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Contour-to-Contour channel study

University of Wyoming

REFERENCE
44 37 23.7 N.
107 07 03.2 W.

CH# 217C1 - 91.3 MHz, Pwr= 20 kW, HAAT= 363.9 M, COR= 2368.6 M
Average Protected F(50-50)= 60.8 km
Omni-directional

DISPLAY DATES
DATA 06-11-17
SEARCH 06-11-17

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
217A Sheridan	KSUW	LIC _CN WY		98.8 278.9	14.95 BLED19971117KA	44 36 09.0 106 55 51.0	0.450 345	67.5 1979	22.4 University of Wyoming	-132.5*	-178.0*
217C2 Thermopolis	KUWT	LIC DCX WY		208.4 27.8	149.36 BLED20061005ADD	43 26 16.0 107 59 48.0	2.000 598	108.1 2510	41.6 University of Wyoming	20.2	11.3
216C1 Cody	KOFG	LIC DCX WY		265.7 84.3	161.81 BLED20101006AAV	44 29 46.0 109 09 09.0	8.700 547	106.4 2333	72.2 Gospel Messengers	21.7	56.6
218C3 Sundance	KUWD	LIC _C_ WY		93.5 275.4	212.10 BLED20000830AFK	44 28 35.0 104 26 54.0	0.430 485	52.7 2042	33.8 University of Wyoming	75.1	56.1
220A Gillette	KLWD	LIC _C_ WY		107.8 289.0	138.46 BLED20001218ABD	44 13 50.0 105 27 45.0	1.000 97	1.6 1519	17.5 Calvary Chapel of Twin Fal	58.9	112.9
215A Gillette	KUWG	LIC _CN WY		108.8 289.9	138.85 BLED19971117KB	44 12 34.0 105 28 04.0	0.450 126	1.5 1554	15.5 University of Wyoming	59.9	114.4

Terrain database is NED 03 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

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.

Translator relationships with LPTV/Translators are calculated using the 62 dBu protected and the F(50-10) interference contour, as defined in section 74.1205 of the Rules.

Contour-to-Contour Map Study - KSUW vs KUWT
University Of Wyoming

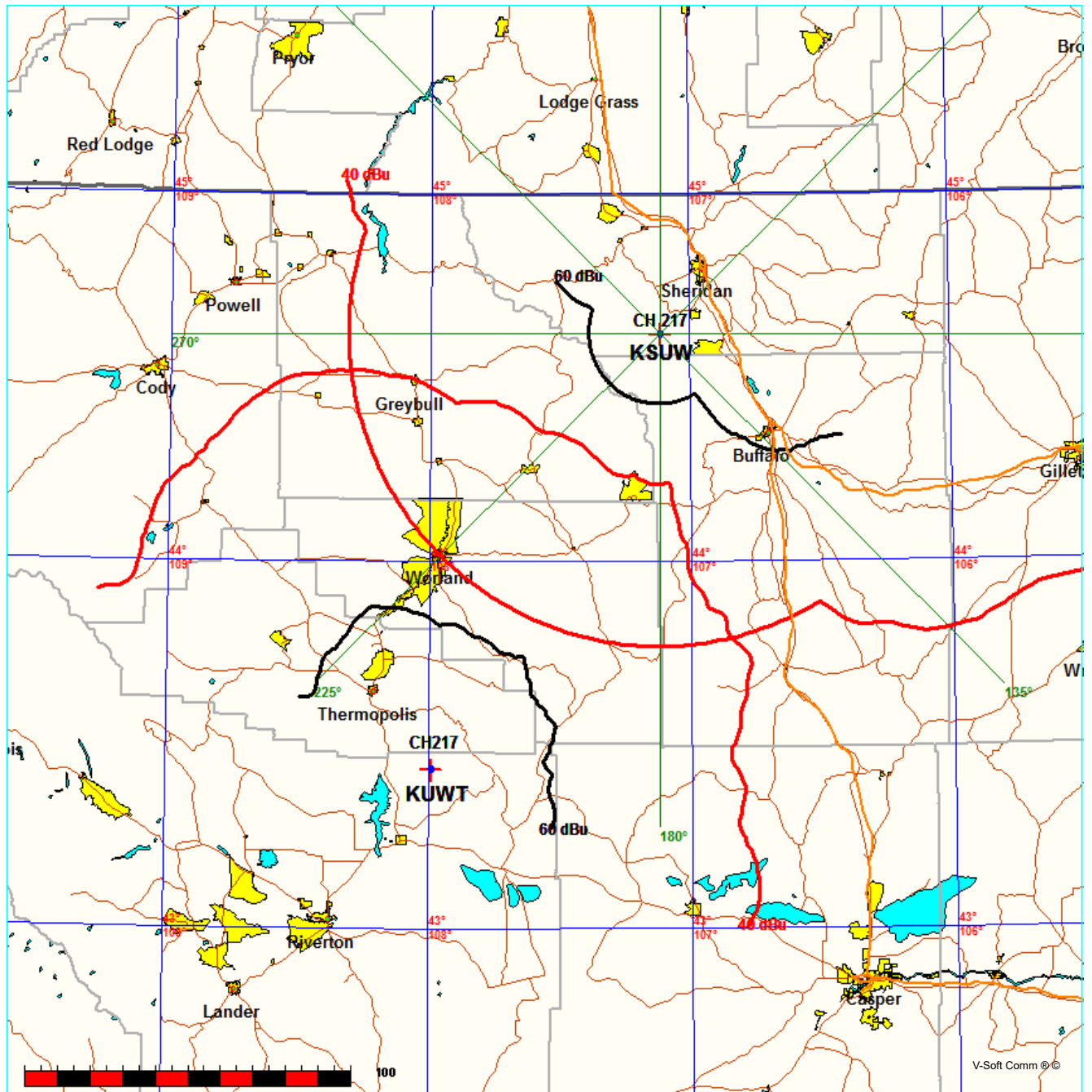
FMCommander Single Allocation Study - 06-11-2017 - NED 03 SEC
KSUW's Overlaps (In= 20.15 km, Out= 11.35 km)

KSUW CH 217 C1

Lat= 44 37 23.7, Lng= 107 07 03.2
20.0 kW 363.9 m HAAT, 2368.6 m COR
Prot.= 60 dBu, Intef.= 40 dBu

KUWT CH 217 C2 DA BLED20061005ADD

Lat= 43 26 16.0, Lng= 107 59 48.0
2.0 kW 598 m HAAT, 2510 m COR
Prot.= 60 dBu, Intef.= 40 dBu



06-11-2017

Terrain Data: NED 03 SEC

FMOver Analysis

KSUW

KUWT BLED20061005ADD

Channel = 217C1

Max ERP = 20 kW

RCAMSL = 2368.6 m

N. Lat. 44 37 23.7

W. Lng. 107 07 03.2

Protected

60 dBu

Channel = 217C2

Max ERP = 2 kW

RCAMSL = 2510 m

N. Lat. 43 26 16.0

W. Lng. 107 59 48.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
148.0	020.0000	0046.3	026.2	037.2	002.0000	0418.6	138.3	32.48	
149.0	020.0000	0031.2	021.9	035.5	002.0000	0415.5	139.5	32.11	
150.0	020.0000	0019.4	021.5	035.3	002.0000	0416.3	139.3	32.18	
151.0	020.0000	0011.1	021.5	035.3	002.0000	0416.4	138.9	32.26	
152.0	020.0000	0002.2	021.5	035.2	002.0000	0416.5	138.6	32.35	
153.0	020.0000	-0008.1	021.5	035.1	002.0000	0416.3	138.3	32.43	
154.0	020.0000	-0019.4	021.5	035.0	002.0000	0416.0	137.9	32.50	
155.0	020.0000	-0031.1	021.5	035.0	002.0000	0415.6	137.6	32.57	
156.0	020.0000	-0042.3	021.5	034.9	002.0000	0415.1	137.3	32.63	
157.0	020.0000	-0052.7	021.5	034.8	002.0000	0414.2	137.0	32.69	
158.0	020.0000	-0064.6	021.5	034.7	002.0000	0413.4	136.6	32.75	
159.0	020.0000	-0076.8	021.5	034.6	002.0000	0412.1	136.3	32.79	
160.0	020.0000	-0093.3	021.5	034.6	002.0000	0410.3	136.0	32.81	
161.0	020.0000	-0107.8	021.5	034.5	002.0000	0408.3	135.7	32.83	
162.0	020.0000	-0120.2	021.5	034.4	002.0000	0406.2	135.4	32.85	
163.0	020.0000	-0137.3	021.5	034.3	002.0000	0404.4	135.1	32.87	
164.0	020.0000	-0154.0	021.5	034.2	002.0000	0402.8	134.8	32.90	
165.0	020.0000	-0175.4	021.5	034.1	002.0000	0401.4	134.5	32.93	
166.0	020.0000	-0189.6	021.5	034.0	002.0000	0400.1	134.3	32.97	
167.0	020.0000	-0200.2	021.5	033.9	002.0000	0398.8	134.0	33.00	
168.0	020.0000	-0210.8	021.5	033.7	002.0000	0397.5	133.7	33.04	
169.0	020.0000	-0224.7	021.5	033.6	002.0000	0396.1	133.4	33.06	
170.0	020.0000	-0232.0	021.5	033.5	002.0000	0394.8	133.2	33.09	
171.0	020.0000	-0237.2	021.5	033.4	002.0000	0393.7	132.9	33.13	
172.0	020.0000	-0244.6	021.5	033.3	002.0000	0393.1	132.7	33.17	
173.0	020.0000	-0253.0	021.5	033.2	002.0000	0392.7	132.4	33.23	
174.0	020.0000	-0259.1	021.5	033.0	002.0000	0392.3	132.2	33.28	
175.0	020.0000	-0266.5	021.5	032.9	002.0000	0392.1	131.9	33.33	
176.0	020.0000	-0275.5	021.5	032.8	002.0000	0391.8	131.7	33.38	
177.0	020.0000	-0287.3	021.5	032.6	002.0000	0391.6	131.5	33.43	
178.0	020.0000	-0291.5	021.5	032.5	002.0000	0391.3	131.2	33.48	
179.0	020.0000	-0277.3	021.5	032.4	002.0000	0390.8	131.0	33.52	
180.0	020.0000	-0259.7	021.5	032.2	002.0000	0390.1	130.8	33.55	
181.0	020.0000	-0244.8	021.5	032.1	002.0000	0389.4	130.6	33.58	
182.0	020.0000	-0224.3	021.5	032.0	002.0000	0388.9	130.4	33.62	
183.0	020.0000	-0201.5	021.5	031.8	002.0000	0388.6	130.2	33.66	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
184.0	020.0000	-0182.8	021.5	031.7	002.0000	0388.3	130.1	33.69
185.0	020.0000	-0175.7	021.5	031.5	002.0000	0388.2	129.9	33.73
186.0	020.0000	-0163.6	021.5	031.4	002.0000	0388.1	129.7	33.77
187.0	020.0000	-0149.2	021.5	031.2	002.0000	0388.1	129.6	33.82
188.0	020.0000	-0136.7	021.5	031.1	002.0000	0388.2	129.4	33.86
189.0	020.0000	-0132.7	021.5	030.9	002.0000	0388.2	129.3	33.89
190.0	020.0000	-0129.9	021.5	030.8	002.0000	0388.2	129.1	33.93
191.0	020.0000	-0134.7	021.5	030.6	002.0000	0388.2	129.0	33.96
192.0	020.0000	-0149.5	021.5	030.5	002.0000	0388.2	128.9	33.99
193.0	020.0000	-0157.0	021.5	030.3	002.0000	0388.6	128.7	34.04
194.0	020.0000	-0163.3	021.5	030.1	002.0000	0389.7	128.6	34.09
195.0	020.0000	-0167.9	021.5	030.0	002.0000	0390.7	128.5	34.15
196.0	020.0000	-0177.8	021.5	029.8	002.0000	0392.2	128.4	34.22
197.0	020.0000	-0188.6	021.5	029.7	002.0000	0393.8	128.3	34.29
198.0	020.0000	-0197.9	021.5	029.5	002.0000	0394.8	128.3	34.34
199.0	020.0000	-0201.3	021.5	029.3	002.0000	0395.8	128.2	34.39
200.0	020.0000	-0193.9	021.5	029.2	002.0000	0396.4	128.1	34.42
201.0	020.0000	-0184.2	021.5	029.0	002.0000	0396.5	128.1	34.44
202.0	020.0000	-0183.4	021.5	028.8	002.0000	0396.4	128.0	34.45
203.0	020.0000	-0182.8	021.5	028.7	002.0000	0396.0	128.0	34.45
204.0	020.0000	-0182.2	021.5	028.5	002.0000	0396.1	127.9	34.46
205.0	020.0000	-0181.0	021.5	028.3	002.0000	0397.2	127.9	34.50
206.0	020.0000	-0173.2	021.5	028.2	002.0000	0398.2	127.9	34.54
207.0	020.0000	-0168.6	021.5	028.0	002.0000	0399.5	127.9	34.58
208.0	020.0000	-0169.6	021.5	027.8	002.0000	0400.4	127.8	34.61
209.0	020.0000	-0173.3	021.5	027.7	002.0000	0401.5	127.8	34.64
210.0	020.0000	-0178.3	021.5	027.5	002.0000	0402.8	127.9	34.67
211.0	020.0000	-0179.1	021.5	027.3	002.0000	0403.7	127.9	34.70
212.0	020.0000	-0181.1	021.5	027.2	002.0000	0404.2	127.9	34.70
213.0	020.0000	-0183.2	021.5	027.0	002.0000	0405.2	127.9	34.73
214.0	020.0000	-0186.3	021.5	026.8	002.0000	0406.7	128.0	34.76
215.0	020.0000	-0182.6	021.5	026.6	002.0000	0408.1	128.0	34.79
216.0	020.0000	-0177.5	021.5	026.5	002.0000	0409.0	128.1	34.80
217.0	020.0000	-0165.7	021.5	026.3	002.0000	0410.4	128.1	34.83
218.0	020.0000	-0152.2	021.5	026.2	002.0000	0411.2	128.2	34.83
219.0	020.0000	-0144.0	021.5	026.0	002.0000	0411.9	128.3	34.83
220.0	020.0000	-0135.7	021.5	025.8	002.0000	0412.1	128.4	34.82
221.0	020.0000	-0123.7	021.5	025.7	002.0000	0412.2	128.5	34.79
222.0	020.0000	-0113.2	021.5	025.5	002.0000	0412.7	128.6	34.79
223.0	020.0000	-0119.3	021.5	025.3	002.0000	0413.5	128.7	34.78
224.0	020.0000	-0128.8	021.5	025.2	002.0000	0414.0	128.8	34.77
225.0	020.0000	-0135.6	021.5	025.0	002.0000	0414.0	128.9	34.74
226.0	020.0000	-0146.3	021.5	024.9	002.0000	0414.1	129.0	34.71
227.0	020.0000	-0156.6	021.5	024.7	002.0000	0414.3	129.2	34.68
228.0	020.0000	-0166.0	021.5	024.6	002.0000	0414.8	129.3	34.66
229.0	020.0000	-0176.2	021.5	024.4	002.0000	0415.5	129.4	34.64
230.0	020.0000	-0185.2	021.5	024.3	002.0000	0415.9	129.6	34.61
231.0	020.0000	-0190.2	021.5	024.1	002.0000	0416.1	129.8	34.58
232.0	020.0000	-0192.6	021.5	024.0	002.0000	0415.9	129.9	34.53
233.0	020.0000	-0193.5	021.5	023.8	002.0000	0415.7	130.1	34.48
234.0	020.0000	-0196.5	021.5	023.7	002.0000	0415.8	130.3	34.43

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
235.0	020.0000	-0198.6	021.5		023.5	002.0000	0415.9	130.5	34.39
236.0	020.0000	-0200.0	021.5		023.4	002.0000	0415.7	130.7	34.33
237.0	020.0000	-0193.4	021.5		023.2	002.0000	0415.1	130.9	34.26
238.0	020.0000	-0175.2	021.5		023.1	002.0000	0414.2	131.1	34.19
239.0	020.0000	-0155.8	021.5		023.0	002.0000	0413.6	131.3	34.11
240.0	020.0000	-0147.3	021.5		022.8	002.0000	0413.5	131.5	34.05
241.0	020.0000	-0147.8	021.5		022.7	002.0000	0413.6	131.8	34.00
242.0	020.0000	-0145.1	021.5		022.6	002.0000	0413.9	132.0	33.95
243.0	020.0000	-0146.5	021.5		022.5	002.0000	0414.5	132.2	33.90
244.0	020.0000	-0146.2	021.5		022.3	002.0000	0415.3	132.5	33.86
245.0	020.0000	-0145.2	021.5		022.2	002.0000	0415.7	132.7	33.81
246.0	020.0000	-0151.7	021.5		022.1	002.0000	0415.7	133.0	33.75
247.0	020.0000	-0161.3	021.5		022.0	002.0000	0415.8	133.2	33.68
248.0	020.0000	-0162.3	021.5		021.9	002.0000	0416.0	133.5	33.62
249.0	020.0000	-0160.2	021.5		021.7	002.0000	0416.2	133.8	33.56
250.0	020.0000	-0155.9	021.5		021.6	002.0000	0416.4	134.0	33.49
251.0	020.0000	-0152.6	021.5		021.5	002.0000	0416.4	134.3	33.42
252.0	020.0000	-0148.0	021.5		021.4	002.0000	0416.4	134.6	33.35
253.0	020.0000	-0139.7	021.5		021.3	002.0000	0416.3	134.9	33.27
254.0	020.0000	-0128.2	021.5		021.2	002.0000	0416.0	135.2	33.19
255.0	020.0000	-0116.4	021.5		021.1	002.0000	0415.9	135.5	33.11
256.0	020.0000	-0110.2	021.5		021.0	002.0000	0415.8	135.8	33.03
257.0	020.0000	-0113.7	021.5		020.9	002.0000	0415.8	136.1	32.95
258.0	020.0000	-0111.4	021.5		020.9	002.0000	0415.7	136.4	32.87
259.0	020.0000	-0103.8	021.5		020.8	002.0000	0415.6	136.7	32.79
260.0	020.0000	-0095.5	021.5		020.7	002.0000	0415.4	137.0	32.70
261.0	020.0000	-0091.5	021.5		020.6	002.0000	0415.2	137.4	32.62
262.0	020.0000	-0089.2	021.5		020.5	002.0000	0414.9	137.7	32.53
263.0	020.0000	-0092.3	021.5		020.5	002.0000	0414.6	138.0	32.44
264.0	020.0000	-0092.8	021.5		020.4	002.0000	0414.3	138.4	32.35
265.0	020.0000	-0094.0	021.5		020.3	002.0000	0413.9	138.7	32.26
266.0	020.0000	-0095.0	021.5		020.2	002.0000	0413.4	139.0	32.16
267.0	020.0000	-0095.5	021.5		020.2	002.0000	0413.1	139.4	32.07

06-11-2017

Terrain Data: NED 03 SEC

FMOver Analysis

KUWT BLED20061005ADD

KSUW

Channel = 217C2

Max ERP = 2 kW

RCAMSL = 2510 m

N. Lat. 43 26 16.0

W. Lng. 107 59 48.0

Protected

60 dBu

Channel = 217C1

Max ERP = 20 kW

RCAMSL = 2368.6 m

N. Lat. 44 37 23.7

W. Lng. 107 07 03.2

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
328.0	002.0000	0527.6	048.0	226.7	020.0000	-0153.9	131.9	32.79	
329.0	002.0000	0533.7	048.3	226.8	020.0000	-0154.5	131.0	32.96	
330.0	002.0000	0546.1	049.0	227.0	020.0000	-0156.3	130.0	33.14	
331.0	002.0000	0554.6	049.4	227.0	020.0000	-0157.1	129.1	33.32	
332.0	002.0000	0562.5	049.8	227.1	020.0000	-0157.6	128.1	33.50	
333.0	002.0000	0570.2	050.1	227.1	020.0000	-0158.0	127.2	33.67	
334.0	002.0000	0579.1	050.5	227.2	020.0000	-0158.5	126.3	33.85	
335.0	002.0000	0582.9	050.7	227.1	020.0000	-0158.0	125.4	34.02	
336.0	002.0000	0590.3	051.0	227.1	020.0000	-0157.9	124.4	34.20	
337.0	002.0000	0600.0	051.3	227.2	020.0000	-0158.1	123.5	34.39	
338.0	002.0000	0606.0	051.6	227.1	020.0000	-0157.7	122.5	34.57	
339.0	002.0000	0609.0	051.7	227.0	020.0000	-0156.6	121.7	34.73	
340.0	002.0000	0611.7	051.8	226.9	020.0000	-0155.5	120.8	34.90	
341.0	002.0000	0604.2	051.5	226.6	020.0000	-0152.9	120.1	35.04	
342.0	002.0000	0596.7	051.2	226.3	020.0000	-0149.9	119.4	35.17	
343.0	002.0000	0583.6	050.7	225.9	020.0000	-0144.0	118.9	35.28	
344.0	002.0000	0575.5	050.4	225.5	020.0000	-0139.6	118.2	35.40	
345.0	002.0000	0575.3	050.4	225.3	020.0000	-0137.5	117.5	35.54	
346.0	002.0000	0568.4	050.1	224.9	020.0000	-0135.3	116.9	35.66	
347.0	002.0000	0566.1	049.9	224.7	020.0000	-0134.0	116.2	35.79	
348.0	002.0000	0555.4	049.5	224.2	020.0000	-0131.3	115.8	35.88	
349.0	002.0000	0552.1	049.3	223.9	020.0000	-0127.9	115.1	36.00	
350.0	002.0000	0546.2	049.0	223.5	020.0000	-0123.8	114.6	36.10	
351.0	002.0000	0539.5	048.6	223.1	020.0000	-0120.4	114.2	36.19	
352.0	002.0000	0531.2	048.2	222.7	020.0000	-0116.3	113.8	36.26	
353.0	002.0000	0524.4	047.8	222.3	020.0000	-0113.2	113.4	36.34	
354.0	002.0000	0514.5	047.3	221.8	020.0000	-0114.6	113.2	36.39	
355.0	002.0000	0512.2	047.1	221.5	020.0000	-0118.3	112.7	36.49	
356.0	002.0000	0507.3	046.9	221.1	020.0000	-0122.9	112.3	36.56	
357.0	002.0000	0505.7	046.8	220.7	020.0000	-0126.9	111.7	36.66	
358.0	002.0000	0495.2	046.2	220.2	020.0000	-0133.2	111.6	36.69	
359.0	002.0000	0487.5	045.8	219.8	020.0000	-0137.5	111.4	36.73	
000.0	002.0000	0477.7	045.3	219.3	020.0000	-0141.1	111.3	36.76	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
001.0	002.0000	0467.1	044.8	218.8	020.0000	-0145.2	111.2	36.77
002.0	002.0000	0456.9	044.3	218.3	020.0000	-0149.0	111.1	36.78
003.0	002.0000	0444.3	043.7	217.8	020.0000	-0154.0	111.2	36.77
004.0	002.0000	0435.6	043.3	217.4	020.0000	-0159.3	111.1	36.78
005.0	002.0000	0441.9	043.6	217.1	020.0000	-0163.4	110.5	36.91
006.0	002.0000	0442.2	043.6	216.8	020.0000	-0168.2	110.1	36.99
007.0	002.0000	0444.6	043.7	216.5	020.0000	-0172.3	109.6	37.08
008.0	002.0000	0447.1	043.8	216.2	020.0000	-0176.0	109.1	37.18
009.0	002.0000	0449.5	043.9	215.8	020.0000	-0178.4	108.7	37.27
010.0	002.0000	0452.7	044.1	215.5	020.0000	-0180.1	108.2	37.36
011.0	002.0000	0447.3	043.8	215.1	020.0000	-0182.4	108.1	37.38
012.0	002.0000	0444.8	043.7	214.7	020.0000	-0183.6	108.0	37.41
013.0	002.0000	0443.1	043.6	214.3	020.0000	-0185.2	107.8	37.45
014.0	002.0000	0437.8	043.4	213.9	020.0000	-0186.5	107.7	37.46
015.0	002.0000	0431.5	043.1	213.4	020.0000	-0184.8	107.8	37.45
016.0	002.0000	0422.8	042.6	213.0	020.0000	-0183.2	108.0	37.41
017.0	002.0000	0412.0	042.1	212.5	020.0000	-0182.5	108.2	37.35
018.0	002.0000	0408.1	042.0	212.1	020.0000	-0181.7	108.2	37.36
019.0	002.0000	0406.2	041.9	211.8	020.0000	-0180.5	108.2	37.37
020.0	002.0000	0412.3	042.2	211.4	020.0000	-0180.2	107.7	37.46
021.0	002.0000	0415.8	042.3	211.0	020.0000	-0179.2	107.4	37.51
022.0	002.0000	0415.8	042.3	210.6	020.0000	-0178.7	107.3	37.53
023.0	002.0000	0413.8	042.2	210.2	020.0000	-0178.5	107.3	37.54
024.0	002.0000	0415.9	042.3	209.9	020.0000	-0177.9	107.2	37.57
025.0	002.0000	0414.0	042.2	209.5	020.0000	-0175.5	107.2	37.56
026.0	002.0000	0411.9	042.1	209.1	020.0000	-0173.4	107.2	37.55
027.0	002.0000	0405.1	041.8	208.7	020.0000	-0172.8	107.5	37.50
028.0	002.0000	0399.4	041.6	208.3	020.0000	-0171.2	107.8	37.44
029.0	002.0000	0396.5	041.4	207.9	020.0000	-0169.1	107.9	37.42
030.0	002.0000	0390.6	041.2	207.5	020.0000	-0168.4	108.2	37.36
031.0	002.0000	0388.3	041.1	207.1	020.0000	-0168.1	108.4	37.33
032.0	002.0000	0389.0	041.1	206.8	020.0000	-0169.6	108.4	37.32
033.0	002.0000	0392.3	041.3	206.4	020.0000	-0170.8	108.3	37.33
034.0	002.0000	0400.5	041.6	206.0	020.0000	-0173.5	108.1	37.39
035.0	002.0000	0415.8	042.3	205.5	020.0000	-0178.0	107.5	37.50
036.0	002.0000	0414.8	042.3	205.1	020.0000	-0180.5	107.7	37.46
037.0	002.0000	0418.9	042.5	204.7	020.0000	-0181.6	107.7	37.47
038.0	002.0000	0422.9	042.7	204.3	020.0000	-0182.1	107.7	37.47
039.0	002.0000	0438.6	043.4	203.8	020.0000	-0182.3	107.1	37.58
040.0	002.0000	0459.6	044.4	203.3	020.0000	-0182.5	106.4	37.73
041.0	002.0000	0449.2	043.9	203.0	020.0000	-0182.9	107.1	37.58
042.0	002.0000	0431.4	043.1	202.8	020.0000	-0183.4	108.1	37.37
043.0	002.0000	0421.6	042.6	202.5	020.0000	-0183.6	108.8	37.24
044.0	002.0000	0410.8	042.1	202.2	020.0000	-0183.7	109.6	37.09
045.0	002.0000	0402.5	041.7	201.9	020.0000	-0183.3	110.2	36.96
046.0	002.0000	0388.9	041.1	201.7	020.0000	-0183.0	111.1	36.80
047.0	002.0000	0380.7	040.7	201.5	020.0000	-0183.4	111.7	36.67
048.0	002.0000	0375.6	040.5	201.2	020.0000	-0183.7	112.2	36.57
049.0	002.0000	0374.9	040.5	200.9	020.0000	-0184.7	112.6	36.50
050.0	002.0000	0367.1	040.1	200.7	020.0000	-0186.2	113.3	36.37
051.0	002.0000	0354.0	039.5	200.5	020.0000	-0187.4	114.2	36.19

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
052.0	002.0000	0342.0	038.9		200.4	020.0000	-0188.8	115.0	36.02
053.0	002.0000	0338.4	038.7		200.2	020.0000	-0191.6	115.6	35.91
054.0	002.0000	0331.9	038.3		200.0	020.0000	-0194.0	116.2	35.79
055.0	002.0000	0329.1	038.2		199.8	020.0000	-0196.8	116.7	35.69
056.0	002.0000	0329.5	038.2		199.5	020.0000	-0199.6	117.1	35.61
057.0	002.0000	0333.3	038.4		199.2	020.0000	-0201.1	117.4	35.57
058.0	002.0000	0334.3	038.4		198.9	020.0000	-0201.2	117.8	35.49
059.0	002.0000	0331.2	038.3		198.7	020.0000	-0200.9	118.3	35.38
060.0	002.0000	0327.8	038.1		198.5	020.0000	-0200.4	118.9	35.27
061.0	002.0000	0340.5	038.8		198.1	020.0000	-0198.2	118.8	35.28
062.0	002.0000	0351.8	039.4		197.6	020.0000	-0195.3	118.9	35.27
063.0	002.0000	0355.9	039.6		197.3	020.0000	-0192.2	119.2	35.20
064.0	002.0000	0351.9	039.4		197.2	020.0000	-0190.6	119.9	35.08
065.0	002.0000	0347.0	039.1		197.0	020.0000	-0189.2	120.6	34.95
066.0	002.0000	0346.3	039.1		196.8	020.0000	-0187.1	121.1	34.84
067.0	002.0000	0350.0	039.3		196.6	020.0000	-0184.0	121.5	34.76
068.0	002.0000	0358.5	039.7		196.2	020.0000	-0180.2	121.8	34.71
069.0	002.0000	0366.7	040.1		195.9	020.0000	-0176.2	122.1	34.65
070.0	002.0000	0374.9	040.5		195.5	020.0000	-0172.1	122.5	34.58
071.0	002.0000	0376.5	040.6		195.3	020.0000	-0170.1	123.0	34.48
072.0	002.0000	0372.7	040.4		195.2	020.0000	-0169.3	123.7	34.35
073.0	002.0000	0362.8	039.9		195.2	020.0000	-0169.4	124.5	34.18
074.0	002.0000	0356.1	039.6		195.2	020.0000	-0169.1	125.3	34.04
075.0	002.0000	0348.7	039.2		195.2	020.0000	-0169.1	126.1	33.89
076.0	002.0000	0346.3	039.1		195.1	020.0000	-0168.3	126.7	33.76
077.0	002.0000	0339.8	038.7		195.1	020.0000	-0168.3	127.5	33.62
078.0	002.0000	0331.6	038.3		195.1	020.0000	-0168.5	128.3	33.47
079.0	002.0000	0320.2	037.7		195.2	020.0000	-0169.4	129.2	33.30
080.0	002.0000	0313.7	037.3		195.2	020.0000	-0169.6	129.9	33.16
081.0	001.9952	0310.2	037.1		195.2	020.0000	-0169.3	130.6	33.03
082.0	001.9904	0308.6	037.0		195.1	020.0000	-0168.8	131.2	32.91
083.0	001.9856	0303.6	036.7		195.1	020.0000	-0168.9	131.9	32.78
084.0	001.9808	0292.3	036.1		195.3	020.0000	-0170.1	132.7	32.63
085.0	001.9761	0286.7	035.8		195.3	020.0000	-0170.4	133.4	32.49
086.0	001.9713	0275.7	035.1		195.5	020.0000	-0172.0	134.2	32.34
087.0	001.9665	0273.6	035.0		195.5	020.0000	-0171.8	134.9	32.23