



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
MODIFICATION OF LICENSE  
KAME-TV - RENO, NEVADA  
DTV - CH. 20 - 53 kW - 176 m HAAT**

Prepared for: Deerfield Media (Reno) Licensee, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

**GENERAL**

This office has been authorized by Deerfield Media (Reno) Licensee, LLC, licensee of KAME-TV, channel 20, licensed to Reno, Nevada, to prepare this statement, FCC Form 2100, its technical Sections, and the associated exhibits in support of an application for modification of license, in compliance with Section 73.1690(c)(3) reporting the replacement of KAME-TV's directional antenna.

**DIRECTIONAL ANTENNA**

The licensee has replaced its directional antenna with a new Dielectric model TFU-8DSB-C-VP-R circularly polarized directional transmitting antenna with its center of radiation located at its licensed height above ground of 25 meters, and its licensed height above average terrain of 176 meters. The antenna manufacturer's horizontal plane azimuth radiation pattern for the horizontally polarized component is shown in exhibit 1 and is tabulated in exhibit 2. The horizontal plane azimuth pattern for the vertically polarized

**STATEMENT OF JOHN E. HIDLE, P.E.**  
**KAME-TV - Reno, Nevada**  
**PAGE 2**

component is shown in exhibit 3 and is tabulated in exhibit 4. The manufacturer's vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane, due to electrical beam tilt, is shown in Exhibits 5 and 6, and is tabulated in Exhibit 7.

The replacement antenna exhibits the exact same theoretical horizontal azimuth field pattern as the authorized antenna it has replaced. The radiation center line is located at the same authorized Height Above Average Terrain (HAAT), and the ERP remains at 53 kW, as currently authorized. Therefore the replacement of its directional antenna with a new antenna exhibiting an identical horizontal azimuth field pattern complies with Section 73.1690(c)(3) of the FCC's rules.

**SUMMARY**

This statement, FCC Form 2100 technical sections, and its technical exhibits were prepared by me, or under my direct supervision, and are believed to be true and correct to the best of my knowledge and belief.

DATED: January 21, 2015

  
\_\_\_\_\_  
John E. Hidle, P.E.





Proposal Number

C-06035

Exhibit 1

Date

**9-Sep-13**

Call Letters

**KAME**

Channel

**20**

Location

**Reno, NV**

Customer

**Sinclair**

Antenna Type

**TFU-8DSB-C-VP-R****AZIMUTH PATTERN**

Gain

**2.09****( 3.20 dB)**

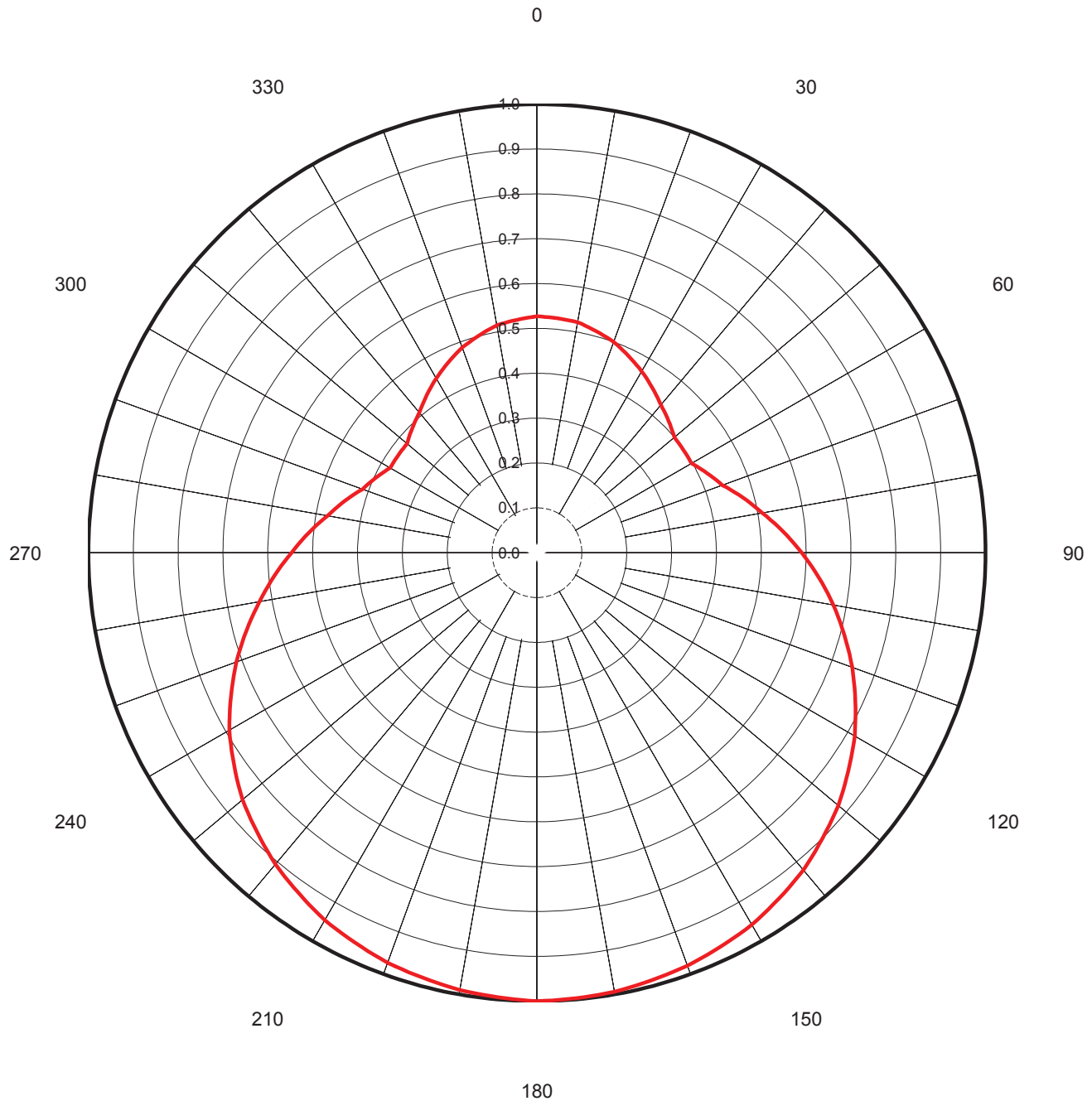
Frequency

**509.00 MHz**

Calculated / Measured

**Calculated**

Drawing #

**DSB-C-HPOL**

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Proposal Number

C-06035

Exhibit 2

Date

**9-Sep-13**

Call Letters

**KAME**

Channel

**20**

Location

**Reno, NV**

Customer

**Sinclair**

Antenna Type

**TFU-8DSB-C-VP-R****TABULATION OF AZIMUTH PATTERN**Azimuth Pattern Drawing #: **DSB-C-HPOL**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.527	45	0.415	90	0.590	135	0.900	180	1.000	225	0.882	270	0.547	315	0.393
1	0.526	46	0.412	91	0.598	136	0.905	181	0.999	226	0.877	271	0.540	316	0.396
2	0.526	47	0.409	92	0.606	137	0.910	182	0.998	227	0.872	272	0.532	317	0.399
3	0.525	48	0.406	93	0.614	138	0.915	183	0.997	228	0.867	273	0.525	318	0.402
4	0.525	49	0.403	94	0.622	139	0.919	184	0.996	229	0.862	274	0.518	319	0.405
5	0.525	50	0.400	95	0.631	140	0.924	185	0.995	230	0.857	275	0.511	320	0.408
6	0.524	51	0.400	96	0.639	141	0.927	186	0.994	231	0.850	276	0.503	321	0.412
7	0.524	52	0.400	97	0.647	142	0.931	187	0.993	232	0.844	277	0.496	322	0.416
8	0.523	53	0.399	98	0.655	143	0.934	188	0.992	233	0.837	278	0.489	323	0.420
9	0.522	54	0.399	99	0.663	144	0.938	189	0.991	234	0.831	279	0.481	324	0.424
10	0.522	55	0.399	100	0.671	145	0.941	190	0.990	235	0.825	280	0.474	325	0.428
11	0.520	56	0.399	101	0.679	146	0.944	191	0.988	236	0.818	281	0.468	326	0.433
12	0.518	57	0.399	102	0.686	147	0.948	192	0.987	237	0.812	282	0.462	327	0.437
13	0.515	58	0.398	103	0.694	148	0.951	193	0.985	238	0.805	283	0.456	328	0.441
14	0.513	59	0.398	104	0.702	149	0.955	194	0.983	239	0.799	284	0.450	329	0.445
15	0.511	60	0.398	105	0.710	150	0.958	195	0.982	240	0.792	285	0.444	330	0.449
16	0.509	61	0.402	106	0.717	151	0.960	196	0.980	241	0.784	286	0.438	331	0.453
17	0.507	62	0.406	107	0.725	152	0.962	197	0.978	242	0.776	287	0.432	332	0.457
18	0.504	63	0.411	108	0.733	153	0.965	198	0.976	243	0.768	288	0.426	333	0.460
19	0.502	64	0.415	109	0.740	154	0.967	199	0.975	244	0.760	289	0.420	334	0.464
20	0.500	65	0.419	110	0.748	155	0.969	200	0.973	245	0.752	290	0.414	335	0.468
21	0.497	66	0.423	111	0.755	156	0.971	201	0.970	246	0.745	291	0.410	336	0.472
22	0.493	67	0.427	112	0.762	157	0.973	202	0.968	247	0.737	292	0.407	337	0.476
23	0.490	68	0.432	113	0.769	158	0.976	203	0.965	248	0.729	293	0.403	338	0.479
24	0.487	69	0.436	114	0.776	159	0.978	204	0.962	249	0.721	294	0.400	339	0.483
25	0.484	70	0.440	115	0.783	160	0.980	205	0.960	250	0.713	295	0.396	340	0.487
26	0.480	71	0.447	116	0.790	161	0.981	206	0.957	251	0.705	296	0.392	341	0.490
27	0.477	72	0.454	117	0.797	162	0.983	207	0.954	252	0.696	297	0.389	342	0.493
28	0.474	73	0.461	118	0.804	163	0.984	208	0.951	253	0.688	298	0.385	343	0.495
29	0.470	74	0.468	119	0.811	164	0.986	209	0.949	254	0.679	299	0.382	344	0.498
30	0.467	75	0.475	120	0.818	165	0.987	210	0.946	255	0.670	300	0.378	345	0.501
31	0.463	76	0.482	121	0.824	166	0.988	211	0.942	256	0.662	301	0.378	346	0.504
32	0.460	77	0.489	122	0.830	167	0.990	212	0.938	257	0.654	302	0.378	347	0.507
33	0.456	78	0.496	123	0.836	168	0.991	213	0.934	258	0.645	303	0.378	348	0.509
34	0.452	79	0.503	124	0.842	169	0.993	214	0.930	259	0.637	304	0.378	349	0.512
35	0.449	80	0.510	125	0.848	170	0.994	215	0.927	260	0.628	305	0.378	350	0.515
36	0.445	81	0.518	126	0.853	171	0.995	216	0.923	261	0.620	306	0.378	351	0.516
37	0.441	82	0.526	127	0.859	172	0.995	217	0.919	262	0.612	307	0.378	352	0.517
38	0.437	83	0.534	128	0.865	173	0.996	218	0.915	263	0.604	308	0.378	353	0.519
39	0.434	84	0.542	129	0.871	174	0.996	219	0.911	264	0.596	309	0.378	354	0.520
40	0.430	85	0.550	130	0.877	175	0.997	220	0.907	265	0.587	310	0.378	355	0.521
41	0.427	86	0.558	131	0.882	176	0.998	221	0.902	266	0.579	311	0.381	356	0.522
42	0.424	87	0.566	132	0.886	177	0.998	222	0.897	267	0.571	312	0.384	357	0.523
43	0.421	88	0.574	133	0.891	178	0.999	223	0.892	268	0.563	313	0.387	358	0.525
44	0.418	89	0.582	134	0.896	179	0.999	224	0.887	269	0.555	314	0.390	359	0.526

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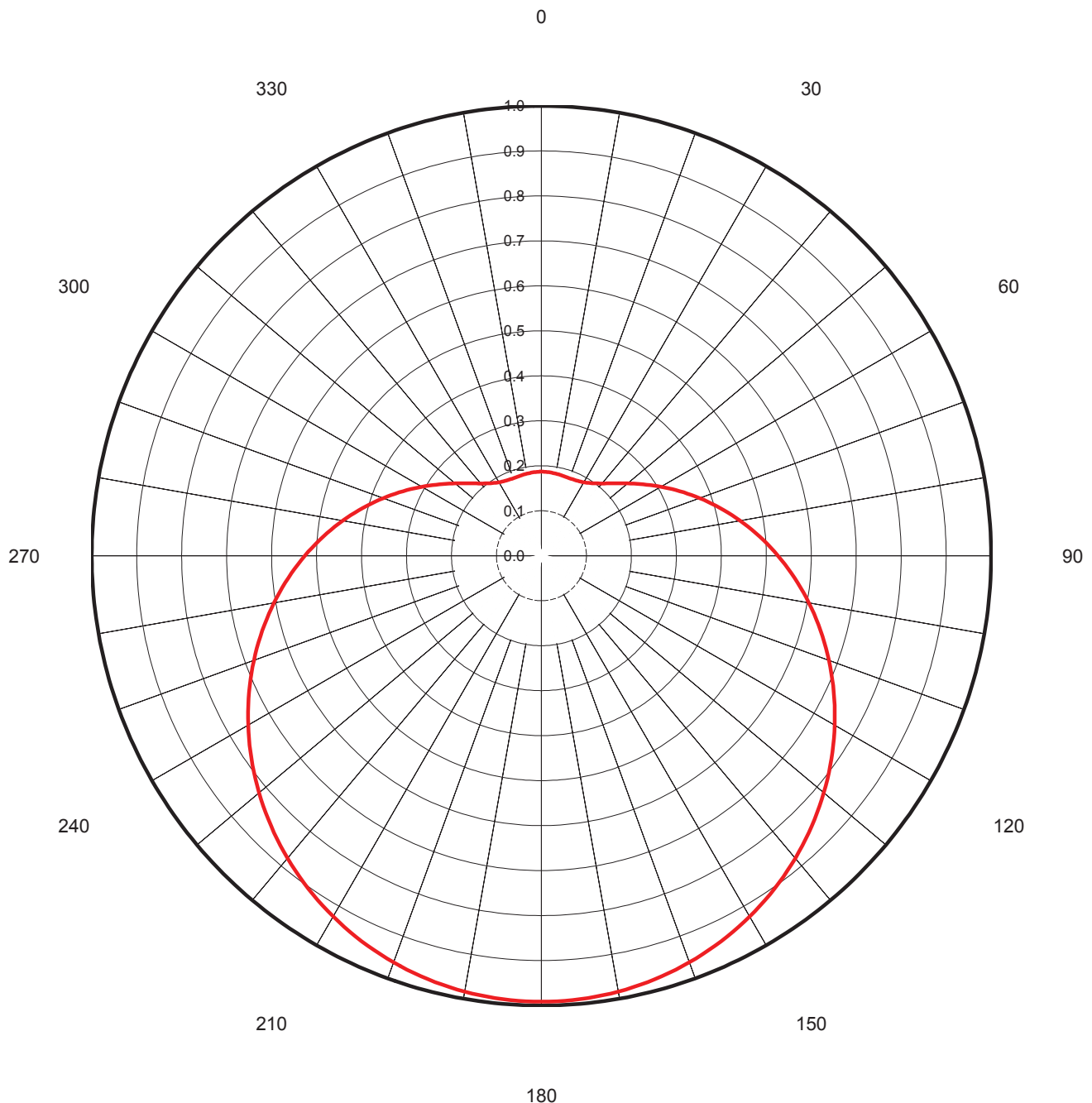


Proposal Number	<b>C-06035</b>	<b>Exhibit 3</b>
Date	<b>9-Sep-13</b>	
Call Letters	<b>KAME</b>	Channel <b>20</b>
Location	<b>Reno, NV</b>	
Customer	<b>Sinclair</b>	
Antenna Type	<b>TFU-8DSB-C-VP-R</b>	

### AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain	<b>2.50</b>	<b>( 3.98 dB)</b>
Calculated / Measured		<b>Calculated</b>

Frequency	<b>509.00 MHz</b>
Drawing #	<b>DSB-C-VPOL</b>





Proposal Number

**C-06035****Exhibit 4**

Date

**9-Sep-13**

Call Letters

**KAME**

Channel

**20**

Location

**Reno, NV**

Customer

**Sinclair**

Antenna Type

**TFU-8DSB-C-VP-R****TABULATION OF AZIMUTH PATTERN/VERTICAL POLARIZATION**Azimuth Pattern Drawing #: **DSB-C-VPOL**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.187	45	0.228	90	0.526	135	0.850	180	0.992	225	0.850	270	0.526	315	0.228
1	0.187	46	0.232	91	0.534	136	0.856	181	0.991	226	0.844	271	0.518	316	0.224
2	0.187	47	0.236	92	0.542	137	0.862	182	0.991	227	0.838	272	0.510	317	0.220
3	0.187	48	0.241	93	0.550	138	0.867	183	0.991	228	0.832	273	0.503	318	0.216
4	0.187	49	0.245	94	0.557	139	0.873	184	0.990	229	0.826	274	0.495	319	0.213
5	0.186	50	0.250	95	0.565	140	0.878	185	0.990	230	0.820	275	0.487	320	0.210
6	0.186	51	0.255	96	0.573	141	0.883	186	0.989	231	0.813	276	0.479	321	0.207
7	0.186	52	0.260	97	0.581	142	0.889	187	0.988	232	0.807	277	0.472	322	0.204
8	0.186	53	0.266	98	0.589	143	0.894	188	0.987	233	0.800	278	0.464	323	0.201
9	0.186	54	0.271	99	0.596	144	0.899	189	0.985	234	0.794	279	0.456	324	0.199
10	0.185	55	0.277	100	0.604	145	0.904	190	0.984	235	0.787	280	0.449	325	0.197
11	0.185	56	0.282	101	0.612	146	0.908	191	0.983	236	0.781	281	0.441	326	0.195
12	0.185	57	0.288	102	0.620	147	0.913	192	0.981	237	0.774	282	0.433	327	0.193
13	0.184	58	0.294	103	0.627	148	0.918	193	0.979	238	0.767	283	0.426	328	0.191
14	0.184	59	0.300	104	0.635	149	0.922	194	0.977	239	0.760	284	0.418	329	0.190
15	0.184	60	0.307	105	0.643	150	0.926	195	0.975	240	0.753	285	0.411	330	0.189
16	0.184	61	0.313	106	0.650	151	0.930	196	0.973	241	0.746	286	0.404	331	0.188
17	0.184	62	0.320	107	0.658	152	0.934	197	0.970	242	0.739	287	0.396	332	0.187
18	0.183	63	0.326	108	0.665	153	0.938	198	0.968	243	0.732	288	0.389	333	0.186
19	0.183	64	0.333	109	0.673	154	0.942	199	0.965	244	0.725	289	0.382	334	0.185
20	0.183	65	0.339	110	0.680	155	0.946	200	0.962	245	0.717	290	0.374	335	0.185
21	0.183	66	0.346	111	0.688	156	0.949	201	0.959	246	0.710	291	0.367	336	0.184
22	0.184	67	0.353	112	0.695	157	0.953	202	0.956	247	0.703	292	0.360	337	0.184
23	0.184	68	0.360	113	0.703	158	0.956	203	0.953	248	0.695	293	0.353	338	0.184
24	0.184	69	0.367	114	0.710	159	0.959	204	0.949	249	0.688	294	0.346	339	0.183
25	0.185	70	0.374	115	0.717	160	0.962	205	0.946	250	0.680	295	0.339	340	0.183
26	0.185	71	0.382	116	0.725	161	0.965	206	0.942	251	0.673	296	0.333	341	0.183
27	0.186	72	0.389	117	0.732	162	0.968	207	0.938	252	0.665	297	0.326	342	0.183
28	0.187	73	0.396	118	0.739	163	0.970	208	0.934	253	0.658	298	0.320	343	0.184
29	0.188	74	0.404	119	0.746	164	0.973	209	0.930	254	0.650	299	0.313	344	0.184
30	0.189	75	0.411	120	0.753	165	0.975	210	0.926	255	0.643	300	0.307	345	0.184
31	0.190	76	0.418	121	0.760	166	0.977	211	0.922	256	0.635	301	0.300	346	0.184
32	0.191	77	0.426	122	0.767	167	0.979	212	0.918	257	0.627	302	0.294	347	0.184
33	0.193	78	0.433	123	0.774	168	0.981	213	0.913	258	0.620	303	0.288	348	0.185
34	0.195	79	0.441	124	0.781	169	0.983	214	0.908	259	0.612	304	0.282	349	0.185
35	0.197	80	0.449	125	0.787	170	0.984	215	0.904	260	0.604	305	0.277	350	0.185
36	0.199	81	0.456	126	0.794	171	0.985	216	0.899	261	0.596	306	0.271	351	0.186
37	0.201	82	0.464	127	0.800	172	0.987	217	0.894	262	0.589	307	0.266	352	0.186
38	0.204	83	0.472	128	0.807	173	0.988	218	0.889	263	0.581	308	0.260	353	0.186
39	0.207	84	0.479	129	0.813	174	0.989	219	0.883	264	0.573	309	0.255	354	0.186
40	0.210	85	0.487	130	0.820	175	0.990	220	0.878	265	0.565	310	0.250	355	0.186
41	0.213	86	0.495	131	0.826	176	0.990	221	0.873	266	0.557	311	0.245	356	0.187
42	0.216	87	0.503	132	0.832	177	0.991	222	0.867	267	0.550	312	0.241	357	0.187
43	0.220	88	0.510	133	0.838	178	0.991	223	0.862	268	0.542	313	0.236	358	0.187
44	0.224	89	0.518	134	0.844	179	0.991	224	0.856	269	0.534	314	0.232	359	0.187

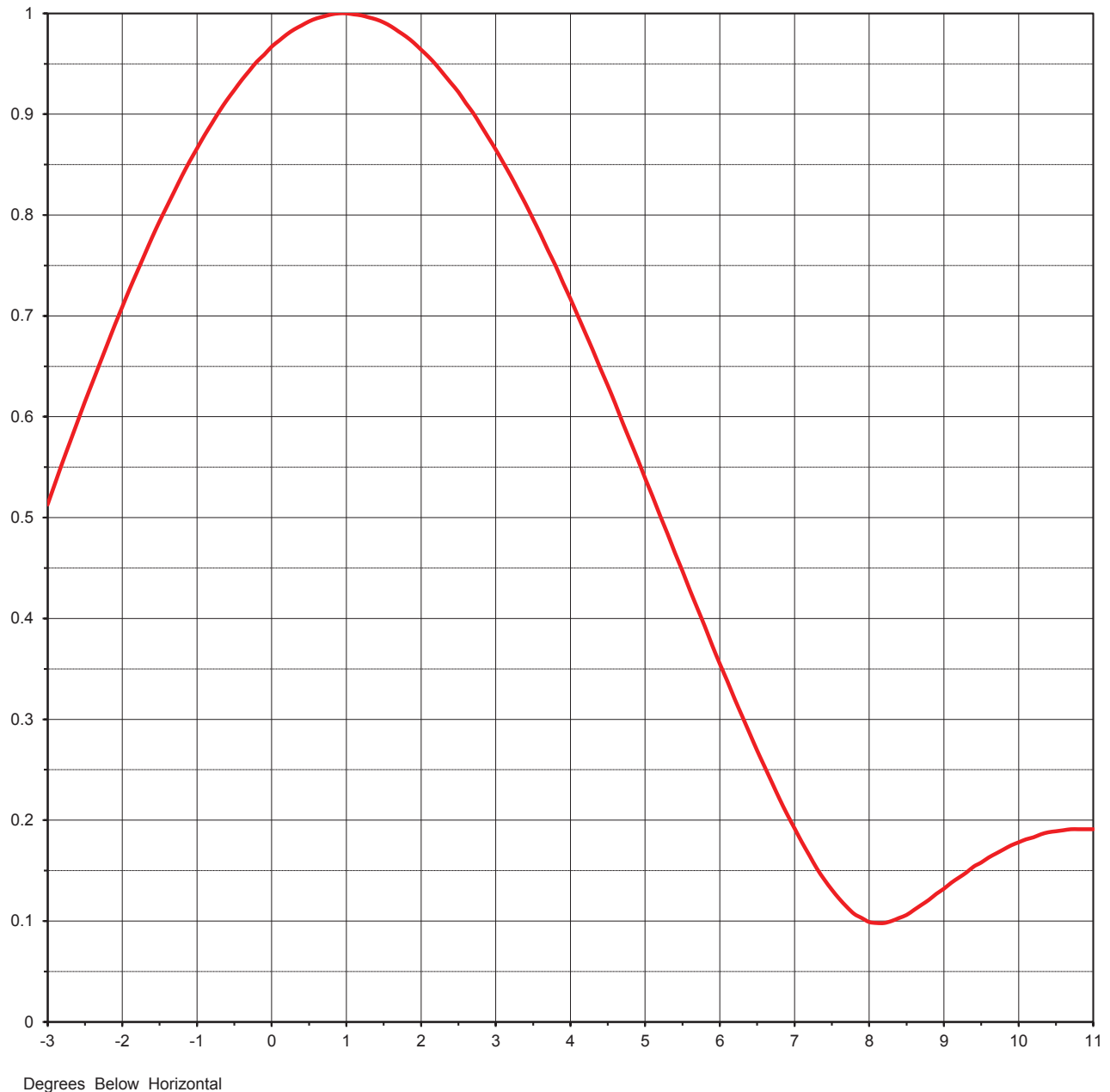
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Proposal Number	C-06035	Exhibit 5
Date	<b>9-Sep-13</b>	
Call Letters	<b>KAME</b>	Channel <b>20</b>
Location	<b>Reno, NV</b>	
Customer	<b>Sinclair</b>	
Antenna Type	<b>TFU-8DSB-C-VP-R</b>	

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>8.00 ( 9.03 dB )</b>	Beam Tilt	<b>1.00 deg</b>
RMS Gain at Horizontal	<b>7.50 ( 8.75 dB )</b>	Frequency	<b>509.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>08L080100</b>

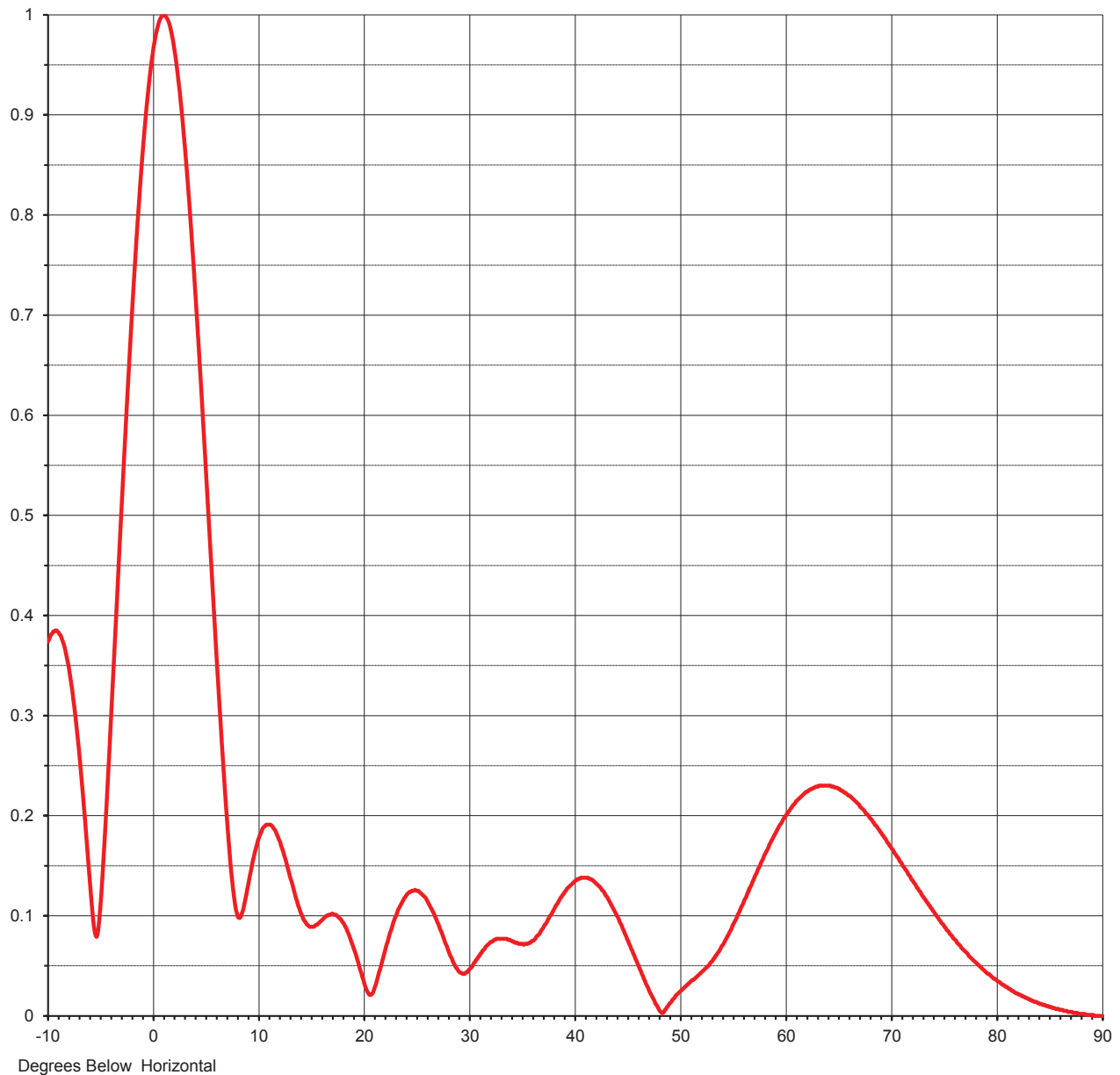




Proposal Number	C-06035	Exhibit 6
Date	<b>9-Sep-13</b>	
Call Letters	<b>KAME</b>	Channel <b>20</b>
Location	<b>Reno, NV</b>	
Customer	<b>Sinclair</b>	
Antenna Type	<b>TFU-8DSB-C-VP-R</b>	

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>8.00 ( 9.03 dB )</b>	Beam Tilt	<b>1.00 deg</b>
RMS Gain at Horizontal	<b>7.50 ( 8.75 dB )</b>	Frequency	<b>509.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>08L080100-90</b>



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Proposal Number C-06035 Exhibit 7  
Date **9-Sep-13**  
Call Letters **KAME** Channel **20**  
Location **Reno, NV**  
Customer **Sinclair**  
Antenna Type **TFU-8DSB-C-VP-R**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **08L080100-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.374	2.4	0.931	10.6	0.189	30.5	0.053	51.0	0.034	71.5	0.143
-9.5	0.384	2.6	0.911	10.8	0.191	31.0	0.060	51.5	0.038	72.0	0.135
-9.0	0.383	2.8	0.889	11.0	0.191	31.5	0.067	52.0	0.043	72.5	0.127
-8.5	0.371	3.0	0.865	11.5	0.187	32.0	0.073	52.5	0.048	73.0	0.119
-8.0	0.346	3.2	0.839	12.0	0.176	32.5	0.076	53.0	0.054	73.5	0.111
-7.5	0.308	3.4	0.811	12.5	0.160	33.0	0.077	53.5	0.061	74.0	0.104
-7.0	0.258	3.6	0.781	13.0	0.141	33.5	0.077	54.0	0.070	74.5	0.096
-6.5	0.197	3.8	0.750	13.5	0.122	34.0	0.075	54.5	0.079	75.0	0.089
-6.0	0.130	4.0	0.717	14.0	0.105	34.5	0.073	55.0	0.090	75.5	0.082
-5.5	0.081	4.2	0.683	14.5	0.094	35.0	0.072	55.5	0.101	76.0	0.076
-5.0	0.114	4.4	0.648	15.0	0.089	35.5	0.072	56.0	0.112	76.5	0.070
-4.5	0.201	4.6	0.613	15.5	0.091	36.0	0.075	56.5	0.124	77.0	0.064
-4.0	0.303	4.8	0.576	16.0	0.095	36.5	0.080	57.0	0.136	77.5	0.058
-3.5	0.408	5.0	0.539	16.5	0.100	37.0	0.087	57.5	0.148	78.0	0.053
-3.0	0.513	5.2	0.502	17.0	0.102	37.5	0.096	58.0	0.160	78.5	0.048
-2.8	0.555	5.4	0.465	17.5	0.100	38.0	0.105	58.5	0.171	79.0	0.043
-2.6	0.595	5.6	0.428	18.0	0.094	38.5	0.114	59.0	0.181	79.5	0.039
-2.4	0.634	5.8	0.392	18.5	0.084	39.0	0.122	59.5	0.191	80.0	0.035
-2.2	0.672	6.0	0.355	19.0	0.070	39.5	0.129	60.0	0.199	80.5	0.031
-2.0	0.709	6.2	0.320	19.5	0.054	40.0	0.134	60.5	0.207	81.0	0.028
-1.8	0.744	6.4	0.286	20.0	0.036	40.5	0.137	61.0	0.214	81.5	0.025
-1.6	0.778	6.6	0.253	20.5	0.022	41.0	0.138	61.5	0.219	82.0	0.022
-1.4	0.809	6.8	0.221	21.0	0.026	41.5	0.137	62.0	0.224	82.5	0.019
-1.2	0.839	7.0	0.192	21.5	0.044	42.0	0.133	62.5	0.227	83.0	0.017
-1.0	0.866	7.2	0.165	22.0	0.063	42.5	0.128	63.0	0.229	83.5	0.014
-0.8	0.891	7.4	0.141	22.5	0.082	43.0	0.120	63.5	0.230	84.0	0.012
-0.6	0.914	7.6	0.122	23.0	0.098	43.5	0.111	64.0	0.230	84.5	0.011
-0.4	0.934	7.8	0.107	23.5	0.110	44.0	0.101	64.5	0.229	85.0	0.009
-0.2	0.952	8.0	0.099	24.0	0.119	44.5	0.090	65.0	0.227	85.5	0.007
0.0	0.967	8.2	0.098	24.5	0.124	45.0	0.077	65.5	0.223	86.0	0.006
0.2	0.979	8.4	0.103	25.0	0.125	45.5	0.065	66.0	0.220	86.5	0.005
0.4	0.988	8.6	0.111	25.5	0.122	46.0	0.052	66.5	0.215	87.0	0.004
0.6	0.995	8.8	0.121	26.0	0.116	46.5	0.040	67.0	0.209	87.5	0.003
0.8	0.999	9.0	0.132	26.5	0.106	47.0	0.028	67.5	0.203	88.0	0.002
1.0	1.000	9.2	0.143	27.0	0.094	47.5	0.017	68.0	0.197	88.5	0.001
1.2	0.998	9.4	0.154	27.5	0.081	48.0	0.007	68.5	0.190	89.0	0.001
1.4	0.994	9.6	0.163	28.0	0.067	48.5	0.004	69.0	0.183	89.5	0.000
1.6	0.987	9.8	0.167	28.5	0.054	49.0	0.012	69.5	0.175	90.0	0.000
1.8	0.977	10.0	0.175	29.0	0.045	49.5	0.018	70.0	0.167		
2.0	0.964	10.2	0.181	29.5	0.042	50.0	0.024	70.5	0.159		
2.2	0.949	10.4	0.186	30.0	0.046	50.5	0.029	71.0	0.151		

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