PROPOSED MINOR MODIFICATION TO LPFM FACILITY
Portland, Oregon

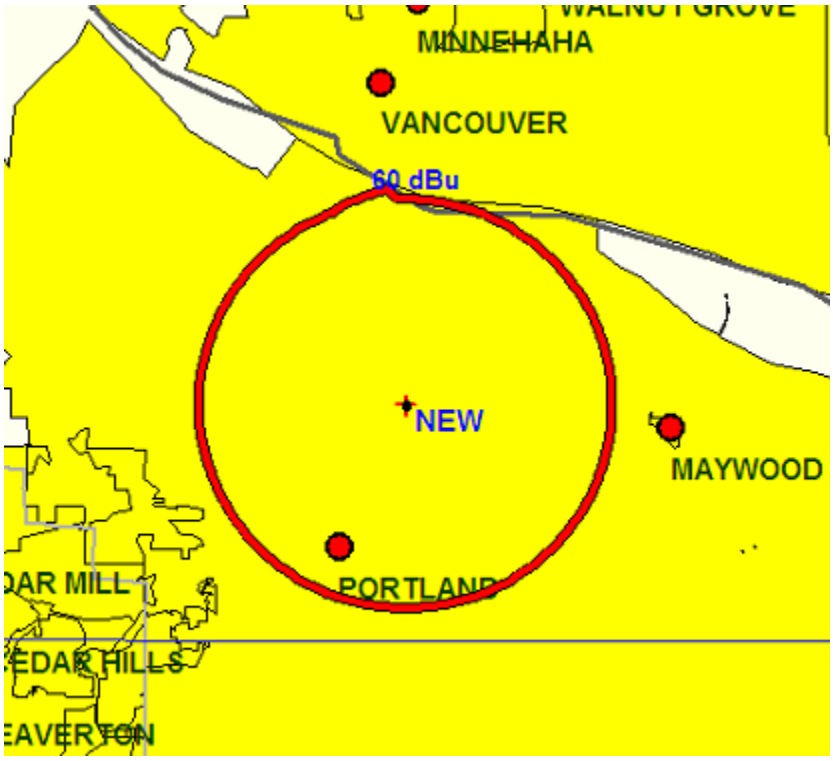
File No. BMPL-20140616AAA

Applicant proposes moving facility from commercial monopole (currently located) to guyed-roof mast/tower.

Site Location: 45° 33' 32.0" 122° 39' 10.2" NAD 83
Site Location: 45° 33' 32.6" 122° 39' 5.9" NAD 27
GROUND 69 m
BUILDING 5.1 m
MAST 6.1 m
COR 5.6 m above roof
AGL 10.7 m
ASR NA
AMSL 79.7 m
HAAT -.5 m
WATTS 100
CHANNEL 212

TOWAIR DETERMINATION

DETERMINATION Results	
Structure does not require registration. The structure meets the 6.10-meter (20-foot) Rule criteria.	
Your Specifications	
NAD83 Coordinates	
Latitude	45-33-32.0 north
Longitude	122-39-10.2 west
Measurements (Meters)	
Overall Structure Height (AGL)	10.7
Support Structure Height (AGL)	5.1
Site Elevation (AMSL)	69
Structure Type	
B - Building	



Proposed 60 dBu F(50,50) Contour

SPACING

Central Valley Media Center Inc.

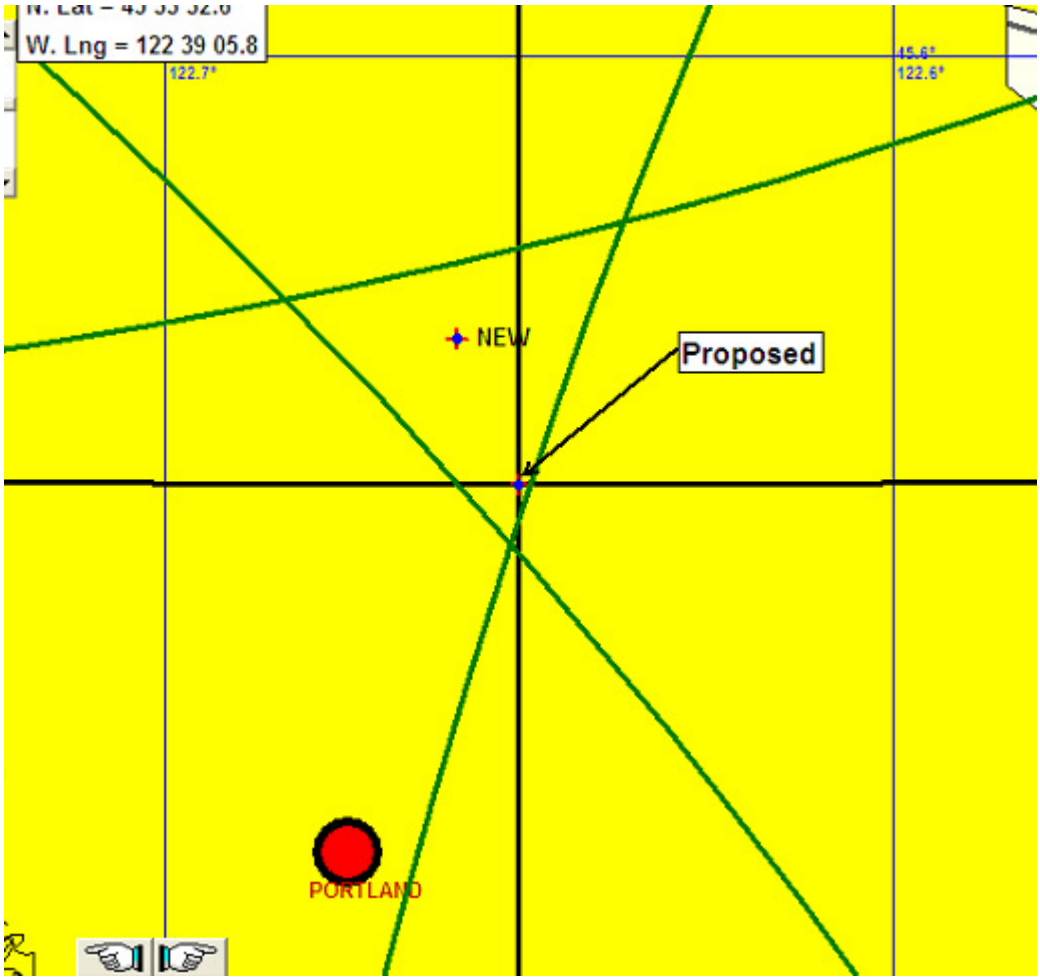
REFERENCE — Radio 23
REFERENCE — DISPLAY DATES
45 33 32.6 N. — CLASS = L1 Int = L1 — DATA 04-18-15
122 39 05.8 W. — Current Spacings to 2nd Adj. — SEARCH 06-18-15

Channel 212 - 90.3 MHz

Call	Channel		Location		Azi	Dist	FCC	Margin
*KQAC	LIC	210C1	Portland	OR	233.1	7.95	72.5	-64.6
*KBOO	LIC	214C1	Portland	OR	203.2	8.48	72.5	-64.0
KXPC	LIC	212C3	Welches	OR	108.6	77.62	77.5	0.12
KSLC	LIC-D	212A	Mcminnville	OR	228.4	66.98	66.5	0.48
KLWO	LIC	212A	Longview	WA	346.9	68.94	66.5	2.4
KWBX	LIC	212A	Salem	OR	197.9	78.98	66.5	12.5
K06NI	LI	06+T	The Dalles	OR	81.3	120.92	90.0	30.9
KLON	LIC	212A	Rockaway Beach	OR	273.4	99.51	66.5	33.0
KHRV	LIC	211A	Hood River	OR	82.4	92.84	55.5	37.3
KAJC	LIC-D	211A	Salem	OR	207.1	99.71	55.5	44.2

* See Second Adjacent Waiver Request

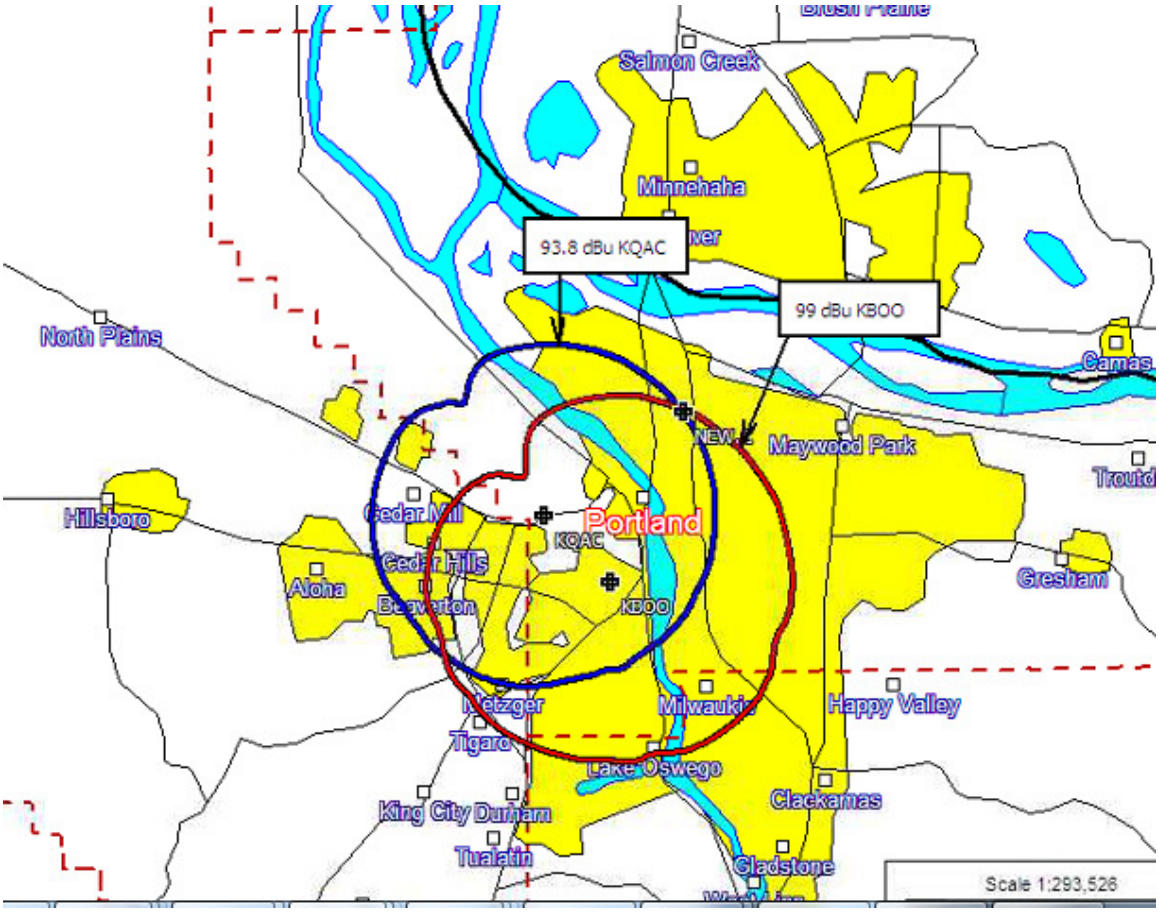
SPACING MAP



SECOND ADJACENT WAIVER REQUEST

Applicant requests a waiver of the Second Adjacent minimum spacing requirements stated in §73.807 of the FCC rules using U/D no-population inference protocol. The channel second adjacent to proposed are as followed:

CALL	COL	CH/CLS	DIST	ERP	HAAT	Field
KQAC	PORTLAND OR	210C1	8.0	5.9	476.9	93.8
KBOO	PORTLAND OR	214C1	8.5	25.5	431.2	99



At the proposed facility site, KQAC Portland, OR has an estimated signal strength of 93.8 dBu.

Contour protection to second adjacent station KQAC is provided using the ratio method. Using the appropriate U/D radio of 40 db, the corresponding interfering contour of the proposed facility is thus 133.8 dBu. At 100 watts, this contour would extend to a distance of 14.2 meters from the antenna. However, the field strength of the proposed LPFM's antenna system falls quickly at depression angles below the horizon. Using elevation pattern data provided by Bext (Telecom), the distance to the 133.8 dBu contour at various depression angles is tabulated below. The data shows that the lowest point at which the signal

strength rises to 133.8 dBu is 4.6 meters below the center of radiation of the antenna system, or 1 meter above the roof. Therefore, this is sufficient clearance, and the interference area encompasses zero population. The table below show that the lowest elevation point of the 133.8 dBu F(50,10) interfering contour is 1 meter above the roof. The roof is closed off to any persons. Thus, the applicant requests second adjacent waiver based upon evidence no interference is proposed.

Applicant proposes using a 2-bay (half-wave spacing) Bext Telecom TFC2K antenna. Data for the elevation pattern provided by Bext is attached to this application.

Field Strength at Depression Angles

MAX ERP	DEPRESSION ANGLE BELOW HORIZON	RELATIVE FIELD	dB FROM RELATIVE	ERP	ANGULAR DISTANCE TO133.8 dBu CONTOUR	VERTICAL DISTANCE (below antenna)	HORIZONTOL DISTANCE TO 133.8 dBu CONTOUR	CLEARENCE OF CONTOUR ABOVE ROOF
100	0.3	1	0.000	100.00	14.3	0	14.2	5.6
100	0.6	0.999	-0.009	99.80	14.2	0.1	14.1	5.5
100	0.8	0.998	-0.017	99.60	14.2	0.1	14.1	5.5
100	1.1	0.997	-0.026	99.40	14.2	0.2	14.1	5.4
100	1.4	0.996	-0.035	99.20	14.2	0.3	14.1	5.3
100	1.7	0.995	-0.044	99.00	14.2	0.4	14.1	5.2
100	2	0.994	-0.052	98.80	14.2	0.4	14.1	5.2
100	2.2	0.992	-0.070	98.41	14.1	0.5	14	5.1
100	2.5	0.99	-0.087	98.01	14.1	0.6	14	5
100	2.8	0.988	-0.105	97.61	14.1	0.6	14	5
100	3.1	0.986	-0.122	97.22	14.1	0.7	14	4.9
100	3.4	0.984	-0.140	96.83	14	0.8	13.9	4.8
100	3.6	0.981	-0.167	96.24	14	0.8	13.9	4.8
100	3.9	0.978	-0.193	95.65	13.9	0.9	13.8	4.7
100	4.2	0.976	-0.211	95.26	13.9	1	13.8	4.6
100	4.5	0.973	-0.238	94.67	13.9	1	13.8	4.6
100	4.8	0.97	-0.265	94.09	13.8	1.1	13.7	4.5
100	5	0.967	-0.291	93.51	13.8	1.2	13.7	4.4
100	5.3	0.964	-0.318	92.93	13.7	1.2	13.6	4.4
100	5.6	0.961	-0.346	92.35	13.7	1.3	13.6	4.3
100	5.9	0.957	-0.382	91.58	13.6	1.3	13.5	4.3
100	6.2	0.954	-0.409	91.01	13.6	1.4	13.5	4.2
100	6.4	0.95	-0.446	90.25	13.5	1.5	13.4	4.1
100	6.7	0.946	-0.482	89.49	13.5	1.5	13.4	4.1
100	7	0.942	-0.519	88.74	13.4	1.6	13.3	4
100	7.3	0.939	-0.547	88.17	13.4	1.7	13.2	3.9
100	7.6	0.935	-0.584	87.42	13.3	1.7	13.1	3.9
100	7.8	0.931	-0.621	86.68	13.3	1.8	13.1	3.8
100	8.1	0.927	-0.658	85.93	13.2	1.8	13	3.8
100	8.4	0.923	-0.696	85.19	13.2	1.9	13	3.7
100	8.7	0.919	-0.734	84.46	13.1	1.9	12.9	3.7
100	9	0.915	-0.772	83.72	13	2	12.8	3.6
100	9.2	0.911	-0.810	82.99	13	2	12.8	3.6
100	9.5	0.906	-0.857	82.08	12.9	2.1	12.7	3.5
100	9.8	0.902	-0.896	81.36	12.9	2.1	12.7	3.5
100	10.1	0.898	-0.934	80.64	12.8	2.2	12.6	3.4
100	10.4	0.894	-0.973	79.92	12.7	2.2	12.4	3.4
100	10.6	0.89	-1.012	79.21	12.7	2.3	12.4	3.3
100	10.9	0.885	-1.061	78.32	12.6	2.3	12.3	3.3
100	11.2	0.881	-1.100	77.62	12.6	2.4	12.3	3.2

100	11.5	0.877	-1.140	76.91	12.5	2.4	12.2	3.2
100	11.8	0.873	-1.180	76.21	12.4	2.5	12.1	3.1
100	12	0.869	-1.220	75.52	12.4	2.5	12.1	3.1
100	12.3	0.864	-1.270	74.65	12.3	2.6	12	3
100	12.6	0.86	-1.310	73.96	12.3	2.6	12	3
100	12.9	0.856	-1.351	73.27	12.2	2.7	11.8	2.9
100	13.2	0.852	-1.391	72.59	12.1	2.7	11.7	2.9
100	13.4	0.848	-1.432	71.91	12.1	2.8	11.7	2.8
100	13.7	0.844	-1.473	71.23	12	2.8	11.6	2.8
100	14	0.84	-1.514	70.56	12	2.9	11.6	2.7
100	14.3	0.836	-1.556	69.89	11.9	2.9	11.5	2.7
100	14.6	0.832	-1.598	69.22	11.9	2.9	11.5	2.7
100	14.8	0.828	-1.639	68.56	11.8	3	11.4	2.6
100	15.1	0.824	-1.681	67.90	11.7	3	11.2	2.6
100	15.4	0.82	-1.724	67.24	11.7	3.1	11.2	2.5
100	15.7	0.817	-1.756	66.75	11.6	3.1	11.1	2.5
100	16	0.813	-1.798	66.10	11.6	3.1	11.1	2.5
100	16.2	0.809	-1.841	65.45	11.5	3.2	11	2.4
100	16.5	0.806	-1.873	64.96	11.5	3.2	11	2.4
100	16.8	0.802	-1.917	64.32	11.4	3.2	10.9	2.4
100	17.1	0.798	-1.960	63.68	11.4	3.3	10.8	2.3
100	17.4	0.795	-1.993	63.20	11.3	3.3	10.7	2.3
100	17.6	0.792	-2.025	62.73	11.3	3.4	10.7	2.2
100	17.9	0.789	-2.058	62.25	11.2	3.4	10.6	2.2
100	18.2	0.785	-2.103	61.62	11.2	3.4	10.6	2.2
100	18.5	0.782	-2.136	61.15	11.1	3.5	10.5	2.1
100	18.8	0.779	-2.169	60.68	11.1	3.5	10.5	2.1
100	19	0.775	-2.214	60.06	11	3.5	10.4	2.1
100	19.3	0.772	-2.248	59.60	11	3.6	10.3	2
100	19.6	0.769	-2.281	59.14	11	3.6	10.3	2
100	19.9	0.766	-2.315	58.68	10.9	3.7	10.2	1.9
100	20.2	0.763	-2.350	58.22	10.9	3.7	10.2	1.9
100	20.4	0.76	-2.384	57.76	10.8	3.7	10.1	1.9
100	20.7	0.757	-2.418	57.30	10.8	3.8	10.1	1.8
100	21	0.754	-2.453	56.85	10.7	3.8	9.9	1.8
100	21.3	0.751	-2.487	56.40	10.7	3.8	9.9	1.8
100	21.6	0.748	-2.522	55.95	10.7	3.9	9.9	1.7
100	21.8	0.745	-2.557	55.50	10.6	3.9	9.8	1.7
100	22.1	0.742	-2.592	55.06	10.6	3.9	9.8	1.7
100	22.4	0.739	-2.627	54.61	10.5	3.9	9.7	1.7
100	22.7	0.736	-2.662	54.17	10.5	4	9.6	1.6
100	23	0.733	-2.698	53.73	10.4	4	9.5	1.6
100	23.2	0.73	-2.734	53.29	10.4	4	9.5	1.6
100	23.5	0.727	-2.769	52.85	10.4	4.1	9.5	1.5
100	23.8	0.724	-2.805	52.42	10.3	4.1	9.4	1.5
100	24.1	0.721	-2.841	51.98	10.3	4.2	9.4	1.4
100	24.4	0.717	-2.890	51.41	10.2	4.2	9.2	1.4

100	24.6	0.714	-2.926	50.98	10.2	4.2	9.2	1.4
100	24.9	0.711	-2.963	50.55	10.1	4.2	9.1	1.4
100	25.2	0.708	-2.999	50.13	10.1	4.2	9.1	1.4
100	25.5	0.705	-3.036	49.70	10	4.3	9	1.3
100	25.8	0.701	-3.086	49.14	10	4.3	9	1.3
100	26	0.698	-3.123	48.72	9.9	4.3	8.8	1.3
100	26.3	0.695	-3.160	48.30	9.9	4.3	8.8	1.3
100	26.6	0.691	-3.210	47.75	9.8	4.3	8.7	1.3
100	26.9	0.688	-3.248	47.33	9.8	4.4	8.7	1.2
100	27.2	0.685	-3.286	46.92	9.8	4.4	8.7	1.2
100	27.4	0.681	-3.337	46.38	9.7	4.4	8.6	1.2
100	27.7	0.678	-3.375	45.97	9.7	4.5	8.5	1.1
100	28	0.674	-3.427	45.43	9.6	4.5	8.4	1.1
100	28.3	0.67	-3.479	44.89	9.5	4.5	8.3	1.1
100	28.6	0.666	-3.531	44.36	9.5	4.5	8.3	1.1
100	28.8	0.662	-3.583	43.82	9.4	4.5	8.2	1.1
100	29.1	0.658	-3.635	43.30	9.4	4.5	8.2	1.1
100	29.4	0.654	-3.688	42.77	9.3	4.5	8.1	1.1
100	29.7	0.65	-3.742	42.25	9.3	4.6	8	1
100	30	0.646	-3.795	41.73	9.2	4.5	7.9	1.1
100	30.2	0.642	-3.849	41.22	9.1	4.5	7.8	1.1
100	30.5	0.638	-3.904	40.70	9.1	4.6	7.8	1
100	30.8	0.633	-3.972	40.07	9	4.6	7.7	1
100	31.1	0.629	-4.027	39.56	9	4.6	7.7	1
100	31.4	0.624	-4.096	38.94	8.9	4.6	7.5	1
100	31.6	0.619	-4.166	38.32	8.8	4.6	7.4	1
100	31.9	0.614	-4.237	37.70	8.7	4.5	7.3	1.1
100	32.2	0.609	-4.308	37.09	8.7	4.6	7.3	1
100	32.5	0.604	-4.379	36.48	8.6	4.6	7.2	1
100	32.8	0.599	-4.451	35.88	8.5	4.6	7.1	1
100	33	0.594	-4.524	35.28	8.5	4.6	7.1	1
100	33.3	0.589	-4.598	34.69	8.4	4.6	7	1
100	33.6	0.584	-4.672	34.11	8.3	4.5	6.9	1.1
100	33.9	0.579	-4.746	33.52	8.2	4.5	6.8	1.1
100	34.2	0.573	-4.837	32.83	8.2	4.6	6.7	1
100	34.4	0.568	-4.913	32.26	8.1	4.5	6.6	1.1
100	34.7	0.562	-5.005	31.58	8	4.5	6.5	1.1
100	35	0.557	-5.083	31.02	7.9	4.5	6.4	1.1
100	35.3	0.551	-5.177	30.36	7.8	4.5	6.3	1.1
100	35.6	0.546	-5.256	29.81	7.8	4.5	6.3	1.1
100	35.8	0.54	-5.352	29.16	7.7	4.5	6.2	1.1
100	36.1	0.534	-5.449	28.52	7.6	4.4	6.1	1.2
100	36.4	0.528	-5.547	27.88	7.5	4.4	6	1.2
100	36.7	0.522	-5.647	27.25	7.4	4.4	5.9	1.2
100	37	0.516	-5.747	26.63	7.3	4.3	5.8	1.3
100	37.2	0.51	-5.849	26.01	7.2	4.3	5.7	1.3
100	37.5	0.504	-5.951	25.40	7.2	4.3	5.7	1.3

100	37.8	0.498	-6.055	24.80	7.1	4.3	5.6	1.3
100	38.1	0.492	-6.161	24.21	7	4.3	5.5	1.3
100	38.4	0.485	-6.285	23.52	6.9	4.2	5.4	1.4
100	38.6	0.479	-6.393	22.94	6.8	4.2	5.3	1.4
100	38.9	0.473	-6.503	22.37	6.7	4.2	5.2	1.4
100	39.2	0.466	-6.632	21.72	6.6	4.1	5.1	1.5
100	39.5	0.46	-6.745	21.16	6.5	4.1	5	1.5
100	39.8	0.454	-6.859	20.61	6.4	4	4.9	1.6
100	40	0.447	-6.994	19.98	6.3	4	4.8	1.6
100	40.3	0.441	-7.111	19.45	6.3	4	4.8	1.6
100	40.6	0.435	-7.230	18.92	6.2	4	4.7	1.6
100	40.9	0.428	-7.371	18.32	6.1	3.9	4.6	1.7
100	41.2	0.422	-7.494	17.81	6	3.9	4.5	1.7
100	41.4	0.415	-7.639	17.22	5.9	3.9	4.4	1.7
100	41.7	0.408	-7.787	16.65	5.8	3.8	4.3	1.8
100	42	0.402	-7.915	16.16	5.7	3.8	4.2	1.8
100	42.3	0.395	-8.068	15.60	5.6	3.7	4.1	1.9
100	42.6	0.389	-8.201	15.13	5.5	3.7	4	1.9
100	42.8	0.383	-8.336	14.67	5.4	3.6	3.9	2
100	43.1	0.376	-8.496	14.14	5.3	3.6	3.8	2
100	43.4	0.37	-8.636	13.69	5.2	3.5	3.7	2.1
100	43.7	0.363	-8.802	13.18	5.1	3.5	3.6	2.1
100	44	0.357	-8.947	12.74	5.1	3.5	3.6	2.1
100	44.2	0.351	-9.094	12.32	5	3.4	3.5	2.2
100	44.5	0.344	-9.269	11.83	4.9	3.4	3.4	2.2
100	44.8	0.338	-9.422	11.42	4.8	3.3	3.4	2.3
100	45.1	0.332	-9.577	11.02	4.7	3.3	3.3	2.3
100	45.4	0.326	-9.736	10.63	4.6	3.2	3.2	2.4
100	45.6	0.319	-9.924	10.18	4.5	3.2	3.1	2.4
100	45.9	0.313	-10.089	9.80	4.4	3.1	3	2.5
100	46.2	0.307	-10.257	9.42	4.3	3.1	2.9	2.5
100	46.5	0.301	-10.429	9.06	4.3	3.1	2.9	2.5
100	46.8	0.295	-10.604	8.70	4.2	3	2.8	2.6
100	47	0.289	-10.782	8.35	4.1	2.9	2.7	2.7
100	47.3	0.283	-10.964	8.01	4	2.9	2.7	2.7
100	47.6	0.277	-11.150	7.67	3.9	2.8	2.6	2.8
100	47.9	0.272	-11.309	7.40	3.8	2.8	2.5	2.8
100	48.2	0.266	-11.502	7.08	3.8	2.8	2.5	2.8
100	48.4	0.26	-11.701	6.76	3.7	2.7	2.4	2.9
100	48.7	0.254	-11.903	6.45	3.6	2.7	2.3	2.9
100	49	0.249	-12.076	6.20	3.5	2.6	2.2	3
100	49.3	0.243	-12.288	5.90	3.4	2.5	2.2	3.1
100	49.6	0.238	-12.468	5.66	3.4	2.5	2.2	3.1
100	49.8	0.233	-12.653	5.43	3.3	2.5	2.1	3.1
100	50.1	0.227	-12.879	5.15	3.2	2.4	2	3.2
100	50.4	0.222	-13.073	4.93	3.1	2.3	1.9	3.3
100	50.7	0.217	-13.271	4.71	3.1	2.3	1.9	3.3

100	51	0.212	-13.473	4.49	3	2.3	1.8	3.3
100	51.2	0.207	-13.681	4.28	2.9	2.2	1.8	3.4
100	51.5	0.202	-13.893	4.08	2.8	2.1	1.7	3.5
100	51.8	0.197	-14.111	3.88	2.8	2.1	1.7	3.5
100	52.1	0.192	-14.334	3.69	2.7	2.1	1.6	3.5
100	52.4	0.188	-14.517	3.53	2.6	2	1.5	3.6
100	52.6	0.183	-14.751	3.35	2.6	2	1.5	3.6
100	52.9	0.178	-14.992	3.17	2.5	1.9	1.5	3.7
100	53.2	0.174	-15.189	3.03	2.4	1.9	1.4	3.7
100	53.5	0.17	-15.391	2.89	2.4	1.9	1.4	3.7
100	53.8	0.165	-15.650	2.72	2.3	1.8	1.3	3.8
100	54	0.161	-15.863	2.59	2.3	1.8	1.3	3.8
100	54.3	0.157	-16.082	2.46	2.2	1.7	1.2	3.9
100	54.6	0.153	-16.306	2.34	2.1	1.7	1.2	3.9
100	54.9	0.149	-16.536	2.22	2.1	1.7	1.2	3.9
100	55.2	0.145	-16.773	2.10	2	1.6	1.1	4
100	55.4	0.141	-17.016	1.99	2	1.6	1.1	4
100	55.7	0.137	-17.266	1.88	1.9	1.5	1	4.1
100	56	0.133	-17.523	1.77	1.9	1.5	1	4.1
100	56.3	0.13	-17.721	1.69	1.8	1.4	0.9	4.2
100	56.6	0.126	-17.993	1.59	1.8	1.5	0.9	4.1
100	56.8	0.122	-18.273	1.49	1.7	1.4	0.9	4.2
100	57.1	0.119	-18.489	1.42	1.7	1.4	0.9	4.2
100	57.4	0.116	-18.711	1.35	1.6	1.3	0.8	4.3
100	57.7	0.112	-19.016	1.25	1.6	1.3	0.8	4.3
100	58	0.109	-19.251	1.19	1.5	1.2	0.7	4.4
100	58.2	0.106	-19.494	1.12	1.5	1.2	0.7	4.4
100	58.5	0.103	-19.743	1.06	1.4	1.1	0.7	4.5
100	58.8	0.1	-20.000	1.00	1.4	1.1	0.7	4.5
100	59.1	0.097	-20.265	0.94	1.3	1.1	0.6	4.5
100	59.4	0.094	-20.537	0.88	1.3	1.1	0.6	4.5
100	59.6	0.091	-20.819	0.83	1.3	1.1	0.6	4.5
100	59.9	0.088	-21.110	0.77	1.2	1	0.6	4.6
100	60.2	0.086	-21.310	0.74	1.2	1	0.5	4.6
100	60.5	0.083	-21.618	0.69	1.1	0.9	0.5	4.7
100	60.8	0.081	-21.830	0.66	1.1	0.9	0.5	4.7
100	61	0.078	-22.158	0.61	1.1	0.9	0.5	4.7
100	61.3	0.076	-22.384	0.58	1	0.8	0.4	4.8
100	61.6	0.073	-22.734	0.53	1	0.8	0.4	4.8
100	61.9	0.071	-22.975	0.50	1	0.8	0.4	4.8
100	62.2	0.069	-23.223	0.48	0.9	0.7	0.4	4.9
100	62.4	0.066	-23.609	0.44	0.9	0.7	0.4	4.9
100	62.7	0.064	-23.876	0.41	0.9	0.7	0.4	4.9
100	63	0.062	-24.152	0.38	0.8	0.7	0.3	4.9
100	63.3	0.06	-24.437	0.36	0.8	0.7	0.3	4.9
100	63.6	0.058	-24.731	0.34	0.8	0.7	0.3	4.9
100	63.8	0.056	-25.036	0.31	0.8	0.7	0.3	4.9

100	64.1	0.054	-25.352	0.29	0.7	0.6	0.3	5
100	64.4	0.052	-25.680	0.27	0.7	0.6	0.3	5
100	64.7	0.051	-25.849	0.26	0.7	0.6	0.2	5
100	65	0.049	-26.196	0.24	0.7	0.6	0.2	5
100	65.2	0.047	-26.558	0.22	0.6	0.5	0.2	5.1
100	65.5	0.045	-26.936	0.20	0.6	0.5	0.2	5.1
100	65.8	0.044	-27.131	0.19	0.6	0.5	0.2	5.1
100	66.1	0.042	-27.535	0.18	0.6	0.5	0.2	5.1
100	66.4	0.041	-27.744	0.17	0.5	0.4	0.2	5.2
100	66.6	0.039	-28.179	0.15	0.5	0.4	0.1	5.2
100	66.9	0.038	-28.404	0.14	0.5	0.4	0.1	5.2
100	67.2	0.036	-28.874	0.13	0.5	0.4	0.1	5.2
100	67.5	0.035	-29.119	0.12	0.5	0.4	0.1	5.2
100	67.8	0.034	-29.370	0.12	0.4	0.3	0.1	5.3
100	68	0.032	-29.897	0.10	0.4	0.3	0.1	5.3
100	68.3	0.031	-30.173	0.10	0.4	0.3	0.1	5.3
100	68.6	0.03	-30.458	0.09	0.4	0.3	0.1	5.3
100	68.9	0.029	-30.752	0.08	0.4	0.3	0.1	5.3
100	69.2	0.027	-31.373	0.07	0.3	0.2	0.1	5.4
100	69.4	0.026	-31.701	0.07	0.3	0.2	0.1	5.4
100	69.7	0.025	-32.041	0.06	0.3	0.2	0.1	5.4
100	70	0.024	-32.396	0.06	0.3	0.2	0.1	5.4
100	70.3	0.023	-32.765	0.05	0.3	0.2	0.1	5.4
100	70.6	0.022	-33.152	0.05	0.3	0.2	0	5.4
100	70.8	0.021	-33.556	0.04	0.3	0.2	0	5.4
100	71.1	0.02	-33.979	0.04	0.2	0.1	0	5.5
100	71.4	0.019	-34.425	0.04	0.2	0.1	0	5.5
100	71.7	0.019	-34.425	0.04	0.2	0.1	0	5.5
100	72	0.018	-34.895	0.03	0.2	0.1	0	5.5
100	72.2	0.017	-35.391	0.03	0.2	0.1	0	5.5
100	72.5	0.016	-35.918	0.03	0.2	0.1	0	5.5
100	72.8	0.015	-36.478	0.02	0.2	0.1	0	5.5
100	73.1	0.015	-36.478	0.02	0.2	0.1	0	5.5
100	73.4	0.014	-37.077	0.02	0.2	0.1	0	5.5
100	73.6	0.013	-37.721	0.02	0.1	0	0	5.6
100	73.9	0.013	-37.721	0.02	0.1	0	0	5.6
100	74.2	0.012	-38.416	0.01	0.1	0	0	5.6
100	74.5	0.011	-39.172	0.01	0.1	0	0	5.6
100	74.8	0.011	-39.172	0.01	0.1	0	0	5.6
100	75	0.01	-40.000	0.01	0.1	0	0	5.6
100	75.3	0.01	-40.000	0.01	0.1	0	0	5.6
100	75.6	0.009	-40.915	0.01	0.1	0	0	5.6
100	75.9	0.008	-41.938	0.01	0.1	0	0	5.6
100	76.2	0.008	-41.938	0.01	0.1	0	0	5.6
100	76.4	0.007	-43.098	0.00	0.1	0	0	5.6
100	76.7	0.007	-43.098	0.00	0.1	0	0	5.6
100	77	0.007	-43.098	0.00	0.1	0	0	5.6

100	77.3	0.006	-44.437	0.00	0	0	0	5.6
100	77.6	0.006	-44.437	0.00	0	0	0	5.6
100	77.8	0.005	-46.021	0.00	0	0	0	5.6
100	78.1	0.005	-46.021	0.00	0	0	0	5.6
100	78.4	0.005	-46.021	0.00	0	0	0	5.6
100	78.7	0.004	-47.959	0.00	0	0	0	5.6
100	79	0.004	-47.959	0.00	0	0	0	5.6
100	79.2	0.004	-47.959	0.00	0	0	0	5.6
100	79.5	0.003	-50.458	0.00	0	0	0	5.6
100	79.8	0.003	-50.458	0.00	0	0	0	5.6
100	80.1	0.003	-50.458	0.00	0	0	0	5.6
100	80.4	0.003	-50.458	0.00	0	0	0	5.6
100	80.6	0.002	-53.979	0.00	0	0	0	5.6
100	80.9	0.002	-53.979	0.00	0	0	0	5.6
100	81.2	0.002	-53.979	0.00	0	0	0	5.6
100	81.5	0.002	-53.979	0.00	0	0	0	5.6
100	81.8	0.002	-53.979	0.00	0	0	0	5.6
100	82	0.001	-60.000	0.00	0	0	0	5.6
100	82.3	0.001	-60.000	0.00	0	0	0	5.6
100	82.6	0.001	-60.000	0.00	0	0	0	5.6
100	82.9	0.001	-60.000	0.00	0	0	0	5.6
100	83.2	0.001	-60.000	0.00	0	0	0	5.6
100	83.4	0.001	-60.000	0.00	0	0	0	5.6
100	83.7	0.001	-60.000	0.00	0	0	0	5.6
100	84	0.001	-60.000	0.00	0	0	0	5.6
100	84.3	0.001	-60.000	0.00	0	0	0	5.6
100	84.6	0.00000001	-160.000	0.00	0	0	0	5.6
100	84.8	0	-160.000	0.00	0	0	0	5.6
100	85.1	0	-160.000	0.00	0	0	0	5.6
100	85.4	0	-160.000	0.00	0	0	0	5.6
100	85.7	0	-160.000	0.00	0	0	0	5.6
100	86	0	-160.000	0.00	0	0	0	5.6
100	86.2	0	-160.000	0.00	0	0	0	5.6
100	86.5	0	-160.000	0.00	0	0	0	5.6
100	86.8	0	-160.000	0.00	0	0	0	5.6
100	87.1	0	-160.000	0.00	0	0	0	5.6
100	87.4	0	-160.000	0.00	0	0	0	5.6
100	87.6	0	-160.000	0.00	0	0	0	5.6
100	87.9	0	-160.000	0.00	0	0	0	5.6
100	88.2	0	-160.000	0.00	0	0	0	5.6
100	88.5	0	-160.000	0.00	0	0	0	5.6
100	88.8	0	-160.000	0.00	0	0	0	5.6
100	89	0	-160.000	0.00	0	0	0	5.6
100	89.3	0	-160.000	0.00	0	0	0	5.6
100	89.6	0	-160.000	0.00	0	0	0	5.6
100	89.9	0	-160.000	0.00	0	0	0	5.6
100	90.2	0	-160.000	0.00	0	0	0	5.6

100	90.4	0	-160.000	0.00	0	0	0	5.6
100	90.7	0	-160.000	0.00	0	0	0	5.6
100	91	0	-160.000	0.00	0	0	0	5.6
100	91.3	0	-160.000	0.00	0	0	0	5.6
100	91.6	0	-160.000	0.00	0	0	0	5.6
100	91.8	0	-160.000	0.00	0	0	0	5.6
100	92.1	0	-160.000	0.00	0	0	0	5.6
100	92.4	0	-160.000	0.00	0	0	0	5.6
100	92.7	0	-160.000	0.00	0	0	0	5.6
100	93	0	-160.000	0.00	0	0	0	5.6
100	93.2	0	-160.000	0.00	0	0	0	5.6
100	93.5	0	-160.000	0.00	0	0	0	5.6
100	93.8	0	-160.000	0.00	0	0	0	5.6
100	94.1	0	-160.000	0.00	0	0	0	5.6
100	94.4	0	-160.000	0.00	0	0	0	5.6
100	94.6	0	-160.000	0.00	0	0	0	5.6
100	94.9	0	-160.000	0.00	0	0	0	5.6
100	95.2	0	-160.000	0.00	0	0	0	5.6
100	95.5	0	-160.000	0.00	0	0	0	5.6
100	95.8	0	-160.000	0.00	0	0	0	5.6
100	96	0.001	-60.000	0.00	0	0	0	5.6
100	96.3	0.001	-60.000	0.00	0	0	0	5.6
100	96.6	0.001	-60.000	0.00	0	0	0	5.6
100	96.9	0.001	-60.000	0.00	0	0	0	5.6
100	97.2	0.001	-60.000	0.00	0	0	0	5.6
100	97.4	0.001	-60.000	0.00	0	0	0	5.6
100	97.7	0.001	-60.000	0.00	0	0	0	5.6
100	98	0.001	-60.000	0.00	0	0	0	5.6
100	98.3	0.001	-60.000	0.00	0	0	0	5.6
100	98.6	0.002	-53.979	0.00	0	0	0	5.6
100	98.8	0.002	-53.979	0.00	0	0	0	5.6
100	99.1	0.002	-53.979	0.00	0	0	0	5.6
100	99.4	0.002	-53.979	0.00	0	0	0	5.6
100	99.7	0.002	-53.979	0.00	0	0	0	5.6
100	100	0.003	-50.458	0.00	0	0	0	5.6
100	100.2	0.003	-50.458	0.00	0	0	0	5.6
100	100.5	0.003	-50.458	0.00	0	0	0	5.6

Elevation Pattern Data

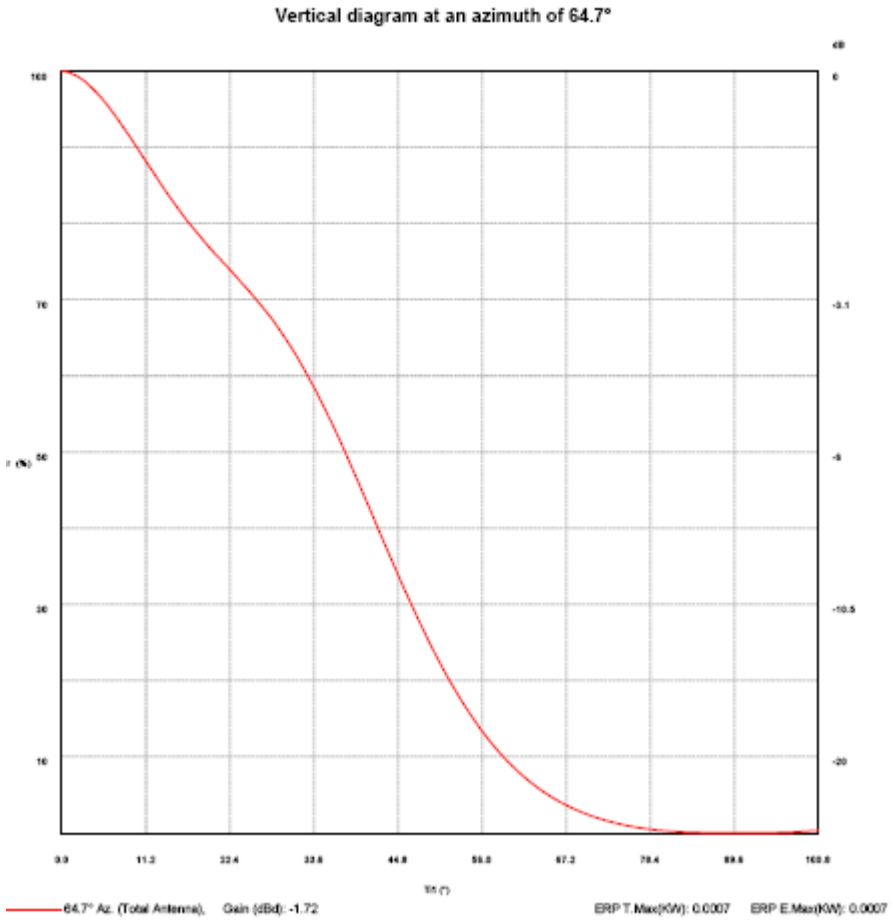
Vertical diagram at an azimuth of 64.7°

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.1	0.7	16.8	80.2	0.4	33.6	58.4	0.2
0.3	100.0	0.7	17.1	79.8	0.4	33.9	57.9	0.2
0.6	99.9	0.7	17.4	79.5	0.4	34.2	57.3	0.2
0.8	99.8	0.7	17.6	79.2	0.4	34.4	56.8	0.2
1.1	99.7	0.7	17.9	78.9	0.4	34.7	56.2	0.2
1.4	99.6	0.7	18.2	78.5	0.4	35.0	55.7	0.2
1.7	99.5	0.7	18.5	78.2	0.4	35.3	55.1	0.2
2.0	99.4	0.7	18.8	77.9	0.4	35.6	54.6	0.2
2.2	99.2	0.7	19.0	77.5	0.4	35.8	54.0	0.2
2.5	99.0	0.7	19.3	77.2	0.4	36.1	53.4	0.2
2.8	98.8	0.7	19.6	76.9	0.4	36.4	52.8	0.2
3.1	98.6	0.7	19.9	76.6	0.4	36.7	52.2	0.2
3.4	98.4	0.7	20.2	76.3	0.4	37.0	51.6	0.2
3.6	98.1	0.6	20.4	76.0	0.4	37.2	51.0	0.2
3.9	97.8	0.6	20.7	75.7	0.4	37.5	50.4	0.2
4.2	97.6	0.6	21.0	75.4	0.4	37.8	49.8	0.2
4.5	97.3	0.6	21.3	75.1	0.4	38.1	49.2	0.2
4.8	97.0	0.6	21.6	74.8	0.4	38.4	48.5	0.2
5.0	96.7	0.6	21.8	74.5	0.4	38.6	47.9	0.2
5.3	96.4	0.6	22.1	74.2	0.4	38.9	47.3	0.2
5.6	96.1	0.6	22.4	73.9	0.4	39.2	46.6	0.1
5.9	95.7	0.6	22.7	73.6	0.4	39.5	46.0	0.1
6.2	95.4	0.6	23.0	73.3	0.4	39.8	45.4	0.1
6.4	95.0	0.6	23.2	73.0	0.4	40.0	44.7	0.1
6.7	94.6	0.6	23.5	72.7	0.4	40.3	44.1	0.1
7.0	94.2	0.6	23.8	72.4	0.4	40.6	43.5	0.1
7.3	93.9	0.6	24.1	72.1	0.3	40.9	42.8	0.1
7.6	93.5	0.6	24.4	71.7	0.3	41.2	42.2	0.1
7.8	93.1	0.6	24.6	71.4	0.3	41.4	41.5	0.1
8.1	92.7	0.6	24.9	71.1	0.3	41.7	40.8	0.1
8.4	92.3	0.6	25.2	70.8	0.3	42.0	40.2	0.1
8.7	91.9	0.6	25.5	70.5	0.3	42.3	39.5	0.1
9.0	91.5	0.6	25.8	70.1	0.3	42.6	38.9	0.1
9.2	91.1	0.6	26.0	69.8	0.3	42.8	38.3	0.1
9.5	90.6	0.6	26.3	69.5	0.3	43.1	37.6	0.1
9.8	90.2	0.5	26.6	69.1	0.3	43.4	37.0	0.1
10.1	89.8	0.5	26.9	68.8	0.3	43.7	36.3	0.1
10.4	89.4	0.5	27.2	68.5	0.3	44.0	35.7	0.1
10.6	89.0	0.5	27.4	68.1	0.3	44.2	35.1	0.1
10.9	88.5	0.5	27.7	67.8	0.3	44.5	34.4	0.1
11.2	88.1	0.5	28.0	67.4	0.3	44.8	33.8	0.1
11.5	87.7	0.5	28.3	67.0	0.3	45.1	33.2	0.1
11.8	87.3	0.5	28.6	66.6	0.3	45.4	32.6	0.1
12.0	86.9	0.5	28.8	66.2	0.3	45.6	31.9	0.1
12.3	86.4	0.5	29.1	65.8	0.3	45.9	31.3	0.1
12.6	86.0	0.5	29.4	65.4	0.3	46.2	30.7	0.1
12.9	85.6	0.5	29.7	65.0	0.3	46.5	30.1	0.1
13.2	85.2	0.5	30.0	64.6	0.3	46.8	29.5	0.1
13.4	84.8	0.5	30.2	64.2	0.3	47.0	28.9	0.1
13.7	84.4	0.5	30.5	63.8	0.3	47.3	28.3	0.1
14.0	84.0	0.5	30.8	63.3	0.3	47.6	27.7	0.1
14.3	83.6	0.5	31.1	62.9	0.3	47.9	27.2	0.0
14.6	83.2	0.5	31.4	62.4	0.3	48.2	26.6	0.0
14.8	82.8	0.5	31.6	61.9	0.3	48.4	26.0	0.0
15.1	82.4	0.5	31.9	61.4	0.3	48.7	25.4	0.0
15.4	82.0	0.5	32.2	60.9	0.2	49.0	24.9	0.0
15.7	81.7	0.4	32.5	60.4	0.2	49.3	24.3	0.0
16.0	81.3	0.4	32.8	59.9	0.2	49.6	23.8	0.0
16.2	80.9	0.4	33.0	59.4	0.2	49.8	23.3	0.0
16.5	80.6	0.4	33.3	58.9	0.2	50.1	22.7	0.0

Vertical diagram at an azimuth of 64.7°

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
50.4	22.2	0.0	67.2	3.6	0.0	84.0	0.1	0.0
50.7	21.7	0.0	67.5	3.5	0.0	84.3	0.1	0.0
51.0	21.2	0.0	67.8	3.4	0.0	84.6	0.0	0.0
51.2	20.7	0.0	68.0	3.2	0.0	84.8	0.0	0.0
51.5	20.2	0.0	68.3	3.1	0.0	85.1	0.0	0.0
51.8	19.7	0.0	68.6	3.0	0.0	85.4	0.0	0.0
52.1	19.2	0.0	68.9	2.9	0.0	85.7	0.0	0.0
52.4	18.8	0.0	69.2	2.7	0.0	86.0	0.0	0.0
52.6	18.3	0.0	69.4	2.6	0.0	86.2	0.0	0.0
52.9	17.8	0.0	69.7	2.5	0.0	86.5	0.0	0.0
53.2	17.4	0.0	70.0	2.4	0.0	86.8	0.0	0.0
53.5	17.0	0.0	70.3	2.3	0.0	87.1	0.0	0.0
53.8	16.5	0.0	70.6	2.2	0.0	87.4	0.0	0.0
54.0	16.1	0.0	70.8	2.1	0.0	87.6	0.0	0.0
54.3	15.7	0.0	71.1	2.0	0.0	87.9	0.0	0.0
54.6	15.3	0.0	71.4	1.9	0.0	88.2	0.0	0.0
54.9	14.9	0.0	71.7	1.9	0.0	88.5	0.0	0.0
55.2	14.5	0.0	72.0	1.8	0.0	88.8	0.0	0.0
55.4	14.1	0.0	72.2	1.7	0.0	89.0	0.0	0.0
55.7	13.7	0.0	72.5	1.6	0.0	89.3	0.0	0.0
56.0	13.3	0.0	72.8	1.5	0.0	89.6	0.0	0.0
56.3	13.0	0.0	73.1	1.5	0.0	89.9	0.0	0.0
56.6	12.6	0.0	73.4	1.4	0.0	90.2	0.0	0.0
56.8	12.2	0.0	73.6	1.3	0.0	90.4	0.0	0.0
57.1	11.9	0.0	73.9	1.3	0.0	90.7	0.0	0.0
57.4	11.6	0.0	74.2	1.2	0.0	91.0	0.0	0.0
57.7	11.2	0.0	74.5	1.1	0.0	91.3	0.0	0.0
58.0	10.9	0.0	74.8	1.1	0.0	91.6	0.0	0.0
58.2	10.6	0.0	75.0	1.0	0.0	91.8	0.0	0.0
58.5	10.3	0.0	75.3	1.0	0.0	92.1	0.0	0.0
58.8	10.0	0.0	75.6	0.9	0.0	92.4	0.0	0.0
59.1	9.7	0.0	75.9	0.8	0.0	92.7	0.0	0.0
59.4	9.4	0.0	76.2	0.8	0.0	93.0	0.0	0.0
59.6	9.1	0.0	76.4	0.7	0.0	93.2	0.0	0.0
59.9	8.8	0.0	76.7	0.7	0.0	93.5	0.0	0.0
60.2	8.6	0.0	77.0	0.7	0.0	93.8	0.0	0.0
60.5	8.3	0.0	77.3	0.6	0.0	94.1	0.0	0.0
60.8	8.1	0.0	77.6	0.6	0.0	94.4	0.0	0.0
61.0	7.8	0.0	77.8	0.5	0.0	94.6	0.0	0.0
61.3	7.6	0.0	78.1	0.5	0.0	94.9	0.0	0.0
61.6	7.3	0.0	78.4	0.5	0.0	95.2	0.0	0.0
61.9	7.1	0.0	78.7	0.4	0.0	95.5	0.0	0.0
62.2	6.9	0.0	79.0	0.4	0.0	95.8	0.0	0.0
62.4	6.6	0.0	79.2	0.4	0.0	96.0	0.1	0.0
62.7	6.4	0.0	79.5	0.3	0.0	96.3	0.1	0.0
63.0	6.2	0.0	79.8	0.3	0.0	96.6	0.1	0.0
63.3	6.0	0.0	80.1	0.3	0.0	96.9	0.1	0.0
63.6	5.8	0.0	80.4	0.3	0.0	97.2	0.1	0.0
63.8	5.6	0.0	80.6	0.2	0.0	97.4	0.1	0.0
64.1	5.4	0.0	80.9	0.2	0.0	97.7	0.1	0.0
64.4	5.2	0.0	81.2	0.2	0.0	98.0	0.1	0.0
64.7	5.1	0.0	81.5	0.2	0.0	98.3	0.1	0.0
65.0	4.9	0.0	81.8	0.2	0.0	98.6	0.2	0.0
65.2	4.7	0.0	82.0	0.1	0.0	98.8	0.2	0.0
65.5	4.5	0.0	82.3	0.1	0.0	99.1	0.2	0.0
65.8	4.4	0.0	82.6	0.1	0.0	99.4	0.2	0.0
66.1	4.2	0.0	82.9	0.1	0.0	99.7	0.2	0.0
66.4	4.1	0.0	83.2	0.1	0.0	100.0	0.3	0.0
66.6	3.9	0.0	83.4	0.1	0.0	100.2	0.3	0.0
66.9	3.8	0.0	83.7	0.1	0.0	100.5	0.3	0.0

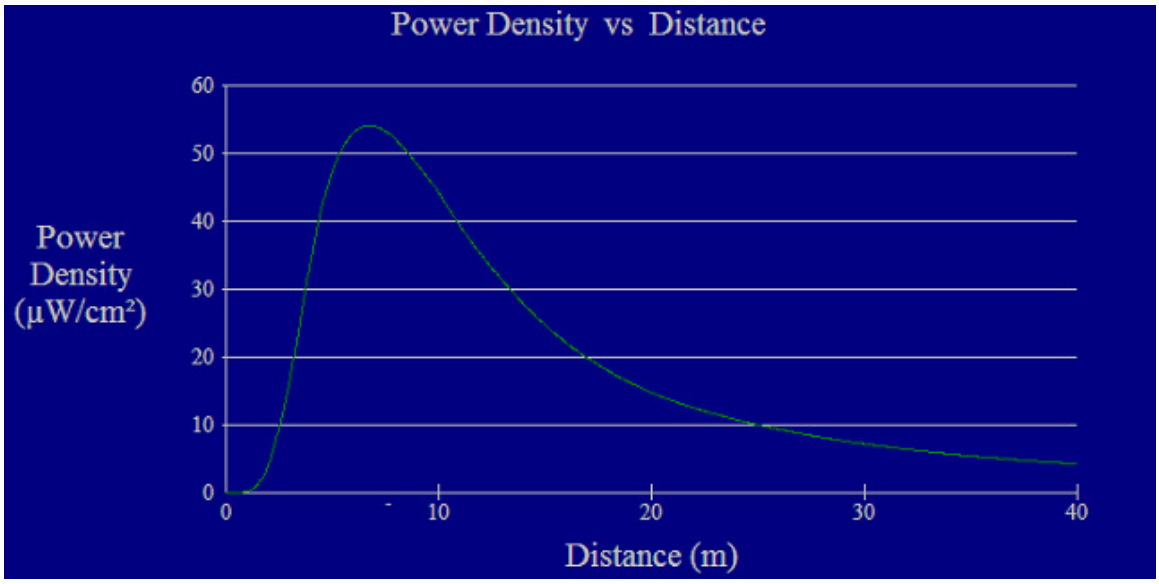
Elevation Pattern



NON-IONIZING ELECTROMAGNETIC RADIATION (NEIR) ANALYSIS

The Effective Radiated Power for proposed will be 100 watts, mounted on a mast 5.6 meters above a building. The OET program *FM Model* for Windows, Version 2.10 Beta was used to determine the maximum predicted RF exposure. The settings used were:

Antenna: Jampro "Flying V" (closest match)
Vertical ERP (W): 100
Horizontal ERP (W): 100
Antenna Height (m): 5.6
Number of Elements: 2
Spacing: .5



Using these settings, the maximum predicted RF exposure for a human standing on the ground would be less than 54.3 $\mu W/cm^2$ at 6.72 m. This represents less than 5% of the FCC Maximum Permissible Exposure (MPE) of 200 $\mu W/cm^2$ for uncontrolled environments. This represents less than 27.2% of the FCC Maximum Permissible Exposure (MPE) of 200 $\mu W/cm^2$ for uncontrolled environments. Therefore the applicant believes that the proposed facility meets the Commission's MPE standards. (The radiation at ground level is 9.3 $\mu W/cm^2$ at 16.2 m. This represents less than 5% of the FCC Maximum Permissible Exposure (MPE) of 200 $\mu W/cm^2$ for uncontrolled environments. 47 CFR 1.1307(b)(3) exempts applicants from preparing an Environmental Assessment when the predicted exposure levels when the predicted exposure levels would be less than 5% of the FCC limits).

The mast is on a roof inaccessible by the public and will have a no climbing with a warning sign to potential climbers. Facility is on private property, on the roof to

the backside of a commercial/shop building. If work on tower is required facility will be temporarily powered down.