

<div> <div> <div>REFERENCE</div> <div>27 30 47.0 N.</div> <div>97 52 12.0 W.</div> </div> <div> <div>Kingsville, TX</div> <div>Gerald Benavides</div> <div>Average Protected F(50-50)= 6.32 km</div> <div>Omni-directional</div> </div> <div> <div>CH# 281D - 104.1 MHz, Pwr= 0.05 kW, HAAT= 53.4 M, COR= 71 M</div> <div>DISPLAY DATES</div> <div>DATA 04-16-13</div> <div>SEARCH 04-16-13</div> </div> </div>										
CH CITY	CALL	TYPE ANT STATE	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	(Overlap	*OUT* in km)
281D	627733	APP _C_ TX	180.0 0.0	0.03 BNPFT20030310A0I	27 30 46.0 97 52 12.0	0.050 49	19.4 66	5.9 World Radi o Network, Inc.		-27.8*
281D	640022	APP _C_ TX	0.0 0.0	0.00 BNPFT20030317AEY	27 30 47.0 97 52 12.0	0.050 53	20.6 71	6.2 Gerald Benavides		-26.8**11
279C1	KOUL Refugio	LIC _CX TX	36.2 216.4	72.04 BLH20081124ALR	28 02 07.0 97 26 11.0	100.000 290	9.9 302	71.1 Tejas Broadcasting Ltd., L		0.6
282A	AU7057816 Benavides	VAC ____ TX	274.4 94.2	54.34 RM10266	27 32 59.0 98 25 11.0	6.000 100	47.9 215	31.3 Jeraldine Anderson		14.9
281D	K281AV Corpus Christi	LIC _C_ TX	55.4 235.6	50.34 BLFT20101004ACY	27 46 10.0 97 26 55.0	0.099 128	38.8 135	11.4 The Worshi p Center Of King		16.4
283C3	KPUS Gregory	LIC _CX TX	58.3 238.6	75.25 BMLH20050203AEF	27 52 02.0 97 13 07.0	14.000 136	4.0 137	39.4 Convergent Broadcasting Li		35.4
283A	AU9458882 Encino	VAC ____ TX	206.6 26.5	72.68 RM10594	26 55 42.0 98 11 56.0	6.000 100	2.8 151	28.9 Charles Crawford		43.2
282A	R14137 Hebbronville	ADD ____ TX	261.0 80.6	87.00	27 23 18.0 98 44 26.0	6.000 100	49.0 302	32.2 Charles Crawford		46.4
281C0	KBFM Edinburg	LIC _CX TX	178.9 358.9	157.07 BMLH20030501ACJ	26 06 02.0 97 50 21.0	100.000 373	180.6 389	77.9 Capstar Tx Lic		56.9
281C1	KSAH-FM Pearsall	LIC _CX TX	327.1 146.7	160.27 BLH20020712AAC	28 43 16.0 98 45 43.0	100.000 299	173.5 430	73.4 Bmp San Antonio License Co		67.2
278D	K278BT Hebbronville	CP _C_ TX	254.7 74.3	81.73 BNPFT20030827AKF	27 19 00.0 98 40 05.0	0.037 107	0.4 276	9.2 World Radi o Network, Inc.		72.0
278A	R10782 San Isidro	ADD ____ TX	214.7 34.4	109.24	26 42 15.0 98 29 48.0	6.000 100	3.0 201	30.9 Charles Crawford		77.7
281D	KSAH-FM1 Pearsall	LIC DC_ TX	333.8 153.4	174.15 BLFTB20060327AJE	28 54 57.4 98 39 39.1	20.000	138.4 467	58.6 Bmp San Antonio License Co		95.4
282A	NEW Gol iad	CP _CX TX	19.9 200.1	143.94 BNPH20091019ACQ	28 43 47.0 97 22 05.0	6.000 100	45.9 161	29.8 Hi spani c Target Medi a Inc.		105.2
280A	KJJS Zapata	LIC _CX TX	244.4 63.8	151.65 BLH20080801AHP	26 55 03.0 99 15 00.0	4.500 115	44.6 227	29.1 Hi spani c Target Medi a, Inc		113.8

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= West Zone, 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)  
Incoming contour overlap is ignored.  
\*\*\*affixed to 'IN' or 'OUT' values = site inside protected contour.  
Reference station has protected zone issue:

.....11 Cf)[] bU`g\cfh! Zcfa`Udd` ]Wb]cb"

## HOW TO READ THE FM COMPUTER PRINT-OUT

### Translator Reference Station

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. The 60 dBu protected contour is predicted from the Commission's F(50-50) table. 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.

All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90. The column labeled "\* OUT \*" shows the greatest distance in kilometers of overlap (or smallest distance 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. Since translators are able to receive interference there is no "In" or incoming column in this report.

Listed antenna heights and power are the specific antenna heights and power from the FCC database.

Under the "AZI" column, the first row of numbers indicate the True North azimuths 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. Bearings are calculated using spherical trigonometry.

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 the minimum spacings the "IN" and "OUT" columns 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** separation 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 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.

Kingsville, TX vs. KOUL  
Gerald Benavides

FMCommander Single Allocation Study - 04-16-2013 - FCC NGDC 30 Sec  
640022's Overlaps (In= 55.61 km, Out= 0.62 km)

640022 CH 281 D

Lat= 27 30 47.0, Lng= 97 52 12.0

0.05 kW 53.4 M HAAT, 71 M COR

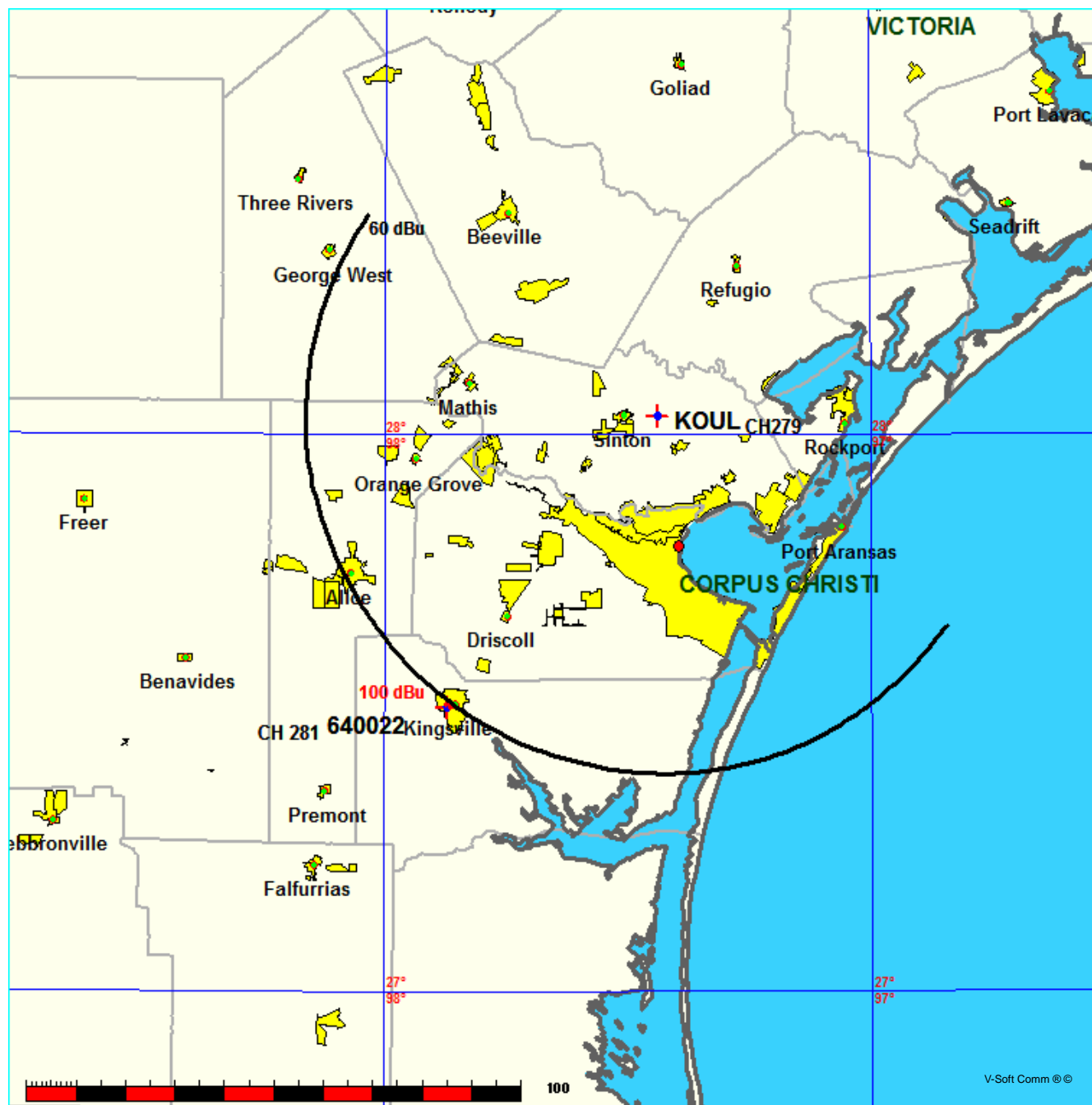
Prot.= 60 dBu, Intef.= 100 dBu

KOUL CH 279 C1 BLH20081124ALR

Lat= 28 02 07.0, Lng= 97 26 11.0

100.0 kW 290.3 M HAAT, 302 M COR

Prot.= 60 dBu, Intef.= 100 dBu

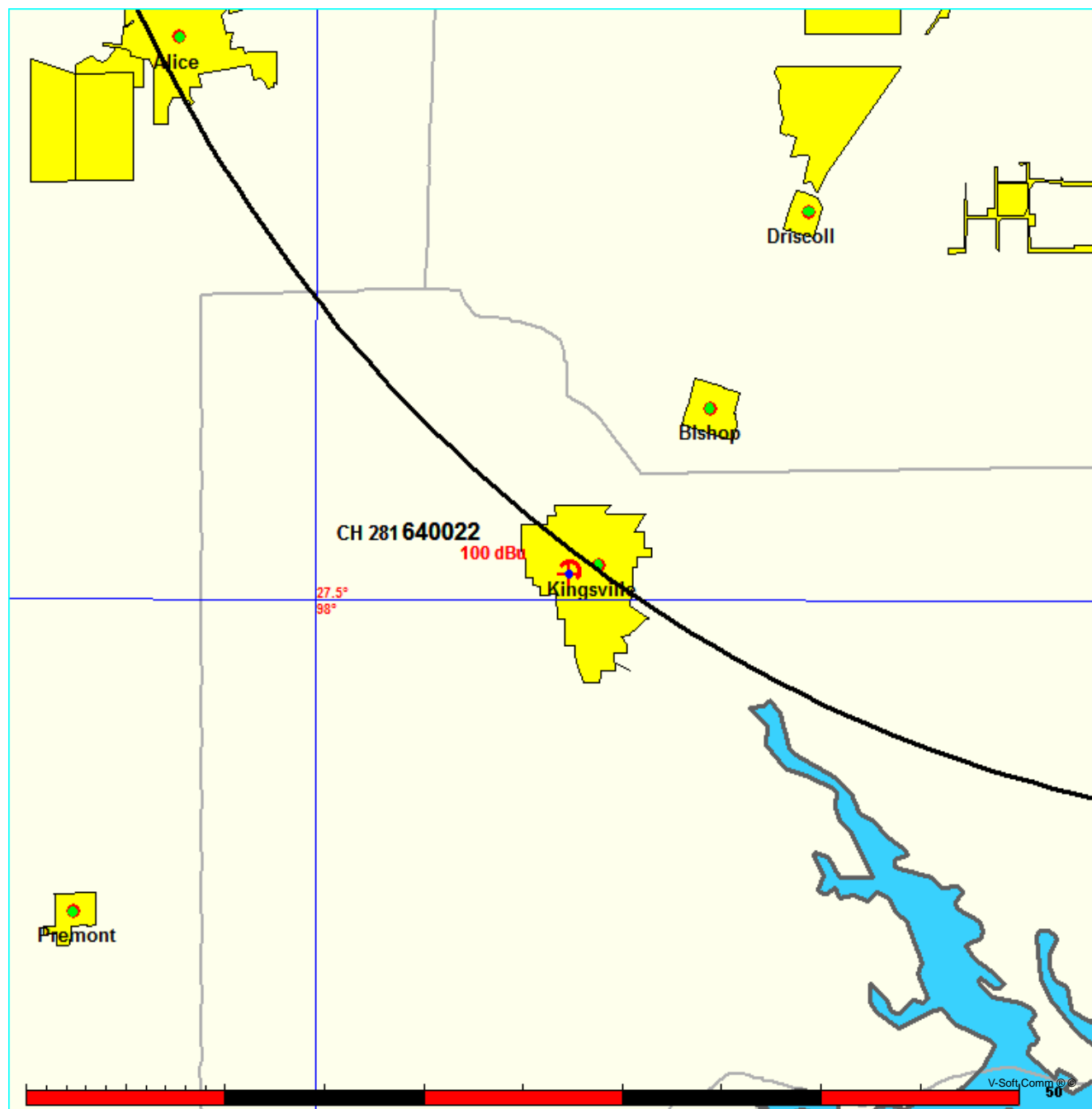


Kingsville, TX vs. KOUL (detail)  
Gerald Benavides

FMCommander Single Allocation Study - 04-16-2013 - FCC NGDC 30 Sec  
640022's Overlaps (In= 55.61 km, Out= 0.62 km)

640022 CH 281 D  
Lat= 27 30 47.0, Lng= 97 52 12.0  
0.05 kW 53.4 M HAAT, 71 M COR  
Prot.= 60 dBu, Intef.= 100 dBu

KOUL CH 279 C1 BLH20081124ALR  
Lat= 28 02 07.0, Lng= 97 26 11.0  
100.0 kW 290.3 M HAAT, 302 M COR  
Prot.= 60 dBu, Intef.= 100 dBu



04-16-2013

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

KOUL BLH20081124ALR

640022

Channel = 279C1

Max ERP = 100 kW

RCAMSL = 302 M

N. Lat. 28 02 07.0

W. Lng. 97 26 11.0

Protected

60 dBu

Channel = 281D

Max ERP = 0.05 kW

RCAMSL = 71 M

N. Lat. 27 30 47.0

W. Lng. 97 52 12.0

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
156.0	100.0000	0292.0	071.7	095.9	000.0500	0061.0	072.4	20.92	
157.0	100.0000	0292.0	071.7	096.5	000.0500	0061.0	071.2	21.22	
158.0	100.0000	0292.0	071.7	097.0	000.0500	0061.0	070.1	21.50	
159.0	100.0000	0292.0	071.7	097.5	000.0500	0061.0	069.0	21.78	
160.0	100.0000	0292.0	071.7	098.0	000.0500	0061.0	067.9	22.06	
161.0	100.0000	0292.0	071.7	098.5	000.0500	0061.0	066.8	22.35	
162.0	100.0000	0292.0	071.7	099.0	000.0500	0061.0	065.7	22.64	
163.0	100.0000	0292.0	071.7	099.5	000.0500	0061.0	064.6	22.93	
164.0	100.0000	0291.9	071.7	100.0	000.0500	0061.0	063.5	23.23	
165.0	100.0000	0291.8	071.7	100.4	000.0500	0061.0	062.4	23.54	
166.0	100.0000	0291.5	071.7	100.9	000.0500	0061.0	061.2	23.86	
167.0	100.0000	0291.0	071.7	101.4	000.0500	0061.0	060.1	24.19	
168.0	100.0000	0290.3	071.6	101.8	000.0500	0061.0	058.9	24.54	
169.0	100.0000	0289.6	071.6	102.3	000.0500	0061.0	057.8	24.90	
170.0	100.0000	0289.0	071.5	102.7	000.0500	0061.0	056.6	25.26	
171.0	100.0000	0288.7	071.5	103.2	000.0500	0061.0	055.4	25.62	
172.0	100.0000	0288.4	071.5	103.7	000.0500	0061.0	054.3	25.99	
173.0	100.0000	0288.2	071.4	104.1	000.0500	0061.0	053.1	26.36	
174.0	100.0000	0288.0	071.4	104.6	000.0500	0061.0	051.9	26.73	
175.0	100.0000	0287.8	071.4	105.1	000.0500	0061.0	050.8	27.10	
176.0	100.0000	0287.7	071.4	105.6	000.0500	0061.0	049.6	27.48	
177.0	100.0000	0287.5	071.4	106.0	000.0500	0061.0	048.4	27.85	
178.0	100.0000	0287.2	071.4	106.5	000.0500	0061.0	047.2	28.23	
179.0	100.0000	0286.9	071.3	106.9	000.0500	0061.0	046.0	28.62	
180.0	100.0000	0286.6	071.3	107.4	000.0500	0061.0	044.9	29.02	
181.0	100.0000	0286.2	071.3	107.8	000.0500	0061.0	043.7	29.44	
182.0	100.0000	0285.9	071.2	108.3	000.0500	0061.0	042.5	29.86	
183.0	100.0000	0285.8	071.2	108.7	000.0500	0061.0	041.3	30.30	
184.0	100.0000	0285.7	071.2	109.2	000.0500	0061.0	040.1	30.75	
185.0	100.0000	0285.6	071.2	109.7	000.0500	0061.0	038.9	31.22	
186.0	100.0000	0285.4	071.2	110.1	000.0500	0061.0	037.7	31.69	
187.0	100.0000	0285.1	071.2	110.5	000.0500	0061.0	036.5	32.18	
188.0	100.0000	0284.8	071.2	111.0	000.0500	0061.0	035.2	32.68	
189.0	100.0000	0284.4	071.1	111.3	000.0500	0061.0	034.0	33.20	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
190.0	100.0000	0284.0	071.1	111.7	000.0500	0061.0	032.8	33.72
191.0	100.0000	0283.6	071.1	112.1	000.0500	0061.0	031.6	34.27
192.0	100.0000	0283.4	071.0	112.5	000.0500	0061.0	030.4	34.87
193.0	100.0000	0283.3	071.0	112.9	000.0500	0061.0	029.1	35.54
194.0	100.0000	0283.2	071.0	113.3	000.0500	0061.0	027.9	36.26
195.0	100.0000	0283.2	071.0	113.7	000.0500	0061.0	026.7	37.04
196.0	100.0000	0283.2	071.0	114.1	000.0500	0061.0	025.5	37.87
197.0	100.0000	0283.3	071.0	114.5	000.0500	0061.0	024.3	38.74
198.0	100.0000	0283.4	071.0	114.9	000.0500	0061.0	023.0	39.66
199.0	100.0000	0283.5	071.0	115.3	000.0500	0061.0	021.8	40.62
200.0	100.0000	0283.6	071.1	115.7	000.0500	0061.0	020.6	41.60
201.0	100.0000	0283.7	071.1	116.1	000.0500	0061.0	019.3	42.62
202.0	100.0000	0283.8	071.1	116.4	000.0500	0061.0	018.1	43.67
203.0	100.0000	0283.9	071.1	116.7	000.0500	0061.0	016.9	44.73
204.0	100.0000	0283.9	071.1	117.0	000.0500	0061.0	015.6	45.81
205.0	100.0000	0283.9	071.1	117.2	000.0500	0061.0	014.4	46.85
206.0	100.0000	0283.9	071.1	117.4	000.0500	0061.0	013.1	48.47
207.0	100.0000	0283.9	071.1	117.4	000.0500	0061.0	011.9	50.30
208.0	100.0000	0283.8	071.1	117.4	000.0500	0061.0	010.7	52.31
209.0	100.0000	0283.8	071.1	117.2	000.0500	0061.0	009.4	54.47
210.0	100.0000	0283.7	071.1	116.8	000.0500	0061.0	008.2	56.74
211.0	100.0000	0283.7	071.1	116.1	000.0500	0061.0	006.9	59.45
212.0	100.0000	0283.7	071.1	114.9	000.0500	0061.0	005.7	63.00
213.0	100.0000	0283.7	071.1	112.8	000.0500	0061.0	004.5	67.24
214.0	100.0000	0283.7	071.1	108.7	000.0500	0061.0	003.3	72.61
215.0	100.0000	0283.7	071.1	099.5	000.0500	0061.0	002.1	80.61
216.0	100.0000	0283.7	071.1	070.8	000.0500	0061.0	001.1	92.84
217.0	100.0000	0283.7	071.1	003.6	000.0500	0051.0	001.1	92.98
218.0	100.0000	0283.8	071.1	333.9	000.0500	0048.8	002.1	79.13
219.0	100.0000	0283.7	071.1	324.6	000.0500	0045.8	003.2	70.23
220.0	100.0000	0283.6	071.1	320.5	000.0500	0043.6	004.5	64.23
221.0	100.0000	0283.6	071.1	318.4	000.0500	0043.2	005.7	59.94
222.0	100.0000	0283.7	071.1	317.1	000.0500	0043.0	006.9	56.40
223.0	100.0000	0283.8	071.1	316.4	000.0500	0042.8	008.2	53.64
224.0	100.0000	0284.0	071.1	315.9	000.0500	0042.8	009.4	51.32
225.0	100.0000	0284.0	071.1	315.8	000.0500	0042.7	010.6	49.15
226.0	100.0000	0284.0	071.1	315.8	000.0500	0042.7	011.9	47.14
227.0	100.0000	0284.0	071.1	315.9	000.0500	0042.8	013.1	45.32
228.0	100.0000	0284.1	071.1	316.0	000.0500	0042.8	014.4	43.70
229.0	100.0000	0284.2	071.1	316.1	000.0500	0042.8	015.6	42.59
230.0	100.0000	0284.3	071.1	316.4	000.0500	0042.8	016.9	41.52
231.0	100.0000	0284.2	071.1	316.7	000.0500	0042.9	018.1	40.48
232.0	100.0000	0284.1	071.1	317.0	000.0500	0043.0	019.3	39.46
233.0	100.0000	0284.1	071.1	317.4	000.0500	0043.1	020.6	38.46
234.0	100.0000	0284.1	071.1	317.7	000.0500	0043.1	021.8	37.50
235.0	100.0000	0284.2	071.1	318.1	000.0500	0043.2	023.0	36.56
236.0	100.0000	0284.3	071.1	318.4	000.0500	0043.2	024.3	35.67
237.0	100.0000	0284.5	071.1	318.8	000.0500	0043.2	025.5	34.81
238.0	100.0000	0284.6	071.1	319.2	000.0500	0043.3	026.7	34.01
239.0	100.0000	0284.7	071.2	319.6	000.0500	0043.3	028.0	33.26
240.0	100.0000	0284.9	071.2	320.0	000.0500	0043.4	029.2	32.57

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
241.0	100.0000	0285.1	071.2	320.4	000.0500	0043.6	030.4	31.96
242.0	100.0000	0285.2	071.2	320.8	000.0500	0043.7	031.7	31.42
243.0	100.0000	0285.4	071.2	321.2	000.0500	0043.9	032.9	30.95
244.0	100.0000	0285.6	071.2	321.7	000.0500	0044.2	034.1	30.50
245.0	100.0000	0285.9	071.2	322.1	000.0500	0044.5	035.3	30.07
246.0	100.0000	0286.1	071.3	322.5	000.0500	0044.8	036.5	29.65
247.0	100.0000	0286.4	071.3	322.9	000.0500	0045.0	037.8	29.23
248.0	100.0000	0286.6	071.3	323.4	000.0500	0045.3	039.0	28.83
249.0	100.0000	0286.8	071.3	323.8	000.0500	0045.5	040.2	28.44
250.0	100.0000	0286.9	071.3	324.3	000.0500	0045.7	041.4	28.05
251.0	100.0000	0287.0	071.3	324.7	000.0500	0045.8	042.6	27.68
252.0	100.0000	0287.2	071.4	325.2	000.0500	0046.0	043.8	27.31
253.0	100.0000	0287.3	071.4	325.7	000.0500	0046.1	045.0	26.95
254.0	100.0000	0287.6	071.4	326.1	000.0500	0046.1	046.2	26.59
255.0	100.0000	0288.1	071.4	326.5	000.0500	0046.2	047.4	26.25
256.0	100.0000	0288.5	071.5	327.0	000.0500	0046.2	048.6	25.93
257.0	100.0000	0289.1	071.5	327.4	000.0500	0046.3	049.8	25.60
258.0	100.0000	0289.7	071.6	327.9	000.0500	0046.4	051.0	25.28
259.0	100.0000	0290.2	071.6	328.3	000.0500	0046.5	052.2	24.96
260.0	100.0000	0290.8	071.7	328.7	000.0500	0046.6	053.4	24.65
261.0	100.0000	0291.3	071.7	329.2	000.0500	0046.8	054.5	24.34
262.0	100.0000	0291.6	071.7	329.7	000.0500	0047.0	055.7	24.03
263.0	100.0000	0291.7	071.7	330.1	000.0500	0047.2	056.9	23.74
264.0	100.0000	0291.8	071.7	330.6	000.0500	0047.4	058.0	23.45
265.0	100.0000	0291.9	071.7	331.1	000.0500	0047.6	059.2	23.16
266.0	100.0000	0291.8	071.7	331.6	000.0500	0047.9	060.3	22.88
267.0	100.0000	0291.2	071.7	332.1	000.0500	0048.1	061.5	22.61
268.0	100.0000	0290.5	071.6	332.7	000.0500	0048.3	062.6	22.35
269.0	100.0000	0289.9	071.6	333.2	000.0500	0048.5	063.7	22.09
270.0	100.0000	0289.6	071.6	333.7	000.0500	0048.7	064.8	21.84
271.0	100.0000	0289.5	071.5	334.2	000.0500	0048.9	065.9	21.59
272.0	100.0000	0289.4	071.5	334.7	000.0500	0049.0	067.0	21.34
273.0	100.0000	0289.3	071.5	335.2	000.0500	0049.1	068.1	21.09
274.0	100.0000	0289.3	071.5	335.7	000.0500	0049.2	069.2	20.83
275.0	100.0000	0289.4	071.5	336.2	000.0500	0049.3	070.3	20.58