

TECHNICAL EXHIBIT
AMENDMENT TO
REQUEST FOR LICENSE
TELEVISION STATION WTIC-DT
HARTFORD, CONNECTICUT
CH 31 495 KW (MAX-DA) 506 M

Technical Statement

This Technical Exhibit was prepared on behalf of Television Station WTIC-TV on Channel 31 assigned to Hartford, Connecticut in support of its request for station license. The station has completed equipment tests and by this instant application is requesting licensure for the authorized facility of a maximum average effective radiated power of 495 kilowatts on Channel 31.¹ Figure 1 is a tabulation of the carrier transmission system losses.

It is noted that the installed antenna is a Dielectric TFU-18DSC/VP-R C170. This antenna model number differs from the one specified within the construction permit. This is because elliptical polarization is now employed. Furthermore, the horizontal plane pattern for the installed antenna is identical to that authorized by the construction permit. See Appendix A for the installed antenna manufacturer specifications.

Charles A. Cooper

June 9, 2011

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
941.329.6000

¹ See FCC Construction Permit File Number: BMPCDT-20080620ADP.

Figure 1

TECHNICAL EXHIBIT
AMENDMENT TO
REQUEST FOR LICENSE
TELEVISION STATION WTIC-DT
HARTFORD, CONNECTICUT
CH 31 495 KW (MAX-DA) 506 M

WTIC-DT RF System Summary

Description	System
Transmitter Power Output (29.9 kW):	14.7 dBk
Mask Filter (included in transmitter):	0.0 dB
Transmission Line EIA 7-3/16" 1375':	1.4 dB
Antenna: Dielectric TFU-18DSC/VP-R C170 (22.7 Power Gain):	13.6 dB
Maximum Effective Radiated Power (495 kW):	26.9 dBk

APPENDIX A

TRANSMITTING ANTENNA SPECIFICATIONS

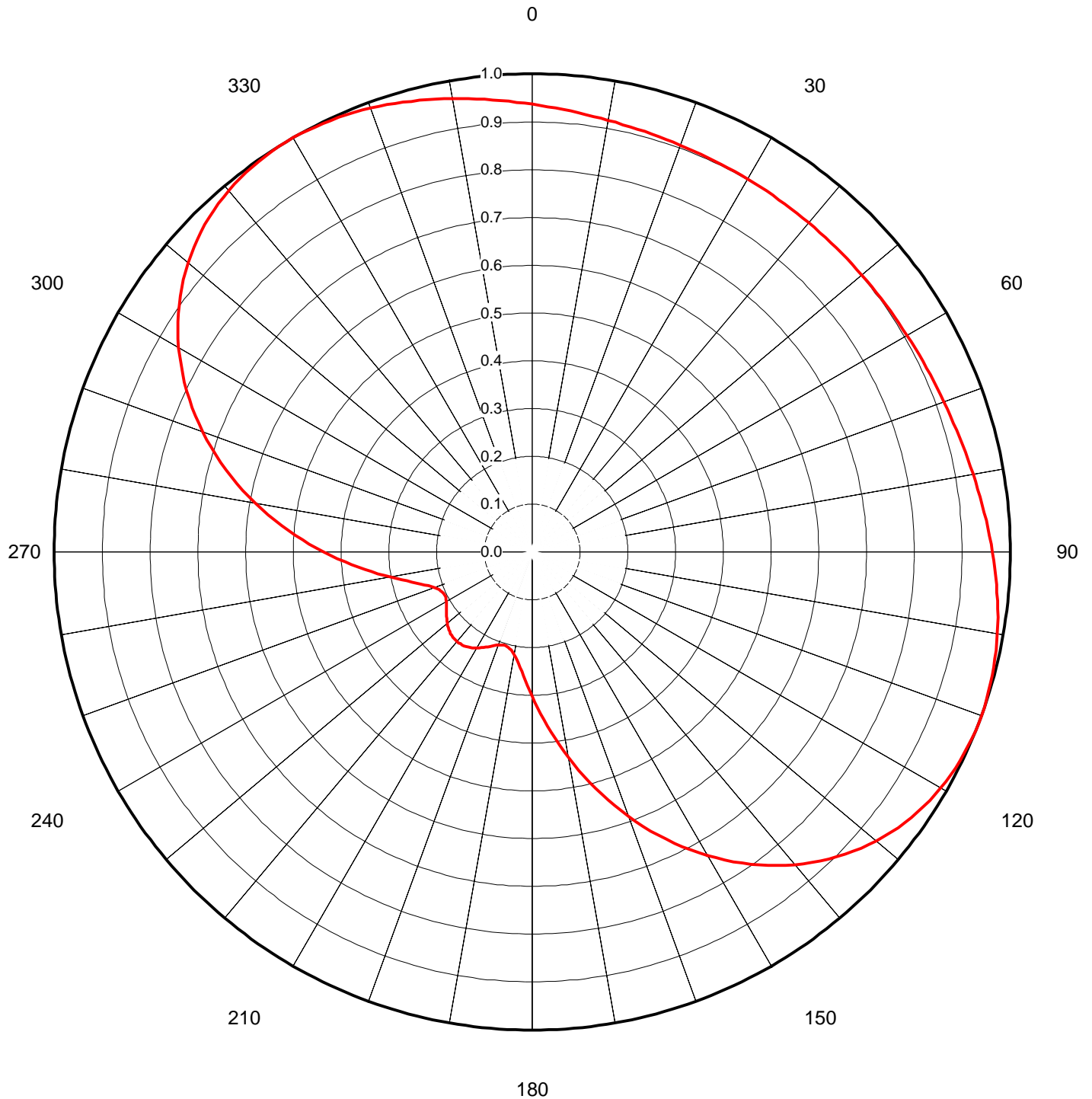


Proposal Number	DCA-10673	Revision:	7
Date	6-Aug-07		
Call Letters	WTIC-DT	Channel	31
Location	Hartford, CT		
Customer			
Antenna Type	TFU-18DSC/VP-R C170		

AZIMUTH PATTERN

Gain	1.70	(2.30 dB)
Calculated / Measured	Calculated	

Frequency	575.00 MHz
Drawing #	TFU-C170





Proposal Number **DCA-10673** Revision: **7**
Date **6-Aug-07**
Call Letters **WTIC-DT** Channel **31**
Location **Hartford, CT**
Customer
Antenna Type **TFU-18DSC/VP-R C170**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-C170**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.936	45	0.900	90	0.963	135	0.901	180	0.302	225	0.241	270	0.437	315	0.968
1	0.934	46	0.900	91	0.965	136	0.893	181	0.290	226	0.240	271	0.451	316	0.973
2	0.932	47	0.900	92	0.968	137	0.883	182	0.280	227	0.238	272	0.466	317	0.977
3	0.930	48	0.900	93	0.971	138	0.874	183	0.269	228	0.236	273	0.482	318	0.981
4	0.928	49	0.900	94	0.973	139	0.864	184	0.260	229	0.234	274	0.497	319	0.984
5	0.926	50	0.900	95	0.976	140	0.854	185	0.251	230	0.232	275	0.512	320	0.987
6	0.924	51	0.901	96	0.978	141	0.843	186	0.243	231	0.229	276	0.527	321	0.990
7	0.922	52	0.901	97	0.981	142	0.832	187	0.235	232	0.227	277	0.543	322	0.992
8	0.920	53	0.901	98	0.983	143	0.821	188	0.229	233	0.224	278	0.558	323	0.994
9	0.918	54	0.902	99	0.986	144	0.809	189	0.223	234	0.222	279	0.573	324	0.996
10	0.917	55	0.902	100	0.988	145	0.797	190	0.218	235	0.219	280	0.588	325	0.997
11	0.915	56	0.903	101	0.990	146	0.785	191	0.214	236	0.216	281	0.604	326	0.998
12	0.914	57	0.903	102	0.992	147	0.773	192	0.210	237	0.214	282	0.619	327	0.999
13	0.912	58	0.904	103	0.993	148	0.760	193	0.207	238	0.211	283	0.634	328	1.000
14	0.911	59	0.905	104	0.995	149	0.747	194	0.206	239	0.209	284	0.648	329	1.000
15	0.910	60	0.905	105	0.996	150	0.733	195	0.204	240	0.207	285	0.663	330	1.000
16	0.909	61	0.906	106	0.997	151	0.720	196	0.204	241	0.206	286	0.677	331	1.000
17	0.908	62	0.907	107	0.998	152	0.706	197	0.204	242	0.205	287	0.692	332	0.999
18	0.907	63	0.908	108	0.999	153	0.692	198	0.205	243	0.204	288	0.706	333	0.998
19	0.906	64	0.909	109	1.000	154	0.677	199	0.206	244	0.204	289	0.720	334	0.997
20	0.905	65	0.910	110	1.000	155	0.663	200	0.207	245	0.204	290	0.733	335	0.996
21	0.905	66	0.911	111	1.000	156	0.648	201	0.209	246	0.206	291	0.747	336	0.995
22	0.904	67	0.912	112	1.000	157	0.634	202	0.211	247	0.207	292	0.760	337	0.993
23	0.903	68	0.914	113	0.999	158	0.619	203	0.214	248	0.210	293	0.773	338	0.992
24	0.903	69	0.915	114	0.998	159	0.604	204	0.216	249	0.214	294	0.785	339	0.990
25	0.902	70	0.917	115	0.997	160	0.588	205	0.219	250	0.218	295	0.797	340	0.988
26	0.902	71	0.918	116	0.996	161	0.573	206	0.222	251	0.223	296	0.809	341	0.986
27	0.901	72	0.920	117	0.994	162	0.558	207	0.224	252	0.229	297	0.821	342	0.983
28	0.901	73	0.922	118	0.992	163	0.543	208	0.227	253	0.235	298	0.832	343	0.981
29	0.901	74	0.924	119	0.990	164	0.527	209	0.229	254	0.243	299	0.843	344	0.978
30	0.900	75	0.926	120	0.987	165	0.512	210	0.232	255	0.251	300	0.854	345	0.976
31	0.900	76	0.928	121	0.984	166	0.497	211	0.234	256	0.260	301	0.864	346	0.973
32	0.900	77	0.930	122	0.981	167	0.482	212	0.236	257	0.269	302	0.874	347	0.971
33	0.900	78	0.932	123	0.977	168	0.466	213	0.238	258	0.280	303	0.883	348	0.968
34	0.900	79	0.934	124	0.973	169	0.451	214	0.240	259	0.290	304	0.893	349	0.965
35	0.900	80	0.936	125	0.968	170	0.437	215	0.241	260	0.302	305	0.901	350	0.963
36	0.899	81	0.939	126	0.963	171	0.422	216	0.242	261	0.313	306	0.910	351	0.960
37	0.899	82	0.941	127	0.958	172	0.407	217	0.243	262	0.326	307	0.918	352	0.957
38	0.899	83	0.944	128	0.952	173	0.393	218	0.244	263	0.338	308	0.925	353	0.954
39	0.899	84	0.946	129	0.946	174	0.379	219	0.244	264	0.352	309	0.933	354	0.952
40	0.899	85	0.949	130	0.940	175	0.365	220	0.245	265	0.365	310	0.940	355	0.949
41	0.899	86	0.952	131	0.933	176	0.352	221	0.244	266	0.379	311	0.946	356	0.946
42	0.899	87	0.954	132	0.925	177	0.338	222	0.244	267	0.393	312	0.952	357	0.944
43	0.899	88	0.957	133	0.918	178	0.326	223	0.243	268	0.407	313	0.958	358	0.941
44	0.899	89	0.960	134	0.910	179	0.313	224	0.242	269	0.422	314	0.963	359	0.939

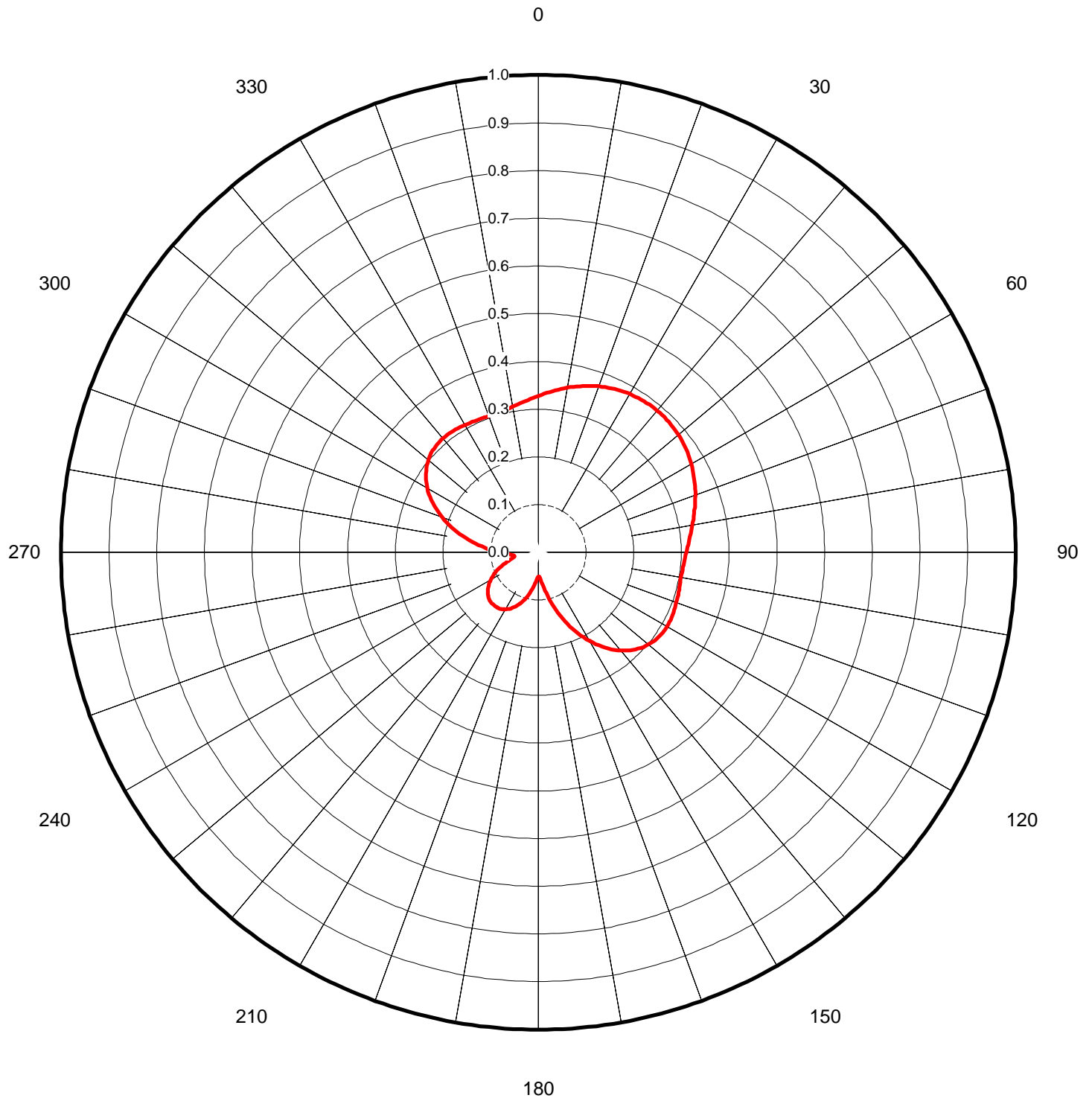


Proposal Number	DCA-10673	Revision:	7
Date	6-Aug-07		
Call Letters	WTIC-DT	Channel	31
Location	Hartford, CT		
Customer			
Antenna Type	TFU-18DSC/VP-R C170		

AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain	2.10	(3.22 dB)
Calculated / Measured	Calculated	

Frequency	575.00 MHz
Drawing #	C210-VP

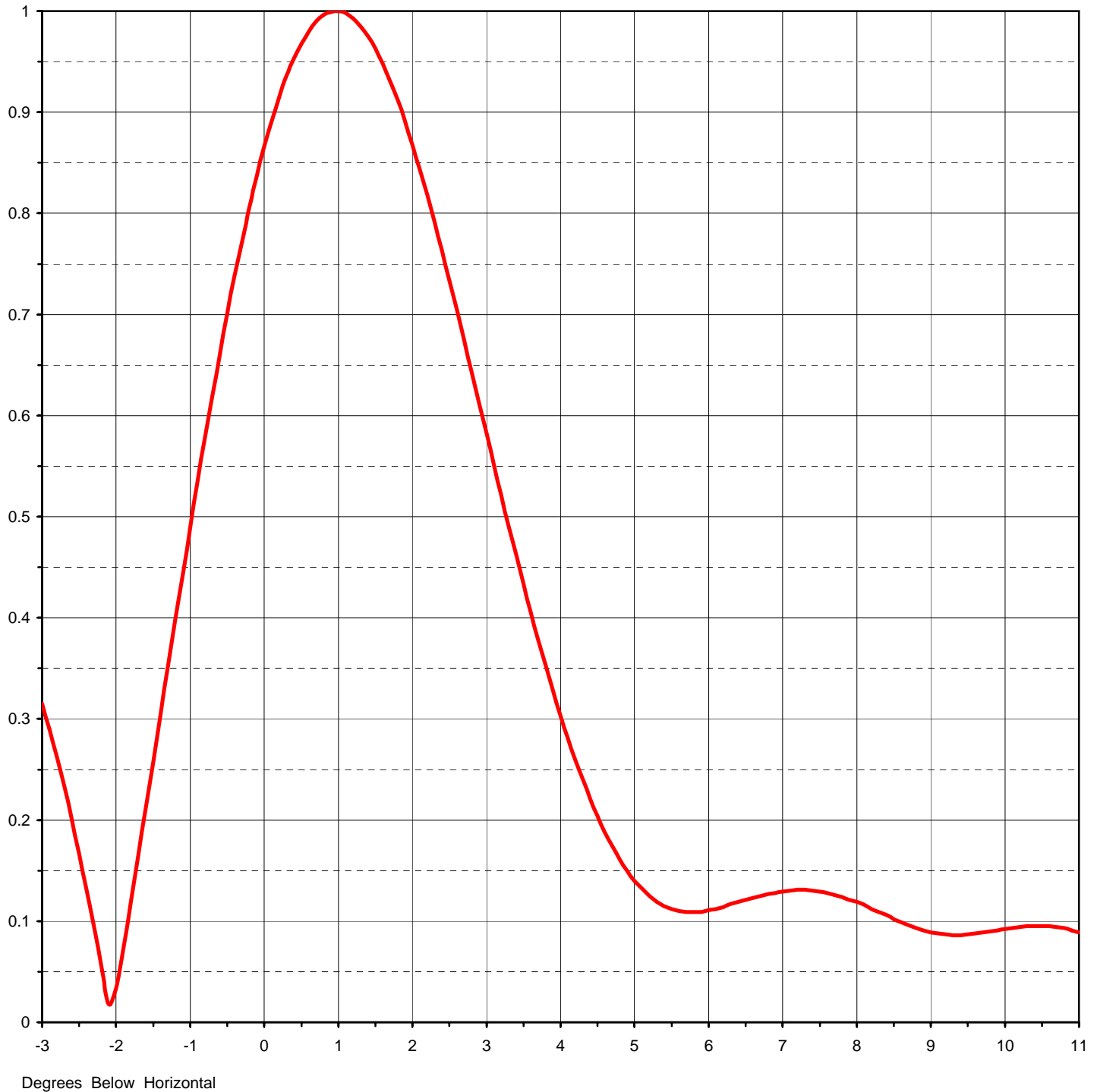




Proposal Number	DCA-10673	Revision:	7
Date	6-Aug-07		
Call Letters	WTIC-DT	Channel	31
Location	Hartford, CT		
Customer			
Antenna Type	TFU-18DSC/VP-R C170		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.00 (11.76 dB)	Beam Tilt	1.00 deg
RMS Gain at Horizontal	11.20 (10.49 dB)	Frequency	575.00 MHz
Calculated / Measured	Calculated	Drawing #	18Q150100



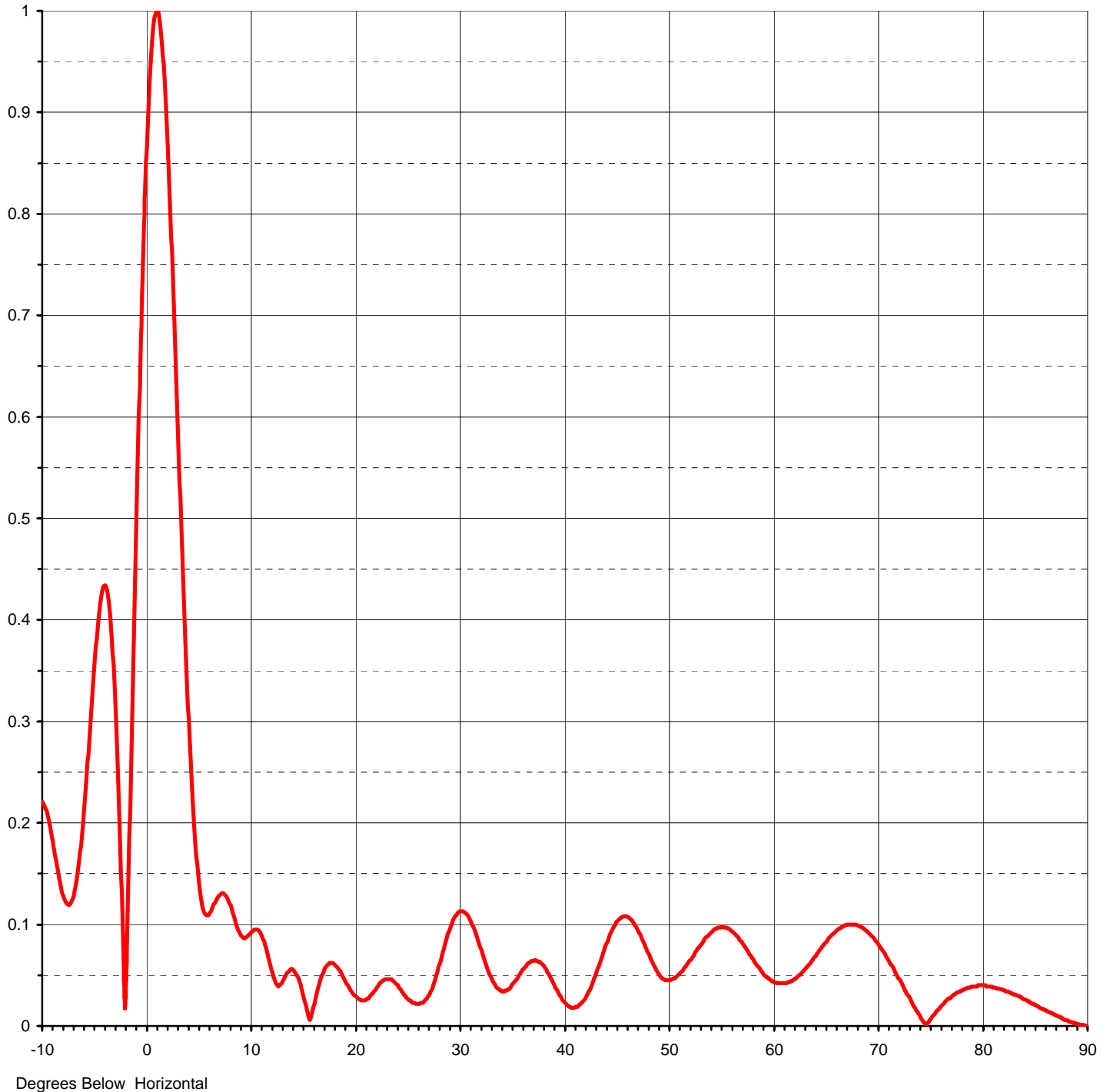


Proposal Number	DCA-10673	Revision:	7
Date	6-Aug-07		
Call Letters	WTIC-DT	Channel	31
Location	Hartford, CT		
Customer			
Antenna Type	TFU-18DSC/VP-R C170		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.00 (11.76 dB)
RMS Gain at Horizontal	11.20 (10.49 dB)
Calculated / Measured	Calculated

Beam Tilt	1.00 deg
Frequency	575.00 MHz
Drawing #	18Q150100-90





Proposal Number **DCA-10673** Revision: **7**
 Date **6-Aug-07**
 Call Letters **WTIC-DT** Channel **31**
 Location **Hartford, CT**
 Customer
 Antenna Type **TFU-18DSC/VP-R C170**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **18Q150100-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.221	2.4	0.763	10.6	0.095	30.5	0.112	51.0	0.051	71.5	0.055
-9.5	0.208	2.6	0.704	10.8	0.094	31.0	0.105	51.5	0.057	72.0	0.046
-9.0	0.183	2.8	0.643	11.0	0.091	31.5	0.093	52.0	0.064	72.5	0.036
-8.5	0.153	3.0	0.582	11.5	0.077	32.0	0.078	52.5	0.071	73.0	0.027
-8.0	0.128	3.2	0.521	12.0	0.057	32.5	0.062	53.0	0.079	73.5	0.018
-7.5	0.119	3.4	0.462	12.5	0.041	33.0	0.049	53.5	0.086	74.0	0.009
-7.0	0.128	3.6	0.405	13.0	0.042	33.5	0.039	54.0	0.091	74.5	0.002
-6.5	0.159	3.8	0.352	13.5	0.052	34.0	0.035	54.5	0.096	75.0	0.007
-6.0	0.212	4.0	0.303	14.0	0.056	34.5	0.035	55.0	0.097	75.5	0.014
-5.5	0.282	4.2	0.260	14.5	0.049	35.0	0.040	55.5	0.097	76.0	0.020
-5.0	0.355	4.4	0.221	15.0	0.033	35.5	0.046	56.0	0.094	76.5	0.025
-4.5	0.412	4.6	0.188	15.5	0.012	36.0	0.054	56.5	0.089	77.0	0.029
-4.0	0.434	4.8	0.161	16.0	0.016	36.5	0.061	57.0	0.083	77.5	0.033
-3.5	0.405	5.0	0.140	16.5	0.038	37.0	0.064	57.5	0.075	78.0	0.035
-3.0	0.315	5.2	0.125	17.0	0.053	37.5	0.064	58.0	0.067	78.5	0.038
-2.8	0.263	5.4	0.115	17.5	0.061	38.0	0.060	58.5	0.059	79.0	0.039
-2.6	0.201	5.6	0.110	18.0	0.061	38.5	0.052	59.0	0.053	79.5	0.040
-2.4	0.132	5.8	0.109	18.5	0.055	39.0	0.042	59.5	0.047	80.0	0.040
-2.2	0.055	6.0	0.111	19.0	0.046	39.5	0.032	60.0	0.044	80.5	0.039
-2.0	0.033	6.2	0.114	19.5	0.037	40.0	0.024	60.5	0.042	81.0	0.038
-1.8	0.120	6.4	0.119	20.0	0.030	40.5	0.019	61.0	0.042	81.5	0.037
-1.6	0.211	6.6	0.123	20.5	0.026	41.0	0.018	61.5	0.043	82.0	0.035
-1.4	0.305	6.8	0.127	21.0	0.025	41.5	0.021	62.0	0.046	82.5	0.033
-1.2	0.398	7.0	0.129	21.5	0.030	42.0	0.026	62.5	0.050	83.0	0.031
-1.0	0.490	7.2	0.131	22.0	0.036	42.5	0.036	63.0	0.055	83.5	0.029
-0.8	0.578	7.4	0.130	22.5	0.043	43.0	0.049	63.5	0.061	84.0	0.026
-0.6	0.661	7.6	0.128	23.0	0.046	43.5	0.064	64.0	0.068	84.5	0.023
-0.4	0.738	7.8	0.124	23.5	0.046	44.0	0.079	64.5	0.076	85.0	0.021
-0.2	0.807	8.0	0.119	24.0	0.041	44.5	0.092	65.0	0.083	85.5	0.018
0.0	0.866	8.2	0.112	24.5	0.034	45.0	0.102	65.5	0.089	86.0	0.015
0.2	0.915	8.4	0.106	25.0	0.027	45.5	0.107	66.0	0.094	86.5	0.013
0.4	0.953	8.6	0.099	25.5	0.023	46.0	0.108	66.5	0.098	87.0	0.010
0.6	0.980	8.8	0.093	26.0	0.022	46.5	0.104	67.0	0.100	87.5	0.008
0.8	0.996	9.0	0.089	26.5	0.023	47.0	0.096	67.5	0.100	88.0	0.006
1.0	1.000	9.2	0.087	27.0	0.029	47.5	0.085	68.0	0.099	88.5	0.004
1.2	0.993	9.4	0.086	27.5	0.040	48.0	0.073	68.5	0.097	89.0	0.002
1.4	0.975	9.6	0.088	28.0	0.057	48.5	0.062	69.0	0.092	89.5	0.001
1.6	0.948	9.8	0.089	28.5	0.075	49.0	0.052	69.5	0.087	90.0	0.000
1.8	0.912	10.0	0.091	29.0	0.093	49.5	0.046	70.0	0.080		
2.0	0.868	10.2	0.093	29.5	0.106	50.0	0.045	70.5	0.072		
2.2	0.818	10.4	0.095	30.0	0.113	50.5	0.047	71.0	0.064		