

Pensacola Christian College, Inc.
Move KPCS to WQPM Tower - Class C2

REFERENCE
45 33 10.0 N.
93 34 54.0 W.

CH# 209C2 - 89.7 MHz, Pwr= 40 kW, HAAT= 42.4 M, COR= 340.5 M
Average Protected F(50-50)= 29.3 km
Omni -directional

DISPLAY DATES
DATA 10-06-09
SEARCH 10-06-09

CH CITY	CALL	TYPE	ANT STATE	AZI ---	DI ST FILE #	LAT LNG	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
							HAAT(M)	COR(M)	LICENSEE	(Overlap	in km)
209C2 KPCS Princeton		CP MN	DVN	22.3 202.3	5.5 BPED19990518MB	45 35 54.0 93 33 18.0	50.000 32	110.3 334	27.8 Pensacola Christian College	-132.6*	-134.4*
209C2 KMSU Mankato		LIC MN	_CN	192.1 11.8	160.2 BLED19850812KH	44 08 34.0 94 00 08.0	20,000 122	117.5 414	44.5 Mankato State University	10.3	0.4
210C3 KMOJ Minneapolis		CP MN	DCX	147.5 327.8	64.6 BPED20080228ABA	45 03 44.0 93 08 21.0	1.400 273	21.6 548	14.4 Center For Communication &	13.9	0.5
209C2 KMSU Mankato		CP MN	_CX	192.1 11.8	160.3 BPED20070907AED	44 08 31.0 94 00 06.0	16,800 133	115.0 425	44.1 Mankato State University	12.8	1.0
211C1 KSJR-FM Collegeville		LIC MN	_CN	265.6 85.0	74.9 BMLED19880616KA	45 29 52.0 94 32 14.0	100,000 258	9.3 617	68.5 Minnesota Public Radio	32.5	2.8
210A KMOJ Minneapolis		LIC MN	_CN	160.0 340.2	67.3 BLED19841120LP	44 59 00.0 93 17 22.0	1,000 24	14.2 293	10.2 Center For Communication &	24.8	9.5
212C3 KMKL North Branch		LIC MN	DVX	91.1 271.5	47.5 BLED20090804AAA	45 32 36.0 92 58 24.0	15,000 121	1.7 393	19.6 Educational Media Foundation	13.9	24.5
208C2 NEW Franklin		CP MN	DCX	226.5 45.7	116.3 BNPED20071022BUX	44 49 43.0 94 38 57.0	23,000 138	55.8 468	37.0 The Love Station, Inc.	28.8	25.1
209C3 WUEC Eau Claire		LIC WI	_CN	116.1 297.6	186.2 BLED19960227KB	44 47 58.0 91 27 59.0	5,200 192	99.1 472	38.0 Board Of Regents, University	55.3	32.5
207C1 KCMP Northfield		LIC MN	_C	157.2 337.6	104.0 BLED20060308AIB	44 41 21.0 93 04 21.0	100,000 234	8.8 517	66.4 Minnesota Public Radio	67.3	34.7
262C1 KTLK-FM Minneapolis		LIC MN	_CY	146.8 327.1	65.6 BLH19930923KA	45 03 30.0 93 07 27.0	100,000 281	2.0 559	12.5 Amfm Broadcasting Licenses	26.5R	39.1M
212A KFAI Minneapolis		LIC MN	DCX	159.2 339.4	68.5 BLED20081028ABV	44 58 34.0 93 16 21.0	0.900 241	0.4 508	12.5 Fresh Air, Inc.	40.4	53.1
209C3 1205245 Grand Rapids		APP MN	_CX	3.0 183.1	192.0 BNPED20071016AHL	47 16 39.2 93 26 58.3	9,700 147	102.1 548	37.9 Minnesota Public Radio	60.9	40.9
209A KUMM Morris		CP MN	_CX	272.0 90.4	181.0 BMPED20090827ABZ	45 35 11.0 95 53 57.0	0.700 38	34.3 385	10.0 University Of Minnesota, M	113.4	55.9
209A KUMM Morris		LIC MN	_HN	272.1 90.4	181.5 BLED19830509AB	45 35 20.0 95 54 22.0	0.225 17	23.1 364	6.9 University Of Minnesota, M	125.3	59.6
207C1 KOPJ Sebeka		LIC MN	_C	323.8 143.0	138.5 BLED20051005AAI	46 33 08.0 94 39 03.0	100,000 143	6.7 560	56.2 Lifetalk Radio, Inc.	104.2	79.3
210C2 WHSA Brule		LIC WI	_CN	56.2 237.6	186.3 BLED1040	46 27 59.0 91 33 56.0	38,000 168	76.4 525	51.5 State Of Wisconsin - Educa	80.4	84.3
209A KCMF Fergus Falls		LIC MN	_CX	294.6 112.8	212.6 BLED20030610ACR	46 19 12.0 96 05 32.0	2,700 66	63.7 439	17.6 Minnesota Public Radio	119.2	82.6
211C3 NEW Spring Valley		CP WI	DVX	118.3 299.2	120.4 BNPED20071012AHK	45 01 58.0 92 14 06.0	16,000 88	1.6 438	16.5 The I-c-n Company	86.9	100.4

Terrain database is FCC NGDC 30 Sec , 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 = 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.
Reference station has protected zone issue: Canada- AM tower

HOW TO READ THE FM COMPUTER PRINT-OUT

Full Service Stations

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "IN" is the difference in kilometers between of the reference station's protected contour and the data file station's interference contour at the closest point between the contours. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, "IN" column is a measure of incoming interference. Negative distances in this column indicate the presence of contour overlap. Listed antenna heights and power are those given in the FCC database. The column labeled "OUT" shows the greatest distance in kilometers of overlap or smallest of clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap.

Under the "AZI" column, the first row of numbers indicate the True North bearings from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships, some channel-six TV relationships and relationships with commercial channel stations providing clearance the minimum spacings values the "IN" and "OUT" columns can change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** (or lack of it) in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

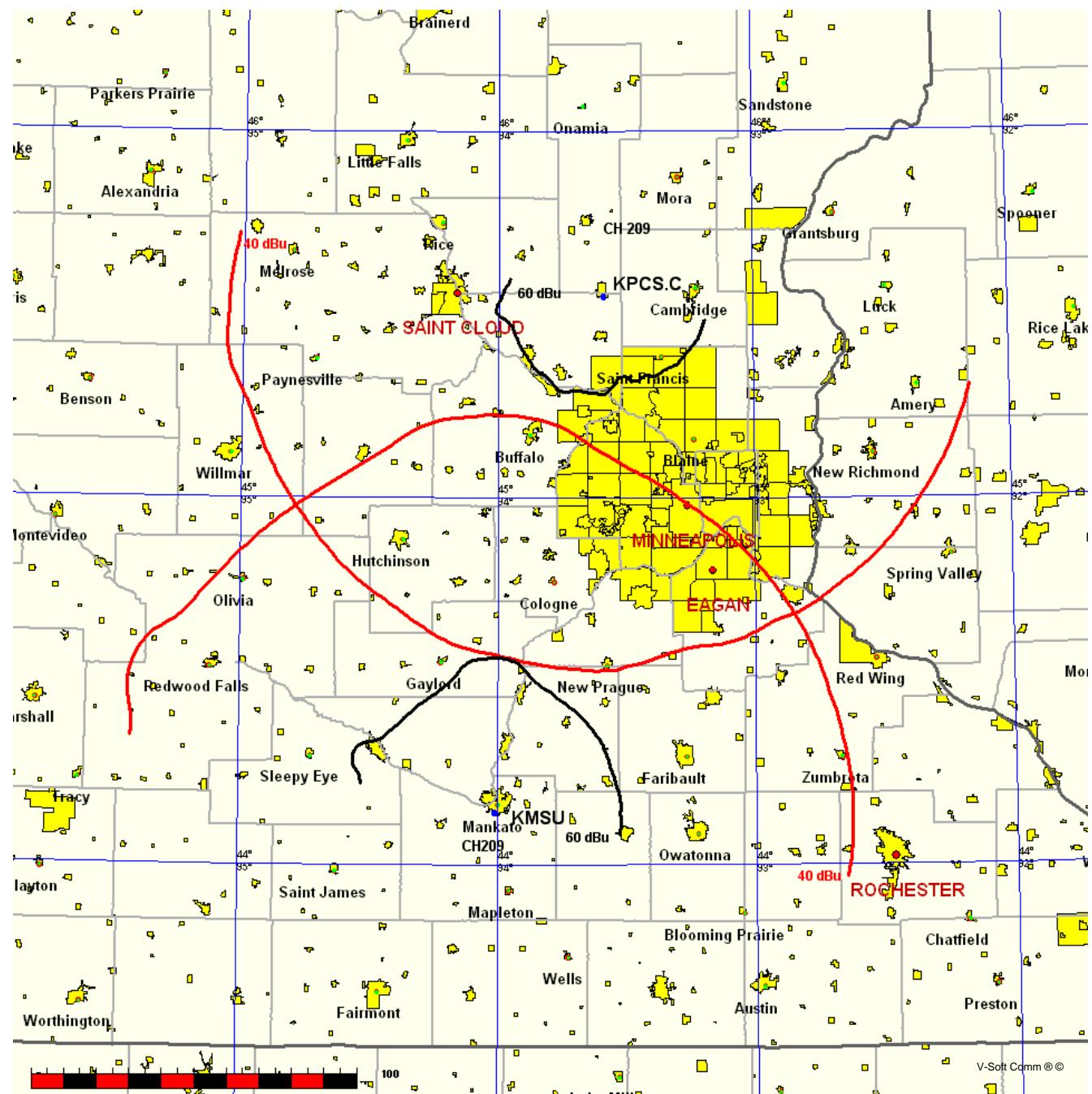
The call letters of stations meeting the minimum separation distances under the rules will be flagged by the characters "<<" appended to the right-hand side of the call sign. The "^" character appended to the call sign means the station has been "max-classed" according to the provisions of section 73.525 of the Rules.

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.

FMCommander Single Allocation Study - 10-06-2009 - FCC NGDC 30 Sec
KPCS.C's Overlaps (In= 10.29 km, Out= 0.42 km)

KPCS.C CH 209 C2
Lat= 45 33 10.0, Lng= 93 34 54.0
40.0 kW 42.4 M HAAT, 340.5 M COR
Prot.= 60 dBu, Intef.= 40 dBu

KMSU CH 209 C2 BLED19850812KH
Lat= 44 08 34.0, Lng= 94 00 08.0
20.0 kW 122 M HAAT, 414 M COR
Prot.= 60 dBu, Intef.= 40 dBu



10-06-2009

FCC NGDC 30 Sec Terrain Data

FMOver Analysis

KPCS.C
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Protected
 60 dBu

KMSU BLED19850812KH
 Channel = 209C2
 Max ERP = 20 kW
 RCAMSL = 414 M
 N. Lat. 44 08 34.0
 W. Lng. 94 00 08.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
132.0	040.0000	0046.4	030.6	022.1	020.0000	0122.0	147.3	33.48	
133.0	040.0000	0046.1	030.5	021.9	020.0000	0122.1	146.8	33.57	
134.0	040.0000	0045.6	030.4	021.8	020.0000	0122.2	146.4	33.65	
135.0	040.0000	0045.0	030.1	021.7	020.0000	0122.4	146.0	33.72	
136.0	040.0000	0044.4	030.0	021.5	020.0000	0122.6	145.6	33.80	
137.0	040.0000	0043.9	029.8	021.4	020.0000	0122.8	145.2	33.88	
138.0	040.0000	0043.4	029.6	021.2	020.0000	0123.0	144.8	33.95	
139.0	040.0000	0042.8	029.4	021.1	020.0000	0123.2	144.4	34.02	
140.0	040.0000	0042.3	029.3	020.9	020.0000	0123.5	144.0	34.10	
141.0	040.0000	0042.0	029.2	020.8	020.0000	0123.7	143.6	34.18	
142.0	040.0000	0041.9	029.1	020.7	020.0000	0123.9	143.2	34.26	
143.0	040.0000	0042.0	029.2	020.6	020.0000	0124.1	142.8	34.35	
144.0	040.0000	0042.1	029.2	020.5	020.0000	0124.2	142.3	34.44	
145.0	040.0000	0042.2	029.2	020.4	020.0000	0124.4	141.9	34.53	
146.0	040.0000	0042.1	029.2	020.3	020.0000	0124.7	141.5	34.61	
147.0	040.0000	0041.8	029.1	020.1	020.0000	0125.0	141.1	34.68	
148.0	040.0000	0041.0	028.8	019.9	020.0000	0125.4	140.9	34.74	
149.0	040.0000	0039.4	028.3	019.6	020.0000	0126.0	140.8	34.77	
150.0	040.0000	0037.8	027.8	019.3	020.0000	0126.6	140.8	34.79	
151.0	040.0000	0036.8	027.5	019.1	020.0000	0127.1	140.6	34.83	
152.0	040.0000	0036.4	027.3	018.9	020.0000	0127.4	140.4	34.90	
153.0	040.0000	0036.4	027.3	018.8	020.0000	0127.7	140.0	34.97	
154.0	040.0000	0036.7	027.4	018.7	020.0000	0127.9	139.6	35.05	
155.0	040.0000	0037.5	027.7	018.6	020.0000	0128.0	139.1	35.16	
156.0	040.0000	0038.1	027.9	018.5	020.0000	0128.2	138.6	35.25	
157.0	040.0000	0038.2	027.9	018.4	020.0000	0128.5	138.3	35.33	
158.0	040.0000	0038.0	027.8	018.2	020.0000	0128.8	138.0	35.39	
159.0	040.0000	0037.7	027.8	018.1	020.0000	0129.1	137.8	35.45	
160.0	040.0000	0037.2	027.6	017.9	020.0000	0129.6	137.6	35.49	
161.0	040.0000	0036.3	027.3	017.6	020.0000	0130.1	137.5	35.52	
162.0	040.0000	0034.9	026.8	017.4	020.0000	0130.7	137.6	35.52	
163.0	040.0000	0033.2	026.3	017.1	020.0000	0131.4	137.8	35.50	
164.0	040.0000	0031.3	025.7	016.8	020.0000	0132.3	138.1	35.47	
165.0	040.0000	0029.6	025.2	016.5	020.0000	0133.0	138.2	35.46	
166.0	040.0000	0028.6	025.2	016.4	020.0000	0133.5	138.0	35.52	
167.0	040.0000	0028.4	025.2	016.2	020.0000	0134.0	137.8	35.58	
168.0	040.0000	0028.4	025.2	016.1	020.0000	0134.6	137.6	35.64	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
169.0	040.0000	0029.2	025.2	015.9	020.0000	0135.2	137.4	35.69
170.0	040.0000	0031.0	025.5	015.8	020.0000	0135.5	136.9	35.80
171.0	040.0000	0033.1	026.2	015.7	020.0000	0135.7	136.1	35.96
172.0	040.0000	0035.1	026.9	015.7	020.0000	0135.9	135.3	36.12
173.0	040.0000	0036.5	027.4	015.6	020.0000	0136.3	134.6	36.26
174.0	040.0000	0037.4	027.7	015.4	020.0000	0136.8	134.2	36.36
175.0	040.0000	0038.1	027.9	015.3	020.0000	0137.4	133.8	36.45
176.0	040.0000	0039.5	028.4	015.2	020.0000	0137.9	133.2	36.59
177.0	040.0000	0041.5	029.0	015.1	020.0000	0138.3	132.4	36.75
178.0	040.0000	0043.2	029.6	014.9	020.0000	0138.9	131.7	36.90
179.0	040.0000	0043.6	029.7	014.7	020.0000	0139.7	131.5	36.98
180.0	040.0000	0044.1	029.9	014.5	020.0000	0140.6	131.2	37.05
181.0	040.0000	0044.4	029.9	014.3	020.0000	0141.5	131.0	37.12
182.0	040.0000	0044.1	029.9	014.1	020.0000	0142.6	130.9	37.16
183.0	040.0000	0043.9	029.8	013.9	020.0000	0143.7	130.9	37.19
184.0	040.0000	0043.6	029.7	013.6	020.0000	0144.7	130.9	37.23
185.0	040.0000	0043.7	029.7	013.4	020.0000	0145.8	130.8	37.28
186.0	040.0000	0043.7	029.7	013.2	020.0000	0146.8	130.7	37.32
187.0	040.0000	0043.7	029.7	013.0	020.0000	0147.9	130.6	37.36
188.0	040.0000	0043.7	029.7	012.7	020.0000	0148.9	130.6	37.39
189.0	040.0000	0043.7	029.7	012.5	020.0000	0149.9	130.6	37.43
190.0	040.0000	0043.7	029.7	012.3	020.0000	0150.9	130.5	37.46
191.0	040.0000	0043.6	029.7	012.1	020.0000	0152.0	130.5	37.49
192.0	040.0000	0043.6	029.7	011.8	020.0000	0153.1	130.5	37.51
193.0	040.0000	0043.6	029.7	011.6	020.0000	0154.2	130.6	37.54
194.0	040.0000	0043.7	029.7	011.4	020.0000	0155.2	130.5	37.57
195.0	040.0000	0043.8	029.8	011.2	020.0000	0156.3	130.5	37.60
196.0	040.0000	0044.1	029.9	010.9	020.0000	0157.3	130.5	37.64
197.0	040.0000	0044.7	030.0	010.7	020.0000	0158.2	130.3	37.69
198.0	040.0000	0045.5	030.3	010.5	020.0000	0159.2	130.1	37.76
199.0	040.0000	0046.5	030.6	010.2	020.0000	0160.1	129.9	37.83
200.0	040.0000	0047.5	031.0	010.0	020.0000	0161.1	129.6	37.90
201.0	040.0000	0048.4	031.3	009.7	020.0000	0161.9	129.4	37.96
202.0	040.0000	0049.1	031.5	009.5	020.0000	0162.7	129.3	38.00
203.0	040.0000	0049.5	031.6	009.2	020.0000	0163.4	129.3	38.02
204.0	040.0000	0049.6	031.7	009.0	020.0000	0164.0	129.4	38.02
205.0	040.0000	0049.7	031.7	008.7	020.0000	0164.6	129.6	38.01
206.0	040.0000	0049.6	031.7	008.5	020.0000	0165.2	129.8	37.98
207.0	040.0000	0049.2	031.5	008.3	020.0000	0165.6	130.0	37.94
208.0	040.0000	0048.7	031.4	008.1	020.0000	0166.0	130.4	37.89
209.0	040.0000	0048.1	031.2	007.9	020.0000	0166.4	130.7	37.82
210.0	040.0000	0047.5	031.0	007.7	020.0000	0166.7	131.1	37.75
211.0	040.0000	0046.9	030.8	007.5	020.0000	0167.0	131.5	37.68
212.0	040.0000	0046.3	030.6	007.4	020.0000	0167.3	131.9	37.61
213.0	040.0000	0045.6	030.4	007.2	020.0000	0167.6	132.4	37.54
214.0	040.0000	0045.1	030.2	007.0	020.0000	0167.9	132.7	37.47
215.0	040.0000	0044.7	030.1	006.8	020.0000	0168.2	133.1	37.41
216.0	040.0000	0044.7	030.1	006.6	020.0000	0168.5	133.4	37.36
217.0	040.0000	0044.8	030.1	006.4	020.0000	0168.8	133.6	37.33
218.0	040.0000	0045.2	030.2	006.2	020.0000	0169.2	133.8	37.30
219.0	040.0000	0045.5	030.3	006.0	020.0000	0169.5	134.0	37.27

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
220.0	040.0000	0045.6	030.4	005.8	020.0000	0169.7	134.2	37.23
221.0	040.0000	0045.7	030.4	005.6	020.0000	0170.0	134.5	37.18
222.0	040.0000	0045.8	030.4	005.4	020.0000	0170.2	134.8	37.13
223.0	040.0000	0045.9	030.5	005.3	020.0000	0170.4	135.1	37.07
224.0	040.0000	0045.9	030.5	005.1	020.0000	0170.6	135.4	37.02
225.0	040.0000	0045.9	030.4	004.9	020.0000	0170.8	135.7	36.95
226.0	040.0000	0045.6	030.4	004.8	020.0000	0171.0	136.1	36.88
227.0	040.0000	0045.3	030.3	004.6	020.0000	0171.1	136.6	36.80
228.0	040.0000	0045.0	030.2	004.5	020.0000	0171.3	137.0	36.72
229.0	040.0000	0044.7	030.1	004.4	020.0000	0171.5	137.4	36.63
230.0	040.0000	0044.5	030.0	004.2	020.0000	0171.6	137.9	36.55
231.0	040.0000	0044.2	029.9	004.1	020.0000	0171.7	138.3	36.47
232.0	040.0000	0043.9	029.8	004.0	020.0000	0171.8	138.8	36.39
233.0	040.0000	0043.6	029.7	003.9	020.0000	0171.9	139.2	36.30
234.0	040.0000	0043.6	029.7	003.8	020.0000	0172.0	139.6	36.23
235.0	040.0000	0043.8	029.8	003.6	020.0000	0172.2	140.0	36.16
236.0	040.0000	0044.0	029.8	003.5	020.0000	0172.3	140.3	36.09
237.0	040.0000	0044.0	029.8	003.3	020.0000	0172.4	140.7	36.02
238.0	040.0000	0044.0	029.8	003.2	020.0000	0172.5	141.2	35.94
239.0	040.0000	0043.8	029.8	003.1	020.0000	0172.5	141.6	35.85
240.0	040.0000	0043.6	029.7	003.0	020.0000	0172.6	142.1	35.76
241.0	040.0000	0043.5	029.7	002.9	020.0000	0172.6	142.6	35.68
242.0	040.0000	0043.3	029.6	002.8	020.0000	0172.7	143.0	35.59
243.0	040.0000	0043.3	029.6	002.7	020.0000	0172.7	143.5	35.51
244.0	040.0000	0043.3	029.6	002.6	020.0000	0172.7	143.9	35.42
245.0	040.0000	0043.2	029.6	002.5	020.0000	0172.8	144.4	35.34
246.0	040.0000	0043.1	029.5	002.5	020.0000	0172.8	144.9	35.25
247.0	040.0000	0043.0	029.5	002.4	020.0000	0172.8	145.4	35.16
248.0	040.0000	0042.9	029.5	002.3	020.0000	0172.9	145.8	35.08
249.0	040.0000	0042.8	029.4	002.2	020.0000	0172.9	146.3	34.99
250.0	040.0000	0042.8	029.4	002.2	020.0000	0172.9	146.8	34.91
251.0	040.0000	0042.9	029.5	002.1	020.0000	0173.0	147.3	34.83
252.0	040.0000	0041.0	028.8	002.2	020.0000	0172.9	148.0	34.71

10-06-2009 FCC NGDC 30 Sec Terrain Data

KMSU BLED19850812KH
 Channel = 209C2
 Max ERP = 20 kW
 RCAMSL = 414 M
 N. Lat. 44 08 34.0
 W. Lng. 94 00 08.0
 Protected
 60 dBu

KPCS.C
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
312.0	020.0000	0118.0	040.0	206.0	040.0000	0049.6	144.3	34.63	
313.0	020.0000	0117.5	039.9	205.9	040.0000	0049.6	143.7	34.74	
314.0	020.0000	0117.2	039.9	205.8	040.0000	0049.6	143.0	34.86	
315.0	020.0000	0117.1	039.8	205.7	040.0000	0049.6	142.4	34.98	
316.0	020.0000	0117.0	039.8	205.6	040.0000	0049.6	141.7	35.10	
317.0	020.0000	0117.0	039.8	205.5	040.0000	0049.7	141.1	35.22	
318.0	020.0000	0117.0	039.8	205.4	040.0000	0049.7	140.4	35.34	
319.0	020.0000	0117.0	039.8	205.3	040.0000	0049.7	139.8	35.46	
320.0	020.0000	0117.1	039.8	205.2	040.0000	0049.7	139.2	35.58	
321.0	020.0000	0117.1	039.8	205.0	040.0000	0049.7	138.5	35.70	
322.0	020.0000	0117.1	039.8	204.9	040.0000	0049.7	137.9	35.81	
323.0	020.0000	0117.2	039.8	204.8	040.0000	0049.7	137.3	35.93	
324.0	020.0000	0117.3	039.9	204.6	040.0000	0049.7	136.7	36.05	
325.0	020.0000	0117.5	039.9	204.5	040.0000	0049.7	136.1	36.16	
326.0	020.0000	0117.6	039.9	204.3	040.0000	0049.7	135.5	36.27	
327.0	020.0000	0117.8	039.9	204.2	040.0000	0049.7	134.9	36.38	
328.0	020.0000	0117.9	039.9	204.0	040.0000	0049.7	134.3	36.49	
329.0	020.0000	0118.1	040.0	203.9	040.0000	0049.6	133.7	36.60	
330.0	020.0000	0118.3	040.0	203.7	040.0000	0049.6	133.1	36.71	
331.0	020.0000	0118.6	040.0	203.5	040.0000	0049.6	132.5	36.81	
332.0	020.0000	0119.0	040.1	203.4	040.0000	0049.6	132.0	36.92	
333.0	020.0000	0119.6	040.2	203.2	040.0000	0049.5	131.4	37.03	
334.0	020.0000	0120.6	040.3	203.0	040.0000	0049.5	130.8	37.14	
335.0	020.0000	0121.8	040.4	202.9	040.0000	0049.5	130.1	37.25	
336.0	020.0000	0123.3	040.6	202.7	040.0000	0049.4	129.5	37.37	
337.0	020.0000	0125.0	040.8	202.6	040.0000	0049.4	128.8	37.49	
338.0	020.0000	0126.8	041.1	202.4	040.0000	0049.3	128.2	37.61	
339.0	020.0000	0128.7	041.3	202.2	040.0000	0049.3	127.5	37.73	
340.0	020.0000	0130.7	041.6	202.1	040.0000	0049.2	126.8	37.85	
341.0	020.0000	0132.9	041.8	201.9	040.0000	0049.1	126.1	37.98	
342.0	020.0000	0135.2	042.1	201.7	040.0000	0049.0	125.4	38.10	
343.0	020.0000	0138.0	042.5	201.6	040.0000	0048.9	124.7	38.23	
344.0	020.0000	0141.5	043.0	201.4	040.0000	0048.8	123.9	38.38	
345.0	020.0000	0146.0	043.5	201.3	040.0000	0048.7	122.9	38.54	

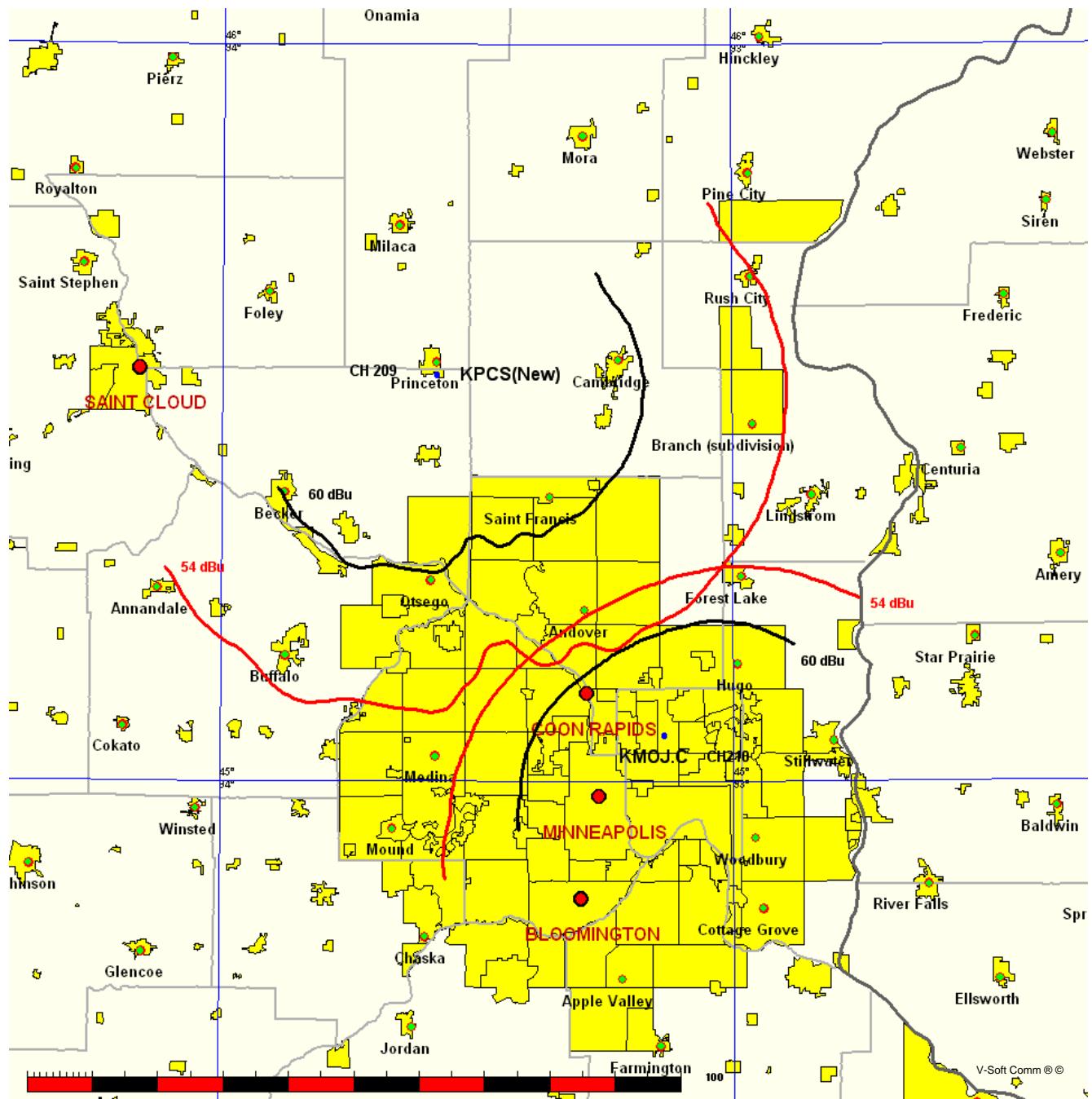
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
346.0	020.0000	0151.3	044.2	201.2	040.0000	0048.6	121.9	38.72
347.0	020.0000	0156.2	044.8	201.1	040.0000	0048.5	121.0	38.89
348.0	020.0000	0159.6	045.3	200.9	040.0000	0048.3	120.2	39.02
349.0	020.0000	0162.3	045.6	200.6	040.0000	0048.1	119.5	39.14
350.0	020.0000	0165.4	045.9	200.4	040.0000	0047.8	118.8	39.26
351.0	020.0000	0168.3	046.3	200.1	040.0000	0047.6	118.1	39.37
352.0	020.0000	0170.1	046.5	199.8	040.0000	0047.3	117.6	39.46
353.0	020.0000	0170.7	046.5	199.5	040.0000	0046.9	117.1	39.52
354.0	020.0000	0171.5	046.6	199.1	040.0000	0046.6	116.7	39.58
355.0	020.0000	0171.4	046.6	198.7	040.0000	0046.2	116.4	39.62
356.0	020.0000	0171.0	046.6	198.4	040.0000	0045.8	116.1	39.65
357.0	020.0000	0171.7	046.6	198.0	040.0000	0045.5	115.7	39.71
358.0	020.0000	0173.4	046.8	197.6	040.0000	0045.2	115.3	39.77
359.0	020.0000	0173.5	046.8	197.3	040.0000	0044.9	115.0	39.81
000.0	020.0000	0173.5	046.8	196.9	040.0000	0044.6	114.8	39.84
001.0	020.0000	0173.3	046.8	196.5	040.0000	0044.3	114.6	39.87
002.0	020.0000	0173.0	046.8	196.1	040.0000	0044.1	114.4	39.89
003.0	020.0000	0172.6	046.7	195.7	040.0000	0044.0	114.3	39.91
004.0	020.0000	0171.8	046.6	195.3	040.0000	0043.9	114.2	39.92
005.0	020.0000	0170.7	046.5	194.8	040.0000	0043.8	114.1	39.92
006.0	020.0000	0169.5	046.4	194.4	040.0000	0043.7	114.1	39.92
007.0	020.0000	0167.9	046.2	194.0	040.0000	0043.7	114.2	39.90
008.0	020.0000	0166.2	046.0	193.6	040.0000	0043.6	114.3	39.88
009.0	020.0000	0163.9	045.8	193.2	040.0000	0043.6	114.5	39.84
010.0	020.0000	0160.9	045.4	192.8	040.0000	0043.6	114.8	39.79
011.0	020.0000	0157.0	044.9	192.4	040.0000	0043.6	115.3	39.70
012.0	020.0000	0152.3	044.4	192.0	040.0000	0043.6	115.8	39.59
013.0	020.0000	0147.7	043.8	191.6	040.0000	0043.6	116.4	39.48
014.0	020.0000	0143.0	043.2	191.2	040.0000	0043.6	117.1	39.36
015.0	020.0000	0138.5	042.6	190.9	040.0000	0043.6	117.7	39.25
016.0	020.0000	0134.8	042.1	190.6	040.0000	0043.6	118.3	39.15
017.0	020.0000	0131.6	041.7	190.2	040.0000	0043.7	118.7	39.06
018.0	020.0000	0129.3	041.4	189.9	040.0000	0043.7	119.1	38.98
019.0	020.0000	0127.3	041.1	189.6	040.0000	0043.7	119.5	38.92
020.0	020.0000	0125.2	040.9	189.3	040.0000	0043.7	119.9	38.85
021.0	020.0000	0123.3	040.6	189.0	040.0000	0043.7	120.3	38.78
022.0	020.0000	0122.0	040.5	188.6	040.0000	0043.7	120.6	38.72
023.0	020.0000	0121.3	040.4	188.3	040.0000	0043.7	120.8	38.67
024.0	020.0000	0120.6	040.3	188.0	040.0000	0043.7	121.1	38.62
025.0	020.0000	0119.9	040.2	187.7	040.0000	0043.7	121.4	38.57
026.0	020.0000	0119.1	040.1	187.4	040.0000	0043.7	121.7	38.51
027.0	020.0000	0118.3	040.0	187.1	040.0000	0043.7	122.0	38.45
028.0	020.0000	0117.3	039.9	186.8	040.0000	0043.7	122.4	38.38
029.0	020.0000	0116.1	039.7	186.5	040.0000	0043.7	122.8	38.31
030.0	020.0000	0115.2	039.6	186.3	040.0000	0043.7	123.2	38.24
031.0	020.0000	0114.4	039.5	186.0	040.0000	0043.7	123.6	38.16
032.0	020.0000	0113.6	039.4	185.7	040.0000	0043.8	124.0	38.09
033.0	020.0000	0113.6	039.4	185.4	040.0000	0043.8	124.3	38.03
034.0	020.0000	0114.0	039.4	185.2	040.0000	0043.7	124.6	37.98
035.0	020.0000	0114.1	039.4	184.9	040.0000	0043.7	124.9	37.92
036.0	020.0000	0113.8	039.4	184.6	040.0000	0043.7	125.3	37.85

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
037.0	020.0000	0113.6	039.4	184.4	040.0000	0043.6	125.7	37.77
038.0	020.0000	0113.8	039.4	184.1	040.0000	0043.6	126.0	37.71
039.0	020.0000	0113.9	039.4	183.8	040.0000	0043.7	126.4	37.64
040.0	020.0000	0113.7	039.4	183.6	040.0000	0043.7	126.8	37.56
041.0	020.0000	0113.2	039.3	183.3	040.0000	0043.8	127.3	37.48
042.0	020.0000	0112.8	039.3	183.1	040.0000	0043.8	127.8	37.39
043.0	020.0000	0112.7	039.2	182.9	040.0000	0043.9	128.2	37.31
044.0	020.0000	0112.7	039.2	182.7	040.0000	0044.0	128.7	37.24
045.0	020.0000	0112.7	039.2	182.4	040.0000	0044.0	129.1	37.15
046.0	020.0000	0112.7	039.2	182.2	040.0000	0044.1	129.6	37.07
047.0	020.0000	0112.7	039.2	182.0	040.0000	0044.1	130.1	36.98
048.0	020.0000	0112.8	039.2	181.8	040.0000	0044.2	130.6	36.90
049.0	020.0000	0112.6	039.2	181.6	040.0000	0044.2	131.1	36.80
050.0	020.0000	0112.3	039.2	181.4	040.0000	0044.3	131.6	36.70
051.0	020.0000	0111.9	039.1	181.2	040.0000	0044.3	132.2	36.60
052.0	020.0000	0111.6	039.1	181.0	040.0000	0044.4	132.7	36.50
053.0	020.0000	0111.5	039.1	180.9	040.0000	0044.4	133.3	36.40
054.0	020.0000	0111.5	039.1	180.7	040.0000	0044.4	133.8	36.30
055.0	020.0000	0111.3	039.0	180.5	040.0000	0044.3	134.4	36.19
056.0	020.0000	0111.0	039.0	180.4	040.0000	0044.2	134.9	36.08
057.0	020.0000	0110.8	039.0	180.2	040.0000	0044.2	135.5	35.97
058.0	020.0000	0110.6	038.9	180.1	040.0000	0044.1	136.1	35.85
059.0	020.0000	0110.4	038.9	179.9	040.0000	0044.0	136.7	35.74
060.0	020.0000	0109.9	038.8	179.8	040.0000	0044.0	137.3	35.62
061.0	020.0000	0109.2	038.7	179.7	040.0000	0043.9	138.0	35.50
062.0	020.0000	0108.6	038.7	179.6	040.0000	0043.9	138.6	35.38
063.0	020.0000	0108.3	038.6	179.5	040.0000	0043.8	139.2	35.26
064.0	020.0000	0108.1	038.6	179.4	040.0000	0043.8	139.9	35.14
065.0	020.0000	0107.6	038.5	179.3	040.0000	0043.8	140.5	35.02
066.0	020.0000	0107.0	038.4	179.2	040.0000	0043.7	141.1	34.90
067.0	020.0000	0106.4	038.3	179.2	040.0000	0043.7	141.8	34.78
068.0	020.0000	0106.0	038.3	179.1	040.0000	0043.7	142.4	34.66
069.0	020.0000	0105.8	038.2	179.0	040.0000	0043.6	143.1	34.54
070.0	020.0000	0105.6	038.2	178.9	040.0000	0043.6	143.7	34.42
071.0	020.0000	0105.7	038.2	178.8	040.0000	0043.6	144.3	34.30
072.0	020.0000	0114.5	039.5	178.3	040.0000	0043.3	144.6	34.23

FMCommander Single Allocation Study - 10-06-2009 - FCC NGDC 30 Sec
KPCS(New)'s Overlaps (In= 13.88 km, Out= 0.5 km)

KPCS(New) CH 209 C2
Lat= 45 33 10.0, Lng= 93 34 54.0
40.0 kW 42.4 M HAAT, 340.5 M COR
Prot.= 60 dBu, Intef.= 54 dBu

KMOJ-C CH 210 C3 DA BPED20080228ABA
Lat= 45 03 44.0, Lng= 93 08 21.0
1.4 kW 273 M HAAT, 548 M COR
Prot.= 60 dBu, Intef.= 54 dBu



10-06-2009

FCC NGDC 30 Sec Terrain Data

FMOver Analysis

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Protected
 60 dBu

KMOJ-C BPED20080228ABA
 Channel = 210C3
 Max ERP = 1.4 kW
 RCAMSL = 548 M
 N. Lat. 45 03 44.0
 W. Lng. 93 08 21.0
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
087.0	040.0000	0048.2	031.2	356.4	000.0634	0274.0	056.3	37.54	
088.0	040.0000	0048.4	031.3	356.5	000.0635	0274.0	055.7	37.76	
089.0	040.0000	0048.7	031.4	356.6	000.0636	0274.1	055.2	37.99	
090.0	040.0000	0049.1	031.5	356.7	000.0637	0274.1	054.6	38.22	
091.0	040.0000	0049.5	031.6	356.8	000.0638	0274.1	054.1	38.45	
092.0	040.0000	0049.5	031.6	356.7	000.0638	0274.1	053.5	38.67	
093.0	040.0000	0049.6	031.7	356.7	000.0637	0274.1	053.0	38.89	
094.0	040.0000	0049.7	031.7	356.6	000.0637	0274.1	052.4	39.11	
095.0	040.0000	0049.6	031.7	356.5	000.0636	0274.0	051.9	39.32	
096.0	040.0000	0049.5	031.7	356.4	000.0634	0274.0	051.3	39.53	
097.0	040.0000	0049.5	031.6	356.3	000.0633	0274.0	050.8	39.73	
098.0	040.0000	0049.7	031.7	356.2	000.0632	0274.0	050.2	39.95	
099.0	040.0000	0049.9	031.8	356.2	000.0631	0274.0	049.7	40.17	
100.0	040.0000	0050.0	031.8	356.1	000.0630	0274.0	049.1	40.38	
101.0	040.0000	0050.2	031.9	356.0	000.0629	0274.0	048.6	40.60	
102.0	040.0000	0050.3	031.9	355.8	000.0627	0274.0	048.0	40.80	
103.0	040.0000	0050.2	031.9	355.6	000.0625	0274.0	047.5	41.00	
104.0	040.0000	0050.0	031.8	355.3	000.0621	0274.1	047.0	41.18	
105.0	040.0000	0049.8	031.7	355.0	000.0618	0274.3	046.5	41.37	
106.0	040.0000	0049.8	031.7	354.8	000.0615	0274.5	046.0	41.56	
107.0	040.0000	0049.8	031.7	354.5	000.0611	0274.7	045.5	41.76	
108.0	040.0000	0049.8	031.7	354.2	000.0608	0274.9	045.0	41.96	
109.0	040.0000	0049.8	031.7	353.9	000.0605	0275.2	044.5	42.16	
110.0	040.0000	0049.8	031.7	353.6	000.0602	0275.6	043.9	42.36	
111.0	040.0000	0049.8	031.7	353.3	000.0598	0276.0	043.5	42.55	
112.0	040.0000	0049.7	031.7	352.9	000.0593	0276.5	043.0	42.74	
113.0	040.0000	0049.7	031.7	352.5	000.0589	0277.0	042.5	42.93	
114.0	040.0000	0049.5	031.6	352.1	000.0584	0277.4	042.1	43.10	
115.0	040.0000	0049.4	031.6	351.6	000.0578	0277.9	041.6	43.27	
116.0	040.0000	0049.2	031.5	351.1	000.0573	0278.2	041.2	43.42	
117.0	040.0000	0049.0	031.5	350.6	000.0567	0278.3	040.8	43.56	
118.0	040.0000	0048.6	031.4	350.0	000.0560	0278.4	040.4	43.68	
119.0	040.0000	0048.3	031.3	349.4	000.0557	0278.5	040.1	43.82	
120.0	040.0000	0048.0	031.1	348.8	000.0553	0278.5	039.7	43.95	
121.0	040.0000	0047.7	031.0	348.1	000.0550	0278.5	039.4	44.07	
122.0	040.0000	0047.4	030.9	347.5	000.0546	0278.4	039.1	44.18	
123.0	040.0000	0047.1	030.9	346.8	000.0542	0278.2	038.7	44.30	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
124.0	040.0000	0046.9	030.8	346.2	000.0539	0278.0	038.4	44.41
125.0	040.0000	0046.8	030.7	345.5	000.0535	0277.7	038.1	44.52
126.0	040.0000	0046.6	030.7	344.9	000.0532	0277.4	037.8	44.62
127.0	040.0000	0046.6	030.7	344.2	000.0528	0277.1	037.5	44.73
128.0	040.0000	0046.6	030.7	343.6	000.0524	0276.8	037.2	44.84
129.0	040.0000	0046.5	030.7	342.9	000.0521	0276.5	036.9	44.93
130.0	040.0000	0046.5	030.7	342.2	000.0517	0276.1	036.6	45.03
131.0	040.0000	0046.5	030.6	341.4	000.0513	0275.6	036.3	45.11
132.0	040.0000	0046.4	030.6	340.7	000.0509	0275.1	036.1	45.17
133.0	040.0000	0046.1	030.5	339.9	000.0505	0274.6	035.9	45.20
134.0	040.0000	0045.6	030.4	339.0	000.0505	0274.0	035.8	45.22
135.0	040.0000	0045.0	030.1	338.1	000.0505	0273.5	035.8	45.22
136.0	040.0000	0044.4	030.0	337.2	000.0505	0273.1	035.8	45.21
137.0	040.0000	0043.9	029.8	336.3	000.0505	0272.8	035.8	45.22
138.0	040.0000	0043.4	029.6	335.5	000.0505	0272.6	035.8	45.21
139.0	040.0000	0042.8	029.4	334.6	000.0505	0272.6	035.8	45.19
140.0	040.0000	0042.3	029.3	333.7	000.0505	0272.7	035.8	45.18
141.0	040.0000	0042.0	029.2	332.9	000.0505	0272.9	035.8	45.19
142.0	040.0000	0041.9	029.1	332.1	000.0505	0273.1	035.8	45.24
143.0	040.0000	0042.0	029.2	331.3	000.0505	0273.4	035.6	45.29
144.0	040.0000	0042.1	029.2	330.5	000.0505	0273.7	035.5	45.36
145.0	040.0000	0042.2	029.2	329.7	000.0505	0273.9	035.5	45.40
146.0	040.0000	0042.1	029.2	328.9	000.0505	0274.1	035.5	45.41
147.0	040.0000	0041.8	029.1	328.0	000.0505	0274.2	035.5	45.37
148.0	040.0000	0041.0	028.8	327.2	000.0505	0274.2	035.8	45.24
149.0	040.0000	0039.4	028.3	326.5	000.0505	0274.2	036.3	44.99
150.0	040.0000	0037.8	027.8	325.8	000.0505	0274.2	036.9	44.73
151.0	040.0000	0036.8	027.5	325.1	000.0505	0274.2	037.3	44.55
152.0	040.0000	0036.4	027.3	324.4	000.0505	0274.3	037.4	44.47
153.0	040.0000	0036.4	027.3	323.6	000.0505	0274.4	037.5	44.43
154.0	040.0000	0036.7	027.4	322.9	000.0505	0274.5	037.5	44.45
155.0	040.0000	0037.5	027.7	322.1	000.0505	0274.7	037.4	44.53
156.0	040.0000	0038.1	027.9	321.3	000.0505	0274.9	037.3	44.56
157.0	040.0000	0038.2	027.9	320.6	000.0505	0275.1	037.4	44.52
158.0	040.0000	0038.0	027.8	319.9	000.0506	0275.3	037.6	44.44
159.0	040.0000	0037.7	027.8	319.3	000.0509	0275.4	037.8	44.36
160.0	040.0000	0037.2	027.6	318.7	000.0513	0275.5	038.2	44.23
161.0	040.0000	0036.3	027.3	318.2	000.0515	0275.5	038.6	44.05
162.0	040.0000	0034.9	026.8	317.8	000.0517	0275.6	039.2	43.79
163.0	040.0000	0033.2	026.3	317.6	000.0519	0275.6	039.9	43.48
164.0	040.0000	0031.3	025.7	317.4	000.0520	0275.6	040.7	43.15
165.0	040.0000	0029.6	025.2	317.1	000.0521	0275.6	041.3	42.90
166.0	040.0000	0028.6	025.2	316.6	000.0524	0275.5	041.5	42.83
167.0	040.0000	0028.4	025.2	316.0	000.0527	0275.5	041.7	42.76
168.0	040.0000	0028.4	025.2	315.5	000.0529	0275.5	041.9	42.67
169.0	040.0000	0029.2	025.2	315.0	000.0532	0275.4	042.2	42.59
170.0	040.0000	0031.0	025.5	314.3	000.0536	0275.4	042.2	42.62
171.0	040.0000	0033.1	026.2	313.2	000.0542	0275.6	041.9	42.80
172.0	040.0000	0035.1	026.9	312.2	000.0548	0276.3	041.7	42.97
173.0	040.0000	0036.5	027.4	311.3	000.0553	0277.1	041.6	43.06
174.0	040.0000	0037.4	027.7	310.5	000.0557	0277.7	041.7	43.05

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
175.0	040.0000	0038.1	027.9	309.8	000.0562	0278.1	041.9	43.03
176.0	040.0000	0039.5	028.4	308.9	000.0573	0278.6	041.9	43.11
177.0	040.0000	0041.5	029.0	307.8	000.0585	0279.0	041.9	43.25
178.0	040.0000	0043.2	029.6	306.8	000.0597	0279.4	041.9	43.33
179.0	040.0000	0043.6	029.7	306.2	000.0604	0279.7	042.2	43.25
180.0	040.0000	0044.1	029.9	305.6	000.0610	0280.0	042.6	43.16
181.0	040.0000	0044.4	029.9	305.1	000.0616	0280.3	042.9	43.05
182.0	040.0000	0044.1	029.9	304.8	000.0620	0280.5	043.4	42.87
183.0	040.0000	0043.9	029.8	304.5	000.0623	0280.7	043.9	42.69
184.0	040.0000	0043.6	029.7	304.3	000.0626	0280.8	044.4	42.51
185.0	040.0000	0043.7	029.7	303.9	000.0630	0281.1	044.8	42.37
186.0	040.0000	0043.7	029.7	303.6	000.0634	0281.3	045.3	42.21
187.0	040.0000	0043.7	029.7	303.3	000.0637	0281.5	045.7	42.04
188.0	040.0000	0043.7	029.7	303.1	000.0641	0281.7	046.2	41.88
189.0	040.0000	0043.7	029.7	302.8	000.0644	0281.8	046.7	41.71
190.0	040.0000	0043.7	029.7	302.6	000.0646	0282.0	047.2	41.54
191.0	040.0000	0043.6	029.7	302.3	000.0649	0282.1	047.6	41.36
192.0	040.0000	0043.6	029.7	302.1	000.0651	0282.2	048.1	41.19
193.0	040.0000	0043.6	029.7	302.0	000.0654	0282.3	048.6	41.01
194.0	040.0000	0043.7	029.7	301.7	000.0656	0282.4	049.1	40.84
195.0	040.0000	0043.8	029.8	301.5	000.0659	0282.5	049.6	40.67
196.0	040.0000	0044.1	029.9	301.2	000.0662	0282.6	050.1	40.51
197.0	040.0000	0044.7	030.0	300.9	000.0667	0282.8	050.5	40.36
198.0	040.0000	0045.5	030.3	300.5	000.0672	0282.9	051.0	40.22
199.0	040.0000	0046.5	030.6	300.0	000.0678	0283.1	051.4	40.08
200.0	040.0000	0047.5	031.0	299.5	000.0686	0283.3	051.9	39.95
201.0	040.0000	0048.4	031.3	299.1	000.0694	0283.5	052.4	39.81
202.0	040.0000	0049.1	031.5	298.8	000.0700	0283.6	052.9	39.65
203.0	040.0000	0049.5	031.6	298.6	000.0704	0283.7	053.4	39.46
204.0	040.0000	0049.6	031.7	298.5	000.0705	0283.7	054.0	39.25
205.0	040.0000	0049.7	031.7	298.5	000.0706	0283.8	054.5	39.04
206.0	040.0000	0049.6	031.7	298.5	000.0706	0283.8	055.1	38.82
207.0	040.0000	0043.7	029.7	300.4	000.0672	0283.0	055.7	38.33

10-06-2009 FCC NGDC 30 Sec Terrain Data

KMOJ-C BPED20080228ABA
 Channel = 210C3
 Max ERP = 1.4 kW
 RCAMSL = 548 M
 N. Lat. 45 03 44.0
 W. Lng. 93 08 21.0
 Protected
 60 dBu

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
268.0	000.1855	0279.2	020.3	165.3	040.0000	0029.2	057.1	50.43	
269.0	000.1784	0279.9	020.1	165.1	040.0000	0029.5	056.8	50.50	
270.0	000.1715	0280.5	019.9	164.8	040.0000	0029.8	056.5	50.56	
271.0	000.1666	0281.2	019.8	164.6	040.0000	0030.2	056.2	50.65	
272.0	000.1618	0281.8	019.7	164.4	040.0000	0030.6	055.9	50.77	
273.0	000.1571	0282.3	019.6	164.2	040.0000	0031.0	055.6	50.90	
274.0	000.1525	0282.4	019.4	163.9	040.0000	0031.5	055.3	51.03	
275.0	000.1479	0282.5	019.3	163.6	040.0000	0032.0	055.1	51.17	
276.0	000.1434	0282.6	019.1	163.4	040.0000	0032.5	054.8	51.30	
277.0	000.1389	0282.5	019.0	163.1	040.0000	0033.0	054.6	51.44	
278.0	000.1345	0282.4	018.8	162.8	040.0000	0033.6	054.3	51.57	
279.0	000.1302	0282.3	018.7	162.5	040.0000	0034.1	054.1	51.70	
280.0	000.1260	0282.2	018.5	162.2	040.0000	0034.6	053.9	51.83	
281.0	000.1218	0282.1	018.3	161.9	040.0000	0035.1	053.7	51.96	
282.0	000.1177	0282.3	018.2	161.6	040.0000	0035.6	053.5	52.08	
283.0	000.1137	0282.4	018.0	161.2	040.0000	0036.0	053.3	52.19	
284.0	000.1098	0282.6	017.9	160.9	040.0000	0036.4	053.1	52.29	
285.0	000.1059	0282.8	017.7	160.6	040.0000	0036.7	052.9	52.38	
286.0	000.1021	0283.1	017.6	160.3	040.0000	0037.0	052.8	52.46	
287.0	000.0983	0283.5	017.4	159.9	040.0000	0037.2	052.6	52.53	
288.0	000.0946	0284.0	017.2	159.6	040.0000	0037.4	052.5	52.60	
289.0	000.0910	0284.5	017.1	159.2	040.0000	0037.6	052.3	52.66	
290.0	000.0875	0284.8	016.9	158.9	040.0000	0037.7	052.2	52.71	
291.0	000.0854	0285.0	016.8	158.6	040.0000	0037.8	052.1	52.76	
292.0	000.0834	0285.1	016.7	158.3	040.0000	0037.9	051.9	52.81	
293.0	000.0813	0285.2	016.6	158.0	040.0000	0038.0	051.8	52.86	
294.0	000.0793	0285.2	016.5	157.7	040.0000	0038.1	051.7	52.90	
295.0	000.0773	0285.0	016.4	157.4	040.0000	0038.1	051.6	52.93	
296.0	000.0754	0284.7	016.3	157.0	040.0000	0038.2	051.5	52.97	
297.0	000.0734	0284.4	016.1	156.7	040.0000	0038.1	051.4	52.99	
298.0	000.0715	0283.9	016.0	156.4	040.0000	0038.1	051.3	53.00	
299.0	000.0696	0283.5	015.9	156.0	040.0000	0038.1	051.2	53.01	
300.0	000.0678	0283.1	015.8	155.7	040.0000	0038.0	051.2	53.01	
301.0	000.0665	0282.7	015.7	155.4	040.0000	0037.8	051.1	53.00	

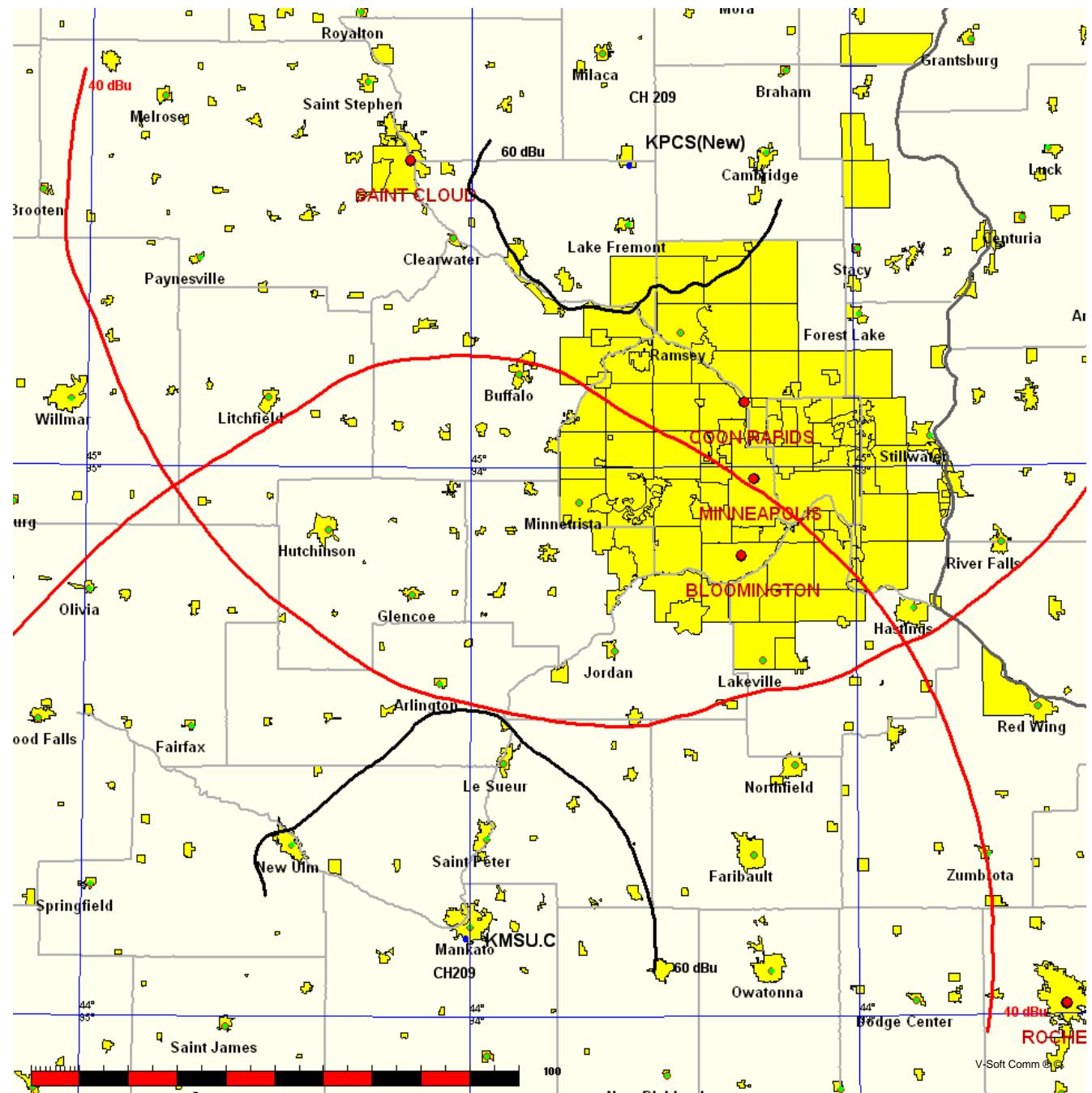
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
302.0	000.0653	0282.3	015.6	155.1	040.0000	0037.6	051.0	52.99
303.0	000.0641	0281.7	015.5	154.8	040.0000	0037.3	050.9	52.97
304.0	000.0629	0281.0	015.4	154.4	040.0000	0037.1	050.9	52.94
305.0	000.0617	0280.3	015.3	154.1	040.0000	0036.8	050.8	52.92
306.0	000.0606	0279.8	015.2	153.8	040.0000	0036.6	050.8	52.90
307.0	000.0594	0279.3	015.1	153.5	040.0000	0036.5	050.7	52.88
308.0	000.0583	0278.9	015.0	153.2	040.0000	0036.4	050.7	52.88
309.0	000.0571	0278.5	014.9	152.9	040.0000	0036.4	050.7	52.88
310.0	000.0560	0278.0	014.8	152.6	040.0000	0036.4	050.6	52.89
311.0	000.0554	0277.3	014.8	152.3	040.0000	0036.4	050.6	52.90
312.0	000.0549	0276.4	014.7	152.0	040.0000	0036.5	050.6	52.92
313.0	000.0543	0275.8	014.7	151.7	040.0000	0036.5	050.5	52.94
314.0	000.0538	0275.4	014.6	151.4	040.0000	0036.6	050.5	52.96
315.0	000.0532	0275.4	014.6	151.1	040.0000	0036.8	050.5	52.99
316.0	000.0527	0275.5	014.6	150.8	040.0000	0036.9	050.4	53.03
317.0	000.0521	0275.6	014.5	150.5	040.0000	0037.2	050.4	53.08
318.0	000.0516	0275.5	014.5	150.2	040.0000	0037.5	050.4	53.13
319.0	000.0511	0275.5	014.4	150.0	040.0000	0037.9	050.4	53.20
320.0	000.0505	0275.3	014.4	149.7	040.0000	0038.3	050.3	53.27
321.0	000.0505	0275.0	014.4	149.4	040.0000	0038.8	050.3	53.35
322.0	000.0505	0274.7	014.4	149.1	040.0000	0039.3	050.3	53.43
323.0	000.0505	0274.5	014.4	148.8	040.0000	0039.7	050.3	53.52
324.0	000.0505	0274.3	014.4	148.5	040.0000	0040.2	050.2	53.59
325.0	000.0505	0274.2	014.4	148.2	040.0000	0040.6	050.2	53.67
326.0	000.0505	0274.2	014.4	148.0	040.0000	0041.0	050.2	53.73
327.0	000.0505	0274.2	014.4	147.7	040.0000	0041.3	050.2	53.77
328.0	000.0505	0274.2	014.4	147.4	040.0000	0041.5	050.2	53.81
329.0	000.0505	0274.0	014.4	147.1	040.0000	0041.7	050.2	53.84
330.0	000.0505	0273.8	014.4	146.8	040.0000	0041.9	050.2	53.86
331.0	000.0505	0273.5	014.3	146.5	040.0000	0042.0	050.3	53.87
332.0	000.0505	0273.2	014.3	146.2	040.0000	0042.1	050.3	53.87
333.0	000.0505	0272.8	014.3	146.0	040.0000	0042.1	050.3	53.87
334.0	000.0505	0272.7	014.3	145.7	040.0000	0042.2	050.4	53.86
335.0	000.0505	0272.6	014.3	145.4	040.0000	0042.2	050.4	53.86
336.0	000.0505	0272.7	014.3	145.1	040.0000	0042.2	050.4	53.85
337.0	000.0505	0273.0	014.3	144.8	040.0000	0042.2	050.5	53.83
338.0	000.0505	0273.4	014.3	144.6	040.0000	0042.2	050.5	53.82
339.0	000.0505	0274.0	014.4	144.3	040.0000	0042.1	050.6	53.81
340.0	000.0505	0274.7	014.4	144.0	040.0000	0042.1	050.6	53.79
341.0	000.0511	0275.3	014.4	143.7	040.0000	0042.1	050.6	53.78
342.0	000.0516	0276.0	014.5	143.4	040.0000	0042.0	050.7	53.77
343.0	000.0521	0276.5	014.5	143.1	040.0000	0042.0	050.7	53.75
344.0	000.0527	0277.0	014.6	142.8	040.0000	0042.0	050.7	53.74
345.0	000.0532	0277.5	014.6	142.5	040.0000	0041.9	050.8	53.72
346.0	000.0538	0277.9	014.7	142.3	040.0000	0041.9	050.8	53.70
347.0	000.0543	0278.2	014.7	142.0	040.0000	0041.9	050.9	53.68
348.0	000.0549	0278.5	014.8	141.7	040.0000	0041.9	051.0	53.66
349.0	000.0554	0278.5	014.8	141.4	040.0000	0041.9	051.0	53.65
350.0	000.0560	0278.4	014.9	141.1	040.0000	0041.9	051.1	53.62
351.0	000.0571	0278.2	014.9	140.8	040.0000	0042.0	051.2	53.61
352.0	000.0583	0277.5	015.0	140.6	040.0000	0042.1	051.3	53.60

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
353.0	000.0594	0276.4	015.0	140.3	040.0000	0042.1	051.4	53.59
354.0	000.0606	0275.2	015.1	140.0	040.0000	0042.2	051.5	53.57
355.0	000.0617	0274.3	015.1	139.8	040.0000	0042.4	051.6	53.56
356.0	000.0629	0274.0	015.2	139.5	040.0000	0042.5	051.7	53.56
357.0	000.0641	0274.1	015.2	139.2	040.0000	0042.7	051.8	53.55
358.0	000.0653	0274.0	015.3	138.9	040.0000	0042.8	051.9	53.55
359.0	000.0665	0273.9	015.4	138.6	040.0000	0043.0	052.0	53.54
000.0	000.0678	0275.0	015.5	138.3	040.0000	0043.2	052.1	53.54
001.0	000.0696	0276.5	015.7	138.0	040.0000	0043.4	052.2	53.55
002.0	000.0715	0277.6	015.8	137.7	040.0000	0043.6	052.3	53.56
003.0	000.0734	0277.4	015.9	137.4	040.0000	0043.7	052.4	53.55
004.0	000.0754	0276.8	016.0	137.1	040.0000	0043.9	052.5	53.53
005.0	000.0773	0276.5	016.1	136.8	040.0000	0044.0	052.7	53.51
006.0	000.0793	0276.4	016.2	136.5	040.0000	0044.1	052.8	53.49
007.0	000.0813	0276.1	016.3	136.2	040.0000	0044.3	053.0	53.47
008.0	000.0834	0275.6	016.4	135.9	040.0000	0044.4	053.1	53.44
009.0	000.0854	0275.1	016.5	135.7	040.0000	0044.6	053.3	53.42
010.0	000.0875	0274.8	016.6	135.4	040.0000	0044.7	053.5	53.39
011.0	000.0910	0274.3	016.8	135.1	040.0000	0044.9	053.6	53.38
012.0	000.0946	0273.8	016.9	134.8	040.0000	0045.1	053.8	53.36
013.0	000.0983	0273.4	017.1	134.5	040.0000	0045.3	053.9	53.34
014.0	000.1021	0273.1	017.2	134.2	040.0000	0045.5	054.1	53.32
015.0	000.1059	0273.0	017.4	133.8	040.0000	0045.7	054.3	53.29
016.0	000.1098	0273.1	017.6	133.5	040.0000	0045.9	054.5	53.26
017.0	000.1137	0273.2	017.7	133.2	040.0000	0046.0	054.7	53.23
018.0	000.1177	0273.5	017.9	132.9	040.0000	0046.1	054.9	53.19
019.0	000.1218	0273.8	018.1	132.6	040.0000	0046.2	055.1	53.14
020.0	000.1260	0274.2	018.2	132.3	040.0000	0046.3	055.3	53.09
021.0	000.1302	0274.5	018.4	132.1	040.0000	0046.4	055.6	53.03
022.0	000.1345	0274.6	018.6	131.8	040.0000	0046.4	055.8	52.97
023.0	000.1389	0274.6	018.7	131.5	040.0000	0046.4	056.1	52.90
024.0	000.1434	0274.5	018.9	131.3	040.0000	0046.5	056.3	52.83
025.0	000.1479	0274.4	019.0	131.0	040.0000	0046.5	056.6	52.76
026.0	000.1525	0274.3	019.1	130.8	040.0000	0046.5	056.9	52.68
027.0	000.1571	0274.1	019.3	130.6	040.0000	0046.5	057.2	52.60
028.0	000.1618	0251.2	018.6	131.2	040.0000	0046.5	057.7	52.47

FMCommander Single Allocation Study - 10-06-2009 - FCC NGDC 30 Sec
KPCS(New)'s Overlaps (In= 12.8 km, Out= 1.02 km)

KPCS(New) CH 209 C2
Lat= 45 33 10.0, Lng= 93 34 54.0
40.0 kW 42.4 M HAAT, 340.5 M COR
Prot.= 60 dBu, Intef.= 40 dBu

KMSU-C CH 209 C2 BPED20070907AED
Lat= 44 08 31.0, Lng= 94 00 06.0
16.8 kW 133 M HAAT, 424.9 M COR
Prot.= 60 dBu, Intef.= 40 dBu



10-06-2009

FCC NGDC 30 Sec Terrain Data

FMOver Analysis

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Protected
 60 dBu

KMSU-C BPED20070907AED
 Channel = 209C2
 Max ERP = 16.8 kW
 RCAMSL = 424.9 M
 N. Lat. 44 08 31.0
 W. Lng. 94 00 06.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
132.0	040.0000	0046.4	030.6	022.0	016.8000	0132.2	147.4	32.99	
133.0	040.0000	0046.1	030.5	021.9	016.8000	0132.3	146.9	33.07	
134.0	040.0000	0045.6	030.4	021.8	016.8000	0132.4	146.4	33.15	
135.0	040.0000	0045.0	030.1	021.6	016.8000	0132.6	146.0	33.23	
136.0	040.0000	0044.4	030.0	021.5	016.8000	0132.7	145.6	33.30	
137.0	040.0000	0043.9	029.8	021.3	016.8000	0132.9	145.2	33.38	
138.0	040.0000	0043.4	029.6	021.2	016.8000	0133.1	144.8	33.45	
139.0	040.0000	0042.8	029.4	021.0	016.8000	0133.3	144.5	33.53	
140.0	040.0000	0042.3	029.3	020.9	016.8000	0133.5	144.1	33.60	
141.0	040.0000	0042.0	029.2	020.8	016.8000	0133.7	143.7	33.67	
142.0	040.0000	0041.9	029.1	020.6	016.8000	0133.8	143.3	33.76	
143.0	040.0000	0042.0	029.2	020.5	016.8000	0134.0	142.8	33.85	
144.0	040.0000	0042.1	029.2	020.5	016.8000	0134.1	142.4	33.93	
145.0	040.0000	0042.2	029.2	020.4	016.8000	0134.3	142.0	34.02	
146.0	040.0000	0042.1	029.2	020.2	016.8000	0134.5	141.6	34.10	
147.0	040.0000	0041.8	029.1	020.1	016.8000	0134.8	141.2	34.18	
148.0	040.0000	0041.0	028.8	019.9	016.8000	0135.2	141.0	34.23	
149.0	040.0000	0039.4	028.3	019.6	016.8000	0135.8	140.9	34.26	
150.0	040.0000	0037.8	027.8	019.3	016.8000	0136.4	140.9	34.28	
151.0	040.0000	0036.8	027.5	019.1	016.8000	0136.8	140.7	34.33	
152.0	040.0000	0036.4	027.3	018.9	016.8000	0137.1	140.4	34.39	
153.0	040.0000	0036.4	027.3	018.8	016.8000	0137.4	140.1	34.46	
154.0	040.0000	0036.7	027.4	018.7	016.8000	0137.6	139.7	34.55	
155.0	040.0000	0037.5	027.7	018.6	016.8000	0137.7	139.2	34.65	
156.0	040.0000	0038.1	027.9	018.5	016.8000	0137.9	138.7	34.74	
157.0	040.0000	0038.2	027.9	018.4	016.8000	0138.2	138.4	34.82	
158.0	040.0000	0038.0	027.8	018.2	016.8000	0138.5	138.1	34.88	
159.0	040.0000	0037.7	027.8	018.0	016.8000	0138.8	137.8	34.94	
160.0	040.0000	0037.2	027.6	017.8	016.8000	0139.2	137.7	34.98	
161.0	040.0000	0036.3	027.3	017.6	016.8000	0139.7	137.6	35.01	
162.0	040.0000	0034.9	026.8	017.3	016.8000	0140.2	137.7	35.00	
163.0	040.0000	0033.2	026.3	017.0	016.8000	0140.9	137.9	34.98	
164.0	040.0000	0031.3	025.7	016.7	016.8000	0141.6	138.2	34.95	
165.0	040.0000	0029.6	025.2	016.5	016.8000	0142.3	138.3	34.94	
166.0	040.0000	0028.6	025.2	016.3	016.8000	0142.8	138.1	35.00	
167.0	040.0000	0028.4	025.2	016.2	016.8000	0143.2	137.8	35.06	
168.0	040.0000	0028.4	025.2	016.0	016.8000	0143.7	137.6	35.11	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
169.0	040.0000	0029.2	025.2	015.9	016.8000	0144.3	137.4	35.17
170.0	040.0000	0031.0	025.5	015.8	016.8000	0144.6	137.0	35.27
171.0	040.0000	0033.1	026.2	015.7	016.8000	0144.8	136.1	35.43
172.0	040.0000	0035.1	026.9	015.7	016.8000	0145.0	135.3	35.60
173.0	040.0000	0036.5	027.4	015.6	016.8000	0145.4	134.7	35.73
174.0	040.0000	0037.4	027.7	015.4	016.8000	0145.9	134.3	35.83
175.0	040.0000	0038.1	027.9	015.3	016.8000	0146.5	133.9	35.92
176.0	040.0000	0039.5	028.4	015.1	016.8000	0147.0	133.3	36.06
177.0	040.0000	0041.5	029.0	015.0	016.8000	0147.4	132.5	36.22
178.0	040.0000	0043.2	029.6	014.9	016.8000	0147.9	131.8	36.37
179.0	040.0000	0043.6	029.7	014.7	016.8000	0148.7	131.5	36.45
180.0	040.0000	0044.1	029.9	014.5	016.8000	0149.6	131.3	36.52
181.0	040.0000	0044.4	029.9	014.3	016.8000	0150.5	131.0	36.59
182.0	040.0000	0044.1	029.9	014.1	016.8000	0151.5	131.0	36.63
183.0	040.0000	0043.9	029.8	013.8	016.8000	0152.6	131.0	36.66
184.0	040.0000	0043.6	029.7	013.6	016.8000	0153.7	131.0	36.69
185.0	040.0000	0043.7	029.7	013.4	016.8000	0154.8	130.8	36.74
186.0	040.0000	0043.7	029.7	013.2	016.8000	0155.9	130.8	36.79
187.0	040.0000	0043.7	029.7	012.9	016.8000	0157.0	130.7	36.83
188.0	040.0000	0043.7	029.7	012.7	016.8000	0158.0	130.7	36.86
189.0	040.0000	0043.7	029.7	012.5	016.8000	0159.1	130.6	36.90
190.0	040.0000	0043.7	029.7	012.3	016.8000	0160.1	130.6	36.93
191.0	040.0000	0043.6	029.7	012.0	016.8000	0161.2	130.6	36.96
192.0	040.0000	0043.6	029.7	011.8	016.8000	0162.3	130.6	36.98
193.0	040.0000	0043.6	029.7	011.6	016.8000	0163.4	130.6	37.01
194.0	040.0000	0043.7	029.7	011.4	016.8000	0164.5	130.6	37.04
195.0	040.0000	0043.8	029.8	011.1	016.8000	0165.6	130.6	37.07
196.0	040.0000	0044.1	029.9	010.9	016.8000	0166.7	130.5	37.11
197.0	040.0000	0044.7	030.0	010.7	016.8000	0167.7	130.4	37.16
198.0	040.0000	0045.5	030.3	010.4	016.8000	0168.8	130.2	37.23
199.0	040.0000	0046.5	030.6	010.2	016.8000	0169.8	130.0	37.30
200.0	040.0000	0047.5	031.0	009.9	016.8000	0170.8	129.7	37.37
201.0	040.0000	0048.4	031.3	009.7	016.8000	0171.7	129.5	37.44
202.0	040.0000	0049.1	031.5	009.4	016.8000	0172.6	129.4	37.48
203.0	040.0000	0049.5	031.6	009.2	016.8000	0173.3	129.4	37.50
204.0	040.0000	0049.6	031.7	008.9	016.8000	0174.0	129.5	37.50
205.0	040.0000	0049.7	031.7	008.7	016.8000	0174.6	129.6	37.48
206.0	040.0000	0049.6	031.7	008.5	016.8000	0175.2	129.8	37.46
207.0	040.0000	0049.2	031.5	008.3	016.8000	0175.7	130.1	37.42
208.0	040.0000	0048.7	031.4	008.1	016.8000	0176.2	130.5	37.36
209.0	040.0000	0048.1	031.2	007.9	016.8000	0176.6	130.8	37.30
210.0	040.0000	0047.5	031.0	007.7	016.8000	0177.0	131.2	37.23
211.0	040.0000	0046.9	030.8	007.5	016.8000	0177.3	131.6	37.16
212.0	040.0000	0046.3	030.6	007.3	016.8000	0177.6	132.0	37.09
213.0	040.0000	0045.6	030.4	007.2	016.8000	0177.9	132.4	37.02
214.0	040.0000	0045.1	030.2	007.0	016.8000	0178.2	132.8	36.95
215.0	040.0000	0044.7	030.1	006.8	016.8000	0178.5	133.2	36.89
216.0	040.0000	0044.7	030.1	006.6	016.8000	0178.9	133.4	36.84
217.0	040.0000	0044.8	030.1	006.4	016.8000	0179.2	133.7	36.81
218.0	040.0000	0045.2	030.2	006.2	016.8000	0179.6	133.8	36.78
219.0	040.0000	0045.5	030.3	006.0	016.8000	0179.9	134.0	36.75

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
220.0	040.0000	0045.6	030.4	005.8	016.8000	0180.2	134.3	36.71
221.0	040.0000	0045.7	030.4	005.6	016.8000	0180.5	134.6	36.66
222.0	040.0000	0045.8	030.4	005.4	016.8000	0180.7	134.8	36.61
223.0	040.0000	0045.9	030.5	005.2	016.8000	0180.9	135.1	36.56
224.0	040.0000	0045.9	030.5	005.1	016.8000	0181.1	135.5	36.50
225.0	040.0000	0045.9	030.4	004.9	016.8000	0181.3	135.8	36.43
226.0	040.0000	0045.6	030.4	004.7	016.8000	0181.5	136.2	36.36
227.0	040.0000	0045.3	030.3	004.6	016.8000	0181.6	136.7	36.28
228.0	040.0000	0045.0	030.2	004.5	016.8000	0181.8	137.1	36.20
229.0	040.0000	0044.7	030.1	004.3	016.8000	0182.0	137.5	36.12
230.0	040.0000	0044.5	030.0	004.2	016.8000	0182.1	138.0	36.04
231.0	040.0000	0044.2	029.9	004.1	016.8000	0182.3	138.4	35.96
232.0	040.0000	0043.9	029.8	004.0	016.8000	0182.4	138.8	35.87
233.0	040.0000	0043.6	029.7	003.9	016.8000	0182.5	139.3	35.79
234.0	040.0000	0043.6	029.7	003.7	016.8000	0182.7	139.7	35.72
235.0	040.0000	0043.8	029.8	003.6	016.8000	0182.8	140.1	35.65
236.0	040.0000	0044.0	029.8	003.4	016.8000	0182.9	140.4	35.58
237.0	040.0000	0044.0	029.8	003.3	016.8000	0183.0	140.8	35.51
238.0	040.0000	0044.0	029.8	003.2	016.8000	0183.1	141.3	35.43
239.0	040.0000	0043.8	029.8	003.1	016.8000	0183.2	141.7	35.34
240.0	040.0000	0043.6	029.7	003.0	016.8000	0183.2	142.2	35.26
241.0	040.0000	0043.5	029.7	002.9	016.8000	0183.3	142.7	35.17
242.0	040.0000	0043.3	029.6	002.8	016.8000	0183.3	143.1	35.08
243.0	040.0000	0043.3	029.6	002.7	016.8000	0183.4	143.6	35.00
244.0	040.0000	0043.3	029.6	002.6	016.8000	0183.5	144.0	34.92
245.0	040.0000	0043.2	029.6	002.5	016.8000	0183.5	144.5	34.83
246.0	040.0000	0043.1	029.5	002.4	016.8000	0183.5	145.0	34.75
247.0	040.0000	0043.0	029.5	002.4	016.8000	0183.6	145.5	34.66
248.0	040.0000	0042.9	029.5	002.3	016.8000	0183.6	145.9	34.57
249.0	040.0000	0042.8	029.4	002.2	016.8000	0183.7	146.4	34.49
250.0	040.0000	0042.8	029.4	002.1	016.8000	0183.7	146.9	34.40
251.0	040.0000	0042.9	029.5	002.1	016.8000	0183.7	147.4	34.32
252.0	040.0000	0043.7	029.7	001.9	016.8000	0183.8	147.7	34.26

10-06-2009 FCC NGDC 30 Sec Terrain Data

KMSU-C BPED20070907AED
 Channel = 209C2
 Max ERP = 16.8 kW
 RCAMSL = 424.9 M
 N. Lat. 44 08 31.0
 W. Lng. 94 00 06.0
 Protected
 60 dBu

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
312.0	016.8000	0129.6	040.0	206.0	040.0000	0049.6	144.4	34.62	
313.0	016.8000	0129.0	039.9	205.9	040.0000	0049.6	143.7	34.73	
314.0	016.8000	0128.6	039.9	205.8	040.0000	0049.6	143.1	34.85	
315.0	016.8000	0128.4	039.8	205.7	040.0000	0049.6	142.4	34.97	
316.0	016.8000	0128.3	039.8	205.6	040.0000	0049.6	141.8	35.09	
317.0	016.8000	0128.3	039.8	205.5	040.0000	0049.7	141.2	35.21	
318.0	016.8000	0128.3	039.8	205.4	040.0000	0049.7	140.5	35.33	
319.0	016.8000	0128.3	039.8	205.3	040.0000	0049.7	139.9	35.45	
320.0	016.8000	0128.4	039.8	205.1	040.0000	0049.7	139.2	35.57	
321.0	016.8000	0128.4	039.8	205.0	040.0000	0049.7	138.6	35.69	
322.0	016.8000	0128.5	039.9	204.9	040.0000	0049.7	138.0	35.80	
323.0	016.8000	0128.6	039.9	204.7	040.0000	0049.7	137.4	35.92	
324.0	016.8000	0128.7	039.9	204.6	040.0000	0049.7	136.7	36.03	
325.0	016.8000	0128.8	039.9	204.5	040.0000	0049.7	136.1	36.15	
326.0	016.8000	0129.0	039.9	204.3	040.0000	0049.7	135.5	36.26	
327.0	016.8000	0129.2	039.9	204.2	040.0000	0049.7	134.9	36.37	
328.0	016.8000	0129.4	040.0	204.0	040.0000	0049.6	134.3	36.48	
329.0	016.8000	0129.6	040.0	203.8	040.0000	0049.6	133.8	36.59	
330.0	016.8000	0129.7	040.0	203.7	040.0000	0049.6	133.2	36.69	
331.0	016.8000	0130.0	040.0	203.5	040.0000	0049.6	132.6	36.80	
332.0	016.8000	0130.4	040.1	203.3	040.0000	0049.6	132.0	36.91	
333.0	016.8000	0131.1	040.2	203.2	040.0000	0049.5	131.4	37.02	
334.0	016.8000	0132.0	040.3	203.0	040.0000	0049.5	130.8	37.13	
335.0	016.8000	0133.3	040.4	202.8	040.0000	0049.4	130.2	37.24	
336.0	016.8000	0134.8	040.6	202.7	040.0000	0049.4	129.5	37.36	
337.0	016.8000	0136.5	040.9	202.5	040.0000	0049.4	128.9	37.48	
338.0	016.8000	0138.3	041.1	202.4	040.0000	0049.3	128.2	37.60	
339.0	016.8000	0140.2	041.3	202.2	040.0000	0049.2	127.5	37.72	
340.0	016.8000	0142.3	041.6	202.1	040.0000	0049.2	126.9	37.84	
341.0	016.8000	0144.5	041.9	201.9	040.0000	0049.1	126.2	37.97	
342.0	016.8000	0146.9	042.2	201.7	040.0000	0049.0	125.5	38.09	
343.0	016.8000	0149.8	042.6	201.6	040.0000	0048.9	124.7	38.22	
344.0	016.8000	0153.5	043.0	201.4	040.0000	0048.7	123.9	38.37	
345.0	016.8000	0158.1	043.6	201.3	040.0000	0048.7	123.0	38.53	

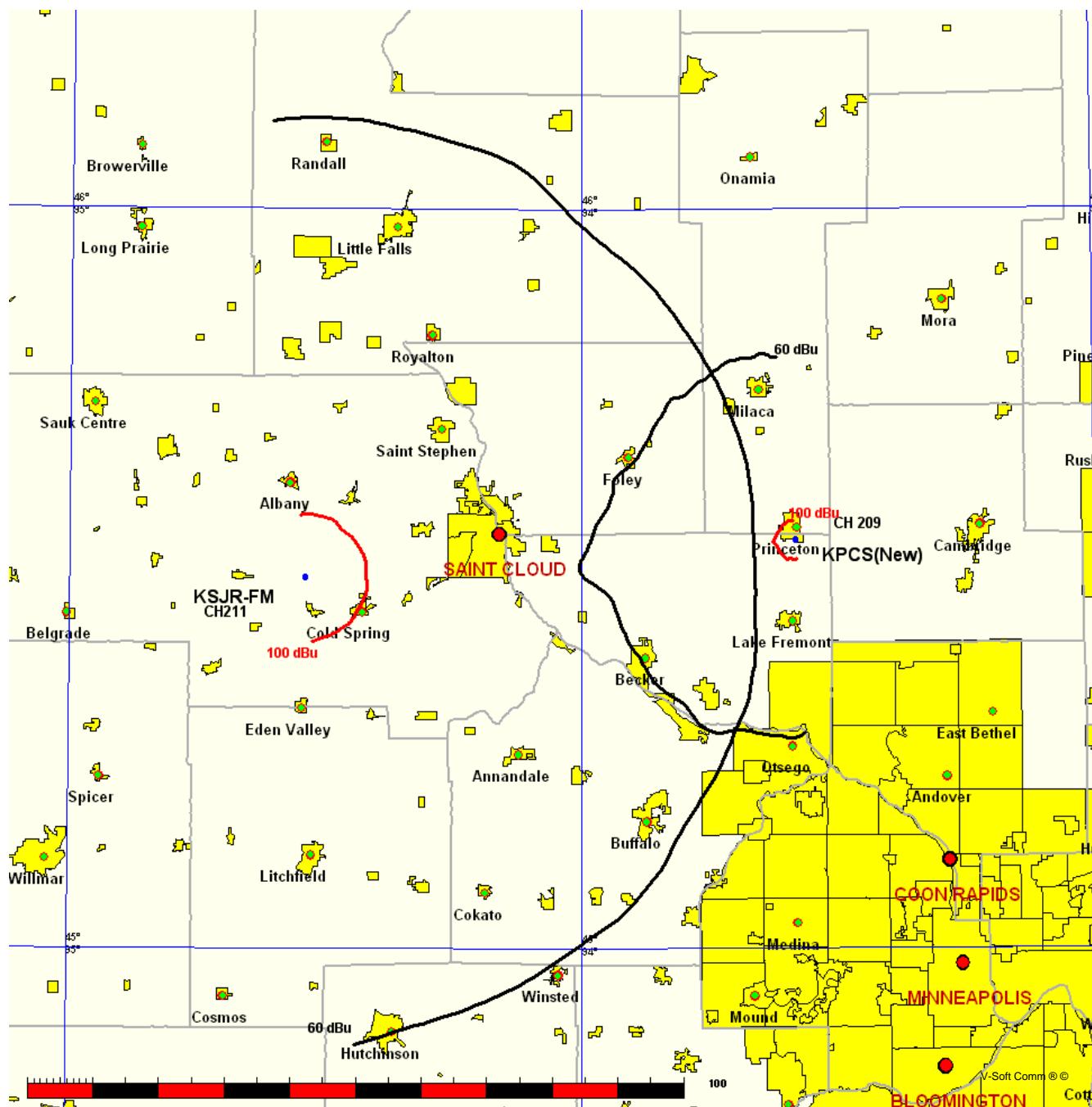
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
346.0	016.8000	0163.5	044.2	201.2	040.0000	0048.6	122.0	38.70
347.0	016.8000	0168.2	044.7	201.0	040.0000	0048.4	121.1	38.86
348.0	016.8000	0171.4	045.1	200.8	040.0000	0048.2	120.4	38.98
349.0	016.8000	0174.1	045.4	200.5	040.0000	0048.0	119.8	39.08
350.0	016.8000	0177.3	045.7	200.3	040.0000	0047.7	119.1	39.19
351.0	016.8000	0180.1	045.9	200.0	040.0000	0047.5	118.5	39.29
352.0	016.8000	0181.7	046.0	199.7	040.0000	0047.1	118.0	39.37
353.0	016.8000	0182.3	046.1	199.3	040.0000	0046.8	117.6	39.43
354.0	016.8000	0182.8	046.1	199.0	040.0000	0046.5	117.2	39.48
355.0	016.8000	0182.5	046.1	198.6	040.0000	0046.1	116.9	39.52
356.0	016.8000	0182.3	046.1	198.2	040.0000	0045.7	116.6	39.56
357.0	016.8000	0183.1	046.2	197.9	040.0000	0045.4	116.3	39.60
358.0	016.8000	0184.7	046.3	197.5	040.0000	0045.1	115.9	39.66
359.0	016.8000	0184.5	046.3	197.1	040.0000	0044.8	115.6	39.69
000.0	016.8000	0184.4	046.3	196.8	040.0000	0044.5	115.4	39.72
001.0	016.8000	0184.1	046.2	196.4	040.0000	0044.3	115.2	39.75
002.0	016.8000	0183.8	046.2	196.0	040.0000	0044.1	115.0	39.77
003.0	016.8000	0183.2	046.2	195.6	040.0000	0044.0	114.9	39.79
004.0	016.8000	0182.4	046.1	195.2	040.0000	0043.9	114.8	39.80
005.0	016.8000	0181.2	046.0	194.8	040.0000	0043.8	114.7	39.81
006.0	016.8000	0179.9	045.9	194.4	040.0000	0043.7	114.7	39.81
007.0	016.8000	0178.2	045.7	194.0	040.0000	0043.7	114.8	39.80
008.0	016.8000	0176.3	045.6	193.5	040.0000	0043.6	114.9	39.78
009.0	016.8000	0173.8	045.3	193.1	040.0000	0043.6	115.0	39.74
010.0	016.8000	0170.5	045.0	192.7	040.0000	0043.6	115.3	39.69
011.0	016.8000	0166.3	044.5	192.3	040.0000	0043.6	115.8	39.61
012.0	016.8000	0161.4	044.0	192.0	040.0000	0043.6	116.3	39.51
013.0	016.8000	0156.7	043.4	191.6	040.0000	0043.6	116.9	39.40
014.0	016.8000	0151.8	042.8	191.2	040.0000	0043.6	117.5	39.28
015.0	016.8000	0147.5	042.3	190.9	040.0000	0043.6	118.1	39.17
016.0	016.8000	0143.8	041.8	190.5	040.0000	0043.6	118.6	39.08
017.0	016.8000	0141.0	041.4	190.2	040.0000	0043.7	119.1	39.00
018.0	016.8000	0138.9	041.2	189.9	040.0000	0043.7	119.4	38.93
019.0	016.8000	0136.9	040.9	189.6	040.0000	0043.7	119.8	38.86
020.0	016.8000	0135.0	040.7	189.3	040.0000	0043.7	120.2	38.79
021.0	016.8000	0133.3	040.5	188.9	040.0000	0043.7	120.5	38.73
022.0	016.8000	0132.3	040.3	188.6	040.0000	0043.7	120.8	38.68
023.0	016.8000	0131.6	040.2	188.3	040.0000	0043.7	121.0	38.63
024.0	016.8000	0131.0	040.2	188.0	040.0000	0043.7	121.3	38.58
025.0	016.8000	0130.3	040.1	187.7	040.0000	0043.7	121.6	38.53
026.0	016.8000	0129.5	040.0	187.4	040.0000	0043.7	121.9	38.47
027.0	016.8000	0128.6	039.9	187.1	040.0000	0043.7	122.2	38.41
028.0	016.8000	0127.5	039.7	186.8	040.0000	0043.7	122.6	38.34
029.0	016.8000	0126.4	039.6	186.5	040.0000	0043.7	123.0	38.27
030.0	016.8000	0125.6	039.5	186.3	040.0000	0043.7	123.4	38.20
031.0	016.8000	0124.8	039.4	186.0	040.0000	0043.7	123.7	38.14
032.0	016.8000	0124.3	039.3	185.7	040.0000	0043.8	124.1	38.07
033.0	016.8000	0124.6	039.4	185.4	040.0000	0043.8	124.4	38.02
034.0	016.8000	0125.0	039.4	185.1	040.0000	0043.7	124.7	37.97
035.0	016.8000	0124.9	039.4	184.9	040.0000	0043.7	125.0	37.90
036.0	016.8000	0124.6	039.4	184.6	040.0000	0043.7	125.4	37.83

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
037.0	016.8000	0124.5	039.4	184.3	040.0000	0043.6	125.8	37.76
038.0	016.8000	0124.7	039.4	184.1	040.0000	0043.6	126.1	37.69
039.0	016.8000	0124.7	039.4	183.8	040.0000	0043.7	126.5	37.62
040.0	016.8000	0124.3	039.3	183.6	040.0000	0043.7	127.0	37.54
041.0	016.8000	0123.9	039.3	183.3	040.0000	0043.8	127.4	37.46
042.0	016.8000	0123.6	039.2	183.1	040.0000	0043.9	127.9	37.38
043.0	016.8000	0123.5	039.2	182.9	040.0000	0043.9	128.3	37.30
044.0	016.8000	0123.6	039.2	182.6	040.0000	0044.0	128.7	37.22
045.0	016.8000	0123.6	039.2	182.4	040.0000	0044.0	129.2	37.14
046.0	016.8000	0123.5	039.2	182.2	040.0000	0044.1	129.7	37.05
047.0	016.8000	0123.6	039.2	182.0	040.0000	0044.1	130.2	36.97
048.0	016.8000	0123.6	039.2	181.8	040.0000	0044.2	130.6	36.88
049.0	016.8000	0123.3	039.2	181.6	040.0000	0044.2	131.2	36.78
050.0	016.8000	0122.9	039.2	181.4	040.0000	0044.3	131.7	36.69
051.0	016.8000	0122.5	039.1	181.2	040.0000	0044.3	132.3	36.59
052.0	016.8000	0122.4	039.1	181.0	040.0000	0044.4	132.8	36.49
053.0	016.8000	0122.3	039.1	180.8	040.0000	0044.4	133.3	36.39
054.0	016.8000	0122.2	039.1	180.7	040.0000	0044.4	133.9	36.28
055.0	016.8000	0121.9	039.0	180.5	040.0000	0044.3	134.5	36.17
056.0	016.8000	0121.6	039.0	180.3	040.0000	0044.2	135.0	36.06
057.0	016.8000	0121.5	039.0	180.2	040.0000	0044.2	135.6	35.95
058.0	016.8000	0121.4	039.0	180.0	040.0000	0044.1	136.2	35.84
059.0	016.8000	0121.0	038.9	179.9	040.0000	0044.0	136.8	35.72
060.0	016.8000	0120.4	038.9	179.8	040.0000	0044.0	137.4	35.60
061.0	016.8000	0119.8	038.8	179.7	040.0000	0043.9	138.0	35.48
062.0	016.8000	0119.4	038.7	179.6	040.0000	0043.9	138.7	35.37
063.0	016.8000	0119.2	038.7	179.4	040.0000	0043.8	139.3	35.25
064.0	016.8000	0118.9	038.7	179.3	040.0000	0043.8	139.9	35.13
065.0	016.8000	0118.3	038.6	179.3	040.0000	0043.7	140.6	35.01
066.0	016.8000	0117.6	038.5	179.2	040.0000	0043.7	141.2	34.89
067.0	016.8000	0117.2	038.4	179.1	040.0000	0043.7	141.8	34.77
068.0	016.8000	0116.8	038.4	179.0	040.0000	0043.6	142.5	34.65
069.0	016.8000	0116.7	038.4	178.9	040.0000	0043.6	143.1	34.53
070.0	016.8000	0116.6	038.4	178.8	040.0000	0043.6	143.8	34.41
071.0	016.8000	0116.7	038.4	178.7	040.0000	0043.5	144.4	34.29
072.0	016.8000	0128.1	039.8	178.1	040.0000	0043.2	144.6	34.23

FMCommander Single Allocation Study - 10-06-2009 - FCC NGDC 30 Sec
KPCS(New)'s Overlaps (In= 32.53 km, Out= 2.75 km)

KPCS(New) CH 209 C2
Lat= 45 33 10.0, Lng= 93 34 54.0
40.0 kW 42.4 M HAAT, 340.5 M COR
Prot.= 60 dBu, Intef.= 100 dBu

KSJR-FM CH 211 C1 BMLED19880616KA
Lat= 45 29 52.0, Lng= 94 32 14.0
100.0 kW 258 M HAAT, 617 M COR
Prot.= 60 dBu, Intef.= 100 dBu



10-06-2009

FCC NGDC 30 Sec Terrain Data

FMOver Analysis

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Protected
 60 dBu

KSJR-FM BMLED19880616KA
 Channel = 211C1
 Max ERP = 100 kW
 RCAMSL = 617 M
 N. Lat. 45 29 52.0
 W. Lng. 94 32 14.0
 Interfering
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
206.0	040.0000	0049.6	031.7	109.9	100.0000	0264.7	064.7	66.01	
207.0	040.0000	0049.2	031.5	109.8	100.0000	0264.9	064.2	66.19	
208.0	040.0000	0048.7	031.4	109.6	100.0000	0265.1	063.7	66.39	
209.0	040.0000	0048.1	031.2	109.3	100.0000	0265.4	063.2	66.58	
210.0	040.0000	0047.5	031.0	109.0	100.0000	0265.8	062.7	66.78	
211.0	040.0000	0046.9	030.8	108.8	100.0000	0266.3	062.2	66.98	
212.0	040.0000	0046.3	030.6	108.5	100.0000	0266.8	061.7	67.17	
213.0	040.0000	0045.6	030.4	108.2	100.0000	0267.4	061.2	67.37	
214.0	040.0000	0045.1	030.2	107.9	100.0000	0267.9	060.8	67.56	
215.0	040.0000	0044.7	030.1	107.6	100.0000	0268.3	060.3	67.75	
216.0	040.0000	0044.7	030.1	107.5	100.0000	0268.6	059.8	67.95	
217.0	040.0000	0044.8	030.1	107.4	100.0000	0268.7	059.3	68.16	
218.0	040.0000	0045.2	030.2	107.3	100.0000	0268.8	058.8	68.37	
219.0	040.0000	0045.5	030.3	107.2	100.0000	0269.0	058.2	68.58	
220.0	040.0000	0045.6	030.4	107.0	100.0000	0269.1	057.7	68.78	
221.0	040.0000	0045.7	030.4	106.9	100.0000	0269.3	057.2	68.99	
222.0	040.0000	0045.8	030.4	106.7	100.0000	0269.6	056.7	69.19	
223.0	040.0000	0045.9	030.5	106.5	100.0000	0269.8	056.2	69.39	
224.0	040.0000	0045.9	030.5	106.2	100.0000	0270.0	055.8	69.59	
225.0	040.0000	0045.9	030.4	105.9	100.0000	0270.2	055.3	69.78	
226.0	040.0000	0045.6	030.4	105.6	100.0000	0270.4	054.9	69.96	
227.0	040.0000	0045.3	030.3	105.2	100.0000	0270.5	054.5	70.13	
228.0	040.0000	0045.0	030.2	104.8	100.0000	0270.4	054.1	70.28	
229.0	040.0000	0044.7	030.1	104.5	100.0000	0270.3	053.7	70.43	
230.0	040.0000	0044.5	030.0	104.1	100.0000	0270.0	053.3	70.58	
231.0	040.0000	0044.2	029.9	103.7	100.0000	0269.6	052.9	70.72	
232.0	040.0000	0043.9	029.8	103.2	100.0000	0269.2	052.6	70.84	
233.0	040.0000	0043.6	029.7	102.8	100.0000	0268.8	052.2	70.97	
234.0	040.0000	0043.6	029.7	102.4	100.0000	0268.5	051.8	71.11	
235.0	040.0000	0043.8	029.8	102.1	100.0000	0268.2	051.4	71.28	
236.0	040.0000	0044.0	029.8	101.7	100.0000	0268.0	051.0	71.44	
237.0	040.0000	0044.0	029.8	101.3	100.0000	0267.7	050.6	71.59	
238.0	040.0000	0044.0	029.8	100.9	100.0000	0267.5	050.3	71.72	
239.0	040.0000	0043.8	029.8	100.4	100.0000	0267.2	049.9	71.84	
240.0	040.0000	0043.6	029.7	099.9	100.0000	0266.7	049.6	71.94	
241.0	040.0000	0043.5	029.7	099.4	100.0000	0266.1	049.4	72.04	
242.0	040.0000	0043.3	029.6	098.9	100.0000	0265.1	049.1	72.12	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
243.0	040.0000	0043.3	029.6	098.4	100.0000	0264.0	048.8	72.20
244.0	040.0000	0043.3	029.6	097.9	100.0000	0262.8	048.5	72.28
245.0	040.0000	0043.2	029.6	097.4	100.0000	0261.5	048.2	72.34
246.0	040.0000	0043.1	029.5	096.9	100.0000	0260.3	048.0	72.40
247.0	040.0000	0043.0	029.5	096.3	100.0000	0259.1	047.7	72.45
248.0	040.0000	0042.9	029.5	095.7	100.0000	0258.2	047.5	72.51
249.0	040.0000	0042.8	029.4	095.2	100.0000	0257.5	047.3	72.57
250.0	040.0000	0042.8	029.4	094.6	100.0000	0256.8	047.1	72.64
251.0	040.0000	0042.9	029.5	094.0	100.0000	0256.1	046.9	72.71
252.0	040.0000	0043.1	029.5	093.5	100.0000	0255.6	046.6	72.80
253.0	040.0000	0043.4	029.6	093.0	100.0000	0255.3	046.3	72.91
254.0	040.0000	0044.2	029.9	092.4	100.0000	0255.1	045.9	73.08
255.0	040.0000	0045.3	030.3	092.0	100.0000	0254.8	045.4	73.28
256.0	040.0000	0046.8	030.7	091.5	100.0000	0254.5	044.8	73.53
257.0	040.0000	0048.4	031.3	091.0	100.0000	0254.1	044.1	73.80
258.0	040.0000	0049.9	031.8	090.4	100.0000	0253.7	043.5	74.04
259.0	040.0000	0051.8	032.4	089.9	100.0000	0253.4	042.8	74.35
260.0	040.0000	0053.4	032.9	089.3	100.0000	0252.9	042.2	74.59
261.0	040.0000	0054.4	033.2	088.5	100.0000	0252.6	041.8	74.75
262.0	040.0000	0054.5	033.2	087.8	100.0000	0252.7	041.7	74.80
263.0	040.0000	0054.1	033.1	087.0	100.0000	0252.9	041.8	74.77
264.0	040.0000	0053.3	032.9	086.1	100.0000	0253.1	042.0	74.70
265.0	040.0000	0052.3	032.6	085.4	100.0000	0253.3	042.2	74.58
266.0	040.0000	0051.1	032.2	084.6	100.0000	0253.6	042.6	74.42
267.0	040.0000	0050.0	031.8	083.9	100.0000	0254.4	043.0	74.27
268.0	040.0000	0049.0	031.5	083.2	100.0000	0255.3	043.4	74.15
269.0	040.0000	0048.3	031.3	082.5	100.0000	0256.4	043.6	74.07
270.0	040.0000	0047.8	031.1	081.8	100.0000	0257.4	043.9	74.00
271.0	040.0000	0047.3	030.9	081.1	100.0000	0258.5	044.1	73.93
272.0	040.0000	0046.7	030.7	080.5	100.0000	0259.5	044.4	73.85
273.0	040.0000	0046.2	030.5	079.9	100.0000	0260.3	044.7	73.75
274.0	040.0000	0045.7	030.4	079.2	100.0000	0260.8	044.9	73.67
275.0	040.0000	0044.9	030.1	078.7	100.0000	0261.3	045.4	73.51
276.0	040.0000	0044.1	029.8	078.2	100.0000	0261.6	045.8	73.35
277.0	040.0000	0043.1	029.5	077.7	100.0000	0261.8	046.2	73.16
278.0	040.0000	0042.1	029.2	077.2	100.0000	0262.0	046.7	72.98
279.0	040.0000	0041.6	029.0	076.7	100.0000	0262.3	047.0	72.84
280.0	040.0000	0041.3	028.9	076.2	100.0000	0262.6	047.3	72.74
281.0	040.0000	0040.9	028.8	075.7	100.0000	0262.8	047.7	72.61
282.0	040.0000	0040.4	028.7	075.2	100.0000	0263.0	048.0	72.48
283.0	040.0000	0040.3	028.6	074.7	100.0000	0263.2	048.3	72.38
284.0	040.0000	0040.3	028.6	074.2	100.0000	0263.3	048.5	72.29
285.0	040.0000	0040.5	028.7	073.6	100.0000	0263.2	048.7	72.21
286.0	040.0000	0041.0	028.8	073.0	100.0000	0263.1	048.8	72.15
287.0	040.0000	0041.4	029.0	072.5	100.0000	0262.9	049.0	72.08
288.0	040.0000	0041.4	029.0	072.0	100.0000	0262.7	049.3	71.95
289.0	040.0000	0040.9	028.8	071.6	100.0000	0262.4	049.7	71.78
290.0	040.0000	0040.1	028.5	071.4	100.0000	0262.2	050.2	71.56
291.0	040.0000	0039.1	028.2	071.1	100.0000	0262.0	050.8	71.33
292.0	040.0000	0038.2	027.9	070.9	100.0000	0261.9	051.3	71.10
293.0	040.0000	0037.3	027.6	070.7	100.0000	0261.7	051.8	70.88

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
294.0	040.0000	0036.6	027.4	070.5	100.0000	0261.6	052.3	70.68
295.0	040.0000	0035.9	027.2	070.3	100.0000	0261.5	052.8	70.47
296.0	040.0000	0035.4	027.0	070.1	100.0000	0261.3	053.3	70.29
297.0	040.0000	0035.1	026.9	069.8	100.0000	0261.2	053.7	70.12
298.0	040.0000	0035.1	026.9	069.5	100.0000	0261.0	054.0	69.98
299.0	040.0000	0035.3	027.0	069.1	100.0000	0260.9	054.3	69.84
300.0	040.0000	0035.4	027.0	068.7	100.0000	0260.8	054.7	69.71
301.0	040.0000	0035.4	027.0	068.4	100.0000	0260.7	055.0	69.55
302.0	040.0000	0035.3	027.0	068.2	100.0000	0260.7	055.4	69.39
303.0	040.0000	0035.2	026.9	067.9	100.0000	0260.7	055.8	69.23
304.0	040.0000	0035.3	027.0	067.6	100.0000	0260.6	056.2	69.08
305.0	040.0000	0035.5	027.0	067.3	100.0000	0260.6	056.6	68.94
306.0	040.0000	0035.8	027.1	067.0	100.0000	0260.6	056.9	68.80
307.0	040.0000	0036.1	027.2	066.6	100.0000	0260.6	057.3	68.66
308.0	040.0000	0036.4	027.3	066.3	100.0000	0260.6	057.6	68.52
309.0	040.0000	0036.6	027.4	066.0	100.0000	0260.5	058.0	68.36
310.0	040.0000	0036.7	027.4	065.8	100.0000	0260.5	058.4	68.20
311.0	040.0000	0036.9	027.5	065.5	100.0000	0260.4	058.8	68.04
312.0	040.0000	0037.0	027.5	065.3	100.0000	0260.3	059.2	67.88
313.0	040.0000	0037.2	027.6	065.0	100.0000	0260.2	059.7	67.72
314.0	040.0000	0037.6	027.7	064.7	100.0000	0260.1	060.1	67.56
315.0	040.0000	0038.2	027.9	064.4	100.0000	0260.0	060.4	67.41
316.0	040.0000	0038.8	028.1	064.1	100.0000	0259.8	060.8	67.25
317.0	040.0000	0039.1	028.2	063.9	100.0000	0259.7	061.3	67.08
318.0	040.0000	0039.0	028.2	063.7	100.0000	0259.6	061.8	66.90
319.0	040.0000	0038.5	028.0	063.8	100.0000	0259.6	062.3	66.71
320.0	040.0000	0037.8	027.8	063.9	100.0000	0259.7	062.8	66.52
321.0	040.0000	0037.0	027.5	064.0	100.0000	0259.8	063.3	66.33
322.0	040.0000	0036.5	027.4	064.0	100.0000	0259.8	063.8	66.15
323.0	040.0000	0036.5	027.4	063.9	100.0000	0259.7	064.3	65.98
324.0	040.0000	0036.8	027.4	063.8	100.0000	0259.6	064.7	65.82
325.0	040.0000	0037.1	027.6	063.6	100.0000	0259.5	065.2	65.66
326.0	040.0000	0043.7	029.7	061.7	100.0000	0257.9	065.4	65.53

10-06-2009 FCC NGDC 30 Sec Terrain Data

KSJR-FM BMLED19880616KA
 Channel = 211C1
 Max ERP = 100 kW
 RCAMSL = 617 M
 N. Lat. 45 29 52.0
 W. Lng. 94 32 14.0
 Protected
 60 dBu

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Interfering
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
025.0	100.0000	0267.3	069.7	322.1	040.0000	0036.5	072.6	48.04	
026.0	100.0000	0267.4	069.7	322.6	040.0000	0036.5	071.4	48.27	
027.0	100.0000	0267.0	069.7	323.0	040.0000	0036.5	070.3	48.50	
028.0	100.0000	0266.2	069.6	323.3	040.0000	0036.6	069.2	48.73	
029.0	100.0000	0264.8	069.5	323.7	040.0000	0036.7	068.0	48.97	
030.0	100.0000	0263.0	069.3	324.0	040.0000	0036.8	066.9	49.22	
031.0	100.0000	0260.4	069.1	324.2	040.0000	0036.8	065.7	49.47	
032.0	100.0000	0257.4	068.9	324.4	040.0000	0036.9	064.5	49.73	
033.0	100.0000	0254.1	068.6	324.5	040.0000	0037.0	063.3	49.99	
034.0	100.0000	0250.8	068.3	324.7	040.0000	0037.0	062.0	50.26	
035.0	100.0000	0247.5	068.0	324.8	040.0000	0037.0	060.8	50.54	
036.0	100.0000	0244.2	067.8	324.9	040.0000	0037.1	059.6	50.82	
037.0	100.0000	0241.4	067.5	325.1	040.0000	0037.1	058.4	51.10	
038.0	100.0000	0240.2	067.4	325.3	040.0000	0037.2	057.3	51.39	
039.0	100.0000	0240.0	067.4	325.7	040.0000	0037.3	056.2	51.67	
040.0	100.0000	0239.9	067.4	326.0	040.0000	0037.4	055.0	51.96	
041.0	100.0000	0239.5	067.4	326.3	040.0000	0037.4	053.9	52.25	
042.0	100.0000	0240.0	067.4	326.6	040.0000	0037.5	052.8	52.53	
043.0	100.0000	0241.3	067.5	327.0	040.0000	0037.5	051.7	52.82	
044.0	100.0000	0242.8	067.6	327.5	040.0000	0037.6	050.6	53.10	
045.0	100.0000	0244.3	067.8	327.9	040.0000	0037.6	049.4	53.38	
046.0	100.0000	0246.0	067.9	328.3	040.0000	0037.6	048.3	53.65	
047.0	100.0000	0247.8	068.1	328.8	040.0000	0037.6	047.2	53.93	
048.0	100.0000	0249.5	068.2	329.2	040.0000	0037.6	046.1	54.23	
049.0	100.0000	0250.8	068.3	329.6	040.0000	0037.6	044.9	54.55	
050.0	100.0000	0251.7	068.4	330.0	040.0000	0037.6	043.8	54.89	
051.0	100.0000	0252.4	068.4	330.3	040.0000	0037.6	042.6	55.24	
052.0	100.0000	0252.8	068.5	330.6	040.0000	0037.6	041.4	55.62	
053.0	100.0000	0253.2	068.5	330.9	040.0000	0037.6	040.2	56.01	
054.0	100.0000	0253.7	068.5	331.2	040.0000	0037.7	039.1	56.41	
055.0	100.0000	0254.1	068.6	331.4	040.0000	0037.7	037.9	56.83	
056.0	100.0000	0254.4	068.6	331.6	040.0000	0037.8	036.7	57.27	
057.0	100.0000	0254.8	068.6	331.8	040.0000	0037.8	035.5	57.72	
058.0	100.0000	0255.0	068.7	332.0	040.0000	0037.9	034.3	58.19	

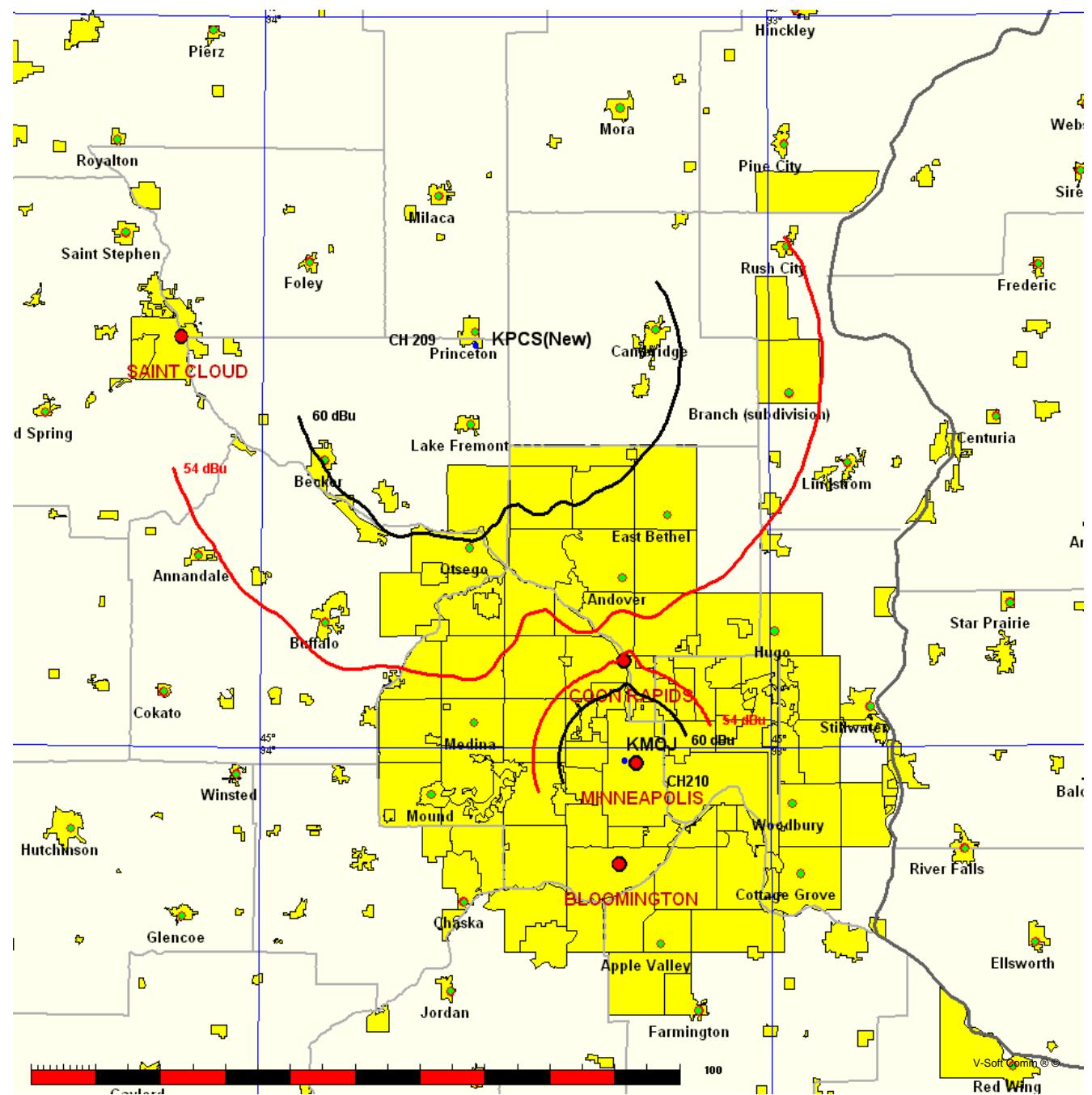
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
059.0	100.0000	0255.4	068.7	332.2	040.0000	0037.9	033.1	58.67
060.0	100.0000	0256.1	068.7	332.3	040.0000	0038.0	031.9	59.16
061.0	100.0000	0257.1	068.8	332.5	040.0000	0038.1	030.7	59.71
062.0	100.0000	0258.2	068.9	332.7	040.0000	0038.1	029.5	60.33
063.0	100.0000	0259.1	069.0	332.9	040.0000	0038.2	028.3	61.00
064.0	100.0000	0259.8	069.1	333.0	040.0000	0038.2	027.1	61.72
065.0	100.0000	0260.2	069.1	332.9	040.0000	0038.2	025.9	62.48
066.0	100.0000	0260.5	069.1	332.9	040.0000	0038.2	024.7	63.28
067.0	100.0000	0260.6	069.1	332.7	040.0000	0038.1	023.5	64.12
068.0	100.0000	0260.7	069.1	332.4	040.0000	0038.0	022.3	64.98
069.0	100.0000	0260.9	069.1	332.1	040.0000	0037.9	021.1	65.88
070.0	100.0000	0261.3	069.2	331.7	040.0000	0037.8	019.9	66.81
071.0	100.0000	0261.9	069.2	331.3	040.0000	0037.7	018.7	67.77
072.0	100.0000	0262.7	069.3	330.7	040.0000	0037.6	017.6	68.76
073.0	100.0000	0263.1	069.3	330.0	040.0000	0037.6	016.4	69.75
074.0	100.0000	0263.3	069.3	328.9	040.0000	0037.6	015.2	70.77
075.0	100.0000	0263.1	069.3	327.5	040.0000	0037.6	014.0	71.99
076.0	100.0000	0262.7	069.3	325.7	040.0000	0037.3	012.9	73.43
077.0	100.0000	0262.1	069.2	323.3	040.0000	0036.6	011.8	74.90
078.0	100.0000	0261.6	069.2	320.5	040.0000	0037.4	010.7	76.80
079.0	100.0000	0261.0	069.2	316.8	040.0000	0039.1	009.7	78.95
080.0	100.0000	0260.1	069.1	312.1	040.0000	0037.1	008.8	80.19
081.0	100.0000	0258.7	069.0	306.0	040.0000	0035.8	008.0	81.45
082.0	100.0000	0257.1	068.8	298.4	040.0000	0035.2	007.3	82.80
083.0	100.0000	0255.6	068.7	289.5	040.0000	0040.5	006.8	85.26
084.0	100.0000	0254.2	068.6	279.4	040.0000	0041.4	006.5	86.29
085.0	100.0000	0253.4	068.5	268.8	040.0000	0048.5	006.3	88.08
086.0	100.0000	0253.1	068.5	258.0	040.0000	0049.9	006.4	88.13
087.0	100.0000	0252.9	068.5	247.9	040.0000	0042.9	006.7	85.92
088.0	100.0000	0252.7	068.5	239.0	040.0000	0043.8	007.2	84.84
089.0	100.0000	0252.7	068.5	231.4	040.0000	0044.1	007.9	83.45
090.0	100.0000	0253.4	068.5	225.0	040.0000	0045.9	008.6	82.39
091.0	100.0000	0254.1	068.6	219.7	040.0000	0045.6	009.5	80.76
092.0	100.0000	0254.8	068.6	215.4	040.0000	0044.7	010.4	78.93
093.0	100.0000	0255.3	068.7	212.0	040.0000	0046.3	011.4	77.59
094.0	100.0000	0256.1	068.7	209.2	040.0000	0048.0	012.5	76.33
095.0	100.0000	0257.3	068.8	206.7	040.0000	0049.4	013.6	75.09
096.0	100.0000	0258.6	069.0	204.6	040.0000	0049.7	014.7	73.77
097.0	100.0000	0260.6	069.1	202.7	040.0000	0049.4	015.8	72.86
098.0	100.0000	0263.0	069.3	201.0	040.0000	0048.4	016.9	71.69
099.0	100.0000	0265.3	069.5	199.6	040.0000	0047.0	018.0	70.43
100.0	100.0000	0266.8	069.6	198.6	040.0000	0046.0	019.2	69.24
101.0	100.0000	0267.5	069.7	198.0	040.0000	0045.5	020.4	68.13
102.0	100.0000	0268.1	069.8	197.5	040.0000	0045.0	021.6	67.08
103.0	100.0000	0269.0	069.8	197.0	040.0000	0044.7	022.8	66.08
104.0	100.0000	0269.9	069.9	196.7	040.0000	0044.5	024.0	65.13
105.0	100.0000	0270.5	070.0	196.5	040.0000	0044.3	025.3	64.24
106.0	100.0000	0270.1	069.9	196.5	040.0000	0044.4	026.5	63.42
107.0	100.0000	0269.2	069.8	196.7	040.0000	0044.5	027.7	62.68
108.0	100.0000	0267.7	069.7	197.0	040.0000	0044.7	028.9	62.01
109.0	100.0000	0265.9	069.6	197.4	040.0000	0045.0	030.1	61.41

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
110.0	100.0000	0264.7	069.5	197.7	040.0000	0045.2	031.4	60.87
111.0	100.0000	0264.3	069.4	197.8	040.0000	0045.3	032.6	60.37
112.0	100.0000	0264.5	069.4	197.9	040.0000	0045.4	033.8	59.90
113.0	100.0000	0264.6	069.5	198.1	040.0000	0045.6	035.0	59.43
114.0	100.0000	0264.4	069.4	198.3	040.0000	0045.8	036.2	59.00
115.0	100.0000	0263.7	069.4	198.6	040.0000	0046.1	037.4	58.59
116.0	100.0000	0262.9	069.3	198.9	040.0000	0046.4	038.6	58.21
117.0	100.0000	0261.8	069.2	199.3	040.0000	0046.8	039.8	57.84
118.0	100.0000	0260.5	069.1	199.7	040.0000	0047.2	041.0	57.49
119.0	100.0000	0259.3	069.0	200.1	040.0000	0047.6	042.1	57.15
120.0	100.0000	0258.6	069.0	200.5	040.0000	0047.9	043.3	56.81
121.0	100.0000	0258.1	068.9	200.8	040.0000	0048.2	044.5	56.47
122.0	100.0000	0257.8	068.9	201.1	040.0000	0048.5	045.7	56.15
123.0	100.0000	0257.6	068.9	201.4	040.0000	0048.8	046.9	55.83
124.0	100.0000	0258.0	068.9	201.7	040.0000	0049.0	048.0	55.51
125.0	100.0000	0259.5	069.0	201.9	040.0000	0049.1	049.2	55.18
126.0	100.0000	0262.1	069.2	202.0	040.0000	0049.1	050.5	54.83
127.0	100.0000	0265.2	069.5	202.0	040.0000	0049.2	051.7	54.48
128.0	100.0000	0267.9	069.7	202.2	040.0000	0049.2	052.9	54.13
129.0	100.0000	0269.5	069.9	202.4	040.0000	0049.3	054.2	53.79
130.0	100.0000	0270.2	069.9	202.7	040.0000	0049.4	055.3	53.46
131.0	100.0000	0270.5	070.0	203.1	040.0000	0049.5	056.5	53.14
132.0	100.0000	0270.7	070.0	203.5	040.0000	0049.6	057.7	52.82
133.0	100.0000	0271.3	070.0	203.8	040.0000	0049.6	058.9	52.50
134.0	100.0000	0272.7	070.1	204.1	040.0000	0049.7	060.0	52.18
135.0	100.0000	0274.4	070.3	204.4	040.0000	0049.7	061.2	51.86
136.0	100.0000	0275.1	070.3	204.7	040.0000	0049.7	062.4	51.56
137.0	100.0000	0274.2	070.3	205.2	040.0000	0049.7	063.5	51.27
138.0	100.0000	0271.9	070.1	205.8	040.0000	0049.6	064.6	51.01
139.0	100.0000	0269.5	069.9	206.4	040.0000	0049.5	065.6	50.74
140.0	100.0000	0268.0	069.7	206.9	040.0000	0049.3	066.7	50.47
141.0	100.0000	0267.3	069.7	207.4	040.0000	0049.1	067.8	50.19
142.0	100.0000	0266.6	069.6	207.8	040.0000	0048.8	068.9	49.91
143.0	100.0000	0265.9	069.6	208.3	040.0000	0048.5	070.0	49.63
144.0	100.0000	0265.3	069.5	208.8	040.0000	0048.3	071.1	49.36
145.0	100.0000	0320.2	073.9	206.2	040.0000	0049.5	074.2	48.73

FMCommander Single Allocation Study - 10-06-2009 - FCC NGDC 30 Sec
KPCS(New)'s Overlaps (In= 24.75 km, Out= 9.46 km)

KPCS(New) CH 209 C2
Lat= 45 33 10.0, Lng= 93 34 54.0
40.0 kW 42.4 M HAAT, 340.5 M COR
Prot.= 60 dBu, Intef.= 54 dBu

KMOJ CH 210 A BLED19841120LP
Lat= 44 59 00.0, Lng= 93 17 22.0
1.0 kW 24 M HAAT, 293 M COR
Prot.= 60 dBu, Intef.= 54 dBu



10-06-2009

FCC NGDC 30 Sec Terrain Data

FMOver Analysis

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Protected
 60 dBu

KMOJ BLED19841120LP
 Channel = 210A
 Max ERP = 1 kW
 RCAMSL = 293 M
 N. Lat. 44 59 00.0
 W. Lng. 93 17 22.0
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
100.0	040.0000	0050.0	031.8	008.2	001.0000	0033.5	058.4	34.62	
101.0	040.0000	0050.2	031.9	008.2	001.0000	0033.5	057.8	34.74	
102.0	040.0000	0050.3	031.9	008.2	001.0000	0033.5	057.3	34.87	
103.0	040.0000	0050.2	031.9	008.2	001.0000	0033.6	056.7	35.01	
104.0	040.0000	0050.0	031.8	008.0	001.0000	0033.8	056.2	35.16	
105.0	040.0000	0049.8	031.7	007.9	001.0000	0034.0	055.6	35.31	
106.0	040.0000	0049.8	031.7	007.8	001.0000	0034.1	055.1	35.46	
107.0	040.0000	0049.8	031.7	007.7	001.0000	0034.3	054.5	35.61	
108.0	040.0000	0049.8	031.7	007.6	001.0000	0034.4	054.0	35.76	
109.0	040.0000	0049.8	031.7	007.5	001.0000	0034.6	053.4	35.91	
110.0	040.0000	0049.8	031.7	007.4	001.0000	0034.7	052.9	36.06	
111.0	040.0000	0049.8	031.7	007.3	001.0000	0034.9	052.4	36.22	
112.0	040.0000	0049.7	031.7	007.1	001.0000	0035.2	051.8	36.39	
113.0	040.0000	0049.7	031.7	006.9	001.0000	0035.5	051.3	36.56	
114.0	040.0000	0049.5	031.6	006.7	001.0000	0035.7	050.8	36.73	
115.0	040.0000	0049.4	031.6	006.4	001.0000	0036.0	050.3	36.90	
116.0	040.0000	0049.2	031.5	006.2	001.0000	0036.3	049.8	37.07	
117.0	040.0000	0049.0	031.5	005.9	001.0000	0036.7	049.3	37.24	
118.0	040.0000	0048.6	031.4	005.5	001.0000	0037.0	048.8	37.41	
119.0	040.0000	0048.3	031.3	005.2	001.0000	0037.4	048.3	37.59	
120.0	040.0000	0048.0	031.1	004.8	001.0000	0037.8	047.9	37.77	
121.0	040.0000	0047.7	031.0	004.4	001.0000	0038.3	047.5	37.96	
122.0	040.0000	0047.4	030.9	004.0	001.0000	0038.7	047.0	38.15	
123.0	040.0000	0047.1	030.9	003.6	001.0000	0039.0	046.6	38.33	
124.0	040.0000	0046.9	030.8	003.2	001.0000	0039.3	046.2	38.50	
125.0	040.0000	0046.8	030.7	002.8	001.0000	0039.6	045.7	38.66	
126.0	040.0000	0046.6	030.7	002.3	001.0000	0039.7	045.3	38.79	
127.0	040.0000	0046.6	030.7	001.9	001.0000	0039.5	044.9	38.89	
128.0	040.0000	0046.6	030.7	001.5	001.0000	0039.2	044.4	38.96	
129.0	040.0000	0046.5	030.7	001.1	001.0000	0039.0	044.0	39.04	
130.0	040.0000	0046.5	030.7	000.7	001.0000	0038.7	043.6	39.12	
131.0	040.0000	0046.5	030.6	000.2	001.0000	0038.4	043.2	39.19	
132.0	040.0000	0046.4	030.6	359.7	001.0000	0038.1	042.8	39.25	
133.0	040.0000	0046.1	030.5	359.1	001.0000	0037.7	042.5	39.27	
134.0	040.0000	0045.6	030.4	358.5	001.0000	0036.9	042.2	39.21	
135.0	040.0000	0045.0	030.1	357.8	001.0000	0036.1	042.0	39.12	
136.0	040.0000	0044.4	030.0	357.1	001.0000	0035.4	041.8	39.05	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
137.0	040.0000	0043.9	029.8	356.4	001.0000	0034.6	041.6	38.96
138.0	040.0000	0043.4	029.6	355.7	001.0000	0034.1	041.4	38.92
139.0	040.0000	0042.8	029.4	354.9	001.0000	0033.8	041.3	38.90
140.0	040.0000	0042.3	029.3	354.2	001.0000	0033.7	041.1	38.93
141.0	040.0000	0042.0	029.2	353.5	001.0000	0033.8	040.9	39.02
142.0	040.0000	0041.9	029.1	352.9	001.0000	0034.0	040.7	39.13
143.0	040.0000	0042.0	029.2	352.3	001.0000	0034.1	040.4	39.24
144.0	040.0000	0042.1	029.2	351.7	001.0000	0034.0	040.1	39.33
145.0	040.0000	0042.2	029.2	351.1	001.0000	0033.9	039.8	39.37
146.0	040.0000	0042.1	029.2	350.4	001.0000	0033.5	039.6	39.37
147.0	040.0000	0041.8	029.1	349.7	001.0000	0033.0	039.5	39.30
148.0	040.0000	0041.0	028.8	348.9	001.0000	0032.3	039.6	39.14
149.0	040.0000	0039.4	028.3	347.9	001.0000	0031.5	039.9	38.87
150.0	040.0000	0037.8	027.8	347.0	001.0000	0030.9	040.3	38.62
151.0	040.0000	0036.8	027.5	346.3	001.0000	0030.5	040.4	38.49
152.0	040.0000	0036.4	027.3	345.6	001.0000	0030.2	040.4	38.44
153.0	040.0000	0036.4	027.3	344.9	001.0000	0030.1	040.4	38.43
154.0	040.0000	0036.7	027.4	344.3	001.0000	0030.0	040.2	38.48
155.0	040.0000	0037.5	027.7	343.7	001.0000	0029.9	039.8	38.59
156.0	040.0000	0038.1	027.9	343.0	001.0000	0029.8	039.6	38.66
157.0	040.0000	0038.2	027.9	342.3	001.0000	0029.7	039.5	38.69
158.0	040.0000	0038.0	027.8	341.6	001.0000	0029.5	039.5	38.68
159.0	040.0000	0037.7	027.8	340.9	001.0000	0029.2	039.6	38.66
160.0	040.0000	0037.2	027.6	340.2	001.0000	0028.8	039.8	38.61
161.0	040.0000	0036.3	027.3	339.5	001.0000	0028.5	040.0	38.52
162.0	040.0000	0034.9	026.8	338.9	001.0000	0028.3	040.5	38.37
163.0	040.0000	0033.2	026.3	338.3	001.0000	0028.2	041.1	38.19
164.0	040.0000	0031.3	025.7	337.8	001.0000	0028.2	041.8	37.99
165.0	040.0000	0029.6	025.2	337.2	001.0000	0028.1	042.2	37.85
166.0	040.0000	0028.6	025.2	336.6	001.0000	0027.9	042.3	37.83
167.0	040.0000	0028.4	025.2	336.1	001.0000	0027.7	042.4	37.81
168.0	040.0000	0028.4	025.2	335.5	001.0000	0027.3	042.5	37.78
169.0	040.0000	0029.2	025.2	334.9	001.0000	0026.8	042.6	37.75
170.0	040.0000	0031.0	025.5	334.2	001.0000	0026.3	042.4	37.81
171.0	040.0000	0033.1	026.2	333.4	001.0000	0025.8	041.9	37.96
172.0	040.0000	0035.1	026.9	332.5	001.0000	0025.5	041.4	38.10
173.0	040.0000	0036.5	027.4	331.6	001.0000	0025.3	041.1	38.19
174.0	040.0000	0037.4	027.7	330.9	001.0000	0025.1	041.0	38.21
175.0	040.0000	0038.1	027.9	330.1	001.0000	0024.9	041.0	38.22
176.0	040.0000	0039.5	028.4	329.2	001.0000	0024.6	040.8	38.28
177.0	040.0000	0041.5	029.0	328.1	001.0000	0024.1	040.4	38.39
178.0	040.0000	0043.2	029.6	327.1	001.0000	0023.7	040.2	38.45
179.0	040.0000	0043.6	029.7	326.4	001.0000	0023.3	040.4	38.41
180.0	040.0000	0044.1	029.9	325.7	001.0000	0022.7	040.5	38.36
181.0	040.0000	0044.4	029.9	325.0	001.0000	0022.1	040.8	38.29
182.0	040.0000	0044.1	029.9	324.5	001.0000	0021.7	041.1	38.18
183.0	040.0000	0043.9	029.8	324.0	001.0000	0021.5	041.5	38.06
184.0	040.0000	0043.6	029.7	323.5	001.0000	0021.4	041.9	37.94
185.0	040.0000	0043.7	029.7	323.0	001.0000	0021.5	042.2	37.85
186.0	040.0000	0043.7	029.7	322.5	001.0000	0021.6	042.6	37.75
187.0	040.0000	0043.7	029.7	322.0	001.0000	0021.7	043.0	37.65

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
188.0	040.0000	0043.7	029.7	321.5	001.0000	0021.8	043.3	37.54
189.0	040.0000	0043.7	029.7	321.0	001.0000	0021.9	043.7	37.43
190.0	040.0000	0043.7	029.7	320.6	001.0000	0022.0	044.1	37.33
191.0	040.0000	0043.6	029.7	320.2	001.0000	0022.1	044.5	37.22
192.0	040.0000	0043.6	029.7	319.8	001.0000	0022.1	044.9	37.11
193.0	040.0000	0043.6	029.7	319.4	001.0000	0022.1	045.3	37.00
194.0	040.0000	0043.7	029.7	319.0	001.0000	0022.2	045.7	36.90
195.0	040.0000	0043.8	029.8	318.6	001.0000	0022.2	046.1	36.80
196.0	040.0000	0044.1	029.9	318.2	001.0000	0022.3	046.5	36.71
197.0	040.0000	0044.7	030.0	317.6	001.0000	0022.5	046.9	36.63
198.0	040.0000	0045.5	030.3	317.0	001.0000	0022.8	047.2	36.55
199.0	040.0000	0046.5	030.6	316.4	001.0000	0023.1	047.5	36.48
200.0	040.0000	0047.5	031.0	315.8	001.0000	0023.4	047.9	36.41
201.0	040.0000	0048.4	031.3	315.2	001.0000	0023.6	048.2	36.33
202.0	040.0000	0049.1	031.5	314.6	001.0000	0023.8	048.6	36.24
203.0	040.0000	0049.5	031.6	314.3	001.0000	0023.9	049.1	36.14
204.0	040.0000	0049.6	031.7	314.0	001.0000	0024.0	049.6	36.03
205.0	040.0000	0049.7	031.7	313.8	001.0000	0024.1	050.1	35.92
206.0	040.0000	0049.6	031.7	313.6	001.0000	0024.1	050.6	35.80
207.0	040.0000	0049.2	031.5	313.6	001.0000	0024.1	051.2	35.68
208.0	040.0000	0048.7	031.4	313.6	001.0000	0024.1	051.8	35.56
209.0	040.0000	0048.1	031.2	313.7	001.0000	0024.1	052.4	35.43
210.0	040.0000	0047.5	031.0	313.7	001.0000	0024.1	052.9	35.31
211.0	040.0000	0046.9	030.8	313.8	001.0000	0024.1	053.5	35.18
212.0	040.0000	0046.3	030.6	313.9	001.0000	0024.1	054.1	35.06
213.0	040.0000	0045.6	030.4	314.0	001.0000	0024.0	054.6	34.94
214.0	040.0000	0045.1	030.2	314.1	001.0000	0024.0	055.2	34.82
215.0	040.0000	0044.7	030.1	314.1	001.0000	0024.0	055.7	34.71
216.0	040.0000	0044.7	030.1	314.1	001.0000	0024.0	056.2	34.60
217.0	040.0000	0044.8	030.1	314.0	001.0000	0024.0	056.7	34.49
218.0	040.0000	0045.2	030.2	313.8	001.0000	0024.1	057.3	34.38
219.0	040.0000	0045.5	030.3	313.7	001.0000	0024.1	057.8	34.27
220.0	040.0000	0043.7	029.7	314.2	001.0000	0024.0	058.3	34.15

10-06-2009 FCC NGDC 30 Sec Terrain Data

KMOJ BLED19841120LP
 Channel = 210A
 Max ERP = 1 kW
 RCAMSL = 293 M
 N. Lat. 44 59 00.0
 W. Lng. 93 17 22.0
 Protected
 60 dBu

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
280.0	001.0000	0012.7	010.2	168.1	040.0000	0028.4	062.9	49.25	
281.0	001.0000	0012.5	010.2	168.1	040.0000	0028.4	062.7	49.28	
282.0	001.0000	0012.5	010.2	168.0	040.0000	0028.4	062.6	49.32	
283.0	001.0000	0012.2	010.2	167.9	040.0000	0028.4	062.4	49.35	
284.0	001.0000	0012.0	010.2	167.9	040.0000	0028.4	062.2	49.38	
285.0	001.0000	0011.9	010.2	167.8	040.0000	0028.4	062.1	49.41	
286.0	001.0000	0012.1	010.2	167.7	040.0000	0028.3	061.9	49.44	
287.0	001.0000	0012.2	010.2	167.6	040.0000	0028.3	061.8	49.47	
288.0	001.0000	0012.3	010.2	167.5	040.0000	0028.3	061.6	49.50	
289.0	001.0000	0012.0	010.2	167.5	040.0000	0028.4	061.5	49.53	
290.0	001.0000	0011.1	010.2	167.4	040.0000	0028.4	061.3	49.56	
291.0	001.0000	0010.3	010.2	167.3	040.0000	0028.4	061.2	49.59	
292.0	001.0000	0009.4	010.2	167.2	040.0000	0028.4	061.0	49.62	
293.0	001.0000	0009.2	010.2	167.1	040.0000	0028.4	060.9	49.65	
294.0	001.0000	0009.1	010.2	167.0	040.0000	0028.4	060.7	49.68	
295.0	001.0000	0009.4	010.2	166.9	040.0000	0028.4	060.6	49.71	
296.0	001.0000	0010.2	010.2	166.8	040.0000	0028.5	060.4	49.74	
297.0	001.0000	0011.2	010.2	166.7	040.0000	0028.5	060.3	49.77	
298.0	001.0000	0012.4	010.2	166.6	040.0000	0028.5	060.2	49.79	
299.0	001.0000	0013.5	010.2	166.5	040.0000	0028.5	060.0	49.82	
300.0	001.0000	0014.6	010.2	166.3	040.0000	0028.5	059.9	49.85	
301.0	001.0000	0015.7	010.2	166.2	040.0000	0028.6	059.8	49.87	
302.0	001.0000	0016.9	010.2	166.1	040.0000	0028.6	059.7	49.90	
303.0	001.0000	0018.2	010.2	166.0	040.0000	0028.6	059.5	49.92	
304.0	001.0000	0019.3	010.2	165.9	040.0000	0028.7	059.4	49.95	
305.0	001.0000	0020.4	010.2	165.7	040.0000	0028.8	059.3	49.97	
306.0	001.0000	0021.1	010.2	165.6	040.0000	0028.9	059.2	50.00	
307.0	001.0000	0021.5	010.2	165.5	040.0000	0029.0	059.1	50.02	
308.0	001.0000	0022.0	010.2	165.3	040.0000	0029.2	059.0	50.04	
309.0	001.0000	0022.8	010.2	165.2	040.0000	0029.3	058.9	50.06	
310.0	001.0000	0023.6	010.2	165.0	040.0000	0029.5	058.7	50.09	
311.0	001.0000	0024.1	010.2	164.9	040.0000	0029.7	058.6	50.11	
312.0	001.0000	0024.3	010.2	164.8	040.0000	0029.9	058.6	50.13	
313.0	001.0000	0024.2	010.2	164.6	040.0000	0030.2	058.5	50.17	

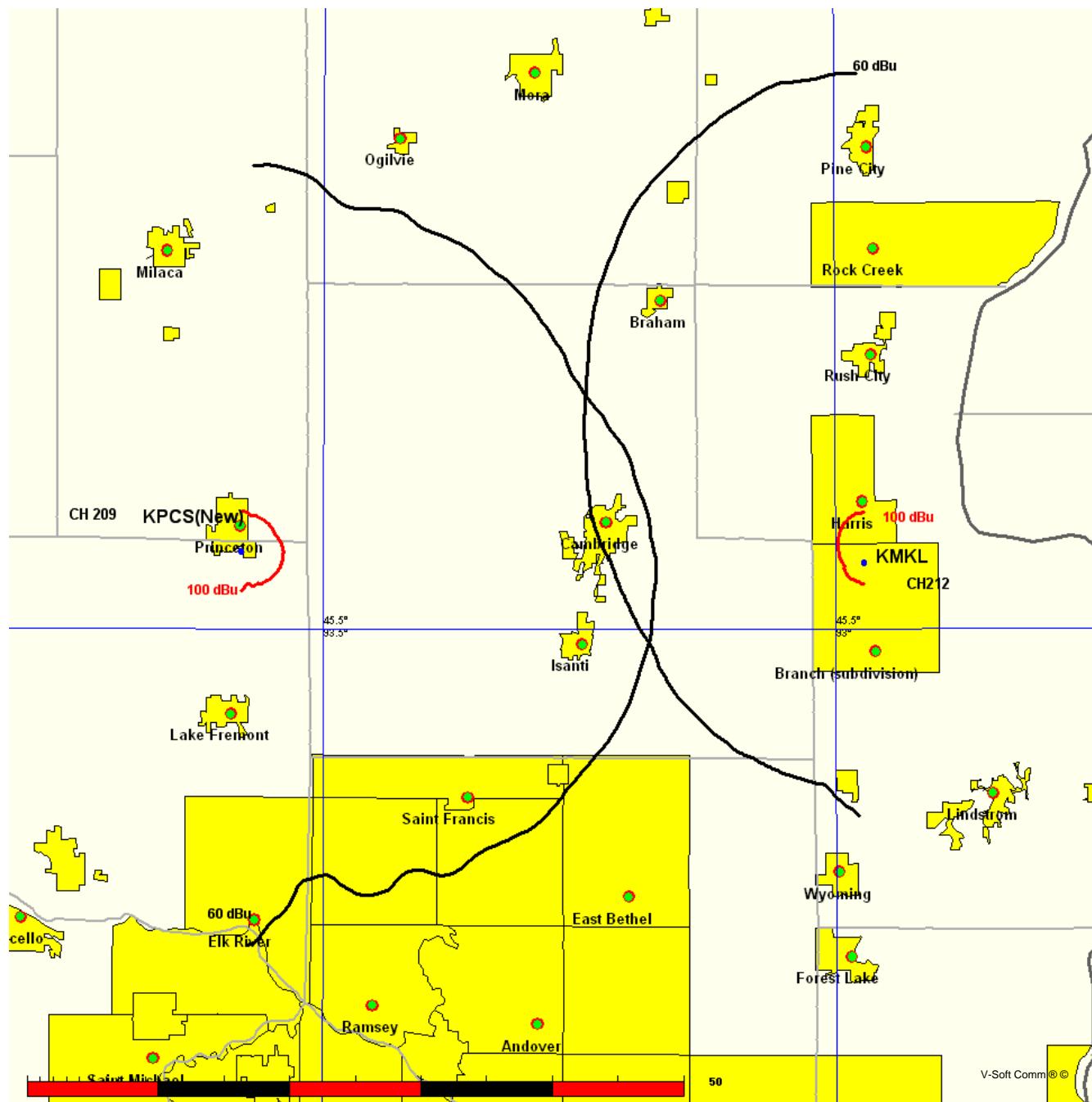
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
314.0	001.0000	0024.0	010.2	164.5	040.0000	0030.4	058.4	50.23
315.0	001.0000	0023.7	010.2	164.3	040.0000	0030.7	058.3	50.28
316.0	001.0000	0023.3	010.2	164.2	040.0000	0031.0	058.2	50.34
317.0	001.0000	0022.8	010.2	164.0	040.0000	0031.3	058.1	50.40
318.0	001.0000	0022.4	010.2	163.8	040.0000	0031.6	058.0	50.46
319.0	001.0000	0022.2	010.2	163.7	040.0000	0031.9	058.0	50.52
320.0	001.0000	0022.1	010.2	163.5	040.0000	0032.2	057.9	50.58
321.0	001.0000	0022.0	010.2	163.4	040.0000	0032.5	057.8	50.63
322.0	001.0000	0021.7	010.2	163.2	040.0000	0032.8	057.7	50.69
323.0	001.0000	0021.5	010.2	163.0	040.0000	0033.1	057.7	50.75
324.0	001.0000	0021.5	010.2	162.9	040.0000	0033.4	057.6	50.80
325.0	001.0000	0022.1	010.2	162.7	040.0000	0033.7	057.6	50.85
326.0	001.0000	0023.0	010.2	162.5	040.0000	0034.0	057.5	50.91
327.0	001.0000	0023.6	010.2	162.4	040.0000	0034.3	057.5	50.96
328.0	001.0000	0024.1	010.2	162.2	040.0000	0034.6	057.4	51.01
329.0	001.0000	0024.5	010.2	162.0	040.0000	0034.9	057.4	51.06
330.0	001.0000	0024.9	010.2	161.8	040.0000	0035.2	057.3	51.10
331.0	001.0000	0025.1	010.2	161.7	040.0000	0035.4	057.3	51.15
332.0	001.0000	0025.3	010.2	161.5	040.0000	0035.7	057.3	51.19
333.0	001.0000	0025.6	010.2	161.3	040.0000	0035.9	057.2	51.23
334.0	001.0000	0026.2	010.2	161.1	040.0000	0036.1	057.2	51.26
335.0	001.0000	0026.9	010.2	161.0	040.0000	0036.3	057.2	51.30
336.0	001.0000	0027.6	010.2	160.8	040.0000	0036.5	057.2	51.32
337.0	001.0000	0028.1	010.2	160.6	040.0000	0036.7	057.2	51.35
338.0	001.0000	0028.2	010.2	160.4	040.0000	0036.8	057.2	51.38
339.0	001.0000	0028.3	010.2	160.3	040.0000	0037.0	057.1	51.40
340.0	001.0000	0028.7	010.2	160.1	040.0000	0037.1	057.1	51.41
341.0	001.0000	0029.3	010.2	159.9	040.0000	0037.2	057.1	51.43
342.0	001.0000	0029.7	010.2	159.7	040.0000	0037.3	057.2	51.44
343.0	001.0000	0029.8	010.2	159.6	040.0000	0037.4	057.2	51.45
344.0	001.0000	0029.9	010.2	159.4	040.0000	0037.5	057.2	51.46
345.0	001.0000	0030.1	010.2	159.2	040.0000	0037.6	057.2	51.47
346.0	001.0000	0030.4	010.2	159.0	040.0000	0037.7	057.2	51.49
347.0	001.0000	0030.8	010.3	158.8	040.0000	0037.8	057.1	51.51
348.0	001.0000	0031.5	010.4	158.6	040.0000	0037.8	057.0	51.53
349.0	001.0000	0032.5	010.5	158.4	040.0000	0037.9	056.9	51.57
350.0	001.0000	0033.3	010.6	158.2	040.0000	0037.9	056.9	51.59
351.0	001.0000	0033.8	010.7	158.0	040.0000	0038.0	056.8	51.61
352.0	001.0000	0034.1	010.7	157.8	040.0000	0038.0	056.8	51.61
353.0	001.0000	0034.0	010.7	157.7	040.0000	0038.1	056.9	51.60
354.0	001.0000	0033.7	010.7	157.5	040.0000	0038.1	057.0	51.59
355.0	001.0000	0033.8	010.7	157.3	040.0000	0038.1	057.0	51.58
356.0	001.0000	0034.4	010.8	157.1	040.0000	0038.1	057.0	51.59
357.0	001.0000	0035.4	010.9	156.9	040.0000	0038.2	056.9	51.61
358.0	001.0000	0036.4	011.1	156.6	040.0000	0038.1	056.9	51.62
359.0	001.0000	0037.6	011.2	156.4	040.0000	0038.1	056.8	51.64
000.0	001.0000	0038.3	011.4	156.2	040.0000	0038.1	056.8	51.64
001.0	001.0000	0038.9	011.4	155.9	040.0000	0038.0	056.8	51.63
002.0	001.0000	0039.5	011.5	155.7	040.0000	0038.0	056.8	51.62
003.0	001.0000	0039.4	011.5	155.5	040.0000	0037.9	056.9	51.58
004.0	001.0000	0038.6	011.4	155.4	040.0000	0037.8	057.1	51.53

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
005.0	001.0000	0037.5	011.2	155.3	040.0000	0037.7	057.3	51.46
006.0	001.0000	0036.5	011.1	155.2	040.0000	0037.7	057.5	51.40
007.0	001.0000	0035.3	010.9	155.2	040.0000	0037.6	057.8	51.33
008.0	001.0000	0033.9	010.7	155.1	040.0000	0037.6	058.0	51.26
009.0	001.0000	0032.5	010.5	155.1	040.0000	0037.5	058.3	51.19
010.0	001.0000	0031.6	010.4	155.0	040.0000	0037.5	058.5	51.14
011.0	001.0000	0031.1	010.3	154.9	040.0000	0037.4	058.7	51.09
012.0	001.0000	0030.5	010.2	154.8	040.0000	0037.3	058.9	51.04
013.0	001.0000	0030.1	010.2	154.7	040.0000	0037.3	059.0	50.99
014.0	001.0000	0029.6	010.2	154.6	040.0000	0037.2	059.1	50.95
015.0	001.0000	0029.1	010.2	154.4	040.0000	0037.1	059.2	50.91
016.0	001.0000	0028.5	010.2	154.3	040.0000	0037.0	059.4	50.87
017.0	001.0000	0028.0	010.2	154.2	040.0000	0036.9	059.5	50.83
018.0	001.0000	0027.4	010.2	154.0	040.0000	0036.8	059.6	50.79
019.0	001.0000	0026.6	010.2	153.9	040.0000	0036.7	059.7	50.75
020.0	001.0000	0025.4	010.2	153.8	040.0000	0036.6	059.9	50.71
021.0	001.0000	0023.9	010.2	153.7	040.0000	0036.6	060.0	50.68
022.0	001.0000	0022.3	010.2	153.6	040.0000	0036.5	060.1	50.64
023.0	001.0000	0020.9	010.2	153.5	040.0000	0036.5	060.2	50.60
024.0	001.0000	0019.8	010.2	153.3	040.0000	0036.4	060.4	50.57
025.0	001.0000	0018.9	010.2	153.2	040.0000	0036.4	060.5	50.53
026.0	001.0000	0018.0	010.2	153.1	040.0000	0036.4	060.7	50.50
027.0	001.0000	0017.2	010.2	153.0	040.0000	0036.4	060.8	50.47
028.0	001.0000	0016.9	010.2	152.9	040.0000	0036.4	060.9	50.43
029.0	001.0000	0017.1	010.2	152.8	040.0000	0036.4	061.1	50.40
030.0	001.0000	0017.5	010.2	152.8	040.0000	0036.4	061.2	50.37
031.0	001.0000	0017.7	010.2	152.7	040.0000	0036.4	061.4	50.33
032.0	001.0000	0017.8	010.2	152.6	040.0000	0036.4	061.5	50.30
033.0	001.0000	0017.7	010.2	152.5	040.0000	0036.4	061.7	50.27
034.0	001.0000	0017.4	010.2	152.4	040.0000	0036.4	061.8	50.23
035.0	001.0000	0016.5	010.2	152.3	040.0000	0036.4	062.0	50.20
036.0	001.0000	0014.9	010.2	152.3	040.0000	0036.4	062.2	50.16
037.0	001.0000	0013.2	010.2	152.2	040.0000	0036.4	062.3	50.13
038.0	001.0000	0012.4	010.2	152.1	040.0000	0036.4	062.5	50.10
039.0	001.0000	0011.9	010.2	152.1	040.0000	0036.4	062.6	50.06
040.0	001.0000	-0003.8	010.2	152.0	040.0000	0036.4	062.8	50.03

FMCommander Single Allocation Study - 10-06-2009 - FCC NGDC 30 Sec
KPCS(New)'s Overlaps (In= 13.9 km, Out= 24.51 km)

KPCS(New) CH 209 C2
Lat= 45 33 10.0, Lng= 93 34 54.0
40.0 kW 42.4 M HAAT, 340.5 M COR
Prot.= 60 dBu, Intef.= 100 dBu

KMKL CH 212 C3 DA BLED20090804AAA
Lat= 45 32 36.0, Lng= 92 58 24.0
15.0 kW 121 M HAAT, 393 M COR
Prot.= 60 dBu, Intef.= 100 dBu



10-06-2009

FCC NGDC 30 Sec Terrain Data

FMOver Analysis

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Protected
 60 dBu

KMKL BLED20090804AAA
 Channel = 212C3
 Max ERP = 15 kW
 RCAMSL = 393 M
 N. Lat. 45 32 36.0
 W. Lng. 92 58 24.0
 Interfering
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
031.0	040.0000	0038.5	028.0	307.4	003.8283	0107.3	041.4	53.59	
032.0	040.0000	0038.9	028.1	307.7	003.8644	0107.5	040.9	53.86	
033.0	040.0000	0039.2	028.2	307.9	003.8924	0107.7	040.4	54.11	
034.0	040.0000	0039.4	028.3	308.1	003.9127	0107.8	039.9	54.35	
035.0	040.0000	0039.6	028.4	308.2	003.9316	0107.9	039.4	54.59	
036.0	040.0000	0039.9	028.5	308.3	003.9523	0108.0	038.9	54.83	
037.0	040.0000	0040.1	028.6	308.5	003.9734	0108.2	038.4	55.08	
038.0	040.0000	0040.3	028.6	308.6	003.9864	0108.2	037.9	55.32	
039.0	040.0000	0040.3	028.6	308.6	003.9844	0108.2	037.5	55.54	
040.0	040.0000	0040.1	028.5	308.5	003.9680	0108.1	037.0	55.74	
041.0	040.0000	0039.9	028.5	308.3	003.9487	0108.0	036.5	55.93	
042.0	040.0000	0039.9	028.5	308.3	003.9400	0108.0	036.0	56.15	
043.0	040.0000	0040.0	028.5	308.3	003.9424	0108.0	035.5	56.38	
044.0	040.0000	0040.3	028.6	308.4	003.9544	0108.1	035.0	56.63	
045.0	040.0000	0040.6	028.7	308.4	003.9651	0108.1	034.5	56.89	
046.0	040.0000	0040.8	028.8	308.4	003.9638	0108.1	034.0	57.12	
047.0	040.0000	0040.9	028.8	308.3	003.9512	0108.0	033.5	57.34	
048.0	040.0000	0040.9	028.8	308.2	003.9310	0107.9	033.0	57.55	
049.0	040.0000	0040.8	028.8	308.0	003.9057	0107.8	032.5	57.74	
050.0	040.0000	0040.8	028.8	307.8	003.8769	0107.6	032.0	57.93	
051.0	040.0000	0040.7	028.8	307.6	003.8445	0107.4	031.5	58.12	
052.0	040.0000	0040.7	028.7	307.3	003.8099	0107.2	031.0	58.32	
053.0	040.0000	0040.7	028.7	307.0	003.7729	0107.0	030.5	58.51	
054.0	040.0000	0040.6	028.7	306.7	003.7333	0106.7	030.1	58.71	
055.0	040.0000	0040.6	028.7	306.4	003.6907	0106.5	029.6	58.90	
056.0	040.0000	0040.6	028.7	306.1	003.6452	0106.2	029.1	59.10	
057.0	040.0000	0040.6	028.7	305.7	003.5968	0106.0	028.7	59.30	
058.0	040.0000	0040.5	028.7	305.3	003.5456	0105.7	028.2	59.49	
059.0	040.0000	0040.5	028.7	304.9	003.4896	0105.4	027.8	59.68	
060.0	040.0000	0040.4	028.6	304.3	003.4215	0105.2	027.3	59.85	
061.0	040.0000	0040.2	028.6	303.7	003.3458	0104.9	026.9	60.00	
062.0	040.0000	0040.0	028.5	303.1	003.2697	0104.7	026.5	60.15	
063.0	040.0000	0040.1	028.5	302.6	003.2079	0104.6	026.1	60.36	
064.0	040.0000	0040.3	028.6	302.2	003.1512	0104.6	025.6	60.59	
065.0	040.0000	0040.5	028.7	301.7	003.0964	0104.5	025.1	60.83	
066.0	040.0000	0040.8	028.8	301.2	003.0382	0104.5	024.7	61.07	
067.0	040.0000	0041.1	028.9	300.7	002.9788	0104.5	024.2	61.32	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
068.0	040.0000	0041.6	029.0	300.3	002.9260	0104.5	023.7	61.60
069.0	040.0000	0042.1	029.2	299.8	002.8769	0104.4	023.2	61.89
070.0	040.0000	0042.6	029.4	299.3	002.8289	0104.3	022.7	62.17
071.0	040.0000	0042.9	029.5	298.7	002.7726	0104.2	022.3	62.42
072.0	040.0000	0043.4	029.6	298.0	002.7138	0104.1	021.8	62.68
073.0	040.0000	0043.8	029.7	297.3	002.6502	0104.0	021.3	62.92
074.0	040.0000	0044.4	029.9	296.6	002.5930	0103.9	020.8	63.21
075.0	040.0000	0045.0	030.2	295.9	002.5330	0104.0	020.3	63.51
076.0	040.0000	0045.6	030.4	295.1	002.4643	0104.0	019.8	63.77
077.0	040.0000	0045.9	030.5	294.1	002.3779	0103.8	019.4	63.93
078.0	040.0000	0046.0	030.5	292.8	002.2756	0103.3	019.1	63.96
079.0	040.0000	0046.0	030.5	291.5	002.1709	0102.8	018.8	63.96
080.0	040.0000	0046.1	030.5	290.2	002.0660	0102.9	018.5	64.00
081.0	040.0000	0046.4	030.6	288.8	001.9890	0103.1	018.2	64.12
082.0	040.0000	0046.8	030.8	287.5	001.9175	0103.2	017.8	64.27
083.0	040.0000	0047.3	030.9	286.1	001.8430	0103.1	017.4	64.39
084.0	040.0000	0047.7	031.1	284.6	001.7662	0103.1	017.1	64.49
085.0	040.0000	0048.1	031.2	283.0	001.6842	0103.1	016.8	64.52
086.0	040.0000	0048.3	031.2	281.3	001.5987	0103.6	016.6	64.52
087.0	040.0000	0048.2	031.2	279.4	001.5072	0104.0	016.5	64.39
088.0	040.0000	0048.4	031.3	277.6	001.4141	0104.2	016.3	64.24
089.0	040.0000	0048.7	031.4	275.7	001.3235	0104.3	016.2	64.13
090.0	040.0000	0049.1	031.5	273.8	001.2331	0104.3	016.0	63.96
091.0	040.0000	0049.5	031.6	271.9	001.1435	0104.2	015.8	63.74
092.0	040.0000	0049.5	031.6	269.9	001.0586	0104.1	015.9	63.39
093.0	040.0000	0049.6	031.7	267.9	001.0143	0104.0	015.8	63.21
094.0	040.0000	0049.7	031.7	265.9	000.9714	0104.1	015.9	62.99
095.0	040.0000	0049.6	031.7	263.9	000.9300	0104.3	016.0	62.73
096.0	040.0000	0049.5	031.7	262.0	000.8907	0104.5	016.2	62.43
097.0	040.0000	0049.5	031.6	260.2	000.8530	0104.7	016.3	62.12
098.0	040.0000	0049.7	031.7	258.2	000.8125	0105.4	016.4	61.88
099.0	040.0000	0049.9	031.8	256.4	000.7742	0106.6	016.6	61.64
100.0	040.0000	0050.0	031.8	254.6	000.7374	0107.9	016.8	61.39
101.0	040.0000	0050.2	031.9	252.8	000.7025	0108.7	017.0	61.07
102.0	040.0000	0050.3	031.9	251.1	000.6703	0109.4	017.2	60.72
103.0	040.0000	0050.2	031.9	249.6	000.6464	0110.0	017.5	60.35
104.0	040.0000	0050.0	031.8	248.3	000.6373	0110.5	017.9	60.01
105.0	040.0000	0049.8	031.7	247.0	000.6285	0111.0	018.3	59.68
106.0	040.0000	0049.8	031.7	245.7	000.6197	0111.8	018.7	59.39
107.0	040.0000	0049.8	031.7	244.5	000.6114	0113.1	019.0	59.12
108.0	040.0000	0049.8	031.7	243.3	000.6035	0114.4	019.4	58.86
109.0	040.0000	0049.8	031.7	242.1	000.5959	0115.4	019.8	58.57
110.0	040.0000	0049.8	031.7	241.0	000.5888	0116.0	020.2	58.24
111.0	040.0000	0049.8	031.7	240.0	000.5824	0116.3	020.6	57.88
112.0	040.0000	0049.7	031.7	239.2	000.5792	0116.7	021.1	57.53
113.0	040.0000	0049.7	031.7	238.3	000.5763	0117.0	021.6	57.17
114.0	040.0000	0049.5	031.6	237.6	000.5737	0117.2	022.0	56.80
115.0	040.0000	0049.4	031.6	237.0	000.5714	0117.4	022.5	56.42
116.0	040.0000	0049.2	031.5	236.4	000.5694	0117.5	023.0	56.03
117.0	040.0000	0049.0	031.5	235.9	000.5676	0117.6	023.5	55.65
118.0	040.0000	0048.6	031.4	235.5	000.5662	0117.7	024.1	55.25

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
119.0	040.0000	0048.3	031.3	235.1	000.5650	0117.8	024.6	54.87
120.0	040.0000	0048.0	031.1	234.8	000.5639	0117.8	025.2	54.48
121.0	040.0000	0047.7	031.0	234.5	000.5629	0117.8	025.7	54.10
122.0	040.0000	0047.4	030.9	234.3	000.5620	0117.9	026.2	53.73
123.0	040.0000	0047.1	030.9	234.0	000.5611	0117.9	026.8	53.37
124.0	040.0000	0046.9	030.8	233.7	000.5602	0117.9	027.3	53.03
125.0	040.0000	0046.8	030.7	233.5	000.5593	0118.0	027.8	52.68
126.0	040.0000	0046.6	030.7	233.2	000.5584	0118.0	028.3	52.35
127.0	040.0000	0046.6	030.7	233.0	000.5575	0118.0	028.9	52.03
128.0	040.0000	0046.6	030.7	232.7	000.5566	0118.0	029.4	51.71
129.0	040.0000	0046.5	030.7	232.5	000.5558	0117.9	029.9	51.40
130.0	040.0000	0046.5	030.7	232.3	000.5551	0117.9	030.4	51.10
131.0	040.0000	0046.5	030.6	232.1	000.5544	0117.9	030.9	50.81
132.0	040.0000	0046.4	030.6	232.0	000.5540	0117.9	031.5	50.52
133.0	040.0000	0046.1	030.5	232.0	000.5541	0117.9	032.0	50.25
134.0	040.0000	0045.6	030.4	232.1	000.5546	0117.9	032.6	49.98
135.0	040.0000	0045.0	030.1	232.4	000.5554	0117.9	033.1	49.72
136.0	040.0000	0044.4	030.0	232.6	000.5562	0117.9	033.7	49.47
137.0	040.0000	0043.9	029.8	232.8	000.5568	0118.0	034.2	49.21
138.0	040.0000	0043.4	029.6	233.0	000.5575	0118.0	034.7	48.97
139.0	040.0000	0042.8	029.4	233.2	000.5584	0118.0	035.3	48.72
140.0	040.0000	0042.3	029.3	233.5	000.5592	0118.0	035.8	48.48
141.0	040.0000	0042.0	029.2	233.6	000.5596	0118.0	036.3	48.25
142.0	040.0000	0041.9	029.1	233.6	000.5596	0118.0	036.8	48.01
143.0	040.0000	0042.0	029.2	233.5	000.5594	0118.0	037.3	47.78
144.0	040.0000	0042.1	029.2	233.5	000.5592	0118.0	037.8	47.54
145.0	040.0000	0042.2	029.2	233.5	000.5592	0118.0	038.3	47.31
146.0	040.0000	0042.1	029.2	233.5	000.5594	0118.0	038.8	47.08
147.0	040.0000	0041.8	029.1	233.7	000.5601	0117.9	039.3	46.86
148.0	040.0000	0041.0	028.8	234.2	000.5616	0117.9	039.8	46.66
149.0	040.0000	0039.4	028.3	234.9	000.5643	0117.8	040.3	46.47
150.0	040.0000	0037.8	027.8	235.7	000.5671	0117.6	040.7	46.29
151.0	040.0000	0043.7	029.7	233.1	000.5580	0118.0	041.4	45.93

10-06-2009 FCC NGDC 30 Sec Terrain Data

KMKL BLED20090804AAA
 Channel = 212C3
 Max ERP = 15 kW
 RCAMSL = 393 M
 N. Lat. 45 32 36.0
 W. Lng. 92 58 24.0
 Protected
 60 dBu

KPCS (New)
 Channel = 209C2
 Max ERP = 40 kW
 RCAMSL = 340.5 M
 N. Lat. 45 33 10.0
 W. Lng. 93 34 54.0
 Interfering
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
211.0	000.4812	0122.5	017.0	111.9	040.0000	0049.8	041.7	57.64	
212.0	000.4871	0122.6	017.1	111.9	040.0000	0049.8	041.4	57.74	
213.0	000.4930	0122.7	017.2	111.9	040.0000	0049.8	041.1	57.85	
214.0	000.4990	0122.4	017.2	111.9	040.0000	0049.8	040.8	57.96	
215.0	000.5051	0121.6	017.2	111.8	040.0000	0049.8	040.5	58.06	
216.0	000.5112	0120.4	017.2	111.6	040.0000	0049.8	040.2	58.17	
217.0	000.5173	0119.0	017.1	111.5	040.0000	0049.8	040.0	58.27	
218.0	000.5234	0118.2	017.1	111.3	040.0000	0049.8	039.7	58.37	
219.0	000.5296	0117.9	017.2	111.3	040.0000	0049.8	039.4	58.48	
220.0	000.5358	0117.9	017.2	111.2	040.0000	0049.8	039.1	58.60	
221.0	000.5369	0118.0	017.2	111.1	040.0000	0049.8	038.8	58.70	
222.0	000.5381	0118.0	017.2	110.9	040.0000	0049.8	038.5	58.81	
223.0	000.5392	0117.9	017.2	110.8	040.0000	0049.8	038.2	58.92	
224.0	000.5404	0117.6	017.2	110.6	040.0000	0049.8	037.9	59.02	
225.0	000.5415	0117.3	017.2	110.4	040.0000	0049.8	037.7	59.13	
226.0	000.5426	0117.3	017.2	110.2	040.0000	0049.8	037.4	59.23	
227.0	000.5438	0117.3	017.2	110.0	040.0000	0049.8	037.1	59.34	
228.0	000.5449	0117.3	017.2	109.8	040.0000	0049.8	036.9	59.44	
229.0	000.5461	0117.3	017.2	109.6	040.0000	0049.8	036.6	59.55	
230.0	000.5472	0117.4	017.3	109.4	040.0000	0049.8	036.3	59.65	
231.0	000.5507	0117.7	017.3	109.2	040.0000	0049.8	036.0	59.77	
232.0	000.5541	0117.9	017.4	109.0	040.0000	0049.8	035.7	59.88	
233.0	000.5576	0118.0	017.4	108.8	040.0000	0049.8	035.5	59.98	
234.0	000.5611	0117.9	017.4	108.6	040.0000	0049.8	035.2	60.09	
235.0	000.5645	0117.8	017.4	108.3	040.0000	0049.8	035.0	60.19	
236.0	000.5680	0117.6	017.5	108.0	040.0000	0049.8	034.7	60.29	
237.0	000.5715	0117.4	017.5	107.7	040.0000	0049.8	034.5	60.39	
238.0	000.5751	0117.1	017.5	107.4	040.0000	0049.8	034.2	60.49	
239.0	000.5786	0116.7	017.5	107.1	040.0000	0049.8	034.0	60.58	
240.0	000.5821	0116.4	017.5	106.7	040.0000	0049.8	033.8	60.68	
241.0	000.5887	0116.0	017.5	106.4	040.0000	0049.8	033.5	60.77	
242.0	000.5952	0115.5	017.5	106.0	040.0000	0049.8	033.3	60.87	
243.0	000.6018	0114.6	017.5	105.6	040.0000	0049.8	033.1	60.95	
244.0	000.6084	0113.6	017.5	105.2	040.0000	0049.8	032.9	61.03	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
245.0	000.6151	0112.5	017.4	104.7	040.0000	0049.9	032.7	61.11
246.0	000.6218	0111.6	017.4	104.3	040.0000	0049.9	032.6	61.20
247.0	000.6285	0111.0	017.4	103.9	040.0000	0050.0	032.4	61.29
248.0	000.6353	0110.6	017.4	103.5	040.0000	0050.1	032.2	61.39
249.0	000.6421	0110.3	017.4	103.0	040.0000	0050.2	032.0	61.49
250.0	000.6490	0109.9	017.5	102.6	040.0000	0050.3	031.8	61.58
251.0	000.6678	0109.4	017.6	102.2	040.0000	0050.3	031.6	61.70
252.0	000.6869	0109.0	017.7	101.8	040.0000	0050.3	031.3	61.81
253.0	000.7063	0108.6	017.7	101.4	040.0000	0050.3	031.1	61.91
254.0	000.7260	0108.2	017.8	101.0	040.0000	0050.2	030.9	62.01
255.0	000.7459	0107.6	017.9	100.6	040.0000	0050.1	030.7	62.10
256.0	000.7661	0106.9	018.0	100.1	040.0000	0050.1	030.5	62.18
257.0	000.7866	0106.2	018.0	099.6	040.0000	0050.0	030.3	62.26
258.0	000.8074	0105.5	018.1	099.1	040.0000	0049.9	030.1	62.34
259.0	000.8284	0105.0	018.2	098.6	040.0000	0049.8	029.9	62.42
260.0	000.8497	0104.7	018.3	098.0	040.0000	0049.7	029.7	62.51
261.0	000.8698	0104.6	018.4	097.5	040.0000	0049.6	029.5	62.59
262.0	000.8901	0104.5	018.5	097.0	040.0000	0049.5	029.4	62.67
263.0	000.9107	0104.4	018.6	096.4	040.0000	0049.5	029.2	62.77
264.0	000.9315	0104.3	018.7	095.8	040.0000	0049.6	029.0	62.88
265.0	000.9526	0104.2	018.8	095.2	040.0000	0049.6	028.8	62.98
266.0	000.9738	0104.1	018.9	094.6	040.0000	0049.6	028.7	63.07
267.0	000.9954	0104.1	019.0	094.0	040.0000	0049.7	028.5	63.16
268.0	001.0171	0104.0	019.1	093.3	040.0000	0049.6	028.4	63.24
269.0	001.0391	0104.1	019.2	092.7	040.0000	0049.6	028.3	63.31
270.0	001.0613	0104.1	019.3	092.0	040.0000	0049.5	028.1	63.36
271.0	001.1049	0104.2	019.5	091.3	040.0000	0049.5	027.9	63.50
272.0	001.1493	0104.2	019.7	090.6	040.0000	0049.3	027.7	63.59
273.0	001.1946	0104.3	019.9	089.9	040.0000	0049.1	027.6	63.65
274.0	001.2407	0104.3	020.1	089.1	040.0000	0048.8	027.4	63.71
275.0	001.2877	0104.3	020.3	088.4	040.0000	0048.5	027.2	63.75
276.0	001.3356	0104.2	020.5	087.6	040.0000	0048.2	027.1	63.78
277.0	001.3844	0104.2	020.6	086.8	040.0000	0048.2	027.0	63.86
278.0	001.4341	0104.2	020.8	085.9	040.0000	0048.3	026.9	63.93
279.0	001.4846	0104.1	021.0	085.1	040.0000	0048.1	026.8	63.95
280.0	001.5360	0103.9	021.1	084.3	040.0000	0047.9	026.7	63.94
281.0	001.5844	0103.7	021.3	083.4	040.0000	0047.5	026.7	63.88
282.0	001.6335	0103.4	021.4	082.6	040.0000	0047.1	026.7	63.81
283.0	001.6834	0103.1	021.5	081.7	040.0000	0046.7	026.7	63.73
284.0	001.7340	0103.1	021.7	080.9	040.0000	0046.3	026.7	63.66
285.0	001.7854	0103.1	021.8	080.0	040.0000	0046.1	026.7	63.61
286.0	001.8375	0103.1	022.0	079.1	040.0000	0046.0	026.8	63.57
287.0	001.8904	0103.1	022.1	078.2	040.0000	0046.0	026.8	63.53
288.0	001.9440	0103.2	022.3	077.4	040.0000	0045.9	026.9	63.48
289.0	001.9984	0103.1	022.4	076.5	040.0000	0045.8	027.0	63.40
290.0	002.0535	0102.9	022.5	075.7	040.0000	0045.4	027.1	63.26
291.0	002.1308	0102.7	022.7	074.8	040.0000	0044.9	027.2	63.10
292.0	002.2095	0102.9	022.9	073.8	040.0000	0044.2	027.2	62.93
293.0	002.2897	0103.4	023.1	072.8	040.0000	0043.7	027.3	62.78
294.0	002.3713	0103.7	023.4	071.9	040.0000	0043.3	027.4	62.64
295.0	002.4543	0103.9	023.6	071.0	040.0000	0042.9	027.5	62.49

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
296.0	002.5387	0104.0	023.8	070.1	040.0000	0042.6	027.7	62.32
297.0	002.6246	0103.9	023.9	069.2	040.0000	0042.2	027.9	62.13
298.0	002.7119	0104.1	024.1	068.4	040.0000	0041.8	028.0	61.93
299.0	002.8007	0104.3	024.3	067.5	040.0000	0041.3	028.2	61.73
300.0	002.8908	0104.4	024.5	066.7	040.0000	0041.0	028.5	61.53
301.0	003.0092	0104.5	024.7	065.8	040.0000	0040.7	028.7	61.36
302.0	003.1300	0104.6	025.0	064.9	040.0000	0040.5	028.9	61.18
303.0	003.2531	0104.7	025.2	064.1	040.0000	0040.3	029.1	61.00
304.0	003.3787	0105.0	025.5	063.2	040.0000	0040.1	029.4	60.83
305.0	003.5066	0105.5	025.7	062.3	040.0000	0040.0	029.7	60.66
306.0	003.6369	0106.2	026.0	061.5	040.0000	0040.1	029.9	60.54
307.0	003.7695	0106.9	026.3	060.6	040.0000	0040.3	030.2	60.43
308.0	003.9046	0107.8	026.6	059.7	040.0000	0040.4	030.5	60.31
309.0	004.0420	0108.5	026.9	058.9	040.0000	0040.5	030.9	60.17
310.0	004.1818	0109.0	027.2	058.2	040.0000	0040.5	031.2	60.01
311.0	004.3691	0109.5	027.5	057.4	040.0000	0040.5	031.6	59.85
312.0	004.5606	0109.8	027.8	056.6	040.0000	0040.6	032.0	59.69
313.0	004.7562	0110.3	028.1	055.8	040.0000	0040.6	032.4	59.53
314.0	004.9559	0110.7	028.4	055.1	040.0000	0040.6	032.8	59.36
315.0	005.1597	0110.9	028.7	054.5	040.0000	0040.6	033.2	59.19
316.0	005.3676	0111.0	029.0	053.9	040.0000	0040.6	033.7	59.01
317.0	005.5797	0111.0	029.2	053.3	040.0000	0040.7	034.1	58.83
318.0	005.7958	0111.1	029.5	052.8	040.0000	0040.7	034.6	58.64
319.0	006.0160	0111.2	029.7	052.3	040.0000	0040.7	035.1	58.45
320.0	006.2404	0111.3	030.0	051.8	040.0000	0040.7	035.6	58.26
321.0	006.4885	0111.4	030.3	051.4	040.0000	0040.7	036.1	58.07
322.0	006.7415	0111.7	030.6	050.9	040.0000	0040.8	036.7	57.88
323.0	006.9994	0112.1	030.9	050.4	040.0000	0040.8	037.2	57.68
324.0	007.2621	0112.6	031.2	049.9	040.0000	0040.8	037.8	57.48
325.0	007.5296	0113.0	031.6	049.5	040.0000	0040.8	038.3	57.28
326.0	007.8019	0113.1	031.9	049.2	040.0000	0040.8	038.9	57.07
327.0	008.0791	0113.0	032.1	048.9	040.0000	0040.9	039.5	56.87
328.0	008.3612	0112.6	032.3	048.7	040.0000	0040.9	040.1	56.67
329.0	008.6480	0112.2	032.5	048.5	040.0000	0040.9	040.7	56.47
330.0	008.9398	0111.8	032.7	048.4	040.0000	0040.9	041.3	56.27
331.0	009.1799	0096.2	030.6	051.5	040.0000	0040.7	041.4	56.20