

Doug Vernier, Telecommunications Consultants

N. Lat. = 45 05 19 W. Lng. = 93 08 26

HAAT and Distance to Contour - FCC Method - 03 Arc. Sec.

Electrical Beam Tilt = 2 Degrees

Mechanical Beam Tilt = 2 Vertical Degrees at 10 Degrees True

Sample DTV Printout with Electronic and Mechanical Beam Tilt

Azi.	AV EL	HAAT	ERP kW	dBk	Field	DAng	VFld	D-kW	%Max	D-dBk	60-F5
000	276.5	99.5	119.0250	20.76	0.345	0.276	0.425	21.4912	90.6	20.76	46.36
010	275.3	100.7	160.0000	22.04	0.400	0.278	0.414	27.4095	90.5	22.04	48.30
020	274.5	101.5	216.2250	23.35	0.465	0.279	0.425	39.0670	90.9	23.35	50.23
030	274.0	102.0	308.0250	24.89	0.555	0.280	0.436	58.6105	91.4	24.89	52.46
040	279.2	96.8	422.5000	26.26	0.650	0.273	0.447	84.4039	91.7	26.26	53.71
050	281.2	94.8	577.6000	27.62	0.760	0.270	0.466	125.3508	92.3	27.62	55.36
060	282.5	93.5	748.2250	28.74	0.865	0.268	0.488	178.1084	92.8	28.74	56.78
070	288.5	87.5	874.2250	29.42	0.935	0.259	0.509	226.7070	93.3	29.42	56.87
080	289.3	86.7	980.1000	29.91	0.990	0.258	0.531	276.7095	93.8	29.91	57.46
090	290.0	86.0	1000.0000	30.00	1.000	0.257	0.557	310.1712	94.2	30.00	57.48
100	289.0	87.0	980.1000	29.91	0.990	0.258	0.602	354.8023	95.0	29.91	57.51
110	292.0	84.0	940.9001	29.74	0.970	0.254	0.645	391.7162	95.7	29.74	56.80
120	289.2	86.8	940.9001	29.74	0.970	0.258	0.690	448.6035	96.3	29.74	57.22
130	283.9	92.1	931.2250	29.69	0.965	0.266	0.736	505.1206	97.0	29.69	57.95
140	279.7	96.3	931.2250	29.69	0.965	0.272	0.776	560.3593	97.5	29.69	58.54
150	272.8	103.2	940.9001	29.74	0.970	0.281	0.809	615.2116	97.9	29.74	59.50
160	272.1	103.9	970.2250	29.87	0.985	0.282	0.838	680.9956	98.3	29.87	59.79
170	275.7	100.3	990.0250	29.96	0.995	0.277	0.866	742.7877	98.6	29.96	59.46
180	281.6	94.4	1000.0000	30.00	1.000	0.269	0.891	794.7186	98.9	30.00	58.72
190	285.0	91.0	1000.0000	30.00	1.000	0.264	0.908	823.6564	99.0	30.00	58.24
200	285.7	90.3	1000.0000	30.00	1.000	0.263	0.891	793.9411	98.9	30.00	58.13
210	275.2	100.8	970.2250	29.87	0.985	0.278	0.866	728.0610	98.6	29.87	59.39
220	277.1	98.9	855.6250	29.32	0.925	0.275	0.837	599.2503	98.2	29.32	58.35
230	275.8	100.2	722.5001	28.59	0.850	0.277	0.808	471.7989	97.9	28.59	57.48
240	281.6	94.4	600.6249	27.79	0.775	0.269	0.775	361.0063	97.4	27.79	55.54
250	269.9	106.1	462.4000	26.65	0.680	0.285	0.740	253.4794	96.9	26.65	55.45
260	268.0	108.0	348.1000	25.42	0.590	0.288	0.696	168.8534	96.3	25.42	53.93
270	263.8	112.2	250.0000	23.98	0.500	0.293	0.653	106.6474	95.5	23.98	52.37
280	265.3	110.7	160.0000	22.04	0.400	0.291	0.608	59.2045	94.6	22.04	49.49
290	267.4	108.6	108.9000	20.37	0.330	0.289	0.563	34.5526	93.7	20.37	46.92
300	272.3	103.7	78.4000	18.94	0.280	0.282	0.534	22.3362	93.0	18.94	44.37
310	275.2	100.8	67.6000	18.30	0.260	0.278	0.511	17.6620	92.4	18.30	43.12
320	276.7	99.3	62.5000	17.96	0.250	0.276	0.489	14.9279	91.9	17.96	42.46
330	277.8	98.2	62.5000	17.96	0.250	0.274	0.466	13.5918	91.3	17.96	42.31
340	277.2	98.8	67.6000	18.30	0.260	0.275	0.447	13.5133	90.9	18.30	42.87
350	277.1	98.9	87.0250	19.40	0.295	0.275	0.436	16.5426	90.7	19.40	44.40

Ave El= 278.28 M HAAT= 97.71 M AMSL= 376