

Exhibit 42

Prepared by Guy Smith in connection with application
for KTLL-DT Channel 33, at Durango, Colorado

Mechanical Beam Tilt Antenna Details

The antenna proposed for KTLL-DT is the antenna that has been in use by KTLL-TV since its inception in 2001. No modifications to the antenna system will be required for DTV operation. The antenna is an Andrew ALP1616L8-HSPR-33 which incorporates two degrees of electrical beam tilt and two degrees of mechanical beam tilt.

The azimuth pattern shown on page 2 of this exhibit is rotated clockwise by 70° putting the major lobes at approximately 0° and 140° true. The mechanical tilt is also at 70° true.

Significant portions of the data used to prepare the tables (p6-p8) in this exhibit were taken from the exhibits prepared by Neal Smith of Smith & Fisher for the CP application BMPCT-20000915AAS.

The following pages describe the resulting pattern.

Page 2 – A plot of the azimuth pattern of the antenna disregarding beam tilt.

Page 3 – A tabulation of the azimuth pattern of the antenna disregarding beam tilt.

Page 4 – A plot of the elevation pattern without mechanical beam tilt.

Page 5 – A tabulation of the elevation pattern without mechanical beam tilt.

Page 6 – A table of the resulting beam tilt combining electric and mechanical beam tilt.

Page 7 – A table of resulting relative field values in the horizontal plane.

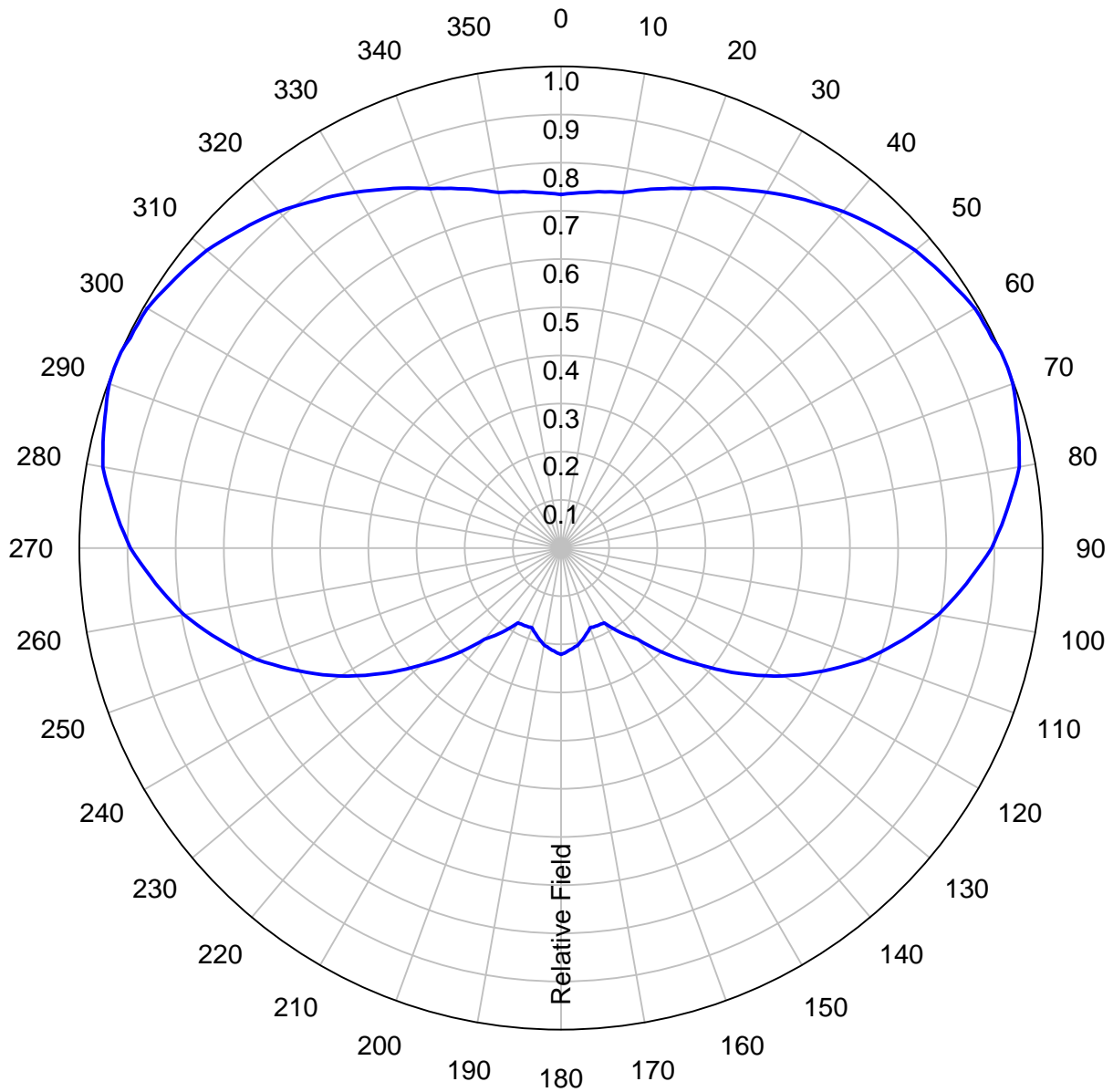
Page 8 – A table of resulting relative field values toward the radio horizon.



ANDREW® **AZIMUTH PATTERN**

Type: ALP-PR

	Numeric	dBd
Directivity:	<u>1.92</u>	<u>2.83</u>
Peak(s) at:	<u></u>	
Polarization:	<u>Horizontal</u>	
Channel:	<u>33</u>	
Location:	<u>Durango</u>	
Note:	<u></u>	



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**ANDREW®****AZIMUTH TABULATED DATA**Type: ALP-PRPolarization: Horizontal

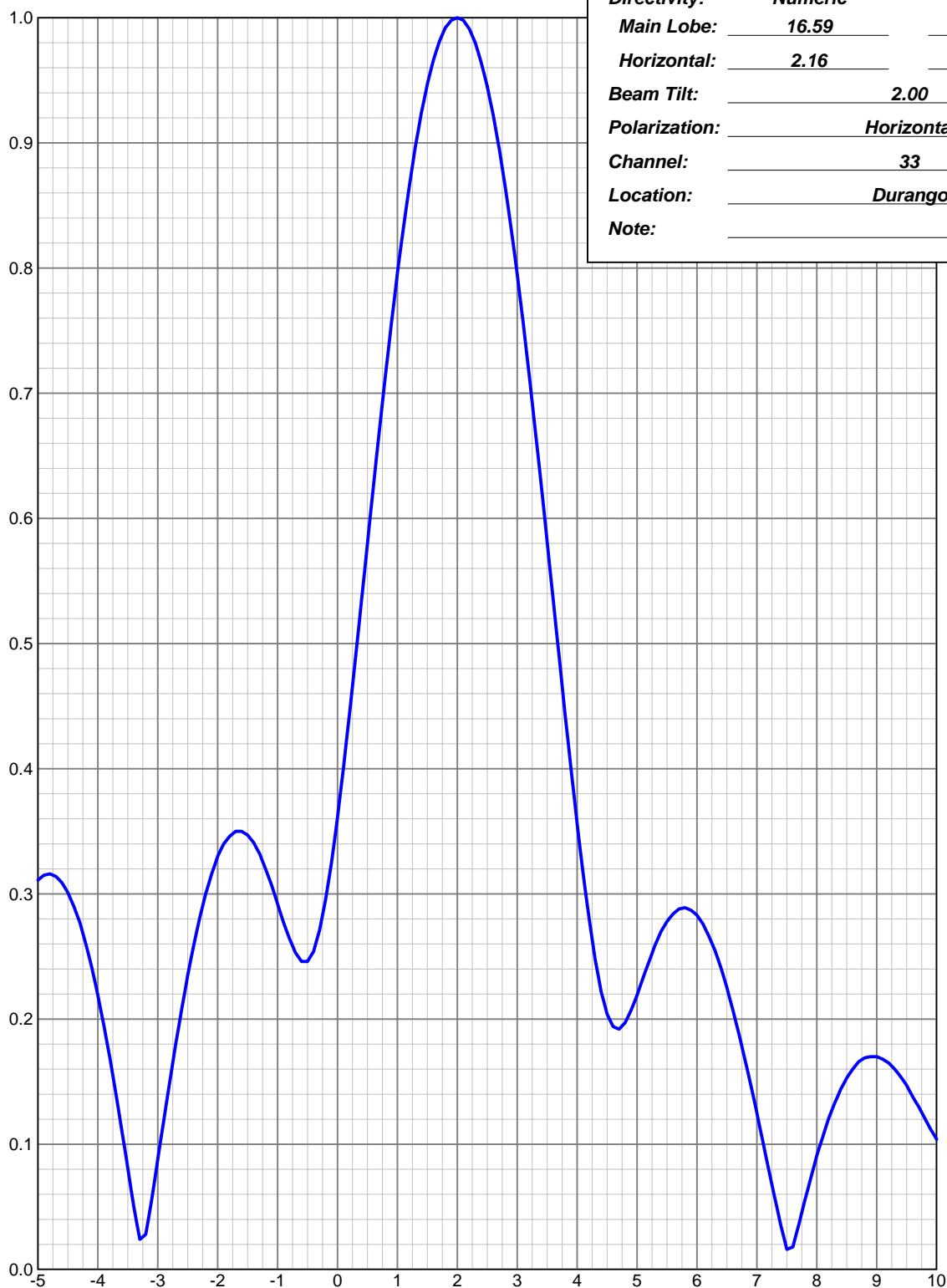
Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0	0.734	-2.69	92	0.874	-1.17	184	0.214	-13.39	276	0.937	-0.57
2	0.737	-2.65	94	0.854	-1.37	186	0.211	-13.51	278	0.952	-0.43
4	0.740	-2.62	96	0.835	-1.57	188	0.207	-13.68	280	0.966	-0.30
6	0.744	-2.57	98	0.815	-1.78	190	0.204	-13.81	282	0.972	-0.25
8	0.747	-2.53	100	0.795	-1.99	192	0.198	-14.07	284	0.979	-0.18
10	0.750	-2.50	102	0.771	-2.26	194	0.193	-14.29	286	0.985	-0.13
12	0.759	-2.40	104	0.747	-2.53	196	0.187	-14.56	288	0.992	-0.07
14	0.768	-2.29	106	0.722	-2.83	198	0.182	-14.80	290	0.998	-0.02
16	0.776	-2.20	108	0.698	-3.12	200	0.176	-15.09	292	1.000	0.00
18	0.785	-2.10	110	0.674	-3.43	202	0.177	-15.04	294	1.000	0.00
20	0.794	-2.00	112	0.645	-3.81	204	0.177	-15.04	296	0.995	-0.04
22	0.806	-1.87	114	0.617	-4.19	206	0.178	-14.99	298	0.994	-0.05
24	0.818	-1.74	116	0.588	-4.61	208	0.178	-14.99	300	0.993	-0.06
26	0.829	-1.63	118	0.560	-5.04	210	0.179	-14.94	302	0.987	-0.11
28	0.841	-1.50	120	0.531	-5.50	212	0.193	-14.29	304	0.980	-0.18
30	0.853	-1.38	122	0.500	-6.02	214	0.206	-13.72	306	0.974	-0.23
32	0.865	-1.26	124	0.469	-6.58	216	0.220	-13.15	308	0.967	-0.29
34	0.877	-1.14	126	0.439	-7.15	218	0.233	-12.65	310	0.961	-0.35
36	0.888	-1.03	128	0.408	-7.79	220	0.247	-12.15	312	0.951	-0.44
38	0.900	-0.92	130	0.377	-8.47	222	0.273	-11.28	314	0.941	-0.53
40	0.912	-0.80	132	0.351	-9.09	224	0.299	-10.49	316	0.932	-0.61
42	0.922	-0.71	134	0.325	-9.76	226	0.325	-9.76	318	0.922	-0.71
44	0.932	-0.61	136	0.299	-10.49	228	0.351	-9.09	320	0.912	-0.80
46	0.941	-0.53	138	0.273	-11.28	230	0.377	-8.47	322	0.900	-0.92
48	0.951	-0.44	140	0.247	-12.15	232	0.408	-7.79	324	0.888	-1.03
50	0.961	-0.35	142	0.233	-12.65	234	0.439	-7.15	326	0.877	-1.14
52	0.967	-0.29	144	0.220	-13.15	236	0.469	-6.58	328	0.865	-1.26
54	0.974	-0.23	146	0.206	-13.72	238	0.500	-6.02	330	0.853	-1.38
56	0.980	-0.18	148	0.193	-14.29	240	0.531	-5.50	332	0.841	-1.50
58	0.987	-0.11	150	0.179	-14.94	242	0.560	-5.04	334	0.829	-1.63
60	0.993	-0.06	152	0.178	-14.99	244	0.588	-4.61	336	0.818	-1.74
62	0.994	-0.05	154	0.178	-14.99	246	0.617	-4.19	338	0.806	-1.87
64	0.995	-0.04	156	0.177	-15.04	248	0.645	-3.81	340	0.794	-2.00
66	1.000	0.00	158	0.177	-15.04	250	0.674	-3.43	342	0.785	-2.10
68	1.000	0.00	160	0.176	-15.09	252	0.698	-3.12	344	0.776	-2.20
70	0.998	-0.02	162	0.182	-14.80	254	0.722	-2.83	346	0.768	-2.29
72	0.992	-0.07	164	0.187	-14.56	256	0.747	-2.53	348	0.759	-2.40
74	0.985	-0.13	166	0.193	-14.29	258	0.771	-2.26	350	0.750	-2.50
76	0.979	-0.18	168	0.198	-14.07	260	0.795	-1.99	352	0.747	-2.53
78	0.972	-0.25	170	0.204	-13.81	262	0.815	-1.78	354	0.744	-2.57
80	0.966	-0.30	172	0.207	-13.68	264	0.835	-1.57	356	0.740	-2.62
82	0.952	-0.43	174	0.211	-13.51	266	0.854	-1.37	358	0.737	-2.65
84	0.937	-0.57	176	0.214	-13.39	268	0.874	-1.17	360	0.734	-2.69
86	0.923	-0.70	178	0.218	-13.23	270	0.894	-0.97			
88	0.908	-0.84	180	0.221	-13.11	272	0.908	-0.84			
90	0.894	-0.97	182	0.218	-13.23	274	0.923	-0.70			



**ANDREW®****ELEVATION PATTERN**

Type:	ALP16L8	
Directivity:	Numeric	dBd
Main Lobe:	16.59	12.20
Horizontal:	2.16	3.35
Beam Tilt:	2.00	
Polarization:	Horizontal	
Channel:	33	
Location:	Durango	
Note:		

Relative Field



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**ANDREW®****ELEVATION TABULATED DATA**Type: ALP16L8Polarization: Horizontal

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.311	-10.14	6.50	0.225	-12.96	42.00	0.063	-24.01	88.00	0.019	-34.42
-4.75	0.315	-10.03	6.75	0.178	-14.99	43.00	0.038	-28.40	89.00	0.009	-40.92
-4.50	0.301	-10.43	7.00	0.125	-18.06	44.00	0.004	-47.96	90.00	0.000	0.00
-4.25	0.269	-11.42	7.25	0.068	-23.35	45.00	0.022	-33.15			
-4.00	0.219	-13.19	7.50	0.016	-35.92	46.00	0.026	-31.70			
-3.75	0.155	-16.19	7.75	0.045	-26.84	47.00	0.015	-36.48			
-3.50	0.081	-21.83	8.00	0.091	-20.82	48.00	0.004	-47.96			
-3.25	0.026	-31.70	8.25	0.127	-17.92	49.00	0.005	-46.02			
-3.00	0.088	-21.11	8.50	0.153	-16.31	50.00	0.030	-30.46			
-2.75	0.165	-15.65	8.75	0.168	-15.52	51.00	0.067	-23.48			
-2.50	0.235	-12.58	9.00	0.170	-15.39	52.00	0.102	-19.83			
-2.25	0.290	-10.74	9.25	0.163	-15.78	53.00	0.120	-18.42			
-2.00	0.330	-9.63	9.50	0.147	-16.65	54.00	0.114	-18.86			
-1.75	0.348	-9.17	9.75	0.126	-18.03	55.00	0.084	-21.51			
-1.50	0.347	-9.19	10.00	0.104	-19.66	56.00	0.051	-25.85			
-1.25	0.326	-9.74	11.00	0.124	-18.13	57.00	0.055	-25.19			
-1.00	0.292	-10.69	12.00	0.171	-15.34	58.00	0.081	-21.83			
-0.75	0.259	-11.75	13.00	0.118	-18.56	59.00	0.092	-20.72			
-0.50	0.246	-12.18	14.00	0.029	-30.75	60.00	0.080	-21.94			
-0.25	0.283	-10.96	15.00	0.014	-37.08	61.00	0.048	-26.38			
0.00	0.361	-8.85	16.00	0.027	-31.37	62.00	0.007	-43.10			
0.25	0.466	-6.63	17.00	0.057	-24.88	63.00	0.040	-27.96			
0.50	0.580	-4.73	18.00	0.039	-28.18	64.00	0.075	-22.50			
0.75	0.693	-3.19	19.00	0.028	-31.06	65.00	0.095	-20.45			
1.00	0.796	-1.98	20.00	0.082	-21.72	66.00	0.098	-20.18			
1.25	0.881	-1.10	21.00	0.073	-22.73	67.00	0.086	-21.31			
1.50	0.947	-0.47	22.00	0.080	-21.94	68.00	0.069	-23.22			
1.75	0.986	-0.12	23.00	0.169	-15.44	69.00	0.066	-23.61			
2.00	1.000	0.00	24.00	0.214	-13.39	70.00	0.086	-21.31			
2.25	0.986	-0.13	25.00	0.177	-15.04	71.00	0.117	-18.64			
2.50	0.945	-0.49	26.00	0.093	-20.63	72.00	0.147	-16.65			
2.75	0.880	-1.11	27.00	0.029	-30.75	73.00	0.170	-15.39			
3.00	0.795	-1.99	28.00	0.026	-31.70	74.00	0.185	-14.66			
3.25	0.693	-3.19	29.00	0.014	-37.08	75.00	0.191	-14.38			
3.50	0.581	-4.72	30.00	0.000	0.00	76.00	0.189	-14.47			
3.75	0.466	-6.63	31.00	0.006	-44.44	77.00	0.181	-14.85			
4.00	0.356	-8.97	32.00	0.025	-32.04	78.00	0.168	-15.49			
4.25	0.264	-11.57	33.00	0.033	-29.63	79.00	0.152	-16.36			
4.50	0.204	-13.81	34.00	0.036	-28.87	80.00	0.135	-17.39			
4.75	0.195	-14.22	35.00	0.092	-20.72	81.00	0.117	-18.64			
5.00	0.219	-13.19	36.00	0.159	-15.97	82.00	0.099	-20.09			
5.25	0.253	-11.95	37.00	0.191	-14.38	83.00	0.083	-21.62			
5.50	0.278	-11.12	38.00	0.167	-15.55	84.00	0.067	-23.48			
5.75	0.288	-10.80	39.00	0.102	-19.83	85.00	0.053	-25.51			
6.00	0.283	-10.96	40.00	0.045	-26.94	86.00	0.041	-27.74			
6.25	0.261	-11.68	41.00	0.057	-24.88	87.00	0.030	-30.46			



Beam Tilt Data

Proposed KTLL-DT Antenna Channel 33 - Durango, Colorado

Azimuth (°True)	Mechanical Tilt °	Total Tilt °	Azimuth (°True)	Mechanical Tilt °	Total Tilt °
0	-0.7	-2.7	180	+0.7	-1.3
10	-1.0	-3.0	190	+1.0	-1.0
20	-1.3	-3.3	200	+1.3	-0.7
30	-1.5	-3.5	210	+1.5	-0.5
40	-1.7	-3.7	220	+1.7	-0.3
50	-1.9	-3.9	230	+1.9	-0.1
60	-2.0	-4.0	240	+2.0	0
70	-2.0	-4.0	250	+2.0	0
80	-2.0	-4.0	260	+2.0	0
90	-1.9	-3.9	270	+1.9	-0.1
100	-1.7	-3.7	280	+1.7	-0.3
110	-1.5	-3.5	290	+1.5	-0.5
120	-1.3	-3.3	300	+1.3	-0.7
130	-1.0	-3.0	310	+1.0	-1.0
140	-0.7	-2.7	320	+0.7	-1.3
150	-0.3	-2.3	330	+0.3	-1.7
160	0	-2.0	340	0	-2.0
170	+0.3	-1.7	350	-0.3	-2.3

Directional Antenna Pattern Data Horizontal Plane

Proposed KTLL-DT Antenna Channel 33 - Durango, Colorado

Azimuth (°True)	Rel.Fld, H Pat.	Rel.Fld, V Pat.	Rel.Fld, Combined	Azimuth (°True)	Rel.Fld, H Pat.	Rel.Fld, V Pat.	Rel.Fld, Combined
0	0.998	0.271	0.270	180	0.674	0.726	0.489
10	0.993	0.273	0.271	190	0.531	0.819	0.435
20	0.961	0.302	0.290	200	0.377	0.897	0.338
30	0.912	0.326	0.297	210	0.247	0.955	0.246
40	0.853	0.337	0.287	220	0.179	0.990	0.177
50	0.794	0.333	0.264	230	0.176	1.0	0.176
60	0.750	0.132	0.099	240	0.204	1.0	0.204
70	0.734	0.332	0.244	250	0.221	1.0	0.221
80	0.750	0.332	0.249	260	0.204	1.0	0.204
90	0.794	0.333	0.264	270	0.176	1.0	0.176
100	0.853	0.337	0.287	280	0.179	0.990	0.177
110	0.912	0.326	0.297	290	0.247	0.955	0.236
120	0.961	0.302	0.290	300	0.377	0.897	0.338
130	0.993	0.273	0.271	310	0.531	0.821	0.436
140	0.998	0.271	0.270	320	0.674	0.726	0.489
150	0.966	0.326	0.315	330	0.795	0.514	0.409
160	0.895	0.412	0.369	340	0.894	0.412	0.368
170	0.795	0.514	0.409	350	0.966	0.966	0.933

Directional Antenna Pattern Data Toward Radio Horizon

Proposed KTLL-DT Antenna Channel 33 - Durango, Colorado

Azimuth (°True)	Rel.Fld, H Pat.	Rel.Fld, V Pat.	Rel.Fld, Combined	Azimuth (°True)	Rel.Fld, H Pat.	Rel.Fld, V Pat.	Rel.Fld, Combined
0	0.998	0.28	0.279	180	0.674	0.88	0.594
10	0.993	0.26	0.258	190	0.531	0.95	0.504
20	0.961	0.27	0.259	200	0.377	0.99	0.373
30	0.912	0.30	0.274	210	0.247	0.99	0.245
40	0.853	0.34	0.290	220	0.179	1.0	0.179
50	0.794	0.28	0.222	230	0.176	0.99	0.174
60	0.750	0.34	0.255	240	0.204	0.98	0.200
70	0.734	0.34	0.250	250	0.221	0.99	0.219
80	0.750	0.34	0.255	260	0.204	0.98	0.200
90	0.794	0.33	0.262	270	0.176	0.99	0.174
100	0.853	0.31	0.254	280	0.179	0.99	0.177
110	0.912	0.28	0.255	290	0.247	0.91	0.225
120	0.961	0.26	0.250	300	0.377	0.81	0.305
130	0.993	0.26	0.258	310	0.531	0.71	0.377
140	0.998	0.32	0.319	320	0.674	0.62	0.418
150	0.966	0.50	0.483	330	0.795	0.38	0.302
160	0.895	0.61	0.546	340	0.894	0.31	0.277
170	0.795	0.75	0.596	350	0.966	0.26	0.251