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Contour-to-contour Channel Study

Aurio A. Matos Barreto

REFERENCE 18 16 49.3 N. CH# 279D - 103.7 MHz, Pwr= 0.25 kW DA, HAAT= 340.2 M, COR= 543 M DISPLAY DATES
66 06 35.3 W. Average Protected F(50-50)= 23.96 km DATA 08-20-16
Standard Directional SEARCH 08-20-16

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)
279D San Juan	W279BU	CP	DV_ PR	0.0 0.0	0.00 BMPFT20150401AEE	18 16 49.3 66 06 35.3	0.250	88.2 599	30.2 Aurio A. Matos Barreto	-114.4*
277B Caguas	WVJP-FM	LIC	_CX PR	90.5 270.6	27.07 BLH20140911ABF	18 16 41.0 65 51 12.0	26.000 592	8.6 817	91.7 Borinquen Broadcasting Co.	-65.0*<***
279D Gurabo	W279BU	LIC	DV_ PR	167.5 347.5	14.30 BLFT20140303AEF	18 09 17.0 66 04 50.0	0.250	58.4 747	3.0 Aurio A. Matos Barreto	-29.0*
281B Vega Alta	WERR	LIC	_CX PR	271.3 91.1	58.18 BLH20080708AJO	18 17 29.0 66 39 39.0	50.000 301	8.8 672	81.7 Radio Redentor	-24.3*<***
279D Arecibo	W279BV	LIC	DV_ PR	284.4 104.2	66.27 BLFT20141016ACM	18 25 40.0 66 43 06.0	0.250	38.5 205	3.8 Aurio A Matos Barreto	-9.6*<***
281D Caguas	WERR-FM1	LIC	DC_ PR	99.7 279.7	5.92 BLFTB20060921ACG	18 16 17.0 66 03 16.0	0.006	0.1 357	3.3 Radio Redentor, Inc.	1.0
279D Arecibo	W279BV	CP	DV_ PR	287.9 107.7	74.12 BPFT20150330AAG	18 29 01.5 66 46 44.1	0.250	6.1 79	1.8 Aurio A Matos Barreto	7.3
277D Salinas	WVJP-FM3	CP	DC_ PR	212.8 32.8	24.07 BNPFTB20160114ABS	18 05 54.0 66 14 00.0	3.000	0.1 867	9.0 Borinquen Broadcasting Co.	9.2
279B Lajas	WXLX	LIC	_CN PR	254.5 74.2	118.07 BLH19940113KE	17 59 37.0 67 11 09.0	50.000 139	136.9 171	65.8 Radio X Broadcasting Corpo	9.4
282B Charlotte Amalie	WZIN	LIC	_CX VI	85.6 266.0	120.41 BLH20050325AOC	18 21 35.0 64 58 19.0	44.000 493	9.8 501	90.3 Pan Caribbean Broadcasting	29.5

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= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.

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 restricted contour.

Reference station has protected zone issue: Arecibo

<*** Protected by U/D - See XField studies attached

<*** The W279BU CP was issued with this overlap, which is reduced under the instant amendment from 18 km to 9.6 km

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.

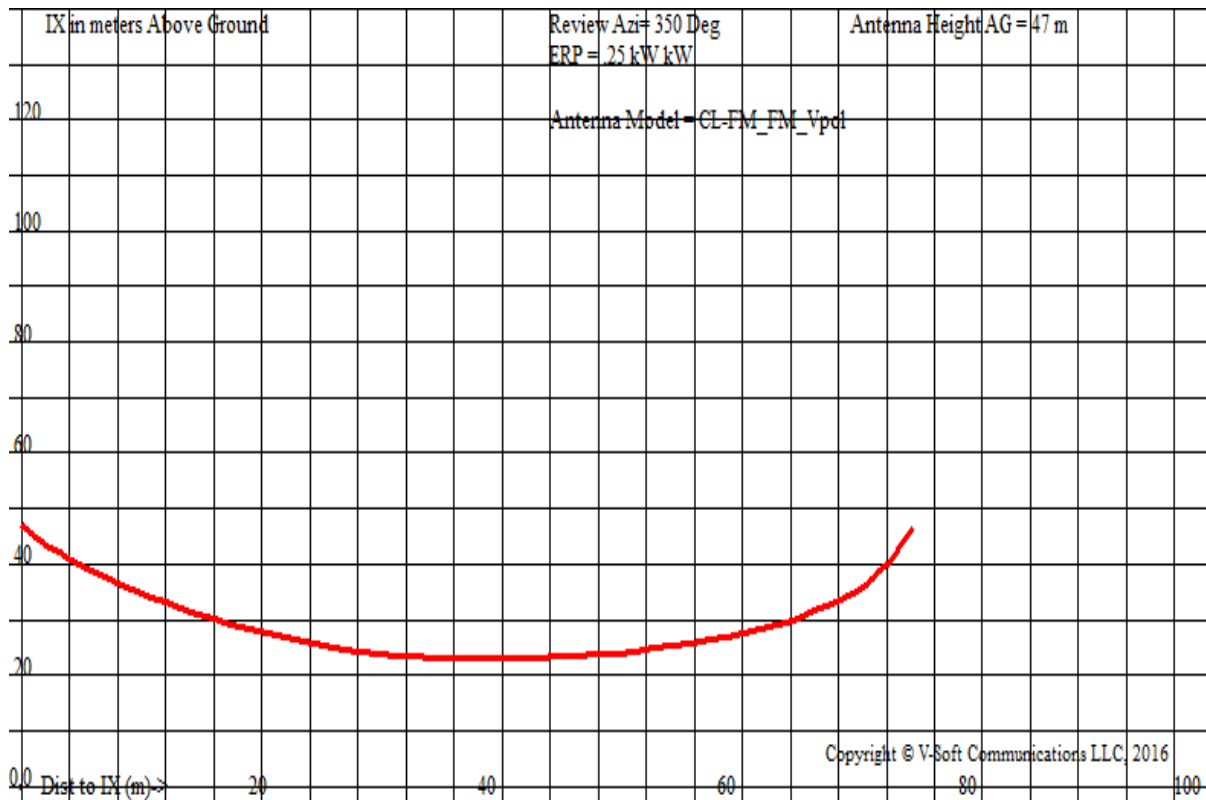
Listed antenna heights and power are the specific antenna heights and power from the FCC database.

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 "OUT" columns change its significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column displays 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.



W279BU.C San Juan, PR
 74.1204(d) Showing
 Translator or LPFM Maximum Licensed ERP = 0.25
 Translator or LPFM Antenna Height AG = 47 Meters
 W279BU.C Antenna Model = CL-FM_FM_Vpol

Protected Station's Contour = 83.29613 dBu
 Translator's or LPFM's full Interference contour 123.29613

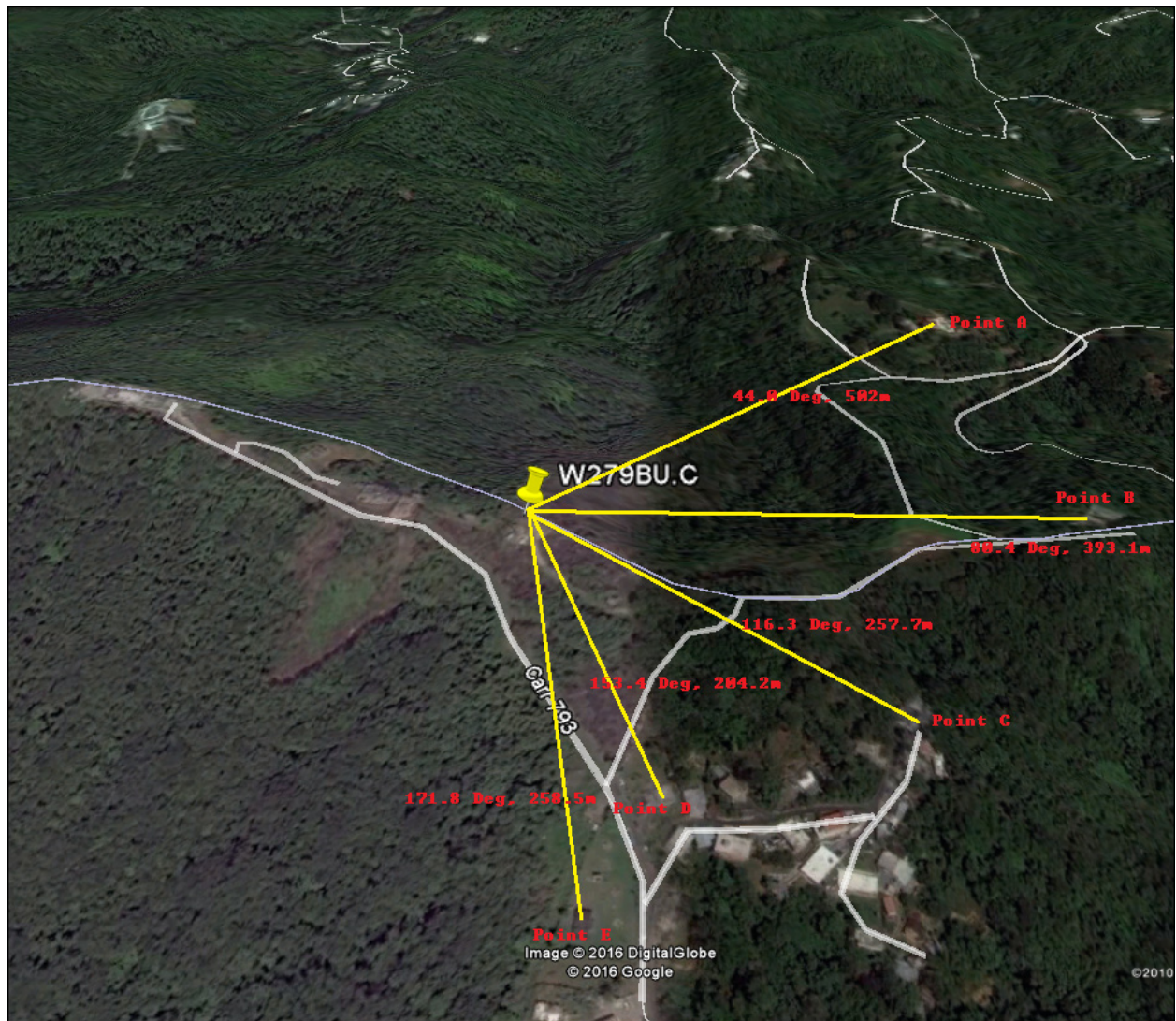
Review Azimuth = 350 Degrees True
 Relative Field on the horizon at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW
 Distance between stations = 27.1 km
 Protected Station= **WVJP-FM**, 26 kW, 817 M Meters COR AMSL

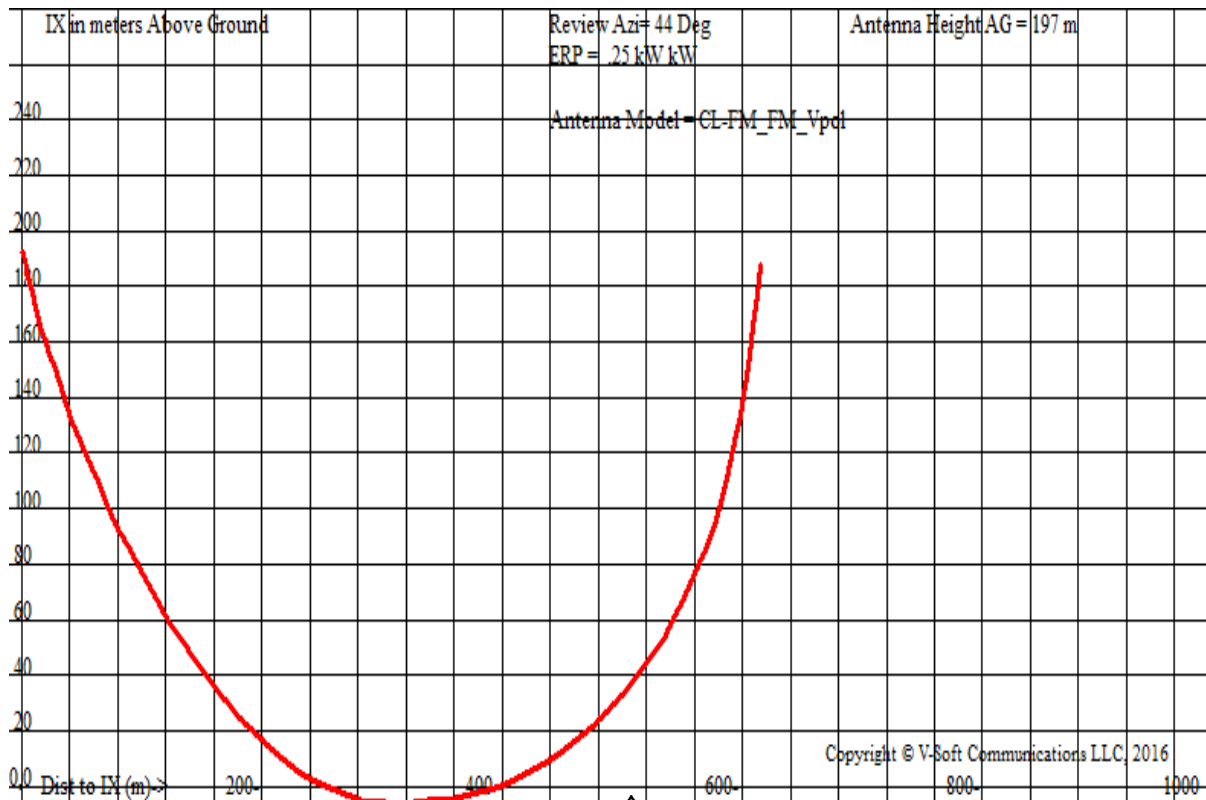
Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	1.0	0.2500	075.8863	075.8863	047.000
01.0	0.996	1.0	0.2480	075.5828	075.5713	045.681
02.0	0.992	1.0	0.2460	075.2792	075.2334	044.373
03.0	0.988	1.0	0.2440	074.9757	074.8729	043.076
04.0	0.984	1.0	0.2421	074.6721	074.4902	041.791
05.0	0.980	1.0	0.2401	074.3686	074.0856	040.518
06.0	0.974	1.0	0.2372	073.9133	073.5084	039.274
07.0	0.968	1.0	0.2343	073.4580	072.9104	038.048
08.0	0.962	1.0	0.2314	073.0026	072.2922	036.840
09.0	0.956	1.0	0.2285	072.5473	071.6541	035.651
10.0	0.950	1.0	0.2256	072.0920	070.9968	034.481
11.0	0.939	1.0	0.2204	071.2573	069.9481	033.403
12.0	0.928	1.0	0.2153	070.4225	068.8836	032.358
13.0	0.917	1.0	0.2102	069.5878	067.8042	031.346
14.0	0.906	1.0	0.2052	068.7530	066.7108	030.367
15.0	0.895	1.0	0.2003	067.9183	065.6040	029.421
16.0	0.880	1.0	0.1936	066.7800	064.1930	028.593
17.0	0.865	1.0	0.1871	065.6417	062.7734	027.808
18.0	0.850	1.0	0.1806	064.5034	061.3464	027.067
19.0	0.835	1.0	0.1743	063.3651	059.9129	026.370
20.0	0.820	1.0	0.1681	062.2268	058.4740	025.717
21.0	0.803	1.0	0.1612	060.9367	056.8893	025.162
22.0	0.786	1.0	0.1544	059.6467	055.3034	024.656
23.0	0.769	1.0	0.1478	058.3566	053.7175	024.198
24.0	0.752	1.0	0.1414	057.0665	052.1329	023.789

25.0	0.735	1.0	0.1351	055.7764	050.5506	023.428
26.0	0.717	1.0	0.1285	054.4105	048.9038	023.148
27.0	0.699	1.0	0.1222	053.0445	047.2630	022.918
28.0	0.681	1.0	0.1159	051.6786	045.6295	022.738
29.0	0.663	1.0	0.1099	050.3126	044.0044	022.608
30.0	0.645	1.0	0.1040	048.9467	042.3891	022.527
31.0	0.629	1.0	0.0988	047.6946	040.8822	022.435
32.0	0.612	1.0	0.0936	046.4424	039.3854	022.389
33.0	0.596	1.0	0.0887	045.1903	037.8998	022.388
34.0	0.579	1.0	0.0838	043.9382	036.4264	022.430
35.0	0.563	1.0	0.0791	042.6861	034.9664	022.516
36.0	0.544	1.0	0.0740	041.2822	033.3980	022.735
37.0	0.526	1.0	0.0690	039.8783	031.8482	023.001
38.0	0.507	1.0	0.0643	038.4744	030.3182	023.313
39.0	0.489	1.0	0.0597	037.0705	028.8092	023.671
40.0	0.470	1.0	0.0552	035.6666	027.3222	024.074
41.0	0.448	1.0	0.0502	033.9971	025.6579	024.696
42.0	0.426	1.0	0.0454	032.3276	024.0241	025.369
43.0	0.404	1.0	0.0408	030.6581	022.4219	026.091
44.0	0.382	1.0	0.0365	028.9886	020.8526	026.863
45.0	0.360	1.0	0.0324	027.3191	019.3175	027.682
46.0	0.338	1.0	0.0286	025.6496	017.8177	028.549
47.0	0.316	1.0	0.0250	023.9801	016.3544	029.462
48.0	0.294	1.0	0.0216	022.3106	014.9287	030.420
49.0	0.272	1.0	0.0185	020.6411	013.5418	031.422
50.0	0.250	1.0	0.0156	018.9716	012.1947	032.467
51.0	0.231	1.0	0.0133	017.5297	011.0318	033.377
52.0	0.212	1.0	0.0112	016.0879	009.9047	034.323
53.0	0.193	1.0	0.0093	014.6461	008.8142	035.303
54.0	0.174	1.0	0.0076	013.2042	007.7612	036.318
55.0	0.155	1.0	0.0060	011.7624	006.7466	037.365
56.0	0.141	1.0	0.0050	010.7000	005.9833	038.129
57.0	0.127	1.0	0.0040	009.6376	005.2490	038.917
58.0	0.113	1.0	0.0032	008.5752	004.5441	039.728
59.0	0.099	1.0	0.0025	007.5127	003.8694	040.560
60.0	0.085	1.0	0.0018	006.4503	003.2252	041.414
61.0	0.077	1.0	0.0015	005.8432	002.8329	041.889
62.0	0.069	1.0	0.0012	005.2362	002.4582	042.377
63.0	0.061	1.0	0.0009	004.6291	002.1016	042.875
64.0	0.053	1.0	0.0007	004.0220	001.7631	043.385
65.0	0.045	1.0	0.0005	003.4149	001.4432	043.905
66.0	0.040	1.0	0.0004	003.0355	001.2346	044.227
67.0	0.035	1.0	0.0003	002.6560	001.0378	044.555
68.0	0.030	1.0	0.0002	002.2766	000.8528	044.889
69.0	0.025	1.0	0.0002	001.8972	000.6799	045.229
70.0	0.020	1.0	0.0001	001.5177	000.5191	045.574
71.0	0.018	1.0	0.0001	001.3660	000.4447	045.708
72.0	0.016	1.0	0.0001	001.2142	000.3752	045.845
73.0	0.014	1.0	0.0000	001.0624	000.3106	045.984
74.0	0.012	1.0	0.0000	000.9106	000.2510	046.125
75.0	0.010	1.0	0.0000	000.7589	000.1964	046.267
76.0	0.010	1.0	0.0000	000.7589	000.1836	046.264
77.0	0.010	1.0	0.0000	000.7589	000.1707	046.261
78.0	0.010	1.0	0.0000	000.7589	000.1578	046.258
79.0	0.010	1.0	0.0000	000.7589	000.1448	046.255
80.0	0.010	1.0	0.0000	000.7589	000.1318	046.253
81.0	0.010	1.0	0.0000	000.7589	000.1187	046.250
82.0	0.010	1.0	0.0000	000.7589	000.1056	046.249
83.0	0.010	1.0	0.0000	000.7589	000.0925	046.247
84.0	0.010	1.0	0.0000	000.7589	000.0793	046.245
85.0	0.010	1.0	0.0000	000.7589	000.0661	046.244
86.0	0.010	1.0	0.0000	000.7589	000.0529	046.243
87.0	0.010	1.0	0.0000	000.7589	000.0397	046.242
88.0	0.010	1.0	0.0000	000.7589	000.0265	046.242
89.0	0.010	1.0	0.0000	000.7589	000.0132	046.241
90.0	0.010	1.0	0.0000	000.7589	000.0000	046.241

25.0	0.735	0.67	0.0908	463.0448	419.6611	001.309
26.0	0.717	0.67	0.0864	451.7049	405.9897	-001.014
27.0	0.699	0.67	0.0821	440.3650	392.3681	-002.922
28.0	0.681	0.67	0.0779	429.0251	378.8067	-004.415
29.0	0.663	0.67	0.0738	417.6853	365.3158	-005.498
30.0	0.645	0.67	0.0699	406.3454	351.9054	-006.173
31.0	0.629	0.67	0.0664	395.9505	339.3958	-006.930
32.0	0.612	0.67	0.0629	385.5556	326.9697	-007.313
33.0	0.596	0.67	0.0596	375.1608	314.6363	-007.327
34.0	0.579	0.67	0.0563	364.7659	302.4046	-006.974
35.0	0.563	0.67	0.0532	354.3710	290.2837	-006.259
36.0	0.544	0.67	0.0497	342.7161	277.2632	-004.443
37.0	0.526	0.67	0.0464	331.0613	264.3973	-002.238
38.0	0.507	0.67	0.0432	319.4064	251.6957	000.354
39.0	0.489	0.67	0.0401	307.7515	239.1678	003.326
40.0	0.470	0.67	0.0371	296.0967	226.8232	006.673
41.0	0.448	0.67	0.0337	282.2368	213.0068	011.836
42.0	0.426	0.67	0.0305	268.3770	199.4430	017.421
43.0	0.404	0.67	0.0274	254.5171	186.1420	023.420
44.0	0.382	0.67	0.0245	240.6573	173.1144	029.825
45.0	0.360	0.67	0.0218	226.7974	160.3700	036.630
46.0	0.338	0.67	0.0192	212.9376	147.9189	043.826
47.0	0.316	0.67	0.0168	199.0778	135.7707	051.404
48.0	0.294	0.67	0.0145	185.2179	123.9350	059.356
49.0	0.272	0.67	0.0124	171.3581	112.4210	067.674
50.0	0.250	0.67	0.0105	157.4982	101.2379	076.349
51.0	0.231	0.67	0.0090	145.5284	091.5840	083.903
52.0	0.212	0.67	0.0076	133.5585	082.2268	091.754
53.0	0.193	0.67	0.0063	121.5886	073.1739	099.895
54.0	0.174	0.67	0.0051	109.6188	064.4323	108.317
55.0	0.155	0.67	0.0040	097.6489	056.0091	117.011
56.0	0.141	0.67	0.0033	088.8290	049.6725	123.357
57.0	0.127	0.67	0.0027	080.0091	043.5761	129.899
58.0	0.113	0.67	0.0021	071.1892	037.7245	136.628
59.0	0.099	0.67	0.0016	062.3693	032.1226	143.539
60.0	0.085	0.67	0.0012	053.5494	026.7747	150.625
61.0	0.077	0.67	0.0010	048.5095	023.5178	154.573
62.0	0.069	0.67	0.0008	043.4695	020.4077	158.619
63.0	0.061	0.67	0.0006	038.4296	017.4467	162.759
64.0	0.053	0.67	0.0005	033.3896	014.6370	166.990
65.0	0.045	0.67	0.0003	028.3497	011.9811	171.306
66.0	0.040	0.67	0.0003	025.1997	010.2496	173.979
67.0	0.035	0.67	0.0002	022.0498	008.6155	176.703
68.0	0.030	0.67	0.0002	018.8998	007.0800	179.476
69.0	0.025	0.67	0.0001	015.7498	005.6442	182.296
70.0	0.020	0.67	0.0001	012.5999	004.3094	185.160
71.0	0.018	0.67	0.0001	011.3399	003.6919	186.278
72.0	0.016	0.67	0.0000	010.0799	003.1149	187.413
73.0	0.014	0.67	0.0000	008.8199	002.5787	188.565
74.0	0.012	0.67	0.0000	007.5599	002.0838	189.733
75.0	0.010	0.67	0.0000	006.2999	001.6305	190.915
76.0	0.010	0.67	0.0000	006.2999	001.5241	190.887
77.0	0.010	0.67	0.0000	006.2999	001.4172	190.862
78.0	0.010	0.67	0.0000	006.2999	001.3098	190.838
79.0	0.010	0.67	0.0000	006.2999	001.2021	190.816
80.0	0.010	0.67	0.0000	006.2999	001.0940	190.796
81.0	0.010	0.67	0.0000	006.2999	000.9855	190.778
82.0	0.010	0.67	0.0000	006.2999	000.8768	190.761
83.0	0.010	0.67	0.0000	006.2999	000.7678	190.747
84.0	0.010	0.67	0.0000	006.2999	000.6585	190.735
85.0	0.010	0.67	0.0000	006.2999	000.5491	190.724
86.0	0.010	0.67	0.0000	006.2999	000.4395	190.715
87.0	0.010	0.67	0.0000	006.2999	000.3297	190.709
88.0	0.010	0.67	0.0000	006.2999	000.2199	190.704
89.0	0.010	0.67	0.0000	006.2999	000.1099	190.701
90.0	0.010	0.67	0.0000	006.2999	000.0000	190.700

Satellite Map - W279BU - August 21, 2016, 2 CL-FM (V) Antennas @ 35° and 310°





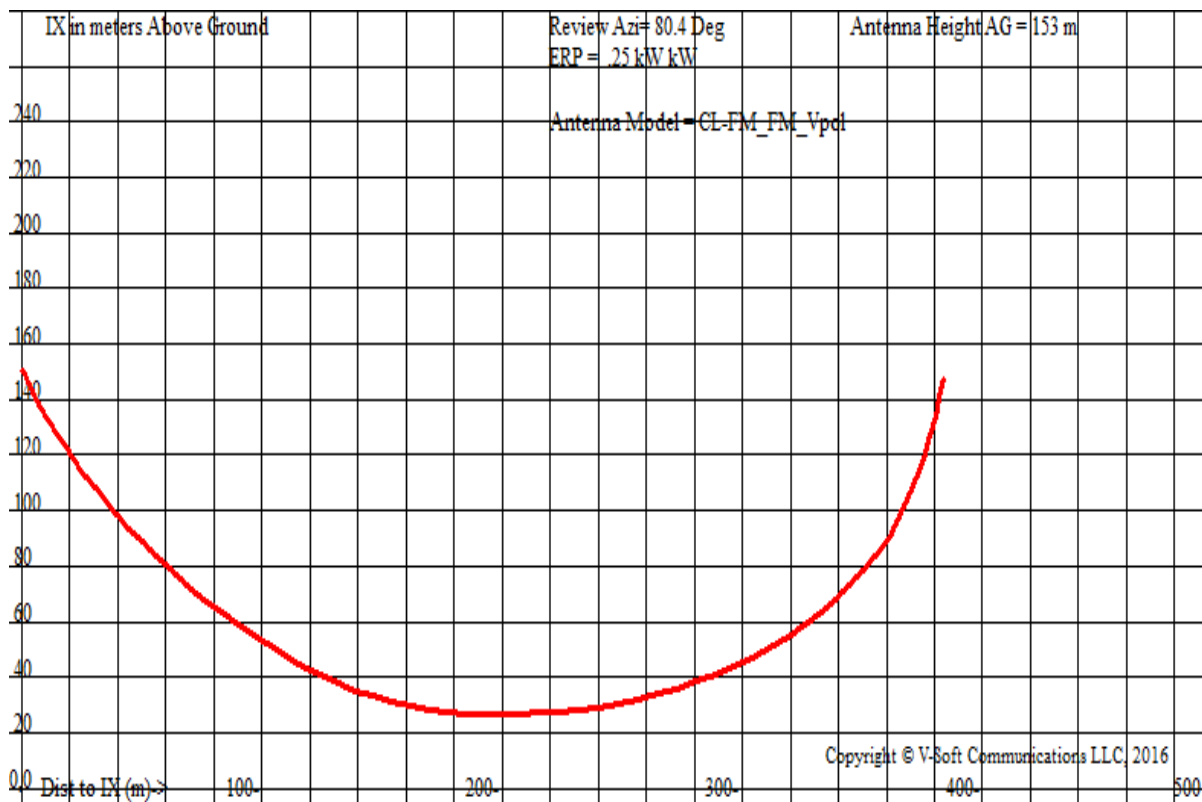
W279BU.C San Juan, PR, Base Elev= 543 m
 74.1204(d) Showing (Ant AG= 47m)
 Translator Maximum Licensed ERP = 0.25 (Point A Elev= 393m, delta= 150m, Eff. Ant AG= 197m)
 Translator Antenna Height AG = 197 Meters
 W279BU.C Antenna Model = CL-FM_FM_Vpol

Protected Station's Contour = 63.18638 dBu
 Translator's or LPFM's full Interference contour 103.18638

Review Azimuth = 44 Degrees True
 Relative Field on the horizon at Review Azimuth = 0.672
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.113 kW
 Distance between stations = 58.2 km
 Protected Station= **WERR**, 50 kW, 672 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	0.67	0.1680	629.9929	629.9929	197.000
01.0	0.996	0.67	0.1667	627.4729	627.3773	186.049
02.0	0.992	0.67	0.1653	624.9529	624.5722	175.189
03.0	0.988	0.67	0.1640	622.4329	621.5799	164.424
04.0	0.984	0.67	0.1627	619.9130	618.4029	153.757
05.0	0.980	0.67	0.1613	617.3930	615.0437	143.191
06.0	0.974	0.67	0.1594	613.6130	610.2516	132.860
07.0	0.968	0.67	0.1574	609.8331	605.2875	122.680
08.0	0.962	0.67	0.1555	606.0532	600.1551	112.654
09.0	0.956	0.67	0.1535	602.2732	594.8582	102.784
10.0	0.950	0.67	0.1516	598.4932	589.4008	093.073
11.0	0.939	0.67	0.1481	591.5633	580.6946	084.124
12.0	0.928	0.67	0.1447	584.6334	571.8577	075.448
13.0	0.917	0.67	0.1413	577.7035	562.8970	067.045
14.0	0.906	0.67	0.1379	570.7736	553.8191	058.917
15.0	0.895	0.67	0.1346	563.8436	544.6311	051.067
16.0	0.880	0.67	0.1301	554.3937	532.9175	044.188
17.0	0.865	0.67	0.1257	544.9438	521.1324	037.674
18.0	0.850	0.67	0.1214	535.4940	509.2850	031.523
19.0	0.835	0.67	0.1171	526.0440	497.3844	025.737
20.0	0.820	0.67	0.1130	516.5942	485.4397	020.314
21.0	0.803	0.67	0.1083	505.8843	472.2836	015.707
22.0	0.786	0.67	0.1038	495.1744	459.1177	011.504
23.0	0.769	0.67	0.0993	484.4645	445.9519	007.705
24.0	0.752	0.67	0.0950	473.7546	432.7964	004.307

25.0	0.735	0.67	0.0908	463.0448	419.6611	001.309
26.0	0.717	0.67	0.0864	451.7049	405.9897	-001.014
27.0	0.699	0.67	0.0821	440.3650	392.3681	-002.922
28.0	0.681	0.67	0.0779	429.0251	378.8067	-004.415
29.0	0.663	0.67	0.0738	417.6853	365.3158	-005.498
30.0	0.645	0.67	0.0699	406.3454	351.9054	-006.173
31.0	0.629	0.67	0.0664	395.9505	339.3958	-006.930
32.0	0.612	0.67	0.0629	385.5556	326.9697	-007.313
33.0	0.596	0.67	0.0596	375.1608	314.6363	-007.327
34.0	0.579	0.67	0.0563	364.7659	302.4046	-006.974
35.0	0.563	0.67	0.0532	354.3710	290.2837	-006.259
36.0	0.544	0.67	0.0497	342.7161	277.2632	-004.443
37.0	0.526	0.67	0.0464	331.0613	264.3973	-002.238
38.0	0.507	0.67	0.0432	319.4064	251.6957	000.354
39.0	0.489	0.67	0.0401	307.7515	239.1678	003.326
40.0	0.470	0.67	0.0371	296.0967	226.8232	006.673
41.0	0.448	0.67	0.0337	282.2368	213.0068	011.836
42.0	0.426	0.67	0.0305	268.3770	199.4430	017.421
43.0	0.404	0.67	0.0274	254.5171	186.1420	023.420
44.0	0.382	0.67	0.0245	240.6573	173.1144	029.825
45.0	0.360	0.67	0.0218	226.7974	160.3700	036.630
46.0	0.338	0.67	0.0192	212.9376	147.9189	043.826
47.0	0.316	0.67	0.0168	199.0778	135.7707	051.404
48.0	0.294	0.67	0.0145	185.2179	123.9350	059.356
49.0	0.272	0.67	0.0124	171.3581	112.4210	067.674
50.0	0.250	0.67	0.0105	157.4982	101.2379	076.349
51.0	0.231	0.67	0.0090	145.5284	091.5840	083.903
52.0	0.212	0.67	0.0076	133.5585	082.2268	091.754
53.0	0.193	0.67	0.0063	121.5886	073.1739	099.895
54.0	0.174	0.67	0.0051	109.6188	064.4323	108.317
55.0	0.155	0.67	0.0040	097.6489	056.0091	117.011
56.0	0.141	0.67	0.0033	088.8290	049.6725	123.357
57.0	0.127	0.67	0.0027	080.0091	043.5761	129.899
58.0	0.113	0.67	0.0021	071.1892	037.7245	136.628
59.0	0.099	0.67	0.0016	062.3693	032.1226	143.539
60.0	0.085	0.67	0.0012	053.5494	026.7747	150.625
61.0	0.077	0.67	0.0010	048.5095	023.5178	154.573
62.0	0.069	0.67	0.0008	043.4695	020.4077	158.619
63.0	0.061	0.67	0.0006	038.4296	017.4467	162.759
64.0	0.053	0.67	0.0005	033.3896	014.6370	166.990
65.0	0.045	0.67	0.0003	028.3497	011.9811	171.306
66.0	0.040	0.67	0.0003	025.1997	010.2496	173.979
67.0	0.035	0.67	0.0002	022.0498	008.6155	176.703
68.0	0.030	0.67	0.0002	018.8998	007.0800	179.476
69.0	0.025	0.67	0.0001	015.7498	005.6442	182.296
70.0	0.020	0.67	0.0001	012.5999	004.3094	185.160
71.0	0.018	0.67	0.0001	011.3399	003.6919	186.278
72.0	0.016	0.67	0.0000	010.0799	003.1149	187.413
73.0	0.014	0.67	0.0000	008.8199	002.5787	188.565
74.0	0.012	0.67	0.0000	007.5599	002.0838	189.733
75.0	0.010	0.67	0.0000	006.2999	001.6305	190.915
76.0	0.010	0.67	0.0000	006.2999	001.5241	190.887
77.0	0.010	0.67	0.0000	006.2999	001.4172	190.862
78.0	0.010	0.67	0.0000	006.2999	001.3098	190.838
79.0	0.010	0.67	0.0000	006.2999	001.2021	190.816
80.0	0.010	0.67	0.0000	006.2999	001.0940	190.796
81.0	0.010	0.67	0.0000	006.2999	000.9855	190.778
82.0	0.010	0.67	0.0000	006.2999	000.8768	190.761
83.0	0.010	0.67	0.0000	006.2999	000.7678	190.747
84.0	0.010	0.67	0.0000	006.2999	000.6585	190.735
85.0	0.010	0.67	0.0000	006.2999	000.5491	190.724
86.0	0.010	0.67	0.0000	006.2999	000.4395	190.715
87.0	0.010	0.67	0.0000	006.2999	000.3297	190.709
88.0	0.010	0.67	0.0000	006.2999	000.2199	190.704
89.0	0.010	0.67	0.0000	006.2999	000.1099	190.701
90.0	0.010	0.67	0.0000	006.2999	000.0000	190.700



W279BU.C San Juan, PR, Base elev= 543m, Ant AG = 47m

74.1204(d) Showing

Translator Maximum Licensed ERP = 0.25 (Point B elev= 437m, delta= 106m, Eff. Ant AG= 153m)

Translator Antenna Height AG = 153 Meters

W279BU.C Antenna Model = CL-FM_FM_Vpol

Protected Station's Contour = 63.18638 dBu

Translator's or LPFM's full Interference contour 103.18638

Review Azimuth = 80.4 Degrees True

Relative Field on the horizon at Review Azimuth = 0.262

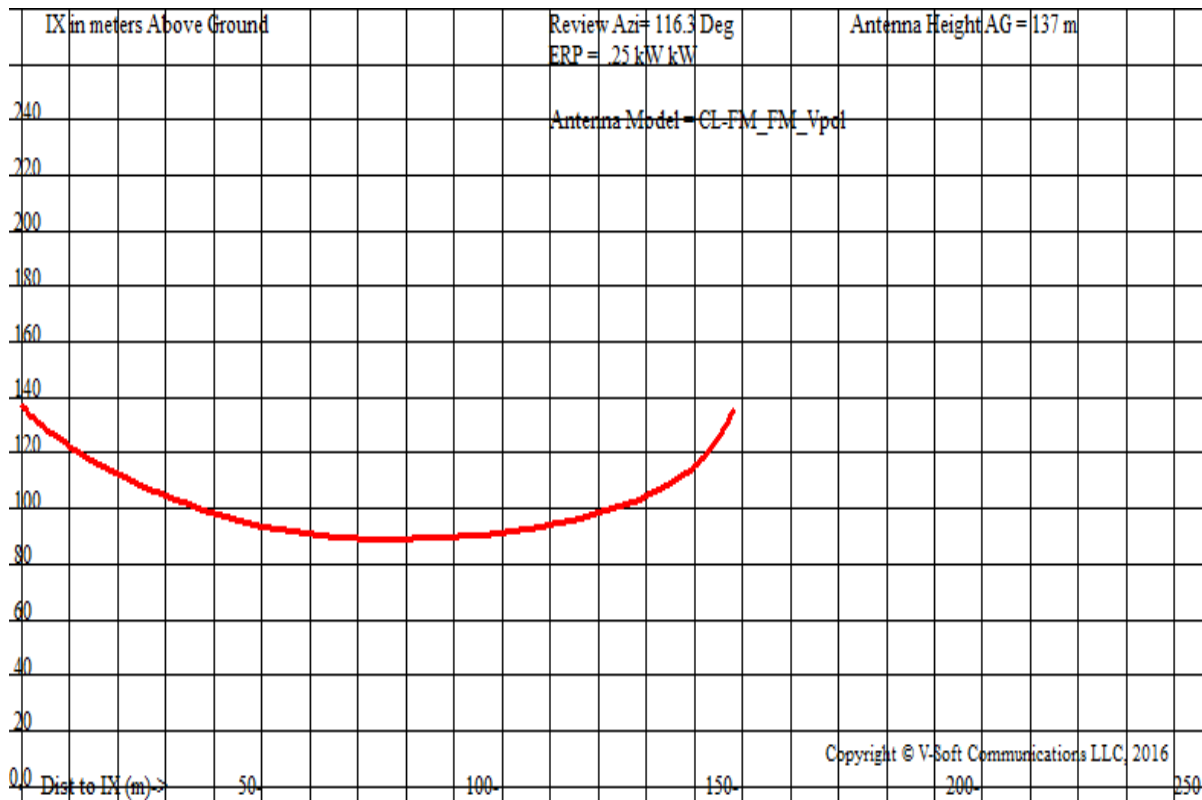
Translator/LPFM ERP on the horizon at Review Azimuth = 0.017 kW

Distance between stations = 58.2 km

Protected Station= **WERR**, 50 kW, 672 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	0.26	0.0655	393.3704	393.3704	153.000
01.0	0.996	0.26	0.0650	391.7969	391.7372	146.162
02.0	0.992	0.26	0.0645	390.2234	389.9857	139.381
03.0	0.988	0.26	0.0639	388.6499	388.1173	132.660
04.0	0.984	0.26	0.0634	387.0765	386.1336	125.999
05.0	0.980	0.26	0.0629	385.5030	384.0360	119.401
06.0	0.974	0.26	0.0621	383.1427	381.0438	112.951
07.0	0.968	0.26	0.0614	380.7825	377.9442	106.594
08.0	0.962	0.26	0.0606	378.4223	374.7395	100.334
09.0	0.956	0.26	0.0599	376.0621	371.4321	94.171
10.0	0.950	0.26	0.0591	373.7018	368.0245	88.107
11.0	0.939	0.26	0.0578	369.3748	362.5883	82.520
12.0	0.928	0.26	0.0564	365.0477	357.0705	77.102
13.0	0.917	0.26	0.0551	360.7206	351.4754	71.856
14.0	0.906	0.26	0.0538	356.3936	345.8072	66.781
15.0	0.895	0.26	0.0525	352.0665	340.0701	61.878
16.0	0.880	0.26	0.0507	346.1659	332.7560	57.584
17.0	0.865	0.26	0.0490	340.2654	325.3974	53.516
18.0	0.850	0.26	0.0473	334.3648	317.9998	49.676
19.0	0.835	0.26	0.0457	328.4643	310.5691	46.062
20.0	0.820	0.26	0.0440	322.5637	303.1107	42.677
21.0	0.803	0.26	0.0422	315.8764	294.8960	39.800
22.0	0.786	0.26	0.0405	309.1891	286.6752	37.176
23.0	0.769	0.26	0.0387	302.5018	278.4544	34.803
24.0	0.752	0.26	0.0370	295.8145	270.2400	32.681

25.0	0.735	0.26	0.0354	289.1272	262.0383	030.810
26.0	0.717	0.26	0.0337	282.0466	253.5018	029.359
27.0	0.699	0.26	0.0320	274.9659	244.9964	028.168
28.0	0.681	0.26	0.0304	267.8852	236.5286	027.236
29.0	0.663	0.26	0.0288	260.8046	228.1048	026.559
30.0	0.645	0.26	0.0272	253.7239	219.7313	026.138
31.0	0.629	0.26	0.0259	247.2333	211.9203	025.665
32.0	0.612	0.26	0.0245	240.7427	204.1614	025.426
33.0	0.596	0.26	0.0232	234.2521	196.4603	025.417
34.0	0.579	0.26	0.0220	227.7614	188.8228	025.637
35.0	0.563	0.26	0.0207	221.2708	181.2545	026.084
36.0	0.544	0.26	0.0194	213.9935	173.1244	027.218
37.0	0.526	0.26	0.0181	206.7161	165.0908	028.595
38.0	0.507	0.26	0.0168	199.4388	157.1599	030.213
39.0	0.489	0.26	0.0156	192.1614	149.3375	032.069
40.0	0.470	0.26	0.0145	184.8841	141.6294	034.159
41.0	0.448	0.26	0.0131	176.2299	133.0024	037.383
42.0	0.426	0.26	0.0119	167.5758	124.5331	040.870
43.0	0.404	0.26	0.0107	158.9216	116.2279	044.616
44.0	0.382	0.26	0.0096	150.2675	108.0934	048.615
45.0	0.360	0.26	0.0085	141.6133	100.1358	052.864
46.0	0.338	0.26	0.0075	132.9592	92.3612	057.357
47.0	0.316	0.26	0.0065	124.3050	84.7758	062.089
48.0	0.294	0.26	0.0057	115.6509	77.3855	067.055
49.0	0.272	0.26	0.0048	106.9967	70.1962	072.249
50.0	0.250	0.26	0.0041	98.3426	63.2134	077.665
51.0	0.231	0.26	0.0035	90.8686	57.1854	082.382
52.0	0.212	0.26	0.0029	83.3945	51.3428	087.284
53.0	0.193	0.26	0.0024	75.9205	45.6901	092.367
54.0	0.174	0.26	0.0020	68.4464	40.2318	097.626
55.0	0.155	0.26	0.0016	60.9724	34.9723	103.054
56.0	0.141	0.26	0.0013	55.4652	31.0158	107.017
57.0	0.127	0.26	0.0011	49.9580	27.2091	111.102
58.0	0.113	0.26	0.0008	44.4509	23.5554	115.304
59.0	0.099	0.26	0.0006	38.9437	20.0575	119.619
60.0	0.085	0.26	0.0005	33.4365	16.7182	124.043
61.0	0.077	0.26	0.0004	30.2895	14.6846	126.508
62.0	0.069	0.26	0.0003	27.1426	12.7427	129.035
63.0	0.061	0.26	0.0002	23.9956	10.8938	131.620
64.0	0.053	0.26	0.0002	20.8486	9.1394	134.261
65.0	0.045	0.26	0.0001	17.7017	7.4810	136.957
66.0	0.040	0.26	0.0001	15.7348	6.3999	138.626
67.0	0.035	0.26	0.0001	13.7680	5.3796	140.327
68.0	0.030	0.26	0.0001	11.8011	4.4208	142.058
69.0	0.025	0.26	0.0000	9.8343	3.5243	143.819
70.0	0.020	0.26	0.0000	7.8674	2.6908	145.607
71.0	0.018	0.26	0.0000	6.0807	2.3052	146.305
72.0	0.016	0.26	0.0000	4.2939	1.9449	147.014
73.0	0.014	0.26	0.0000	2.5072	1.6101	147.733
74.0	0.012	0.26	0.0000	0.7204	1.3011	148.462
75.0	0.010	0.26	0.0000	0.9337	1.0181	149.200
76.0	0.010	0.26	0.0000	0.9337	0.9516	149.183
77.0	0.010	0.26	0.0000	0.9337	0.8849	149.167
78.0	0.010	0.26	0.0000	0.9337	0.8179	149.152
79.0	0.010	0.26	0.0000	0.9337	0.7506	149.139
80.0	0.010	0.26	0.0000	0.9337	0.6831	149.126
81.0	0.010	0.26	0.0000	0.9337	0.6154	149.115
82.0	0.010	0.26	0.0000	0.9337	0.5475	149.105
83.0	0.010	0.26	0.0000	0.9337	0.4794	149.096
84.0	0.010	0.26	0.0000	0.9337	0.4112	149.088
85.0	0.010	0.26	0.0000	0.9337	0.3428	149.081
86.0	0.010	0.26	0.0000	0.9337	0.2744	149.076
87.0	0.010	0.26	0.0000	0.9337	0.2059	149.072
88.0	0.010	0.26	0.0000	0.9337	0.1373	149.069
89.0	0.010	0.26	0.0000	0.9337	0.0687	149.067
90.0	0.010	0.26	0.0000	0.9337	0.0000	149.066



Point C

W279BU.C San Juan, PR, Base Elev= 543m, Ant AG= 47m

74.1204(d) Showing

Translator Maximum Licensed ERP = 0.25 (Point C elev= 453m, delta= 90m, Eff. Ant AG= 137m)

Translator Antenna Height AG = 137 Meters

W279BU.C Antenna Model = CL-FM_FM_Vpol

Protected Station's Contour = 63.18638 dBu

Translator's or LPFM's full Interference contour 103.18638

Review Azimuth = 116.3 Degrees True

Relative Field on the horizon at Review Azimuth = 0.039

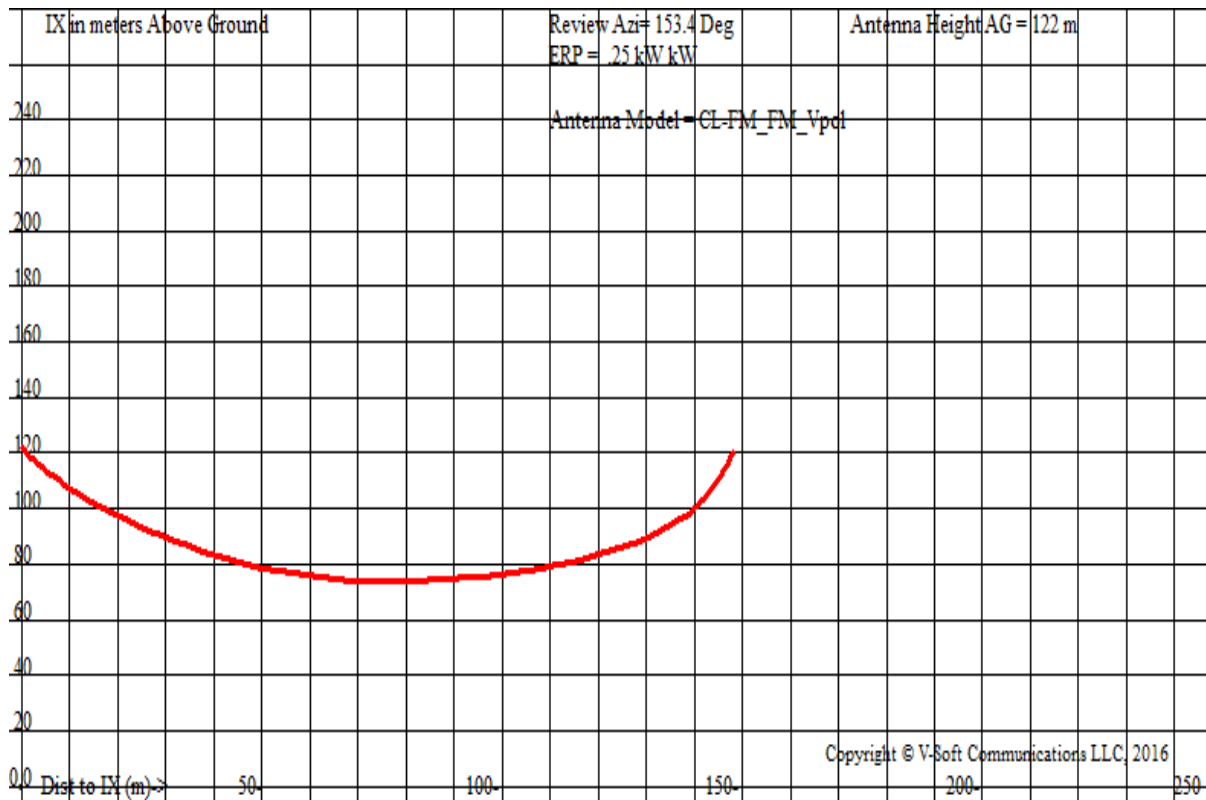
Translator/LPFM ERP on the horizon at Review Azimuth = 0.0 kW

Distance between stations = 58.2 km

Protected Station= **WERR**, 50 kW, 672 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	0.04	0.0098	151.7691	151.7691	137.000
01.0	0.996	0.04	0.0097	151.1620	151.1390	134.362
02.0	0.992	0.04	0.0096	150.5549	150.4632	131.746
03.0	0.988	0.04	0.0095	149.9479	149.7424	129.152
04.0	0.984	0.04	0.0094	149.3408	148.9770	126.583
05.0	0.980	0.04	0.0094	148.7337	148.1677	124.037
06.0	0.974	0.04	0.0092	147.8231	147.0133	121.548
07.0	0.968	0.04	0.0091	146.9125	145.8174	119.096
08.0	0.962	0.04	0.0090	146.0019	144.5810	116.680
09.0	0.956	0.04	0.0089	145.0912	143.3049	114.303
10.0	0.950	0.04	0.0088	144.1806	141.9902	111.963
11.0	0.939	0.04	0.0086	142.5112	139.8928	109.808
12.0	0.928	0.04	0.0084	140.8417	137.7640	107.717
13.0	0.917	0.04	0.0082	139.1722	135.6053	105.693
14.0	0.906	0.04	0.0080	137.5028	133.4184	103.735
15.0	0.895	0.04	0.0078	135.8333	131.2049	101.844
16.0	0.880	0.04	0.0076	133.5568	128.3830	100.187
17.0	0.865	0.04	0.0073	131.2803	125.5439	98.617
18.0	0.850	0.04	0.0070	129.0037	122.6898	97.136
19.0	0.835	0.04	0.0068	126.7272	119.8229	95.742
20.0	0.820	0.04	0.0066	124.4506	116.9454	94.435
21.0	0.803	0.04	0.0063	121.8706	113.7760	93.325
22.0	0.786	0.04	0.0060	119.2905	110.6042	92.313
23.0	0.769	0.04	0.0058	116.7104	107.4325	91.398
24.0	0.752	0.04	0.0055	114.1303	104.2633	90.579

25.0	0.735	0.04	0.0053	111.5503	101.0989	089.857
26.0	0.717	0.04	0.0050	108.8184	097.8054	089.297
27.0	0.699	0.04	0.0048	106.0866	094.5238	088.838
28.0	0.681	0.04	0.0045	103.3547	091.2568	088.478
29.0	0.663	0.04	0.0043	100.6229	088.0068	088.217
30.0	0.645	0.04	0.0041	097.8911	084.7761	088.054
31.0	0.629	0.04	0.0039	095.3869	081.7625	087.872
32.0	0.612	0.04	0.0037	092.8827	078.7690	087.780
33.0	0.596	0.04	0.0035	090.3785	075.7978	087.776
34.0	0.579	0.04	0.0033	087.8743	072.8511	087.861
35.0	0.563	0.04	0.0031	085.3701	069.9311	088.034
36.0	0.544	0.04	0.0029	082.5624	066.7944	088.471
37.0	0.526	0.04	0.0027	079.7547	063.6949	089.002
38.0	0.507	0.04	0.0025	076.9469	060.6350	089.627
39.0	0.489	0.04	0.0023	074.1392	057.6170	090.343
40.0	0.470	0.04	0.0022	071.3315	054.6431	091.149
41.0	0.448	0.04	0.0020	067.9926	051.3146	092.393
42.0	0.426	0.04	0.0018	064.6536	048.0470	093.738
43.0	0.404	0.04	0.0016	061.3147	044.8427	095.183
44.0	0.382	0.04	0.0014	057.9758	041.7043	096.727
45.0	0.360	0.04	0.0013	054.6369	038.6341	098.366
46.0	0.338	0.04	0.0011	051.2980	035.6346	100.099
47.0	0.316	0.04	0.0010	047.9590	032.7080	101.925
48.0	0.294	0.04	0.0008	044.6201	029.8567	103.841
49.0	0.272	0.04	0.0007	041.2812	027.0829	105.845
50.0	0.250	0.04	0.0006	037.9423	024.3888	107.935
51.0	0.231	0.04	0.0005	035.0587	022.0631	109.754
52.0	0.212	0.04	0.0004	032.1750	019.8089	111.646
53.0	0.193	0.04	0.0004	029.2914	017.6280	113.607
54.0	0.174	0.04	0.0003	026.4078	015.5221	115.636
55.0	0.155	0.04	0.0002	023.5242	013.4929	117.730
56.0	0.141	0.04	0.0002	021.3994	011.9664	119.259
57.0	0.127	0.04	0.0002	019.2747	010.4977	120.835
58.0	0.113	0.04	0.0001	017.1499	009.0881	122.456
59.0	0.099	0.04	0.0001	015.0251	007.7385	124.121
60.0	0.085	0.04	0.0001	012.9004	006.4502	125.828
61.0	0.077	0.04	0.0001	011.6862	005.6656	126.779
62.0	0.069	0.04	0.0000	010.4721	004.9163	127.754
63.0	0.061	0.04	0.0000	009.2579	004.2030	128.751
64.0	0.053	0.04	0.0000	008.0438	003.5262	129.770
65.0	0.045	0.04	0.0000	006.8296	002.8863	130.810
66.0	0.040	0.04	0.0000	006.0708	002.4692	131.454
67.0	0.035	0.04	0.0000	005.3119	002.0755	132.110
68.0	0.030	0.04	0.0000	004.5531	001.7056	132.778
69.0	0.025	0.04	0.0000	003.7942	001.3597	133.458
70.0	0.020	0.04	0.0000	003.0354	001.0382	134.148
71.0	0.018	0.04	0.0000	002.7318	000.8894	134.417
72.0	0.016	0.04	0.0000	002.4283	000.7504	134.691
73.0	0.014	0.04	0.0000	002.1248	000.6212	134.968
74.0	0.012	0.04	0.0000	001.8212	000.5020	135.249
75.0	0.010	0.04	0.0000	001.5177	000.3928	135.534
76.0	0.010	0.04	0.0000	001.5177	000.3672	135.527
77.0	0.010	0.04	0.0000	001.5177	000.3414	135.521
78.0	0.010	0.04	0.0000	001.5177	000.3155	135.515
79.0	0.010	0.04	0.0000	001.5177	000.2896	135.510
80.0	0.010	0.04	0.0000	001.5177	000.2635	135.505
81.0	0.010	0.04	0.0000	001.5177	000.2374	135.501
82.0	0.010	0.04	0.0000	001.5177	000.2112	135.497
83.0	0.010	0.04	0.0000	001.5177	000.1850	135.494
84.0	0.010	0.04	0.0000	001.5177	000.1586	135.491
85.0	0.010	0.04	0.0000	001.5177	000.1323	135.488
86.0	0.010	0.04	0.0000	001.5177	000.1059	135.486
87.0	0.010	0.04	0.0000	001.5177	000.0794	135.484
88.0	0.010	0.04	0.0000	001.5177	000.0530	135.483
89.0	0.010	0.04	0.0000	001.5177	000.0265	135.483
90.0	0.010	0.04	0.0000	001.5177	000.0000	135.482



W279BU.C San Juan, PR, Base Elev= 543m, Ant AG= 47m

74.1204(d) Showing

Translator Maximum Licensed ERP = 0.25 (Point D elev= 468m, delta= 75m, Eff. Ant AG= 122m)

Translator Antenna Height AG = 122 Meters

W279BU.C Antenna Model = CL-FM_FM_Vpol

Protected Station's Contour = 63.18638 dBu

Translator's or LPFM's full Interference contour 103.18638

Review Azimuth = 153.4 Degrees True

Relative Field on the horizon at Review Azimuth = 0.039

Translator/LPFM ERP on the horizon at Review Azimuth = 0.0 kW

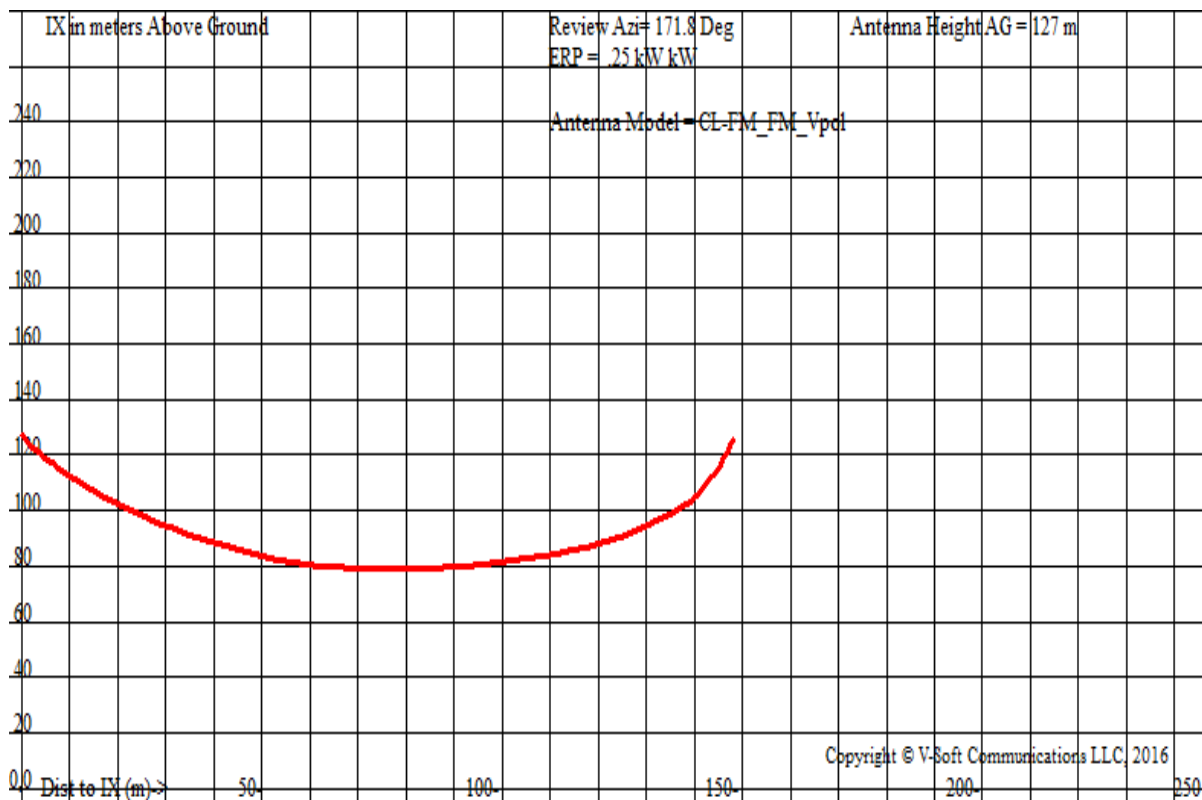
Distance between stations = 58.2 km

Protected Station= **WERR**, 50 kW, 672 M Meters COR AMSL

Point D
House

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	0.04	0.0098	151.7691	151.7691	122.000
01.0	0.996	0.04	0.0097	151.1620	151.1390	119.362
02.0	0.992	0.04	0.0096	150.5549	150.4632	116.746
03.0	0.988	0.04	0.0095	149.9479	149.7424	114.152
04.0	0.984	0.04	0.0094	149.3408	148.9770	111.583
05.0	0.980	0.04	0.0094	148.7337	148.1677	109.037
06.0	0.974	0.04	0.0092	147.8231	147.0133	106.548
07.0	0.968	0.04	0.0091	146.9125	145.8174	104.096
08.0	0.962	0.04	0.0090	146.0019	144.5810	101.680
09.0	0.956	0.04	0.0089	145.0912	143.3049	99.303
10.0	0.950	0.04	0.0088	144.1806	141.9902	96.963
11.0	0.939	0.04	0.0086	142.5112	139.8928	94.808
12.0	0.928	0.04	0.0084	140.8417	137.7640	92.717
13.0	0.917	0.04	0.0082	139.1722	135.6053	90.693
14.0	0.906	0.04	0.0080	137.5028	133.4184	88.735
15.0	0.895	0.04	0.0078	135.8333	131.2049	86.844
16.0	0.880	0.04	0.0076	133.5568	128.3830	85.187
17.0	0.865	0.04	0.0073	131.2803	125.5439	83.617
18.0	0.850	0.04	0.0070	129.0037	122.6898	82.136
19.0	0.835	0.04	0.0068	126.7272	119.8229	80.742
20.0	0.820	0.04	0.0066	124.4506	116.9454	79.435
21.0	0.803	0.04	0.0063	121.8706	113.7760	78.325
22.0	0.786	0.04	0.0060	119.2905	110.6042	77.313
23.0	0.769	0.04	0.0058	116.7104	107.4325	76.398
24.0	0.752	0.04	0.0055	114.1303	104.2633	75.579

25.0	0.735	0.04	0.0053	111.5503	101.0989	074.857
26.0	0.717	0.04	0.0050	108.8184	097.8054	074.297
27.0	0.699	0.04	0.0048	106.0866	094.5238	073.838
28.0	0.681	0.04	0.0045	103.3547	091.2568	073.478
29.0	0.663	0.04	0.0043	100.6229	088.0068	073.217
30.0	0.645	0.04	0.0041	097.8911	084.7761	073.054
31.0	0.629	0.04	0.0039	095.3869	081.7625	072.872
32.0	0.612	0.04	0.0037	092.8827	078.7690	072.780
33.0	0.596	0.04	0.0035	090.3785	075.7978	072.776
34.0	0.579	0.04	0.0033	087.8743	072.8511	072.861
35.0	0.563	0.04	0.0031	085.3701	069.9311	073.034
36.0	0.544	0.04	0.0029	082.5624	066.7944	073.471
37.0	0.526	0.04	0.0027	079.7547	063.6949	074.002
38.0	0.507	0.04	0.0025	076.9469	060.6350	074.627
39.0	0.489	0.04	0.0023	074.1392	057.6170	075.343
40.0	0.470	0.04	0.0022	071.3315	054.6431	076.149
41.0	0.448	0.04	0.0020	067.9926	051.3146	077.393
42.0	0.426	0.04	0.0018	064.6536	048.0470	078.738
43.0	0.404	0.04	0.0016	061.3147	044.8427	080.183
44.0	0.382	0.04	0.0014	057.9758	041.7043	081.727
45.0	0.360	0.04	0.0013	054.6369	038.6341	083.366
46.0	0.338	0.04	0.0011	051.2980	035.6346	085.099
47.0	0.316	0.04	0.0010	047.9590	032.7080	086.925
48.0	0.294	0.04	0.0008	044.6201	029.8567	088.841
49.0	0.272	0.04	0.0007	041.2812	027.0829	090.845
50.0	0.250	0.04	0.0006	037.9423	024.3888	092.935
51.0	0.231	0.04	0.0005	035.0587	022.0631	094.754
52.0	0.212	0.04	0.0004	032.1750	019.8089	096.646
53.0	0.193	0.04	0.0004	029.2914	017.6280	098.607
54.0	0.174	0.04	0.0003	026.4078	015.5221	100.636
55.0	0.155	0.04	0.0002	023.5242	013.4929	102.730
56.0	0.141	0.04	0.0002	021.3994	011.9664	104.259
57.0	0.127	0.04	0.0002	019.2747	010.4977	105.835
58.0	0.113	0.04	0.0001	017.1499	009.0881	107.456
59.0	0.099	0.04	0.0001	015.0251	007.7385	109.121
60.0	0.085	0.04	0.0001	012.9004	006.4502	110.828
61.0	0.077	0.04	0.0001	011.6862	005.6656	111.779
62.0	0.069	0.04	0.0000	010.4721	004.9163	112.754
63.0	0.061	0.04	0.0000	009.2579	004.2030	113.751
64.0	0.053	0.04	0.0000	008.0438	003.5262	114.770
65.0	0.045	0.04	0.0000	006.8296	002.8863	115.810
66.0	0.040	0.04	0.0000	006.0708	002.4692	116.454
67.0	0.035	0.04	0.0000	005.3119	002.0755	117.110
68.0	0.030	0.04	0.0000	004.5531	001.7056	117.778
69.0	0.025	0.04	0.0000	003.7942	001.3597	118.458
70.0	0.020	0.04	0.0000	003.0354	001.0382	119.148
71.0	0.018	0.04	0.0000	002.7318	000.8894	119.417
72.0	0.016	0.04	0.0000	002.4283	000.7504	119.691
73.0	0.014	0.04	0.0000	002.1248	000.6212	119.968
74.0	0.012	0.04	0.0000	001.8212	000.5020	120.249
75.0	0.010	0.04	0.0000	001.5177	000.3928	120.534
76.0	0.010	0.04	0.0000	001.5177	000.3672	120.527
77.0	0.010	0.04	0.0000	001.5177	000.3414	120.521
78.0	0.010	0.04	0.0000	001.5177	000.3155	120.515
79.0	0.010	0.04	0.0000	001.5177	000.2896	120.510
80.0	0.010	0.04	0.0000	001.5177	000.2635	120.505
81.0	0.010	0.04	0.0000	001.5177	000.2374	120.501
82.0	0.010	0.04	0.0000	001.5177	000.2112	120.497
83.0	0.010	0.04	0.0000	001.5177	000.1850	120.494
84.0	0.010	0.04	0.0000	001.5177	000.1586	120.491
85.0	0.010	0.04	0.0000	001.5177	000.1323	120.488
86.0	0.010	0.04	0.0000	001.5177	000.1059	120.486
87.0	0.010	0.04	0.0000	001.5177	000.0794	120.484
88.0	0.010	0.04	0.0000	001.5177	000.0530	120.483
89.0	0.010	0.04	0.0000	001.5177	000.0265	120.483
90.0	0.010	0.04	0.0000	001.5177	000.0000	120.482



Point E
House

W279BU.C San Juan, PR, Base Elev= 543m, Ant AG = 47 m

74.1204(d) Showing

Translator Maximum Licensed ERP = 0.25 (Point E elev= 463m, delta= 80m, Eff. Ant AG= 127m)

Translator Antenna Height AG = 127 Meters

W279BU.C Antenna Model = CL-FM_FM_Vpol

Protected Station's Contour = 63.18638 dBu

Translator's or LPFM's full Interference contour 103.18638

Review Azimuth = 171.8 Degrees True

Relative Field on the horizon at Review Azimuth = 0.039

Translator/LPFM ERP on the horizon at Review Azimuth = 0.0 kW

Distance between stations = 58.2 km

Protected Station= **WERR**, 50 kW, 672 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	0.04	0.0098	151.7691	151.7691	127.000
01.0	0.996	0.04	0.0097	151.1620	151.1390	124.362
02.0	0.992	0.04	0.0096	150.5549	150.4632	121.746
03.0	0.988	0.04	0.0095	149.9479	149.7424	119.152
04.0	0.984	0.04	0.0094	149.3408	148.9770	116.583
05.0	0.980	0.04	0.0094	148.7337	148.1677	114.037
06.0	0.974	0.04	0.0092	147.8231	147.0133	111.548
07.0	0.968	0.04	0.0091	146.9125	145.8174	109.096
08.0	0.962	0.04	0.0090	146.0019	144.5810	106.680
09.0	0.956	0.04	0.0089	145.0912	143.3049	104.303
10.0	0.950	0.04	0.0088	144.1806	141.9902	101.963
11.0	0.939	0.04	0.0086	142.5112	139.8928	99.808
12.0	0.928	0.04	0.0084	140.8417	137.7640	97.717
13.0	0.917	0.04	0.0082	139.1722	135.6053	95.693
14.0	0.906	0.04	0.0080	137.5028	133.4184	93.735
15.0	0.895	0.04	0.0078	135.8333	131.2049	91.844
16.0	0.880	0.04	0.0076	133.5568	128.3830	90.187
17.0	0.865	0.04	0.0073	131.2803	125.5439	88.617
18.0	0.850	0.04	0.0070	129.0037	122.6898	87.136
19.0	0.835	0.04	0.0068	126.7272	119.8229	85.742
20.0	0.820	0.04	0.0066	124.4506	116.9454	84.435
21.0	0.803	0.04	0.0063	121.8706	113.7760	83.325
22.0	0.786	0.04	0.0060	119.2905	110.6042	82.313
23.0	0.769	0.04	0.0058	116.7104	107.4325	81.398
24.0	0.752	0.04	0.0055	114.1303	104.2633	80.579

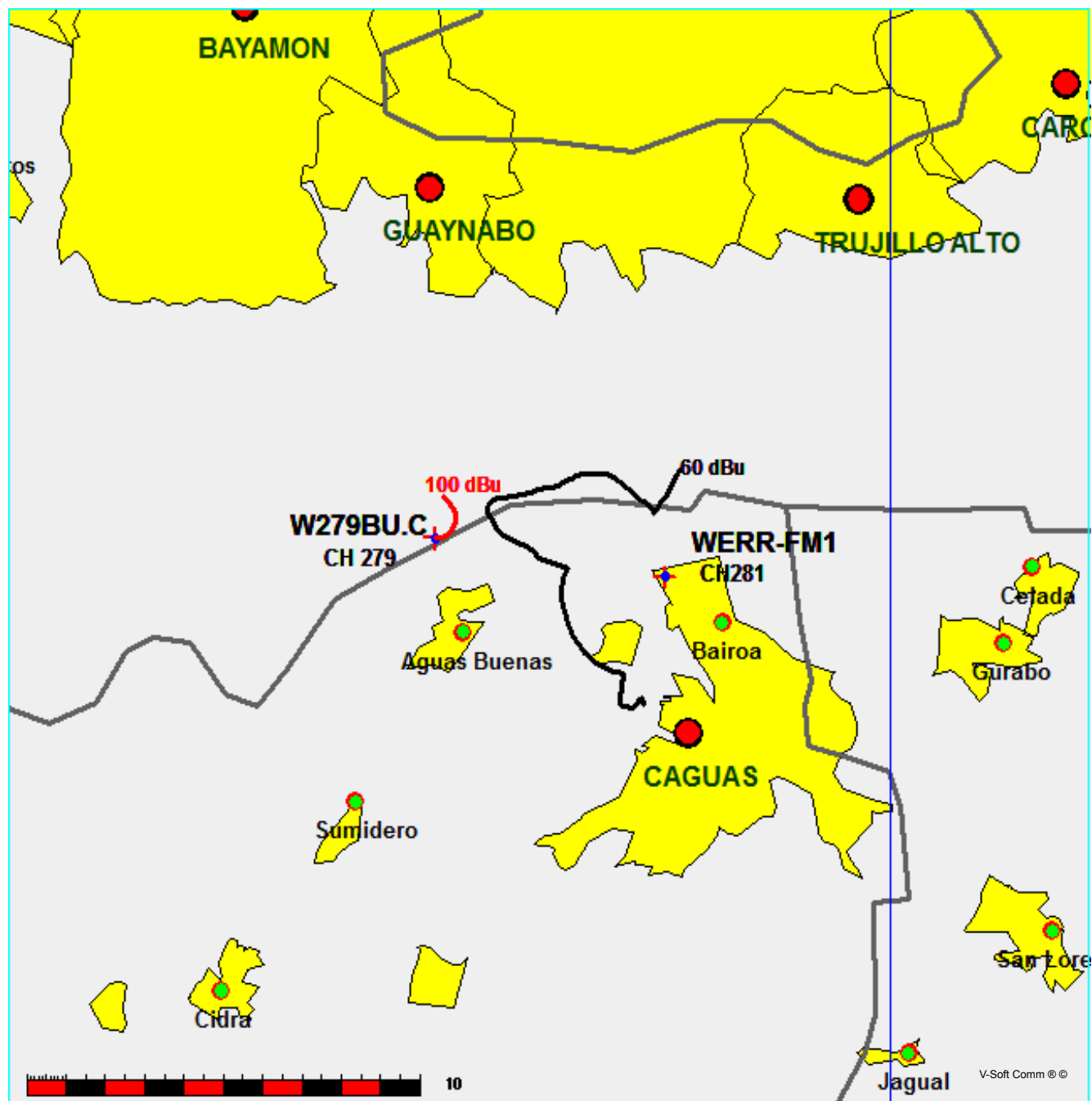
25.0	0.735	0.04	0.0053	111.5503	101.0989	079.857
26.0	0.717	0.04	0.0050	108.8184	097.8054	079.297
27.0	0.699	0.04	0.0048	106.0866	094.5238	078.838
28.0	0.681	0.04	0.0045	103.3547	091.2568	078.478
29.0	0.663	0.04	0.0043	100.6229	088.0068	078.217
30.0	0.645	0.04	0.0041	097.8911	084.7761	078.054
31.0	0.629	0.04	0.0039	095.3869	081.7625	077.872
32.0	0.612	0.04	0.0037	092.8827	078.7690	077.780
33.0	0.596	0.04	0.0035	090.3785	075.7978	077.776
34.0	0.579	0.04	0.0033	087.8743	072.8511	077.861
35.0	0.563	0.04	0.0031	085.3701	069.9311	078.034
36.0	0.544	0.04	0.0029	082.5624	066.7944	078.471
37.0	0.526	0.04	0.0027	079.7547	063.6949	079.002
38.0	0.507	0.04	0.0025	076.9469	060.6350	079.627
39.0	0.489	0.04	0.0023	074.1392	057.6170	080.343
40.0	0.470	0.04	0.0022	071.3315	054.6431	081.149
41.0	0.448	0.04	0.0020	067.9926	051.3146	082.393
42.0	0.426	0.04	0.0018	064.6536	048.0470	083.738
43.0	0.404	0.04	0.0016	061.3147	044.8427	085.183
44.0	0.382	0.04	0.0014	057.9758	041.7043	086.727
45.0	0.360	0.04	0.0013	054.6369	038.6341	088.366
46.0	0.338	0.04	0.0011	051.2980	035.6346	090.099
47.0	0.316	0.04	0.0010	047.9590	032.7080	091.925
48.0	0.294	0.04	0.0008	044.6201	029.8567	093.841
49.0	0.272	0.04	0.0007	041.2812	027.0829	095.845
50.0	0.250	0.04	0.0006	037.9423	024.3888	097.935
51.0	0.231	0.04	0.0005	035.0587	022.0631	099.754
52.0	0.212	0.04	0.0004	032.1750	019.8089	101.646
53.0	0.193	0.04	0.0004	029.2914	017.6280	103.607
54.0	0.174	0.04	0.0003	026.4078	015.5221	105.636
55.0	0.155	0.04	0.0002	023.5242	013.4929	107.730
56.0	0.141	0.04	0.0002	021.3994	011.9664	109.259
57.0	0.127	0.04	0.0002	019.2747	010.4977	110.835
58.0	0.113	0.04	0.0001	017.1499	009.0881	112.456
59.0	0.099	0.04	0.0001	015.0251	007.7385	114.121
60.0	0.085	0.04	0.0001	012.9004	006.4502	115.828
61.0	0.077	0.04	0.0001	011.6862	005.6656	116.779
62.0	0.069	0.04	0.0000	010.4721	004.9163	117.754
63.0	0.061	0.04	0.0000	009.2579	004.2030	118.751
64.0	0.053	0.04	0.0000	008.0438	003.5262	119.770
65.0	0.045	0.04	0.0000	006.8296	002.8863	120.810
66.0	0.040	0.04	0.0000	006.0708	002.4692	121.454
67.0	0.035	0.04	0.0000	005.3119	002.0755	122.110
68.0	0.030	0.04	0.0000	004.5531	001.7056	122.778
69.0	0.025	0.04	0.0000	003.7942	001.3597	123.458
70.0	0.020	0.04	0.0000	003.0354	001.0382	124.148
71.0	0.018	0.04	0.0000	002.7318	000.8894	124.417
72.0	0.016	0.04	0.0000	002.4283	000.7504	124.691
73.0	0.014	0.04	0.0000	002.1248	000.6212	124.968
74.0	0.012	0.04	0.0000	001.8212	000.5020	125.249
75.0	0.010	0.04	0.0000	001.5177	000.3928	125.534
76.0	0.010	0.04	0.0000	001.5177	000.3672	125.527
77.0	0.010	0.04	0.0000	001.5177	000.3414	125.521
78.0	0.010	0.04	0.0000	001.5177	000.3155	125.515
79.0	0.010	0.04	0.0000	001.5177	000.2896	125.510
80.0	0.010	0.04	0.0000	001.5177	000.2635	125.505
81.0	0.010	0.04	0.0000	001.5177	000.2374	125.501
82.0	0.010	0.04	0.0000	001.5177	000.2112	125.497
83.0	0.010	0.04	0.0000	001.5177	000.1850	125.494
84.0	0.010	0.04	0.0000	001.5177	000.1586	125.491
85.0	0.010	0.04	0.0000	001.5177	000.1323	125.488
86.0	0.010	0.04	0.0000	001.5177	000.1059	125.486
87.0	0.010	0.04	0.0000	001.5177	000.0794	125.484
88.0	0.010	0.04	0.0000	001.5177	000.0530	125.483
89.0	0.010	0.04	0.0000	001.5177	000.0265	125.483
90.0	0.010	0.04	0.0000	001.5177	000.0000	125.482

Allocation Map, W29BU.C vs WERR-FM1
Aurio A. Matos Barreto

FMCommander Single Allocation Study - 08-22-2016 - GLOBE 30 Sec
W29BU.C's Overlaps (In= -2.44 km, Out= 0.97 km)

W29BU.C CH 279 D DA
Lat= 18 16 49.3, Lng= 66 06 35.3
0.25 kW 340.2 m HAAT, 543 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WERR-FM1 CH 281 D DA BLFTB20060921ACG
Lat= 18 16 17.0, Lng= 66 03 16.0
0.006 kW 0 m HAAT, 357 m COR
Prot.= 60 dBu, Intef.= 100 dBu



08-22-2016

Terrain Data: GLOBE 30 Sec

FMOver Analysis

WERR-FM1 BLFTB20060921ACG

W279BU.C

Channel = 281D

Max ERP = 0.006 kW

RCAMSL = 357 m

N. Lat. 18 16 17.0

W. Lng. 66 03 16.0

Protected

60 dBu

Channel = 279D

Max ERP = 0.25 kW

RCAMSL = 543 m

N. Lat. 18 16 49.3

W. Lng. 66 06 35.3

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
220.0	000.0058	-0018.8	002.8	127.6	000.0004	0412.0	005.1	56.61	
221.0	000.0058	-0014.7	002.8	127.6	000.0004	0412.0	005.1	56.72	
222.0	000.0058	-0011.6	002.8	127.5	000.0004	0412.1	005.0	56.83	
223.0	000.0059	-0009.0	002.8	127.5	000.0004	0412.2	005.0	56.95	
224.0	000.0059	-0007.1	002.8	127.5	000.0004	0412.4	004.9	57.06	
225.0	000.0059	-0006.2	002.8	127.4	000.0004	0412.6	004.9	57.18	
226.0	000.0059	-0006.2	002.8	127.4	000.0004	0412.8	004.8	57.29	
227.0	000.0059	-0007.1	002.8	127.3	000.0004	0413.1	004.8	57.41	
228.0	000.0059	-0007.7	002.8	127.2	000.0004	0413.6	004.7	57.53	
229.0	000.0059	-0007.2	002.8	127.1	000.0004	0414.1	004.7	57.65	
230.0	000.0060	-0005.3	002.8	127.0	000.0004	0414.8	004.6	57.77	
231.0	000.0059	-0004.7	002.8	126.8	000.0004	0416.0	004.6	57.89	
232.0	000.0059	-0006.3	002.8	126.6	000.0004	0417.3	004.5	58.01	
233.0	000.0059	-0010.2	002.8	126.4	000.0004	0418.7	004.5	58.14	
234.0	000.0058	-0014.1	002.8	126.2	000.0004	0420.2	004.5	58.26	
235.0	000.0058	-0017.0	002.8	126.0	000.0004	0421.9	004.4	58.39	
236.0	000.0058	-0017.5	002.8	125.7	000.0004	0423.7	004.4	58.51	
237.0	000.0058	-0015.5	002.8	125.5	000.0004	0425.5	004.3	58.64	
238.0	000.0057	-0012.2	002.8	125.2	000.0004	0427.2	004.3	58.76	
239.0	000.0057	-0009.4	002.8	124.9	000.0004	0428.7	004.2	58.88	
240.0	000.0057	-0007.3	002.8	124.6	000.0004	0430.1	004.2	58.99	
241.0	000.0057	-0006.1	002.8	124.2	000.0004	0431.2	004.2	59.11	
242.0	000.0056	-0006.2	002.8	123.9	000.0004	0431.9	004.1	59.21	
243.0	000.0056	-0007.0	002.7	123.5	000.0004	0432.3	004.1	59.32	
244.0	000.0055	-0008.8	002.7	123.1	000.0004	0432.4	004.0	59.42	
245.0	000.0055	-0007.0	002.7	122.7	000.0004	0432.4	004.0	59.52	
246.0	000.0054	-0000.2	002.7	122.2	000.0004	0432.0	004.0	59.62	
247.0	000.0054	0010.6	002.7	121.8	000.0004	0431.2	003.9	59.71	
248.0	000.0054	0021.7	002.7	121.3	000.0004	0430.1	003.9	59.80	
249.0	000.0053	0028.5	002.7	120.8	000.0004	0428.6	003.8	59.88	
250.0	000.0053	0030.4	002.7	120.5	000.0004	0427.3	003.8	59.99	
251.0	000.0053	0026.7	002.7	119.8	000.0004	0424.4	003.8	60.04	
252.0	000.0052	0018.6	002.7	119.3	000.0004	0422.2	003.7	60.12	
253.0	000.0052	0006.4	002.7	118.8	000.0004	0420.1	003.7	60.19	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
254.0	000.0052	-0008.0	002.7	118.3	000.0004	0418.0	003.7	60.27
255.0	000.0052	-0019.4	002.7	117.7	000.0004	0416.4	003.7	60.34
256.0	000.0052	-0022.5	002.7	117.1	000.0004	0415.1	003.6	60.42
257.0	000.0051	-0014.8	002.7	116.5	000.0004	0413.6	003.6	60.49
258.0	000.0051	-0003.8	002.7	115.9	000.0004	0411.4	003.6	60.55
259.0	000.0051	0007.0	002.7	115.3	000.0004	0408.8	003.5	60.61
260.0	000.0051	0012.4	002.7	114.6	000.0004	0405.7	003.5	60.83
261.0	000.0050	0008.1	002.7	113.9	000.0004	0402.6	003.5	61.17
262.0	000.0049	-0000.4	002.7	113.2	000.0005	0400.0	003.5	61.51
263.0	000.0048	-0012.0	002.7	112.4	000.0005	0398.9	003.5	61.73
264.0	000.0048	-0018.5	002.7	111.7	000.0005	0398.2	003.5	61.98
265.0	000.0047	-0018.8	002.6	110.9	000.0005	0396.8	003.4	62.30
266.0	000.0046	-0019.1	002.6	110.1	000.0006	0395.1	003.4	62.60
267.0	000.0045	-0017.6	002.6	109.4	000.0007	0393.8	003.4	63.23
268.0	000.0044	-0015.4	002.6	108.6	000.0008	0392.4	003.4	63.87
269.0	000.0044	-0013.4	002.6	107.8	000.0009	0391.6	003.4	64.48
270.0	000.0043	-0011.3	002.6	107.0	000.0010	0391.7	003.4	65.04
271.0	000.0042	-0008.5	002.6	106.2	000.0011	0392.6	003.4	65.68
272.0	000.0040	0000.1	002.5	105.4	000.0013	0394.3	003.4	66.19
273.0	000.0039	0009.3	002.5	104.6	000.0015	0396.0	003.4	66.73
274.0	000.0038	0018.5	002.5	103.8	000.0017	0397.5	003.4	67.30
275.0	000.0037	0027.2	002.5	103.1	000.0019	0398.9	003.5	67.83
276.0	000.0036	0036.5	002.7	102.8	000.0020	0399.3	003.2	68.70
277.0	000.0035	0045.3	003.0	102.4	000.0021	0399.7	003.0	69.85
278.0	000.0033	0052.9	003.2	101.7	000.0024	0400.7	002.7	71.19
279.0	000.0032	0057.0	003.3	100.6	000.0028	0403.9	002.6	72.26
280.0	000.0031	0058.8	003.3	099.3	000.0033	0411.1	002.6	73.17
281.0	000.0030	0063.3	003.4	097.9	000.0041	0418.7	002.5	74.37
282.0	000.0028	0073.7	003.6	096.1	000.0053	0425.7	002.3	76.23
283.0	000.0027	0090.2	003.9	093.2	000.0072	0430.1	002.0	78.90
284.0	000.0025	0107.2	004.2	089.2	000.0101	0403.6	001.7	81.57
285.0	000.0024	0121.1	004.4	084.8	000.0132	0358.4	001.6	83.38
286.0	000.0023	0130.6	004.5	081.1	000.0163	0385.5	001.5	84.51
287.0	000.0022	0139.0	004.6	077.3	000.0202	0412.3	001.5	85.60
288.0	000.0020	0148.2	004.6	073.2	000.0262	0438.7	001.5	86.85
289.0	000.0019	0159.8	004.7	068.3	000.0366	0444.1	001.5	89.21
290.0	000.0018	0172.3	004.8	063.5	000.0500	0431.8	001.5	90.61
291.0	000.0017	0183.0	004.9	060.6	000.0599	0423.2	001.5	90.40
292.0	000.0016	0192.6	004.8	058.9	000.0656	0423.0	001.6	90.45
293.0	000.0014	0200.2	004.8	058.1	000.0681	0423.6	001.7	90.21
294.0	000.0013	0205.5	004.7	058.3	000.0676	0423.4	001.8	89.70
295.0	000.0012	0208.7	004.7	059.2	000.0646	0422.8	001.9	88.97
296.0	000.0011	0210.3	004.5	060.6	000.0600	0423.2	002.0	88.07
297.0	000.0010	0211.7	004.4	061.9	000.0554	0425.8	002.2	87.17
298.0	000.0009	0213.9	004.3	063.0	000.0514	0430.1	002.3	86.34
299.0	000.0009	0217.3	004.2	064.1	000.0479	0434.2	002.4	85.54
300.0	000.0008	0221.0	004.1	065.2	000.0443	0438.6	002.5	84.72
301.0	000.0007	0224.0	004.1	065.2	000.0445	0438.3	002.6	84.41
302.0	000.0007	0226.5	004.0	065.3	000.0442	0438.6	002.7	84.06
303.0	000.0007	0229.4	004.0	065.3	000.0441	0438.9	002.8	83.74
304.0	000.0006	0232.3	003.9	065.5	000.0437	0439.4	002.9	83.41

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
305.0	000.0006	0234.4	003.9		065.7	000.0429	0440.4	002.9	83.03
306.0	000.0006	0235.5	003.8		066.2	000.0419	0441.7	003.0	82.63
307.0	000.0005	0236.3	003.7		066.6	000.0406	0442.9	003.1	82.23
308.0	000.0005	0238.4	003.7		067.1	000.0395	0443.7	003.2	81.84
309.0	000.0005	0242.3	003.6		067.6	000.0384	0444.2	003.3	81.47
310.0	000.0004	0248.2	003.5		068.0	000.0372	0444.2	003.4	81.10
311.0	000.0004	0254.5	003.5		067.7	000.0381	0444.2	003.4	81.04
312.0	000.0004	0260.3	003.5		067.4	000.0388	0444.0	003.5	80.95
313.0	000.0004	0265.0	003.5		067.2	000.0393	0443.8	003.6	80.84
314.0	000.0004	0268.5	003.5		067.0	000.0397	0443.6	003.6	80.71
315.0	000.0004	0271.0	003.5		067.0	000.0399	0443.5	003.7	80.56
316.0	000.0004	0272.6	003.4		066.9	000.0399	0443.5	003.8	80.40
317.0	000.0004	0273.9	003.4		067.0	000.0399	0443.5	003.8	80.23
318.0	000.0004	0275.1	003.4		067.0	000.0398	0443.6	003.9	80.05
319.0	000.0004	0276.4	003.4		067.1	000.0396	0443.7	004.0	79.87
320.0	000.0004	0278.1	003.3		067.1	000.0395	0443.8	004.0	79.69
321.0	000.0003	0280.4	003.3		067.3	000.0389	0444.0	004.1	79.46
322.0	000.0003	0282.9	003.3		067.6	000.0384	0444.2	004.1	79.24
323.0	000.0003	0285.3	003.2		067.8	000.0378	0444.2	004.2	79.01
324.0	000.0003	0287.7	003.2		068.1	000.0371	0444.2	004.3	78.78
325.0	000.0003	0289.4	003.2		068.4	000.0364	0444.1	004.3	78.54
326.0	000.0003	0290.1	003.1		068.7	000.0356	0443.8	004.4	78.29
327.0	000.0003	0289.7	003.1		069.1	000.0348	0443.4	004.5	78.03
328.0	000.0003	0287.8	003.0		069.5	000.0337	0443.1	004.5	77.75
329.0	000.0003	0285.2	003.0		069.9	000.0327	0443.0	004.6	77.47
330.0	000.0003	0282.3	003.0		070.3	000.0319	0442.9	004.6	77.23
331.0	000.0002	0279.7	002.9		071.1	000.0302	0442.5	004.7	76.84
332.0	000.0002	0278.4	002.8		071.9	000.0287	0441.5	004.8	76.47
333.0	000.0002	0278.4	002.7		072.7	000.0271	0440.0	004.8	76.06
334.0	000.0002	0279.4	002.6		073.6	000.0256	0437.8	004.9	75.66
335.0	000.0002	0280.4	002.6		074.4	000.0240	0434.5	004.9	75.23
336.0	000.0002	0280.8	002.5		075.3	000.0226	0428.8	005.0	74.78
337.0	000.0002	0281.0	002.4		076.1	000.0216	0422.4	005.1	74.41
338.0	000.0001	0280.6	002.3		077.0	000.0206	0415.4	005.1	74.02
339.0	000.0001	0279.3	002.2		077.9	000.0196	0407.2	005.2	73.60

Allocation Map, W279BU.C vs W279BV (CP)
Aurio A. Matos Barreto

FMCommander Single Allocation Study - 08-22-2016 - GLOBE 30 Sec
W279BU.C's Overlaps (In= 47.2 km, Out= 7.32 km)

W279BU.C CH 279 D DA
Lat= 18 16 49.3, Lng= 66 06 35.3
0.25 kW 340.2 m HAAT, 543 m COR
Prot.= 60 dBu, Intef.= 40 dBu

W279BV CH 279 D DA BPFT20150330AAG
Lat= 18 29 01.5, Lng= 66 46 44.1
0.25 kW 0 m HAAT, 79 m COR
Prot.= 60 dBu, Intef.= 40 dBu



08-22-2016

Terrain Data: GLOBE 30 Sec

FMOver Analysis

W279BV BPFT20150330AAG

W279BU.C

Channel = 279D

Max ERP = 0.25 kW

RCAMSL = 79 m

N. Lat. 18 29 01.5

W. Lng. 66 46 44.1

Protected

60 dBu

Channel = 279D

Max ERP = 0.25 kW

RCAMSL = 543 m

N. Lat. 18 16 49.3

W. Lng. 66 06 35.3

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
048.0	000.0821	0079.0	008.7	294.0	000.0895	0377.1	070.1	37.38	
049.0	000.0780	0079.0	008.6	293.9	000.0891	0376.3	070.0	37.36	
050.0	000.0740	0079.0	008.5	293.7	000.0887	0375.4	070.0	37.34	
051.0	000.0699	0079.0	008.4	293.6	000.0882	0374.5	069.9	37.32	
052.0	000.0658	0079.0	008.2	293.4	000.0878	0373.6	069.8	37.30	
053.0	000.0620	0079.0	008.1	293.3	000.0873	0372.8	069.8	37.27	
054.0	000.0582	0079.0	007.9	293.1	000.0868	0372.0	069.7	37.24	
055.0	000.0545	0079.0	007.8	293.0	000.0864	0371.2	069.7	37.21	
056.0	000.0510	0079.0	007.7	292.8	000.0859	0370.4	069.6	37.18	
057.0	000.0476	0079.0	007.5	292.7	000.0855	0369.6	069.6	37.14	
058.0	000.0443	0079.0	007.4	292.5	000.0850	0368.7	069.6	37.10	
059.0	000.0411	0079.0	007.3	292.4	000.0846	0367.9	069.5	37.06	
060.0	000.0380	0079.0	007.1	292.2	000.0842	0367.1	069.5	37.02	
061.0	000.0342	0079.0	007.0	292.0	000.0836	0366.0	069.5	36.96	
062.0	000.0306	0079.0	006.8	291.9	000.0831	0365.0	069.6	36.89	
063.0	000.0272	0079.0	006.6	291.7	000.0826	0364.0	069.6	36.82	
064.0	000.0240	0079.0	006.4	291.5	000.0821	0363.0	069.6	36.74	
065.0	000.0210	0079.0	006.2	291.3	000.0816	0362.0	069.7	36.66	
066.0	000.0182	0079.0	006.0	291.1	000.0810	0361.1	069.8	36.57	
067.0	000.0156	0079.0	005.8	291.0	000.0805	0360.2	069.9	36.49	
068.0	000.0132	0079.0	005.5	290.8	000.0799	0359.3	070.0	36.39	
069.0	000.0110	0079.0	005.3	290.6	000.0793	0358.4	070.1	36.29	
070.0	000.0090	0079.0	005.0	290.4	000.0787	0357.5	070.2	36.18	
071.0	000.0077	0079.0	004.8	290.2	000.0783	0356.7	070.3	36.09	
072.0	000.0066	0079.0	004.6	290.1	000.0778	0355.9	070.4	36.00	
073.0	000.0055	0079.0	004.4	289.9	000.0773	0355.1	070.5	35.90	
074.0	000.0045	0079.0	004.2	289.8	000.0767	0354.2	070.7	35.79	
075.0	000.0036	0079.0	004.0	289.6	000.0762	0353.3	070.8	35.68	
076.0	000.0028	0079.0	003.7	289.4	000.0757	0352.4	071.0	35.56	
077.0	000.0021	0079.0	003.5	289.3	000.0752	0351.4	071.2	35.43	
078.0	000.0015	0079.0	003.2	289.1	000.0747	0350.4	071.4	35.29	
079.0	000.0010	0079.0	002.9	289.0	000.0741	0349.5	071.6	35.14	
080.0	000.0006	0079.0	002.5	288.8	000.0735	0348.5	071.9	34.97	
081.0	000.0006	0079.0	002.5	288.7	000.0734	0348.2	071.9	34.94	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
082.0	000.0005	0079.0	002.4	288.7	000.0732	0347.9	072.0	34.91
083.0	000.0005	0079.0	002.4	288.7	000.0730	0347.6	072.0	34.88
084.0	000.0004	0078.8	002.3	288.6	000.0729	0347.3	072.0	34.85
085.0	000.0004	0078.4	002.2	288.6	000.0727	0347.0	072.1	34.82
086.0	000.0004	0078.1	002.2	288.5	000.0725	0346.7	072.1	34.78
087.0	000.0003	0077.6	002.1	288.5	000.0724	0346.4	072.2	34.74
088.0	000.0003	0077.4	002.0	288.4	000.0722	0346.1	072.2	34.71
089.0	000.0003	0077.3	002.0	288.4	000.0720	0345.8	072.3	34.67
090.0	000.0002	0077.1	001.9	288.3	000.0719	0345.5	072.3	34.63
091.0	000.0002	0077.0	001.9	288.3	000.0718	0345.4	072.3	34.62
092.0	000.0002	0077.0	001.9	288.3	000.0717	0345.2	072.3	34.62
093.0	000.0002	0077.0	001.9	288.2	000.0716	0345.1	072.3	34.61
094.0	000.0002	0077.0	001.9	288.2	000.0715	0344.9	072.3	34.60
095.0	000.0002	0076.8	001.9	288.2	000.0714	0344.7	072.3	34.59
096.0	000.0002	0076.6	001.9	288.2	000.0714	0344.5	072.3	34.58
097.0	000.0002	0076.4	001.9	288.1	000.0713	0344.3	072.3	34.57
098.0	000.0002	0076.1	001.9	288.1	000.0712	0344.1	072.3	34.56
099.0	000.0002	0075.4	001.9	288.1	000.0711	0343.9	072.3	34.54
100.0	000.0002	0074.5	001.9	288.1	000.0710	0343.7	072.3	34.53
101.0	000.0002	0073.7	001.9	288.0	000.0709	0343.5	072.3	34.52
102.0	000.0002	0072.6	001.9	288.0	000.0708	0343.3	072.3	34.50
103.0	000.0002	0071.1	001.9	288.0	000.0707	0343.1	072.3	34.49
104.0	000.0002	0069.4	001.8	288.0	000.0706	0342.8	072.3	34.47
105.0	000.0002	0067.9	001.8	287.9	000.0705	0342.6	072.3	34.45
106.0	000.0002	0066.5	001.8	287.9	000.0704	0342.4	072.3	34.44
107.0	000.0002	0064.6	001.8	287.9	000.0704	0342.2	072.3	34.42
108.0	000.0002	0062.5	001.8	287.9	000.0703	0342.0	072.3	34.40
109.0	000.0002	0059.5	001.8	287.8	000.0702	0341.8	072.4	34.38
110.0	000.0002	0056.1	001.7	287.8	000.0701	0341.6	072.4	34.36
111.0	000.0002	0052.8	001.7	287.8	000.0700	0341.5	072.5	34.33
112.0	000.0002	0050.6	001.6	287.8	000.0700	0341.3	072.5	34.30
113.0	000.0002	0049.9	001.6	287.7	000.0699	0341.1	072.5	34.28
114.0	000.0002	0049.7	001.6	287.7	000.0698	0340.9	072.5	34.27
115.0	000.0002	0049.6	001.6	287.7	000.0697	0340.7	072.5	34.26
116.0	000.0002	0048.5	001.6	287.7	000.0697	0340.5	072.5	34.24
117.0	000.0002	0046.8	001.6	287.7	000.0696	0340.4	072.6	34.22
118.0	000.0002	0044.1	001.6	287.6	000.0695	0340.1	072.5	34.22
119.0	000.0002	0040.7	001.6	287.6	000.0694	0339.9	072.6	34.20
120.0	000.0002	0037.1	001.6	287.6	000.0694	0339.7	072.6	34.19
121.0	000.0002	0034.0	001.6	287.6	000.0693	0339.5	072.6	34.17
122.0	000.0002	0031.3	001.6	287.6	000.0692	0339.3	072.6	34.16
123.0	000.0002	0029.0	001.6	287.5	000.0691	0339.1	072.6	34.15
124.0	000.0002	0027.3	001.6	287.5	000.0691	0338.9	072.6	34.13
125.0	000.0002	0026.3	001.6	287.5	000.0690	0338.7	072.6	34.12
126.0	000.0002	0025.6	001.6	287.5	000.0689	0338.5	072.6	34.10
127.0	000.0002	0023.8	001.6	287.4	000.0689	0338.3	072.6	34.09
128.0	000.0002	0020.4	001.6	287.4	000.0688	0338.1	072.6	34.07
129.0	000.0002	0016.0	001.6	287.4	000.0687	0337.9	072.6	34.06
130.0	000.0002	0012.4	001.6	287.4	000.0686	0337.7	072.6	34.04
131.0	000.0002	0011.0	001.6	287.4	000.0686	0337.5	072.7	34.03
132.0	000.0002	0011.4	001.6	287.3	000.0685	0337.3	072.7	34.01

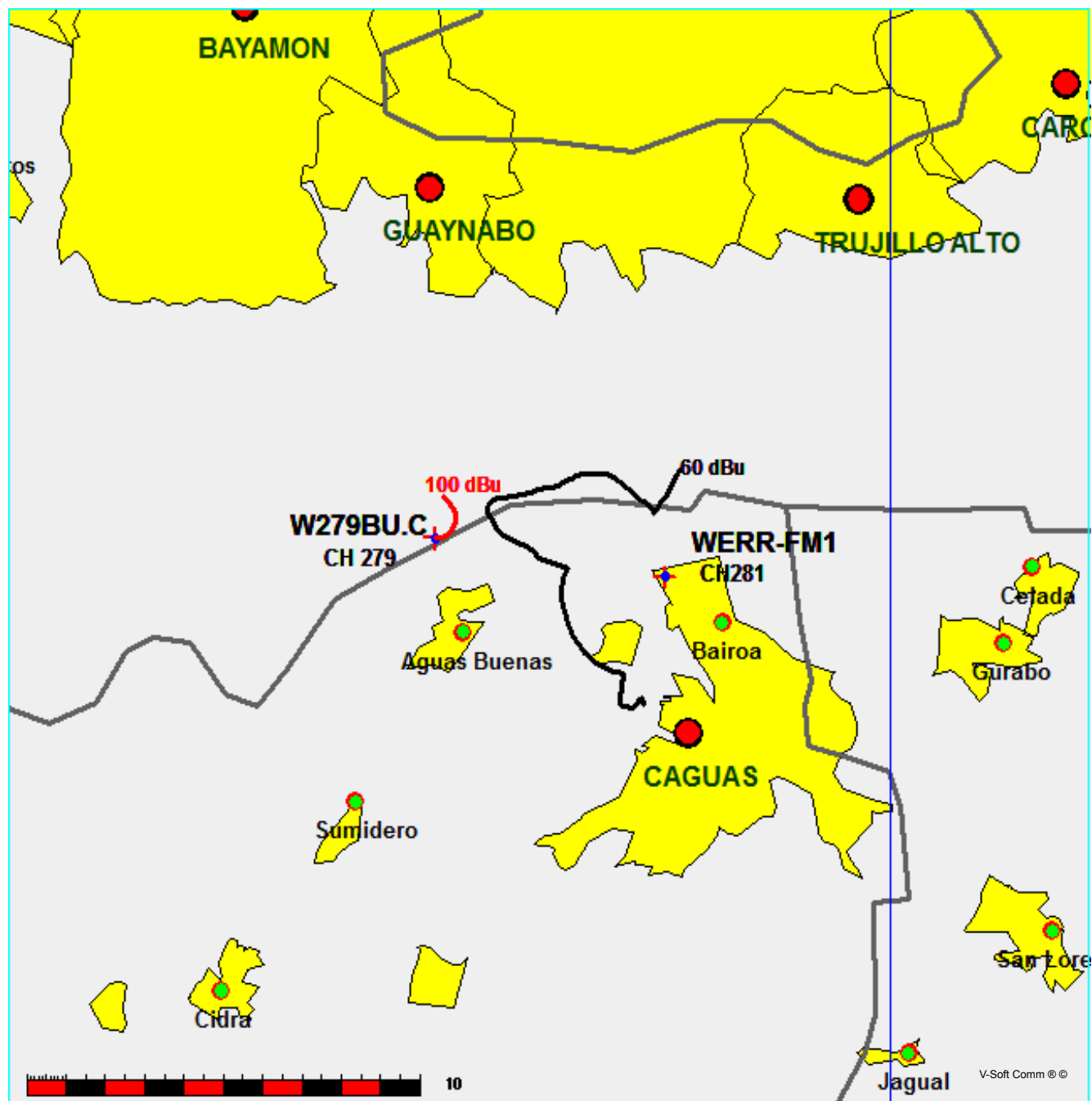
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
133.0	000.0002	0012.9	001.6		287.3	000.0684	0337.1	072.7	34.00
134.0	000.0002	0013.3	001.6		287.3	000.0684	0336.9	072.7	33.98
135.0	000.0002	0009.6	001.6		287.3	000.0683	0336.7	072.7	33.97
136.0	000.0002	0000.5	001.6		287.3	000.0682	0336.5	072.7	33.95
137.0	000.0002	-0011.0	001.6		287.2	000.0682	0336.4	072.7	33.94
138.0	000.0002	-0022.1	001.6		287.2	000.0681	0336.2	072.7	33.92
139.0	000.0002	-0031.7	001.6		287.2	000.0680	0336.0	072.8	33.90
140.0	000.0002	-0040.6	001.6		287.2	000.0680	0335.8	072.8	33.89
141.0	000.0002	-0048.3	001.6		287.2	000.0679	0335.6	072.8	33.87
142.0	000.0002	-0054.4	001.6		287.2	000.0679	0335.4	072.8	33.86
143.0	000.0002	-0058.6	001.6		287.1	000.0678	0335.2	072.8	33.84
144.0	000.0002	-0061.2	001.6		287.1	000.0677	0335.0	072.8	33.82
145.0	000.0002	-0063.8	001.6		287.1	000.0677	0334.8	072.9	33.81
146.0	000.0002	-0067.1	001.6		287.1	000.0676	0334.6	072.9	33.79
147.0	000.0002	-0069.8	001.6		287.1	000.0676	0334.5	072.9	33.77
148.0	000.0002	-0071.2	001.6		287.0	000.0675	0334.3	072.9	33.76
149.0	000.0002	-0071.7	001.6		287.0	000.0674	0334.1	072.9	33.74
150.0	000.0002	-0072.7	001.6		287.0	000.0674	0333.9	072.9	33.73
151.0	000.0002	-0074.6	001.6		287.0	000.0673	0333.8	073.0	33.71
152.0	000.0002	-0076.4	001.6		287.0	000.0673	0333.6	073.0	33.69
153.0	000.0002	-0077.8	001.6		287.0	000.0672	0333.4	073.0	33.68
154.0	000.0002	-0079.0	001.6		287.0	000.0672	0333.3	073.0	33.66
155.0	000.0002	-0080.6	001.6		286.9	000.0671	0333.1	073.0	33.65
156.0	000.0002	-0082.4	001.6		286.9	000.0671	0333.0	073.1	33.63
157.0	000.0002	-0084.0	001.6		286.9	000.0671	0332.8	073.1	33.62
158.0	000.0002	-0085.9	001.6		286.9	000.0670	0332.7	073.1	33.60
159.0	000.0002	-0088.6	001.6		286.9	000.0670	0332.5	073.1	33.58
160.0	000.0002	-0092.0	001.6		286.9	000.0669	0332.4	073.2	33.57
161.0	000.0002	-0095.7	001.6		286.9	000.0669	0332.3	073.2	33.55
162.0	000.0002	-0099.0	001.6		286.8	000.0669	0332.1	073.2	33.54
163.0	000.0002	-0102.3	001.6		286.8	000.0668	0332.0	073.2	33.52
164.0	000.0002	-0104.6	001.6		286.8	000.0668	0331.9	073.2	33.51
165.0	000.0002	-0106.7	001.6		286.8	000.0667	0331.7	073.3	33.49
166.0	000.0002	-0107.3	001.6		286.8	000.0667	0331.6	073.3	33.48
167.0	000.0002	-0107.7	001.6		286.8	000.0667	0331.5	073.3	33.46

Allocation Map, W279BU.C vs WERR-FM1
Aurio A. Matos Barreto

FMCommander Single Allocation Study - 08-22-2016 - GLOBE 30 Sec
W279BU.C's Overlaps (In= -2.44 km, Out= 0.97 km)

W279BU.C CH 279 D DA
Lat= 18 16 49.3, Lng= 66 06 35.3
0.25 kW 340.2 m HAAT, 543 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WERR-FM1 CH 281 D DA BLFTB20060921ACG
Lat= 18 16 17.0, Lng= 66 03 16.0
0.006 kW 0 m HAAT, 357 m COR
Prot.= 60 dBu, Intef.= 100 dBu



08-22-2016

Terrain Data: GLOBE 30 Sec

FMOver Analysis

WERR-FM1 BLFTB20060921ACG

W279BU.C

Channel = 281D

Max ERP = 0.006 kW

RCAMSL = 357 m

N. Lat. 18 16 17.0

W. Lng. 66 03 16.0

Protected

60 dBu

Channel = 279D

Max ERP = 0.25 kW

RCAMSL = 543 m

N. Lat. 18 16 49.3

W. Lng. 66 06 35.3

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
220.0	000.0058	-0018.8	002.8	127.6	000.0004	0412.0	005.1	56.61	
221.0	000.0058	-0014.7	002.8	127.6	000.0004	0412.0	005.1	56.72	
222.0	000.0058	-0011.6	002.8	127.5	000.0004	0412.1	005.0	56.83	
223.0	000.0059	-0009.0	002.8	127.5	000.0004	0412.2	005.0	56.95	
224.0	000.0059	-0007.1	002.8	127.5	000.0004	0412.4	004.9	57.06	
225.0	000.0059	-0006.2	002.8	127.4	000.0004	0412.6	004.9	57.18	
226.0	000.0059	-0006.2	002.8	127.4	000.0004	0412.8	004.8	57.29	
227.0	000.0059	-0007.1	002.8	127.3	000.0004	0413.1	004.8	57.41	
228.0	000.0059	-0007.7	002.8	127.2	000.0004	0413.6	004.7	57.53	
229.0	000.0059	-0007.2	002.8	127.1	000.0004	0414.1	004.7	57.65	
230.0	000.0060	-0005.3	002.8	127.0	000.0004	0414.8	004.6	57.77	
231.0	000.0059	-0004.7	002.8	126.8	000.0004	0416.0	004.6	57.89	
232.0	000.0059	-0006.3	002.8	126.6	000.0004	0417.3	004.5	58.01	
233.0	000.0059	-0010.2	002.8	126.4	000.0004	0418.7	004.5	58.14	
234.0	000.0058	-0014.1	002.8	126.2	000.0004	0420.2	004.5	58.26	
235.0	000.0058	-0017.0	002.8	126.0	000.0004	0421.9	004.4	58.39	
236.0	000.0058	-0017.5	002.8	125.7	000.0004	0423.7	004.4	58.51	
237.0	000.0058	-0015.5	002.8	125.5	000.0004	0425.5	004.3	58.64	
238.0	000.0057	-0012.2	002.8	125.2	000.0004	0427.2	004.3	58.76	
239.0	000.0057	-0009.4	002.8	124.9	000.0004	0428.7	004.2	58.88	
240.0	000.0057	-0007.3	002.8	124.6	000.0004	0430.1	004.2	58.99	
241.0	000.0057	-0006.1	002.8	124.2	000.0004	0431.2	004.2	59.11	
242.0	000.0056	-0006.2	002.8	123.9	000.0004	0431.9	004.1	59.21	
243.0	000.0056	-0007.0	002.7	123.5	000.0004	0432.3	004.1	59.32	
244.0	000.0055	-0008.8	002.7	123.1	000.0004	0432.4	004.0	59.42	
245.0	000.0055	-0007.0	002.7	122.7	000.0004	0432.4	004.0	59.52	
246.0	000.0054	-0000.2	002.7	122.2	000.0004	0432.0	004.0	59.62	
247.0	000.0054	0010.6	002.7	121.8	000.0004	0431.2	003.9	59.71	
248.0	000.0054	0021.7	002.7	121.3	000.0004	0430.1	003.9	59.80	
249.0	000.0053	0028.5	002.7	120.8	000.0004	0428.6	003.8	59.88	
250.0	000.0053	0030.4	002.7	120.5	000.0004	0427.3	003.8	59.99	
251.0	000.0053	0026.7	002.7	119.8	000.0004	0424.4	003.8	60.04	
252.0	000.0052	0018.6	002.7	119.3	000.0004	0422.2	003.7	60.12	
253.0	000.0052	0006.4	002.7	118.8	000.0004	0420.1	003.7	60.19	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
254.0	000.0052	-0008.0	002.7	118.3	000.0004	0418.0	003.7	60.27
255.0	000.0052	-0019.4	002.7	117.7	000.0004	0416.4	003.7	60.34
256.0	000.0052	-0022.5	002.7	117.1	000.0004	0415.1	003.6	60.42
257.0	000.0051	-0014.8	002.7	116.5	000.0004	0413.6	003.6	60.49
258.0	000.0051	-0003.8	002.7	115.9	000.0004	0411.4	003.6	60.55
259.0	000.0051	0007.0	002.7	115.3	000.0004	0408.8	003.5	60.61
260.0	000.0051	0012.4	002.7	114.6	000.0004	0405.7	003.5	60.83
261.0	000.0050	0008.1	002.7	113.9	000.0004	0402.6	003.5	61.17
262.0	000.0049	-0000.4	002.7	113.2	000.0005	0400.0	003.5	61.51
263.0	000.0048	-0012.0	002.7	112.4	000.0005	0398.9	003.5	61.73
264.0	000.0048	-0018.5	002.7	111.7	000.0005	0398.2	003.5	61.98
265.0	000.0047	-0018.8	002.6	110.9	000.0005	0396.8	003.4	62.30
266.0	000.0046	-0019.1	002.6	110.1	000.0006	0395.1	003.4	62.60
267.0	000.0045	-0017.6	002.6	109.4	000.0007	0393.8	003.4	63.23
268.0	000.0044	-0015.4	002.6	108.6	000.0008	0392.4	003.4	63.87
269.0	000.0044	-0013.4	002.6	107.8	000.0009	0391.6	003.4	64.48
270.0	000.0043	-0011.3	002.6	107.0	000.0010	0391.7	003.4	65.04
271.0	000.0042	-0008.5	002.6	106.2	000.0011	0392.6	003.4	65.68
272.0	000.0040	0000.1	002.5	105.4	000.0013	0394.3	003.4	66.19
273.0	000.0039	0009.3	002.5	104.6	000.0015	0396.0	003.4	66.73
274.0	000.0038	0018.5	002.5	103.8	000.0017	0397.5	003.4	67.30
275.0	000.0037	0027.2	002.5	103.1	000.0019	0398.9	003.5	67.83
276.0	000.0036	0036.5	002.7	102.8	000.0020	0399.3	003.2	68.70
277.0	000.0035	0045.3	003.0	102.4	000.0021	0399.7	003.0	69.85
278.0	000.0033	0052.9	003.2	101.7	000.0024	0400.7	002.7	71.19
279.0	000.0032	0057.0	003.3	100.6	000.0028	0403.9	002.6	72.26
280.0	000.0031	0058.8	003.3	099.3	000.0033	0411.1	002.6	73.17
281.0	000.0030	0063.3	003.4	097.9	000.0041	0418.7	002.5	74.37
282.0	000.0028	0073.7	003.6	096.1	000.0053	0425.7	002.3	76.23
283.0	000.0027	0090.2	003.9	093.2	000.0072	0430.1	002.0	78.90
284.0	000.0025	0107.2	004.2	089.2	000.0101	0403.6	001.7	81.57
285.0	000.0024	0121.1	004.4	084.8	000.0132	0358.4	001.6	83.38
286.0	000.0023	0130.6	004.5	081.1	000.0163	0385.5	001.5	84.51
287.0	000.0022	0139.0	004.6	077.3	000.0202	0412.3	001.5	85.60
288.0	000.0020	0148.2	004.6	073.2	000.0262	0438.7	001.5	86.85
289.0	000.0019	0159.8	004.7	068.3	000.0366	0444.1	001.5	89.21
290.0	000.0018	0172.3	004.8	063.5	000.0500	0431.8	001.5	90.61
291.0	000.0017	0183.0	004.9	060.6	000.0599	0423.2	001.5	90.40
292.0	000.0016	0192.6	004.8	058.9	000.0656	0423.0	001.6	90.45
293.0	000.0014	0200.2	004.8	058.1	000.0681	0423.6	001.7	90.21
294.0	000.0013	0205.5	004.7	058.3	000.0676	0423.4	001.8	89.70
295.0	000.0012	0208.7	004.7	059.2	000.0646	0422.8	001.9	88.97
296.0	000.0011	0210.3	004.5	060.6	000.0600	0423.2	002.0	88.07
297.0	000.0010	0211.7	004.4	061.9	000.0554	0425.8	002.2	87.17
298.0	000.0009	0213.9	004.3	063.0	000.0514	0430.1	002.3	86.34
299.0	000.0009	0217.3	004.2	064.1	000.0479	0434.2	002.4	85.54
300.0	000.0008	0221.0	004.1	065.2	000.0443	0438.6	002.5	84.72
301.0	000.0007	0224.0	004.1	065.2	000.0445	0438.3	002.6	84.41
302.0	000.0007	0226.5	004.0	065.3	000.0442	0438.6	002.7	84.06
303.0	000.0007	0229.4	004.0	065.3	000.0441	0438.9	002.8	83.74
304.0	000.0006	0232.3	003.9	065.5	000.0437	0439.4	002.9	83.41

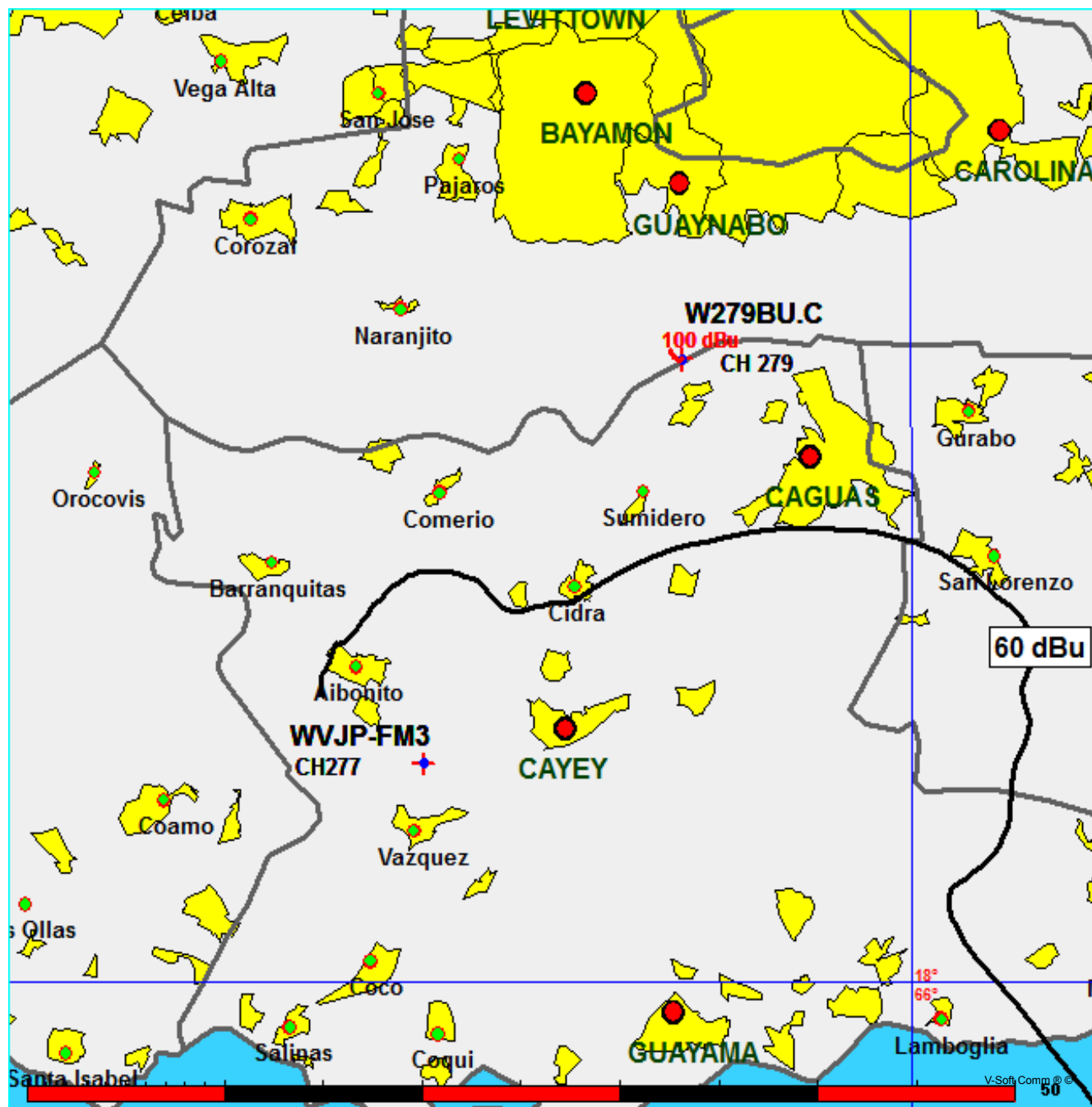
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
305.0	000.0006	0234.4	003.9		065.7	000.0429	0440.4	002.9	83.03
306.0	000.0006	0235.5	003.8		066.2	000.0419	0441.7	003.0	82.63
307.0	000.0005	0236.3	003.7		066.6	000.0406	0442.9	003.1	82.23
308.0	000.0005	0238.4	003.7		067.1	000.0395	0443.7	003.2	81.84
309.0	000.0005	0242.3	003.6		067.6	000.0384	0444.2	003.3	81.47
310.0	000.0004	0248.2	003.5		068.0	000.0372	0444.2	003.4	81.10
311.0	000.0004	0254.5	003.5		067.7	000.0381	0444.2	003.4	81.04
312.0	000.0004	0260.3	003.5		067.4	000.0388	0444.0	003.5	80.95
313.0	000.0004	0265.0	003.5		067.2	000.0393	0443.8	003.6	80.84
314.0	000.0004	0268.5	003.5		067.0	000.0397	0443.6	003.6	80.71
315.0	000.0004	0271.0	003.5		067.0	000.0399	0443.5	003.7	80.56
316.0	000.0004	0272.6	003.4		066.9	000.0399	0443.5	003.8	80.40
317.0	000.0004	0273.9	003.4		067.0	000.0399	0443.5	003.8	80.23
318.0	000.0004	0275.1	003.4		067.0	000.0398	0443.6	003.9	80.05
319.0	000.0004	0276.4	003.4		067.1	000.0396	0443.7	004.0	79.87
320.0	000.0004	0278.1	003.3		067.1	000.0395	0443.8	004.0	79.69
321.0	000.0003	0280.4	003.3		067.3	000.0389	0444.0	004.1	79.46
322.0	000.0003	0282.9	003.3		067.6	000.0384	0444.2	004.1	79.24
323.0	000.0003	0285.3	003.2		067.8	000.0378	0444.2	004.2	79.01
324.0	000.0003	0287.7	003.2		068.1	000.0371	0444.2	004.3	78.78
325.0	000.0003	0289.4	003.2		068.4	000.0364	0444.1	004.3	78.54
326.0	000.0003	0290.1	003.1		068.7	000.0356	0443.8	004.4	78.29
327.0	000.0003	0289.7	003.1		069.1	000.0348	0443.4	004.5	78.03
328.0	000.0003	0287.8	003.0		069.5	000.0337	0443.1	004.5	77.75
329.0	000.0003	0285.2	003.0		069.9	000.0327	0443.0	004.6	77.47
330.0	000.0003	0282.3	003.0		070.3	000.0319	0442.9	004.6	77.23
331.0	000.0002	0279.7	002.9		071.1	000.0302	0442.5	004.7	76.84
332.0	000.0002	0278.4	002.8		071.9	000.0287	0441.5	004.8	76.47
333.0	000.0002	0278.4	002.7		072.7	000.0271	0440.0	004.8	76.06
334.0	000.0002	0279.4	002.6		073.6	000.0256	0437.8	004.9	75.66
335.0	000.0002	0280.4	002.6		074.4	000.0240	0434.5	004.9	75.23
336.0	000.0002	0280.8	002.5		075.3	000.0226	0428.8	005.0	74.78
337.0	000.0002	0281.0	002.4		076.1	000.0216	0422.4	005.1	74.41
338.0	000.0001	0280.6	002.3		077.0	000.0206	0415.4	005.1	74.02
339.0	000.0001	0279.3	002.2		077.9	000.0196	0407.2	005.2	73.60

Allocation Map, W279BU.C vs WVJP-FM3
Aurio A. Matos Barreto

FMCommander Single Allocation Study - 08-22-2016 - GLOBE 30 Sec
W279BU.C's Overlaps (In= 17.93 km, Out= 9.18 km)

W279BU.C CH 279 D DA
Lat= 18 16 49.3, Lng= 66 06 35.3
0.25 kW 340.2 m HAAT, 543 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WVJP-FM3 CH 277 D DA BNPFTB20160114ABS
Lat= 18 05 54.0, Lng= 66 14 00.0
3.0 kW 0 m HAAT, 867 m COR
Prot.= 60 dBu, Intef.= 100 dBu



08-22-2016

Terrain Data: GLOBE 30 Sec

FMOver Analysis

WVJP-FM3 BNPFTB20160114ABS

W279BU.C

Channel = 277D

Max ERP = 3 kW

RCAMSL = 867 m

N. Lat. 18 05 54.0

W. Lng. 66 14 00.0

Protected

60 dBu

Channel = 279D

Max ERP = 0.25 kW

RCAMSL = 543 m

N. Lat. 18 16 49.3

W. Lng. 66 06 35.3

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
333.0	000.0041	0272.0	007.5	230.6	000.0015	0164.9	021.3	34.69	
334.0	000.0041	0278.4	007.6	230.8	000.0016	0165.8	021.2	34.98	
335.0	000.0041	0283.7	007.7	230.9	000.0016	0166.4	021.0	35.21	
336.0	000.0041	0289.1	007.8	231.0	000.0016	0166.8	020.9	35.42	
337.0	000.0041	0294.9	007.8	231.1	000.0017	0167.3	020.7	35.64	
338.0	000.0041	0302.6	007.9	231.2	000.0017	0168.0	020.6	35.91	
339.0	000.0041	0312.3	008.0	231.4	000.0018	0168.8	020.4	36.22	
340.0	000.0041	0323.4	008.2	231.6	000.0018	0169.6	020.2	36.56	
341.0	000.0041	0333.8	008.3	231.8	000.0019	0170.3	020.0	36.87	
342.0	000.0041	0340.1	008.4	231.8	000.0019	0170.5	019.9	37.04	
343.0	000.0041	0342.6	008.4	231.8	000.0019	0170.2	019.7	37.09	
344.0	000.0041	0345.8	008.4	231.7	000.0018	0170.0	019.6	37.16	
345.0	000.0041	0353.8	008.5	231.8	000.0019	0170.3	019.4	37.35	
346.0	000.0041	0366.0	008.6	232.0	000.0019	0170.9	019.2	37.66	
347.0	000.0041	0378.7	008.8	232.1	000.0020	0171.5	019.0	37.94	
348.0	000.0041	0389.6	008.9	232.2	000.0020	0171.7	018.9	38.14	
349.0	000.0041	0398.7	008.9	232.2	000.0020	0171.8	018.7	38.30	
350.0	000.0041	0406.0	009.0	232.1	000.0020	0171.6	018.5	38.40	
351.0	000.0041	0414.0	009.1	232.1	000.0020	0171.5	018.3	38.50	
352.0	000.0041	0422.2	009.1	232.0	000.0019	0171.3	018.2	38.60	
353.0	000.0041	0432.2	009.2	232.0	000.0019	0171.1	018.0	38.73	
354.0	000.0041	0443.5	009.3	232.0	000.0019	0171.0	017.8	38.85	
355.0	000.0041	0454.4	009.4	231.9	000.0019	0170.7	017.6	38.92	
356.0	000.0041	0466.1	009.5	231.8	000.0019	0170.3	017.4	38.96	
357.0	000.0041	0478.7	009.5	231.7	000.0018	0169.8	017.3	38.98	
358.0	000.0041	0483.7	009.6	231.4	000.0018	0168.8	017.1	38.86	
359.0	000.0041	0485.7	009.6	231.1	000.0017	0167.4	017.0	38.67	
000.0	000.0041	0487.7	009.6	230.7	000.0016	0165.7	016.8	38.44	
001.0	000.0041	0489.8	009.6	230.4	000.0015	0163.8	016.7	38.17	
002.0	000.0041	0491.3	009.6	230.0	000.0014	0162.0	016.6	37.88	
003.0	000.0041	0492.7	009.6	229.7	000.0013	0159.6	016.5	37.61	
004.0	000.0041	0492.7	009.6	229.3	000.0012	0156.9	016.3	37.30	
005.0	000.0041	0494.4	009.6	228.9	000.0012	0154.2	016.2	36.96	
006.0	000.0041	0502.1	009.6	228.5	000.0011	0151.5	016.1	36.64	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
007.0	000.0041	0504.5	009.6	228.1	000.0010	0148.2	016.0	36.19
008.0	000.0041	0506.7	009.7	227.6	000.0009	0144.7	015.8	35.75
009.0	000.0041	0503.9	009.6	227.1	000.0009	0140.2	015.7	35.17
010.0	000.0041	0497.2	009.6	226.6	000.0008	0135.9	015.7	34.52
011.0	000.0041	0491.5	009.6	226.0	000.0007	0131.7	015.6	33.87
012.0	000.0041	0483.6	009.6	225.4	000.0006	0127.9	015.5	33.17
013.0	000.0041	0480.3	009.5	224.9	000.0006	0125.1	015.4	32.62
014.0	000.0041	0481.8	009.5	224.4	000.0005	0123.1	015.4	32.38
015.0	000.0041	0482.9	009.5	223.8	000.0005	0121.8	015.3	32.16
016.0	000.0041	0479.2	009.5	223.3	000.0005	0120.6	015.2	31.91
017.0	000.0041	0469.2	009.5	222.6	000.0005	0118.6	015.2	31.62
018.0	000.0041	0455.8	009.4	221.9	000.0005	0115.5	015.2	31.25
019.0	000.0041	0440.9	009.3	221.2	000.0004	0111.4	015.2	30.61
020.0	000.0041	0426.3	009.2	220.5	000.0004	0107.8	015.3	29.97
021.0	000.0041	0415.1	009.1	219.8	000.0004	0105.4	015.3	29.53
022.0	000.0041	0405.9	009.0	219.1	000.0004	0104.9	015.3	29.46
023.0	000.0041	0396.8	008.9	218.5	000.0004	0105.3	015.4	29.47
024.0	000.0041	0389.4	008.9	217.9	000.0004	0106.9	015.4	29.58
025.0	000.0041	0384.0	008.8	217.3	000.0004	0109.1	015.4	29.74
026.0	000.0041	0380.0	008.8	216.7	000.0004	0112.2	015.4	29.99
027.0	000.0041	0377.4	008.7	216.1	000.0004	0116.1	015.4	30.28
028.0	000.0041	0376.4	008.7	215.5	000.0004	0120.4	015.4	30.59
029.0	000.0041	0378.7	008.8	215.0	000.0004	0124.7	015.3	30.91
030.0	000.0041	0384.6	008.8	214.4	000.0004	0128.7	015.3	31.24
031.0	000.0041	0393.0	008.9	213.9	000.0004	0132.0	015.2	31.53
032.0	000.0041	0402.2	009.0	213.3	000.0004	0134.5	015.1	31.76
033.0	000.0041	0409.8	009.0	212.7	000.0004	0136.6	015.0	31.97
034.0	000.0044	0414.3	009.3	212.1	000.0004	0138.2	014.8	32.18
035.0	000.0047	0417.2	009.5	211.4	000.0004	0139.4	014.6	32.48
036.0	000.0049	0419.1	009.7	210.7	000.0004	0139.7	014.4	32.71
037.0	000.0052	0421.2	009.9	209.9	000.0004	0138.2	014.3	32.81
038.0	000.0055	0424.4	010.1	209.1	000.0004	0134.9	014.1	32.80
039.0	000.0059	0429.1	010.3	208.2	000.0004	0130.2	013.9	32.70
040.0	000.0062	0433.9	010.5	207.3	000.0004	0125.7	013.7	32.60
041.0	000.0065	0437.1	010.7	206.4	000.0004	0122.7	013.6	32.58
042.0	000.0069	0438.3	010.8	205.4	000.0004	0121.9	013.5	32.67
043.0	000.0072	0439.3	011.0	204.5	000.0004	0122.2	013.4	32.81
044.0	000.0100	0440.4	012.0	202.0	000.0004	0129.5	012.5	34.52
045.0	000.0131	0441.5	012.9	199.3	000.0004	0136.9	011.7	36.14
046.0	000.0168	0442.7	013.8	196.3	000.0004	0134.5	011.1	37.00
047.0	000.0209	0443.1	014.6	193.0	000.0004	0123.6	010.6	37.16
048.0	000.0254	0442.7	015.3	189.4	000.0004	0124.2	010.1	37.97
049.0	000.0304	0442.0	016.0	185.5	000.0004	0140.2	009.8	39.69
050.0	000.0358	0441.3	016.7	181.4	000.0004	0140.5	009.5	40.21
051.0	000.0416	0440.1	017.4	177.2	000.0004	0142.1	009.3	40.64
052.0	000.0479	0439.1	018.0	172.9	000.0004	0150.3	009.2	41.32
053.0	000.0547	0438.6	018.6	168.7	000.0004	0142.9	009.2	40.85
054.0	000.0650	0438.4	019.4	163.2	000.0004	0190.9	009.2	43.52
055.0	000.0762	0438.3	020.2	158.0	000.0004	0251.9	009.3	45.68
056.0	000.0883	0437.0	020.9	153.3	000.0004	0304.1	009.6	46.84
057.0	000.1013	0434.7	021.6	149.2	000.0004	0345.2	009.9	47.30

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
058.0	000.1152	0431.6	022.2		145.8	000.0004	0361.2	010.3	47.04
059.0	000.1300	0429.5	022.8		142.6	000.0004	0372.3	010.7	46.58
060.0	000.1457	0429.6	023.4		139.6	000.0004	0376.8	011.2	45.93
061.0	000.1623	0431.4	024.1		136.8	000.0004	0384.6	011.7	45.26
062.0	000.1798	0434.4	024.8		134.2	000.0004	0397.1	012.3	44.64
063.0	000.1981	0438.0	025.5		131.9	000.0004	0407.0	013.0	43.95
064.0	000.2129	0441.6	026.0		130.5	000.0004	0409.5	013.6	43.17
065.0	000.2282	0444.5	026.6		129.3	000.0004	0409.4	014.3	42.37
066.0	000.2440	0447.4	027.1		128.3	000.0004	0410.0	014.9	41.60
067.0	000.2604	0449.7	027.6		127.5	000.0004	0412.4	015.6	41.20
068.0	000.2772	0451.3	028.1		126.9	000.0004	0415.6	016.2	40.72
069.0	000.2947	0451.8	028.5		126.5	000.0004	0418.3	016.9	40.25
070.0	000.3126	0450.5	028.9		126.3	000.0004	0419.2	017.5	39.77
071.0	000.3311	0447.8	029.2		126.4	000.0004	0418.7	018.1	39.27
072.0	000.3501	0444.2	029.5		126.6	000.0004	0417.3	018.7	38.77
073.0	000.3696	0441.5	029.8		126.8	000.0004	0416.2	019.3	38.27
074.0	000.3886	0441.4	030.2		126.8	000.0004	0415.7	019.9	37.75
075.0	000.4080	0441.9	030.5		126.9	000.0004	0415.4	020.6	37.23
076.0	000.4280	0441.8	030.9		127.0	000.0004	0414.5	021.2	36.71
077.0	000.4484	0438.8	031.2		127.4	000.0004	0412.5	021.8	36.23
078.0	000.4693	0433.4	031.3		128.0	000.0004	0410.5	022.3	35.79
079.0	000.4906	0425.7	031.4		128.8	000.0004	0409.4	022.8	35.42
080.0	000.5125	0414.4	031.3		129.9	000.0004	0409.6	023.1	35.16
081.0	000.5348	0398.0	031.0		131.2	000.0004	0408.6	023.4	34.96
082.0	000.5575	0379.2	030.6		132.8	000.0004	0404.0	023.6	34.71
083.0	000.5808	0365.5	030.4		134.0	000.0004	0398.1	023.8	34.38
084.0	000.6016	0360.3	030.4		134.7	000.0004	0394.4	024.3	33.97
085.0	000.6227	0357.1	030.6		135.3	000.0004	0391.6	024.7	33.56
086.0	000.6442	0353.4	030.6		136.0	000.0004	0388.4	025.2	33.16
087.0	000.6661	0346.7	030.6		136.9	000.0004	0384.2	025.6	32.80
088.0	000.6883	0336.5	030.3		138.1	000.0004	0379.8	025.8	32.52
089.0	000.7109	0326.4	030.1		139.2	000.0004	0377.3	026.0	32.29
090.0	000.7339	0316.4	029.8		140.4	000.0004	0376.4	026.3	32.12
091.0	000.7572	0310.6	029.7		141.2	000.0004	0375.7	026.6	31.86
092.0	000.7809	0305.4	029.7		142.0	000.0004	0374.2	027.0	31.57

Allocation Map, W279BU.C vs WXLW
Aurio A. Matos Barreto

FMCommander Single Allocation Study - 08-22-2016 - GLOBE 30 Sec
W279BU.C's Overlaps (In= -33.18 km, Out= 9.41 km)

W279BU.C CH 279 D DA
Lat= 18 16 49.3, Lng= 66 06 35.3
0.25 kW 340.2 m HAAT, 543 m COR
Prot.= 60 dBu, Intef.= 34 dBu

WXLX CH 279 B BLH19940113KE
Lat= 17 59 37.0, Lng= 67 11 09.0
50.0 kW 139 m HAAT, 171 m COR
Prot.= 54 dBu, Intef.= 40 dBu



08-22-2016

Terrain Data: GLOBE 30 Sec

FMOver Analysis

WXLX BLH19940113KE

W279BU.C

Channel = 279B

Max ERP = 50 kW

RCAMSL = 171 m

N. Lat. 17 59 37.0

W. Lng. 67 11 09.0

Protected

54 dBu

Channel = 279D

Max ERP = 0.25 kW

RCAMSL = 543 m

N. Lat. 18 16 49.3

W. Lng. 66 06 35.3

Interfering

34 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
014.0	050.0000	0141.9	063.9	287.2	000.0681	0336.3	102.6	24.31	
015.0	050.0000	0142.7	064.0	287.3	000.0685	0337.2	101.4	24.70	
016.0	050.0000	0142.3	064.0	287.3	000.0684	0337.1	100.3	25.03	
017.0	050.0000	0141.4	063.9	287.2	000.0682	0336.4	099.2	25.33	
018.0	050.0000	0141.1	063.8	287.2	000.0681	0336.0	098.1	25.64	
019.0	050.0000	0141.1	063.8	287.2	000.0680	0335.9	097.0	25.98	
020.0	050.0000	0141.3	063.8	287.2	000.0679	0335.7	095.9	26.30	
021.0	050.0000	0141.6	063.9	287.2	000.0679	0335.5	094.8	26.64	
022.0	050.0000	0142.4	064.0	287.2	000.0679	0335.7	093.6	26.99	
023.0	050.0000	0143.7	064.2	287.2	000.0681	0336.2	092.5	27.37	
024.0	050.0000	0145.1	064.4	287.3	000.0682	0336.5	091.4	27.74	
025.0	050.0000	0145.9	064.5	287.2	000.0682	0336.3	090.2	28.09	
026.0	050.0000	0146.0	064.5	287.1	000.0678	0335.3	089.1	28.39	
027.0	050.0000	0145.5	064.4	287.0	000.0673	0333.5	088.0	28.65	
028.0	050.0000	0144.7	064.3	286.8	000.0666	0331.3	086.9	28.89	
029.0	050.0000	0144.0	064.2	286.5	000.0659	0328.8	085.9	29.11	
030.0	050.0000	0143.4	064.1	286.3	000.0652	0326.2	084.8	29.33	
031.0	050.0000	0142.7	064.0	286.1	000.0644	0323.2	083.7	29.52	
032.0	050.0000	0142.0	064.0	285.8	000.0635	0320.0	082.7	29.70	
033.0	050.0000	0141.1	063.8	285.5	000.0625	0316.4	081.7	29.85	
034.0	050.0000	0139.6	063.6	285.1	000.0612	0312.3	080.7	29.94	
035.0	050.0000	0137.1	063.2	284.5	000.0598	0307.6	079.8	29.99	
036.0	050.0000	0133.8	062.7	283.9	000.0581	0302.9	078.9	29.99	
037.0	050.0000	0129.7	062.1	283.2	000.0562	0297.9	078.2	29.94	
038.0	050.0000	0125.8	061.5	282.5	000.0544	0295.0	077.5	29.95	
039.0	050.0000	0122.2	061.0	281.7	000.0527	0295.6	076.7	30.06	
040.0	050.0000	0118.8	060.4	281.0	000.0508	0298.3	076.1	30.22	
041.0	050.0000	0116.0	060.0	280.3	000.0491	0301.1	075.4	30.39	
042.0	050.0000	0113.4	059.5	279.6	000.0475	0302.7	074.7	30.52	
043.0	050.0000	0111.2	059.1	278.9	000.0460	0303.1	074.1	30.62	
044.0	050.0000	0109.6	058.9	278.3	000.0447	0300.9	073.4	30.66	
045.0	050.0000	0108.8	058.7	277.7	000.0434	0295.5	072.7	30.62	
046.0	050.0000	0108.1	058.6	277.1	000.0422	0286.8	072.0	30.46	
047.0	050.0000	0106.4	058.3	276.4	000.0408	0275.8	071.4	30.16	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
048.0	050.0000	0102.8	057.6	275.4	000.0389	0259.5	071.1	29.53
049.0	050.0000	0097.9	056.6	274.3	000.0371	0237.0	071.0	28.58
050.0	050.0000	0093.3	055.7	273.2	000.0357	0216.5	071.0	27.65
051.0	050.0000	0090.5	055.1	272.4	000.0345	0201.3	070.8	26.99
052.0	050.0000	0090.2	055.1	271.7	000.0336	0190.5	070.2	26.63
053.0	050.0000	0091.8	055.4	271.3	000.0330	0182.8	069.4	26.51
054.0	050.0000	0093.9	055.8	270.8	000.0324	0175.6	068.4	26.43
055.0	050.0000	0095.9	056.3	270.4	000.0318	0168.9	067.5	26.34
056.0	050.0000	0098.2	056.7	269.9	000.0312	0167.7	066.6	26.51
057.0	050.0000	0101.1	057.3	269.4	000.0308	0166.5	065.6	26.74
058.0	050.0000	0104.7	058.0	269.0	000.0305	0165.3	064.5	27.00
059.0	050.0000	0109.4	058.8	268.6	000.0300	0164.2	063.2	27.31
060.0	050.0000	0114.7	059.7	268.2	000.0296	0163.1	061.9	27.64
061.0	050.0000	0119.9	060.6	267.7	000.0291	0161.8	060.7	27.94
062.0	050.0000	0124.2	061.3	267.0	000.0284	0160.3	059.6	28.15
063.0	050.0000	0127.4	061.8	266.3	000.0278	0160.6	058.7	28.39
064.0	050.0000	0130.5	062.2	265.4	000.0270	0155.4	057.9	28.31
065.0	050.0000	0133.9	062.8	264.6	000.0262	0143.6	057.0	27.87
066.0	050.0000	0137.3	063.3	263.7	000.0253	0132.1	056.2	27.40
067.0	050.0000	0140.3	063.7	262.7	000.0243	0120.4	055.4	26.87
068.0	050.0000	0142.9	064.1	261.7	000.0233	0106.8	054.8	26.13
069.0	050.0000	0145.2	064.4	260.6	000.0223	0094.0	054.2	25.24
070.0	050.0000	0147.5	064.7	259.5	000.0212	0083.2	053.7	24.38
071.0	050.0000	0149.9	065.1	258.4	000.0202	0072.9	053.2	23.46
072.0	050.0000	0152.2	065.3	257.2	000.0191	0066.2	052.8	22.75
073.0	050.0000	0154.0	065.6	256.0	000.0181	0066.2	052.5	22.61
074.0	050.0000	0155.4	065.8	254.7	000.0169	0075.2	052.3	23.23
075.0	050.0000	0156.2	065.9	253.5	000.0159	0089.0	052.2	24.15
076.0	050.0000	0156.6	065.9	252.2	000.0149	0101.8	052.2	24.84
077.0	050.0000	0156.8	066.0	250.9	000.0139	0112.3	052.3	25.19
078.0	050.0000	0156.7	065.9	249.7	000.0129	0121.6	052.5	25.35
079.0	050.0000	0155.8	065.8	248.5	000.0120	0133.0	052.8	25.54
080.0	050.0000	0153.8	065.6	247.3	000.0112	0145.8	053.3	25.71
081.0	050.0000	0150.3	065.1	246.3	000.0104	0157.0	054.0	25.70
082.0	050.0000	0144.6	064.3	245.3	000.0098	0165.8	055.1	25.49
083.0	050.0000	0137.0	063.2	244.6	000.0093	0172.3	056.4	25.05
084.0	050.0000	0127.7	061.8	244.0	000.0089	0176.4	058.1	24.41
085.0	050.0000	0117.0	060.1	243.7	000.0086	0178.8	060.1	23.66
086.0	050.0000	0105.4	058.1	243.5	000.0085	0179.6	062.4	22.82
087.0	050.0000	0095.8	056.2	243.3	000.0083	0180.3	064.5	22.07
088.0	050.0000	0092.3	055.5	242.8	000.0080	0181.8	065.5	21.58
089.0	050.0000	0090.7	055.2	242.2	000.0075	0182.4	066.3	21.11
090.0	050.0000	0088.9	054.8	241.6	000.0071	0183.2	067.0	20.65
091.0	050.0000	0087.0	054.4	241.1	000.0068	0184.7	067.9	20.21
092.0	050.0000	0085.3	054.0	240.6	000.0064	0186.5	068.7	19.80
093.0	050.0000	0084.2	053.8	240.0	000.0061	0188.7	069.4	19.41
094.0	050.0000	0084.4	053.8	239.4	000.0056	0190.9	069.9	19.00
095.0	050.0000	0085.4	054.0	238.6	000.0051	0192.7	070.2	18.54
096.0	050.0000	0090.5	055.1	237.5	000.0044	0192.6	070.0	17.93
097.0	050.0000	0099.5	057.0	235.9	000.0034	0188.0	069.2	16.93
098.0	050.0000	0108.6	058.7	234.3	000.0027	0181.0	068.6	15.82

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
099.0	050.0000	0117.3	060.2		232.8	000.0022	0174.4	068.3	14.71
100.0	050.0000	0122.9	061.1		231.6	000.0018	0169.7	068.5	13.65
101.0	050.0000	0126.6	061.6		230.7	000.0016	0165.5	068.9	12.60
102.0	050.0000	0130.2	062.2		229.8	000.0013	0160.5	069.4	11.51
103.0	050.0000	0133.4	062.7		228.9	000.0012	0154.7	070.0	10.50
104.0	050.0000	0136.1	063.1		228.2	000.0010	0148.7	070.7	09.38
105.0	050.0000	0138.3	063.4		227.4	000.0009	0142.9	071.4	08.33
106.0	050.0000	0140.2	063.7		226.8	000.0008	0137.5	072.3	07.33
107.0	050.0000	0141.6	063.9		226.2	000.0007	0133.1	073.1	06.38
108.0	050.0000	0142.8	064.1		225.7	000.0007	0129.5	074.0	05.49
109.0	050.0000	0144.0	064.2		225.2	000.0006	0126.4	074.9	04.62
110.0	050.0000	0145.5	064.4		224.7	000.0006	0124.2	075.9	03.95
111.0	050.0000	0147.1	064.7		224.2	000.0005	0122.6	076.8	03.41
112.0	050.0000	0148.6	064.9		223.7	000.0005	0121.6	077.8	02.90
113.0	050.0000	0150.2	065.1		223.3	000.0005	0120.7	078.8	02.40
114.0	050.0000	0151.6	065.3		222.9	000.0005	0119.5	079.8	01.92
115.0	050.0000	0152.9	065.4		222.5	000.0005	0118.2	080.8	01.48
116.0	050.0000	0154.1	065.6		222.2	000.0005	0116.7	081.9	01.04
117.0	050.0000	0155.2	065.7		221.9	000.0005	0115.3	082.9	00.58
118.0	050.0000	0156.2	065.9		221.6	000.0004	0113.7	084.0	00.09
119.0	050.0000	0157.1	066.0		221.4	000.0004	0112.2	085.1	-00.39
120.0	050.0000	0157.8	066.1		221.2	000.0004	0111.0	086.2	-00.85
121.0	050.0000	0158.5	066.2		221.0	000.0004	0110.0	087.3	-01.29
122.0	050.0000	0159.1	066.2		220.8	000.0004	0109.3	088.5	-01.71
123.0	050.0000	0159.7	066.3		220.7	000.0004	0108.5	089.6	-02.12
124.0	050.0000	0160.2	066.4		220.5	000.0004	0107.9	090.8	-02.51
125.0	050.0000	0160.7	066.4		220.4	000.0004	0107.4	091.9	-02.89
126.0	050.0000	0161.2	066.5		220.3	000.0004	0107.0	093.1	-03.26
127.0	050.0000	0161.8	066.6		220.2	000.0004	0106.6	094.2	-03.61
128.0	050.0000	0162.4	066.6		220.2	000.0004	0106.3	095.4	-03.95
129.0	050.0000	0163.1	066.7		220.1	000.0004	0106.1	096.5	-04.28
130.0	050.0000	0163.8	066.8		220.0	000.0004	0106.0	097.7	-04.60
131.0	050.0000	0164.5	066.9		220.0	000.0004	0105.9	098.9	-04.90
132.0	050.0000	0165.1	067.0		220.0	000.0004	0105.9	100.0	-05.18
133.0	050.0000	0165.7	067.0		220.0	000.0004	0105.8	101.2	-05.45