

**KNBC Application for auxiliary broadcast facility**  
**Calculated Depression Angle, Relative Field and Effective Radiated Power at the radio horizon**

**EXHIBIT 43**  
**July 30, 2009**

Bearing (true)	HAAT (meters)	Depression angle to radio horizon	Mechanical tilt at this bearing	Combined depression angle	Azimuth pattern relative field	Elevation pattern relative field	Elevation relative field per Sec. 73.625(b)	Radio horizon relative field per Sec. 73.625(b)	Radio Horizon ERP (kW)	Radio Horizon ERP (dBk)
0	453	0.590	-0.667	1.256	0.247	0.989	1.000	0.247	21.6	13.3
5	585	0.670	-0.722	1.392	0.257	0.998	1.000	0.257	23.4	13.7
10	524	0.634	-0.778	1.412	0.248	0.998	1.000	0.248	21.8	13.4
15	439	0.580	-0.833	1.414	0.227	0.998	1.000	0.227	18.2	12.6
20	382	0.541	-0.889	1.430	0.202	0.999	1.000	0.202	14.4	11.6
25	357	0.523	-0.944	1.468	0.183	0.999	1.000	0.183	11.9	10.7
30	350	0.518	-1.000	1.518	0.178	1.000	1.000	0.178	11.2	10.5
35	375	0.536	-0.944	1.481	0.194	1.000	1.000	0.194	13.3	11.2
40	430	0.574	-0.889	1.463	0.229	0.999	1.000	0.229	18.6	12.7
42	426	0.572	-0.867	1.438	0.248	0.999	1.000	0.248	21.8	13.4
45	501	0.620	-0.833	1.453	0.278	0.999	1.000	0.278	27.4	14.4
50	439	0.580	-0.778	1.358	0.334	0.995	1.000	0.334	39.5	16.0
55	603	0.680	-0.722	1.402	0.393	0.998	1.000	0.393	54.7	17.4
60	699	0.732	-0.667	1.399	0.449	0.998	1.000	0.449	71.4	18.5
65	815	0.791	-0.611	1.402	0.502	0.998	1.000	0.502	89.2	19.5
70	872	0.818	-0.556	1.374	0.552	0.996	1.000	0.552	107.9	20.3
75	1006	0.879	-0.500	1.379	0.599	0.997	1.000	0.599	127.0	21.0
80	1039	0.893	-0.444	1.337	0.644	0.994	1.000	0.644	146.8	21.7
85	918	0.839	-0.389	1.228	0.688	0.988	1.000	0.688	167.6	22.2
90	666	0.715	-0.333	1.048	0.733	0.968	1.000	0.733	190.2	22.8
95	694	0.730	-0.278	1.008	0.778	0.963	1.000	0.778	214.3	23.3
99	822	0.794	-0.233	1.028	0.816	0.965	1.000	0.816	235.7	23.7
100	843	0.804	-0.222	1.026	0.826	0.965	1.000	0.826	241.5	23.8
101	866	0.815	-0.211	1.026	0.835	0.965	1.000	0.835	246.8	23.9
105	950	0.854	-0.167	1.020	0.873	0.964	1.000	0.873	269.8	24.3
110	1002	0.877	-0.111	0.988	0.916	0.960	1.000	0.916	297.0	24.7
115	1047	0.896	-0.056	0.952	0.951	0.953	1.000	0.951	320.2	25.1
120	1172	0.948	0.000	0.948	0.977	0.953	1.000	0.977	337.9	25.3
125	1279	0.991	0.056	0.935	0.993	0.950	1.000	0.993	349.1	25.4
130	1382	1.030	0.111	0.919	1.000	0.947	1.000	1.000	354.0	25.5
135	1442	1.052	0.167	0.885	0.998	0.941	1.000	0.998	352.6	25.5
140	1485	1.067	0.222	0.845	0.990	0.934	1.000	0.990	347.0	25.4
145	1489	1.069	0.278	0.791	0.976	0.924	1.000	0.976	337.2	25.3
150	1527	1.082	0.333	0.749	0.960	0.914	1.000	0.960	326.2	25.1
155	1542	1.088	0.389	0.699	0.944	0.903	1.000	0.944	315.5	25.0
160	1567	1.097	0.444	0.652	0.930	0.892	0.892	0.830	243.6	23.9
161	1567	1.097	0.456	0.641	0.927	0.889	0.889	0.824	240.6	23.8
165	1553	1.092	0.500	0.592	0.918	0.878	0.878	0.806	229.8	23.6
170	1549	1.090	0.556	0.535	0.908	0.861	0.861	0.782	216.5	23.4
174	1549	1.090	0.600	0.490	0.903	0.849	0.849	0.766	207.9	23.2
175	1549	1.090	0.611	0.479	0.901	0.846	0.846	0.762	205.5	23.1
180	1550	1.091	0.667	0.424	0.897	0.830	0.830	0.744	196.1	22.9
185	1546	1.089	0.722	0.367	0.895	0.812	0.812	0.727	187.1	22.7
189	1553	1.092	0.767	0.325	0.901	0.799	0.799	0.720	183.3	22.6
190	1550	1.091	0.778	0.313	0.902	0.795	0.795	0.717	181.9	22.6
195	1549	1.090	0.833	0.257	0.908	0.776	0.776	0.705	176.0	22.5
200	1551	1.091	0.889	0.202	0.914	0.759	0.759	0.693	170.2	22.3
205	1539	1.087	0.944	0.142	0.921	0.737	0.737	0.679	163.1	22.1
210	1522	1.081	1.000	0.081	0.930	0.714	0.714	0.664	156.3	21.9
215	1511	1.077	0.944	0.132	0.942	0.733	0.733	0.691	168.9	22.3
220	1525	1.082	0.889	0.193	0.958	0.755	0.755	0.724	185.4	22.7
225	1500	1.073	0.833	0.239	0.974	0.771	0.771	0.751	199.5	23.0
228	1485	1.067	0.800	0.267	0.983	0.780	0.780	0.767	208.1	23.2
230	1475	1.064	0.778	0.286	0.988	0.786	0.786	0.777	213.5	23.3
233	1462	1.059	0.744	0.315	0.993	0.795	0.795	0.790	220.8	23.4
235	1409	1.040	0.722	0.318	0.995	0.796	0.796	0.792	222.2	23.5
236	1403	1.038	0.711	0.326	0.996	0.799	0.799	0.796	224.2	23.5
240	1392	1.033	0.667	0.367	0.995	0.812	0.812	0.808	231.2	23.6
245	1329	1.010	0.611	0.399	0.985	0.823	0.823	0.810	232.4	23.7
250	1312	1.003	0.556	0.448	0.967	0.837	0.837	0.809	231.7	23.6
255	1293	0.996	0.500	0.496	0.940	0.850	0.850	0.799	226.2	23.5
260	1237	0.974	0.444	0.530	0.906	0.860	0.860	0.779	214.9	23.3
265	1148	0.939	0.389	0.550	0.865	0.866	0.866	0.749	198.5	23.0
268	1081	0.911	0.356	0.555	0.839	0.867	0.867	0.728	187.4	22.7

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270	1074	0.908	0.333	0.574	0.821	0.873	0.873	0.717	181.7	22.6
273	971	0.863	0.300	0.563	0.794	0.869	0.869	0.690	168.7	22.3
275	922	0.841	0.278	0.563	0.775	0.870	0.870	0.674	160.8	22.1
280	783	0.775	0.222	0.553	0.730	0.867	0.867	0.633	141.7	21.5
285	769	0.768	0.167	0.601	0.684	0.880	0.880	0.602	128.4	21.1
288	794	0.781	0.133	0.647	0.657	0.891	0.891	0.585	121.3	20.8
290	828	0.797	0.111	0.686	0.639	0.900	0.900	0.575	117.0	20.7
295	733	0.750	0.056	0.694	0.593	0.902	1.000	0.593	124.5	21.0
300	735	0.751	0.000	0.751	0.546	0.915	1.000	0.546	105.5	20.2
305	652	0.707	-0.056	0.763	0.497	0.917	1.000	0.497	87.4	19.4
310	579	0.667	-0.111	0.778	0.446	0.921	1.000	0.446	70.4	18.5
315	643	0.702	-0.167	0.869	0.392	0.938	1.000	0.392	54.4	17.4
320	545	0.647	-0.222	0.869	0.335	0.938	1.000	0.335	39.7	16.0
325	555	0.653	-0.278	0.930	0.280	0.949	1.000	0.280	27.8	14.4
330	619	0.689	-0.333	1.023	0.232	0.965	1.000	0.232	19.1	12.8
335	646	0.704	-0.389	1.093	0.197	0.973	1.000	0.197	13.7	11.4
340	660	0.712	-0.444	1.156	0.180	0.981	1.000	0.180	11.5	10.6
345	641	0.701	-0.500	1.201	0.184	0.986	1.000	0.184	12.0	10.8
348	623	0.691	-0.533	1.225	0.194	0.987	1.000	0.194	13.3	11.2
350	604	0.681	-0.556	1.236	0.202	0.988	1.000	0.202	14.4	11.6
355	496	0.617	-0.611	1.228	0.226	0.988	1.000	0.226	18.1	12.6

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