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Overlapping Contour allocation study - KNSY
University Of Northern Iowa

REFERENCE CH# 209C3 - 89.7 MHz, Pwr= 3 kW, HAAT= 188.5 M, COR= 449 M DISPLAY DATES
42 36 18.0 N. Average Protected F(50-50)= 32.24 km DATA 03-16-17
90 47 57.0 W. Omni-directional SEARCH 03-16-17

CH CALL / CITY	TYPE ANT / STATE	AZI <--	DIST / FILE #	LAT / LNG	PWR(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* / (Overlap in km)	*OUT*
209C3 KNSY	LIC _EX	0.0	0.00	42 36 18.0	2.600	89.3	32.6	-123.1*	-123.9*
Dubuque	IA	0.0	BLED20051223AAR	90 47 57.0	197	449	University Of Northern Iow		
209A KRNL-FM	LIC _CX	214.5	91.39	41 55 34.0	0.045	14.6	4.6	45.4	0.2
Mount Vernon	IA	34.1	BLED20020730AAB	91 25 32.0	51	299	Cornell College		
206A WSSW	LIC _CX	61.1	36.71	42 45 50.7	0.130	0.8	14.0	1.7	19.7
Platteville	WI	241.3	BLED20151112XPE	90 24 19.7	132	440	State Of Wisconsin Educati		
210A KRJE	LIC _CX	290.3	89.24	42 52 43.0	0.850	25.6	16.8	33.5	27.0
Hawkeye	IA	109.6	BLED20110518AAA	91 49 36.0	68	409	Hawkeye Seventh-day Advent		
209A KRUI-FM	LIC _CN	210.5	121.90	41 39 29.0	0.100	18.6	5.6	71.6	28.6
Iowa City	IA	30.0	BLED19840417BX	91 32 40.0	27	250	Student Broadcasters Inc.		
208B WCNP	LIC DCX	45.2	130.64	43 25 40.3	6.500	68.1	44.0	30.8	34.7
Baraboo	WI	225.9	BLED20130605ABC	89 39 06.5	321	610	Liberty And Freedom Inc.		
210B1 WORT	LIC _CN	64.7	117.91	43 03 03.0	2.000	51.5	34.4	32.3	32.7
Madison	WI	245.6	BLED19990208KB	89 29 13.0	286	582	Back Porch Radio Broadcast		

Terrain database is GLOBE 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= - Zone 2, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
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 restricted contour.
« = Station meets FCC minimum distance spacing for its class.

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.

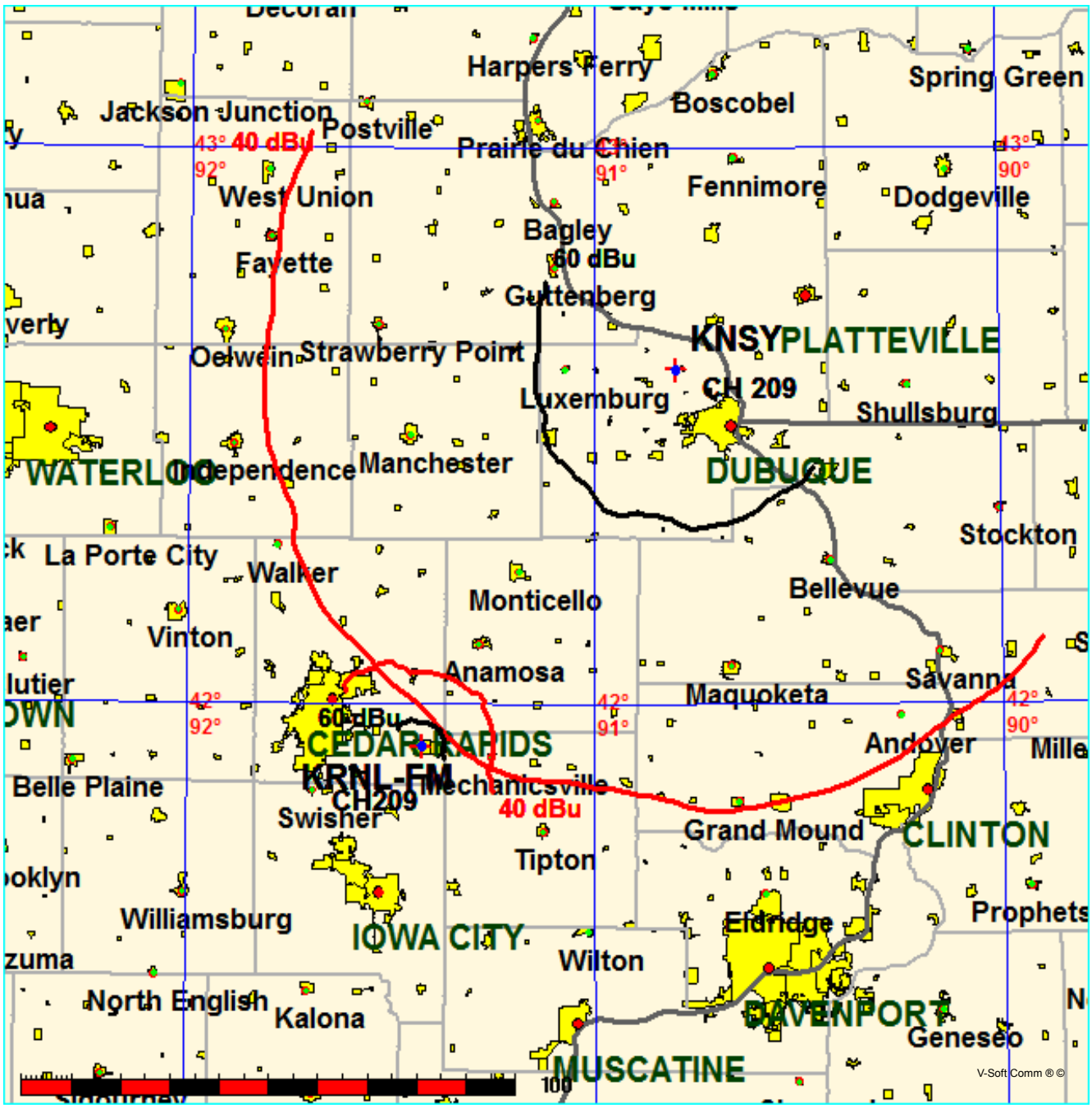
The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. “Z” indicates a 73.215 directional. An “N” indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will 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.

Overlapping Contour Allocation Study - KNSY- KRNL
University Of Northern Iowa

FMCommander Single Allocation Study - 03-16-2017 - GLOBE 30 Sec
KNSY's Overlaps (In= 45.42 km, Out= 0.17 km)

KNSY CH 209 C3
Lat= 42 36 18.0, Lng= 90 47 57.0
3.0 kW 188.5 m HAAT, 449 m COR
Prot.= 60 dBu, Intef.= 40 dBu

KRNL-FM CH 209 A BLED20020730AAB
Lat= 41 55 34.0, Lng= 91 25 32.0
0.045 kW 51 m HAAT, 299 m COR
Prot.= 60 dBu, Intef.= 40 dBu



03-16-2017 Terrain Data: GLOBE 30 Sec FMOver Analysis

KNSY

Channel = 209C3
Max ERP = 3 kW
RCAMSL = 449 m
N. Lat. 42 36 18.0
W. Lng. 90 47 57.0
Protected
60 dBu

KRNL-FM BLED20020730AAB

Channel = 209A
Max ERP = 0.045 kW
RCAMSL = 299 m
N. Lat. 41 55 34.0
W. Lng. 91 25 32.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
155.0	003.0000	0197.1	033.0	055.0	000.0450	0033.4	079.9	16.85	
156.0	003.0000	0196.8	032.9	054.9	000.0450	0033.5	079.3	16.97	
157.0	003.0000	0196.6	032.9	054.8	000.0450	0033.5	078.8	17.08	
158.0	003.0000	0196.6	032.9	054.7	000.0450	0033.6	078.2	17.20	
159.0	003.0000	0196.7	032.9	054.6	000.0450	0033.7	077.7	17.32	
160.0	003.0000	0196.4	032.9	054.5	000.0450	0033.7	077.1	17.43	
161.0	003.0000	0195.7	032.9	054.3	000.0450	0033.8	076.6	17.54	
162.0	003.0000	0194.6	032.8	054.1	000.0450	0033.9	076.1	17.65	
163.0	003.0000	0192.9	032.6	053.9	000.0450	0034.0	075.6	17.76	
164.0	003.0000	0191.4	032.5	053.6	000.0450	0034.0	075.1	17.86	
165.0	003.0000	0191.0	032.5	053.5	000.0450	0034.0	074.5	17.96	
166.0	003.0000	0191.5	032.5	053.3	000.0450	0034.0	074.0	18.06	
167.0	003.0000	0191.7	032.5	053.2	000.0450	0034.0	073.5	18.16	
168.0	003.0000	0191.6	032.5	053.0	000.0450	0034.0	073.0	18.26	
169.0	003.0000	0191.2	032.5	052.8	000.0450	0033.9	072.5	18.35	
170.0	003.0000	0190.7	032.4	052.5	000.0450	0033.9	072.0	18.44	
171.0	003.0000	0190.1	032.4	052.3	000.0450	0033.8	071.5	18.53	
172.0	003.0000	0190.1	032.4	052.1	000.0450	0033.7	071.0	18.61	
173.0	003.0000	0190.1	032.4	051.8	000.0450	0033.6	070.5	18.70	
174.0	003.0000	0190.0	032.4	051.6	000.0450	0033.6	070.0	18.78	
175.0	003.0000	0188.8	032.3	051.3	000.0450	0033.5	069.6	18.86	
176.0	003.0000	0186.8	032.1	050.9	000.0450	0033.5	069.2	18.93	
177.0	003.0000	0183.5	031.8	050.4	000.0450	0033.6	068.9	18.99	
178.0	003.0000	0179.8	031.5	050.0	000.0450	0033.6	068.7	19.05	
179.0	003.0000	0176.4	031.2	049.5	000.0450	0033.7	068.4	19.11	
180.0	003.0000	0172.7	030.9	049.0	000.0450	0033.7	068.2	19.15	
181.0	003.0000	0169.1	030.6	048.5	000.0450	0033.6	068.0	19.17	
182.0	003.0000	0166.2	030.3	048.0	000.0450	0033.3	067.8	19.19	
183.0	003.0000	0164.8	030.2	047.6	000.0450	0033.1	067.5	19.21	
184.0	003.0000	0163.8	030.1	047.3	000.0450	0032.7	067.2	19.23	
185.0	003.0000	0163.3	030.1	046.9	000.0450	0032.4	066.9	19.26	
186.0	003.0000	0161.1	029.9	046.5	000.0450	0031.9	066.7	19.25	
187.0	003.0000	0160.1	029.8	046.1	000.0450	0031.4	066.4	19.25	
188.0	003.0000	0159.6	029.7	045.7	000.0450	0031.1	066.1	19.26	
189.0	003.0000	0159.9	029.8	045.4	000.0450	0030.7	065.8	19.29	
190.0	003.0000	0161.7	029.9	045.1	000.0450	0030.4	065.4	19.33	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
191.0	003.0000	0162.2	030.0	044.7	000.0450	0030.0	065.0	19.35
192.0	003.0000	0162.4	030.0	044.3	000.0450	0029.6	064.7	19.41
193.0	003.0000	0162.3	030.0	043.9	000.0450	0029.3	064.5	19.46
194.0	003.0000	0161.6	029.9	043.5	000.0450	0028.9	064.2	19.50
195.0	003.0000	0162.3	030.0	043.1	000.0450	0028.6	063.9	19.56
196.0	003.0000	0164.9	030.2	042.8	000.0450	0028.4	063.5	19.65
197.0	003.0000	0168.1	030.5	042.5	000.0450	0028.3	063.0	19.74
198.0	003.0000	0170.9	030.7	042.2	000.0450	0028.1	062.6	19.83
199.0	003.0000	0174.3	031.0	041.8	000.0450	0028.0	062.1	19.92
200.0	003.0000	0177.9	031.3	041.5	000.0450	0028.0	061.6	20.02
201.0	003.0000	0180.4	031.6	041.1	000.0450	0028.0	061.2	20.10
202.0	003.0000	0181.7	031.7	040.6	000.0450	0028.0	060.9	20.16
203.0	003.0000	0182.3	031.7	040.1	000.0450	0028.0	060.7	20.21
204.0	003.0000	0182.7	031.8	039.6	000.0450	0027.8	060.5	20.25
205.0	003.0000	0183.4	031.8	039.1	000.0450	0027.6	060.3	20.29
206.0	003.0000	0183.8	031.8	038.6	000.0450	0027.3	060.1	20.32
207.0	003.0000	0183.2	031.8	038.1	000.0450	0026.9	060.0	20.33
208.0	003.0000	0181.7	031.7	037.6	000.0450	0026.6	060.0	20.33
209.0	003.0000	0180.1	031.5	037.0	000.0450	0026.4	060.1	20.32
210.0	003.0000	0178.2	031.4	036.5	000.0450	0026.3	060.2	20.30
211.0	003.0000	0175.1	031.1	035.9	000.0450	0026.2	060.4	20.26
212.0	003.0000	0172.3	030.9	035.4	000.0450	0026.2	060.6	20.22
213.0	003.0000	0170.5	030.7	034.9	000.0450	0026.2	060.7	20.19
214.0	003.0000	0167.8	030.5	034.4	000.0450	0026.0	060.9	20.15
215.0	003.0000	0163.9	030.1	033.9	000.0450	0025.8	061.3	20.08
216.0	003.0000	0160.3	029.8	033.4	000.0450	0025.6	061.6	20.01
217.0	003.0000	0158.3	029.6	032.9	000.0450	0025.4	061.8	19.97
218.0	003.0000	0157.4	029.5	032.5	000.0450	0025.2	061.9	19.95
219.0	003.0000	0157.6	029.6	032.0	000.0450	0025.0	062.0	19.94
220.0	003.0000	0158.3	029.6	031.5	000.0450	0024.8	062.0	19.94
221.0	003.0000	0159.1	029.7	031.0	000.0450	0024.6	062.0	19.94
222.0	003.0000	0159.8	029.7	030.5	000.0450	0024.5	062.0	19.93
223.0	003.0000	0159.9	029.8	030.1	000.0450	0024.3	062.1	19.91
224.0	003.0000	0159.5	029.7	029.6	000.0450	0024.2	062.3	19.88
225.0	003.0000	0158.6	029.6	029.2	000.0450	0024.1	062.5	19.84
226.0	003.0000	0157.7	029.6	028.7	000.0450	0024.0	062.7	19.80
227.0	003.0000	0156.8	029.5	028.3	000.0450	0024.0	062.9	19.75
228.0	003.0000	0156.4	029.4	027.9	000.0450	0024.1	063.1	19.71
229.0	003.0000	0156.8	029.5	027.4	000.0450	0024.2	063.3	19.69
230.0	003.0000	0158.3	029.6	027.0	000.0450	0024.4	063.3	19.67
231.0	003.0000	0160.5	029.8	026.5	000.0450	0024.6	063.4	19.67
232.0	003.0000	0162.6	030.0	026.0	000.0450	0024.8	063.4	19.66
233.0	003.0000	0164.1	030.1	025.5	000.0450	0025.1	063.5	19.64
234.0	003.0000	0165.2	030.2	025.0	000.0450	0025.2	063.7	19.60
235.0	003.0000	0166.0	030.3	024.6	000.0450	0025.3	063.9	19.57
236.0	003.0000	0166.3	030.3	024.2	000.0450	0025.4	064.1	19.52
237.0	003.0000	0166.0	030.3	023.8	000.0450	0025.4	064.4	19.46
238.0	003.0000	0165.2	030.2	023.4	000.0450	0025.3	064.8	19.40
239.0	003.0000	0164.1	030.1	023.1	000.0450	0025.2	065.2	19.33
240.0	003.0000	0162.7	030.0	022.8	000.0450	0025.1	065.6	19.25
241.0	003.0000	0160.6	029.8	022.5	000.0450	0024.9	066.0	19.16

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
242.0	003.0000	0158.8	029.7	022.2	000.0450	0024.8	066.5	19.08
243.0	003.0000	0158.2	029.6	021.9	000.0450	0024.6	066.9	19.01
244.0	003.0000	0158.5	029.6	021.6	000.0450	0024.4	067.2	18.95
245.0	003.0000	0158.4	029.6	021.3	000.0450	0024.2	067.6	18.89
246.0	003.0000	0156.1	029.4	021.1	000.0450	0024.0	068.1	18.80
247.0	003.0000	0151.6	029.0	021.0	000.0450	0024.0	068.7	18.68
248.0	003.0000	0146.6	028.6	021.0	000.0450	0023.9	069.4	18.56
249.0	003.0000	0142.8	028.3	020.9	000.0450	0023.9	070.0	18.45
250.0	003.0000	0141.0	028.1	020.7	000.0450	0023.8	070.4	18.37
251.0	003.0000	0140.9	028.1	020.5	000.0450	0023.6	070.8	18.30
252.0	003.0000	0141.8	028.2	020.2	000.0450	0023.4	071.1	18.24
253.0	003.0000	0142.6	028.2	019.9	000.0450	0023.3	071.5	18.18
254.0	003.0000	0143.7	028.3	019.6	000.0450	0023.1	071.8	18.12
255.0	003.0000	0144.6	028.4	019.3	000.0450	0023.1	072.2	18.06
256.0	003.0000	0145.8	028.5	019.0	000.0450	0023.0	072.5	17.99
257.0	003.0000	0147.1	028.6	018.7	000.0450	0023.0	072.9	17.93
258.0	003.0000	0148.0	028.7	018.5	000.0450	0023.1	073.3	17.86
259.0	003.0000	0148.6	028.8	018.2	000.0450	0023.1	073.7	17.78
260.0	003.0000	0149.2	028.8	018.0	000.0450	0023.2	074.1	17.71
261.0	003.0000	0149.1	028.8	017.8	000.0450	0023.2	074.5	17.63
262.0	003.0000	0149.0	028.8	017.7	000.0450	0023.3	075.0	17.54
263.0	003.0000	0149.0	028.8	017.5	000.0450	0023.4	075.4	17.46
264.0	003.0000	0148.8	028.8	017.4	000.0450	0023.4	075.9	17.37
265.0	003.0000	0147.9	028.7	017.3	000.0450	0023.5	076.4	17.28
266.0	003.0000	0147.2	028.6	017.2	000.0450	0023.5	076.9	17.19
267.0	003.0000	0147.0	028.6	017.1	000.0450	0023.6	077.4	17.10
268.0	003.0000	0147.0	028.6	016.9	000.0450	0023.7	077.8	17.01
269.0	003.0000	0147.1	028.6	016.8	000.0450	0023.7	078.3	16.92
270.0	003.0000	0146.7	028.6	016.7	000.0450	0023.8	078.8	16.83
271.0	003.0000	0145.7	028.5	016.7	000.0450	0023.8	079.3	16.73
272.0	003.0000	0144.7	028.4	016.6	000.0450	0023.8	079.8	16.63
273.0	003.0000	0143.6	028.3	016.6	000.0450	0023.8	080.3	16.53
274.0	003.0000	0142.9	028.3	016.6	000.0450	0023.8	080.8	16.43

03-16-2017 Terrain Data: GLOBE 30 Sec FMOver Analysis

KRNL-FM BLED20020730AAB	KNSY
Channel = 209A	Channel = 209C3
Max ERP = 0.045 kW	Max ERP = 3 kW
RCAMSL = 299 m	RCAMSL = 449 m
N. Lat. 41 55 34.0	N. Lat. 42 36 18.0
W. Lng. 91 25 32.0	W. Lng. 90 47 57.0
Protected	Interfering
60 dBu	40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
334.0	000.0450	0043.4	005.5	217.6	003.0000	0157.6	088.8	38.88	
335.0	000.0450	0043.1	005.5	217.6	003.0000	0157.6	088.7	38.90	
336.0	000.0450	0043.0	005.5	217.6	003.0000	0157.6	088.6	38.93	
337.0	000.0450	0042.8	005.5	217.5	003.0000	0157.7	088.5	38.95	
338.0	000.0450	0042.3	005.5	217.5	003.0000	0157.7	088.5	38.97	
339.0	000.0450	0041.8	005.4	217.4	003.0000	0157.7	088.4	38.99	
340.0	000.0450	0040.9	005.4	217.4	003.0000	0157.8	088.4	39.01	
341.0	000.0450	0039.5	005.3	217.3	003.0000	0157.9	088.3	39.02	
342.0	000.0450	0037.6	005.1	217.2	003.0000	0158.1	088.3	39.03	
343.0	000.0450	0036.3	005.0	217.1	003.0000	0158.2	088.3	39.04	
344.0	000.0450	0035.9	005.0	217.0	003.0000	0158.3	088.3	39.06	
345.0	000.0450	0036.2	005.0	217.0	003.0000	0158.3	088.2	39.08	
346.0	000.0450	0036.1	005.0	217.0	003.0000	0158.4	088.1	39.10	
347.0	000.0450	0035.3	005.0	216.9	003.0000	0158.4	088.1	39.12	
348.0	000.0450	0033.9	004.9	216.8	003.0000	0158.6	088.1	39.12	
349.0	000.0450	0032.2	004.7	216.7	003.0000	0158.7	088.1	39.12	
350.0	000.0450	0030.5	004.6	216.6	003.0000	0158.9	088.1	39.12	
351.0	000.0450	0029.3	004.6	216.6	003.0000	0159.0	088.1	39.13	
352.0	000.0450	0028.6	004.6	216.5	003.0000	0159.1	088.1	39.15	
353.0	000.0450	0028.2	004.6	216.5	003.0000	0159.2	088.0	39.17	
354.0	000.0450	0027.6	004.6	216.5	003.0000	0159.2	087.9	39.19	
355.0	000.0450	0027.7	004.6	216.4	003.0000	0159.3	087.9	39.21	
356.0	000.0450	0028.2	004.6	216.4	003.0000	0159.4	087.8	39.23	
357.0	000.0450	0028.1	004.6	216.3	003.0000	0159.5	087.8	39.25	
358.0	000.0450	0027.5	004.6	216.3	003.0000	0159.6	087.7	39.26	
359.0	000.0450	0027.2	004.6	216.3	003.0000	0159.7	087.7	39.28	
000.0	000.0450	0027.7	004.6	216.2	003.0000	0159.8	087.6	39.30	
001.0	000.0450	0028.2	004.6	216.2	003.0000	0159.9	087.6	39.32	
002.0	000.0450	0028.7	004.6	216.1	003.0000	0160.0	087.6	39.34	
003.0	000.0450	0028.3	004.6	216.1	003.0000	0160.1	087.5	39.35	
004.0	000.0450	0027.8	004.6	216.0	003.0000	0160.2	087.5	39.37	
005.0	000.0450	0027.2	004.6	216.0	003.0000	0160.3	087.4	39.39	
006.0	000.0450	0026.7	004.6	216.0	003.0000	0160.5	087.4	39.41	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
007.0	000.0450	0026.6	004.6	215.9	003.0000	0160.6	087.3	39.42
008.0	000.0450	0026.3	004.6	215.9	003.0000	0160.8	087.3	39.44
009.0	000.0450	0026.1	004.6	215.8	003.0000	0160.9	087.3	39.46
010.0	000.0450	0025.7	004.6	215.8	003.0000	0161.1	087.2	39.48
011.0	000.0450	0025.1	004.6	215.7	003.0000	0161.3	087.2	39.49
012.0	000.0450	0024.6	004.6	215.7	003.0000	0161.4	087.2	39.51
013.0	000.0450	0024.4	004.6	215.6	003.0000	0161.6	087.1	39.53
014.0	000.0450	0024.4	004.6	215.6	003.0000	0161.8	087.1	39.54
015.0	000.0450	0024.4	004.6	215.5	003.0000	0161.9	087.1	39.56
016.0	000.0450	0024.1	004.6	215.5	003.0000	0162.1	087.1	39.57
017.0	000.0450	0023.6	004.6	215.4	003.0000	0162.3	087.0	39.59
018.0	000.0450	0023.2	004.6	215.4	003.0000	0162.5	087.0	39.60
019.0	000.0450	0023.0	004.6	215.3	003.0000	0162.6	087.0	39.62
020.0	000.0450	0023.3	004.6	215.3	003.0000	0162.8	087.0	39.63
021.0	000.0450	0024.0	004.6	215.2	003.0000	0163.0	086.9	39.64
022.0	000.0450	0024.6	004.6	215.2	003.0000	0163.2	086.9	39.66
023.0	000.0450	0025.2	004.6	215.1	003.0000	0163.4	086.9	39.67
024.0	000.0450	0025.4	004.6	215.1	003.0000	0163.6	086.9	39.68
025.0	000.0450	0025.2	004.6	215.0	003.0000	0163.9	086.9	39.70
026.0	000.0450	0024.8	004.6	215.0	003.0000	0164.1	086.9	39.71
027.0	000.0450	0024.4	004.6	214.9	003.0000	0164.3	086.9	39.72
028.0	000.0450	0024.1	004.6	214.9	003.0000	0164.5	086.8	39.73
029.0	000.0450	0024.1	004.6	214.8	003.0000	0164.7	086.8	39.75
030.0	000.0450	0024.3	004.6	214.8	003.0000	0164.9	086.8	39.76
031.0	000.0450	0024.6	004.6	214.7	003.0000	0165.2	086.8	39.77
032.0	000.0450	0025.0	004.6	214.6	003.0000	0165.4	086.8	39.78
033.0	000.0450	0025.4	004.6	214.6	003.0000	0165.6	086.8	39.79
034.0	000.0450	0025.9	004.6	214.5	003.0000	0165.8	086.8	39.79
035.0	000.0450	0026.2	004.6	214.5	003.0000	0166.0	086.8	39.80
036.0	000.0450	0026.3	004.6	214.4	003.0000	0166.2	086.8	39.81
037.0	000.0450	0026.4	004.6	214.4	003.0000	0166.4	086.8	39.82
038.0	000.0450	0026.8	004.6	214.3	003.0000	0166.6	086.8	39.83
039.0	000.0450	0027.5	004.6	214.3	003.0000	0166.8	086.8	39.83
040.0	000.0450	0027.9	004.6	214.2	003.0000	0167.0	086.8	39.84
041.0	000.0450	0028.0	004.6	214.2	003.0000	0167.2	086.9	39.84
042.0	000.0450	0028.1	004.6	214.1	003.0000	0167.4	086.9	39.84
043.0	000.0450	0028.5	004.6	214.1	003.0000	0167.6	086.9	39.85
044.0	000.0450	0029.3	004.6	214.0	003.0000	0167.7	086.9	39.85
045.0	000.0450	0030.3	004.6	214.0	003.0000	0167.9	086.9	39.86
046.0	000.0450	0031.4	004.7	213.9	003.0000	0168.1	086.8	39.89
047.0	000.0450	0032.4	004.8	213.8	003.0000	0168.4	086.8	39.92
048.0	000.0450	0033.3	004.8	213.8	003.0000	0168.6	086.7	39.94
049.0	000.0450	0033.7	004.9	213.7	003.0000	0168.8	086.7	39.95
050.0	000.0450	0033.6	004.8	213.7	003.0000	0168.9	086.7	39.94
051.0	000.0450	0033.5	004.8	213.6	003.0000	0169.1	086.8	39.94
052.0	000.0450	0033.7	004.9	213.6	003.0000	0169.2	086.8	39.94
053.0	000.0450	0034.0	004.9	213.5	003.0000	0169.4	086.8	39.95
054.0	000.0450	0034.0	004.9	213.4	003.0000	0169.5	086.8	39.94
055.0	000.0450	0033.4	004.8	213.4	003.0000	0169.6	086.9	39.93
056.0	000.0450	0032.6	004.8	213.4	003.0000	0169.7	087.0	39.90
057.0	000.0450	0031.7	004.7	213.3	003.0000	0169.8	087.1	39.88

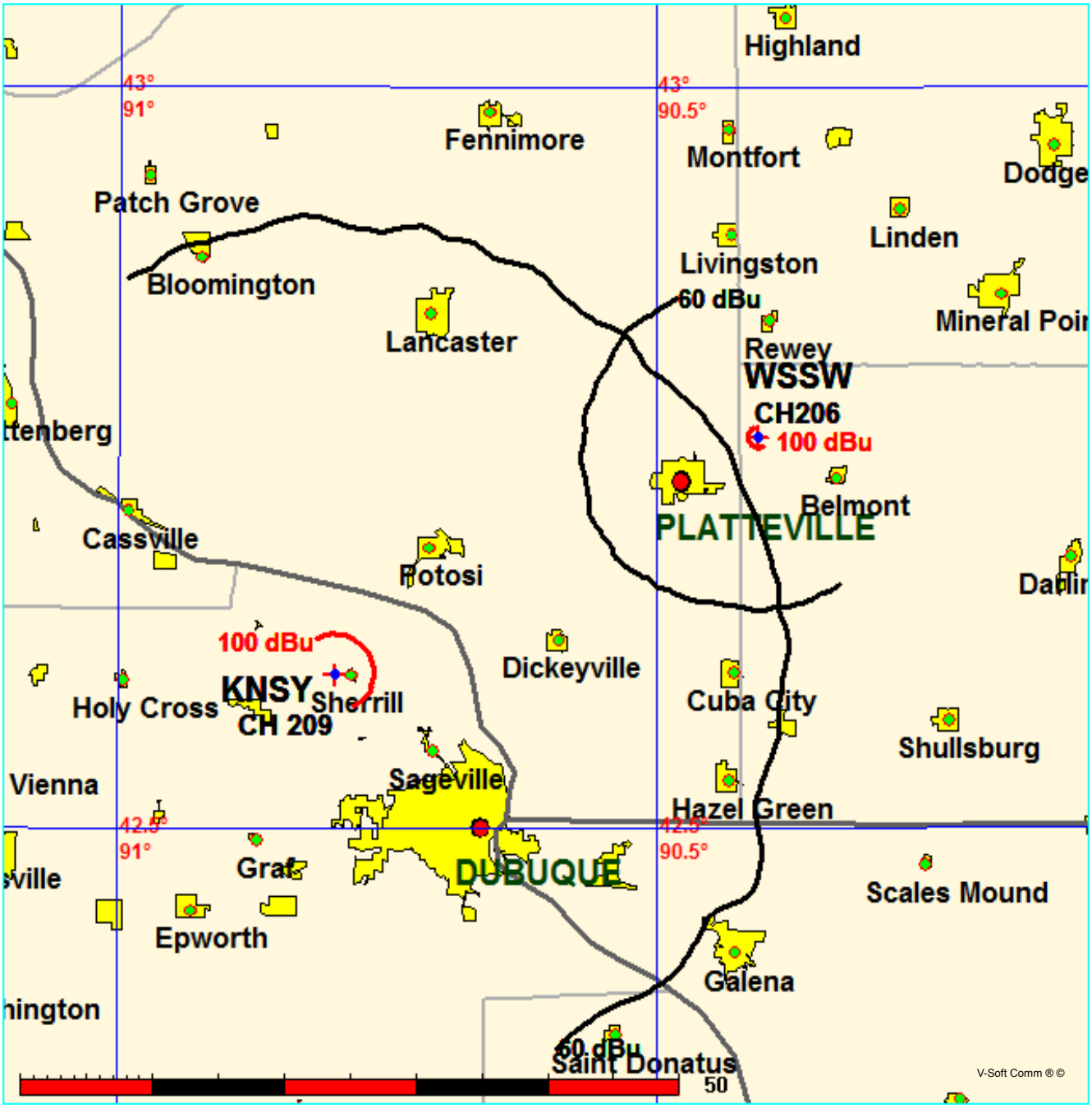
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
058.0	000.0450	0030.7	004.6	213.3	003.0000	0169.8	087.2	39.85
059.0	000.0450	0029.6	004.6	213.3	003.0000	0169.9	087.3	39.82
060.0	000.0450	0028.5	004.6	213.2	003.0000	0170.0	087.3	39.82
061.0	000.0450	0027.8	004.6	213.2	003.0000	0170.1	087.3	39.81
062.0	000.0450	0027.5	004.6	213.1	003.0000	0170.2	087.4	39.80
063.0	000.0450	0027.4	004.6	213.1	003.0000	0170.3	087.4	39.80
064.0	000.0450	0027.4	004.6	213.0	003.0000	0170.4	087.5	39.79
065.0	000.0450	0027.6	004.6	213.0	003.0000	0170.5	087.5	39.78
066.0	000.0450	0027.9	004.6	213.0	003.0000	0170.6	087.5	39.77
067.0	000.0450	0028.5	004.6	212.9	003.0000	0170.7	087.6	39.76
068.0	000.0450	0029.3	004.6	212.9	003.0000	0170.7	087.6	39.75
069.0	000.0450	0029.8	004.6	212.8	003.0000	0170.8	087.7	39.73
070.0	000.0450	0029.9	004.6	212.8	003.0000	0170.9	087.7	39.72
071.0	000.0450	0029.6	004.6	212.7	003.0000	0170.9	087.8	39.71
072.0	000.0450	0028.9	004.6	212.7	003.0000	0171.0	087.8	39.70
073.0	000.0450	0028.2	004.6	212.7	003.0000	0171.1	087.9	39.69
074.0	000.0450	0027.4	004.6	212.6	003.0000	0171.1	087.9	39.67
075.0	000.0450	0026.8	004.6	212.6	003.0000	0171.2	088.0	39.66
076.0	000.0450	0026.3	004.6	212.5	003.0000	0171.3	088.0	39.64
077.0	000.0450	0025.8	004.6	212.5	003.0000	0171.3	088.1	39.63
078.0	000.0450	0025.1	004.6	212.5	003.0000	0171.4	088.2	39.61
079.0	000.0450	0024.5	004.6	212.4	003.0000	0171.4	088.2	39.60
080.0	000.0450	0023.9	004.6	212.4	003.0000	0171.5	088.3	39.58
081.0	000.0450	0023.7	004.6	212.4	003.0000	0171.6	088.3	39.57
082.0	000.0450	0023.7	004.6	212.3	003.0000	0171.6	088.4	39.55
083.0	000.0450	0024.0	004.6	212.3	003.0000	0171.7	088.5	39.54
084.0	000.0450	0024.7	004.6	212.3	003.0000	0171.7	088.5	39.52
085.0	000.0450	0025.7	004.6	212.2	003.0000	0171.8	088.6	39.50
086.0	000.0450	0026.7	004.6	212.2	003.0000	0171.9	088.6	39.49
087.0	000.0450	0027.7	004.6	212.2	003.0000	0171.9	088.7	39.47
088.0	000.0450	0028.6	004.6	212.2	003.0000	0172.0	088.8	39.45
089.0	000.0450	0028.9	004.6	212.1	003.0000	0172.0	088.8	39.43
090.0	000.0450	0028.7	004.6	212.1	003.0000	0172.1	088.9	39.41
091.0	000.0450	0028.6	004.6	212.1	003.0000	0172.1	089.0	39.40
092.0	000.0450	0028.4	004.6	212.0	003.0000	0172.2	089.0	39.38
093.0	000.0450	0028.5	004.6	212.0	003.0000	0172.2	089.1	39.36

Overlapping Contour Allocation Study - KNSY- WSSW
University Of Northern Iowa

FMCommander Single Allocation Study - 03-16-2017 - GLOBE 30 Sec
KNSY's Overlaps (In= 1.66 km, Out= 19.67 km)

KNSY CH 209 C3
Lat= 42 36 18.0, Lng= 90 47 57.0
3.0 kW 188.5 m HAAT, 449 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WSSW CH 206 A BLED20151112XPE
Lat= 42 45 50.7, Lng= 90 24 19.7
0.13 kW 131.5 m HAAT, 440 m COR
Prot.= 60 dBu, Intef.= 100 dBu



03-16-2017 Terrain Data: GLOBE 30 Sec FMOver Analysis

KNSY

Channel = 209C3
Max ERP = 3 kW
RCAMSL = 449 m
N. Lat. 42 36 18.0
W. Lng. 90 47 57.0
Protected
60 dBu

WSSW BLED20151112XPE

Channel = 206A
Max ERP = 0.13 kW
RCAMSL = 440 m
N. Lat. 42 45 50.7
W. Lng. 90 24 19.7
Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
001.0	003.0000	0204.0	033.5	296.8	000.1300	0135.2	035.3	43.46	
002.0	003.0000	0202.6	033.4	297.1	000.1300	0135.3	034.7	43.75	
003.0	003.0000	0201.8	033.4	297.4	000.1300	0135.5	034.1	44.03	
004.0	003.0000	0201.2	033.3	297.7	000.1300	0135.7	033.6	44.32	
005.0	003.0000	0200.5	033.3	298.0	000.1300	0135.9	033.0	44.60	
006.0	003.0000	0200.8	033.3	298.4	000.1300	0136.1	032.5	44.88	
007.0	003.0000	0202.8	033.4	299.1	000.1300	0136.2	032.0	45.13	
008.0	003.0000	0205.1	033.6	299.8	000.1300	0136.2	031.5	45.37	
009.0	003.0000	0207.6	033.8	300.5	000.1300	0135.8	031.1	45.61	
010.0	003.0000	0209.9	034.0	301.2	000.1300	0135.6	030.6	45.86	
011.0	003.0000	0211.6	034.2	301.9	000.1300	0135.7	030.1	46.15	
012.0	003.0000	0211.0	034.1	302.2	000.1300	0135.8	029.5	46.49	
013.0	003.0000	0208.5	033.9	302.2	000.1300	0135.8	028.9	46.87	
014.0	003.0000	0205.7	033.7	302.2	000.1300	0135.8	028.2	47.25	
015.0	003.0000	0205.4	033.7	302.5	000.1300	0135.9	027.7	47.62	
016.0	003.0000	0207.5	033.8	303.2	000.1300	0136.1	027.2	47.97	
017.0	003.0000	0208.9	033.9	303.8	000.1300	0136.5	026.6	48.34	
018.0	003.0000	0208.1	033.9	304.0	000.1300	0136.6	026.0	48.75	
019.0	003.0000	0205.3	033.7	303.9	000.1300	0136.5	025.4	49.17	
020.0	003.0000	0202.9	033.5	303.7	000.1300	0136.4	024.8	49.60	
021.0	003.0000	0201.8	033.4	303.8	000.1300	0136.5	024.2	50.02	
022.0	003.0000	0202.4	033.4	304.3	000.1300	0136.8	023.7	50.45	
023.0	003.0000	0204.0	033.5	304.9	000.1300	0137.1	023.1	50.87	
024.0	003.0000	0205.5	033.7	305.4	000.1300	0137.5	022.6	51.31	
025.0	003.0000	0206.7	033.8	306.0	000.1300	0137.9	022.0	51.76	
026.0	003.0000	0207.4	033.8	306.4	000.1300	0138.2	021.4	52.22	
027.0	003.0000	0207.2	033.8	306.6	000.1300	0138.2	020.8	52.68	
028.0	003.0000	0206.0	033.7	306.6	000.1300	0138.2	020.2	53.14	
029.0	003.0000	0204.0	033.5	306.4	000.1300	0138.1	019.6	53.62	
030.0	003.0000	0201.6	033.4	306.0	000.1300	0137.9	019.0	54.08	
031.0	003.0000	0199.6	033.2	305.6	000.1300	0137.6	018.5	54.54	
032.0	003.0000	0198.1	033.1	305.4	000.1300	0137.4	017.9	55.01	
033.0	003.0000	0197.4	033.0	305.2	000.1300	0137.4	017.3	55.48	
034.0	003.0000	0196.8	032.9	305.1	000.1300	0137.3	016.7	55.95	
035.0	003.0000	0196.6	032.9	305.1	000.1300	0137.3	016.1	56.43	
036.0	003.0000	0196.6	032.9	305.1	000.1300	0137.2	015.6	56.91	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
037.0	003.0000	0197.2	033.0	305.2	000.1300	0137.3	015.0	57.27
038.0	003.0000	0199.0	033.1	305.7	000.1300	0137.6	014.4	57.95
039.0	003.0000	0201.6	033.3	306.4	000.1300	0138.2	013.8	58.69
040.0	003.0000	0203.8	033.5	307.1	000.1300	0138.3	013.2	59.46
041.0	003.0000	0204.5	033.6	307.2	000.1300	0138.3	012.6	60.27
042.0	003.0000	0203.5	033.5	306.6	000.1300	0138.2	012.1	61.10
043.0	003.0000	0201.5	033.3	305.5	000.1300	0137.5	011.5	61.91
044.0	003.0000	0199.3	033.2	304.1	000.1300	0136.6	011.0	62.73
045.0	003.0000	0197.6	033.0	302.7	000.1300	0136.0	010.4	63.59
046.0	003.0000	0197.1	033.0	301.7	000.1300	0135.7	009.9	64.54
047.0	003.0000	0198.0	033.0	301.2	000.1300	0135.6	009.3	65.60
048.0	003.0000	0200.1	033.2	301.3	000.1300	0135.6	008.7	66.76
049.0	003.0000	0202.3	033.4	301.2	000.1300	0135.6	008.1	67.98
050.0	003.0000	0203.1	033.5	300.3	000.1300	0135.9	007.5	69.28
051.0	003.0000	0202.8	033.4	298.4	000.1300	0136.1	007.0	70.61
052.0	003.0000	0203.6	033.5	296.9	000.1300	0135.3	006.4	72.06
053.0	003.0000	0205.6	033.7	295.8	000.1300	0134.8	005.8	73.72
054.0	003.0000	0207.7	033.8	294.4	000.1300	0135.0	005.2	75.52
055.0	003.0000	0208.8	033.9	291.7	000.1300	0137.3	004.7	77.36
056.0	003.0000	0209.1	034.0	287.4	000.1300	0140.6	004.2	79.24
057.0	003.0000	0209.2	034.0	281.7	000.1300	0143.8	003.7	81.07
058.0	003.0000	0209.8	034.0	274.8	000.1300	0148.0	003.3	82.98
059.0	003.0000	0211.5	034.1	266.8	000.1300	0150.5	002.9	85.01
060.0	003.0000	0212.8	034.3	255.8	000.1300	0153.3	002.6	86.73
061.0	003.0000	0212.9	034.3	242.3	000.1300	0163.3	002.5	87.54
062.0	003.0000	0211.7	034.2	229.1	000.1300	0164.0	002.6	86.73
063.0	003.0000	0210.1	034.0	218.3	000.1300	0151.9	002.9	84.78
064.0	003.0000	0208.8	033.9	209.7	000.1300	0148.7	003.3	82.95
065.0	003.0000	0207.6	033.8	203.2	000.1300	0146.3	003.8	81.06
066.0	003.0000	0207.3	033.8	197.5	000.1300	0140.6	004.2	79.13
067.0	003.0000	0208.0	033.9	192.2	000.1300	0138.3	004.6	77.51
068.0	003.0000	0209.0	034.0	187.7	000.1300	0137.1	005.1	76.01
069.0	003.0000	0209.6	034.0	184.3	000.1300	0139.1	005.6	74.60
070.0	003.0000	0210.0	034.0	181.7	000.1300	0140.8	006.1	73.17
071.0	003.0000	0210.4	034.1	179.6	000.1300	0140.8	006.7	71.67
072.0	003.0000	0211.0	034.1	177.9	000.1300	0140.9	007.2	70.24
073.0	003.0000	0210.9	034.1	176.8	000.1300	0140.6	007.8	68.87
074.0	003.0000	0211.2	034.1	175.7	000.1300	0139.2	008.4	67.59
075.0	003.0000	0211.9	034.2	174.6	000.1300	0137.9	009.0	66.37
076.0	003.0000	0212.3	034.2	173.9	000.1300	0137.5	009.5	65.24
077.0	003.0000	0212.5	034.2	173.4	000.1300	0137.6	010.1	64.18
078.0	003.0000	0214.1	034.4	172.4	000.1300	0138.2	010.7	63.22
079.0	003.0000	0213.9	034.3	172.3	000.1300	0138.3	011.3	62.24
080.0	003.0000	0212.5	034.2	172.7	000.1300	0138.0	011.9	61.28
081.0	003.0000	0211.1	034.1	173.1	000.1300	0137.7	012.5	60.38
082.0	003.0000	0210.4	034.1	173.3	000.1300	0137.6	013.1	59.55
083.0	003.0000	0211.8	034.2	172.8	000.1300	0137.9	013.7	58.80
084.0	003.0000	0214.1	034.4	172.1	000.1300	0138.4	014.3	58.09
085.0	003.0000	0215.9	034.5	171.7	000.1300	0138.7	014.9	57.43
086.0	003.0000	0217.3	034.6	171.4	000.1300	0139.0	015.5	57.05
087.0	003.0000	0216.6	034.5	171.8	000.1300	0138.6	016.1	56.52

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
088.0	003.0000	0214.6	034.4	172.6	000.1300	0138.0	016.7	56.00
089.0	003.0000	0212.7	034.2	173.3	000.1300	0137.6	017.3	55.49
090.0	003.0000	0210.8	034.1	174.0	000.1300	0137.5	017.9	55.01
091.0	003.0000	0209.6	034.0	174.5	000.1300	0137.8	018.4	54.56
092.0	003.0000	0208.6	033.9	175.0	000.1300	0138.3	019.0	54.13
093.0	003.0000	0207.4	033.8	175.5	000.1300	0139.0	019.6	53.71
094.0	003.0000	0206.5	033.8	175.9	000.1300	0139.5	020.2	53.29
095.0	003.0000	0207.1	033.8	176.0	000.1300	0139.6	020.8	52.83
096.0	003.0000	0207.9	033.9	176.1	000.1300	0139.8	021.4	52.38
097.0	003.0000	0208.8	033.9	176.2	000.1300	0139.9	022.0	51.93
098.0	003.0000	0209.4	034.0	176.4	000.1300	0140.1	022.5	51.50
099.0	003.0000	0208.6	033.9	176.9	000.1300	0140.7	023.1	51.11
100.0	003.0000	0207.3	033.8	177.4	000.1300	0140.8	023.7	50.71
101.0	003.0000	0206.2	033.7	178.0	000.1300	0140.9	024.2	50.31
102.0	003.0000	0204.7	033.6	178.6	000.1300	0140.9	024.8	49.93
103.0	003.0000	0203.2	033.5	179.2	000.1300	0140.9	025.3	49.54
104.0	003.0000	0202.4	033.4	179.6	000.1300	0140.8	025.8	49.16
105.0	003.0000	0201.9	033.4	180.0	000.1300	0140.8	026.4	48.78
106.0	003.0000	0202.0	033.4	180.4	000.1300	0140.8	027.0	48.41
107.0	003.0000	0202.4	033.4	180.6	000.1300	0140.8	027.5	48.04
108.0	003.0000	0204.3	033.6	180.7	000.1300	0140.8	028.1	47.65
109.0	003.0000	0207.8	033.9	180.5	000.1300	0140.8	028.8	47.25
110.0	003.0000	0212.5	034.2	180.2	000.1300	0140.8	029.5	46.83
111.0	003.0000	0217.5	034.6	179.9	000.1300	0140.8	030.2	46.43
112.0	003.0000	0221.5	034.9	179.8	000.1300	0140.8	030.8	46.05
113.0	003.0000	0225.1	035.2	179.8	000.1300	0140.8	031.5	45.69
114.0	003.0000	0227.9	035.4	179.9	000.1300	0140.8	032.2	45.35
115.0	003.0000	0230.6	035.6	180.1	000.1300	0140.8	032.8	45.03
116.0	003.0000	0232.3	035.7	180.4	000.1300	0140.8	033.4	44.72
117.0	003.0000	0232.3	035.7	180.8	000.1300	0140.8	034.0	44.44
118.0	003.0000	0230.1	035.5	181.5	000.1300	0140.8	034.5	44.20
119.0	003.0000	0225.1	035.2	182.5	000.1300	0140.9	034.8	44.01
120.0	003.0000	0218.4	034.7	183.7	000.1300	0139.8	035.2	43.79

03-16-2017 Terrain Data: GLOBE 30 Sec FMOver Analysis

WSSW BLED20151112XPE	KNSY
Channel = 206A	Channel = 209C3
Max ERP = 0.13 kW	Max ERP = 3 kW
RCAMSL = 440 m	RCAMSL = 449 m
N. Lat. 42 45 50.7	N. Lat. 42 36 18.0
W. Lng. 90 24 19.7	W. Lng. 90 47 57.0
Protected	Interfering
60 dBu	100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
181.0	000.1300	0140.8	012.9	081.4	003.0000	0210.7	032.3	62.42	
182.0	000.1300	0140.8	012.9	081.4	003.0000	0210.7	032.1	62.54	
183.0	000.1300	0140.6	012.9	081.3	003.0000	0210.8	031.9	62.66	
184.0	000.1300	0139.5	012.9	081.1	003.0000	0211.0	031.7	62.77	
185.0	000.1300	0138.3	012.8	080.9	003.0000	0211.2	031.5	62.90	
186.0	000.1300	0137.5	012.8	080.7	003.0000	0211.4	031.3	63.02	
187.0	000.1300	0137.2	012.8	080.6	003.0000	0211.6	031.1	63.14	
188.0	000.1300	0137.0	012.8	080.5	003.0000	0211.8	030.8	63.27	
189.0	000.1300	0136.8	012.8	080.3	003.0000	0212.0	030.6	63.40	
190.0	000.1300	0136.9	012.8	080.2	003.0000	0212.2	030.4	63.53	
191.0	000.1300	0137.5	012.8	080.1	003.0000	0212.3	030.2	63.66	
192.0	000.1300	0138.2	012.8	080.0	003.0000	0212.5	030.0	63.79	
193.0	000.1300	0138.8	012.8	079.9	003.0000	0212.6	029.8	63.93	
194.0	000.1300	0139.1	012.9	079.7	003.0000	0212.8	029.6	64.06	
195.0	000.1300	0139.3	012.9	079.6	003.0000	0213.1	029.3	64.20	
196.0	000.1300	0139.4	012.9	079.4	003.0000	0213.3	029.1	64.33	
197.0	000.1300	0140.1	012.9	079.3	003.0000	0213.6	028.9	64.48	
198.0	000.1300	0141.3	013.0	079.1	003.0000	0213.7	028.7	64.62	
199.0	000.1300	0142.9	013.0	079.1	003.0000	0213.9	028.5	64.78	
200.0	000.1300	0144.3	013.1	079.0	003.0000	0214.0	028.2	64.93	
201.0	000.1300	0145.3	013.2	078.8	003.0000	0214.2	028.0	65.08	
202.0	000.1300	0145.6	013.2	078.6	003.0000	0214.3	027.8	65.22	
203.0	000.1300	0146.2	013.2	078.3	003.0000	0214.3	027.6	65.35	
204.0	000.1300	0146.9	013.2	078.1	003.0000	0214.2	027.4	65.49	
205.0	000.1300	0147.5	013.3	077.9	003.0000	0214.0	027.2	65.61	
206.0	000.1300	0147.8	013.3	077.6	003.0000	0213.5	027.0	65.72	
207.0	000.1300	0148.0	013.3	077.3	003.0000	0213.0	026.8	65.82	
208.0	000.1300	0148.2	013.3	077.0	003.0000	0212.5	026.6	65.93	
209.0	000.1300	0148.4	013.3	076.7	003.0000	0212.3	026.4	66.05	
210.0	000.1300	0148.8	013.3	076.4	003.0000	0212.3	026.3	66.17	
211.0	000.1300	0149.3	013.4	076.1	003.0000	0212.3	026.1	66.30	
212.0	000.1300	0150.4	013.4	075.8	003.0000	0212.2	025.9	66.43	
213.0	000.1300	0151.9	013.5	075.5	003.0000	0212.0	025.7	66.58	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
214.0	000.1300	0153.3	013.6	075.2	003.0000	0212.0	025.4	66.72
215.0	000.1300	0154.1	013.6	074.9	003.0000	0211.9	025.3	66.85
216.0	000.1300	0153.5	013.6	074.4	003.0000	0211.6	025.1	66.93
217.0	000.1300	0152.3	013.5	073.9	003.0000	0211.2	025.0	66.98
218.0	000.1300	0151.7	013.5	073.5	003.0000	0211.0	024.9	67.06
219.0	000.1300	0152.8	013.5	073.1	003.0000	0210.9	024.7	67.19
220.0	000.1300	0154.6	013.6	072.7	003.0000	0210.9	024.5	67.33
221.0	000.1300	0156.0	013.7	072.3	003.0000	0211.0	024.3	67.47
222.0	000.1300	0157.4	013.8	071.9	003.0000	0210.9	024.2	67.60
223.0	000.1300	0158.9	013.8	071.5	003.0000	0210.7	024.0	67.73
224.0	000.1300	0160.4	013.9	071.1	003.0000	0210.4	023.8	67.84
225.0	000.1300	0161.6	014.0	070.6	003.0000	0210.3	023.6	67.96
226.0	000.1300	0162.1	014.0	070.1	003.0000	0210.1	023.5	68.04
227.0	000.1300	0162.0	014.0	069.6	003.0000	0209.8	023.4	68.10
228.0	000.1300	0162.5	014.0	069.0	003.0000	0209.6	023.3	68.18
229.0	000.1300	0163.8	014.1	068.5	003.0000	0209.3	023.2	68.27
230.0	000.1300	0164.7	014.1	068.0	003.0000	0209.0	023.0	68.35
231.0	000.1300	0164.5	014.1	067.4	003.0000	0208.4	023.0	68.37
232.0	000.1300	0163.4	014.1	066.8	003.0000	0207.8	023.0	68.36
233.0	000.1300	0162.0	014.0	066.1	003.0000	0207.4	023.0	68.34
234.0	000.1300	0160.8	013.9	065.5	003.0000	0207.3	023.0	68.34
235.0	000.1300	0160.3	013.9	064.9	003.0000	0207.7	022.9	68.37
236.0	000.1300	0160.6	013.9	064.3	003.0000	0208.4	022.9	68.44
237.0	000.1300	0161.1	013.9	063.7	003.0000	0209.2	022.8	68.52
238.0	000.1300	0161.3	014.0	063.1	003.0000	0210.0	022.8	68.58
239.0	000.1300	0160.9	013.9	062.5	003.0000	0210.9	022.8	68.61
240.0	000.1300	0160.8	013.9	061.9	003.0000	0211.9	022.8	68.66
241.0	000.1300	0161.3	014.0	061.3	003.0000	0212.7	022.8	68.72
242.0	000.1300	0162.8	014.0	060.7	003.0000	0213.0	022.7	68.78
243.0	000.1300	0164.2	014.1	060.0	003.0000	0212.8	022.6	68.82
244.0	000.1300	0165.0	014.1	059.4	003.0000	0212.1	022.6	68.81
245.0	000.1300	0165.4	014.1	058.8	003.0000	0211.1	022.6	68.76
246.0	000.1300	0164.8	014.1	058.2	003.0000	0210.0	022.7	68.68
247.0	000.1300	0163.8	014.1	057.6	003.0000	0209.4	022.8	68.58
248.0	000.1300	0161.8	014.0	057.0	003.0000	0209.2	022.9	68.47
249.0	000.1300	0159.7	013.9	056.5	003.0000	0209.1	023.0	68.36
250.0	000.1300	0157.8	013.8	055.9	003.0000	0209.1	023.2	68.25
251.0	000.1300	0156.2	013.7	055.4	003.0000	0209.1	023.3	68.15
252.0	000.1300	0155.3	013.7	054.9	003.0000	0208.6	023.4	68.05
253.0	000.1300	0154.7	013.6	054.3	003.0000	0208.2	023.5	67.96
254.0	000.1300	0154.1	013.6	053.8	003.0000	0207.3	023.6	67.84
255.0	000.1300	0153.7	013.6	053.3	003.0000	0206.2	023.7	67.72
256.0	000.1300	0153.2	013.6	052.8	003.0000	0205.1	023.8	67.59
257.0	000.1300	0152.7	013.5	052.3	003.0000	0204.1	024.0	67.46
258.0	000.1300	0152.4	013.5	051.8	003.0000	0203.3	024.1	67.34
259.0	000.1300	0152.5	013.5	051.3	003.0000	0202.8	024.2	67.25
260.0	000.1300	0153.4	013.6	050.8	003.0000	0202.9	024.3	67.20
261.0	000.1300	0154.3	013.6	050.2	003.0000	0203.1	024.3	67.15
262.0	000.1300	0154.7	013.6	049.7	003.0000	0203.1	024.4	67.07
263.0	000.1300	0154.3	013.6	049.3	003.0000	0202.7	024.6	66.95
264.0	000.1300	0153.7	013.6	048.9	003.0000	0202.0	024.7	66.81

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
265.0	000.1300	0152.7	013.5	048.5	003.0000	0201.3	024.9	66.65
266.0	000.1300	0151.8	013.5	048.1	003.0000	0200.4	025.1	66.48
267.0	000.1300	0150.1	013.4	047.8	003.0000	0199.7	025.3	66.31
268.0	000.1300	0148.3	013.3	047.5	003.0000	0199.1	025.5	66.13
269.0	000.1300	0146.8	013.2	047.2	003.0000	0198.4	025.7	65.95
270.0	000.1300	0146.4	013.2	046.9	003.0000	0197.8	025.9	65.81
271.0	000.1300	0146.3	013.2	046.5	003.0000	0197.4	026.1	65.68
272.0	000.1300	0146.2	013.2	046.2	003.0000	0197.2	026.2	65.55
273.0	000.1300	0146.3	013.2	045.8	003.0000	0197.1	026.4	65.44
274.0	000.1300	0147.4	013.3	045.4	003.0000	0197.2	026.5	65.35
275.0	000.1300	0148.0	013.3	045.0	003.0000	0197.6	026.7	65.26
276.0	000.1300	0148.4	013.3	044.7	003.0000	0198.1	026.8	65.17
277.0	000.1300	0148.3	013.3	044.4	003.0000	0198.6	027.0	65.07
278.0	000.1300	0148.0	013.3	044.1	003.0000	0199.1	027.2	64.96
279.0	000.1300	0147.8	013.3	043.8	003.0000	0199.7	027.4	64.86
280.0	000.1300	0147.0	013.3	043.6	003.0000	0200.2	027.6	64.74
281.0	000.1300	0145.3	013.2	043.5	003.0000	0200.4	027.9	64.59
282.0	000.1300	0143.1	013.1	043.5	003.0000	0200.6	028.1	64.44
283.0	000.1300	0141.4	013.0	043.4	003.0000	0200.7	028.4	64.29
284.0	000.1300	0140.9	013.0	043.2	003.0000	0201.2	028.6	64.18
285.0	000.1300	0140.6	012.9	043.0	003.0000	0201.6	028.8	64.07
286.0	000.1300	0140.8	012.9	042.8	003.0000	0202.0	029.0	63.96
287.0	000.1300	0140.7	012.9	042.6	003.0000	0202.4	029.2	63.85
288.0	000.1300	0140.7	012.9	042.4	003.0000	0202.8	029.4	63.75
289.0	000.1300	0140.7	012.9	042.2	003.0000	0203.2	029.6	63.64
290.0	000.1300	0139.9	012.9	042.1	003.0000	0203.3	029.8	63.51
291.0	000.1300	0138.4	012.8	042.1	003.0000	0203.4	030.0	63.37
292.0	000.1300	0136.8	012.8	042.1	003.0000	0203.4	030.3	63.24
293.0	000.1300	0135.6	012.7	042.0	003.0000	0203.5	030.5	63.11
294.0	000.1300	0135.2	012.7	041.9	003.0000	0203.7	030.7	62.99
295.0	000.1300	0134.8	012.7	041.8	003.0000	0203.8	030.9	62.87
296.0	000.1300	0134.9	012.7	041.7	003.0000	0204.0	031.2	62.76
297.0	000.1300	0135.3	012.7	041.6	003.0000	0204.1	031.4	62.65
298.0	000.1300	0135.9	012.7	041.4	003.0000	0204.3	031.6	62.55
299.0	000.1300	0136.2	012.7	041.3	003.0000	0204.3	031.8	62.43
300.0	000.1300	0136.1	012.7	041.2	003.0000	0204.4	032.0	62.32