Technical Exhibit
WTCK 215C2
Minor Amendment to Application
Charlevoix, MI
5.5 kW Vertical Polarization
305.9m HAAT
164.6m AGL

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Predicted Coverage Contours

The proposed HAAT and the predicted 60 dBu contours were calculated in accordance with Section 47 C.F.R. 73.313. The average terrain elevations for the proposed were calculated along 72 radials using the NED 30 meter terrain database.

All contours displayed in exhibits are plotted along 360 radials and in accordance with the propagation prediction curves of Section 73.333.

Interference Compliance

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

Based upon a waiver granted by the Commission to WJOG 217C3 licensed to Good Hart, MI the F(50,10) 100 dBu interfering contour of WTCK is completely encompassed by WJOG. As a special operating condition of WJOG's license, modifications to WTCK are not a per se modification. Moving closer to the WJOG transmit site will actually decrease the amount of incoming interference which WJOG will receive, based upon d/u ratios.

The proposed modification receives interference from WJOG, a second adjacent station. See Figure 2. A waiver is requested on the incoming interference received from WJOG. The amount of potential incoming interference from WJOG is minimal. 388 persons would potentially receive interference from WJOG in an area of 39.6 sq. km. This is $6/10^{ths}$ of one percent of the proposed coverage area. The population potentially receiving interference would only be $4/10^{ths}$ of one percent. See Figure 2-1.

Furthermore, the proposed modification of WTCK increases the population reached in its 60 dBu contour by 23,714 persons and 3,765 sq km compared to its licensed facility. The potential interference received by these 388 persons is significantly offset by the ability of WTCK to serve an additional 23,714 persons. The potential interference area is only 1% of the increased service area.

International Borders

WTCK is located within 320 kM of the Canadian border. There is one related Canadian allotment, 215B, in Sault Ste Marie, ON (AL4199). WTCK is currently short spaced and a limited assignment with respect to AL4199. The F(50,10) 40dBu contour of AL4199 currently overlaps the 60 dBu contour of WTCK's construction permit (Figure 3-2 and 3-3). While the Proposed would increase that incoming overlap, it would also serve more people.

The F(50,10) 34 dBu contour of WTCK's current construction permit overlaps AL4199's F(50,50) 54 dBu contour solely within the United States. The interfering contour of the Proposed would increase the amount of overlap with AL4199, solely on the U.S. side of the border (Figures 3 and 3-1).

RF Electromagnetic Exposure Analysis

Using a worst case assumption of maximum downward radiation (F=1.0) the RF exposure at 2m above ground level is 13.89562 $\mu W/cm^2$ or 1.3% of the controlled standard. The actual downward radiation is expected to be less with construction of the Proposed utilizing a multi-bay antenna. This is inconsequential when added to the existing RF on the tower.

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

Figure 1
Minor Amendment to Pending Application

REFERENCE CH# 215C2 - 90.9 MHz, Pwr= 5.5 kW DA, HAAT= 303.6 M, COR= 539.6 M DISPLAY DATES
45 30 05.2 N. Average Protected F(50-50)= 44.94 km DATA 09-20-11
85 01 48.7 W. Standard Directional SEARCH 10-03-11

CH CALL / CITY	TYPE ANT / STATE	AZI / <--	DIST / FILE #	LAT / LNG	PWR(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* (Overlap in km)	*OUT*
215C2 WTCK Charlevoix	APP DVX MI	50.9 230.9	0.1 BPED20110601AKU	45 30 08.0 85 01 43.8	5.400 315	118.9 552	48.4 Baraga Broadcasting, Inc.	-148.9*	-132.1*
215C2 WTCK Charlevoix	APP DCX MI	50.9 230.9	0.1 BPED20110706ACA	45 30 08.0 85 01 43.8	5.400 315	118.9 552	48.4 Baraga Broadcasting, Inc.	-148.9*	-132.1*
215A WTCK Charlevoix	CP DCX MI	188.4 8.3	36.1 BPED20090825BTD	45 10 49.0 85 05 50.0	1.100 201	79.7 428	27.8 Baraga Broadcasting, Inc.	-90.2*	-107.8
215A WTCK Charlevoix	LIC DEX MI	188.4 8.3	36.1 BLED20081114ACE	45 10 49.0 85 05 50.0	1.100 201	79.7 428	27.8 Baraga Broadcasting, Inc.	-90.2*	-107.8
215B AL4199 Sault Ste Marie	AL ___ ON	25.2 205.7	125.1	46 31 00.0 84 20 00.0	50.000 150	142.1 384	65.0	-52.3*	-53.7
217C3 WJOG Good Hart	LIC _VX MI	330.7 150.6	1.0 BLED20090831AAF	45 30 33.0 85 02 11.0	6.000 190	3.7 424	39.4 Michigan Community Radio	-46.2*	-42.3*
214A WNMC-FM Traverse City	LIC _CN MI	212.7 32.2	95.6 BLED19971126KC	44 46 36.0 85 41 02.0	0.600 164	35.4 395	23.6 Northwestern Michigan Coll	12.6	0.9
213C WPHN Gaylord	LIC _CN MI	120.5 301.1	79.1 BLED19850419LP	45 08 17.0 84 09 44.0	100.000 305	10.2 579	72.8 Northern Christian Radio,	24.9	2.3
215C1 NEW Escanaba	CP DVX MI	283.4 101.7	195.9 BNPED20071018AKU	45 53 01.0 87 29 07.0	100.000 66	145.4 360	49.8 Clean Air Broadcasting Cor	2.8	29.9
215C3 WMSD Rose Township	CP DCX MI	145.6 326.3	143.5 BPED20091119AAF	44 25 58.0 84 00 33.0	15.000 21	88.9 335	20.1 Bible Baptist Church Schoo	8.3	10.2
215A WMSD Rose Township	LIC _V_ MI	145.6 326.3	143.5 BLED20000808AAA	44 25 58.0 84 00 33.0	5.000 21	64.0 335	15.0 Bible Baptist Church Schoo	33.2	15.3
216C1 WOLW Cadillac	LIC DEN MI	201.8 21.3	146.5 BLED19880502KC	44 16 33.0 85 42 49.0	50.000 213	48.1 560	31.2 Northern Christian Radio,	51.6	40.2
218C3 WICA Traverse City	LIC DC_ MI	211.8 31.3	97.3 BLED20001114AAH	44 45 22.0 85 40 42.0	4.000 228	1.4 466	23.4 Interlochen Center For The	48.4	67.4

Terrain database is NED 30 Meter , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= - 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.
Reference station has protected zone issue: Canada

Figure 2
Minor Amendment to Pending Application

FMCommander Single Allocation Study - 10-03-2011 - NED 30 Meter
WTCK.A's Overlaps (In= -46.16 km, Out= -42.29 km)

WTCK.A CH 215 C2 DA
Lat= 45 30 05.2, Lng= 85 01 48.7
5.5 kW 303.6 M HAAT, 539.6 M COR
Prot.= 60 dBu, Intef.= 100 dBu

WJOG CH 217 C3 BLED20090831AAF
Lat= 45 30 33.0, Lng= 85 02 11.0
6.0 kW 190 M HAAT, 424 M COR
Prot.= 60 dBu, Intef.= 100 dBu

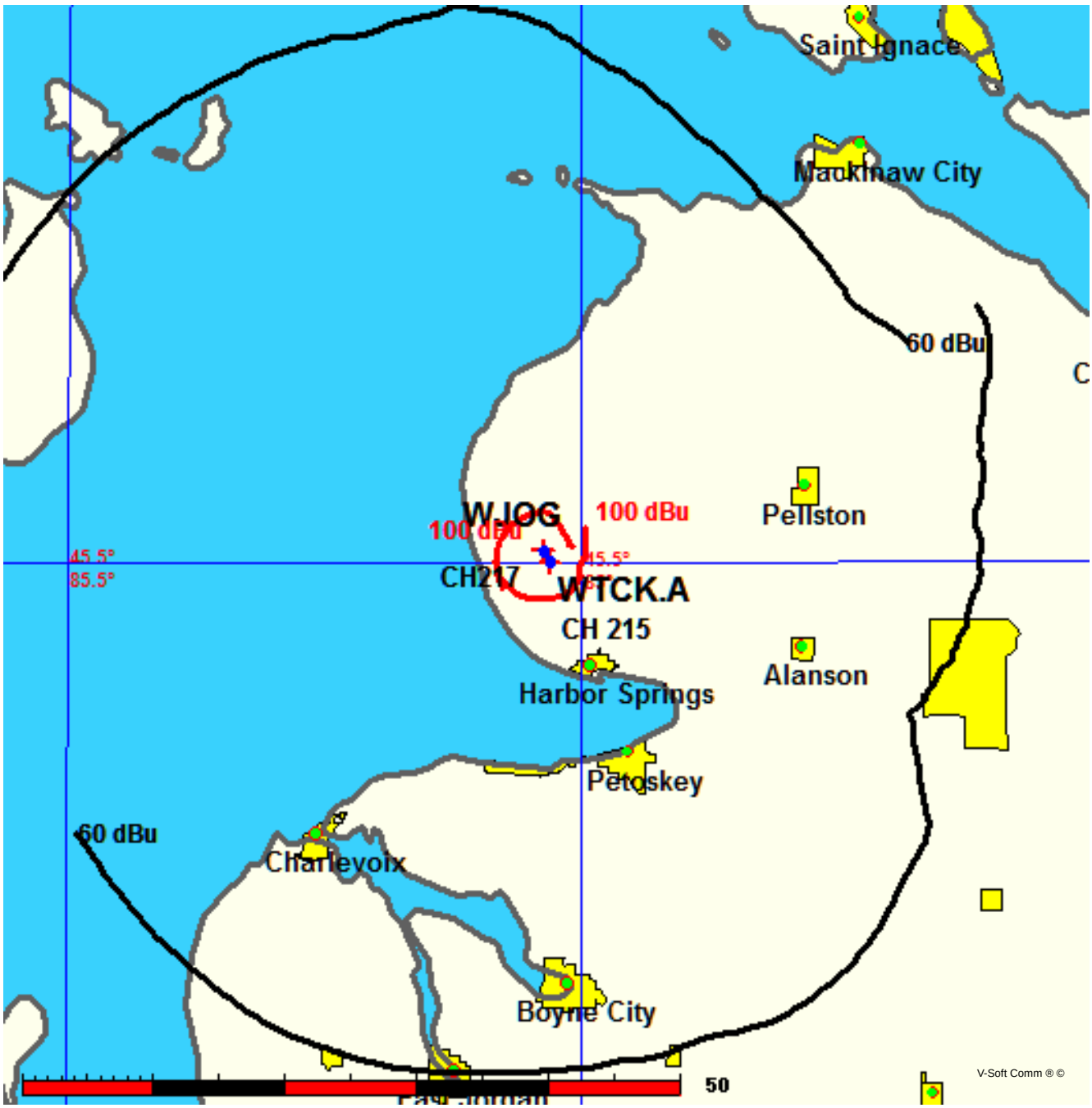
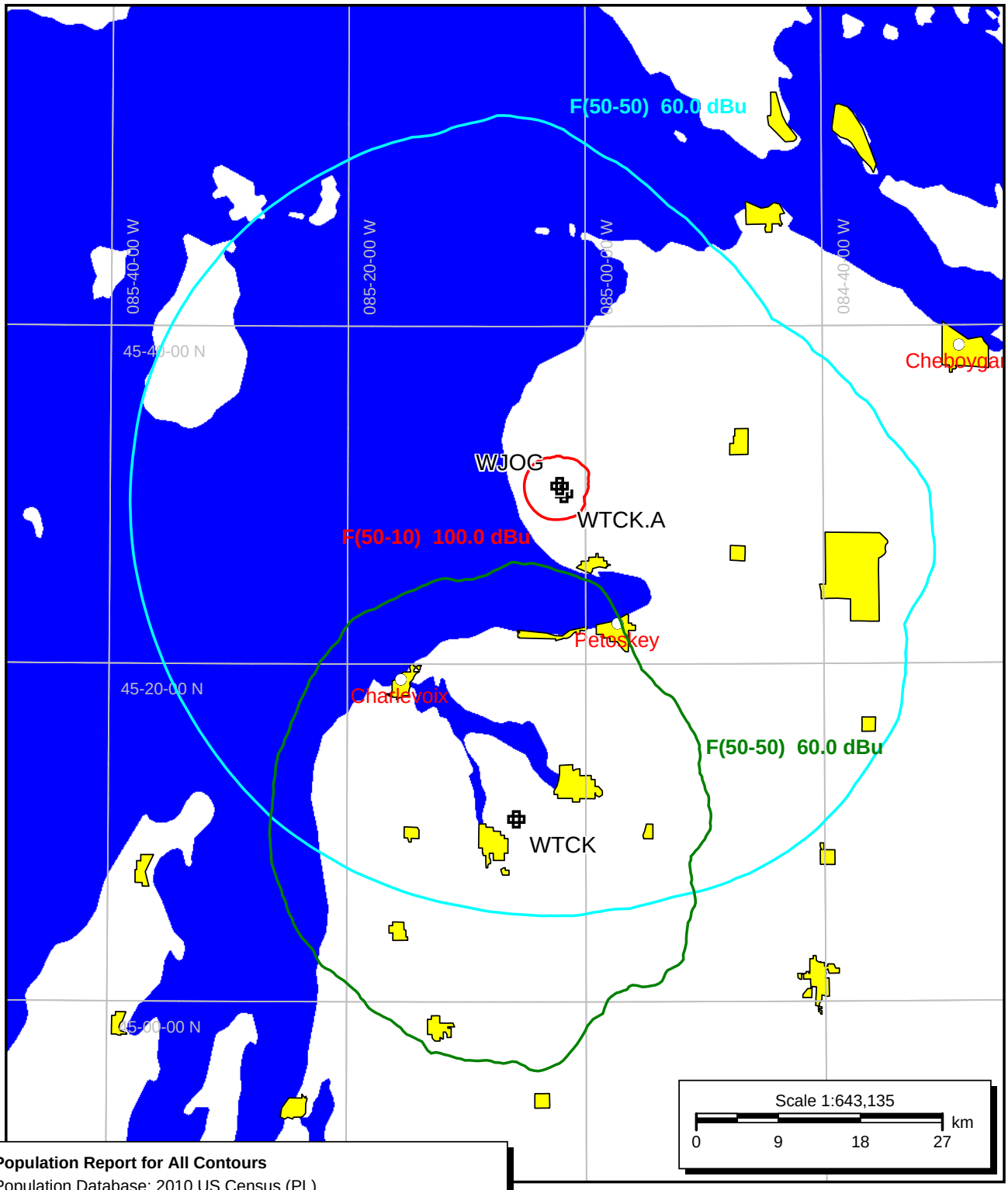


Figure 2-1



Population Report for All Contours
Population Database: 2010 US Census (PL)

	Population	Area (sq. km)
	Population Housing Units	Area (sq. km)
WTCK.A (215) [Charlevoix, MI]		
FCC F(50-50) 60.00 dBu	67,885 40,759	5762.8
WJOG (217) [Good Hart, MI]		
FCC F(50-10) 100.00 dBu	388 146	39.6
WTCK (215) [Charlevoix, MI]		
FCC F(50-50) 60.00 dBu	44,171 25,080	1997.7

Figure 2-2
Minor Amendment to Pending Application

FMCommander Single Allocation Study - 10-03-2011 - NED 30 Meter
WTCK.A's Overlaps (In= 12.64 km, Out= 0.93 km)

WTCK.A CH 215 C2 DA
Lat= 45 30 05.2, Lng= 85 01 48.7
5.5 kW 303.6 M HAAT, 539.6 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WNMC-FM CH 214 A BLED19971126KC
Lat= 44 46 36.0, Lng= 85 41 02.0
0.6 kW 164 M HAAT, 395 M COR
Prot.= 60 dBu, Intef.= 54 dBu

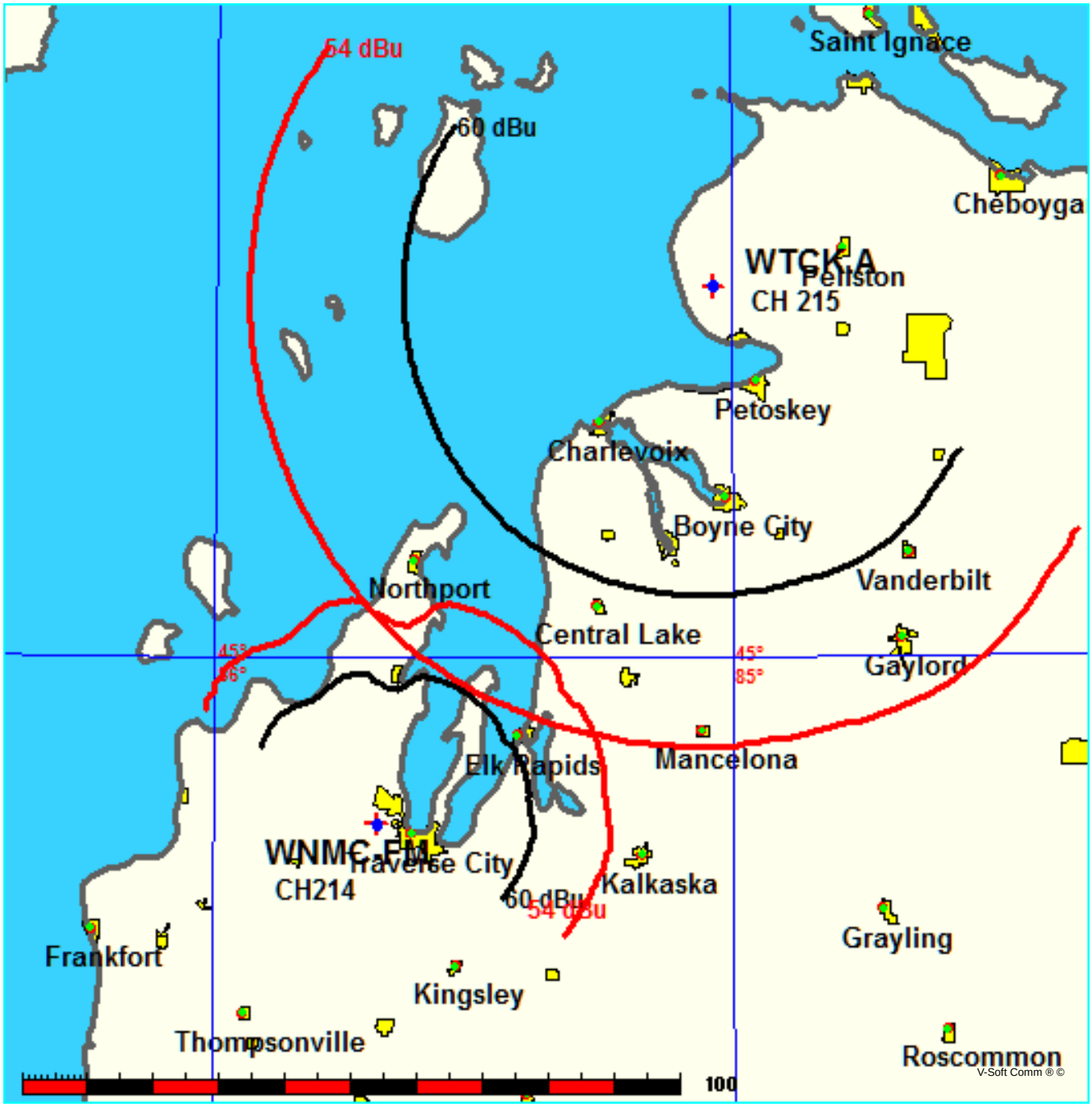


Figure 2-3

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

WTCK.A
Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Protected
60 dBu

WNMC-FM BLED19971126KC
Channel = 214A
Max ERP = 0.6 kW
RCAMSL = 395 M
N. Lat. 44 46 36.0
W. Lng. 85 41 02.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
168.0	005.5000	0321.9	046.1	059.5	000.6000	0206.6	070.8	39.61	
169.0	005.5000	0322.4	046.1	059.3	000.6000	0204.7	070.0	39.80	
170.0	005.5000	0323.1	046.1	059.1	000.6000	0204.0	069.2	40.03	
171.0	005.5000	0324.8	046.2	059.0	000.6000	0204.0	068.4	40.30	
172.0	005.5000	0323.2	046.1	058.7	000.6000	0204.1	067.7	40.54	
173.0	005.5000	0322.0	046.1	058.3	000.6000	0204.3	067.0	40.78	
174.0	005.5000	0321.9	046.1	058.0	000.6000	0204.2	066.3	41.03	
175.0	005.5000	0323.3	046.1	057.8	000.6000	0204.0	065.5	41.28	
176.0	005.5000	0323.8	046.2	057.5	000.6000	0203.9	064.8	41.52	
177.0	005.5000	0326.0	046.3	057.3	000.6000	0203.4	064.0	41.77	
178.0	005.5000	0327.6	046.4	057.0	000.6000	0203.1	063.2	42.02	
179.0	005.5000	0328.3	046.4	056.6	000.6000	0203.0	062.5	42.26	
180.0	005.5000	0327.9	046.4	056.2	000.6000	0202.6	061.9	42.48	
181.0	005.5000	0328.3	046.4	055.8	000.6000	0202.0	061.2	42.71	
182.0	005.5000	0328.5	046.5	055.4	000.6000	0201.8	060.5	42.94	
183.0	005.5000	0329.4	046.5	055.0	000.6000	0201.5	059.8	43.18	
184.0	005.5000	0329.3	046.5	054.5	000.6000	0201.4	059.2	43.41	
185.0	005.5000	0329.5	046.5	054.0	000.6000	0202.2	058.6	43.68	
186.0	005.5000	0329.8	046.5	053.5	000.6000	0204.0	058.0	43.99	
187.0	005.5000	0330.7	046.6	052.9	000.6000	0205.4	057.3	44.29	
188.0	005.5000	0331.2	046.6	052.4	000.6000	0206.7	056.7	44.58	
189.0	005.5000	0331.4	046.6	051.8	000.6000	0207.6	056.1	44.84	
190.0	005.5000	0332.4	046.7	051.2	000.6000	0209.4	055.6	45.15	
191.0	005.5000	0332.7	046.7	050.6	000.6000	0210.4	055.0	45.41	
192.0	005.5000	0332.6	046.7	050.0	000.6000	0211.7	054.5	45.66	
193.0	005.5000	0332.8	046.7	049.3	000.6000	0212.5	054.0	45.90	
194.0	005.5000	0333.3	046.8	048.6	000.6000	0215.2	053.5	46.21	
195.0	005.5000	0334.2	046.8	047.9	000.6000	0216.5	053.0	46.47	
196.0	005.5000	0335.4	046.9	047.2	000.6000	0216.4	052.5	46.67	
197.0	005.5000	0336.6	047.0	046.5	000.6000	0216.4	052.0	46.86	
198.0	005.5000	0337.3	047.0	045.7	000.6000	0216.3	051.6	47.03	
199.0	005.5000	0338.0	047.0	044.9	000.6000	0216.2	051.2	47.19	
200.0	005.5000	0339.2	047.1	044.1	000.6000	0215.9	050.7	47.34	
201.0	005.5000	0340.1	047.2	043.3	000.6000	0215.7	050.4	47.49	
202.0	005.5000	0340.8	047.2	042.4	000.6000	0215.5	050.0	47.62	
203.0	005.5000	0341.3	047.2	041.6	000.6000	0215.3	049.7	47.73	
204.0	005.5000	0341.9	047.3	040.7	000.6000	0214.2	049.4	47.79	
205.0	005.5000	0342.6	047.3	039.8	000.6000	0212.8	049.2	47.84	
206.0	005.5000	0343.2	047.4	038.8	000.6000	0214.6	048.9	48.01	
207.0	005.5000	0344.3	047.4	037.9	000.6000	0215.0	048.7	48.13	
208.0	005.5000	0345.3	047.5	037.0	000.6000	0215.1	048.5	48.21	
209.0	005.5000	0346.3	047.6	036.0	000.6000	0214.9	048.3	48.28	
210.0	005.5000	0346.9	047.6	035.0	000.6000	0214.4	048.2	48.30	
211.0	005.5000	0347.3	047.6	034.0	000.6000	0214.0	048.1	48.32	
212.0	005.5000	0347.2	047.6	033.1	000.6000	0213.5	048.0	48.31	
213.0	005.5000	0347.9	047.6	032.1	000.6000	0213.2	048.0	48.31	
214.0	005.5000	0348.7	047.7	031.1	000.6000	0212.7	048.0	48.30	
215.0	005.5000	0349.6	047.8	030.1	000.6000	0212.4	048.0	48.29	

Figure 2-3

216.0	005.5000	0350.4	047.8	029.1	000.6000	0211.8	048.0	48.25
217.0	005.5000	0350.7	047.8	028.1	000.6000	0212.0	048.1	48.22
218.0	005.5000	0351.5	047.9	027.1	000.6000	0211.5	048.2	48.16
219.0	005.5000	0352.2	047.9	026.1	000.6000	0210.7	048.3	48.07
220.0	005.5000	0352.8	047.9	025.2	000.6000	0209.8	048.5	47.97
221.0	005.5000	0353.4	048.0	024.2	000.6000	0208.9	048.7	47.85
222.0	005.5000	0353.7	048.0	023.3	000.6000	0208.7	048.9	47.75
223.0	005.5000	0353.2	048.0	022.4	000.6000	0208.5	049.2	47.61
224.0	005.5000	0352.8	047.9	021.5	000.6000	0207.7	049.5	47.45
225.0	005.5000	0352.6	047.9	020.6	000.6000	0206.9	049.9	47.28
226.0	005.5000	0352.4	047.9	019.7	000.6000	0205.7	050.2	47.08
227.0	005.5000	0352.5	047.9	018.9	000.6000	0204.4	050.6	46.87
228.0	005.5000	0352.3	047.9	018.1	000.6000	0204.1	051.0	46.69
229.0	005.5000	0352.0	047.9	017.3	000.6000	0202.7	051.5	46.45
230.0	005.5000	0351.9	047.9	016.5	000.6000	0200.2	051.9	46.16
231.0	005.5000	0351.9	047.9	015.7	000.6000	0197.0	052.4	45.83
232.0	005.5000	0351.5	047.9	015.0	000.6000	0191.5	052.9	45.38
233.0	005.5000	0351.4	047.9	014.3	000.6000	0185.4	053.4	44.91
234.0	005.5000	0351.2	047.9	013.6	000.6000	0179.7	054.0	44.44
235.0	005.5000	0351.0	047.8	013.0	000.6000	0175.5	054.5	44.03
236.0	005.5000	0350.9	047.8	012.4	000.6000	0170.4	055.1	43.57
237.0	005.5000	0351.1	047.8	011.7	000.6000	0168.6	055.7	43.27
238.0	005.5000	0350.7	047.8	011.1	000.6000	0165.3	056.3	42.87
239.0	005.5000	0350.7	047.8	010.6	000.6000	0161.8	056.9	42.47
240.0	005.5000	0350.5	047.8	010.0	000.6000	0159.8	057.5	42.13
241.0	005.5000	0350.6	047.8	009.5	000.6000	0156.0	058.2	41.70
242.0	005.5000	0351.0	047.8	009.0	000.6000	0154.9	058.8	41.40
243.0	005.5000	0350.9	047.8	008.5	000.6000	0154.0	059.5	41.10
244.0	005.5000	0350.4	047.8	008.1	000.6000	0153.2	060.2	40.81
245.0	005.5000	0350.6	047.8	007.6	000.6000	0153.0	060.9	40.55
246.0	005.5000	0350.6	047.8	007.2	000.6000	0153.7	061.6	40.34
247.0	005.5000	0350.4	047.8	006.9	000.6000	0154.9	062.3	40.15
248.0	005.5000	0350.1	047.8	006.5	000.6000	0155.6	063.1	39.93
249.0	005.5000	0349.9	047.8	006.1	000.6000	0155.9	063.8	39.70
250.0	005.5000	0350.0	047.8	005.8	000.6000	0156.0	064.5	39.45
251.0	005.5000	0350.2	047.8	005.5	000.6000	0155.7	065.3	39.18
252.0	005.5000	0350.1	047.8	005.2	000.6000	0155.3	066.1	38.91
253.0	005.5000	0350.3	047.8	004.9	000.6000	0154.9	066.8	38.64
254.0	005.5000	0350.2	047.8	004.7	000.6000	0155.1	067.6	38.39
255.0	005.5000	0350.3	047.8	004.4	000.6000	0155.3	068.4	38.15
256.0	005.5000	0350.4	047.8	004.2	000.6000	0155.4	069.2	37.89
257.0	005.5000	0350.4	047.8	004.0	000.6000	0155.6	070.0	37.64

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

WNMC-FM BLED19971126KC

Channel = 214A
Max ERP = 0.6 kW
RCAMSL = 395 M
N. Lat. 44 46 36.0
W. Lng. 85 41 02.0
Protected
60 dBu

WTCK.A

Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
347.0	000.6000	0194.1	022.6	224.1	005.5000	0352.7	081.3	50.60	
348.0	000.6000	0194.2	022.6	223.9	005.5000	0352.8	081.0	50.71	

Figure 2-3

349.0	000.6000	0194.2	022.6	223.8	005.5000	0352.8	080.7	50.82
350.0	000.6000	0193.9	022.6	223.6	005.5000	0352.9	080.3	50.93
351.0	000.6000	0194.4	022.6	223.4	005.5000	0353.0	080.0	51.04
352.0	000.6000	0194.8	022.6	223.3	005.5000	0353.1	079.7	51.15
353.0	000.6000	0194.5	022.6	223.1	005.5000	0353.2	079.4	51.26
354.0	000.6000	0193.4	022.5	222.9	005.5000	0353.3	079.1	51.35
355.0	000.6000	0192.0	022.5	222.6	005.5000	0353.4	078.9	51.44
356.0	000.6000	0189.1	022.3	222.4	005.5000	0353.5	078.7	51.50
357.0	000.6000	0182.9	022.0	222.0	005.5000	0353.7	078.7	51.53
358.0	000.6000	0174.7	021.6	221.6	005.5000	0353.8	078.7	51.51
359.0	000.6000	0168.7	021.2	221.2	005.5000	0353.5	078.7	51.50
000.0	000.6000	0167.3	021.1	221.0	005.5000	0353.3	078.5	51.56
001.0	000.6000	0164.7	021.0	220.7	005.5000	0353.2	078.4	51.59
002.0	000.6000	0161.4	020.8	220.4	005.5000	0353.0	078.3	51.61
003.0	000.6000	0158.7	020.6	220.1	005.5000	0352.8	078.3	51.64
004.0	000.6000	0155.5	020.4	219.8	005.5000	0352.7	078.2	51.65
005.0	000.6000	0154.9	020.4	219.6	005.5000	0352.5	078.0	51.70
006.0	000.6000	0156.1	020.4	219.4	005.5000	0352.4	077.8	51.79
007.0	000.6000	0154.3	020.3	219.1	005.5000	0352.2	077.7	51.81
008.0	000.6000	0153.0	020.2	218.8	005.5000	0352.1	077.6	51.85
009.0	000.6000	0154.9	020.4	218.7	005.5000	0351.9	077.3	51.94
010.0	000.6000	0159.6	020.7	218.5	005.5000	0351.9	076.8	52.09
011.0	000.6000	0164.6	021.0	218.4	005.5000	0351.8	076.4	52.24
012.0	000.6000	0169.1	021.2	218.2	005.5000	0351.7	076.0	52.38
013.0	000.6000	0175.5	021.6	218.1	005.5000	0351.6	075.5	52.55
014.0	000.6000	0182.5	022.0	218.0	005.5000	0351.5	075.0	52.72
015.0	000.6000	0191.2	022.4	217.8	005.5000	0351.4	074.4	52.91
016.0	000.6000	0198.5	022.8	217.6	005.5000	0351.2	073.9	53.08
017.0	000.6000	0201.6	023.0	217.4	005.5000	0351.0	073.6	53.18
018.0	000.6000	0204.1	023.1	217.1	005.5000	0350.8	073.4	53.26
019.0	000.6000	0204.5	023.1	216.8	005.5000	0350.6	073.2	53.31
020.0	000.6000	0206.2	023.2	216.6	005.5000	0350.6	073.0	53.38
021.0	000.6000	0207.4	023.3	216.3	005.5000	0350.5	072.9	53.44
022.0	000.6000	0208.2	023.3	216.0	005.5000	0350.4	072.7	53.49
023.0	000.6000	0208.7	023.3	215.7	005.5000	0350.2	072.6	53.52
024.0	000.6000	0208.8	023.3	215.3	005.5000	0349.9	072.5	53.54
025.0	000.6000	0209.6	023.4	215.0	005.5000	0349.6	072.4	53.58
026.0	000.6000	0210.6	023.4	214.7	005.5000	0349.3	072.3	53.60
027.0	000.6000	0211.4	023.5	214.4	005.5000	0349.0	072.2	53.63
028.0	000.6000	0212.0	023.5	214.1	005.5000	0348.8	072.1	53.65
029.0	000.6000	0211.8	023.5	213.7	005.5000	0348.6	072.1	53.65
030.0	000.6000	0212.4	023.5	213.4	005.5000	0348.3	072.0	53.66
031.0	000.6000	0212.7	023.5	213.1	005.5000	0348.0	072.0	53.66
032.0	000.6000	0213.2	023.6	212.8	005.5000	0347.7	072.0	53.67
033.0	000.6000	0213.5	023.6	212.4	005.5000	0347.5	071.9	53.67
034.0	000.6000	0213.9	023.6	212.1	005.5000	0347.3	071.9	53.66
035.0	000.6000	0214.4	023.6	211.8	005.5000	0347.2	071.9	53.66
036.0	000.6000	0214.9	023.7	211.5	005.5000	0347.3	071.9	53.66
037.0	000.6000	0215.1	023.7	211.1	005.5000	0347.3	072.0	53.66
038.0	000.6000	0215.0	023.7	210.8	005.5000	0347.3	072.0	53.64
039.0	000.6000	0214.0	023.6	210.5	005.5000	0347.2	072.1	53.59
040.0	000.6000	0212.9	023.6	210.2	005.5000	0347.0	072.2	53.54
041.0	000.6000	0214.9	023.7	209.8	005.5000	0346.9	072.2	53.55
042.0	000.6000	0215.5	023.7	209.5	005.5000	0346.7	072.3	53.52
043.0	000.6000	0215.7	023.7	209.2	005.5000	0346.5	072.4	53.49
044.0	000.6000	0215.9	023.7	208.9	005.5000	0346.2	072.4	53.44
045.0	000.6000	0216.2	023.7	208.5	005.5000	0345.9	072.5	53.40
046.0	000.6000	0216.3	023.7	208.2	005.5000	0345.5	072.7	53.34
047.0	000.6000	0216.4	023.7	207.9	005.5000	0345.2	072.8	53.29
048.0	000.6000	0216.5	023.7	207.6	005.5000	0344.8	072.9	53.22
049.0	000.6000	0213.4	023.6	207.4	005.5000	0344.5	073.2	53.11
050.0	000.6000	0211.7	023.5	207.1	005.5000	0344.4	073.5	53.02
051.0	000.6000	0209.9	023.4	206.8	005.5000	0344.1	073.7	52.92
052.0	000.6000	0207.3	023.3	206.6	005.5000	0343.9	074.0	52.81

Figure 2-3

053.0	000.6000	0205.3	023.2	206.3	005.5000	0343.6	074.3	52.70
054.0	000.6000	0202.2	023.0	206.1	005.5000	0343.3	074.6	52.58
055.0	000.6000	0201.6	023.0	205.9	005.5000	0343.1	074.8	52.49
056.0	000.6000	0202.4	023.0	205.6	005.5000	0342.8	075.0	52.43
057.0	000.6000	0203.2	023.0	205.3	005.5000	0342.7	075.2	52.36
058.0	000.6000	0204.1	023.1	205.0	005.5000	0342.6	075.3	52.30
059.0	000.6000	0204.0	023.1	204.8	005.5000	0342.4	075.6	52.21
060.0	000.6000	0210.5	023.4	204.4	005.5000	0342.2	075.5	52.22
061.0	000.6000	0210.7	023.4	204.1	005.5000	0342.0	075.8	52.13
062.0	000.6000	0211.1	023.5	203.9	005.5000	0341.9	076.0	52.05
063.0	000.6000	0211.1	023.5	203.6	005.5000	0341.7	076.3	51.95
064.0	000.6000	0211.5	023.5	203.4	005.5000	0341.5	076.5	51.86
065.0	000.6000	0212.2	023.5	203.1	005.5000	0341.3	076.7	51.77
066.0	000.6000	0212.7	023.5	202.9	005.5000	0341.2	077.0	51.67
067.0	000.6000	0212.6	023.5	202.7	005.5000	0340.9	077.3	51.57
068.0	000.6000	0212.4	023.5	202.5	005.5000	0340.8	077.6	51.46
069.0	000.6000	0213.1	023.6	202.2	005.5000	0340.8	077.9	51.37
070.0	000.6000	0213.8	023.6	202.0	005.5000	0340.8	078.1	51.27
071.0	000.6000	0213.4	023.6	201.8	005.5000	0340.7	078.5	51.16
072.0	000.6000	0213.0	023.6	201.6	005.5000	0340.6	078.8	51.04
073.0	000.6000	0212.4	023.5	201.5	005.5000	0340.4	079.1	50.92
074.0	000.6000	0212.8	023.5	201.3	005.5000	0340.3	079.4	50.81
075.0	000.6000	0212.1	023.5	201.1	005.5000	0340.2	079.8	50.69
076.0	000.6000	0211.6	023.5	201.0	005.5000	0340.1	080.1	50.57

Figure 2-4
Minor Amendment to Pending Application

FMCommander Single Allocation Study - 10-03-2011 - NED 30 Meter
WTCK.A's Overlaps (In= 24.87 km, Out= 2.26 km)

WTCK.A CH 215 C2 DA
Lat= 45 30 05.2, Lng= 85 01 48.7
5.5 kW 303.6 M HAAT, 539.6 M COR
Prot.= 60 dBu, Intef.= 100 dBu

WPHN CH 213 C BLED19850419LP
Lat= 45 08 17.0, Lng= 84 09 44.0
100.0 kW 305 M HAAT, 579 M COR
Prot.= 60 dBu, Intef.= 100 dBu

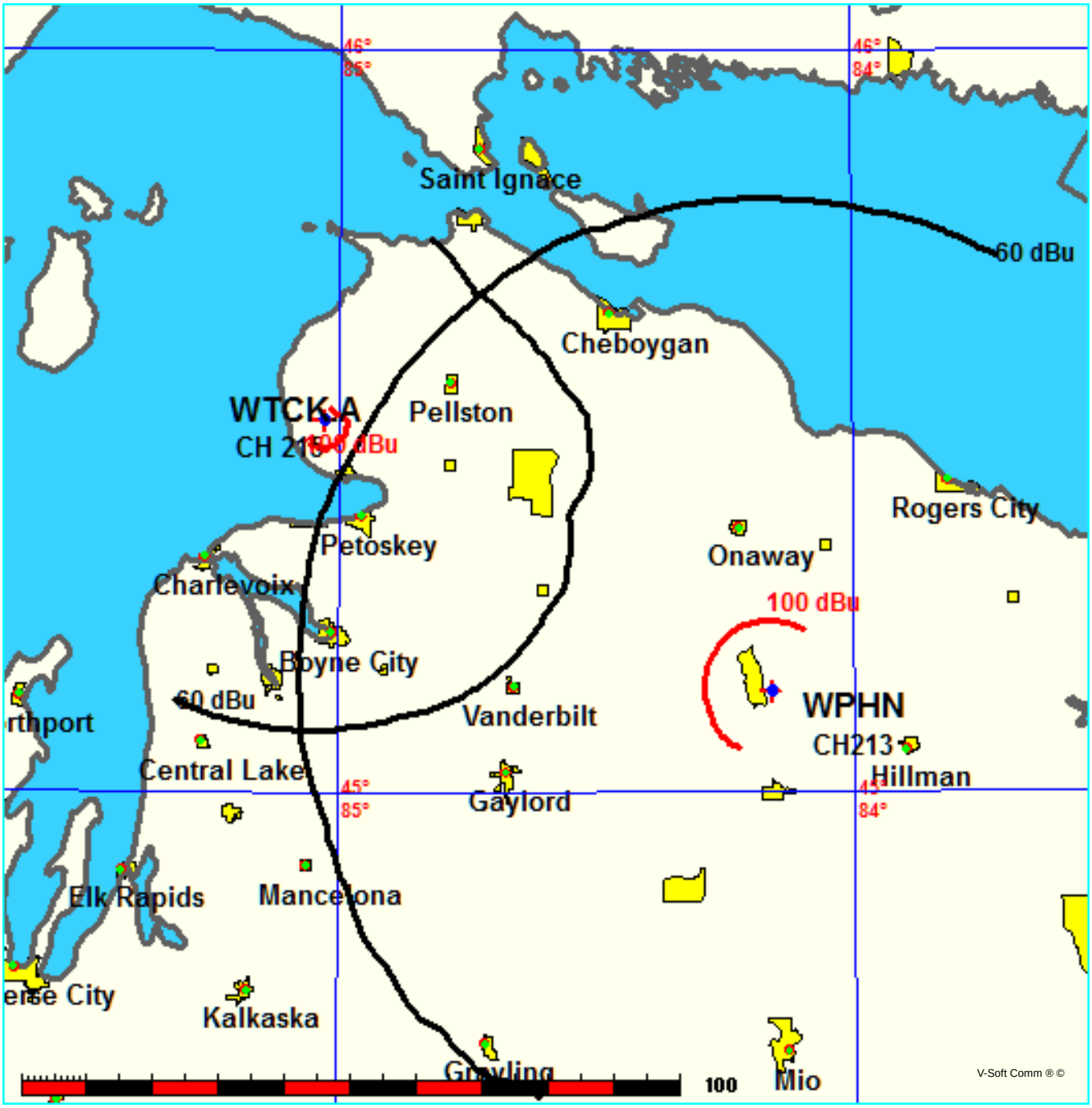


Figure 2-5

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

WTCK.A
Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Protected
60 dBu

WPHN BLED19850419LP
Channel = 213C
Max ERP = 100 kW
RCAMSL = 579 M
N. Lat. 45 08 17.0
W. Lng. 84 09 44.0
Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
075.0	002.2212	0264.5	035.4	325.9	100.0000	0320.7	060.0	69.66	
076.0	002.3237	0260.7	035.5	325.8	100.0000	0320.6	059.4	69.89	
077.0	002.4286	0257.8	035.7	325.7	100.0000	0320.5	058.7	70.13	
078.0	002.5357	0255.2	035.8	325.7	100.0000	0320.4	058.1	70.37	
079.0	002.6452	0253.3	036.0	325.6	100.0000	0320.3	057.4	70.62	
080.0	002.7570	0251.9	036.3	325.6	100.0000	0320.2	056.8	70.88	
081.0	002.9005	0253.7	036.8	325.8	100.0000	0320.5	056.0	71.19	
082.0	003.0477	0254.4	037.2	325.9	100.0000	0320.7	055.2	71.49	
083.0	003.1986	0255.6	037.7	326.0	100.0000	0320.9	054.4	71.80	
084.0	003.3531	0255.0	038.0	325.9	100.0000	0320.9	053.7	72.09	
085.0	003.5112	0257.3	038.5	326.1	100.0000	0321.1	052.9	72.42	
086.0	003.6730	0259.4	039.0	326.1	100.0000	0321.3	052.0	72.75	
087.0	003.8384	0258.8	039.3	326.1	100.0000	0321.1	051.3	73.03	
088.0	004.0075	0261.0	039.8	326.1	100.0000	0321.2	050.5	73.36	
089.0	004.1802	0260.8	040.1	326.0	100.0000	0320.9	049.7	73.65	
090.0	004.3565	0258.5	040.3	325.7	100.0000	0320.4	049.0	73.90	
091.0	004.4649	0255.7	040.3	325.2	100.0000	0320.2	048.4	74.12	
092.0	004.5746	0254.0	040.4	324.8	100.0000	0320.3	047.8	74.36	
093.0	004.6856	0252.8	040.5	324.4	100.0000	0320.2	047.2	74.61	
094.0	004.7980	0250.6	040.6	323.9	100.0000	0320.0	046.6	74.83	
095.0	004.9116	0249.5	040.7	323.4	100.0000	0319.0	046.0	75.05	
096.0	005.0266	0248.4	040.8	322.9	100.0000	0317.8	045.4	75.26	
097.0	005.1430	0248.9	041.0	322.5	100.0000	0317.4	044.7	75.52	
098.0	005.2607	0248.8	041.2	322.0	100.0000	0317.2	044.1	75.78	
099.0	005.3797	0247.7	041.3	321.4	100.0000	0317.5	043.6	76.02	
100.0	005.5000	0246.5	041.4	320.8	100.0000	0317.4	043.0	76.25	
101.0	005.5000	0247.2	041.4	320.0	100.0000	0317.8	042.5	76.48	
102.0	005.5000	0244.9	041.3	319.2	100.0000	0317.4	042.2	76.61	
103.0	005.5000	0242.9	041.2	318.3	100.0000	0317.7	041.9	76.75	
104.0	005.5000	0242.4	041.1	317.4	100.0000	0316.7	041.5	76.89	
105.0	005.5000	0240.2	041.0	316.5	100.0000	0316.5	041.2	77.00	
106.0	005.5000	0237.4	040.8	315.5	100.0000	0315.0	041.0	77.04	
107.0	005.5000	0234.1	040.6	314.5	100.0000	0314.2	040.9	77.08	
108.0	005.5000	0231.1	040.4	313.4	100.0000	0313.0	040.8	77.10	
109.0	005.5000	0229.1	040.3	312.5	100.0000	0312.0	040.6	77.14	
110.0	005.5000	0228.2	040.2	311.5	100.0000	0311.5	040.4	77.22	
111.0	005.5000	0227.0	040.1	310.5	100.0000	0313.0	040.2	77.34	
112.0	005.5000	0233.8	040.6	309.8	100.0000	0313.9	039.6	77.66	
113.0	005.5000	0239.9	041.0	308.9	100.0000	0313.0	039.0	77.90	
114.0	005.5000	0243.9	041.2	308.0	100.0000	0311.6	038.6	78.05	
115.0	005.5000	0247.3	041.4	307.0	100.0000	0309.3	038.2	78.15	
116.0	005.5000	0253.8	041.9	306.0	100.0000	0307.2	037.7	78.34	
117.0	005.5000	0258.6	042.2	305.0	100.0000	0307.0	037.3	78.52	
118.0	005.5000	0264.7	042.5	303.9	100.0000	0306.7	036.8	78.73	
119.0	005.5000	0267.7	042.7	302.8	100.0000	0306.0	036.5	78.82	
120.0	005.5000	0272.5	043.0	301.6	100.0000	0305.6	036.2	78.97	
121.0	005.5000	0278.3	043.4	300.4	100.0000	0306.0	035.9	79.15	
122.0	005.5000	0284.6	043.8	299.2	100.0000	0305.7	035.5	79.31	

Figure 2-5

123.0	005.5000	0289.1	044.1	297.9	100.0000	0305.6	035.3	79.42
124.0	005.5000	0293.4	044.3	296.6	100.0000	0305.3	035.1	79.49
125.0	005.5000	0295.1	044.4	295.3	100.0000	0307.7	035.1	79.55
126.0	005.5000	0296.6	044.5	294.1	100.0000	0307.5	035.2	79.51
127.0	005.5000	0297.8	044.6	292.8	100.0000	0306.8	035.3	79.44
128.0	005.5000	0298.5	044.6	291.6	100.0000	0308.7	035.5	79.42
129.0	005.5000	0299.2	044.7	290.3	100.0000	0307.7	035.7	79.29
130.0	005.5000	0299.6	044.7	289.1	100.0000	0308.3	035.9	79.19
131.0	005.5000	0301.3	044.8	287.9	100.0000	0304.8	036.1	78.99
132.0	005.5000	0303.4	044.9	286.7	100.0000	0304.5	036.3	78.88
133.0	005.5000	0305.2	045.0	285.5	100.0000	0301.8	036.6	78.68
134.0	005.5000	0307.1	045.2	284.4	100.0000	0301.0	036.9	78.53
135.0	005.5000	0308.8	045.3	283.2	100.0000	0299.9	037.2	78.34
136.0	005.5000	0312.1	045.5	282.1	100.0000	0299.3	037.5	78.20
137.0	005.5000	0315.0	045.6	280.9	100.0000	0298.0	037.8	78.01
138.0	005.5000	0316.8	045.7	279.8	100.0000	0295.7	038.2	77.76
139.0	005.5000	0318.1	045.8	278.8	100.0000	0294.0	038.6	77.50
140.0	005.5000	0319.4	045.9	277.9	100.0000	0293.4	039.1	77.27
141.0	005.5000	0320.6	046.0	277.0	100.0000	0293.1	039.6	77.03
142.0	005.5000	0322.6	046.1	276.0	100.0000	0292.9	040.1	76.80
143.0	005.5000	0324.5	046.2	275.1	100.0000	0292.2	040.6	76.55
144.0	005.5000	0325.3	046.3	274.3	100.0000	0292.5	041.2	76.30
145.0	005.5000	0326.2	046.3	273.6	100.0000	0291.8	041.8	76.02
146.0	005.5000	0326.5	046.3	272.9	100.0000	0290.5	042.4	75.70
147.0	005.5000	0327.1	046.4	272.2	100.0000	0290.3	043.0	75.42
148.0	005.5000	0328.2	046.4	271.5	100.0000	0290.6	043.7	75.15
149.0	005.5000	0327.9	046.4	271.0	100.0000	0290.4	044.4	74.85
150.0	005.5000	0328.3	046.4	270.4	100.0000	0290.5	045.0	74.57
151.0	005.5000	0328.5	046.5	269.9	100.0000	0290.0	045.8	74.26
152.0	005.5000	0328.5	046.5	269.4	100.0000	0289.6	046.5	73.95
153.0	005.5000	0328.6	046.5	269.0	100.0000	0289.1	047.2	73.64
154.0	005.5000	0329.0	046.5	268.5	100.0000	0289.4	047.9	73.36
155.0	005.5000	0327.8	046.4	268.2	100.0000	0289.7	048.7	73.07
156.0	005.5000	0327.0	046.4	267.9	100.0000	0290.1	049.5	72.77
157.0	005.5000	0327.6	046.4	267.6	100.0000	0290.1	050.2	72.47
158.0	005.5000	0327.0	046.4	267.3	100.0000	0290.1	051.0	72.17
159.0	005.5000	0326.3	046.3	267.1	100.0000	0290.2	051.8	71.86
160.0	005.5000	0325.6	046.3	266.8	100.0000	0290.4	052.6	71.55
161.0	005.5000	0324.7	046.2	266.7	100.0000	0290.6	053.3	71.24
162.0	005.5000	0323.4	046.1	266.5	100.0000	0290.7	054.1	70.93
163.0	005.5000	0322.0	046.1	266.4	100.0000	0290.7	054.9	70.61
164.0	005.5000	0321.1	046.0	266.3	100.0000	0290.9	055.7	70.30

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

WPHN BLED19850419LP

Channel = 213C
Max ERP = 100 kW
RCAMSL = 579 M
N. Lat. 45 08 17.0
W. Lng. 84 09 44.0
Protected
60 dBu

WTCK.A

Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
256.0	100.0000	0279.2	070.7	180.5	005.5000	0328.1	057.5	58.27	
257.0	100.0000	0280.7	070.8	180.9	005.5000	0328.2	056.3	58.72	

Figure 2-5

258.0	100.0000	0283.3	071.0	181.4	005.5000	0328.6	055.2	59.17
259.0	100.0000	0284.2	071.1	181.8	005.5000	0328.5	054.0	59.63
260.0	100.0000	0285.6	071.2	182.2	005.5000	0328.7	052.8	60.10
261.0	100.0000	0288.3	071.5	182.7	005.5000	0329.2	051.6	60.57
262.0	100.0000	0290.6	071.6	183.2	005.5000	0329.4	050.4	61.03
263.0	100.0000	0292.0	071.7	183.6	005.5000	0329.4	049.2	61.50
264.0	100.0000	0292.1	071.8	183.9	005.5000	0329.3	048.0	61.98
265.0	100.0000	0292.0	071.8	184.1	005.5000	0329.2	046.8	62.46
266.0	100.0000	0291.1	071.7	184.3	005.5000	0329.2	045.5	62.97
267.0	100.0000	0290.2	071.6	184.4	005.5000	0329.2	044.3	63.48
268.0	100.0000	0290.0	071.6	184.6	005.5000	0329.2	043.0	64.00
269.0	100.0000	0289.1	071.5	184.7	005.5000	0329.3	041.8	64.54
270.0	100.0000	0290.1	071.6	185.0	005.5000	0329.5	040.5	65.09
271.0	100.0000	0290.4	071.6	185.2	005.5000	0329.8	039.3	65.65
272.0	100.0000	0290.4	071.6	185.3	005.5000	0329.9	038.1	66.22
273.0	100.0000	0290.7	071.6	185.5	005.5000	0329.9	036.8	66.80
274.0	100.0000	0292.5	071.8	185.8	005.5000	0329.8	035.6	67.38
275.0	100.0000	0292.2	071.8	185.8	005.5000	0329.8	034.3	67.98
276.0	100.0000	0292.8	071.8	185.9	005.5000	0329.8	033.1	68.59
277.0	100.0000	0293.1	071.8	185.9	005.5000	0329.8	031.8	69.21
278.0	100.0000	0293.6	071.9	186.0	005.5000	0329.8	030.5	69.87
279.0	100.0000	0294.0	071.9	185.9	005.5000	0329.8	029.3	70.58
280.0	100.0000	0296.1	072.1	186.1	005.5000	0329.9	028.0	71.36
281.0	100.0000	0298.1	072.2	186.2	005.5000	0330.0	026.8	72.18
282.0	100.0000	0299.2	072.3	186.2	005.5000	0329.9	025.5	73.03
283.0	100.0000	0299.6	072.3	186.0	005.5000	0329.8	024.2	73.92
284.0	100.0000	0300.6	072.4	185.8	005.5000	0329.8	023.0	74.84
285.0	100.0000	0301.3	072.5	185.4	005.5000	0329.9	021.7	75.80
286.0	100.0000	0302.7	072.6	185.1	005.5000	0329.7	020.5	76.78
287.0	100.0000	0304.5	072.7	184.8	005.5000	0329.3	019.2	77.78
288.0	100.0000	0305.0	072.8	184.0	005.5000	0329.3	017.9	78.79
289.0	100.0000	0308.1	073.0	183.7	005.5000	0329.4	016.7	79.86
290.0	100.0000	0307.4	072.9	182.3	005.5000	0328.8	015.5	80.86
291.0	100.0000	0308.4	073.0	181.0	005.5000	0328.3	014.2	82.16
292.0	100.0000	0308.6	073.0	179.1	005.5000	0328.3	013.0	83.74
293.0	100.0000	0306.8	072.9	176.1	005.5000	0324.0	011.9	85.19
294.0	100.0000	0307.5	073.0	173.3	005.5000	0321.8	010.8	86.89
295.0	100.0000	0307.6	073.0	169.5	005.5000	0322.5	009.7	88.63
296.0	100.0000	0306.4	072.9	164.2	005.5000	0320.8	008.8	90.17
297.0	100.0000	0305.4	072.8	157.6	005.5000	0327.4	007.9	91.74
298.0	100.0000	0305.7	072.8	150.0	005.5000	0328.3	007.2	93.13
299.0	100.0000	0305.7	072.8	140.6	005.5000	0320.2	006.6	94.13
300.0	100.0000	0305.8	072.8	129.7	005.5000	0299.3	006.2	94.54
301.0	100.0000	0306.0	072.8	118.0	005.5000	0264.5	006.1	94.02
302.0	100.0000	0305.7	072.8	106.5	005.5000	0235.6	006.4	92.73
303.0	100.0000	0306.1	072.8	096.0	005.0298	0248.4	006.8	91.74
304.0	100.0000	0306.8	072.9	087.1	003.8480	0258.9	007.4	89.56
305.0	100.0000	0307.0	072.9	079.9	002.7472	0252.1	008.2	86.30
306.0	100.0000	0307.1	072.9	074.3	002.1475	0265.9	009.2	83.95
307.0	100.0000	0309.3	073.1	069.1	001.6793	0274.3	010.1	81.51
308.0	100.0000	0311.6	073.3	064.9	001.3963	0282.0	011.1	79.28
309.0	100.0000	0313.1	073.4	061.7	001.2027	0289.9	012.2	77.17
310.0	100.0000	0313.7	073.4	059.4	001.0904	0295.5	013.4	75.25
311.0	100.0000	0312.2	073.3	058.2	001.0613	0298.4	014.7	73.64
312.0	100.0000	0311.5	073.2	057.0	001.0347	0299.3	015.9	72.46
313.0	100.0000	0312.4	073.3	055.7	001.0046	0297.3	017.1	71.26
314.0	100.0000	0313.5	073.4	054.6	000.9794	0296.2	018.4	70.10
315.0	100.0000	0314.6	073.5	053.7	000.9591	0295.3	019.6	68.97
316.0	100.0000	0315.7	073.6	052.9	000.9430	0294.6	020.9	67.87
317.0	100.0000	0316.9	073.6	052.3	000.9294	0294.6	022.1	66.83
318.0	100.0000	0317.2	073.7	052.0	000.9220	0294.6	023.4	65.83
319.0	100.0000	0317.3	073.7	051.7	000.9171	0294.6	024.7	64.87
320.0	100.0000	0317.8	073.7	051.5	000.9125	0294.6	026.0	63.94
321.0	100.0000	0317.4	073.7	051.5	000.9125	0294.6	027.2	63.08

Figure 2-5

322.0	100.0000	0317.2	073.7	051.5	000.9127	0294.6	028.5	62.26
323.0	100.0000	0317.9	073.7	051.5	000.9111	0294.7	029.8	61.49
324.0	100.0000	0320.0	073.9	051.2	000.9064	0294.6	031.1	60.74
325.0	100.0000	0320.3	073.9	051.3	000.9081	0294.7	032.4	60.09
326.0	100.0000	0321.0	073.9	051.4	000.9092	0294.7	033.7	59.46
327.0	100.0000	0323.2	074.1	051.3	000.9070	0294.6	035.0	58.82
328.0	100.0000	0323.6	074.1	051.4	000.9107	0294.7	036.2	58.22
329.0	100.0000	0323.8	074.2	051.6	000.9150	0294.6	037.5	57.64
330.0	100.0000	0324.9	074.2	051.8	000.9177	0294.6	038.8	57.05
331.0	100.0000	0323.6	074.1	052.2	000.9263	0294.6	040.1	56.52
332.0	100.0000	0325.9	074.3	052.2	000.9273	0294.6	041.4	55.94
333.0	100.0000	0328.4	074.5	052.3	000.9284	0294.6	042.7	55.37
334.0	100.0000	0330.2	074.6	052.4	000.9315	0294.6	044.0	54.83
335.0	100.0000	0330.7	074.7	052.7	000.9378	0294.5	045.3	54.32
336.0	100.0000	0328.5	074.5	053.2	000.9496	0295.0	046.5	53.88
337.0	100.0000	0327.2	074.4	053.7	000.9596	0295.3	047.8	53.43
338.0	100.0000	0326.6	074.4	054.1	000.9684	0295.6	049.0	52.99
339.0	100.0000	0322.7	074.1	054.8	000.9834	0296.3	050.2	52.61
340.0	100.0000	0317.8	073.7	055.5	001.0000	0297.0	051.4	52.24
341.0	100.0000	0317.9	073.7	055.8	001.0077	0297.5	052.6	51.79
342.0	100.0000	0319.2	073.8	056.1	001.0135	0297.8	053.9	51.33
343.0	100.0000	0319.3	073.8	056.5	001.0216	0298.5	055.1	50.90
344.0	100.0000	0317.0	073.7	057.0	001.0340	0299.3	056.3	50.51
345.0	100.0000	0316.8	073.6	057.4	001.0429	0299.3	057.5	50.07

Figure 2-6
Minor Amendment to Pending Application

FMCommander Single Allocation Study - 10-03-2011 - NED 30 Meter
WTCK.A's Overlaps (In= 2.81 km, Out= 29.94 km)

WTCK.A CH 215 C2 DA
Lat= 45 30 05.2, Lng= 85 01 48.7
5.5 kW 303.6 M HAAT, 539.6 M COR
Prot.= 60 dBu, Intef.= 40 dBu

NEW-C CH 215 C1 DA BNPED20071018AKU
Lat= 45 53 01.0, Lng= 87 29 07.0
100.0 kW 66 M HAAT, 360 M COR
Prot.= 60 dBu, Intef.= 40 dBu

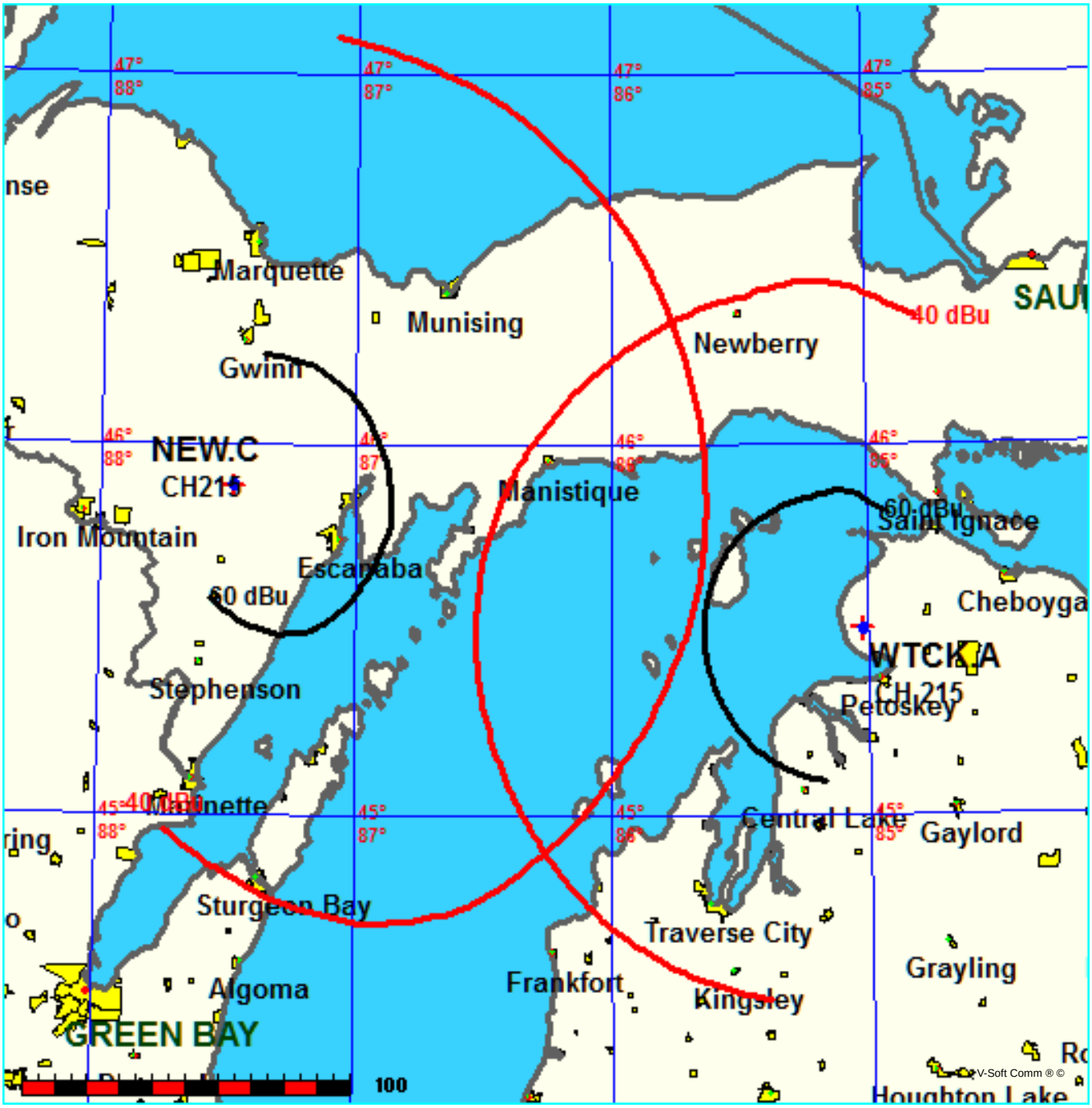


Figure 2-7

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

WTCK.A
Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Protected
60 dBu

NEW-C BNPED20071018AKU
Channel = 215C1
Max ERP = 100 kW
RCAMSL = 360 M
N. Lat. 45 53 01.0
W. Lng. 87 29 07.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
238.0	005.5000	0350.7	047.8	113.6	100.0000	0092.6	165.5	36.44	
239.0	005.5000	0350.7	047.8	113.4	100.0000	0092.5	164.9	36.55	
240.0	005.5000	0350.5	047.8	113.2	100.0000	0092.3	164.2	36.67	
241.0	005.5000	0350.6	047.8	113.1	100.0000	0092.1	163.5	36.79	
242.0	005.5000	0351.0	047.8	112.9	100.0000	0091.8	162.8	36.90	
243.0	005.5000	0350.9	047.8	112.7	100.0000	0091.6	162.2	37.01	
244.0	005.5000	0350.4	047.8	112.5	100.0000	0091.4	161.6	37.12	
245.0	005.5000	0350.6	047.8	112.3	100.0000	0091.3	160.9	37.24	
246.0	005.5000	0350.6	047.8	112.1	100.0000	0091.2	160.3	37.35	
247.0	005.5000	0350.4	047.8	111.9	100.0000	0091.0	159.7	37.45	
248.0	005.5000	0350.1	047.8	111.7	100.0000	0090.9	159.1	37.55	
249.0	005.5000	0349.9	047.8	111.5	100.0000	0090.8	158.5	37.65	
250.0	005.5000	0350.0	047.8	111.3	100.0000	0090.7	157.9	37.75	
251.0	005.5000	0350.2	047.8	111.0	100.0000	0090.7	157.4	37.85	
252.0	005.5000	0350.1	047.8	110.8	100.0000	0090.8	156.8	37.94	
253.0	005.5000	0350.3	047.8	110.6	100.0000	0090.9	156.3	38.04	
254.0	005.5000	0350.2	047.8	110.3	100.0000	0091.2	155.8	38.13	
255.0	005.5000	0350.3	047.8	110.1	100.0000	0091.6	155.3	38.23	
256.0	005.5000	0350.4	047.8	109.8	100.0000	0091.9	154.8	38.33	
257.0	005.5000	0350.4	047.8	109.6	100.0000	0092.2	154.3	38.42	
258.0	005.5000	0350.3	047.8	109.3	100.0000	0092.4	153.8	38.50	
259.0	005.5000	0350.6	047.8	109.1	100.0000	0092.5	153.4	38.58	
260.0	005.5000	0350.7	047.8	108.8	100.0000	0092.7	152.9	38.66	
261.0	005.5000	0350.8	047.8	108.5	100.0000	0092.9	152.5	38.74	
262.0	005.5000	0350.8	047.8	108.2	100.0000	0093.0	152.1	38.81	
263.0	005.5000	0350.6	047.8	108.0	100.0000	0093.2	151.8	38.87	
264.0	005.5000	0350.5	047.8	107.7	100.0000	0093.3	151.4	38.94	
265.0	005.5000	0350.1	047.8	107.4	100.0000	0093.4	151.1	39.00	
266.0	005.5000	0349.9	047.8	107.1	100.0000	0093.6	150.8	39.06	
267.0	005.5000	0349.7	047.8	106.8	100.0000	0093.6	150.5	39.11	
268.0	005.5000	0349.6	047.8	106.5	100.0000	0093.7	150.2	39.16	
269.0	005.5000	0349.4	047.7	106.2	100.0000	0094.0	149.9	39.21	
270.0	005.5000	0349.2	047.7	105.9	100.0000	0094.1	149.7	39.26	
271.0	005.5000	0348.8	047.7	105.6	100.0000	0094.2	149.4	39.30	
272.0	005.5000	0348.5	047.7	105.3	100.0000	0094.4	149.2	39.34	
273.0	005.5000	0348.1	047.7	104.9	100.0000	0094.4	149.1	39.37	
274.0	005.5000	0347.6	047.6	104.6	100.0000	0094.3	148.9	39.39	
275.0	005.5000	0347.3	047.6	104.3	100.0000	0094.3	148.8	39.41	
276.0	005.5000	0346.8	047.6	104.0	100.0000	0094.4	148.6	39.44	
277.0	005.5000	0346.6	047.6	103.7	100.0000	0094.3	148.5	39.45	
278.0	005.5000	0346.6	047.6	103.4	100.0000	0094.4	148.4	39.47	
279.0	005.5000	0346.6	047.6	103.0	100.0000	0094.3	148.3	39.49	
280.0	005.5000	0346.3	047.6	102.7	100.0000	0094.3	148.3	39.50	
281.0	005.5000	0346.1	047.5	102.4	100.0000	0094.3	148.2	39.50	
282.0	005.5000	0345.9	047.5	102.1	100.0000	0094.3	148.2	39.51	
283.0	005.5000	0345.5	047.5	101.8	100.0000	0094.4	148.2	39.51	
284.0	005.5000	0344.7	047.5	101.4	100.0000	0094.4	148.3	39.50	
285.0	005.5000	0343.9	047.4	101.1	100.0000	0094.1	148.4	39.48	

Figure 2-7

286.0	005.5000	0343.2	047.4	100.8	100.0000	0093.7	148.5	39.45
287.0	005.5000	0342.4	047.3	100.5	100.0000	0093.3	148.6	39.42
288.0	005.5000	0341.6	047.3	100.2	100.0000	0092.9	148.7	39.38
289.0	005.5000	0340.8	047.2	099.9	100.0000	0092.5	148.8	39.34
290.0	005.5000	0340.2	047.2	099.5	100.0000	0092.1	149.0	39.30
291.0	005.5000	0339.5	047.1	099.2	100.0000	0091.8	149.2	39.26
292.0	005.5000	0338.4	047.1	098.9	100.0000	0091.6	149.4	39.22
293.0	005.5000	0337.5	047.0	098.6	100.0000	0091.4	149.6	39.17
294.0	005.5000	0336.5	047.0	098.3	100.0000	0091.2	149.9	39.13
295.0	005.5000	0335.4	046.9	098.0	100.0000	0091.2	150.2	39.08
296.0	005.5000	0334.2	046.8	097.7	100.0000	0091.1	150.5	39.03
297.0	005.5000	0332.8	046.7	097.4	100.0000	0091.1	150.8	38.97
298.0	005.5000	0331.9	046.7	097.2	100.0000	0090.8	151.1	38.91
299.0	005.5000	0330.9	046.6	096.9	100.0000	0090.6	151.4	38.84
300.0	005.5000	0329.0	046.5	096.6	100.0000	0090.4	151.8	38.77
301.0	005.5000	0327.1	046.4	096.3	100.0000	0090.2	152.3	38.69
302.0	005.5000	0325.4	046.3	096.1	100.0000	0089.9	152.7	38.61
303.0	005.5000	0323.9	046.2	095.8	100.0000	0089.7	153.1	38.54
304.0	005.5000	0322.5	046.1	095.6	100.0000	0089.6	153.5	38.46
305.0	005.5000	0321.8	046.0	095.3	100.0000	0089.4	154.0	38.38
306.0	005.5000	0321.4	046.0	095.0	100.0000	0089.2	154.4	38.31
307.0	005.5000	0320.4	046.0	094.8	100.0000	0088.9	154.8	38.22
308.0	005.5000	0318.6	045.8	094.6	100.0000	0088.9	155.3	38.13
309.0	005.5000	0316.8	045.7	094.3	100.0000	0088.8	155.9	38.04
310.0	005.5000	0315.4	045.7	094.1	100.0000	0088.8	156.4	37.95
311.0	005.5000	0313.7	045.5	093.9	100.0000	0088.8	156.9	37.86
312.0	005.5000	0312.2	045.5	093.7	100.0000	0088.7	157.4	37.76
313.0	005.5000	0310.4	045.4	093.5	100.0000	0088.6	158.0	37.66
314.0	005.5000	0308.6	045.2	093.3	100.0000	0088.5	158.6	37.56
315.0	005.5000	0306.5	045.1	093.1	100.0000	0088.4	159.2	37.45
316.0	005.5000	0304.2	045.0	092.9	100.0000	0088.4	159.8	37.34
317.0	005.5000	0302.5	044.9	092.7	100.0000	0088.3	160.4	37.22
318.0	005.5000	0300.8	044.8	092.5	100.0000	0088.2	161.0	37.11
319.0	005.5000	0298.7	044.6	092.4	100.0000	0088.1	161.7	36.99
320.0	005.5000	0296.5	044.5	092.2	100.0000	0088.0	162.3	36.86
321.0	005.5000	0294.9	044.4	092.1	100.0000	0087.9	163.0	36.75
322.0	005.5000	0292.9	044.3	091.9	100.0000	0087.9	163.6	36.63
323.0	005.5000	0290.9	044.2	091.8	100.0000	0087.9	164.3	36.50
324.0	005.5000	0289.0	044.1	091.6	100.0000	0087.8	164.9	36.38
325.0	005.5000	0286.9	043.9	091.5	100.0000	0087.8	165.6	36.25
326.0	005.5000	0285.6	043.8	091.4	100.0000	0087.7	166.3	36.13
327.0	005.5000	0284.3	043.8	091.2	100.0000	0087.6	166.9	36.01

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

NEW-C BNPED20071018AKU

Channel = 215C1
Max ERP = 100 kW
RCAMSL = 360 M
N. Lat. 45 53 01.0
W. Lng. 87 29 07.0
Protected
60 dBu

WTCK.A

Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
057.0	100.0000	0076.0	045.9	294.6	005.5000	0335.8	166.7	29.11	
058.0	100.0000	0076.1	045.9	294.5	005.5000	0335.9	166.0	29.24	

Figure 2-7

059.0	100.0000	0076.4	046.0	294.4	005.5000	0336.0	165.3	29.37
060.0	100.0000	0076.6	046.0	294.2	005.5000	0336.3	164.6	29.49
061.0	100.0000	0077.2	046.1	294.1	005.5000	0336.4	163.9	29.63
062.0	100.0000	0078.0	046.3	293.9	005.5000	0336.6	163.2	29.76
063.0	100.0000	0078.6	046.5	293.8	005.5000	0336.7	162.5	29.89
064.0	100.0000	0078.2	046.4	293.6	005.5000	0336.9	161.9	30.00
065.0	100.0000	0077.8	046.3	293.4	005.5000	0337.1	161.4	30.10
066.0	100.0000	0077.6	046.2	293.1	005.5000	0337.4	160.8	30.21
067.0	100.0000	0077.6	046.2	292.9	005.5000	0337.6	160.3	30.31
068.0	100.0000	0077.8	046.3	292.7	005.5000	0337.7	159.7	30.43
069.0	100.0000	0078.2	046.4	292.5	005.5000	0337.8	159.1	30.54
070.0	100.0000	0078.3	046.4	292.3	005.5000	0338.1	158.5	30.65
071.0	100.0000	0078.9	046.5	292.1	005.5000	0338.3	157.9	30.77
072.0	100.0000	0079.4	046.6	291.9	005.5000	0338.5	157.3	30.89
073.0	100.0000	0079.5	046.7	291.7	005.5000	0338.8	156.8	30.99
074.0	100.0000	0080.1	046.8	291.5	005.5000	0339.0	156.2	31.11
075.0	100.0000	0080.5	046.9	291.3	005.5000	0339.2	155.7	31.22
076.0	100.0000	0081.0	047.0	291.0	005.5000	0339.4	155.1	31.33
077.0	100.0000	0081.4	047.1	290.8	005.5000	0339.7	154.6	31.43
078.0	100.0000	0082.2	047.2	290.6	005.5000	0339.9	154.0	31.55
079.0	100.0000	0083.3	047.5	290.4	005.5000	0340.1	153.4	31.67
080.0	100.0000	0083.9	047.6	290.1	005.5000	0340.2	152.9	31.77
081.0	100.0000	0084.5	047.7	289.8	005.5000	0340.3	152.4	31.87
082.0	100.0000	0084.6	047.8	289.6	005.5000	0340.4	152.0	31.95
083.0	100.0000	0084.5	047.7	289.3	005.5000	0340.6	151.7	32.02
084.0	100.0000	0084.7	047.8	289.0	005.5000	0340.8	151.3	32.10
085.0	100.0000	0085.0	047.8	288.7	005.5000	0341.1	150.9	32.18
086.0	100.0000	0085.5	048.0	288.4	005.5000	0341.3	150.5	32.26
087.0	100.0000	0085.8	048.0	288.1	005.5000	0341.5	150.2	32.33
088.0	100.0000	0086.0	048.0	287.8	005.5000	0341.7	149.8	32.40
089.0	100.0000	0086.3	048.1	287.5	005.5000	0341.9	149.5	32.47
090.0	100.0000	0086.7	048.2	287.2	005.5000	0342.2	149.2	32.54
091.0	100.0000	0087.5	048.4	286.9	005.5000	0342.5	148.8	32.62
092.0	100.0000	0087.9	048.5	286.6	005.5000	0342.8	148.5	32.68
093.0	100.0000	0088.4	048.6	286.3	005.5000	0343.0	148.3	32.74
094.0	100.0000	0088.8	048.6	286.0	005.5000	0343.2	148.0	32.79
095.0	100.0000	0089.1	048.7	285.7	005.5000	0343.4	147.8	32.84
096.0	100.0000	0089.9	048.9	285.4	005.5000	0343.7	147.5	32.90
097.0	100.0000	0090.7	049.0	285.1	005.5000	0343.9	147.3	32.96
098.0	100.0000	0091.1	049.1	284.7	005.5000	0344.2	147.1	33.00
099.0	100.0000	0091.7	049.2	284.4	005.5000	0344.4	146.9	33.04
100.0	100.0000	0092.7	049.4	284.1	005.5000	0344.7	146.6	33.10
101.0	100.0000	0093.9	049.7	283.7	005.5000	0345.0	146.4	33.16
102.0	100.0000	0094.4	049.8	283.4	005.5000	0345.2	146.3	33.19
103.0	100.0000	0094.3	049.8	283.0	005.5000	0345.4	146.3	33.19
104.0	100.0000	0094.4	049.8	282.7	005.5000	0345.7	146.3	33.19
105.0	100.0000	0094.4	049.8	282.4	005.5000	0345.9	146.4	33.19
106.0	100.0000	0094.1	049.7	282.0	005.5000	0345.9	146.5	33.16
107.0	100.0000	0093.6	049.6	281.7	005.5000	0345.9	146.7	33.13
108.0	100.0000	0093.1	049.5	281.4	005.5000	0346.0	146.9	33.09
109.0	100.0000	0092.6	049.4	281.0	005.5000	0346.1	147.1	33.04
110.0	100.0000	0091.7	049.2	280.7	005.5000	0346.1	147.5	32.98
111.0	100.0000	0090.8	049.0	280.4	005.5000	0346.2	147.8	32.91
112.0	100.0000	0091.1	049.1	280.1	005.5000	0346.3	147.9	32.89
113.0	100.0000	0092.1	049.3	279.7	005.5000	0346.4	148.0	32.89
114.0	100.0000	0092.7	049.4	279.4	005.5000	0346.5	148.1	32.87
115.0	100.0000	0093.1	049.5	279.1	005.5000	0346.6	148.2	32.84
116.0	100.0000	0092.7	049.5	278.7	005.5000	0346.7	148.6	32.78
117.0	100.0000	0092.7	049.5	278.4	005.5000	0346.7	148.9	32.72
118.0	100.0000	0093.2	049.5	278.1	005.5000	0346.6	149.1	32.68
119.0	100.0000	0093.6	049.6	277.8	005.5000	0346.6	149.3	32.63
120.0	100.0000	0093.9	049.7	277.5	005.5000	0346.6	149.6	32.58
121.0	100.0000	0094.0	049.7	277.2	005.5000	0346.6	150.0	32.51
122.0	100.0000	0093.7	049.7	276.9	005.5000	0346.6	150.4	32.43

Figure 2-7

123.0	100.0000	0094.0	049.7	276.6	005.5000	0346.7	150.7	32.36
124.0	100.0000	0093.7	049.7	276.3	005.5000	0346.7	151.2	32.27
125.0	100.0000	0092.9	049.5	276.0	005.5000	0346.8	151.8	32.16
126.0	100.0000	0092.9	049.5	275.8	005.5000	0347.0	152.2	32.09
127.0	100.0000	0093.2	049.5	275.5	005.5000	0347.1	152.6	32.01
128.0	100.0000	0093.3	049.6	275.2	005.5000	0347.2	153.1	31.92
129.0	100.0000	0094.2	049.7	274.9	005.5000	0347.3	153.5	31.86
130.0	100.0000	0094.8	049.9	274.6	005.5000	0347.4	153.9	31.78
131.0	100.0000	0095.5	050.0	274.3	005.5000	0347.5	154.3	31.70
132.0	100.0000	0096.3	050.2	274.0	005.5000	0347.6	154.7	31.63
133.0	100.0000	0096.5	050.2	273.8	005.5000	0347.7	155.3	31.53
134.0	100.0000	0096.2	050.1	273.5	005.5000	0347.8	155.9	31.41
135.0	100.0000	0095.6	050.0	273.3	005.5000	0347.9	156.6	31.29
136.0	100.0000	0095.5	050.0	273.1	005.5000	0348.0	157.2	31.17
137.0	100.0000	0095.4	050.0	272.9	005.5000	0348.1	157.8	31.06
138.0	100.0000	0095.3	050.0	272.7	005.5000	0348.2	158.5	30.94
139.0	100.0000	0094.9	049.9	272.5	005.5000	0348.3	159.2	30.81
140.0	100.0000	0094.7	049.8	272.3	005.5000	0348.4	159.8	30.69
141.0	100.0000	0094.7	049.9	272.1	005.5000	0348.5	160.5	30.57
142.0	100.0000	0094.9	049.9	271.9	005.5000	0348.5	161.2	30.45
143.0	100.0000	0094.6	049.8	271.7	005.5000	0348.6	161.9	30.32
144.0	100.0000	0094.7	049.8	271.5	005.5000	0348.7	162.6	30.19
145.0	100.0000	0094.4	049.8	271.3	005.5000	0348.7	163.3	30.06
146.0	100.0000	0093.6	049.6	271.2	005.5000	0348.7	164.1	29.91

Figure 3
Minor Amendment to Pending Application

FMCommander Single Allocation Study - 10-03-2011 - NED 30 Meter
WTCK.A's Overlaps (In= -52.25 km, Out= -53.74 km)

WTCK.A CH 215 C2 DA
Lat= 45 30 05.2, Lng= 85 01 48.7
5.5 kW 303.6 M HAAT, 539.6 M COR
Prot.= 60 dBu, Intef.= 34 dBu

AL4199 CH 215 B
Lat= 46 31 00.0, Lng= 84 20 00.0
50.0 kW 150 M HAAT, 384 M COR
Prot.= 54 dBu, Intef.= 40 dBu

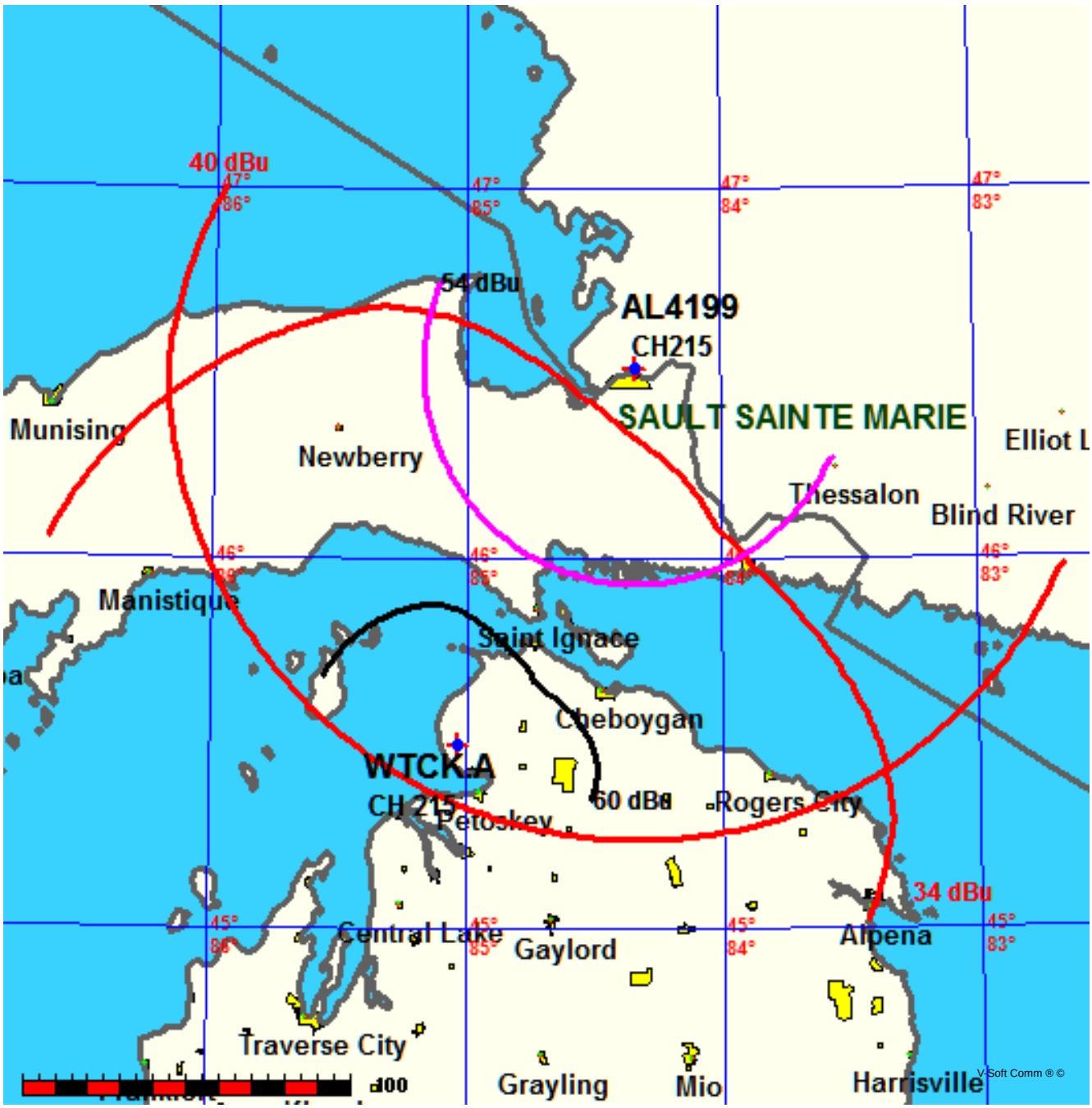


Figure 2-7

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

WTCK.A
Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Protected
60 dBu

AL4199
Channel = 215B
Max ERP = 50 kW
RCAMSL = 383.97 M
N. Lat. 46 31 00.0
W. Lng. 84 20 00.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
295.0	005.5000	0325.5	046.3	226.1	050.0000	0183.6	133.7	41.64**	8.52
296.0	005.5000	0324.5	046.2	226.2	050.0000	0183.6	133.0	41.79**	9.25
297.0	005.5000	0323.6	046.2	226.3	050.0000	0183.7	132.2	41.94**	10.03
298.0	005.5000	0322.6	046.1	226.4	050.0000	0183.7	131.4	42.09**	10.82
299.0	005.5000	0321.7	046.0	226.5	050.0000	0183.7	130.6	42.25**	11.61
300.0	005.5000	0320.7	046.0	226.5	050.0000	0183.7	129.8	42.40**	12.40
301.0	005.5000	0319.8	045.9	226.6	050.0000	0183.7	129.0	42.55**	13.19
302.0	005.5000	0318.8	045.9	226.7	050.0000	0183.7	128.2	42.71**	13.98
303.0	005.5000	0317.9	045.8	226.7	050.0000	0183.7	127.4	42.86**	14.77
304.0	005.5000	0316.9	045.7	226.8	050.0000	0183.7	126.6	43.02**	15.57
305.0	005.5000	0316.0	045.7	226.8	050.0000	0183.7	125.9	43.17**	16.36
306.0	005.5000	0315.1	045.6	226.9	050.0000	0183.7	125.1	43.33**	17.16
307.0	005.5000	0314.1	045.6	226.9	050.0000	0183.7	124.3	43.49**	17.96
308.0	005.5000	0313.2	045.5	226.9	050.0000	0183.8	123.5	43.64**	18.75
309.0	005.5000	0312.2	045.5	227.0	050.0000	0183.8	122.7	43.80**	19.55
310.0	005.5000	0311.3	045.4	227.0	050.0000	0183.8	121.9	43.96**	20.35
311.0	005.5000	0310.3	045.3	227.0	050.0000	0183.8	121.1	44.12**	21.14
312.0	005.5000	0309.4	045.3	227.0	050.0000	0183.8	120.3	44.28**	21.94
313.0	005.5000	0308.4	045.2	227.0	050.0000	0183.8	119.5	44.43**	22.73
314.0	005.5000	0307.5	045.2	227.0	050.0000	0183.8	118.7	44.59**	23.52
315.0	005.5000	0306.5	045.1	227.0	050.0000	0183.8	117.9	44.75**	24.31
316.0	005.5000	0305.4	045.0	226.9	050.0000	0183.8	117.1	44.91**	25.10
317.0	005.5000	0304.3	045.0	226.9	050.0000	0183.7	116.3	45.07**	25.89
318.0	005.5000	0303.1	044.9	226.8	050.0000	0183.7	115.5	45.23**	26.67
319.0	005.5000	0302.0	044.8	226.8	050.0000	0183.7	114.8	45.38**	27.45
320.0	005.5000	0300.8	044.8	226.7	050.0000	0183.7	114.0	45.54**	28.23
321.0	005.5000	0299.7	044.7	226.7	050.0000	0183.7	113.2	45.70**	29.00
322.0	005.5000	0298.6	044.6	226.6	050.0000	0183.7	112.4	45.86**	29.77
323.0	005.5000	0297.4	044.6	226.5	050.0000	0183.7	111.7	46.01**	30.54
324.0	005.5000	0296.3	044.5	226.4	050.0000	0183.7	110.9	46.18**	31.30
325.0	005.5000	0295.2	044.4	226.3	050.0000	0183.7	110.1	46.34**	32.06
326.0	005.5000	0294.0	044.4	226.2	050.0000	0183.6	109.4	46.51**	32.81
327.0	005.5000	0292.9	044.3	226.1	050.0000	0183.6	108.6	46.68**	33.56
328.0	005.5000	0291.8	044.2	226.0	050.0000	0183.6	107.9	46.85**	34.30
329.0	005.5000	0290.6	044.2	225.9	050.0000	0183.6	107.2	47.02**	35.03
330.0	005.5000	0289.5	044.1	225.7	050.0000	0183.6	106.4	47.20**	35.76
331.0	005.5000	0288.4	044.0	225.6	050.0000	0183.6	105.7	47.37**	36.48
332.0	005.5000	0287.2	043.9	225.4	050.0000	0183.5	105.0	47.55**	37.20
333.0	005.5000	0286.1	043.9	225.2	050.0000	0183.5	104.3	47.73**	37.91
334.0	005.5000	0285.0	043.8	225.1	050.0000	0183.5	103.6	47.90**	38.61
335.0	005.5000	0283.8	043.7	224.9	050.0000	0183.5	102.9	48.08**	39.30
336.0	005.5000	0282.7	043.7	224.7	050.0000	0183.4	102.2	48.26**	39.99
337.0	005.5000	0281.6	043.6	224.5	050.0000	0183.4	101.5	48.44**	40.66
338.0	005.5000	0280.4	043.5	224.3	050.0000	0183.4	100.8	48.62**	41.33
339.0	005.5000	0279.3	043.5	224.1	050.0000	0183.4	100.2	48.80**	41.99
340.0	005.5000	0278.2	043.4	223.8	050.0000	0183.4	099.5	48.98**	42.64
341.0	005.5000	0277.0	043.3	223.6	050.0000	0183.4	098.9	49.15**	43.28
342.0	005.5000	0275.9	043.2	223.3	050.0000	0183.3	098.3	49.33**	43.91

Figure 2-7

343.0	005.5000	0274.8	043.2	223.1	050.0000	0183.3	097.6	49.50**	44.53
344.0	005.5000	0273.6	043.1	222.8	050.0000	0183.3	097.0	49.67**	45.14
345.0	005.5000	0272.5	043.0	222.5	050.0000	0183.3	096.4	49.84**	45.74
346.0	005.5000	0271.4	043.0	222.3	050.0000	0183.3	095.8	50.01**	46.32
347.0	005.5000	0270.2	042.9	222.0	050.0000	0183.2	095.3	50.18**	46.90
348.0	005.5000	0269.1	042.8	221.7	050.0000	0183.2	094.7	50.34**	47.46
349.0	005.5000	0268.0	042.7	221.3	050.0000	0183.2	094.1	50.50**	48.01
350.0	005.5000	0266.8	042.7	221.0	050.0000	0183.2	093.6	50.66**	48.54
351.0	005.3797	0265.7	042.4	220.6	050.0000	0183.1	093.2	50.78**	48.95
352.0	005.2607	0264.6	042.2	220.2	050.0000	0183.1	092.8	50.89**	49.33
353.0	005.1430	0263.4	041.9	219.8	050.0000	0183.1	092.4	51.00**	49.69
354.0	005.0266	0262.3	041.7	219.3	050.0000	0183.0	092.1	51.10**	50.03
355.0	004.9116	0261.2	041.4	218.9	050.0000	0183.0	091.8	51.19**	50.35
356.0	004.7980	0260.0	041.1	218.5	050.0000	0183.0	091.5	51.28**	50.65
357.0	004.6856	0258.9	040.9	218.0	050.0000	0182.9	091.2	51.37**	50.92
358.0	004.5746	0257.8	040.6	217.6	050.0000	0182.9	090.9	51.44**	51.18
359.0	004.4649	0256.6	040.4	217.1	050.0000	0182.9	090.7	51.51**	51.41
000.0	004.3565	0255.5	040.1	216.6	050.0000	0182.8	090.5	51.57**	51.61
001.0	004.1802	0256.2	039.8	216.2	050.0000	0182.8	090.3	51.62**	51.78
002.0	004.0075	0256.9	039.5	215.7	050.0000	0182.7	090.2	51.67**	51.93
003.0	003.8384	0257.5	039.2	215.2	050.0000	0182.7	090.0	51.70**	52.04
004.0	003.6730	0258.2	038.9	214.8	050.0000	0182.7	089.9	51.73**	52.13
005.0	003.5112	0258.9	038.6	214.3	050.0000	0182.6	089.9	51.75**	52.19
006.0	003.3531	0259.6	038.3	213.8	050.0000	0182.6	089.8	51.76**	52.22
007.0	003.1986	0260.2	037.9	213.3	050.0000	0182.6	089.8	51.76**	52.23
008.0	003.0477	0260.9	037.6	212.9	050.0000	0182.5	089.9	51.75**	52.20
009.0	002.9005	0261.6	037.3	212.4	050.0000	0182.5	089.9	51.73**	52.15
010.0	002.7570	0262.3	036.9	211.9	050.0000	0182.4	090.0	51.71**	52.06
011.0	002.6444	0263.0	036.6	211.5	050.0000	0182.4	090.0	51.70**	52.02
012.0	002.5342	0263.6	036.3	211.0	050.0000	0182.4	090.1	51.68**	51.96
013.0	002.4264	0264.3	036.0	210.6	050.0000	0182.3	090.2	51.65**	51.87
014.0	002.3209	0265.0	035.7	210.2	050.0000	0182.3	090.3	51.62**	51.75
015.0	002.2177	0265.7	035.4	209.7	050.0000	0182.3	090.4	51.57**	51.61
016.0	002.1169	0266.3	035.1	209.3	050.0000	0182.2	090.6	51.52**	51.44
017.0	002.0185	0267.0	034.8	208.9	050.0000	0182.2	090.8	51.46**	51.25
018.0	001.9223	0267.7	034.4	208.5	050.0000	0182.2	091.0	51.40**	51.03
019.0	001.8286	0268.4	034.1	208.1	050.0000	0182.1	091.2	51.32**	50.78
020.0	001.7371	0269.1	033.7	207.7	050.0000	0182.1	091.5	51.24**	50.50
021.0	001.6868	0269.7	033.6	207.3	050.0000	0182.1	091.6	51.20**	50.38
022.0	001.6372	0270.4	033.4	206.9	050.0000	0182.1	091.8	51.16**	50.24
023.0	001.5884	0271.1	033.2	206.5	050.0000	0182.0	091.9	51.12**	50.09
024.0	001.5403	0271.8	033.0	206.2	050.0000	0182.0	092.1	51.06**	49.91
025.0	001.4929	0272.4	032.8	205.8	050.0000	0182.0	092.3	51.01**	49.72
026.0	001.4463	0273.1	032.6	205.4	050.0000	0181.9	092.5	50.94**	49.51
027.0	001.4004	0273.8	032.3	205.1	050.0000	0181.9	092.7	50.88**	49.28
028.0	001.3553	0274.5	032.1	204.8	050.0000	0181.9	092.9	50.80**	49.03
029.0	001.3109	0275.1	031.9	204.4	050.0000	0181.9	093.2	50.73**	48.77
030.0	001.2672	0275.8	031.7	204.1	050.0000	0181.8	093.5	50.65**	48.50
031.0	001.2514	0276.5	031.6	203.8	050.0000	0181.8	093.6	50.61**	48.37
032.0	001.2357	0277.2	031.6	203.4	050.0000	0181.8	093.7	50.57**	48.24
033.0	001.2201	0277.9	031.5	203.1	050.0000	0181.8	093.9	50.53**	48.09
034.0	001.2046	0278.5	031.5	202.8	050.0000	0181.7	094.0	50.48**	47.92
035.0	001.1892	0279.2	031.4	202.5	050.0000	0181.7	094.2	50.43**	47.75
036.0	001.1739	0279.9	031.3	202.2	050.0000	0181.7	094.4	50.37**	47.56
037.0	001.1587	0280.6	031.3	201.8	050.0000	0181.7	094.6	50.31**	47.36
038.0	001.1436	0281.2	031.2	201.5	050.0000	0181.6	094.8	50.25**	47.15
039.0	001.1286	0281.9	031.2	201.2	050.0000	0181.6	095.0	50.19**	46.93
040.0	001.1137	0282.6	031.1	200.9	050.0000	0181.6	095.2	50.12**	46.69
041.0	001.0891	0283.3	031.0	200.7	050.0000	0181.6	095.6	50.03**	46.38
042.0	001.0648	0284.0	030.8	200.4	050.0000	0181.5	095.9	49.94**	46.07
043.0	001.0407	0284.6	030.7	200.1	050.0000	0181.5	096.2	49.85**	45.74
044.0	001.0170	0285.3	030.6	199.9	050.0000	0181.5	096.5	49.75**	45.40
045.0	000.9934	0286.0	030.5	199.6	050.0000	0181.5	096.9	49.65**	45.05
046.0	000.9702	0285.4	030.2	199.4	050.0000	0181.5	097.3	49.53**	44.63

Figure 2-7

047.0	000.9472	0284.8	030.0	199.2	050.0000	0181.4	097.7	49.41**	44.21
048.0	000.9245	0284.2	029.8	198.9	050.0000	0181.4	098.1	49.29**	43.78
049.0	000.9021	0283.5	029.6	198.7	050.0000	0181.4	098.6	49.17**	43.34
050.0	000.8800	0282.9	029.4	198.5	050.0000	0181.4	099.0	49.05**	42.90
051.0	000.9012	0282.3	029.6	198.2	050.0000	0181.4	099.2	49.00**	42.74
052.0	000.9227	0281.7	029.7	198.0	050.0000	0181.3	099.3	48.95**	42.56
053.0	000.9445	0281.1	029.8	197.7	050.0000	0181.3	099.5	48.90**	42.37
054.0	000.9665	0280.5	030.0	197.4	050.0000	0181.3	099.7	48.85**	42.16
055.0	000.9888	0279.9	030.1	197.1	050.0000	0181.3	100.0	48.79**	41.94
056.0	001.0113	0279.3	030.2	196.8	050.0000	0181.3	100.2	48.72**	41.71
057.0	001.0340	0278.7	030.4	196.5	050.0000	0181.2	100.4	48.66**	41.47
058.0	001.0571	0278.1	030.5	196.3	050.0000	0181.2	100.7	48.59**	41.21
059.0	001.0803	0277.4	030.6	196.0	050.0000	0181.2	101.0	48.52**	40.94
060.0	001.1039	0276.8	030.7	195.7	050.0000	0181.2	101.2	48.44**	40.65
061.0	001.1613	0276.2	031.1	195.4	050.0000	0181.1	101.4	48.40**	40.51
062.0	001.2201	0275.6	031.4	195.0	050.0000	0181.1	101.5	48.36**	40.34
063.0	001.2804	0275.0	031.7	194.7	050.0000	0181.1	101.7	48.31**	40.15
064.0	001.3422	0274.4	032.1	194.3	050.0000	0181.1	101.9	48.25**	39.94
065.0	001.4054	0273.8	032.4	194.0	050.0000	0181.0	102.2	48.19**	39.71
066.0	001.4701	0273.2	032.7	193.7	050.0000	0181.0	102.4	48.13**	39.45
067.0	001.5362	0272.6	033.0	193.3	050.0000	0181.0	102.7	48.05**	39.17
068.0	001.6038	0272.0	033.3	193.0	050.0000	0181.0	103.0	47.98**	38.87
069.0	001.6728	0271.3	033.6	192.7	050.0000	0180.9	103.3	47.89**	38.55
070.0	001.7433	0270.7	033.9	192.4	050.0000	0180.9	103.6	47.81**	38.21
071.0	001.8343	0270.1	034.2	192.0	050.0000	0180.9	104.0	47.72**	37.89
072.0	001.9276	0269.5	034.6	191.7	050.0000	0180.9	104.3	47.64**	37.54
073.0	002.0231	0268.9	034.9	191.4	050.0000	0180.8	104.7	47.55**	37.17
074.0	002.1210	0268.3	035.2	191.1	050.0000	0180.8	105.1	47.45**	36.78
075.0	002.2212	0267.7	035.6	190.8	050.0000	0180.8	105.5	47.35**	36.36
076.0	002.3237	0267.1	035.9	190.5	050.0000	0180.8	105.9	47.24**	35.93
077.0	002.4286	0266.5	036.2	190.2	050.0000	0180.7	106.4	47.13**	35.47
078.0	002.5357	0265.9	036.5	189.9	050.0000	0180.7	106.8	47.02**	35.00
079.0	002.6452	0265.2	036.8	189.6	050.0000	0180.7	107.3	46.90**	34.50
080.0	002.7570	0264.6	037.1	189.4	050.0000	0180.7	107.8	46.78**	33.99
081.0	002.9005	0264.0	037.4	189.1	050.0000	0180.7	108.3	46.67**	33.49
082.0	003.0477	0263.4	037.8	188.8	050.0000	0180.6	108.9	46.55**	32.96
083.0	003.1986	0262.8	038.1	188.5	050.0000	0180.6	109.4	46.42**	32.42
084.0	003.3531	0262.2	038.4	188.3	050.0000	0180.6	110.0	46.30**	31.85
085.0	003.5112	0261.6	038.8	188.0	050.0000	0180.6	110.5	46.17**	31.27
086.0	003.6730	0261.0	039.1	187.8	050.0000	0180.6	111.1	46.04**	30.67
087.0	003.8384	0260.4	039.4	187.6	050.0000	0180.5	111.7	45.92**	30.06
088.0	004.0075	0259.8	039.7	187.4	050.0000	0180.5	112.4	45.78**	29.43
089.0	004.1802	0259.2	040.0	187.2	050.0000	0180.5	113.0	45.65**	28.78
090.0	004.3565	0258.5	040.3	187.0	050.0000	0180.5	113.7	45.52**	28.12
091.0	004.4649	0259.7	040.5	186.8	050.0000	0180.5	114.3	45.38**	27.45
092.0	004.5746	0260.8	040.8	186.6	050.0000	0180.5	115.0	45.25**	26.77
093.0	004.6856	0261.9	041.1	186.5	050.0000	0180.4	115.7	45.11**	26.07
094.0	004.7980	0263.0	041.3	186.3	050.0000	0180.4	116.4	44.96**	25.36
095.0	004.9116	0264.1	041.6	186.2	050.0000	0180.4	117.1	44.82**	24.65
096.0	005.0266	0265.2	041.8	186.1	050.0000	0180.4	117.9	44.67**	23.92
097.0	005.1430	0266.4	042.1	185.9	050.0000	0180.4	118.6	44.53**	23.18
098.0	005.2607	0267.5	042.3	185.8	050.0000	0180.4	119.3	44.38**	22.44
099.0	005.3797	0268.6	042.6	185.7	050.0000	0180.4	120.1	44.23**	21.68
100.0	005.5000	0269.7	042.9	185.6	050.0000	0180.4	120.9	44.08**	20.92
101.0	005.5000	0270.8	042.9	185.6	050.0000	0180.4	121.6	43.93**	20.17
102.0	005.5000	0271.9	043.0	185.6	050.0000	0180.4	122.4	43.78**	19.42
103.0	005.5000	0273.0	043.1	185.7	050.0000	0180.4	123.1	43.63**	18.66
104.0	005.5000	0274.2	043.1	185.7	050.0000	0180.4	123.9	43.48**	17.91
105.0	005.5000	0275.3	043.2	185.7	050.0000	0180.4	124.6	43.34**	17.15
106.0	005.5000	0276.4	043.3	185.7	050.0000	0180.4	125.4	43.19**	16.40
107.0	005.5000	0277.5	043.3	185.8	050.0000	0180.4	126.1	43.04**	15.64
108.0	005.5000	0278.6	043.4	185.8	050.0000	0180.4	126.9	42.89**	14.89
109.0	005.5000	0279.7	043.5	185.9	050.0000	0180.4	127.7	42.75**	14.13
110.0	005.5000	0280.9	043.5	185.9	050.0000	0180.4	128.4	42.60**	13.38

Figure 2-7

111.0	005.5000	0282.0	043.6	186.0	050.0000	0180.4	129.2	42.45**	12.62
112.0	005.5000	0283.1	043.7	186.0	050.0000	0180.4	129.9	42.31**	11.87
113.0	005.5000	0284.2	043.8	186.1	050.0000	0180.4	130.7	42.16**	11.12
114.0	005.5000	0285.3	043.8	186.2	050.0000	0180.4	131.4	42.01**	10.37

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

AL4199

Channel = 215B
Max ERP = 50 kW
RCAMSL = 383.97 M
N. Lat. 46 31 00.0
W. Lng. 84 20 00.0
Protected
54 dBu

WTCK.A

Channel = 215C2
Max ERP = 5.5 kW
RCAMSL = 539.6 M
N. Lat. 45 30 05.2
W. Lng. 85 01 48.7
Interfering
34 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
116.0	050.0000	0182.3	065.0	052.6	000.9351	0281.4	140.7	25.05	
117.0	050.0000	0182.6	065.0	052.7	000.9390	0281.3	139.6	25.30	
118.0	050.0000	0183.0	065.0	053.0	000.9436	0281.1	138.6	25.53	
119.0	050.0000	0183.3	065.0	053.2	000.9480	0281.0	137.6	25.76	
120.0	050.0000	0183.7	065.0	053.4	000.9524	0280.9	136.5	26.00	
121.0	050.0000	0184.0	065.0	053.6	000.9567	0280.8	135.5	26.23	
122.0	050.0000	0184.4	065.0	053.7	000.9609	0280.7	134.5	26.47	
123.0	050.0000	0184.7	065.0	053.9	000.9650	0280.5	133.4	26.71	
124.0	050.0000	0185.1	065.0	054.1	000.9690	0280.4	132.4	26.95	
125.0	050.0000	0185.4	065.0	054.3	000.9729	0280.3	131.3	27.19	
126.0	050.0000	0185.7	065.0	054.5	000.9766	0280.2	130.2	27.42	
127.0	050.0000	0186.1	065.0	054.6	000.9803	0280.1	129.2	27.66	
128.0	050.0000	0186.4	065.0	054.8	000.9838	0280.0	128.1	27.90	
129.0	050.0000	0186.8	065.0	054.9	000.9872	0279.9	127.0	28.13	
130.0	050.0000	0187.1	065.0	055.1	000.9905	0279.8	125.9	28.37	
131.0	050.0000	0187.5	065.0	055.2	000.9937	0279.8	124.8	28.61	
132.0	050.0000	0187.8	065.0	055.4	000.9967	0279.7	123.7	28.84	
133.0	050.0000	0188.2	065.0	055.5	000.9996	0279.6	122.6	29.09	
134.0	050.0000	0188.5	065.0	055.6	001.0023	0279.5	121.5	29.33	
135.0	050.0000	0188.9	065.0	055.7	001.0049	0279.5	120.4	29.58	
136.0	050.0000	0188.7	065.0	055.8	001.0073	0279.4	119.3	29.83	
137.0	050.0000	0188.5	065.0	055.9	001.0095	0279.3	118.2	30.08	
138.0	050.0000	0188.3	065.0	056.0	001.0116	0279.3	117.1	30.34	
139.0	050.0000	0188.1	065.0	056.1	001.0135	0279.2	116.0	30.60	
140.0	050.0000	0187.9	065.0	056.2	001.0152	0279.2	114.8	30.87	
141.0	050.0000	0187.7	065.0	056.2	001.0167	0279.1	113.7	31.14	
142.0	050.0000	0187.5	065.0	056.3	001.0180	0279.1	112.6	31.42	
143.0	050.0000	0187.3	065.0	056.3	001.0191	0279.1	111.4	31.71	
144.0	050.0000	0187.1	065.0	056.4	001.0200	0279.0	110.3	32.01	
145.0	050.0000	0186.9	065.0	056.4	001.0207	0279.0	109.2	32.31	
146.0	050.0000	0186.7	065.0	056.4	001.0211	0279.0	108.1	32.62	
147.0	050.0000	0186.5	065.0	056.4	001.0214	0279.0	106.9	32.94	
148.0	050.0000	0186.3	065.0	056.4	001.0213	0279.0	105.8	33.27	
149.0	050.0000	0186.1	065.0	056.4	001.0211	0279.0	104.7	33.60	
150.0	050.0000	0185.9	065.0	056.4	001.0206	0279.0	103.5	33.94	
151.0	050.0000	0185.7	065.0	056.4	001.0198	0279.1	102.4	34.28**	0.91
152.0	050.0000	0185.5	065.0	056.3	001.0187	0279.1	101.3	34.62**	2.03
153.0	050.0000	0185.3	065.0	056.3	001.0174	0279.1	100.1	34.96**	3.14
154.0	050.0000	0185.1	065.0	056.2	001.0157	0279.2	099.0	35.30**	4.25
155.0	050.0000	0184.9	065.0	056.1	001.0138	0279.2	097.9	35.65**	5.35

Figure 2-7

156.0	050.0000	0184.7	065.0	056.0	001.0116	0279.3	096.8	35.99**	6.44
157.0	050.0000	0184.5	065.0	055.9	001.0090	0279.3	095.7	36.32**	7.53
158.0	050.0000	0184.3	065.0	055.8	001.0061	0279.4	094.5	36.66**	8.60
159.0	050.0000	0184.1	065.0	055.6	001.0029	0279.5	093.4	37.00**	9.67
160.0	050.0000	0183.9	065.0	055.5	000.9993	0279.6	092.3	37.33**	10.73
161.0	050.0000	0183.7	065.0	055.3	000.9954	0279.7	091.2	37.66**	11.78
162.0	050.0000	0183.5	065.0	055.1	000.9911	0279.8	090.2	37.98**	12.82
163.0	050.0000	0183.3	065.0	054.9	000.9865	0280.0	089.1	38.31**	13.85
164.0	050.0000	0183.1	065.0	054.7	000.9815	0280.1	088.0	38.63**	14.87
165.0	050.0000	0182.9	065.0	054.4	000.9760	0280.2	086.9	38.95**	15.87
166.0	050.0000	0182.7	065.0	054.2	000.9702	0280.4	085.9	39.27**	16.86
167.0	050.0000	0182.5	065.0	053.9	000.9640	0280.6	084.8	39.58**	17.84
168.0	050.0000	0182.3	065.0	053.6	000.9574	0280.8	083.8	39.89**	18.80
169.0	050.0000	0182.1	065.0	053.3	000.9503	0280.9	082.7	40.19**	19.74
170.0	050.0000	0181.9	065.0	052.9	000.9428	0281.2	081.7	40.49**	20.67
171.0	050.0000	0181.7	065.0	052.6	000.9349	0281.4	080.7	40.79**	21.58
172.0	050.0000	0181.5	065.0	052.2	000.9266	0281.6	079.7	41.09**	22.46
173.0	050.0000	0181.3	065.0	051.8	000.9178	0281.9	078.7	41.37**	23.33
174.0	050.0000	0181.1	065.0	051.3	000.9085	0282.1	077.8	41.66**	24.18
175.0	050.0000	0180.9	065.0	050.9	000.8988	0282.4	076.8	41.94**	25.01
176.0	050.0000	0180.7	065.0	050.4	000.8887	0282.7	075.9	42.21**	25.81
177.0	050.0000	0180.5	065.0	049.9	000.8820	0283.0	075.0	42.50**	26.65
178.0	050.0000	0180.3	065.0	049.4	000.8936	0283.3	074.1	42.88**	27.77
179.0	050.0000	0180.1	065.0	048.8	000.9059	0283.7	073.2	43.25**	28.88
180.0	050.0000	0179.9	065.0	048.3	000.9188	0284.0	072.3	43.62**	29.97
181.0	050.0000	0180.0	065.0	047.7	000.9324	0284.4	071.5	43.99**	31.06
182.0	050.0000	0180.1	065.0	047.0	000.9467	0284.8	070.7	44.35**	32.13
183.0	050.0000	0180.2	065.0	046.4	000.9617	0285.2	069.9	44.71**	33.19
184.0	050.0000	0180.3	065.0	045.7	000.9774	0285.6	069.1	45.07**	34.23
185.0	050.0000	0180.3	065.0	045.0	000.9938	0286.0	068.4	45.42**	35.26
186.0	050.0000	0180.4	065.0	044.2	001.0111	0285.5	067.6	45.73**	36.18
187.0	050.0000	0180.5	065.0	043.5	001.0291	0285.0	066.9	46.03**	37.08
188.0	050.0000	0180.6	065.0	042.7	001.0478	0284.4	066.3	46.33**	37.95
189.0	050.0000	0180.6	065.0	041.9	001.0674	0283.9	065.6	46.62**	38.80
190.0	050.0000	0180.7	065.0	041.1	001.0877	0283.3	065.0	46.90**	39.63
191.0	050.0000	0180.8	065.0	040.2	001.1089	0282.7	064.5	47.17**	40.43
192.0	050.0000	0180.9	065.0	039.3	001.1240	0282.1	063.9	47.40**	41.11
193.0	050.0000	0181.0	065.0	038.4	001.1376	0281.5	063.4	47.61**	41.74
194.0	050.0000	0181.0	065.0	037.5	001.1516	0280.9	062.9	47.82**	42.33
195.0	050.0000	0181.1	065.0	036.5	001.1660	0280.2	062.5	48.01**	42.89
196.0	050.0000	0181.2	065.0	035.6	001.1808	0279.6	062.1	48.19**	43.42
197.0	050.0000	0181.3	065.0	034.6	001.1959	0278.9	061.7	48.36**	43.91
198.0	050.0000	0181.4	065.0	033.6	001.2115	0278.2	061.4	48.52**	44.36
199.0	050.0000	0181.4	065.0	032.5	001.2273	0277.5	061.1	48.66**	44.78
200.0	050.0000	0181.5	065.0	031.5	001.2435	0276.8	060.9	48.79**	45.15
201.0	050.0000	0181.6	065.0	030.5	001.2600	0276.1	060.6	48.90**	45.49
202.0	050.0000	0181.7	065.0	029.4	001.2933	0275.4	060.5	49.05**	45.99
203.0	050.0000	0181.7	065.0	028.3	001.3402	0274.7	060.3	49.23**	46.59
204.0	050.0000	0181.8	065.0	027.3	001.3882	0274.0	060.3	49.39**	47.15
205.0	050.0000	0181.9	065.0	026.2	001.4373	0273.2	060.2	49.54**	47.67
206.0	050.0000	0182.0	065.0	025.1	001.4873	0272.5	060.2	49.66**	48.14
207.0	050.0000	0182.1	065.0	024.0	001.5381	0271.8	060.2	49.77**	48.56
208.0	050.0000	0182.1	065.0	023.0	001.5896	0271.1	060.3	49.86**	48.95
209.0	050.0000	0182.2	065.0	021.9	001.6417	0270.3	060.4	49.93**	49.28
210.0	050.0000	0182.3	065.0	020.9	001.6943	0269.6	060.6	49.98**	49.57
211.0	050.0000	0182.4	065.0	019.8	001.7552	0268.9	060.8	50.04**	49.89
212.0	050.0000	0182.5	065.0	018.8	001.8508	0268.2	061.0	50.16**	50.48
213.0	050.0000	0182.5	065.0	017.7	001.9476	0267.5	061.3	50.25**	51.03
214.0	050.0000	0182.6	065.0	016.7	002.0454	0266.8	061.6	50.32**	51.52
215.0	050.0000	0182.7	065.0	015.7	002.1441	0266.2	062.0	50.37**	51.95
216.0	050.0000	0182.8	065.0	014.8	002.2432	0265.5	062.3	50.40**	52.33
217.0	050.0000	0182.8	065.0	013.8	002.3426	0264.8	062.8	50.41**	52.65
218.0	050.0000	0182.9	065.0	012.9	002.4419	0264.2	063.2	50.40**	52.90
219.0	050.0000	0183.0	065.0	011.9	002.5409	0263.6	063.7	50.37**	53.10

Figure 2-7

220.0	050.0000	0183.1	065.0	011.0	002.6394	0263.0	064.3	50.32**	53.24
221.0	050.0000	0183.2	065.0	010.2	002.7371	0262.4	064.8	50.26**	53.33
222.0	050.0000	0183.2	065.0	009.3	002.8528	0261.8	065.4	50.22**	53.49
223.0	050.0000	0183.3	065.0	008.5	002.9724	0261.3	066.0	50.16**	53.63
224.0	050.0000	0183.4	065.0	007.7	003.0906	0260.7	066.7	50.08**	53.70
225.0	050.0000	0183.5	065.0	006.9	003.2073	0260.2	067.4	49.98**	53.71
226.0	050.0000	0183.6	065.0	006.2	003.3220	0259.7	068.1	49.87**	53.67
227.0	050.0000	0183.8	065.0	005.5	003.4347	0259.2	068.8	49.75**	53.57
228.0	050.0000	0183.9	065.0	004.8	003.5449	0258.7	069.6	49.60**	53.41
229.0	050.0000	0184.1	065.0	004.1	003.6526	0258.3	070.4	49.45**	53.20
230.0	050.0000	0184.2	065.0	003.5	003.7577	0257.9	071.2	49.28**	52.94
231.0	050.0000	0184.3	065.0	002.9	003.8598	0257.4	072.0	49.10**	52.63
232.0	050.0000	0184.5	065.0	002.3	003.9591	0257.1	072.9	48.91**	52.27
233.0	050.0000	0184.6	065.0	001.7	004.0551	0256.7	073.8	48.71**	51.86
234.0	050.0000	0184.8	065.0	001.2	004.1479	0256.3	074.6	48.49**	51.41
235.0	050.0000	0184.9	065.0	000.7	004.2374	0256.0	075.6	48.27**	50.92
236.0	050.0000	0185.1	065.0	000.2	004.3236	0255.6	076.5	48.04**	50.39
237.0	050.0000	0185.2	065.0	359.7	004.3866	0255.8	077.4	47.79**	49.78
238.0	050.0000	0185.4	065.0	359.3	004.4344	0256.3	078.4	47.54**	49.11
239.0	050.0000	0185.5	065.0	358.9	004.4799	0256.8	079.4	47.28**	48.41
240.0	050.0000	0185.6	065.0	358.5	004.5232	0257.2	080.4	47.01**	47.68
241.0	050.0000	0185.8	065.0	358.1	004.5643	0257.7	081.4	46.74**	46.93
242.0	050.0000	0185.9	065.0	357.7	004.6032	0258.1	082.4	46.46**	46.14
243.0	050.0000	0186.1	065.0	357.4	004.6399	0258.4	083.4	46.17**	45.33
244.0	050.0000	0186.2	065.0	357.1	004.6746	0258.8	084.5	45.88**	44.50
245.0	050.0000	0186.4	065.0	356.8	004.7072	0259.1	085.5	45.59**	43.64
246.0	050.0000	0186.5	065.0	356.5	004.7377	0259.4	086.6	45.29**	42.76
247.0	050.0000	0186.7	065.0	356.3	004.7662	0259.7	087.6	44.98**	41.85
248.0	050.0000	0186.8	065.0	356.0	004.7928	0260.0	088.7	44.67**	40.93
249.0	050.0000	0187.0	065.0	355.8	004.8174	0260.2	089.8	44.36**	39.98
250.0	050.0000	0187.1	065.0	355.6	004.8402	0260.5	090.9	44.04**	39.02
251.0	050.0000	0187.2	065.0	355.4	004.8611	0260.7	092.0	43.72**	38.04
252.0	050.0000	0187.4	065.0	355.3	004.8803	0260.9	093.1	43.40**	37.05
253.0	050.0000	0187.5	065.0	355.1	004.8977	0261.0	094.2	43.08**	36.04
254.0	050.0000	0187.7	065.0	355.0	004.9134	0261.2	095.3	42.75**	35.01
255.0	050.0000	0187.8	065.0	354.9	004.9275	0261.3	096.4	42.42**	33.97
256.0	050.0000	0188.0	065.0	354.8	004.9400	0261.5	097.5	42.09**	32.92
257.0	050.0000	0188.1	065.0	354.7	004.9509	0261.6	098.7	41.75**	31.86
258.0	050.0000	0188.3	065.0	354.6	004.9603	0261.7	099.8	41.42**	30.78
259.0	050.0000	0188.4	065.0	354.5	004.9682	0261.7	100.9	41.08**	29.70
260.0	050.0000	0188.5	065.0	354.5	004.9747	0261.8	102.0	40.75**	28.60
261.0	050.0000	0188.7	065.0	354.4	004.9798	0261.8	103.2	40.42**	27.50
262.0	050.0000	0188.8	065.0	354.4	004.9836	0261.9	104.3	40.09**	26.38
263.0	050.0000	0189.0	065.0	354.4	004.9860	0261.9	105.4	39.76**	25.26
264.0	050.0000	0189.1	065.0	354.3	004.9872	0261.9	106.6	39.44**	24.13
265.0	050.0000	0189.3	065.0	354.3	004.9872	0261.9	107.7	39.13**	23.00
266.0	050.0000	0189.4	065.0	354.4	004.9860	0261.9	108.8	38.82**	21.86
267.0	050.0000	0189.6	065.0	354.4	004.9836	0261.9	110.0	38.52**	20.71
268.0	050.0000	0189.7	065.0	354.4	004.9801	0261.8	111.1	38.22**	19.56
269.0	050.0000	0189.9	065.0	354.4	004.9755	0261.8	112.2	37.94**	18.40
270.0	050.0000	0190.0	065.0	354.5	004.9700	0261.7	113.4	37.66**	17.24
271.0	050.0000	0187.9	065.0	354.5	004.9633	0261.7	114.5	37.39**	16.08
272.0	050.0000	0185.7	065.0	354.6	004.9558	0261.6	115.6	37.12**	14.91
273.0	050.0000	0183.6	065.0	354.7	004.9473	0261.5	116.8	36.86**	13.74
274.0	050.0000	0181.5	065.0	354.8	004.9378	0261.4	117.9	36.60**	12.56
275.0	050.0000	0179.3	065.0	354.9	004.9275	0261.3	119.0	36.34**	11.39
276.0	050.0000	0177.2	065.0	355.0	004.9164	0261.2	120.1	36.09**	10.21
277.0	050.0000	0175.0	065.0	355.1	004.9044	0261.1	121.2	35.84**	9.03
278.0	050.0000	0172.9	065.0	355.2	004.8917	0261.0	122.3	35.59**	7.85
279.0	050.0000	0170.8	065.0	355.3	004.8782	0260.8	123.4	35.35**	6.68
280.0	050.0000	0168.6	065.0	355.4	004.8639	0260.7	124.5	35.10**	5.50
281.0	050.0000	0166.5	065.0	355.6	004.8489	0260.5	125.6	34.86**	4.32
282.0	050.0000	0164.4	065.0	355.7	004.8333	0260.4	126.7	34.63**	3.14
283.0	050.0000	0162.2	065.0	355.8	004.8170	0260.2	127.8	34.39**	1.96

Figure 2-7

284.0	050.0000	0160.1	065.0	356.0	004.8001	0260.1	128.9	34.16**	0.78
285.0	050.0000	0158.0	065.0	356.1	004.7825	0259.9	130.0	33.92	
286.0	050.0000	0155.8	065.0	356.3	004.7644	0259.7	131.0	33.69	
287.0	050.0000	0153.7	065.0	356.5	004.7457	0259.5	132.1	33.45	
288.0	050.0000	0151.6	065.0	356.6	004.7264	0259.3	133.2	33.22	
289.0	050.0000	0149.4	065.0	356.8	004.7067	0259.1	134.2	32.98	
290.0	050.0000	0147.3	065.0	357.0	004.6864	0258.9	135.3	32.75	
291.0	050.0000	0145.1	065.0	357.2	004.6656	0258.7	136.3	32.52	
292.0	050.0000	0143.0	065.0	357.4	004.6444	0258.5	137.3	32.29	
293.0	050.0000	0140.9	065.0	357.6	004.6227	0258.3	138.4	32.06	
294.0	050.0000	0138.7	065.0	357.8	004.6006	0258.0	139.4	31.84	
295.0	050.0000	0136.6	065.0	358.0	004.5781	0257.8	140.4	31.61	

Figure 3-2
Minor Amendment to Pending Application

FMCommander Single Allocation Study - 10-03-2011 - NED 30 Meter
WTCK.C's Overlaps (In= -9.42 km, Out= -2.89 km)

WTCK.C CH 215 A DA
Lat= 45 10 49.0, Lng= 85 05 50.0
1.1 kW 201 M HAAT, 428 M COR
Prot.= 60 dBu, Intef.= 34 dBu

AL4199 CH 215 B
Lat= 46 31 00.0, Lng= 84 20 00.0
50.0 kW 150 M HAAT, 384 M COR
Prot.= 54 dBu, Intef.= 40 dBu

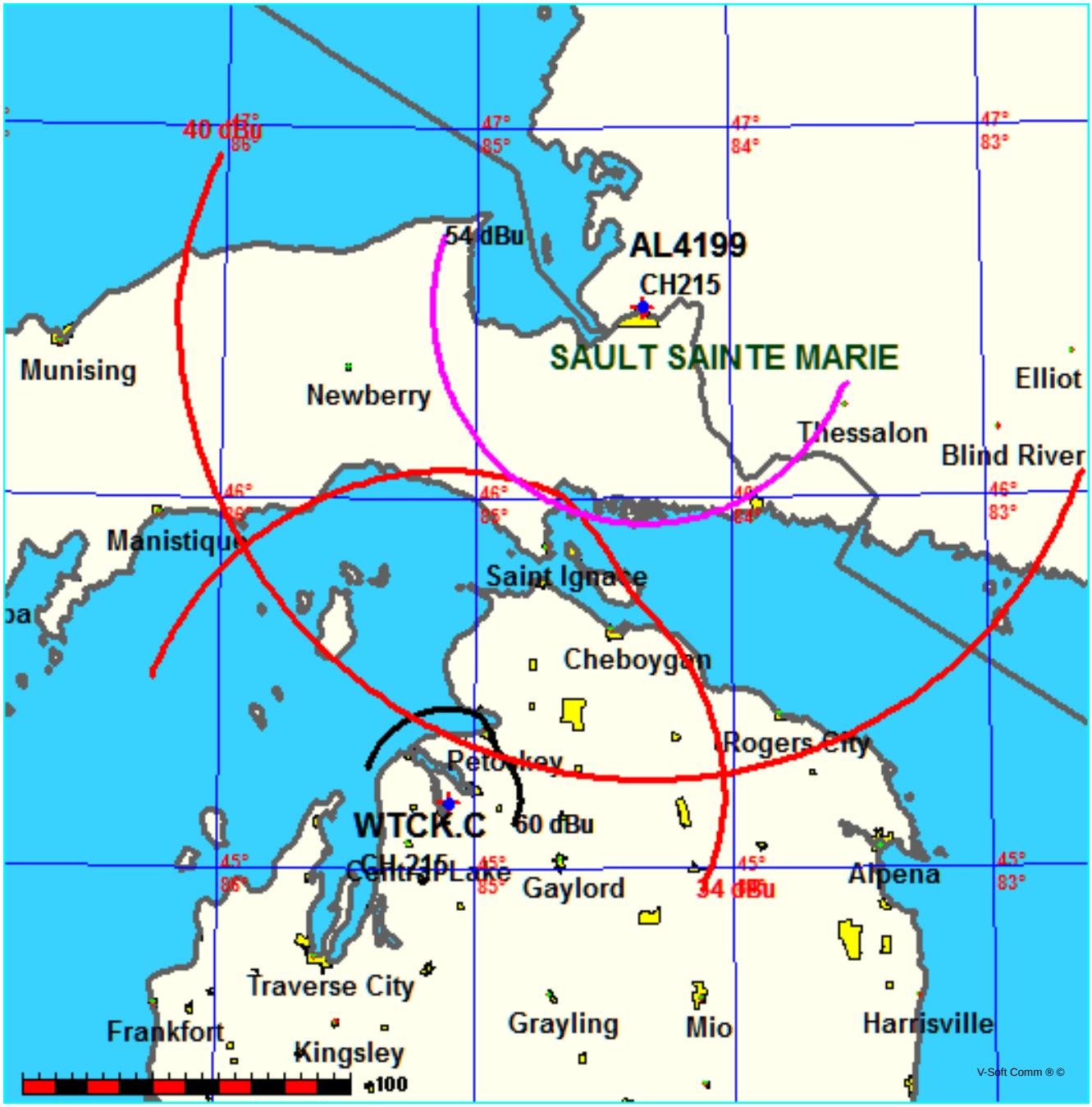


Figure 3-3

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

WTCK.C
Channel = 215A
Max ERP = 1.1 kW
RCAMSL = 428 M
N. Lat. 45 10 49.0
W. Lng. 85 05 50.0
Protected
60 dBu

AL4199
Channel = 215B
Max ERP = 50 kW
RCAMSL = 383.97 M
N. Lat. 46 31 00.0
W. Lng. 84 20 00.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
291.0	001.1000	0216.2	027.2	211.7	050.0000	0182.4	162.6	36.49	
292.0	001.1000	0216.4	027.3	211.7	050.0000	0182.4	162.1	36.57	
293.0	001.1000	0216.6	027.3	211.8	050.0000	0182.4	161.7	36.65	
294.0	001.1000	0216.9	027.3	211.8	050.0000	0182.4	161.2	36.74	
295.0	001.1000	0217.1	027.3	211.8	050.0000	0182.4	160.7	36.82	
296.0	001.1000	0217.3	027.3	211.8	050.0000	0182.4	160.2	36.90	
297.0	001.1000	0217.5	027.3	211.9	050.0000	0182.4	159.8	36.99	
298.0	001.1000	0217.8	027.3	211.9	050.0000	0182.4	159.3	37.07	
299.0	001.1000	0218.0	027.4	211.9	050.0000	0182.4	158.8	37.15	
300.0	001.1000	0218.2	027.4	211.9	050.0000	0182.4	158.3	37.23	
301.0	001.1000	0218.5	027.4	211.9	050.0000	0182.4	157.9	37.31	
302.0	001.1000	0218.7	027.4	211.9	050.0000	0182.4	157.4	37.39	
303.0	001.1000	0218.9	027.4	211.9	050.0000	0182.4	156.9	37.47	
304.0	001.1000	0219.2	027.4	211.9	050.0000	0182.4	156.4	37.55	
305.0	001.1000	0219.4	027.4	211.9	050.0000	0182.4	155.9	37.62	
306.0	001.1000	0219.6	027.5	211.9	050.0000	0182.4	155.5	37.70	
307.0	001.1000	0219.8	027.5	211.9	050.0000	0182.4	155.0	37.78	
308.0	001.1000	0220.1	027.5	211.9	050.0000	0182.4	154.5	37.86	
309.0	001.1000	0220.3	027.5	211.9	050.0000	0182.4	154.0	37.93	
310.0	001.1000	0220.5	027.5	211.8	050.0000	0182.4	153.5	38.01	
311.0	001.1000	0220.8	027.5	211.8	050.0000	0182.4	153.1	38.09	
312.0	001.1000	0221.0	027.5	211.8	050.0000	0182.4	152.6	38.16	
313.0	001.1000	0221.2	027.6	211.7	050.0000	0182.4	152.1	38.24	
314.0	001.1000	0221.5	027.6	211.7	050.0000	0182.4	151.6	38.32	
315.0	001.1000	0221.7	027.6	211.7	050.0000	0182.4	151.2	38.39	
316.0	001.1000	0221.9	027.6	211.6	050.0000	0182.4	150.7	38.47	
317.0	001.1000	0222.1	027.6	211.6	050.0000	0182.4	150.2	38.55	
318.0	001.1000	0222.3	027.6	211.5	050.0000	0182.4	149.8	38.62	
319.0	001.1000	0222.5	027.6	211.5	050.0000	0182.4	149.3	38.70	
320.0	001.1000	0222.7	027.6	211.4	050.0000	0182.4	148.8	38.78	
321.0	001.1000	0222.9	027.7	211.4	050.0000	0182.4	148.4	38.86	
322.0	001.1000	0223.1	027.7	211.3	050.0000	0182.4	147.9	38.93	
323.0	001.1000	0223.3	027.7	211.2	050.0000	0182.4	147.5	39.01	
324.0	001.1000	0223.6	027.7	211.2	050.0000	0182.4	147.0	39.09	
325.0	001.1000	0223.8	027.7	211.1	050.0000	0182.4	146.6	39.17	
326.0	001.1000	0224.0	027.7	211.0	050.0000	0182.4	146.1	39.25	
327.0	001.1000	0224.2	027.7	210.9	050.0000	0182.4	145.7	39.33	
328.0	001.1000	0224.4	027.7	210.9	050.0000	0182.4	145.2	39.41	
329.0	001.1000	0224.6	027.8	210.8	050.0000	0182.4	144.8	39.48	
330.0	001.1000	0224.8	027.8	210.7	050.0000	0182.3	144.4	39.56	
331.0	001.1000	0225.0	027.8	210.6	050.0000	0182.3	143.9	39.64	
332.0	001.1000	0225.2	027.8	210.5	050.0000	0182.3	143.5	39.72	
333.0	001.1000	0225.4	027.8	210.4	050.0000	0182.3	143.1	39.80	
334.0	001.1000	0225.6	027.8	210.3	050.0000	0182.3	142.7	39.88	
335.0	001.1000	0225.8	027.8	210.2	050.0000	0182.3	142.3	39.95	
336.0	001.1000	0226.1	027.8	210.1	050.0000	0182.3	141.9	40.03**	0.15
337.0	001.1000	0226.3	027.9	209.9	050.0000	0182.3	141.5	40.10**	0.55
338.0	001.1000	0226.5	027.9	209.8	050.0000	0182.3	141.1	40.18**	0.94

Figure 3-3

339.0	001.1000	0226.7	027.9	209.7	050.0000	0182.3	140.7	40.25**	1.33
340.0	001.1000	0226.9	027.9	209.6	050.0000	0182.3	140.3	40.32**	1.71
341.0	001.1000	0227.1	027.9	209.4	050.0000	0182.3	139.9	40.40**	2.08
342.0	001.1000	0227.3	027.9	209.3	050.0000	0182.2	139.6	40.47**	2.45
343.0	001.1000	0227.5	027.9	209.2	050.0000	0182.2	139.2	40.54**	2.81
344.0	001.1000	0227.7	028.0	209.0	050.0000	0182.2	138.9	40.60**	3.16
345.0	001.1000	0227.9	028.0	208.9	050.0000	0182.2	138.5	40.67**	3.51
346.0	001.1000	0228.1	028.0	208.8	050.0000	0182.2	138.2	40.74**	3.85
347.0	001.1000	0228.3	028.0	208.6	050.0000	0182.2	137.8	40.80**	4.19
348.0	001.1000	0228.6	028.0	208.4	050.0000	0182.2	137.5	40.87**	4.52
349.0	001.1000	0228.8	028.0	208.3	050.0000	0182.2	137.2	40.93**	4.84
350.0	001.1000	0229.0	028.0	208.1	050.0000	0182.1	136.9	40.99**	5.15
351.0	001.1000	0229.2	028.0	208.0	050.0000	0182.1	136.6	41.05**	5.45
352.0	001.1000	0229.4	028.1	207.8	050.0000	0182.1	136.3	41.11**	5.75
353.0	001.1000	0229.6	028.1	207.6	050.0000	0182.1	136.0	41.16**	6.04
354.0	001.1000	0229.8	028.1	207.5	050.0000	0182.1	135.7	41.22**	6.32
355.0	001.1000	0230.0	028.1	207.3	050.0000	0182.1	135.4	41.27**	6.60
356.0	001.1000	0230.2	028.1	207.1	050.0000	0182.1	135.1	41.32**	6.86
357.0	001.1000	0230.4	028.1	206.9	050.0000	0182.1	134.9	41.37**	7.12
358.0	001.1000	0230.6	028.1	206.8	050.0000	0182.0	134.6	41.42**	7.37
359.0	001.1000	0230.8	028.1	206.6	050.0000	0182.0	134.4	41.47**	7.61
000.0	001.1000	0231.1	028.2	206.4	050.0000	0182.0	134.2	41.51**	7.84
001.0	001.1000	0230.4	028.1	206.2	050.0000	0182.0	134.0	41.55**	8.01
002.0	001.1000	0229.7	028.1	206.0	050.0000	0182.0	133.8	41.58**	8.17
003.0	001.1000	0229.0	028.0	205.8	050.0000	0182.0	133.7	41.61**	8.33
004.0	001.1000	0228.3	028.0	205.6	050.0000	0181.9	133.5	41.64**	8.47
005.0	001.1000	0227.7	027.9	205.4	050.0000	0181.9	133.4	41.66**	8.60
006.0	001.1000	0227.0	027.9	205.2	050.0000	0181.9	133.3	41.69**	8.72
007.0	001.1000	0226.3	027.9	205.0	050.0000	0181.9	133.1	41.71**	8.84
008.0	001.1000	0225.6	027.8	204.8	050.0000	0181.9	133.0	41.73**	8.94
009.0	001.1000	0224.9	027.8	204.6	050.0000	0181.9	132.9	41.75**	9.03
010.0	001.1000	0224.3	027.7	204.3	050.0000	0181.9	132.9	41.76**	9.11
011.0	001.1000	0223.6	027.7	204.1	050.0000	0181.8	132.8	41.78**	9.18
012.0	001.1000	0222.9	027.7	203.9	050.0000	0181.8	132.7	41.79**	9.24
013.0	001.1000	0222.2	027.6	203.7	050.0000	0181.8	132.7	41.80**	9.29
014.0	001.1000	0221.5	027.6	203.5	050.0000	0181.8	132.6	41.80**	9.33
015.0	001.1000	0220.9	027.5	203.3	050.0000	0181.8	132.6	41.81**	9.36
016.0	001.1000	0220.2	027.5	203.1	050.0000	0181.8	132.6	41.81**	9.38
017.0	001.1000	0219.5	027.4	202.9	050.0000	0181.7	132.6	41.82**	9.38
018.0	001.1000	0218.8	027.4	202.7	050.0000	0181.7	132.6	41.82**	9.38
019.0	001.1000	0218.1	027.4	202.5	050.0000	0181.7	132.6	41.81**	9.37
020.0	001.1000	0217.5	027.3	202.3	050.0000	0181.7	132.6	41.81**	9.35
021.0	001.0554	0216.8	027.0	202.0	050.0000	0181.7	132.9	41.75**	9.06
022.0	001.0116	0216.1	026.7	201.8	050.0000	0181.7	133.2	41.69**	8.76
023.0	000.9689	0215.4	026.4	201.6	050.0000	0181.6	133.5	41.63**	8.45
024.0	000.9270	0214.7	026.1	201.5	050.0000	0181.6	133.8	41.57**	8.12
025.0	000.8861	0214.1	025.8	201.3	050.0000	0181.6	134.2	41.50**	7.79
026.0	000.8460	0213.4	025.5	201.1	050.0000	0181.6	134.5	41.44**	7.44
027.0	000.8070	0212.7	025.2	200.9	050.0000	0181.6	134.8	41.37**	7.09
028.0	000.7688	0212.0	024.9	200.7	050.0000	0181.6	135.2	41.30**	6.72
029.0	000.7315	0211.3	024.6	200.6	050.0000	0181.6	135.6	41.22**	6.35
030.0	000.6952	0210.7	024.2	200.4	050.0000	0181.5	136.0	41.15**	5.96
031.0	000.6672	0210.0	024.0	200.3	050.0000	0181.5	136.3	41.08**	5.62
032.0	000.6397	0209.3	023.7	200.1	050.0000	0181.5	136.7	41.01**	5.28
033.0	000.6128	0208.6	023.4	200.0	050.0000	0181.5	137.0	40.95**	4.92
034.0	000.5865	0207.9	023.2	199.8	050.0000	0181.5	137.4	40.88**	4.56
035.0	000.5608	0207.3	022.9	199.7	050.0000	0181.5	137.7	40.80**	4.19
036.0	000.5356	0206.6	022.6	199.6	050.0000	0181.5	138.1	40.73**	3.82
037.0	000.5110	0205.9	022.3	199.5	050.0000	0181.5	138.5	40.66**	3.43
038.0	000.4870	0205.2	022.1	199.4	050.0000	0181.5	138.9	40.58**	3.04
039.0	000.4636	0204.5	021.8	199.2	050.0000	0181.5	139.3	40.50**	2.64
040.0	000.4408	0203.9	021.5	199.1	050.0000	0181.4	139.7	40.43**	2.24
041.0	000.4408	0203.2	021.4	199.0	050.0000	0181.4	139.9	40.39**	2.06
042.0	000.4408	0202.5	021.4	198.9	050.0000	0181.4	140.0	40.36**	1.89

Figure 3-3

043.0	000.4408	0201.8	021.4	198.7	050.0000	0181.4	140.2	40.32**	1.70
044.0	000.4408	0201.1	021.3	198.6	050.0000	0181.4	140.4	40.29**	1.52
045.0	000.4408	0200.5	021.3	198.5	050.0000	0181.4	140.6	40.25**	1.32
046.0	000.4408	0200.5	021.3	198.3	050.0000	0181.4	140.8	40.22**	1.15
047.0	000.4408	0200.5	021.3	198.2	050.0000	0181.4	140.9	40.18**	0.97
048.0	000.4408	0200.5	021.3	198.1	050.0000	0181.4	141.1	40.15**	0.79
049.0	000.4408	0200.5	021.3	197.9	050.0000	0181.3	141.3	40.11**	0.59
050.0	000.4408	0200.5	021.3	197.8	050.0000	0181.3	141.5	40.08**	0.40
051.0	000.4408	0200.5	021.3	197.7	050.0000	0181.3	141.7	40.04**	0.19
052.0	000.4408	0200.5	021.3	197.6	050.0000	0181.3	141.9	40.00	
053.0	000.4408	0200.5	021.3	197.4	050.0000	0181.3	142.1	39.96	
054.0	000.4408	0200.5	021.3	197.3	050.0000	0181.3	142.4	39.91	
055.0	000.4408	0200.5	021.3	197.2	050.0000	0181.3	142.6	39.87	
056.0	000.4408	0200.5	021.3	197.1	050.0000	0181.3	142.8	39.83	
057.0	000.4408	0200.5	021.3	197.0	050.0000	0181.3	143.1	39.78	
058.0	000.4408	0200.5	021.3	196.9	050.0000	0181.3	143.3	39.74	
059.0	000.4408	0200.5	021.3	196.7	050.0000	0181.3	143.5	39.69	
060.0	000.4408	0200.5	021.3	196.6	050.0000	0181.2	143.8	39.64	
061.0	000.4408	0200.5	021.3	196.5	050.0000	0181.2	144.1	39.59	
062.0	000.4408	0200.5	021.3	196.4	050.0000	0181.2	144.3	39.55	
063.0	000.4408	0200.5	021.3	196.3	050.0000	0181.2	144.6	39.50	
064.0	000.4408	0200.5	021.3	196.2	050.0000	0181.2	144.9	39.44	
065.0	000.4408	0200.5	021.3	196.1	050.0000	0181.2	145.1	39.39	
066.0	000.4408	0200.5	021.3	196.0	050.0000	0181.2	145.4	39.34	
067.0	000.4408	0200.5	021.3	195.9	050.0000	0181.2	145.7	39.29	
068.0	000.4408	0200.5	021.3	195.8	050.0000	0181.2	146.0	39.24	
069.0	000.4408	0200.5	021.3	195.8	050.0000	0181.2	146.3	39.18	
070.0	000.4408	0200.5	021.3	195.7	050.0000	0181.2	146.6	39.13	
071.0	000.4408	0200.5	021.3	195.6	050.0000	0181.2	146.9	39.08	
072.0	000.4408	0200.5	021.3	195.5	050.0000	0181.2	147.2	39.02	
073.0	000.4408	0200.6	021.3	195.4	050.0000	0181.2	147.5	38.97	
074.0	000.4408	0200.6	021.3	195.4	050.0000	0181.1	147.8	38.91	
075.0	000.4408	0200.6	021.3	195.3	050.0000	0181.1	148.2	38.86	
076.0	000.4408	0200.6	021.3	195.2	050.0000	0181.1	148.5	38.81	
077.0	000.4408	0200.6	021.3	195.1	050.0000	0181.1	148.8	38.75	
078.0	000.4408	0200.6	021.3	195.1	050.0000	0181.1	149.1	38.69	
079.0	000.4408	0200.6	021.3	195.0	050.0000	0181.1	149.5	38.64	
080.0	000.4408	0200.6	021.3	195.0	050.0000	0181.1	149.8	38.58	
081.0	000.4408	0200.6	021.3	194.9	050.0000	0181.1	150.2	38.53	
082.0	000.4408	0200.6	021.3	194.8	050.0000	0181.1	150.5	38.47	
083.0	000.4408	0200.6	021.3	194.8	050.0000	0181.1	150.8	38.42	
084.0	000.4408	0200.6	021.3	194.7	050.0000	0181.1	151.2	38.36	
085.0	000.4408	0200.6	021.3	194.7	050.0000	0181.1	151.5	38.30	
086.0	000.4408	0200.6	021.3	194.6	050.0000	0181.1	151.9	38.24	
087.0	000.4408	0200.6	021.3	194.6	050.0000	0181.1	152.2	38.19	
088.0	000.4408	0200.6	021.3	194.6	050.0000	0181.1	152.6	38.13	
089.0	000.4408	0200.6	021.3	194.5	050.0000	0181.1	153.0	38.07	
090.0	000.4408	0200.6	021.3	194.5	050.0000	0181.1	153.3	38.01	
091.0	000.4408	0199.6	021.3	194.5	050.0000	0181.1	153.7	37.95	
092.0	000.4408	0198.6	021.2	194.5	050.0000	0181.1	154.1	37.89	
093.0	000.4408	0197.6	021.2	194.5	050.0000	0181.1	154.4	37.84	
094.0	000.4408	0196.6	021.1	194.4	050.0000	0181.1	154.8	37.78	
095.0	000.4408	0195.6	021.1	194.4	050.0000	0181.1	155.2	37.72	
096.0	000.4408	0194.5	021.0	194.4	050.0000	0181.1	155.6	37.66	
097.0	000.4408	0193.5	021.0	194.4	050.0000	0181.1	155.9	37.60	
098.0	000.4408	0192.5	020.9	194.4	050.0000	0181.1	156.3	37.54	
099.0	000.4408	0191.5	020.9	194.4	050.0000	0181.1	156.7	37.48	
100.0	000.4408	0190.5	020.8	194.5	050.0000	0181.1	157.0	37.41	
101.0	000.4408	0189.5	020.8	194.5	050.0000	0181.1	157.4	37.35	
102.0	000.4408	0188.5	020.7	194.5	050.0000	0181.1	157.8	37.29	
103.0	000.4408	0187.5	020.7	194.5	050.0000	0181.1	158.1	37.23	
104.0	000.4408	0186.5	020.6	194.5	050.0000	0181.1	158.5	37.17	
105.0	000.4408	0185.4	020.6	194.5	050.0000	0181.1	158.8	37.11	
106.0	000.4408	0184.4	020.5	194.6	050.0000	0181.1	159.2	37.05	

Figure 3-3

107.0	000.4408	0183.4	020.5	194.6	050.0000	0181.1	159.6	36.99
108.0	000.4408	0182.4	020.4	194.6	050.0000	0181.1	159.9	36.93
109.0	000.4408	0181.4	020.4	194.6	050.0000	0181.1	160.3	36.87
110.0	000.4408	0180.4	020.3	194.7	050.0000	0181.1	160.6	36.81

10-03-2011 Terrain Data: NED 30 Meter FMOver Analysis

AL4199

Channel = 215B
Max ERP = 50 kW
RCAMSL = 383.97 M
N. Lat. 46 31 00.0
W. Lng. 84 20 00.0
Protected
54 dBu

WTCK.C

Channel = 215A
Max ERP = 1.1 kW
RCAMSL = 428 M
N. Lat. 45 10 49.0
W. Lng. 85 05 50.0
Interfering
34 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
112.0	050.0000	0180.9	065.0	043.3	000.4408	0201.6	172.6	14.57	
113.0	050.0000	0181.2	065.0	043.5	000.4408	0201.5	171.4	14.77	
114.0	050.0000	0181.6	065.0	043.6	000.4408	0201.4	170.4	14.96	
115.0	050.0000	0181.9	065.0	043.7	000.4408	0201.3	169.3	15.15	
116.0	050.0000	0182.3	065.0	043.8	000.4408	0201.2	168.3	15.33	
117.0	050.0000	0182.6	065.0	044.0	000.4408	0201.2	167.2	15.52	
118.0	050.0000	0183.0	065.0	044.1	000.4408	0201.1	166.1	15.71	
119.0	050.0000	0183.3	065.0	044.2	000.4408	0201.0	165.0	15.90	
120.0	050.0000	0183.7	065.0	044.3	000.4408	0200.9	163.9	16.09	
121.0	050.0000	0184.0	065.0	044.4	000.4408	0200.9	162.8	16.28	
122.0	050.0000	0184.4	065.0	044.5	000.4408	0200.8	161.7	16.48	
123.0	050.0000	0184.7	065.0	044.6	000.4408	0200.7	160.6	16.67	
124.0	050.0000	0185.1	065.0	044.7	000.4408	0200.7	159.5	16.86	
125.0	050.0000	0185.4	065.0	044.8	000.4408	0200.6	158.4	17.05	
126.0	050.0000	0185.7	065.0	044.9	000.4408	0200.6	157.3	17.24	
127.0	050.0000	0186.1	065.0	044.9	000.4408	0200.5	156.2	17.43	
128.0	050.0000	0186.4	065.0	045.0	000.4408	0200.5	155.1	17.61	
129.0	050.0000	0186.8	065.0	045.0	000.4408	0200.5	153.9	17.80	
130.0	050.0000	0187.1	065.0	045.1	000.4408	0200.5	152.8	17.99	
131.0	050.0000	0187.5	065.0	045.1	000.4408	0200.5	151.7	18.18	
132.0	050.0000	0187.8	065.0	045.2	000.4408	0200.5	150.5	18.37	
133.0	050.0000	0188.2	065.0	045.2	000.4408	0200.5	149.4	18.56	
134.0	050.0000	0188.5	065.0	045.2	000.4408	0200.5	148.3	18.75	
135.0	050.0000	0188.9	065.0	045.2	000.4408	0200.5	147.2	18.95	
136.0	050.0000	0188.7	065.0	045.2	000.4408	0200.5	146.0	19.15	
137.0	050.0000	0188.5	065.0	045.2	000.4408	0200.5	144.9	19.36	
138.0	050.0000	0188.3	065.0	045.2	000.4408	0200.5	143.8	19.56	
139.0	050.0000	0188.1	065.0	045.2	000.4408	0200.5	142.6	19.78	
140.0	050.0000	0187.9	065.0	045.2	000.4408	0200.5	141.5	19.99	
141.0	050.0000	0187.7	065.0	045.2	000.4408	0200.5	140.4	20.20	
142.0	050.0000	0187.5	065.0	045.1	000.4408	0200.5	139.2	20.41	
143.0	050.0000	0187.3	065.0	045.1	000.4408	0200.5	138.1	20.63	
144.0	050.0000	0187.1	065.0	045.0	000.4408	0200.5	137.0	20.84	
145.0	050.0000	0186.9	065.0	044.9	000.4408	0200.5	135.9	21.06	
146.0	050.0000	0186.7	065.0	044.9	000.4408	0200.6	134.8	21.28	
147.0	050.0000	0186.5	065.0	044.8	000.4408	0200.6	133.7	21.49	
148.0	050.0000	0186.3	065.0	044.7	000.4408	0200.7	132.5	21.71	
149.0	050.0000	0186.1	065.0	044.6	000.4408	0200.8	131.4	21.93	
150.0	050.0000	0185.9	065.0	044.4	000.4408	0200.8	130.4	22.14	
151.0	050.0000	0185.7	065.0	044.3	000.4408	0200.9	129.3	22.36	

Figure 3-3

152.0	050.0000	0185.5	065.0	044.2	000.4408	0201.0	128.2	22.57	
153.0	050.0000	0185.3	065.0	044.0	000.4408	0201.1	127.1	22.78	
154.0	050.0000	0185.1	065.0	043.9	000.4408	0201.2	126.0	23.00	
155.0	050.0000	0184.9	065.0	043.7	000.4408	0201.4	125.0	23.21	
156.0	050.0000	0184.7	065.0	043.5	000.4408	0201.5	123.9	23.42	
157.0	050.0000	0184.5	065.0	043.3	000.4408	0201.6	122.9	23.63	
158.0	050.0000	0184.3	065.0	043.1	000.4408	0201.8	121.8	23.85	
159.0	050.0000	0184.1	065.0	042.9	000.4408	0201.9	120.8	24.06	
160.0	050.0000	0183.9	065.0	042.6	000.4408	0202.1	119.8	24.27	
161.0	050.0000	0183.7	065.0	042.4	000.4408	0202.2	118.8	24.48	
162.0	050.0000	0183.5	065.0	042.1	000.4408	0202.4	117.8	24.68	
163.0	050.0000	0183.3	065.0	041.9	000.4408	0202.6	116.8	24.89	
164.0	050.0000	0183.1	065.0	041.6	000.4408	0202.8	115.8	25.10	
165.0	050.0000	0182.9	065.0	041.3	000.4408	0203.0	114.9	25.30	
166.0	050.0000	0182.7	065.0	041.0	000.4408	0203.2	113.9	25.50	
167.0	050.0000	0182.5	065.0	040.6	000.4408	0203.4	113.0	25.70	
168.0	050.0000	0182.3	065.0	040.3	000.4408	0203.7	112.1	25.90	
169.0	050.0000	0182.1	065.0	040.0	000.4418	0203.9	111.2	26.12	
170.0	050.0000	0181.9	065.0	039.6	000.4501	0204.1	110.3	26.41	
171.0	050.0000	0181.7	065.0	039.2	000.4588	0204.4	109.5	26.70	
172.0	050.0000	0181.5	065.0	038.8	000.4679	0204.7	108.6	26.99	
173.0	050.0000	0181.3	065.0	038.4	000.4775	0204.9	107.8	27.29	
174.0	050.0000	0181.1	065.0	038.0	000.4874	0205.2	107.0	27.59	
175.0	050.0000	0180.9	065.0	037.5	000.4978	0205.5	106.2	27.89	
176.0	050.0000	0180.7	065.0	037.1	000.5086	0205.8	105.5	28.19	
177.0	050.0000	0180.5	065.0	036.6	000.5199	0206.2	104.7	28.49	
178.0	050.0000	0180.3	065.0	036.2	000.5316	0206.5	104.0	28.78	
179.0	050.0000	0180.1	065.0	035.7	000.5438	0206.8	103.3	29.08	
180.0	050.0000	0179.9	065.0	035.2	000.5565	0207.1	102.6	29.38	
181.0	050.0000	0180.0	065.0	034.7	000.5697	0207.5	102.0	29.67	
182.0	050.0000	0180.1	065.0	034.1	000.5833	0207.9	101.4	29.96	
183.0	050.0000	0180.2	065.0	033.6	000.5975	0208.2	100.8	30.24	
184.0	050.0000	0180.3	065.0	033.0	000.6121	0208.6	100.2	30.52	
185.0	050.0000	0180.3	065.0	032.5	000.6272	0209.0	099.7	30.80	
186.0	050.0000	0180.4	065.0	031.9	000.6428	0209.4	099.1	31.07	
187.0	050.0000	0180.5	065.0	031.3	000.6590	0209.8	098.7	31.33	
188.0	050.0000	0180.6	065.0	030.7	000.6756	0210.2	098.2	31.59	
189.0	050.0000	0180.6	065.0	030.1	000.6927	0210.6	097.8	31.84	
190.0	050.0000	0180.7	065.0	029.5	000.7143	0211.0	097.4	32.10	
191.0	050.0000	0180.8	065.0	028.8	000.7372	0211.4	097.0	32.36	
192.0	050.0000	0180.9	065.0	028.2	000.7609	0211.9	096.7	32.62	
193.0	050.0000	0181.0	065.0	027.6	000.7852	0212.3	096.4	32.86	
194.0	050.0000	0181.0	065.0	026.9	000.8101	0212.8	096.1	33.09	
195.0	050.0000	0181.1	065.0	026.3	000.8357	0213.2	095.8	33.32	
196.0	050.0000	0181.2	065.0	025.6	000.8619	0213.7	095.6	33.53	
197.0	050.0000	0181.3	065.0	024.9	000.8887	0214.1	095.4	33.73	
198.0	050.0000	0181.4	065.0	024.3	000.9161	0214.6	095.3	33.93	
199.0	050.0000	0181.4	065.0	023.6	000.9441	0215.0	095.2	34.11**	0.35
200.0	050.0000	0181.5	065.0	022.9	000.9725	0215.5	095.1	34.28**	0.91
201.0	050.0000	0181.6	065.0	022.2	001.0015	0215.9	095.1	34.43**	1.43
202.0	050.0000	0181.7	065.0	021.6	001.0309	0216.4	095.1	34.58**	1.92
203.0	050.0000	0181.7	065.0	020.9	001.0607	0216.9	095.1	34.71**	2.37
204.0	050.0000	0181.8	065.0	020.2	001.0909	0217.3	095.1	34.83**	2.77
205.0	050.0000	0181.9	065.0	019.5	001.1000	0217.8	095.2	34.86**	2.86
206.0	050.0000	0182.0	065.0	018.9	001.1000	0218.2	095.3	34.84**	2.79
207.0	050.0000	0182.1	065.0	018.2	001.1000	0218.7	095.5	34.81**	2.69
208.0	050.0000	0182.1	065.0	017.5	001.1000	0219.1	095.7	34.77**	2.56
209.0	050.0000	0182.2	065.0	016.9	001.1000	0219.6	095.9	34.72**	2.39
210.0	050.0000	0182.3	065.0	016.2	001.1000	0220.0	096.1	34.66**	2.19
211.0	050.0000	0182.4	065.0	015.6	001.1000	0220.5	096.4	34.59**	1.95
212.0	050.0000	0182.5	065.0	014.9	001.1000	0220.9	096.7	34.51**	1.69
213.0	050.0000	0182.5	065.0	014.3	001.1000	0221.4	097.1	34.42**	1.39
214.0	050.0000	0182.6	065.0	013.7	001.1000	0221.8	097.5	34.32**	1.06
215.0	050.0000	0182.7	065.0	013.0	001.1000	0222.2	097.9	34.21**	0.70

Figure 3-3

216.0	050.0000	0182.8	065.0	012.4	001.1000	0222.6	098.3	34.09**	0.31
217.0	050.0000	0182.8	065.0	011.8	001.1000	0223.0	098.8	33.97	
218.0	050.0000	0182.9	065.0	011.2	001.1000	0223.4	099.3	33.83	
219.0	050.0000	0183.0	065.0	010.7	001.1000	0223.8	099.8	33.69	
220.0	050.0000	0183.1	065.0	010.1	001.1000	0224.2	100.3	33.54	
221.0	050.0000	0183.2	065.0	009.5	001.1000	0224.6	100.9	33.39	
222.0	050.0000	0183.2	065.0	009.0	001.1000	0224.9	101.5	33.22	
223.0	050.0000	0183.3	065.0	008.5	001.1000	0225.3	102.1	33.06	
224.0	050.0000	0183.4	065.0	008.0	001.1000	0225.6	102.8	32.88	
225.0	050.0000	0183.5	065.0	007.5	001.1000	0226.0	103.5	32.70	
226.0	050.0000	0183.6	065.0	007.0	001.1000	0226.3	104.2	32.51	
227.0	050.0000	0183.8	065.0	006.5	001.1000	0226.6	104.9	32.32	
228.0	050.0000	0183.9	065.0	006.0	001.1000	0227.0	105.6	32.13	
229.0	050.0000	0184.1	065.0	005.6	001.1000	0227.3	106.4	31.93	
230.0	050.0000	0184.2	065.0	005.2	001.1000	0227.6	107.2	31.73	
231.0	050.0000	0184.3	065.0	004.7	001.1000	0227.8	108.0	31.53	
232.0	050.0000	0184.5	065.0	004.3	001.1000	0228.1	108.8	31.32	
233.0	050.0000	0184.6	065.0	003.9	001.1000	0228.4	109.7	31.12	
234.0	050.0000	0184.8	065.0	003.6	001.1000	0228.6	110.5	30.91	
235.0	050.0000	0184.9	065.0	003.2	001.1000	0228.9	111.4	30.71	
236.0	050.0000	0185.1	065.0	002.8	001.1000	0229.1	112.3	30.50	
237.0	050.0000	0185.2	065.0	002.5	001.1000	0229.4	113.2	30.30	
238.0	050.0000	0185.4	065.0	002.2	001.1000	0229.6	114.2	30.10	
239.0	050.0000	0185.5	065.0	001.9	001.1000	0229.8	115.1	29.89	
240.0	050.0000	0185.6	065.0	001.6	001.1000	0230.0	116.1	29.69	
241.0	050.0000	0185.8	065.0	001.3	001.1000	0230.2	117.0	29.48	
242.0	050.0000	0185.9	065.0	001.0	001.1000	0230.4	118.0	29.27	
243.0	050.0000	0186.1	065.0	000.7	001.1000	0230.5	119.0	29.07	
244.0	050.0000	0186.2	065.0	000.5	001.1000	0230.7	120.0	28.86	
245.0	050.0000	0186.4	065.0	000.3	001.1000	0230.9	121.1	28.65	
246.0	050.0000	0186.5	065.0	000.0	001.1000	0231.0	122.1	28.44	
247.0	050.0000	0186.7	065.0	359.8	001.1000	0231.0	123.1	28.23	
248.0	050.0000	0186.8	065.0	359.6	001.1000	0231.0	124.2	28.02	
249.0	050.0000	0187.0	065.0	359.4	001.1000	0230.9	125.2	27.81	
250.0	050.0000	0187.1	065.0	359.3	001.1000	0230.9	126.3	27.59	
251.0	050.0000	0187.2	065.0	359.1	001.1000	0230.9	127.4	27.38	
252.0	050.0000	0187.4	065.0	359.0	001.1000	0230.8	128.5	27.17	
253.0	050.0000	0187.5	065.0	358.8	001.1000	0230.8	129.6	26.96	
254.0	050.0000	0187.7	065.0	358.7	001.1000	0230.8	130.7	26.74	
255.0	050.0000	0187.8	065.0	358.6	001.1000	0230.8	131.8	26.53	
256.0	050.0000	0188.0	065.0	358.4	001.1000	0230.7	132.9	26.31	
257.0	050.0000	0188.1	065.0	358.3	001.1000	0230.7	134.0	26.09	
258.0	050.0000	0188.3	065.0	358.3	001.1000	0230.7	135.1	25.88	
259.0	050.0000	0188.4	065.0	358.2	001.1000	0230.7	136.2	25.66	
260.0	050.0000	0188.5	065.0	358.1	001.1000	0230.7	137.3	25.44	
261.0	050.0000	0188.7	065.0	358.0	001.1000	0230.6	138.5	25.22	
262.0	050.0000	0188.8	065.0	358.0	001.1000	0230.6	139.6	25.01	
263.0	050.0000	0189.0	065.0	357.9	001.1000	0230.6	140.7	24.79	
264.0	050.0000	0189.1	065.0	357.9	001.1000	0230.6	141.8	24.58	
265.0	050.0000	0189.3	065.0	357.9	001.1000	0230.6	143.0	24.37	
266.0	050.0000	0189.4	065.0	357.9	001.1000	0230.6	144.1	24.16	
267.0	050.0000	0189.6	065.0	357.8	001.1000	0230.6	145.2	23.95	
268.0	050.0000	0189.7	065.0	357.8	001.1000	0230.6	146.4	23.75	
269.0	050.0000	0189.9	065.0	357.8	001.1000	0230.6	147.5	23.54	
270.0	050.0000	0190.0	065.0	357.9	001.1000	0230.6	148.6	23.34	
271.0	050.0000	0187.9	065.0	357.9	001.1000	0230.6	149.8	23.14	
272.0	050.0000	0185.7	065.0	357.9	001.1000	0230.6	150.9	22.94	
273.0	050.0000	0183.6	065.0	357.9	001.1000	0230.6	152.0	22.74	
274.0	050.0000	0181.5	065.0	358.0	001.1000	0230.6	153.2	22.54	
275.0	050.0000	0179.3	065.0	358.0	001.1000	0230.6	154.3	22.34	
276.0	050.0000	0177.2	065.0	358.1	001.1000	0230.7	155.4	22.14	
277.0	050.0000	0175.0	065.0	358.1	001.1000	0230.7	156.5	21.94	
278.0	050.0000	0172.9	065.0	358.2	001.1000	0230.7	157.7	21.75	
279.0	050.0000	0170.8	065.0	358.3	001.1000	0230.7	158.8	21.55	

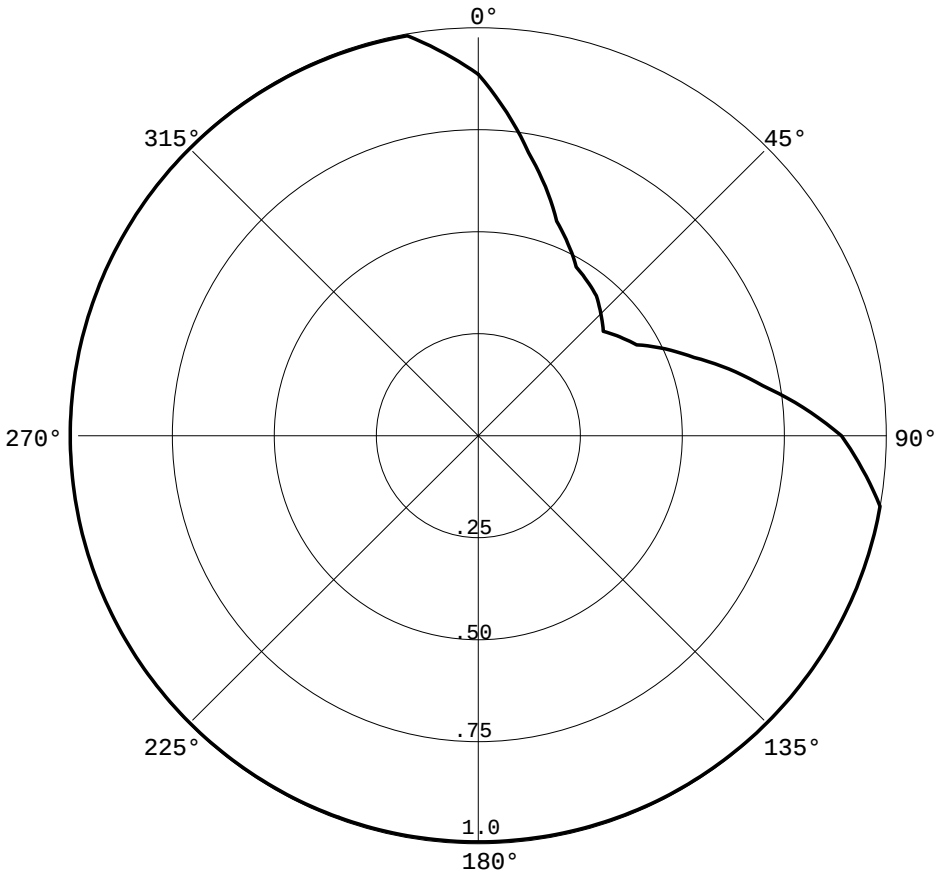
Figure 3-3

280.0	050.0000	0168.6	065.0	358.3	001.1000	0230.7	159.9	21.35	
281.0	050.0000	0166.5	065.0	358.4	001.1000	0230.7	161.0	21.16	
282.0	050.0000	0164.4	065.0	358.5	001.1000	0230.7	162.1	20.96	
283.0	050.0000	0162.2	065.0	358.6	001.1000	0230.8	163.2	20.77	
284.0	050.0000	0160.1	065.0	358.7	001.1000	0230.8	164.3	20.58	
285.0	050.0000	0158.0	065.0	358.8	001.1000	0230.8	165.4	20.39	
286.0	050.0000	0155.8	065.0	358.9	001.1000	0230.8	166.5	20.20	
287.0	050.0000	0153.7	065.0	359.0	001.1000	0230.9	167.6	20.02	
288.0	050.0000	0151.6	065.0	359.1	001.1000	0230.9	168.6	19.83	
289.0	050.0000	0149.4	065.0	359.3	001.1000	0230.9	169.7	19.65	
290.0	050.0000	0147.3	065.0	359.4	001.1000	0230.9	170.8	19.46	
291.0	050.0000	0145.1	065.0	359.5	001.1000	0231.0	171.8	19.28	

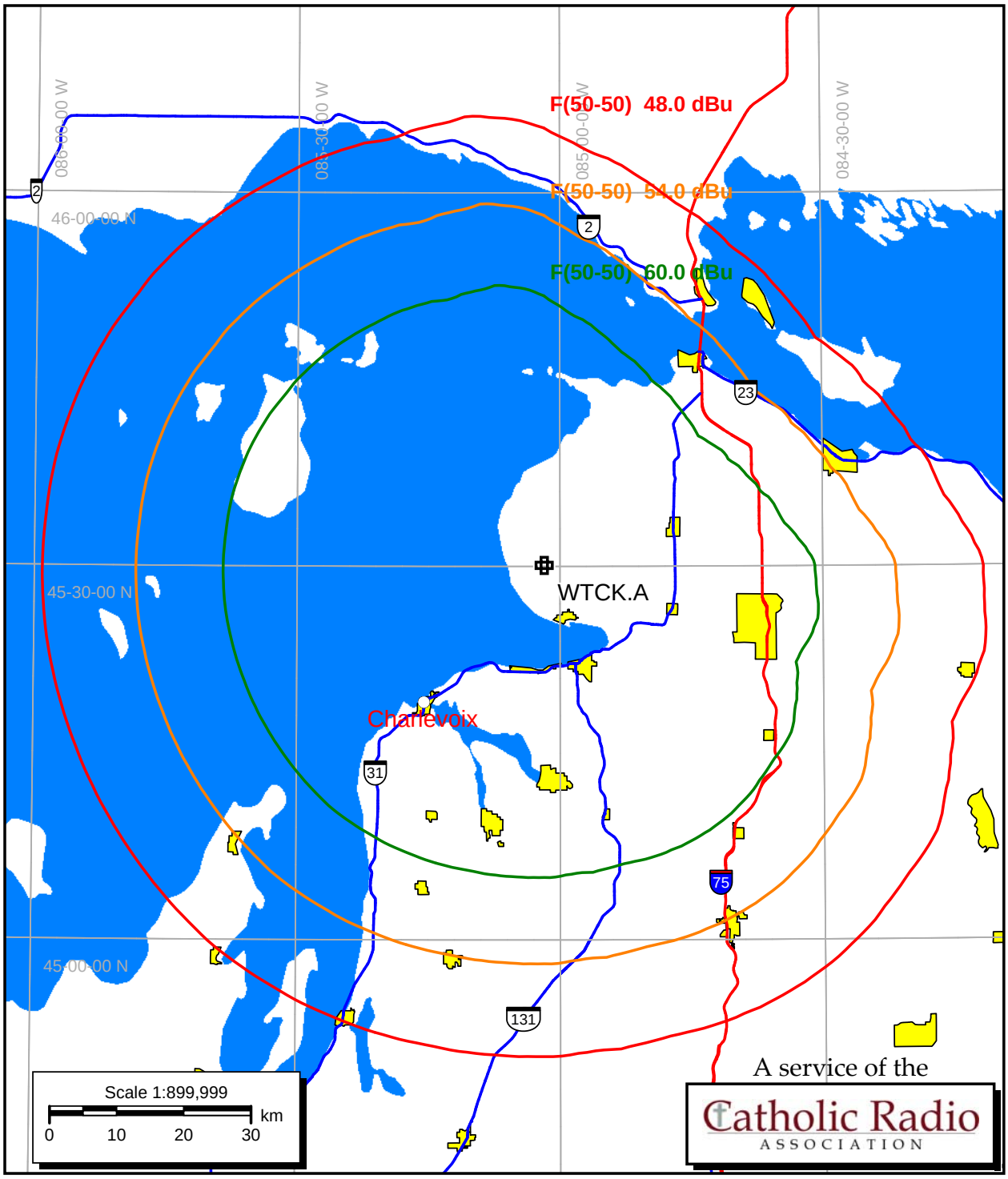
WTCK.A 10-03-2011 RMS(V)= .913

Azi	Field	dBk	kW
000	0.890	06.391	4.357
010	0.708	04.404	2.757
020	0.562	02.398	1.737
030	0.480	01.028	1.267
040	0.450	00.468	1.114
050	0.400	-00.555	0.880
060	0.448	00.429	1.104
070	0.563	02.414	1.743
080	0.708	04.404	2.757
090	0.890	06.391	4.357
100	1.000	07.404	5.500
110	1.000	07.404	5.500
120	1.000	07.404	5.500
130	1.000	07.404	5.500
140	1.000	07.404	5.500
150	1.000	07.404	5.500
160	1.000	07.404	5.500
170	1.000	07.404	5.500
180	1.000	07.404	5.500
190	1.000	07.404	5.500
200	1.000	07.404	5.500
210	1.000	07.404	5.500
220	1.000	07.404	5.500
230	1.000	07.404	5.500
240	1.000	07.404	5.500
250	1.000	07.404	5.500
260	1.000	07.404	5.500
270	1.000	07.404	5.500
280	1.000	07.404	5.500
290	1.000	07.404	5.500
300	1.000	07.404	5.500
310	1.000	07.404	5.500
320	1.000	07.404	5.500
330	1.000	07.404	5.500
340	1.000	07.404	5.500
350	1.000	07.404	5.500

Graph is Relative Field



Coverage Map



WTCK.A
Latitude: 45-30-05.20 N
Longitude: 085-01-48.70 W
ERP: 5.50 kW
Channel: 215
Frequency: 90.9 MHz
AMSL Height: 539.6 m
Horiz. Pattern: Directional