.2	32.36
111.0	006.6069	0201.2	039.7	301.4	000.4800	0137.8	081.0	32.39
112.0	006.6069	0200.9	039.7	300.9	000.4800	0137.6	080.9	32.41
113.0	006.6069	0201.8	039.8	300.4	000.4800	0137.3	080.7	32.44
114.0	006.6069	0201.6	039.7	299.9	000.4800	0137.0	080.7	32.45
115.0	006.6069	0199.4	039.6	299.4	000.4800	0136.8	080.8	32.41
116.0	006.6069	0197.6	039.4	299.0	000.4800	0136.6	080.9	32.36
117.0	006.6069	0195.8	039.3	298.5	000.4800	0136.5	081.0	32.32
118.0	006.6069	0193.5	039.1	298.0	000.4800	0136.7	081.2	32.28
119.0	006.6069	0191.2	038.9	297.5	000.4800	0136.5	081.4	32.21
120.0	006.6069	0191.1	038.9	297.0	000.4800	0136.2	081.4	32.18
121.0	006.9535	0191.4	039.4	296.5	000.4800	0135.8	081.0	32.28
122.0	007.3089	0191.5	039.8	296.0	000.4800	0135.6	080.7	32.38
123.0	007.6732	0189.1	040.0	295.5	000.4800	0135.6	080.6	32.41
124.0	008.0464	0188.9	040.4	295.0	000.4800	0135.5	080.3	32.48
125.0	008.4284	0191.3	040.9	294.4	000.4800	0135.5	079.9	32.61
126.0	008.8192	0190.6	041.3	293.8	000.4800	0135.5	079.7	32.66
127.0	009.2190	0188.6	041.5	293.3	000.4800	0135.6	079.7	32.68
128.0	009.6275	0185.2	041.6	292.8	000.4800	0135.6	079.8	32.65
129.0	010.0450	0181.6	041.6	292.3	000.4800	0135.5	079.9	32.60
130.0	010.4713	0176.3	041.5	291.8	000.4800	0135.5	080.3	32.50
131.0	011.0206	0171.5	041.5	291.3	000.4800	0135.4	080.5	32.42
132.0	011.5839	0168.7	041.6	290.8	000.4800	0135.4	080.7	32.37
133.0	012.1612	0167.4	041.9	290.2	000.4800	0135.4	080.7	32.36
134.0	012.7526	0165.5	042.1	289.7	000.4800	0135.5	080.8	32.33
135.0	013.3581	0162.1	042.1	289.2	000.4800	0135.5	081.1	32.24
136.0	013.9775	0160.4	042.3	288.7	000.4800	0135.5	081.3	32.19
137.0	014.6111	0160.7	042.7	288.1	000.4800	0135.5	081.3	32.19
138.0	015.2586	0163.6	043.4	287.4	000.4800	0135.7	081.1	32.27
139.0	015.9202	0170.4	044.5	286.5	000.4800	0136.0	080.6	32.44
140.0	016.5959	0174.4	045.3	285.8	000.4800	0136.2	080.4	32.50
141.0	016.7931	0175.6	045.5	285.2	000.4800	0136.3	080.6	32.43
142.0	016.9915	0177.4	045.8	284.6	000.4800	0136.6	080.9	32.36
143.0	017.1911	0180.4	046.1	284.0	000.4800	0136.7	081.1	32.30
144.0	017.3919	0181.0	046.3	283.5	000.4800	0136.9	081.5	32.19
145.0	017.5938	0181.6	046.4	283.0	000.4800	0136.9	082.0	32.06
146.0	017.7969	0183.0	046.7	282.5	000.4800	0137.0	082.4	31.95
147.0	018.0011	0183.9	046.8	282.0	000.4800	0137.1	082.8	31.82
148.0	018.2065	0184.8	047.0	281.6	000.4800	0137.1	083.3	31.68
149.0	018.4131	0183.8	047.0	281.2	000.4800	0137.1	083.9	31.50
150.0	018.6209	0182.7	047.0	280.8	000.4800	0137.2	084.5	31.33
151.0	019.2270	0181.3	047.2	280.4	000.4800	0137.3	085.0	31.17
152.0	019.8428	0180.8	047.4	279.9	000.4800	0137.3	085.5	31.03
153.0	020.4683	0179.2	047.6	279.5	000.4800	0137.3	086.1	30.86

Exhibit 18.3
Contour Protection Studies Toward WSFP(FM) - Rust Twp, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WSFP BLED20060710ADK	WIAB.P
Channel = 203A	Channel = 203C1
Max ERP = 0.48 kW	Max ERP = 50 kW
RCAMSL = 371 M	RCAMSL = 471 M
N. Lat. 45 03 50.0	N. Lat. 45 34 05.0
W. Lng. 83 42 57.0	W. Lng. 85 04 27.0
Protected	Interfering
60 dBu	40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
253.0	000.4800	0130.6	017.6	124.0	008.0364	0188.8	108.4	38.95	
254.0	000.4800	0131.3	017.7	123.9	008.0051	0188.8	108.1	38.99	
255.0	000.4800	0132.3	017.7	123.8	007.9762	0188.7	107.8	39.04	
256.0	000.4800	0132.9	017.8	123.7	007.9427	0188.6	107.6	39.08	
257.0	000.4800	0133.2	017.8	123.6	007.9043	0188.5	107.3	39.12	
258.0	000.4800	0133.3	017.8	123.5	007.8632	0188.5	107.1	39.15	
259.0	000.4800	0133.2	017.8	123.4	007.8189	0188.6	106.9	39.18	
260.0	000.4800	0133.2	017.8	123.3	007.7750	0188.8	106.7	39.21	
261.0	000.4800	0133.4	017.8	123.2	007.7318	0188.9	106.4	39.25	
262.0	000.4800	0133.7	017.8	123.0	007.6890	0189.0	106.2	39.28	
263.0	000.4800	0134.0	017.8	122.9	007.6455	0189.2	106.0	39.32	
264.0	000.4800	0134.7	017.9	122.8	007.6047	0189.4	105.7	39.36	
265.0	000.4800	0135.3	017.9	122.7	007.5611	0189.7	105.5	39.40	
266.0	000.4800	0135.3	017.9	122.6	007.5124	0190.1	105.3	39.44	
267.0	000.4800	0135.2	017.9	122.4	007.4619	0190.4	105.1	39.46	
268.0	000.4800	0134.8	017.9	122.3	007.4081	0190.9	105.0	39.49	
269.0	000.4800	0133.9	017.8	122.1	007.3499	0191.3	104.9	39.49	
270.0	000.4800	0134.3	017.9	122.0	007.3020	0191.5	104.7	39.53	
271.0	000.4800	0135.5	018.0	121.9	007.2588	0191.7	104.4	39.57	
272.0	000.4800	0136.0	018.0	121.7	007.2102	0191.9	104.2	39.59	
273.0	000.4800	0135.9	018.0	121.6	007.1560	0192.0	104.1	39.60	
274.0	000.4800	0136.3	018.0	121.4	007.1043	0192.0	103.9	39.62	
275.0	000.4800	0136.1	018.0	121.3	007.0491	0191.8	103.8	39.61	
276.0	000.4800	0136.8	018.0	121.1	006.9982	0191.6	103.6	39.62	
277.0	000.4800	0137.2	018.1	121.0	006.9457	0191.4	103.4	39.63	
278.0	000.4800	0136.9	018.1	120.8	006.8881	0191.2	103.3	39.61	
279.0	000.4800	0137.3	018.1	120.7	006.8338	0191.1	103.2	39.61	
280.0	000.4800	0137.3	018.1	120.5	006.7775	0190.9	103.0	39.60	
281.0	000.4800	0137.2	018.1	120.3	006.7201	0190.9	102.9	39.59	
282.0	000.4800	0137.1	018.1	120.2	006.6626	0191.1	102.8	39.59	
283.0	000.4800	0136.9	018.1	120.0	006.6069	0191.1	102.7	39.58	
284.0	000.4800	0136.7	018.0	119.8	006.6069	0191.1	102.7	39.60	
285.0	000.4800	0136.5	018.0	119.7	006.6069	0191.0	102.6	39.61	

Exhibit 18.3
Contour Protection Studies Toward WSFP(FM) - Rust Twp, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
286.0	000.4800	0136.1	018.0	119.5	006.6069	0191.0	102.5	39.63
287.0	000.4800	0135.8	018.0	119.3	006.6069	0191.1	102.5	39.64
288.0	000.4800	0135.6	018.0	119.1	006.6069	0191.1	102.4	39.66
289.0	000.4800	0135.5	018.0	119.0	006.6069	0191.2	102.4	39.68
290.0	000.4800	0135.5	018.0	118.8	006.6069	0191.4	102.3	39.70
291.0	000.4800	0135.4	017.9	118.6	006.6069	0191.8	102.3	39.73
292.0	000.4800	0135.5	018.0	118.4	006.6069	0192.3	102.2	39.75
293.0	000.4800	0135.6	018.0	118.3	006.6069	0192.8	102.2	39.78
294.0	000.4800	0135.5	018.0	118.1	006.6069	0193.3	102.2	39.80
295.0	000.4800	0135.5	018.0	117.9	006.6069	0193.7	102.1	39.82
296.0	000.4800	0135.6	018.0	117.7	006.6069	0194.2	102.1	39.85
297.0	000.4800	0136.1	018.0	117.6	006.6069	0194.7	102.1	39.88
298.0	000.4800	0136.7	018.0	117.4	006.6069	0195.1	102.0	39.90
299.0	000.4800	0136.7	018.0	117.2	006.6069	0195.5	102.0	39.91
300.0	000.4800	0137.1	018.1	117.0	006.6069	0195.8	102.0	39.93
301.0	000.4800	0137.6	018.1	116.9	006.6069	0195.9	102.0	39.94
302.0	000.4800	0138.2	018.1	116.7	006.6069	0196.1	102.0	39.95
303.0	000.4800	0138.5	018.2	116.5	006.6069	0196.5	102.0	39.96
304.0	000.4800	0138.8	018.2	116.3	006.6069	0196.9	102.0	39.97
305.0	000.4800	0138.9	018.2	116.1	006.6069	0197.4	102.0	39.98
306.0	000.4800	0138.9	018.2	116.0	006.6069	0197.7	102.1	39.97
307.0	000.4800	0139.1	018.2	115.8	006.6069	0197.9	102.1	39.97
308.0	000.4800	0138.9	018.2	115.6	006.6069	0198.3	102.2	39.96
309.0	000.4800	0138.1	018.1	115.4	006.6069	0198.6	102.3	39.94
310.0	000.4800	0137.3	018.1	115.3	006.6069	0199.0	102.4	39.92
311.0	000.4800	0136.7	018.0	115.1	006.6069	0199.2	102.5	39.89
312.0	000.4800	0136.1	018.0	115.0	006.6069	0199.5	102.7	39.87
313.0	000.4800	0135.5	018.0	114.8	006.6069	0200.0	102.8	39.85
314.0	000.4800	0134.8	017.9	114.6	006.6069	0200.4	102.9	39.82
315.0	000.4800	0134.6	017.9	114.5	006.6069	0200.8	103.1	39.80
316.0	000.4800	0134.4	017.9	114.3	006.6069	0201.1	103.2	39.78
317.0	000.4800	0134.4	017.9	114.2	006.6069	0201.4	103.3	39.76
318.0	000.4800	0134.4	017.9	114.0	006.6069	0201.7	103.4	39.74
319.0	000.4800	0134.6	017.9	113.8	006.6069	0201.8	103.5	39.71
320.0	000.4800	0134.9	017.9	113.7	006.6069	0201.9	103.6	39.68
321.0	000.4800	0135.0	017.9	113.5	006.6069	0201.9	103.8	39.65
322.0	000.4800	0134.9	017.9	113.4	006.6069	0201.8	103.9	39.61
323.0	000.4800	0134.9	017.9	113.2	006.6069	0201.8	104.1	39.56
324.0	000.4800	0134.8	017.9	113.1	006.6069	0201.8	104.2	39.52
325.0	000.4800	0134.6	017.9	112.9	006.6069	0201.8	104.4	39.48
326.0	000.4800	0134.3	017.9	112.8	006.6069	0201.6	104.6	39.42
327.0	000.4800	0133.8	017.8	112.6	006.6069	0201.5	104.8	39.37
328.0	000.4800	0133.4	017.8	112.5	006.6069	0201.4	105.0	39.31
329.0	000.4800	0133.1	017.8	112.4	006.6069	0201.2	105.2	39.26
330.0	000.4800	0133.2	017.8	112.2	006.6069	0201.0	105.3	39.20
331.0	000.4800	0133.3	017.8	112.1	006.6069	0200.9	105.5	39.15

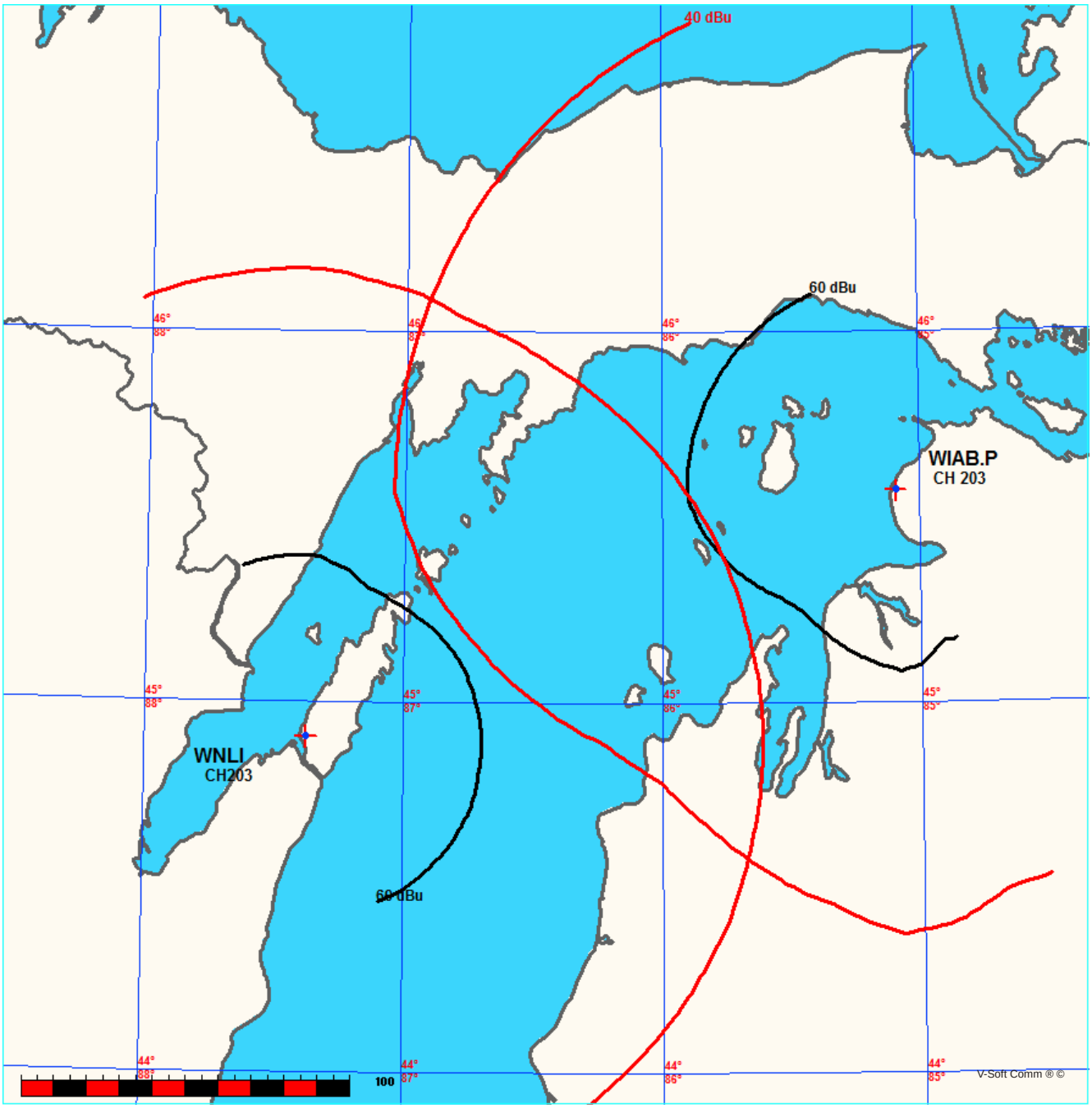
Exhibit 18.4
Contour Protection Studies Toward WNLI(FM) - Sturgeon Bay, MI

Interlochen Center For The Arts

FMCommander Single Allocation Study - 11-04-2011 - USGS 03 SEC
WIAB.P's Overlaps (In= 0.47 km, Out= 7.14 km)

WIAB.P CH 203 C1 DA
Lat= 45 34 05.0, Lng= 85 04 27.0
50.0 kW 250.4 M HAAT, 471 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WNLI CH 203 C1 BLED19981106KA
Lat= 44 54 14.0, Lng= 87 22 13.0
50.0 kW 158 M HAAT, 354 M COR
Prot.= 60 dBu, Intef.= 40 dBu



MUNN–REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 18.4
Contour Protection Studies Toward WNLI(FM) - Sturgeon Bay, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WIAB.P	WNLI BLED19981106KA
Channel = 203C1	Channel = 203C1
Max ERP = 50 kW	Max ERP = 50 kW
RCAMSL = 471 M	RCAMSL = 354 M
N. Lat. 45 34 05.0	N. Lat. 44 54 14.0
W. Lng. 85 04 27.0	W. Lng. 87 22 13.0
Protected	Interfering
60 dBu	40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
205.0	010.5213	0275.6	048.9	078.8	050.0000	0148.5	162.5	35.65	
206.0	010.2331	0276.6	048.7	078.6	050.0000	0148.4	161.9	35.76	
207.0	009.9488	0277.4	048.5	078.4	050.0000	0148.4	161.4	35.86	
208.0	009.6686	0278.2	048.3	078.1	050.0000	0148.4	160.8	35.95	
209.0	009.3923	0278.9	048.1	077.9	050.0000	0148.4	160.3	36.04	
210.0	009.1201	0279.4	047.8	077.6	050.0000	0148.3	159.8	36.13	
211.0	008.9603	0280.0	047.7	077.4	050.0000	0148.2	159.3	36.22	
212.0	008.8019	0280.6	047.6	077.1	050.0000	0148.2	158.8	36.31	
213.0	008.6450	0281.2	047.5	076.9	050.0000	0148.3	158.2	36.40	
214.0	008.4894	0281.8	047.4	076.7	050.0000	0148.3	157.8	36.48	
215.0	008.3353	0282.4	047.2	076.4	050.0000	0148.3	157.3	36.55	
216.0	008.1826	0283.0	047.1	076.1	050.0000	0148.2	156.8	36.63	
217.0	008.0312	0283.5	047.0	075.9	050.0000	0148.1	156.4	36.70	
218.0	007.8813	0284.1	046.8	075.6	050.0000	0148.0	156.0	36.76	
219.0	007.7329	0284.7	046.7	075.4	050.0000	0147.9	155.6	36.82	
220.0	007.5858	0285.3	046.6	075.1	050.0000	0147.9	155.2	36.88	
221.0	007.7329	0285.9	046.8	074.9	050.0000	0147.8	154.5	36.99	
222.0	007.8813	0286.5	047.0	074.7	050.0000	0147.7	153.9	37.08	
223.0	008.0312	0287.1	047.2	074.5	050.0000	0147.5	153.3	37.18	
224.0	008.1826	0287.7	047.4	074.3	050.0000	0147.4	152.7	37.27	
225.0	008.3353	0288.4	047.6	074.0	050.0000	0147.3	152.1	37.37	
226.0	008.4894	0288.9	047.8	073.8	050.0000	0147.1	151.5	37.45	
227.0	008.6450	0289.4	048.0	073.6	050.0000	0147.1	150.9	37.54	
228.0	008.8019	0289.8	048.2	073.3	050.0000	0147.0	150.3	37.63	
229.0	008.9603	0290.3	048.4	073.0	050.0000	0146.9	149.8	37.72	
230.0	009.1201	0290.6	048.6	072.8	050.0000	0146.9	149.3	37.80	
231.0	009.5985	0290.9	049.1	072.6	050.0000	0146.8	148.5	37.93	
232.0	010.0891	0291.1	049.6	072.3	050.0000	0146.8	147.7	38.05	
233.0	010.5920	0291.3	050.0	072.1	050.0000	0146.7	147.0	38.18	
234.0	011.1071	0291.6	050.5	071.8	050.0000	0146.6	146.3	38.30	
235.0	011.6344	0291.9	050.9	071.5	050.0000	0146.5	145.6	38.42	
236.0	012.1739	0292.1	051.4	071.2	050.0000	0146.4	144.9	38.54	
237.0	012.7257	0292.3	051.8	070.9	050.0000	0146.4	144.3	38.65	
238.0	013.2897	0292.5	052.2	070.6	050.0000	0146.3	143.6	38.77	

Exhibit 18.4
Contour Protection Studies Toward WNLI(FM) - Sturgeon Bay, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	
239.0	013.8659	0292.7	052.6	070.3	050.0000	0146.2	143.0	38.88	
240.0	014.4544	0292.9	053.0	070.0	050.0000	0146.2	142.5	38.98	
241.0	015.2126	0293.0	053.5	069.7	050.0000	0146.1	141.8	39.10	
242.0	015.9902	0293.2	054.0	069.3	050.0000	0146.0	141.2	39.21	
243.0	016.7872	0293.3	054.4	069.0	050.0000	0145.9	140.6	39.32	
244.0	017.6035	0293.5	054.9	068.6	050.0000	0145.8	140.1	39.43	
245.0	018.4393	0293.6	055.3	068.2	050.0000	0145.7	139.6	39.52	
246.0	019.2944	0293.7	055.7	067.8	050.0000	0145.6	139.1	39.62	
247.0	020.1689	0293.8	056.2	067.4	050.0000	0145.5	138.6	39.70	
248.0	021.0628	0293.9	056.6	067.0	050.0000	0145.4	138.2	39.78	
249.0	021.9760	0294.0	057.0	066.6	050.0000	0145.3	137.8	39.86	
250.0	022.9087	0294.1	057.4	066.2	050.0000	0145.2	137.4	39.93	
251.0	024.1104	0294.2	057.9	065.8	050.0000	0145.1	137.0	40.01**	0.03
252.0	025.3428	0294.3	058.3	065.3	050.0000	0144.9	136.6	40.08**	0.39
253.0	026.6059	0294.3	058.8	064.9	050.0000	0144.7	136.3	40.14**	0.71
254.0	027.8997	0294.3	059.3	064.4	050.0000	0144.6	136.0	40.20**	1.00
255.0	029.2243	0294.4	059.7	064.0	050.0000	0144.3	135.7	40.25**	1.25
256.0	030.5795	0294.4	060.1	063.5	050.0000	0144.1	135.5	40.29**	1.45
257.0	031.9655	0294.4	060.6	063.0	050.0000	0143.8	135.3	40.32**	1.60
258.0	033.3822	0294.4	061.0	062.5	050.0000	0143.5	135.1	40.34**	1.71
259.0	034.8297	0294.4	061.4	062.1	050.0000	0143.2	135.0	40.35**	1.79
260.0	036.3078	0294.4	061.8	061.6	050.0000	0142.9	134.9	40.36**	1.83
261.0	037.5787	0294.4	062.1	061.1	050.0000	0142.6	134.9	40.35**	1.77
262.0	038.8714	0294.4	062.5	060.6	050.0000	0142.3	135.0	40.33**	1.67
263.0	040.1859	0294.4	062.8	060.1	050.0000	0142.0	135.1	40.30**	1.54
264.0	041.5224	0294.4	063.1	059.6	050.0000	0141.6	135.2	40.27**	1.37
265.0	042.8806	0294.5	063.4	059.2	050.0000	0141.2	135.4	40.23**	1.17
266.0	044.2608	0294.5	063.7	058.7	050.0000	0140.9	135.5	40.18**	0.93
267.0	045.6628	0294.5	064.1	058.2	050.0000	0140.5	135.8	40.13**	0.64
268.0	047.0867	0294.5	064.4	057.7	050.0000	0139.9	136.0	40.06**	0.30
269.0	048.5324	0294.5	064.7	057.2	050.0000	0139.3	136.3	39.98	
270.0	050.0000	0294.5	065.0	056.8	050.0000	0139.0	136.7	39.91	
271.0	050.0000	0294.5	065.0	056.4	050.0000	0138.4	137.3	39.77	
272.0	050.0000	0294.5	065.0	056.0	050.0000	0138.1	137.9	39.64	
273.0	050.0000	0294.5	065.0	055.6	050.0000	0137.9	138.6	39.51	
274.0	050.0000	0294.5	065.0	055.2	050.0000	0137.8	139.2	39.37	
275.0	050.0000	0294.5	065.0	054.9	050.0000	0137.7	139.9	39.23	
276.0	050.0000	0294.5	065.0	054.5	050.0000	0137.5	140.7	39.09	
277.0	050.0000	0294.5	065.0	054.2	050.0000	0137.4	141.4	38.95	
278.0	050.0000	0294.5	065.0	053.8	050.0000	0137.2	142.2	38.80	
279.0	050.0000	0294.6	065.0	053.5	050.0000	0137.0	142.9	38.64	
280.0	050.0000	0294.6	065.0	053.2	050.0000	0136.8	143.7	38.49	
281.0	050.0000	0294.6	065.0	052.8	050.0000	0136.7	144.6	38.34	
282.0	050.0000	0294.6	065.0	052.5	050.0000	0136.6	145.4	38.19	
283.0	050.0000	0294.6	065.0	052.2	050.0000	0136.5	146.2	38.04	
284.0	050.0000	0294.6	065.0	052.0	050.0000	0136.4	147.1	37.88	

MUNN–REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 18.4
Contour Protection Studies Toward WNLI(FM) - Sturgeon Bay, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WNLI BLED19981106KA	WIAB.P
Channel = 203C1	Channel = 203C1
Max ERP = 50 kW	Max ERP = 50 kW
RCAMSL = 354 M	RCAMSL = 471 M
N. Lat. 44 54 14.0	N. Lat. 45 34 05.0
W. Lng. 87 22 13.0	W. Lng. 85 04 27.0
Protected	Interfering
60 dBu	40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
022.0	050.0000	0123.6	048.5	260.6	037.0442	0294.4	163.6	37.02	
023.0	050.0000	0123.4	048.5	260.4	036.8162	0294.4	162.9	37.12	
024.0	050.0000	0123.3	048.5	260.2	036.5953	0294.4	162.2	37.22	
025.0	050.0000	0123.3	048.5	260.1	036.3742	0294.4	161.5	37.31	
026.0	050.0000	0123.4	048.5	259.9	036.1227	0294.4	160.8	37.40	
027.0	050.0000	0123.2	048.4	259.7	035.8365	0294.4	160.2	37.48	
028.0	050.0000	0122.9	048.4	259.5	035.5344	0294.4	159.6	37.56	
029.0	050.0000	0122.5	048.3	259.3	035.2199	0294.4	159.0	37.62	
030.0	050.0000	0122.3	048.3	259.1	034.9108	0294.4	158.3	37.69	
031.0	050.0000	0121.8	048.2	258.8	034.5784	0294.4	157.8	37.75	
032.0	050.0000	0121.6	048.2	258.6	034.2553	0294.4	157.2	37.82	
033.0	050.0000	0121.7	048.2	258.4	033.9479	0294.4	156.6	37.88	
034.0	050.0000	0122.0	048.3	258.2	033.6395	0294.4	156.0	37.95	
035.0	050.0000	0122.7	048.4	258.0	033.3425	0294.4	155.4	38.03	
036.0	050.0000	0124.0	048.5	257.8	033.0690	0294.4	154.7	38.12	
037.0	050.0000	0124.7	048.7	257.6	032.7612	0294.4	154.0	38.19	
038.0	050.0000	0125.0	048.7	257.3	032.4250	0294.4	153.5	38.25	
039.0	050.0000	0125.5	048.8	257.1	032.0934	0294.4	152.9	38.31	
040.0	050.0000	0125.9	048.8	256.8	031.7492	0294.4	152.3	38.36	
041.0	050.0000	0126.2	048.9	256.6	031.3940	0294.4	151.8	38.40	
042.0	050.0000	0126.8	049.0	256.3	031.0453	0294.4	151.3	38.46	
043.0	050.0000	0127.9	049.1	256.1	030.7110	0294.4	150.7	38.52	
044.0	050.0000	0129.1	049.3	255.9	030.3744	0294.4	150.1	38.58	
045.0	050.0000	0130.1	049.4	255.6	030.0228	0294.4	149.6	38.63	
046.0	050.0000	0131.3	049.6	255.3	029.6719	0294.4	149.0	38.68	
047.0	050.0000	0132.4	049.7	255.1	029.3094	0294.4	148.5	38.73	
048.0	050.0000	0133.4	049.9	254.8	028.9393	0294.4	147.9	38.77	
049.0	050.0000	0134.3	050.0	254.5	028.5593	0294.4	147.5	38.81	
050.0	050.0000	0135.3	050.2	254.2	028.1767	0294.3	147.0	38.84	
051.0	050.0000	0136.0	050.3	253.9	027.7823	0294.3	146.6	38.86	
052.0	050.0000	0136.5	050.3	253.6	027.3758	0294.3	146.2	38.87	
053.0	050.0000	0136.7	050.4	253.3	026.9633	0294.3	145.9	38.87	
054.0	050.0000	0137.3	050.5	253.0	026.5549	0294.3	145.5	38.87	

Exhibit 18.4
Contour Protection Studies Toward WNLI(FM) - Sturgeon Bay, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
055.0	050.0000	0137.7	050.5	252.6	026.1414	0294.3	145.2	38.86
056.0	050.0000	0138.1	050.6	252.3	025.7255	0294.3	144.9	38.85
057.0	050.0000	0139.1	050.7	252.0	025.3189	0294.3	144.6	38.85
058.0	050.0000	0140.2	050.9	251.7	024.9109	0294.2	144.2	38.85
059.0	050.0000	0141.2	051.0	251.3	024.4974	0294.2	143.9	38.83
060.0	050.0000	0141.9	051.1	251.0	024.0795	0294.2	143.6	38.81
061.0	050.0000	0142.6	051.2	250.6	023.6613	0294.1	143.4	38.78
062.0	050.0000	0143.2	051.3	250.3	023.2418	0294.1	143.2	38.74
063.0	050.0000	0143.8	051.4	249.9	022.8402	0294.1	143.0	38.70
064.0	050.0000	0144.4	051.4	249.6	022.5070	0294.1	142.9	38.67
065.0	050.0000	0144.7	051.5	249.2	022.1739	0294.0	142.8	38.63
066.0	050.0000	0145.1	051.5	248.9	021.8418	0294.0	142.7	38.58
067.0	050.0000	0145.4	051.6	248.5	021.5110	0293.9	142.6	38.52
068.0	050.0000	0145.6	051.6	248.1	021.1822	0293.9	142.6	38.46
069.0	050.0000	0145.9	051.6	247.8	020.8553	0293.9	142.6	38.39
070.0	050.0000	0146.2	051.7	247.4	020.5308	0293.8	142.6	38.32
071.0	050.0000	0146.4	051.7	247.0	020.2093	0293.8	142.7	38.24
072.0	050.0000	0146.7	051.7	246.7	019.8901	0293.8	142.7	38.16
073.0	050.0000	0146.9	051.8	246.3	019.5743	0293.7	142.8	38.07
074.0	050.0000	0147.3	051.8	246.0	019.2609	0293.7	142.9	37.98
075.0	050.0000	0147.8	051.9	245.6	018.9489	0293.7	143.0	37.89
076.0	050.0000	0148.2	052.0	245.2	018.6426	0293.6	143.1	37.79
077.0	050.0000	0148.3	052.0	244.9	018.3420	0293.6	143.3	37.69
078.0	050.0000	0148.4	052.0	244.5	018.0457	0293.5	143.5	37.57
079.0	050.0000	0148.5	052.0	244.2	017.7535	0293.5	143.7	37.46
080.0	050.0000	0149.1	052.1	243.8	017.4609	0293.4	143.9	37.34
081.0	050.0000	0150.2	052.2	243.5	017.1641	0293.4	144.1	37.24
082.0	050.0000	0151.1	052.3	243.1	016.8733	0293.4	144.2	37.13
083.0	050.0000	0151.7	052.4	242.8	016.5914	0293.3	144.5	37.00
084.0	050.0000	0152.0	052.5	242.4	016.3199	0293.3	144.8	36.87
085.0	050.0000	0152.3	052.5	242.1	016.0522	0293.2	145.1	36.73
086.0	050.0000	0152.7	052.5	241.7	015.7882	0293.2	145.5	36.59
087.0	050.0000	0152.9	052.6	241.4	015.5311	0293.1	145.9	36.45
088.0	050.0000	0153.6	052.7	241.1	015.2723	0293.1	146.2	36.30
089.0	050.0000	0154.0	052.7	240.8	015.0243	0293.0	146.6	36.15
090.0	050.0000	0154.3	052.8	240.4	014.7830	0292.9	147.0	36.00
091.0	050.0000	0154.6	052.8	240.1	014.5470	0292.9	147.5	35.84
092.0	050.0000	0154.8	052.8	239.8	014.3460	0292.8	148.0	35.69
093.0	050.0000	0155.0	052.8	239.5	014.1678	0292.8	148.5	35.54
094.0	050.0000	0155.2	052.9	239.2	013.9960	0292.7	149.0	35.39
095.0	050.0000	0155.2	052.9	238.9	013.8296	0292.7	149.5	35.23
096.0	050.0000	0155.3	052.9	238.7	013.6672	0292.6	150.1	35.08
097.0	050.0000	0155.3	052.9	238.4	013.5102	0292.5	150.7	34.92
098.0	050.0000	0155.3	052.9	238.1	013.3579	0292.5	151.3	34.76
099.0	050.0000	0155.4	052.9	237.9	013.2078	0292.4	151.9	34.60
100.0	050.0000	0155.6	052.9	237.6	013.0600	0292.4	152.5	34.43

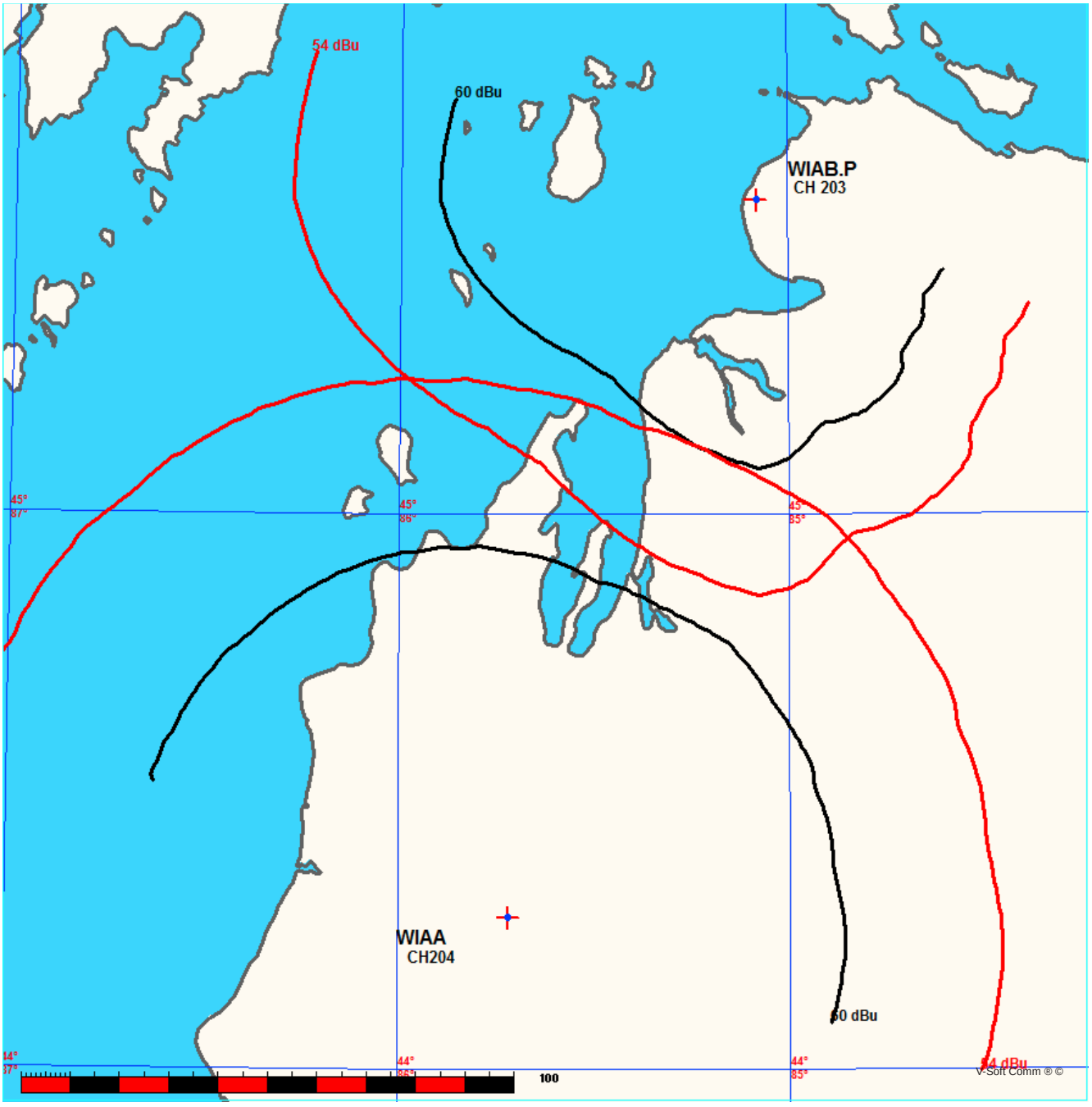
Exhibit 18.5
Contour Protection Studies Toward WIAA(FM) - Interlochen, MI

Interlochen Center For The Arts

FMCommander Single Allocation Study - 11-04-2011 - USGS 03 SEC
WIAB.P's Overlaps (In= 0.61 km, Out= 9.1 km)

WIAB.P CH 203 C1 DA
Lat= 45 34 05.0, Lng= 85 04 27.0
50.0 kW 250.4 M HAAT, 471 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WIAA CH 204 C BLED19900105KB
Lat= 44 16 33.0, Lng= 85 42 49.0
100.0 kW 315 M HAAT, 658 M COR
Prot.= 60 dBu, Intef.= 54 dBu



MUNN–REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 18.5
Contour Protection Studies Toward WIAA(FM) - Interlochen, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WIAB.P	WIAA BLED19900105KB
Channel = 203C1	Channel = 204C
Max ERP = 50 kW	Max ERP = 100 kW
RCAMSL = 471 M	RCAMSL = 658 M
N. Lat. 45 34 05.0	N. Lat. 44 16 33.0
W. Lng. 85 04 27.0	W. Lng. 85 42 49.0
Protected	Interfering
60 dBu	54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
158.0	023.7416	0163.1	047.2	034.0	100.0000	0266.9	120.9	49.14	
159.0	024.4254	0160.6	047.1	033.8	100.0000	0266.6	120.3	49.27	
160.0	025.1189	0159.7	047.3	033.6	100.0000	0266.3	119.5	49.42	
161.0	025.1189	0158.6	047.1	033.3	100.0000	0265.8	118.9	49.54	
162.0	025.1189	0156.6	046.9	033.0	100.0000	0265.5	118.5	49.64	
163.0	025.1189	0155.3	046.7	032.7	100.0000	0265.4	117.9	49.75	
164.0	025.1189	0155.8	046.8	032.4	100.0000	0265.1	117.3	49.89	
165.0	025.1189	0158.9	047.2	032.3	100.0000	0265.0	116.4	50.08	
166.0	025.1189	0162.4	047.6	032.2	100.0000	0264.8	115.5	50.28	
167.0	025.1189	0167.6	048.2	032.1	100.0000	0264.8	114.5	50.52	
168.0	025.1189	0174.8	049.0	032.1	100.0000	0264.8	113.3	50.78	
169.0	025.1189	0182.0	049.6	032.0	100.0000	0264.7	112.3	51.04	
170.0	025.1189	0189.1	050.2	031.9	100.0000	0264.7	111.2	51.29	
171.0	025.1189	0197.6	050.9	031.8	100.0000	0264.6	110.1	51.58	
172.0	025.1189	0204.9	051.5	031.7	100.0000	0264.5	109.1	51.85	
173.0	025.1189	0210.7	052.0	031.5	100.0000	0264.1	108.2	52.09	
174.0	025.1189	0215.4	052.4	031.2	100.0000	0263.7	107.3	52.32	
175.0	025.1189	0219.0	052.7	030.9	100.0000	0263.4	106.5	52.52	
176.0	025.1189	0222.1	053.0	030.6	100.0000	0263.2	105.8	52.73	
177.0	025.1189	0224.2	053.1	030.2	100.0000	0263.0	105.1	52.91	
178.0	025.1189	0226.7	053.3	029.9	100.0000	0263.0	104.5	53.11	
179.0	025.1189	0230.3	053.6	029.5	100.0000	0262.7	103.7	53.31	
180.0	025.1189	0233.2	053.8	029.1	100.0000	0262.3	103.1	53.49	
181.0	024.0962	0235.0	053.6	028.6	100.0000	0261.7	102.8	53.54	
182.0	023.0949	0236.4	053.3	028.1	100.0000	0261.7	102.7	53.59	
183.0	022.1148	0238.3	053.0	027.6	100.0000	0261.8	102.5	53.65	
184.0	021.1559	0241.3	052.9	027.1	100.0000	0260.6	102.3	53.67	
185.0	020.2183	0245.2	052.7	026.6	100.0000	0258.4	102.1	53.68	
186.0	019.3019	0248.3	052.5	026.0	100.0000	0258.0	101.9	53.71	
187.0	018.4068	0251.5	052.3	025.5	100.0000	0258.8	101.8	53.76	
188.0	017.5329	0254.3	052.1	025.0	100.0000	0259.4	101.8	53.80	
189.0	016.6803	0257.1	051.8	024.5	100.0000	0260.2	101.7	53.82	
190.0	015.8489	0259.4	051.5	023.9	100.0000	0261.5	101.8	53.84	

Exhibit 18.5
Contour Protection Studies Toward WIAA(FM) - Interlochen, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
191.0	015.4426	0261.3	051.4	023.4	100.0000	0262.5	101.7	53.91
192.0	015.0415	0263.2	051.3	022.9	100.0000	0263.5	101.6	53.96
193.0	014.6456	0265.2	051.2	022.4	100.0000	0263.7	101.6	53.98
194.0	014.2551	0266.8	051.1	021.9	100.0000	0263.4	101.6	53.97
195.0	013.8698	0267.9	050.9	021.4	100.0000	0263.0	101.6	53.94
196.0	013.4898	0268.5	050.7	020.9	100.0000	0263.1	101.7	53.91
197.0	013.1151	0269.1	050.5	020.4	100.0000	0264.2	101.9	53.90
198.0	012.7457	0269.7	050.2	019.9	100.0000	0264.8	102.1	53.86
199.0	012.3815	0270.4	050.0	019.4	100.0000	0265.5	102.3	53.83
200.0	012.0226	0271.0	049.8	019.0	100.0000	0266.0	102.5	53.77
201.0	011.7144	0271.8	049.6	018.5	100.0000	0266.4	102.7	53.72
202.0	011.4101	0272.7	049.4	018.0	100.0000	0266.3	102.9	53.65
203.0	011.1098	0273.6	049.2	017.5	100.0000	0266.1	103.2	53.57
204.0	010.8136	0274.4	049.1	017.1	100.0000	0266.5	103.5	53.50
205.0	010.5213	0275.6	048.9	016.6	100.0000	0265.7	103.7	53.39
206.0	010.2331	0276.6	048.7	016.2	100.0000	0264.6	104.1	53.26
207.0	009.9488	0277.4	048.5	015.7	100.0000	0263.6	104.4	53.13
208.0	009.6686	0278.2	048.3	015.3	100.0000	0262.8	104.8	53.00
209.0	009.3923	0278.9	048.1	014.9	100.0000	0261.8	105.2	52.85
210.0	009.1201	0279.4	047.8	014.5	100.0000	0262.1	105.6	52.74
211.0	008.9603	0280.0	047.7	014.1	100.0000	0263.5	106.0	52.68
212.0	008.8019	0280.6	047.6	013.7	100.0000	0265.2	106.4	52.62
213.0	008.6450	0281.2	047.5	013.3	100.0000	0266.8	106.7	52.56
214.0	008.4894	0281.8	047.4	012.9	100.0000	0268.6	107.1	52.50
215.0	008.3353	0282.4	047.2	012.5	100.0000	0270.3	107.6	52.43
216.0	008.1826	0283.0	047.1	012.1	100.0000	0271.8	108.0	52.35
217.0	008.0312	0283.5	047.0	011.8	100.0000	0273.8	108.5	52.28
218.0	007.8813	0284.1	046.8	011.4	100.0000	0275.4	108.9	52.19
219.0	007.7329	0284.7	046.7	011.1	100.0000	0277.1	109.4	52.11
220.0	007.5858	0285.3	046.6	010.7	100.0000	0278.8	109.9	52.02
221.0	007.7329	0285.9	046.8	010.3	100.0000	0280.7	110.1	52.01
222.0	007.8813	0286.5	047.0	009.9	100.0000	0282.3	110.4	51.99
223.0	008.0312	0287.1	047.2	009.5	100.0000	0284.0	110.7	51.96
224.0	008.1826	0287.7	047.4	009.1	100.0000	0285.1	111.0	51.92
225.0	008.3353	0288.4	047.6	008.7	100.0000	0286.6	111.3	51.88
226.0	008.4894	0288.9	047.8	008.3	100.0000	0287.9	111.6	51.82
227.0	008.6450	0289.4	048.0	007.9	100.0000	0288.9	112.0	51.76
228.0	008.8019	0289.8	048.2	007.5	100.0000	0289.8	112.4	51.68
229.0	008.9603	0290.3	048.4	007.1	100.0000	0291.1	112.8	51.61
230.0	009.1201	0290.6	048.6	006.7	100.0000	0292.1	113.2	51.53
231.0	009.5985	0290.9	049.1	006.2	100.0000	0293.4	113.4	51.51
232.0	010.0891	0291.1	049.6	005.8	100.0000	0294.8	113.7	51.47
233.0	010.5920	0291.3	050.0	005.3	100.0000	0296.1	114.0	51.43
234.0	011.1071	0291.6	050.5	004.8	100.0000	0297.7	114.4	51.39
235.0	011.6344	0291.9	050.9	004.4	100.0000	0299.0	114.8	51.33

Exhibit 18.5
Contour Protection Studies Toward WIAA(FM) - Interlochen, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WIAA BLED19900105KB	WIAB.P
Channel = 204C	Channel = 203C1
Max ERP = 100 kW	Max ERP = 50 kW
RCAMSL = 658 M	RCAMSL = 471 M
N. Lat. 44 16 33.0	N. Lat. 45 34 05.0
W. Lng. 85 42 49.0	W. Lng. 85 04 27.0
Protected	Interfering
60 dBu	54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
334.0	100.0000	0361.5	076.9	228.6	008.9035	0290.2	111.9	41.30	
335.0	100.0000	0359.3	076.8	228.4	008.8692	0290.0	110.8	41.57	
336.0	100.0000	0358.4	076.7	228.2	008.8299	0289.9	109.5	41.88	
337.0	100.0000	0357.9	076.7	227.9	008.7906	0289.8	108.3	42.21	
338.0	100.0000	0357.3	076.6	227.7	008.7475	0289.6	107.1	42.54	
339.0	100.0000	0355.8	076.5	227.3	008.6973	0289.5	105.8	42.86	
340.0	100.0000	0354.0	076.4	227.0	008.6420	0289.3	104.7	43.18	
341.0	100.0000	0352.9	076.3	226.6	008.5885	0289.2	103.5	43.50	
342.0	100.0000	0351.4	076.2	226.3	008.5298	0289.1	102.3	43.82	
343.0	100.0000	0349.7	076.1	225.9	008.4670	0288.9	101.2	44.13	
344.0	100.0000	0346.8	075.8	225.4	008.3949	0288.7	100.1	44.42	
345.0	100.0000	0342.6	075.5	224.9	008.3129	0288.3	099.2	44.67	
346.0	100.0000	0340.5	075.4	224.4	008.2397	0288.0	098.1	44.95	
347.0	100.0000	0340.6	075.4	224.0	008.1764	0287.7	097.0	45.25	
348.0	100.0000	0340.4	075.4	223.5	008.1079	0287.4	095.9	45.55	
349.0	100.0000	0338.3	075.2	223.0	008.0266	0287.1	094.9	45.80	
350.0	100.0000	0334.4	074.9	222.3	007.9333	0286.7	094.1	46.01	
351.0	100.0000	0330.0	074.6	221.7	007.8352	0286.3	093.3	46.19	
352.0	100.0000	0327.8	074.5	221.1	007.7460	0286.0	092.4	46.41	
353.0	100.0000	0326.0	074.3	220.5	007.6567	0285.7	091.5	46.62	
354.0	100.0000	0326.3	074.3	219.9	007.5966	0285.3	090.5	46.88	
355.0	100.0000	0326.7	074.4	219.4	007.6812	0284.9	089.6	47.21	
356.0	100.0000	0323.1	074.1	218.6	007.7888	0284.5	088.9	47.47	
357.0	100.0000	0319.4	073.8	217.9	007.8997	0284.0	088.3	47.72	
358.0	100.0000	0315.0	073.5	217.1	008.0172	0283.5	087.7	47.95	
359.0	100.0000	0311.5	073.2	216.3	008.1334	0283.1	087.1	48.18	
000.0	100.0000	0307.2	072.9	215.5	008.2561	0282.7	086.6	48.39	
001.0	100.0000	0305.3	072.8	214.8	008.3715	0282.2	086.0	48.63	
002.0	100.0000	0304.1	072.7	214.0	008.4869	0281.8	085.4	48.87	
003.0	100.0000	0301.7	072.5	213.2	008.6110	0281.3	084.9	49.07	
004.0	100.0000	0299.9	072.4	212.4	008.7356	0280.8	084.4	49.28	
005.0	100.0000	0297.2	072.2	211.6	008.8664	0280.4	084.1	49.45	
006.0	100.0000	0294.1	071.9	210.7	009.0015	0279.9	083.7	49.61	

Exhibit 18.5
Contour Protection Studies Toward WIAA(FM) - Interlochen, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
007.0	100.0000	0291.4	071.7	209.9	009.1495	0279.4	083.4	49.76
008.0	100.0000	0288.6	071.5	209.0	009.3836	0278.9	083.2	49.93
009.0	100.0000	0285.3	071.2	208.2	009.6242	0278.3	083.0	50.08
010.0	100.0000	0281.9	070.9	207.3	009.8693	0277.6	082.9	50.20
011.0	100.0000	0277.5	070.5	206.4	010.1217	0276.9	082.9	50.29
012.0	100.0000	0272.5	070.1	205.5	010.3780	0276.2	083.0	50.34
013.0	100.0000	0268.0	069.8	204.6	010.6330	0275.1	083.1	50.38
014.0	100.0000	0263.8	069.4	203.7	010.8877	0274.1	083.3	50.41
015.0	100.0000	0262.0	069.2	202.9	011.1374	0273.5	083.2	50.50
016.0	100.0000	0264.2	069.4	202.1	011.3825	0272.8	082.9	50.67
017.0	100.0000	0266.5	069.6	201.3	011.6337	0272.1	082.6	50.84
018.0	100.0000	0266.3	069.6	200.4	011.8928	0271.2	082.6	50.93
019.0	100.0000	0265.9	069.6	199.6	012.1747	0270.7	082.6	51.01
020.0	100.0000	0264.8	069.5	198.7	012.4787	0270.2	082.7	51.07
021.0	100.0000	0263.0	069.3	197.9	012.7836	0269.6	082.9	51.09
022.0	100.0000	0263.4	069.4	197.1	013.0930	0269.1	082.9	51.16
023.0	100.0000	0263.4	069.4	196.2	013.4046	0268.7	083.1	51.21
024.0	100.0000	0261.4	069.2	195.4	013.7110	0268.2	083.4	51.19
025.0	100.0000	0259.4	069.0	194.6	014.0159	0267.5	083.8	51.14
026.0	100.0000	0258.0	068.9	193.8	014.3219	0266.6	084.1	51.09
027.0	100.0000	0260.3	069.1	193.0	014.6462	0265.2	084.2	51.12
028.0	100.0000	0261.8	069.2	192.2	014.9688	0263.6	084.4	51.10
029.0	100.0000	0262.0	069.2	191.4	015.2844	0262.0	084.7	51.04
030.0	100.0000	0263.0	069.3	190.6	015.6044	0260.6	085.0	50.98
031.0	100.0000	0263.5	069.4	189.8	015.9914	0259.0	085.4	50.92
032.0	100.0000	0264.7	069.5	189.0	016.6399	0257.2	085.8	50.92
033.0	100.0000	0265.6	069.5	188.3	017.2851	0255.1	086.2	50.89
034.0	100.0000	0266.9	069.7	187.5	017.9421	0253.0	086.6	50.85
035.0	100.0000	0268.7	069.8	186.8	018.6127	0250.7	087.1	50.80
036.0	100.0000	0270.7	070.0	186.0	019.2883	0248.3	087.5	50.73
037.0	100.0000	0272.9	070.2	185.3	019.9735	0246.1	088.0	50.66
038.0	100.0000	0274.1	070.3	184.6	020.6286	0243.5	088.6	50.54
039.0	100.0000	0275.5	070.4	183.9	021.2893	0240.7	089.1	50.40
040.0	100.0000	0273.3	070.2	183.3	021.8302	0239.0	090.0	50.18
041.0	100.0000	0270.7	070.0	182.8	022.3426	0237.8	090.9	49.95
042.0	100.0000	0268.6	069.8	182.2	022.8553	0236.8	091.9	49.73
043.0	100.0000	0268.0	069.8	181.7	023.4078	0236.0	092.7	49.55
044.0	100.0000	0266.7	069.6	181.2	023.9180	0235.2	093.6	49.33
045.0	100.0000	0264.2	069.4	180.7	024.3709	0234.6	094.6	49.09
046.0	100.0000	0262.1	069.3	180.3	024.8217	0233.8	095.5	48.84
047.0	100.0000	0260.1	069.1	179.9	025.1189	0232.8	096.5	48.55
048.0	100.0000	0256.6	068.8	179.5	025.1189	0231.8	097.6	48.19
049.0	100.0000	0254.2	068.6	179.1	025.1189	0230.8	098.7	47.84
050.0	100.0000	0253.1	068.5	178.7	025.1189	0229.3	099.6	47.50
051.0	100.0000	0251.6	068.4	178.4	025.1189	0227.9	100.7	47.15
052.0	100.0000	0251.4	068.4	178.0	025.1189	0226.7	101.6	46.83

Exhibit 18.6
Contour Protection Studies Toward WTCY.A - Greilickville, MI

Interlochen Center For The Arts

FMCommander Single Allocation Study - 11-04-2011 - USGS 03 SEC
WIAB.P's Overlaps (In= 17.25 km, Out= 2.45 km)

WIAB.P CH 203 C1 DA
Lat= 45 34 05.0, Lng= 85 04 27.0
50.0 kW 250.4 M HAAT, 471 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WTCY-A CH 202 C3 DA BPED20111025AIW
Lat= 44 57 59.0, Lng= 85 46 28.0
4.4 kW 207 M HAAT, 409.7 M COR
Prot.= 60 dBu, Intef.= 54 dBu

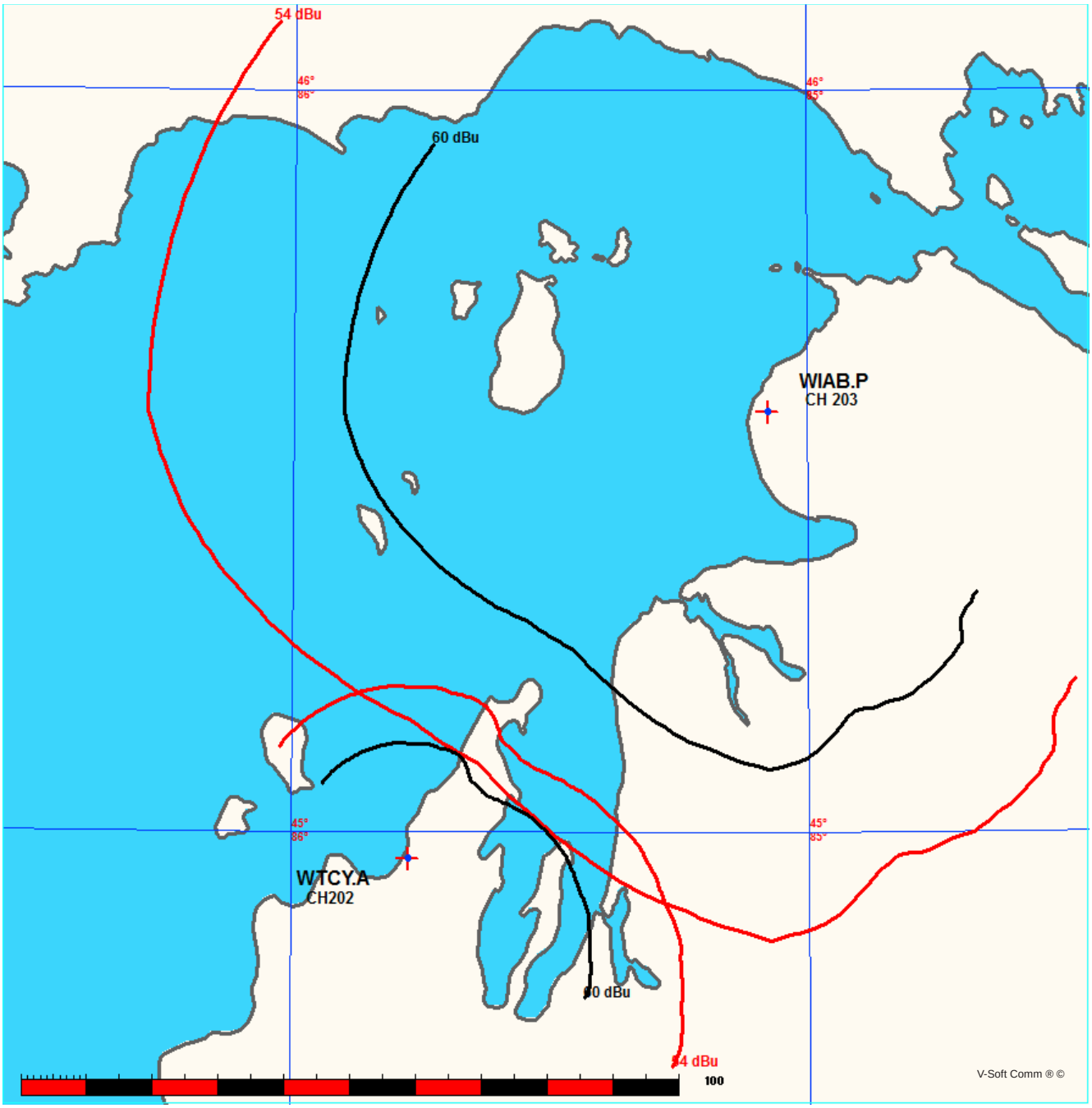


Exhibit 18.6
Contour Protection Studies Toward WTCY.A - Greilickville, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WIAB.P	WTCY-A BPED20111025AIW
Channel = 203C1	Channel = 202C3
Max ERP = 50 kW	Max ERP = 4.4 kW
RCAMSL = 471 M	RCAMSL = 409.7 M
N. Lat. 45 34 05.0	N. Lat. 44 57 59.0
W. Lng. 85 04 27.0	W. Lng. 85 46 28.0
Protected	Interfering
60 dBu	54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
177.0	025.1189	0224.2	053.1	076.3	000.3748	0200.7	059.4	41.25	
178.0	025.1189	0226.7	053.3	076.3	000.3753	0200.7	058.5	41.61	
179.0	025.1189	0230.3	053.6	076.4	000.3767	0200.8	057.5	42.00	
180.0	025.1189	0233.2	053.8	076.4	000.3770	0200.8	056.6	42.37	
181.0	024.0962	0235.0	053.6	076.0	000.3692	0200.6	055.7	42.60	
182.0	023.0949	0236.4	053.3	075.4	000.3604	0200.6	054.9	42.81	
183.0	022.1148	0238.3	053.0	074.9	000.3516	0200.9	054.1	43.03	
184.0	021.1559	0241.3	052.9	074.4	000.3436	0201.3	053.3	43.27	
185.0	020.2183	0245.2	052.7	073.9	000.3360	0201.6	052.4	43.51	
186.0	019.3019	0248.3	052.5	073.3	000.3270	0201.8	051.7	43.70	
187.0	018.4068	0251.5	052.3	072.7	000.3175	0201.6	050.9	43.86	
188.0	017.5329	0254.3	052.1	072.0	000.3071	0200.8	050.2	43.97	
189.0	016.6803	0257.1	051.8	071.3	000.2962	0200.2	049.5	44.05	
190.0	015.8489	0259.4	051.5	070.5	000.2843	0199.7	048.8	44.10	
191.0	015.4426	0261.3	051.4	069.9	000.2758	0199.3	048.1	44.24	
192.0	015.0415	0263.2	051.3	069.2	000.2690	0198.3	047.4	44.36	
193.0	014.6456	0265.2	051.2	068.5	000.2621	0197.1	046.7	44.47	
194.0	014.2551	0266.8	051.1	067.7	000.2545	0195.3	046.1	44.52	
195.0	013.8698	0267.9	050.9	066.9	000.2464	0193.2	045.5	44.53	
196.0	013.4898	0268.5	050.7	066.0	000.2378	0191.8	044.9	44.55	
197.0	013.1151	0269.1	050.5	065.0	000.2289	0190.9	044.4	44.56	
198.0	012.7457	0269.7	050.2	064.0	000.2199	0190.5	043.9	44.58	
199.0	012.3815	0270.4	050.0	063.0	000.2109	0190.0	043.4	44.58	
200.0	012.0226	0271.0	049.8	062.0	000.2017	0187.7	043.0	44.47	
201.0	011.7144	0271.8	049.6	060.9	000.1929	0186.5	042.6	44.41	
202.0	011.4101	0272.7	049.4	059.9	000.1844	0186.2	042.2	44.38	
203.0	011.1098	0273.6	049.2	058.8	000.1794	0185.7	041.8	44.40	
204.0	010.8136	0274.4	049.1	057.7	000.1742	0183.3	041.5	44.32	
205.0	010.5213	0275.6	048.9	056.6	000.1692	0179.9	041.1	44.18	
206.0	010.2331	0276.6	048.7	055.4	000.1640	0178.1	040.9	44.09	
207.0	009.9488	0277.4	048.5	054.2	000.1589	0175.3	040.6	43.92	
208.0	009.6686	0278.2	048.3	053.0	000.1537	0175.4	040.4	43.87	
209.0	009.3923	0278.9	048.1	051.8	000.1485	0175.7	040.3	43.81	
210.0	009.1201	0279.4	047.8	050.6	000.1434	0176.7	040.2	43.75	

Exhibit 18.6
Contour Protection Studies Toward WTCY.A - Greilickville, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
211.0	008.9603	0280.0	047.7	049.4	000.1410	0176.2	040.0	43.73
212.0	008.8019	0280.6	047.6	048.2	000.1410	0176.4	039.9	43.80
213.0	008.6450	0281.2	047.5	047.0	000.1410	0176.2	039.8	43.83
214.0	008.4894	0281.8	047.4	045.8	000.1410	0175.4	039.7	43.83
215.0	008.3353	0282.4	047.2	044.6	000.1410	0176.7	039.7	43.91
216.0	008.1826	0283.0	047.1	043.4	000.1410	0176.1	039.7	43.88
217.0	008.0312	0283.5	047.0	042.2	000.1410	0175.4	039.7	43.83
218.0	007.8813	0284.1	046.8	041.1	000.1410	0175.5	039.8	43.80
219.0	007.7329	0284.7	046.7	039.9	000.1410	0176.6	039.9	43.81
220.0	007.5858	0285.3	046.6	038.7	000.1410	0177.4	040.0	43.79
221.0	007.7329	0285.9	046.8	037.5	000.1410	0181.2	039.9	44.04
222.0	007.8813	0286.5	047.0	036.3	000.1410	0187.0	039.7	44.38
223.0	008.0312	0287.1	047.2	035.1	000.1410	0193.1	039.6	44.71
224.0	008.1826	0287.7	047.4	033.9	000.1410	0200.0	039.5	45.08
225.0	008.3353	0288.4	047.6	032.7	000.1410	0206.3	039.5	45.40
226.0	008.4894	0288.9	047.8	031.4	000.1410	0213.5	039.5	45.74
227.0	008.6450	0289.4	048.0	030.2	000.1410	0218.9	039.5	45.96
228.0	008.8019	0289.8	048.2	028.9	000.1410	0222.7	039.6	46.10
229.0	008.9603	0290.3	048.4	027.7	000.1410	0227.7	039.7	46.26
230.0	009.1201	0290.6	048.6	026.5	000.1410	0229.7	039.8	46.28
231.0	009.5985	0290.9	049.1	025.1	000.1410	0230.2	039.7	46.34
232.0	010.0891	0291.1	049.6	023.7	000.1410	0230.6	039.7	46.37
233.0	010.5920	0291.3	050.0	022.2	000.1410	0230.9	039.7	46.37
234.0	011.1071	0291.6	050.5	020.8	000.1410	0231.2	039.8	46.35
235.0	011.6344	0291.9	050.9	019.4	000.1410	0230.8	039.9	46.27
236.0	012.1739	0292.1	051.4	018.0	000.1410	0229.7	040.1	46.14
237.0	012.7257	0292.3	051.8	016.7	000.1410	0228.1	040.4	45.96
238.0	013.2897	0292.5	052.2	015.3	000.1410	0227.6	040.7	45.81
239.0	013.8659	0292.7	052.6	014.0	000.1410	0228.8	041.0	45.70
240.0	014.4544	0292.9	053.0	012.7	000.1410	0230.1	041.4	45.59
241.0	015.2126	0293.0	053.5	011.4	000.1410	0232.1	041.8	45.50
242.0	015.9902	0293.2	054.0	010.1	000.1410	0232.4	042.2	45.32
243.0	016.7872	0293.3	054.4	008.8	000.1410	0232.3	042.7	45.10
244.0	017.6035	0293.5	054.9	007.6	000.1410	0231.9	043.2	44.86
245.0	018.4393	0293.6	055.3	006.4	000.1410	0231.2	043.8	44.58
246.0	019.2944	0293.7	055.7	005.3	000.1410	0230.1	044.4	44.26
247.0	020.1689	0293.8	056.2	004.2	000.1410	0229.1	045.1	43.94
248.0	021.0628	0293.9	056.6	003.2	000.1410	0228.0	045.8	43.60
249.0	021.9760	0294.0	057.0	002.3	000.1410	0227.0	046.5	43.25
250.0	022.9087	0294.1	057.4	001.4	000.1410	0226.1	047.3	42.89
251.0	024.1104	0294.2	057.9	000.4	000.1410	0225.9	048.0	42.57
252.0	025.3428	0294.3	058.3	359.5	000.1410	0226.6	048.9	42.28
253.0	026.6059	0294.3	058.8	358.6	000.1410	0228.3	049.7	42.00
254.0	027.8997	0294.3	059.3	357.8	000.1410	0230.1	050.6	41.72
255.0	029.2243	0294.4	059.7	357.1	000.1410	0231.7	051.5	41.42
256.0	030.5795	0294.4	060.1	356.4	000.1410	0232.9	052.4	41.09

Exhibit 18.6
Contour Protection Studies Toward WTCY.A - Greilickville, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WTCY-A BPED20111025AIW	WIAB.P
Channel = 202C3	Channel = 203C1
Max ERP = 4.4 kW	Max ERP = 50 kW
RCAMSL = 409.7 M	RCAMSL = 471 M
N. Lat. 44 57 59.0	N. Lat. 45 34 05.0
W. Lng. 85 46 28.0	W. Lng. 85 04 27.0
Protected	Interfering
60 dBu	54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
354.0	000.1410	0233.7	017.3	228.9	008.9488	0290.2	075.3	52.70	
355.0	000.1410	0233.7	017.3	228.8	008.9273	0290.2	075.0	52.77	
356.0	000.1410	0233.3	017.3	228.6	008.9038	0290.2	074.8	52.83	
357.0	000.1410	0231.9	017.2	228.5	008.8757	0290.1	074.6	52.89	
358.0	000.1410	0229.7	017.1	228.3	008.8443	0290.0	074.4	52.93	
359.0	000.1410	0227.5	017.0	228.1	008.8127	0289.9	074.2	52.97	
000.0	000.1410	0226.1	017.0	227.9	008.7835	0289.8	074.1	53.01	
001.0	000.1410	0225.9	017.0	227.7	008.7579	0289.7	073.9	53.07	
002.0	000.1410	0226.8	017.0	227.6	008.7357	0289.6	073.6	53.14	
003.0	000.1410	0227.8	017.0	227.4	008.7130	0289.5	073.4	53.20	
004.0	000.1410	0228.8	017.1	227.3	008.6900	0289.5	073.1	53.27	
005.0	000.1410	0229.8	017.1	227.1	008.6660	0289.4	072.9	53.34	
006.0	000.1410	0230.8	017.2	227.0	008.6416	0289.3	072.7	53.40	
007.0	000.1410	0231.6	017.2	226.8	008.6154	0289.3	072.5	53.46	
008.0	000.1410	0232.1	017.2	226.6	008.5880	0289.2	072.3	53.52	
009.0	000.1410	0232.3	017.2	226.5	008.5593	0289.1	072.1	53.57	
010.0	000.1410	0232.4	017.2	226.3	008.5295	0289.1	071.9	53.61	
011.0	000.1410	0232.2	017.2	226.1	008.4988	0289.0	071.7	53.65	
012.0	000.1410	0231.5	017.2	225.8	008.4660	0288.9	071.6	53.68	
013.0	000.1410	0229.7	017.1	225.6	008.4299	0288.8	071.5	53.70	
014.0	000.1410	0228.8	017.1	225.4	008.3962	0288.7	071.4	53.72	
015.0	000.1410	0227.8	017.0	225.2	008.3621	0288.5	071.2	53.74	
016.0	000.1410	0227.5	017.0	225.0	008.3291	0288.4	071.1	53.76	
017.0	000.1410	0228.4	017.1	224.8	008.2986	0288.3	070.9	53.80	
018.0	000.1410	0229.6	017.1	224.6	008.2684	0288.1	070.8	53.84	
019.0	000.1410	0230.6	017.2	224.4	008.2369	0288.0	070.6	53.88	
020.0	000.1410	0231.1	017.2	224.1	008.2042	0287.8	070.5	53.91	
021.0	000.1410	0231.2	017.2	223.9	008.1702	0287.7	070.3	53.93	
022.0	000.1410	0230.9	017.2	223.7	008.1352	0287.5	070.2	53.94	
023.0	000.1410	0230.7	017.2	223.5	008.1002	0287.4	070.1	53.95	
024.0	000.1410	0230.5	017.2	223.2	008.0649	0287.2	070.0	53.96	
025.0	000.1410	0230.2	017.1	223.0	008.0294	0287.1	070.0	53.96	
026.0	000.1410	0229.9	017.1	222.8	007.9937	0287.0	069.9	53.97	

Exhibit 18.6
Contour Protection Studies Toward WTCY.A - Greilickville, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
027.0	000.1410	0229.2	017.1	222.5	007.9573	0286.8	069.8	53.96
028.0	000.1410	0226.7	017.0	222.3	007.9188	0286.7	069.9	53.93
029.0	000.1410	0222.5	016.8	222.0	007.8790	0286.5	069.9	53.87
030.0	000.1410	0219.4	016.7	221.7	007.8409	0286.4	070.0	53.82
031.0	000.1410	0215.9	016.6	221.5	007.8029	0286.2	070.1	53.76
032.0	000.1410	0210.0	016.3	221.2	007.7638	0286.1	070.3	53.67
033.0	000.1410	0204.9	016.1	221.0	007.7264	0285.9	070.5	53.58
034.0	000.1410	0199.4	015.9	220.7	007.6899	0285.8	070.7	53.49
035.0	000.1410	0193.7	015.6	220.5	007.6545	0285.6	070.9	53.39
036.0	000.1410	0188.7	015.4	220.2	007.6206	0285.5	071.0	53.30
037.0	000.1410	0183.8	015.2	220.0	007.5878	0285.3	071.2	53.22
038.0	000.1410	0179.4	015.1	219.8	007.6156	0285.2	071.4	53.17
039.0	000.1410	0176.9	015.0	219.6	007.6466	0285.1	071.5	53.15
040.0	000.1410	0176.6	014.9	219.4	007.6774	0284.9	071.5	53.16
041.0	000.1410	0175.6	014.9	219.2	007.7080	0284.8	071.6	53.15
042.0	000.1410	0175.2	014.9	219.0	007.7386	0284.7	071.6	53.15
043.0	000.1410	0175.8	014.9	218.8	007.7696	0284.5	071.6	53.17
044.0	000.1410	0176.6	014.9	218.5	007.8008	0284.4	071.6	53.19
045.0	000.1410	0176.2	014.9	218.3	007.8314	0284.3	071.6	53.18
046.0	000.1410	0175.3	014.9	218.1	007.8616	0284.1	071.7	53.17
047.0	000.1410	0176.1	014.9	217.9	007.8929	0284.0	071.7	53.18
048.0	000.1410	0176.6	014.9	217.7	007.9239	0283.9	071.7	53.19
049.0	000.1410	0176.2	014.9	217.5	007.9541	0283.8	071.8	53.18
050.0	000.1410	0176.7	015.0	217.3	007.9852	0283.7	071.8	53.18
051.0	000.1451	0176.2	015.0	217.1	008.0184	0283.5	071.8	53.20
052.0	000.1493	0175.7	015.1	216.9	008.0517	0283.4	071.8	53.22
053.0	000.1535	0175.5	015.2	216.6	008.0859	0283.3	071.7	53.24
054.0	000.1578	0175.1	015.3	216.4	008.1201	0283.2	071.7	53.26
055.0	000.1622	0176.7	015.5	216.2	008.1582	0283.0	071.6	53.31
056.0	000.1666	0179.3	015.8	215.9	008.1991	0282.9	071.5	53.37
057.0	000.1711	0180.7	015.9	215.6	008.2385	0282.7	071.5	53.41
058.0	000.1756	0184.2	016.2	215.3	008.2830	0282.6	071.3	53.48
059.0	000.1802	0186.0	016.4	215.1	008.3247	0282.4	071.2	53.52
060.0	000.1849	0186.3	016.5	214.8	008.3637	0282.3	071.3	53.53
061.0	000.1933	0186.5	016.7	214.5	008.4077	0282.1	071.2	53.57
062.0	000.2019	0187.8	017.0	214.2	008.4547	0281.9	071.1	53.62
063.0	000.2106	0189.9	017.3	213.9	008.5049	0281.8	071.0	53.68
064.0	000.2196	0190.5	017.5	213.6	008.5517	0281.6	070.9	53.71
065.0	000.2287	0190.8	017.7	213.3	008.5980	0281.4	070.9	53.73
066.0	000.2381	0191.9	017.9	213.0	008.6469	0281.2	070.9	53.76
067.0	000.2476	0193.5	018.2	212.7	008.6980	0281.0	070.9	53.79
068.0	000.2573	0195.9	018.5	212.3	008.7525	0280.8	070.8	53.83
069.0	000.2671	0198.1	018.8	212.0	008.8068	0280.6	070.8	53.86
070.0	000.2772	0199.5	019.0	211.6	008.8587	0280.4	070.8	53.87
071.0	000.2917	0200.0	019.3	211.3	008.9137	0280.2	070.8	53.89
072.0	000.3067	0200.8	019.5	210.9	008.9700	0280.0	070.8	53.91

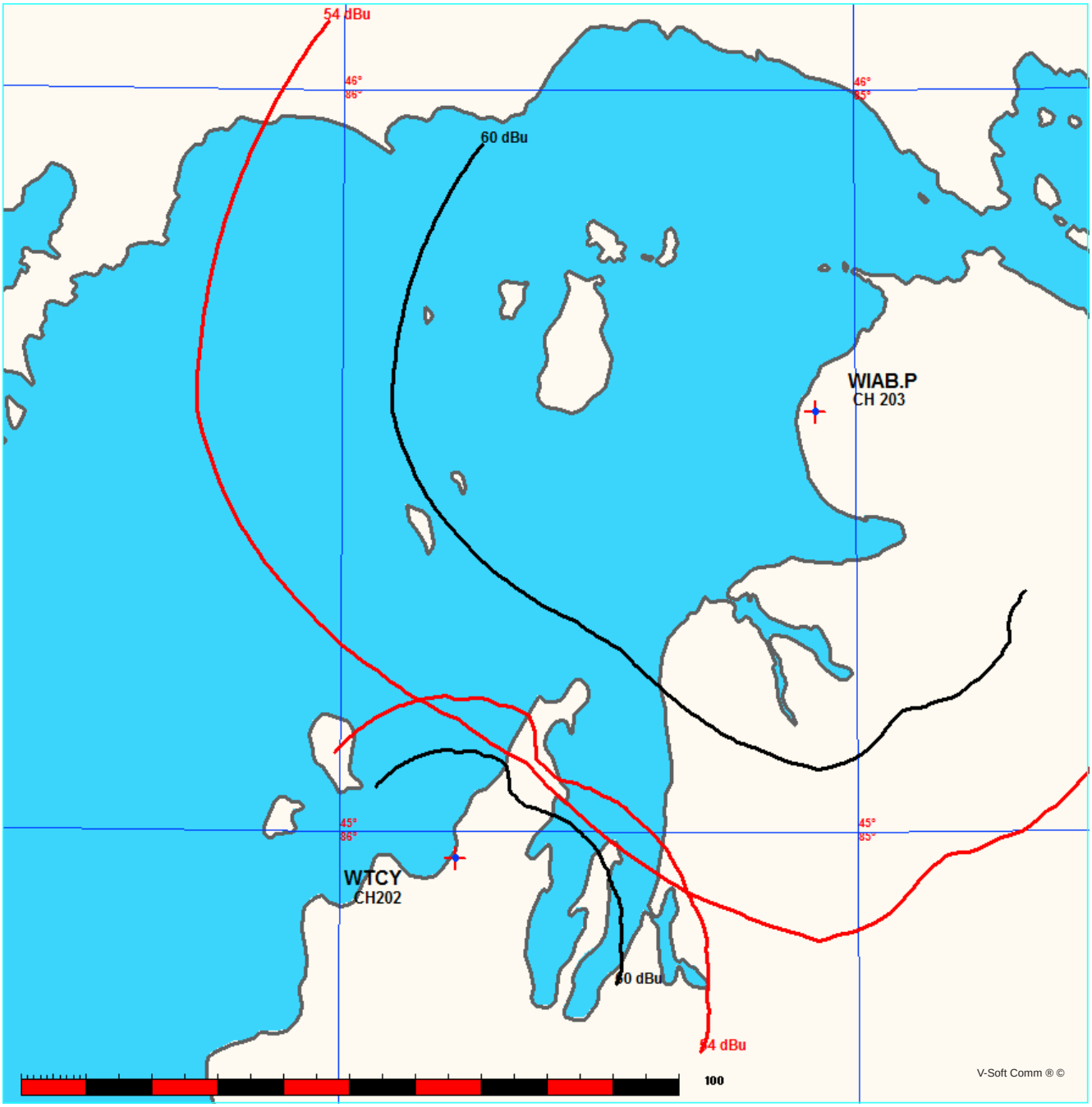
Exhibit 18.7
Contour Protection Studies Toward WTCY.L - Greilickville, MI

Interlochen Center For The Arts

FMCommander Single Allocation Study - 11-04-2011 - USGS 03 SEC
WIAB.P's Overlaps (In= 20.66 km, Out= 4.57 km)

WIAB.P CH 203 C1 DA
Lat= 45 34 05.0, Lng= 85 04 27.0
50.0 kW 250.4 M HAAT, 471 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WTCY CH 202 C3 DA BLED20110426ABJ
Lat= 44 57 59.0, Lng= 85 46 28.0
7.0 kW 135.3 M HAAT, 338 M COR
Prot.= 60 dBu, Intef.= 54 dBu



MUNN–REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 18.7
Contour Protection Studies Toward WTCY.L - Greilickville, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WIAB.P

Channel = 203C1
Max ERP = 50 kW
RCAMSL = 471 M
N. Lat. 45 34 05.0
W. Lng. 85 04 27.0
Protected
60 dBu

WTCY BLED20110426ABJ

Channel = 202C3
Max ERP = 7 kW
RCAMSL = 338 M
N. Lat. 44 57 59.0
W. Lng. 85 46 28.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
177.0	025.1189	0224.2	053.1	076.3	000.5963	0129.0	059.4	39.75	
178.0	025.1189	0226.7	053.3	076.3	000.5970	0129.0	058.5	40.11	
179.0	025.1189	0230.3	053.6	076.4	000.5993	0129.1	057.5	40.49	
180.0	025.1189	0233.2	053.8	076.4	000.5998	0129.1	056.6	40.86	
181.0	024.0962	0235.0	053.6	076.0	000.5874	0128.9	055.7	41.08	
182.0	023.0949	0236.4	053.3	075.4	000.5733	0128.9	054.9	41.29	
183.0	022.1148	0238.3	053.0	074.9	000.5594	0129.2	054.1	41.51	
184.0	021.1559	0241.3	052.9	074.4	000.5466	0129.6	053.3	41.75	
185.0	020.2183	0245.2	052.7	073.9	000.5345	0129.9	052.4	41.99	
186.0	019.3019	0248.3	052.5	073.3	000.5202	0130.1	051.7	42.18	
187.0	018.4068	0251.5	052.3	072.7	000.5051	0129.9	050.9	42.34	
188.0	017.5329	0254.3	052.1	072.0	000.4886	0129.1	050.2	42.43	
189.0	016.6803	0257.1	051.8	071.3	000.4712	0128.5	049.5	42.51	
190.0	015.8489	0259.4	051.5	070.5	000.4523	0128.0	048.8	42.56	
191.0	015.4426	0261.3	051.4	069.9	000.4387	0127.6	048.1	42.69	
192.0	015.0415	0263.2	051.3	069.2	000.4279	0126.6	047.4	42.80	
193.0	014.6456	0265.2	051.2	068.5	000.4169	0125.4	046.7	42.90	
194.0	014.2551	0266.8	051.1	067.7	000.4049	0123.6	046.1	42.93	
195.0	013.8698	0267.9	050.9	066.9	000.3920	0121.5	045.5	42.92	
196.0	013.4898	0268.5	050.7	066.0	000.3783	0120.1	044.9	42.92	
197.0	013.1151	0269.1	050.5	065.0	000.3641	0119.2	044.4	42.91	
198.0	012.7457	0269.7	050.2	064.0	000.3499	0118.8	043.9	42.92	
199.0	012.3815	0270.4	050.0	063.0	000.3356	0118.3	043.4	42.90	
200.0	012.0226	0271.0	049.8	062.0	000.3209	0116.0	043.0	42.75	
201.0	011.7144	0271.8	049.6	060.9	000.3068	0114.8	042.6	42.66	
202.0	011.4101	0272.7	049.4	059.9	000.2934	0114.5	042.2	42.61	
203.0	011.1098	0273.6	049.2	058.8	000.2853	0114.0	041.8	42.61	
204.0	010.8136	0274.4	049.1	057.7	000.2772	0111.6	041.5	42.47	
205.0	010.5213	0275.6	048.9	056.6	000.2691	0108.2	041.1	42.23	
206.0	010.2331	0276.6	048.7	055.4	000.2610	0106.4	040.9	42.07	
207.0	009.9488	0277.4	048.5	054.2	000.2527	0103.6	040.6	41.81	
208.0	009.6686	0278.2	048.3	053.0	000.2445	0103.7	040.4	41.76	
209.0	009.3923	0278.9	048.1	051.8	000.2363	0104.0	040.3	41.70	
210.0	009.1201	0279.4	047.8	050.6	000.2282	0105.0	040.2	41.66	

Exhibit 18.7
Contour Protection Studies Toward WTCY.L - Greilickville, MI

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
211.0	008.9603	0280.0	047.7	049.4	000.2243	0104.5	040.0	41.62
212.0	008.8019	0280.6	047.6	048.2	000.2243	0104.7	039.9	41.69
213.0	008.6450	0281.2	047.5	047.0	000.2243	0104.5	039.8	41.72
214.0	008.4894	0281.8	047.4	045.8	000.2243	0103.7	039.7	41.68
215.0	008.3353	0282.4	047.2	044.6	000.2243	0105.0	039.7	41.80
216.0	008.1826	0283.0	047.1	043.4	000.2243	0104.4	039.7	41.75
217.0	008.0312	0283.5	047.0	042.2	000.2243	0103.7	039.7	41.68
218.0	007.8813	0284.1	046.8	041.1	000.2243	0103.8	039.8	41.66
219.0	007.7329	0284.7	046.7	039.9	000.2243	0104.9	039.9	41.71
220.0	007.5858	0285.3	046.6	038.7	000.2243	0105.7	040.0	41.72
221.0	007.7329	0285.9	046.8	037.5	000.2243	0109.5	039.9	42.08
222.0	007.8813	0286.5	047.0	036.3	000.2243	0115.3	039.7	42.55
223.0	008.0312	0287.1	047.2	035.1	000.2243	0121.4	039.6	42.99
224.0	008.1826	0287.7	047.4	033.9	000.2243	0128.3	039.5	43.43
225.0	008.3353	0288.4	047.6	032.7	000.2243	0134.6	039.5	43.82
226.0	008.4894	0288.9	047.8	031.4	000.2243	0141.8	039.5	44.22
227.0	008.6450	0289.4	048.0	030.2	000.2243	0147.2	039.5	44.50
228.0	008.8019	0289.8	048.2	028.9	000.2243	0151.0	039.6	44.68
229.0	008.9603	0290.3	048.4	027.7	000.2243	0156.0	039.7	44.90
230.0	009.1201	0290.6	048.6	026.5	000.2243	0158.0	039.8	44.93
231.0	009.5985	0290.9	049.1	025.1	000.2243	0158.5	039.7	45.00
232.0	010.0891	0291.1	049.6	023.7	000.2243	0158.9	039.7	45.03
233.0	010.5920	0291.3	050.0	022.2	000.2243	0159.2	039.7	45.04
234.0	011.1071	0291.6	050.5	020.8	000.2243	0159.5	039.8	45.02
235.0	011.6344	0291.9	050.9	019.4	000.2243	0159.1	039.9	44.94
236.0	012.1739	0292.1	051.4	018.0	000.2243	0158.0	040.1	44.79
237.0	012.7257	0292.3	051.8	016.7	000.2243	0156.4	040.4	44.59
238.0	013.2897	0292.5	052.2	015.3	000.2243	0155.9	040.7	44.43
239.0	013.8659	0292.7	052.6	014.0	000.2243	0157.1	041.0	44.34
240.0	014.4544	0292.9	053.0	012.7	000.2243	0158.4	041.4	44.23
241.0	015.2126	0293.0	053.5	011.4	000.2243	0160.4	041.8	44.16
242.0	015.9902	0293.2	054.0	010.1	000.2243	0160.7	042.2	43.98
243.0	016.7872	0293.3	054.4	008.8	000.2243	0160.6	042.7	43.76
244.0	017.6035	0293.5	054.9	007.6	000.2243	0160.2	043.2	43.51
245.0	018.4393	0293.6	055.3	006.4	000.2243	0159.5	043.8	43.22
246.0	019.2944	0293.7	055.7	005.3	000.2243	0158.4	044.4	42.90
247.0	020.1689	0293.8	056.2	004.2	000.2243	0157.4	045.1	42.57
248.0	021.0628	0293.9	056.6	003.2	000.2243	0156.3	045.8	42.22
249.0	021.9760	0294.0	057.0	002.3	000.2243	0155.3	046.5	41.87
250.0	022.9087	0294.1	057.4	001.4	000.2243	0154.4	047.3	41.51
251.0	024.1104	0294.2	057.9	000.4	000.2243	0154.2	048.0	41.20
252.0	025.3428	0294.3	058.3	359.5	000.2243	0154.9	048.9	40.92
253.0	026.6059	0294.3	058.8	358.6	000.2243	0156.6	049.7	40.68
254.0	027.8997	0294.3	059.3	357.8	000.2243	0158.4	050.6	40.43
255.0	029.2243	0294.4	059.7	357.1	000.2243	0160.0	051.5	40.16
256.0	030.5795	0294.4	060.1	356.4	000.2243	0161.2	052.4	39.85

Exhibit 18.7
Contour Protection Studies Toward WTCY.L - Greilickville, MI

11-04-2011 Terrain Data: USGS 03 SEC FMOver Analysis

WTCY BLED20110426ABJ	WIAB.P
Channel = 202C3	Channel = 203C1
Max ERP = 7 kW	Max ERP = 50 kW
RCAMSL = 338 M	RCAMSL = 471 M
N. Lat. 44 57 59.0	N. Lat. 45 34 05.0
W. Lng. 85 46 28.0	W. Lng. 85 04 27.0
Protected	Interfering
60 dBu	54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
354.0	000.2243	0162.0	016.2	228.2	008.8398	0289.9	075.9	52.41	
355.0	000.2243	0162.0	016.2	228.1	008.8195	0289.9	075.7	52.47	
356.0	000.2243	0161.6	016.1	228.0	008.7969	0289.8	075.5	52.53	
357.0	000.2243	0160.2	016.0	227.8	008.7675	0289.7	075.3	52.57	
358.0	000.2243	0158.0	015.9	227.6	008.7339	0289.6	075.2	52.59	
359.0	000.2243	0155.8	015.8	227.4	008.7003	0289.5	075.1	52.61	
000.0	000.2243	0154.4	015.7	227.2	008.6704	0289.4	074.9	52.65	
001.0	000.2243	0154.2	015.7	227.0	008.6463	0289.4	074.7	52.70	
002.0	000.2243	0155.1	015.7	226.9	008.6278	0289.3	074.5	52.76	
003.0	000.2243	0156.1	015.8	226.8	008.6088	0289.3	074.3	52.83	
004.0	000.2243	0157.1	015.9	226.6	008.5895	0289.2	074.0	52.90	
005.0	000.2243	0158.1	015.9	226.5	008.5691	0289.2	073.8	52.97	
006.0	000.2243	0159.1	016.0	226.4	008.5485	0289.1	073.6	53.04	
007.0	000.2243	0159.9	016.0	226.2	008.5256	0289.0	073.4	53.09	
008.0	000.2243	0160.4	016.1	226.1	008.5012	0289.0	073.2	53.15	
009.0	000.2243	0160.6	016.1	225.9	008.4751	0288.9	073.0	53.20	
010.0	000.2243	0160.7	016.1	225.7	008.4477	0288.8	072.8	53.24	
011.0	000.2243	0160.5	016.1	225.5	008.4191	0288.7	072.7	53.27	
012.0	000.2243	0159.8	016.0	225.3	008.3878	0288.6	072.6	53.29	
013.0	000.2243	0158.0	015.9	225.1	008.3520	0288.5	072.5	53.29	
014.0	000.2243	0157.1	015.9	224.9	008.3198	0288.4	072.4	53.30	
015.0	000.2243	0156.1	015.8	224.7	008.2872	0288.2	072.3	53.31	
016.0	000.2243	0155.8	015.8	224.5	008.2567	0288.1	072.2	53.33	
017.0	000.2243	0156.7	015.8	224.3	008.2300	0287.9	072.0	53.37	
018.0	000.2243	0157.9	015.9	224.1	008.2038	0287.8	071.8	53.42	
019.0	000.2243	0158.9	016.0	224.0	008.1760	0287.7	071.7	53.46	
020.0	000.2243	0159.4	016.0	223.8	008.1466	0287.6	071.5	53.49	
021.0	000.2243	0159.5	016.0	223.6	008.1156	0287.4	071.4	53.51	
022.0	000.2243	0159.2	016.0	223.3	008.0833	0287.3	071.3	53.52	
023.0	000.2243	0159.0	016.0	223.1	008.0511	0287.2	071.2	53.53	
024.0	000.2243	0158.8	016.0	222.9	008.0186	0287.1	071.2	53.53	
025.0	000.2243	0158.5	015.9	222.7	007.9859	0286.9	071.1	53.54	
026.0	000.2243	0158.2	015.9	222.5	007.9529	0286.8	071.0	53.53	

Exhibit 18.7
Contour Protection Studies Toward WTCY.L - Greilickville, MI

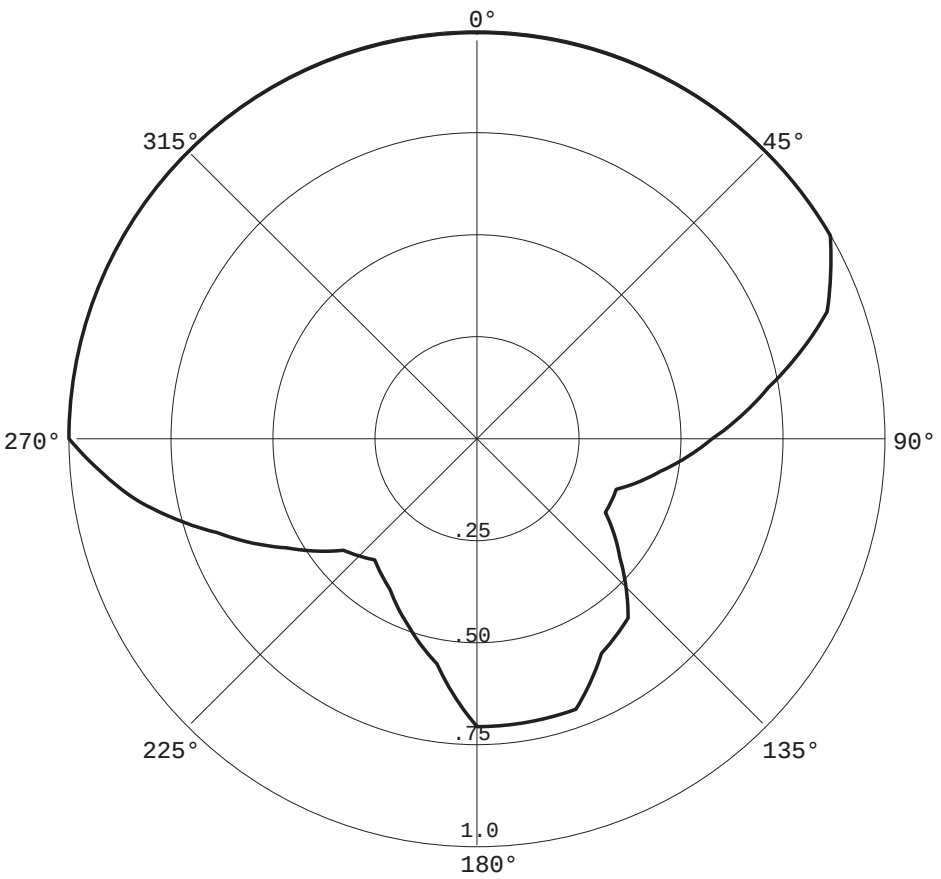
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
027.0	000.2243	0157.5	015.9	222.3	007.9192	0286.7	071.0	53.52
028.0	000.2243	0155.0	015.7	222.0	007.8824	0286.5	071.1	53.47
029.0	000.2243	0150.8	015.5	221.7	007.8437	0286.4	071.3	53.38
030.0	000.2243	0147.7	015.3	221.5	007.8078	0286.2	071.4	53.31
031.0	000.2243	0144.2	015.1	221.3	007.7721	0286.1	071.6	53.23
032.0	000.2243	0138.3	014.7	221.0	007.7352	0285.9	071.9	53.09
033.0	000.2243	0133.2	014.4	220.8	007.7007	0285.8	072.1	52.98
034.0	000.2243	0127.7	014.1	220.6	007.6675	0285.7	072.4	52.86
035.0	000.2243	0122.0	013.8	220.3	007.6359	0285.6	072.7	52.74
036.0	000.2243	0117.0	013.5	220.1	007.6061	0285.4	073.0	52.63
037.0	000.2243	0112.1	013.2	219.9	007.5939	0285.3	073.2	52.53
038.0	000.2243	0107.7	013.0	219.8	007.6211	0285.2	073.5	52.45
039.0	000.2243	0105.2	012.8	219.6	007.6471	0285.1	073.6	52.41
040.0	000.2243	0104.9	012.8	219.4	007.6727	0285.0	073.6	52.42
041.0	000.2243	0103.9	012.8	219.2	007.6981	0284.9	073.7	52.41
042.0	000.2243	0103.5	012.7	219.1	007.7235	0284.7	073.7	52.41
043.0	000.2243	0104.1	012.8	218.9	007.7493	0284.6	073.7	52.42
044.0	000.2243	0104.9	012.8	218.7	007.7755	0284.5	073.7	52.44
045.0	000.2243	0104.5	012.8	218.5	007.8008	0284.4	073.7	52.44
046.0	000.2243	0103.6	012.7	218.4	007.8255	0284.3	073.8	52.42
047.0	000.2243	0104.4	012.8	218.2	007.8518	0284.2	073.8	52.44
048.0	000.2243	0104.9	012.8	218.0	007.8778	0284.1	073.8	52.44
049.0	000.2243	0104.5	012.8	217.9	007.9028	0284.0	073.9	52.43
050.0	000.2243	0105.0	012.8	217.7	007.9289	0283.9	073.9	52.44
051.0	000.2308	0104.5	012.9	217.5	007.9559	0283.8	073.9	52.45
052.0	000.2375	0104.0	012.9	217.3	007.9829	0283.7	073.9	52.46
053.0	000.2443	0103.8	013.0	217.1	008.0108	0283.6	073.9	52.48
054.0	000.2511	0103.4	013.1	217.0	008.0385	0283.5	073.9	52.49
055.0	000.2580	0105.0	013.3	216.7	008.0711	0283.3	073.8	52.54
056.0	000.2651	0107.6	013.5	216.5	008.1068	0283.2	073.6	52.61
057.0	000.2722	0109.0	013.7	216.3	008.1406	0283.1	073.5	52.66
058.0	000.2794	0112.5	014.0	216.0	008.1809	0283.0	073.3	52.74
059.0	000.2868	0114.3	014.2	215.8	008.2176	0282.8	073.2	52.79
060.0	000.2942	0114.6	014.3	215.6	008.2503	0282.7	073.2	52.80
061.0	000.3075	0114.8	014.5	215.3	008.2870	0282.6	073.2	52.84
062.0	000.3212	0116.1	014.8	215.0	008.3280	0282.4	073.1	52.89
063.0	000.3351	0118.2	015.1	214.8	008.3732	0282.2	072.9	52.96
064.0	000.3494	0118.8	015.3	214.5	008.4141	0282.1	072.9	53.00
065.0	000.3639	0119.1	015.5	214.2	008.4541	0281.9	072.8	53.02
066.0	000.3787	0120.2	015.7	213.9	008.4986	0281.8	072.8	53.07
067.0	000.3938	0121.8	016.0	213.6	008.5462	0281.6	072.7	53.11
068.0	000.4093	0124.2	016.4	213.3	008.5997	0281.4	072.5	53.18
069.0	000.4250	0126.4	016.7	213.0	008.6526	0281.2	072.4	53.24
070.0	000.4410	0127.8	017.0	212.6	008.7023	0281.0	072.4	53.27
071.0	000.4641	0128.3	017.3	212.3	008.7531	0280.8	072.4	53.30
072.0	000.4879	0129.1	017.6	212.0	008.8060	0280.6	072.3	53.33

Exhibit 18.8
Tabulation of Proposed Directional Antenna Pattern

WIAB.P 11-04-2011 RMS(V)= .801

Azi	Field	dBk	kW
000	1.000	16.990	50.000
010	1.000	16.990	50.000
020	1.000	16.990	50.000
030	1.000	16.990	50.000
040	1.000	16.990	50.000
050	1.000	16.990	50.000
060	1.000	16.990	50.000
070	0.913	16.200	41.687
080	0.725	14.200	26.303
090	0.576	12.200	16.596
100	0.458	10.200	10.471
110	0.364	08.200	6.607
120	0.364	08.200	6.607
130	0.458	10.200	10.471
140	0.576	12.200	16.596
150	0.610	12.700	18.621
160	0.709	14.000	25.119
170	0.709	14.000	25.119
180	0.709	14.000	25.119
190	0.563	12.000	15.849
200	0.490	10.800	12.023
210	0.427	09.600	9.120
220	0.390	08.800	7.586
230	0.427	09.600	9.120
240	0.538	11.600	14.454
250	0.677	13.600	22.909
260	0.852	15.600	36.308
270	1.000	16.990	50.000
280	1.000	16.990	50.000
290	1.000	16.990	50.000
300	1.000	16.990	50.000
310	1.000	16.990	50.000
320	1.000	16.990	50.000
330	1.000	16.990	50.000
340	1.000	16.990	50.000
350	1.000	16.990	50.000

Graph is Relative Field



The antenna proposed in this application will be mounted in accordance with specific instructions provided by the antenna manufacturer. The antenna will be tested by the manufacturer using the type of mounting which will be employed in the field.

The directional antenna will be mounted on the tower which is of uniform cross section. No other antennas of any type are or will be mounted on the same tower level as the directional antenna.

No antenna is or will be mounted within any vertical or horizontal distance specified by the antenna manufacturer as being necessary for proper operation of the directional antenna. The antenna will be assembled under the supervision of a qualified engineer, who will provide the required certification. This statement will certify that the antenna has been installed pursuant to the manufacturer's instructions. Also upon completion of antenna construction, a statement from a licensed surveyor will be submitted with the application for license certifying the antenna has been installed in the proper orientation.

The directional antenna pattern will be produced by means of the antenna yagi element design or by means of parasitic elements, adjusted to produce the required pattern.

The antenna pattern will be measured by the manufacturer on the test range, and the measurement results will be supplied to the Commission at the time Form 302-FM is filed covering the construction.