ENGINEERING STATEMENT
APPLICATION FOR LICENSE
CONSTRUCTION PERMIT BMPCDT-20020221AAX
WRIC-DT, PETERSBURG, VIRGINIA
CHANNEL 22   450 KW ERP   328 METERS HAAT

NOVEMBER 2002

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

This engineering statement has been prepared on behalf of Young Broadcasting of Richmond, Inc., permittee of WRIC-DT, Petersburg, Virginia, and accompanies the request for license. The purpose of this engineering statement is to accompany the request to license the DTV facility specified in construction permit BMPCDT-20020221AAX and the change the specified antenna. The antenna has changed to TUD-O5-14/70H-1-B. The difference between the new antenna from the antenna specified in the construction permit is the power rating. There is no change in the vertical and horizontal plane patterns. Figure E-1(A-E) is the proposed vertical and horizontal plane pattern. The electronic filed material is attached as Appendix A.

The accompanying FCC Form 302 provides the technical information requested. There are no other changes from that proposed and authorized.

	Proposal Number	**DCA-9505**	Revision:	**3**
	Date	**3-Apr-02**		
	Call Letters	**WRIC-DT**	Channel	**22**
	Location	**Richmond, VA**		
	Customer	**Spectrasite**		
	Antenna Type	**TUD-O5-14/70H-1-B**		

AZIMUTH PATTERN

Gain	**1.51**	**(1.79 dB)**	Frequency	**521.00 MHz**
Calculated / Measured		**Calculated**	Drawing #	**TUD-O5-521**
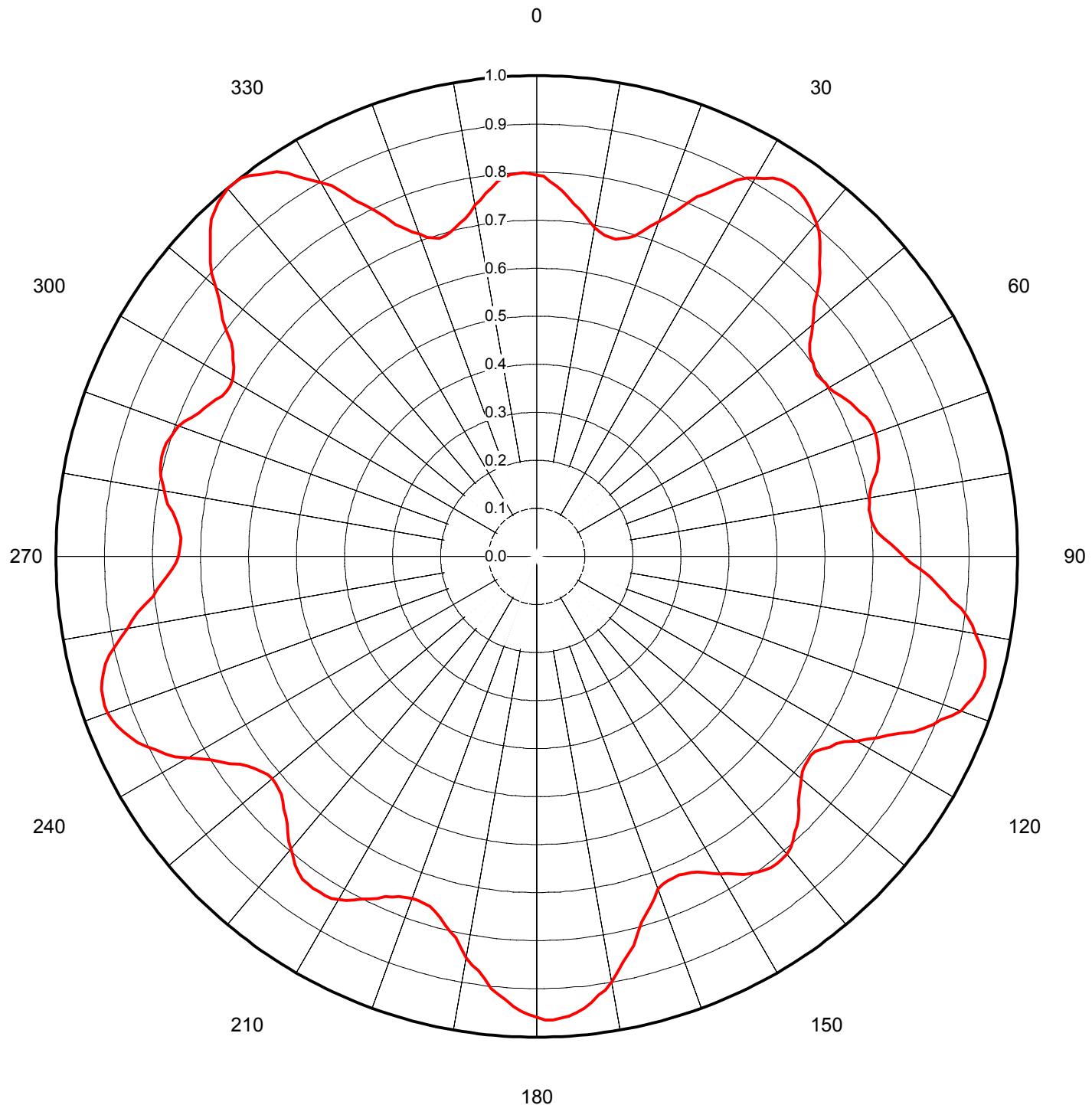
TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #:   **TUD-O5-521**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.794	45	0.833	90	0.764	135	0.770	180	0.958	225	0.744	270	0.745	315	0.960
1	0.791	46	0.817	91	0.777	136	0.779	181	0.954	226	0.734	271	0.743	316	0.974
2	0.780	47	0.796	92	0.799	137	0.786	182	0.947	227	0.727	272	0.741	317	0.983
3	0.772	48	0.777	93	0.820	138	0.796	183	0.937	228	0.723	273	0.741	318	0.991
4	0.762	49	0.763	94	0.835	139	0.805	184	0.925	229	0.720	274	0.745	319	0.995
5	0.751	50	0.749	95	0.852	140	0.809	185	0.914	230	0.718	275	0.750	320	0.999
6	0.737	51	0.736	96	0.867	141	0.811	186	0.904	231	0.721	276	0.755	321	1.000
7	0.728	52	0.721	97	0.890	142	0.811	187	0.885	232	0.727	277	0.763	322	0.999
8	0.717	53	0.710	98	0.905	143	0.811	188	0.869	233	0.734	278	0.775	323	0.992
9	0.704	54	0.705	99	0.917	144	0.806	189	0.860	234	0.742	279	0.781	324	0.982
10	0.694	55	0.702	100	0.927	145	0.801	190	0.848	235	0.754	280	0.787	325	0.974
11	0.687	56	0.697	101	0.938	146	0.796	191	0.828	236	0.771	281	0.792	326	0.966
12	0.683	57	0.694	102	0.949	147	0.789	192	0.810	237	0.785	282	0.799	327	0.951
13	0.680	58	0.697	103	0.957	148	0.779	193	0.800	238	0.799	283	0.803	328	0.931
14	0.680	59	0.700	104	0.961	149	0.770	194	0.790	239	0.816	284	0.805	329	0.914
15	0.685	60	0.701	105	0.963	150	0.762	195	0.778	240	0.836	285	0.807	330	0.898
16	0.689	61	0.706	106	0.962	151	0.754	196	0.768	241	0.860	286	0.807	331	0.882
17	0.698	62	0.714	107	0.958	152	0.744	197	0.762	242	0.874	287	0.806	332	0.857
18	0.711	63	0.721	108	0.954	153	0.737	198	0.758	243	0.888	288	0.800	333	0.831
19	0.727	64	0.726	109	0.946	154	0.732	199	0.756	244	0.903	289	0.797	334	0.813
20	0.741	65	0.732	110	0.940	155	0.729	200	0.757	245	0.915	290	0.793	335	0.793
21	0.756	66	0.737	111	0.925	156	0.726	201	0.759	246	0.926	291	0.784	336	0.772
22	0.775	67	0.744	112	0.907	157	0.727	202	0.764	247	0.934	292	0.773	337	0.751
23	0.797	68	0.748	113	0.896	158	0.728	203	0.769	248	0.941	293	0.764	338	0.737
24	0.818	69	0.749	114	0.881	159	0.731	204	0.775	249	0.947	294	0.758	339	0.723
25	0.833	70	0.749	115	0.865	160	0.737	205	0.785	250	0.951	295	0.750	340	0.713
26	0.849	71	0.748	116	0.840	161	0.752	206	0.793	251	0.951	296	0.743	341	0.702
27	0.868	72	0.746	117	0.820	162	0.766	207	0.801	252	0.949	297	0.735	342	0.696
28	0.887	73	0.743	118	0.804	163	0.777	208	0.809	253	0.947	298	0.731	343	0.692
29	0.900	74	0.740	119	0.785	164	0.791	209	0.818	254	0.941	299	0.730	344	0.693
30	0.909	75	0.735	120	0.768	165	0.811	210	0.824	255	0.933	300	0.731	345	0.697
31	0.918	76	0.729	121	0.748	166	0.834	211	0.830	256	0.924	301	0.735	346	0.704
32	0.928	77	0.719	122	0.735	167	0.848	212	0.831	257	0.912	302	0.744	347	0.711
33	0.934	78	0.711	123	0.728	168	0.863	213	0.831	258	0.896	303	0.753	348	0.717
34	0.936	79	0.706	124	0.717	169	0.880	214	0.833	259	0.881	304	0.763	349	0.728
35	0.936	80	0.703	125	0.707	170	0.898	215	0.831	260	0.864	305	0.776	350	0.742
36	0.933	81	0.700	126	0.705	171	0.913	216	0.829	261	0.853	306	0.798	351	0.751
37	0.928	82	0.698	127	0.707	172	0.922	217	0.824	262	0.839	307	0.817	352	0.763
38	0.922	83	0.699	128	0.708	173	0.935	218	0.816	263	0.820	308	0.833	353	0.772
39	0.914	84	0.700	129	0.711	174	0.945	219	0.804	264	0.803	309	0.850	354	0.784
40	0.905	85	0.705	130	0.719	175	0.953	220	0.795	265	0.793	310	0.871	355	0.791
41	0.895	86	0.711	131	0.727	176	0.958	221	0.785	266	0.781	311	0.895	356	0.796
42	0.881	87	0.723	132	0.735	177	0.962	222	0.774	267	0.770	312	0.913	357	0.797
43	0.864	88	0.738	133	0.744	178	0.965	223	0.761	268	0.758	313	0.928	358	0.798
44	0.847	89	0.750	134	0.758	179	0.964	224	0.751	269	0.750	314	0.944	359	0.796

Dielectric

Proposal Number	**DCA-9505**	Revision:	**3**
Date	**3-Apr-02**		
Call Letters	**WRIC-DT**	Channel	**22**
Location	**Richmond, VA**		
Customer	**Spectrasite**		
Antenna Type	**TUD-O5-14/70H-1-B**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**26.60**	**(14.25 dB)**	Beam Tilt	**0.50 deg**
RMS Gain at Horizontal	**20.80**	**(13.18 dB)**	Frequency	**521.00 MHz**
Calculated / Measured	**Calculated**		Drawing #	**14U266050-521B**

Degrees Below Horizontal

ELEVATION PATTERN

RMS Gain at Main Lobe	**26.60**	**(14.25 dB)**	Beam Tilt	**0.50 deg**
RMS Gain at Horizontal	**20.80**	**(13.18 dB)**	Frequency	**521.00 MHz**
Calculated / Measured	**Calculated**		Drawing #	**14U266050-521B-90**
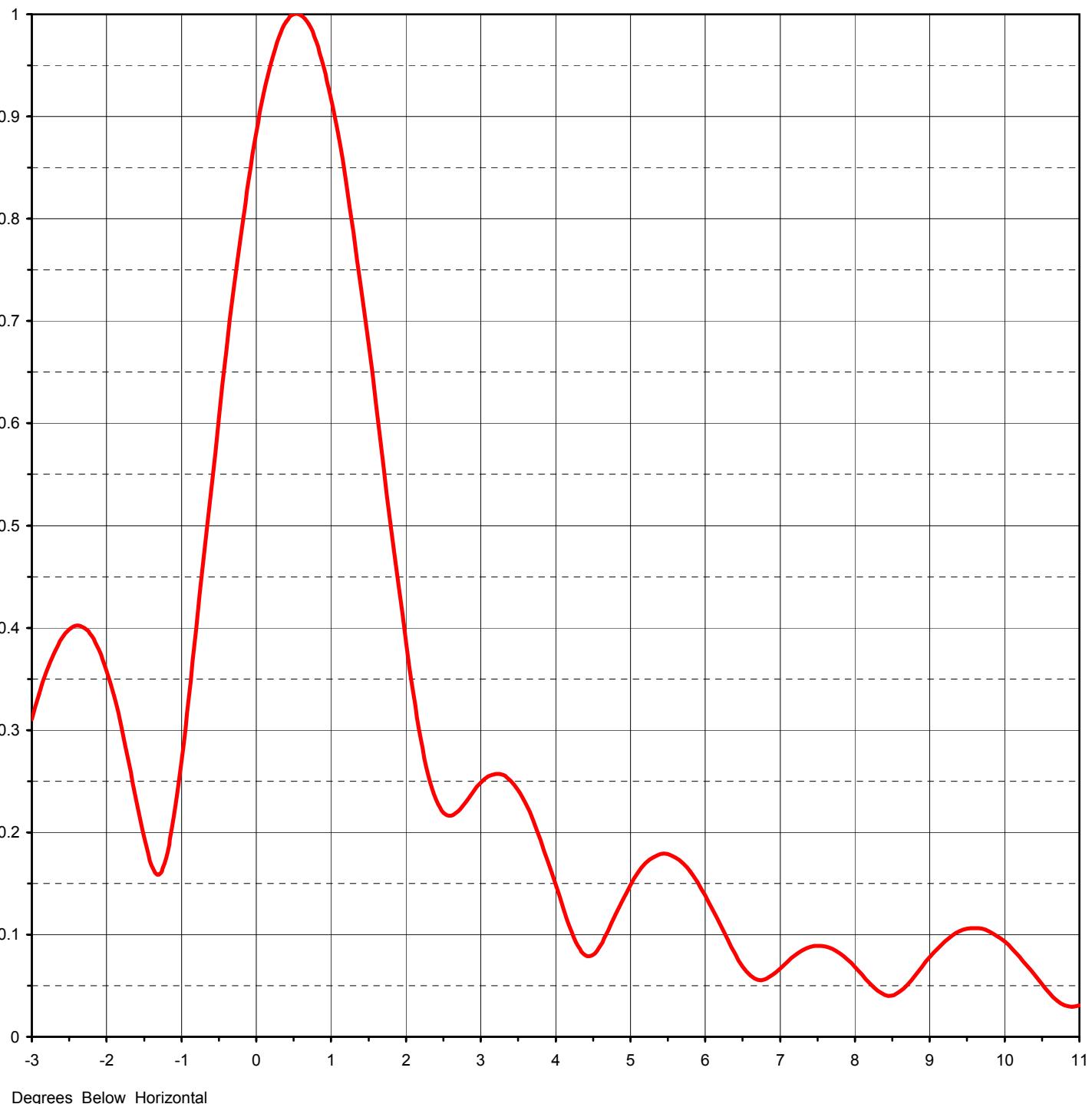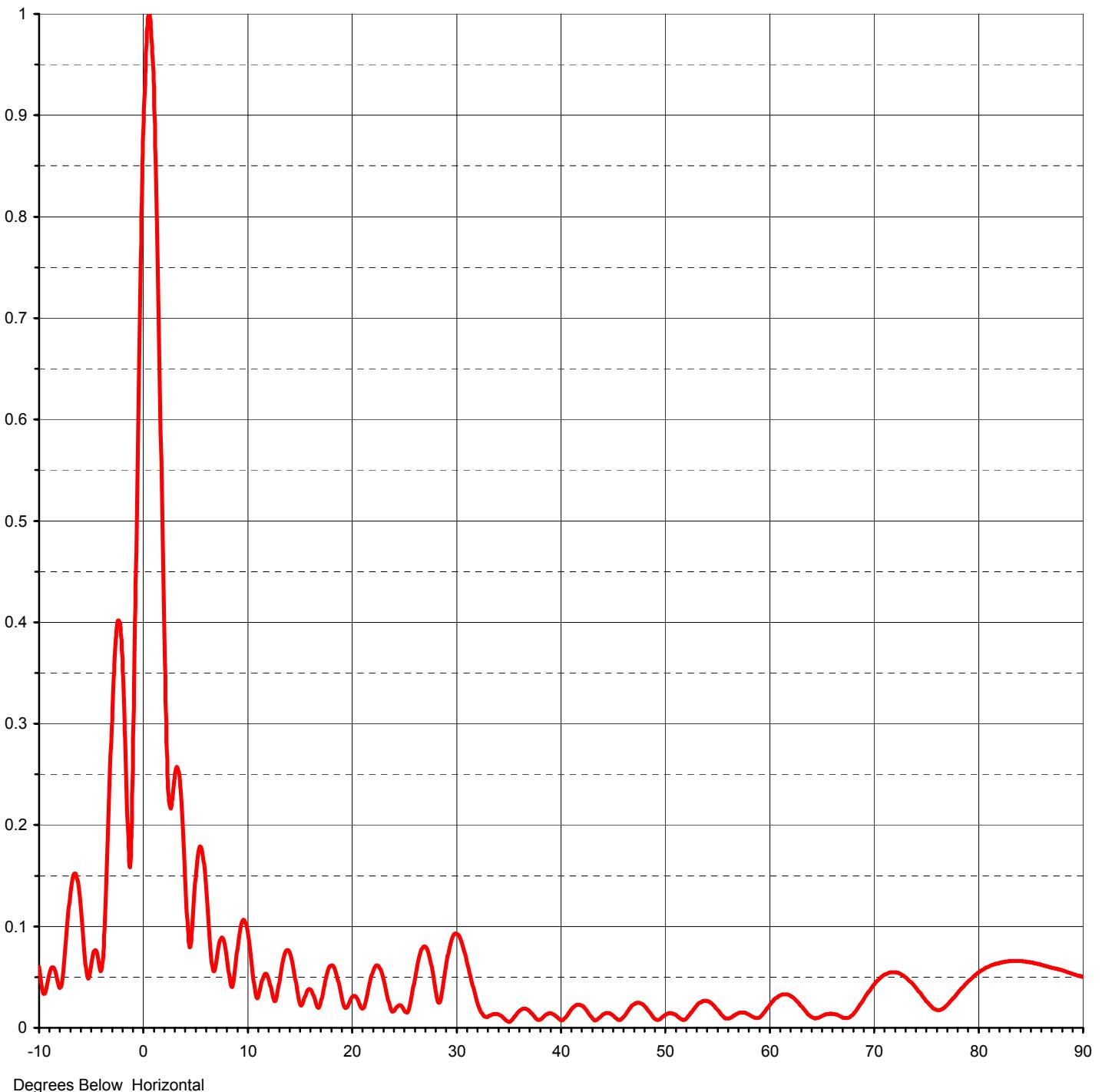
Degrees Below Horizontal

Proposal Number **DCA-9505**   Revision: **3**
Date   **3-Apr-02**
Call Letters   **WRIC-DT**   Channel   **22**
Location   **Richmond, VA**
Customer   **Spectrasite**
Antenna Type   **TUD-O5-14/70H-1-B**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **14U266050-521B-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.060	2.4	0.232	10.6	0.051	30.5	0.087	51.0	0.013	71.5	0.055
-9.5	0.033	2.6	0.216	10.8	0.036	31.0	0.068	51.5	0.009	72.0	0.055
-9.0	0.053	2.8	0.230	11.0	0.029	31.5	0.048	52.0	0.008	72.5	0.053
-8.5	0.057	3.0	0.249	11.5	0.048	32.0	0.028	52.5	0.014	73.0	0.050
-8.0	0.039	3.2	0.257	12.0	0.051	32.5	0.014	53.0	0.021	73.5	0.045
-7.5	0.077	3.4	0.251	12.5	0.030	33.0	0.011	53.5	0.025	74.0	0.039
-7.0	0.133	3.6	0.228	13.0	0.038	33.5	0.013	54.0	0.027	74.5	0.033
-6.5	0.152	3.8	0.192	13.5	0.068	34.0	0.013	54.5	0.024	75.0	0.026
-6.0	0.118	4.0	0.148	14.0	0.076	34.5	0.011	55.0	0.019	75.5	0.021
-5.5	0.058	4.2	0.105	14.5	0.057	35.0	0.006	55.5	0.013	76.0	0.018
-5.0	0.062	4.4	0.080	15.0	0.027	35.5	0.009	56.0	0.009	76.5	0.019
-4.5	0.075	4.6	0.089	15.5	0.028	36.0	0.015	56.5	0.011	77.0	0.023
-4.0	0.058	4.8	0.119	16.0	0.038	36.5	0.019	57.0	0.014	77.5	0.028
-3.5	0.162	5.0	0.149	16.5	0.028	37.0	0.017	57.5	0.015	78.0	0.034
-3.0	0.310	5.2	0.169	17.0	0.022	37.5	0.011	58.0	0.014	78.5	0.040
-2.8	0.357	5.4	0.179	17.5	0.045	38.0	0.008	58.5	0.011	79.0	0.046
-2.6	0.389	5.6	0.176	18.0	0.061	38.5	0.012	59.0	0.010	79.5	0.051
-2.4	0.402	5.8	0.161	18.5	0.056	39.0	0.014	59.5	0.014	80.0	0.055
-2.2	0.392	6.0	0.138	19.0	0.034	39.5	0.013	60.0	0.021	80.5	0.058
-2.0	0.358	6.2	0.110	19.5	0.019	40.0	0.008	60.5	0.027	81.0	0.061
-1.8	0.302	6.4	0.081	20.0	0.029	40.5	0.010	61.0	0.032	81.5	0.063
-1.6	0.230	6.6	0.060	20.5	0.030	41.0	0.017	61.5	0.033	82.0	0.064
-1.4	0.167	6.8	0.056	21.0	0.019	41.5	0.022	62.0	0.032	82.5	0.065
-1.2	0.176	7.0	0.067	21.5	0.031	42.0	0.022	62.5	0.028	83.0	0.066
-1.0	0.270	7.2	0.080	22.0	0.053	42.5	0.018	63.0	0.023	83.5	0.066
-0.8	0.400	7.4	0.088	22.5	0.062	43.0	0.010	63.5	0.016	84.0	0.066
-0.6	0.538	7.6	0.088	23.0	0.052	43.5	0.008	64.0	0.011	84.5	0.065
-0.4	0.670	7.8	0.082	23.5	0.029	44.0	0.012	64.5	0.009	85.0	0.064
-0.2	0.788	8.0	0.068	24.0	0.016	44.5	0.015	65.0	0.012	85.5	0.063
0.0	0.884	8.2	0.052	24.5	0.022	45.0	0.013	65.5	0.014	86.0	0.062
0.2	0.954	8.4	0.041	25.0	0.019	45.5	0.008	66.0	0.014	86.5	0.061
0.4	0.993	8.6	0.044	25.5	0.018	46.0	0.009	66.5	0.013	87.0	0.059
0.6	0.999	8.8	0.060	26.0	0.043	46.5	0.016	67.0	0.010	87.5	0.058
0.8	0.974	9.0	0.078	26.5	0.069	47.0	0.023	67.5	0.010	88.0	0.057
1.0	0.918	9.2	0.093	27.0	0.080	47.5	0.025	68.0	0.014	88.5	0.055
1.2	0.836	9.4	0.103	27.5	0.070	48.0	0.022	68.5	0.021	89.0	0.053
1.4	0.733	9.6	0.106	28.0	0.042	48.5	0.016	69.0	0.028	89.5	0.052
1.6	0.618	9.8	0.105	28.5	0.026	49.0	0.010	69.5	0.036	90.0	0.050
1.8	0.499	10.0	0.099	29.0	0.055	49.5	0.008	70.0	0.043		
2.0	0.386	10.2	0.086	29.5	0.083	50.0	0.012	70.5	0.048		
2.2	0.291	10.4	0.070	30.0	0.093	50.5	0.014	71.0	0.052		