

ENGINEERING STATEMENT
RE APPLICATION FOR LICENSE TO COVER
THE OUTSTANDING CONSTRUCTION PERMIT
(FCC FILE NO. BMPCDT-20080619AJR)
ON BEHALF OF
WYDC, INC.
CHANNEL 48 7.6 KW MAX ERP 334 METERS HAAT
FEBRUARY 2009

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

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

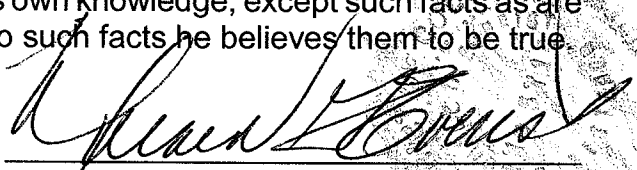
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 10th day of February, 2009.



Notary Public

My Commission Expires: 2/28/2013



This engineering statement has been prepared on behalf of WYDC, Inc. ("WYDC"), licensee of WYDC(TV), Corning, New York, which has an outstanding construction permit for digital television ("DTV") operation (FCC File No. BMPCDT-20080619AJR). The purpose of this statement is to request a license to cover this outstanding DTV construction permit.

WYDC(TV) is licensed to operate on Channel 48 with an effective radiated power ("ERP") of 12 kW (horizontal polarization) at an antenna height above average terrain ("HAAT") of 166 meters. WYDC-DT has been allotted Channel 48 (674-680 MHz) in the Final DTV Table of Allotments. In its outstanding construction permit, WYDC-DT is authorized facilities of 7.6 kW ERP directional at an HAAT of 334 meters.

Antenna Site

The WYDC-DT antenna operates from the tower site with the description Keegan Road, Higman Hill, Corning, New York with the antenna structure registration of 1250909.

The geographic coordinates of the tower site are:

North Latitude: 42° 08' 30"

West Longitude: 77° 04' 39"

(NAD-27)

Antenna Data

Antenna Make & Model	Dielectric, TUA-C4SP-8/28M-1-T with 0.75 degree electrical tilt--antenna data is attached as Exhibit E-1	
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Power Data

Transmitter power output (after filter loss)	0.450 kW	-3.468 dBk
Combiner Efficiency/Loss	96.4	0.159 dB
Transmission line loss (850 feet (259.1 meters) of Dielectric, Type DCA, 3-1/8", 50 ohm rigid) loss/efficiency	58.3%	2.35 dB
Input power to the antenna	0.253 kW	-5.963 dBk

Antenna power gain, main lobe	30	14.77 dB
Effective Radiated Power, Maximum	7.6 kW	8.81 dBk

Special Operating Condition

WYDC-DT acknowledges that the grant of this DTV license is subject to the special operation condition specified in the outstanding construction permit. Therefore, WYDC-DT certifies that it has made a good faith effort to identify and notify health care facilities (e.g., hospitals, nursing homes, see 47 CFR 15.242(a)(1)) within the WYDC-DT service area potentially affected by these authorized DTV operations. During this pre-broadcast period, WYDC-DT provided all notified entities with relevant technical details of its authorized operation of WYDC-DT, such as DTV channel, targeted on-air date, effective radiated power, antenna location, and antenna height. Documentation of the notifications and contacts made has been placed in the station's public inspection file. During this pre-broadcast period and for up to twenty (20) days after commencing operations, should WYDC-DT become aware of any instances of medical devices malfunctioning or that such that devices are likely to malfunction due to the WYDC-DT operations, it shall cooperate with the health care facility so that it is afforded a reasonable opportunity to resolve the interference problem.

EXHIBIT E-1

ANTENNA MANUFACTURER DATA



Proposal #: **DCA-11376** Antenna Type: **TUA-C4SP-8/28M-1-T** Channel: **48 DTV**
 Call Letters: **WYDC-DT** Location: **Corning, NY**

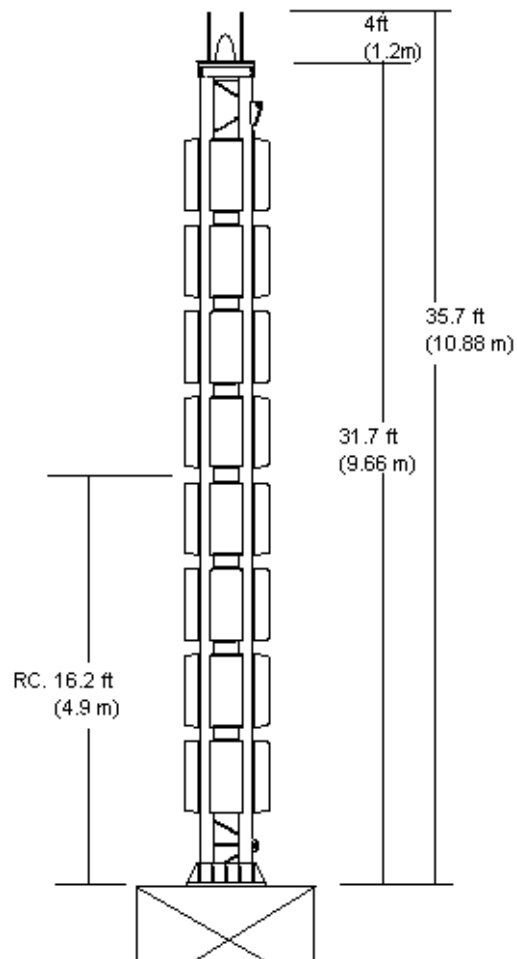
Electrical Specifications		Value		Remarks
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	15.0	11.76	
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	10.8	10.33	
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol	30.0	14.77	
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol	21.7	13.36	
	Vpol			
Circularity		dB		Directional
Axial Ratio		dB		
Beam Tilt		0.75 deg		
Maximum Antenna Input VSWR		Channel 1.10 : 1		
Patterns	Azimuth	TUA-C4SP-6770		
	Elevation	08U160075	08U160075-90	
Mechanical Specifications		Metric	English	
<p>Refer to WKSA-DT, channel 30, specification sheet for mechanical data.</p>				
<p>Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.</p>				

NOTE:

Prepared By : **EHM** Approved By : **AJS**
 Original Date : **26-Jan-06**



ANTENNA CONFIGURATION
TUA-C4SP-8/28M-1-T
WSKA-DT
Corning, NY

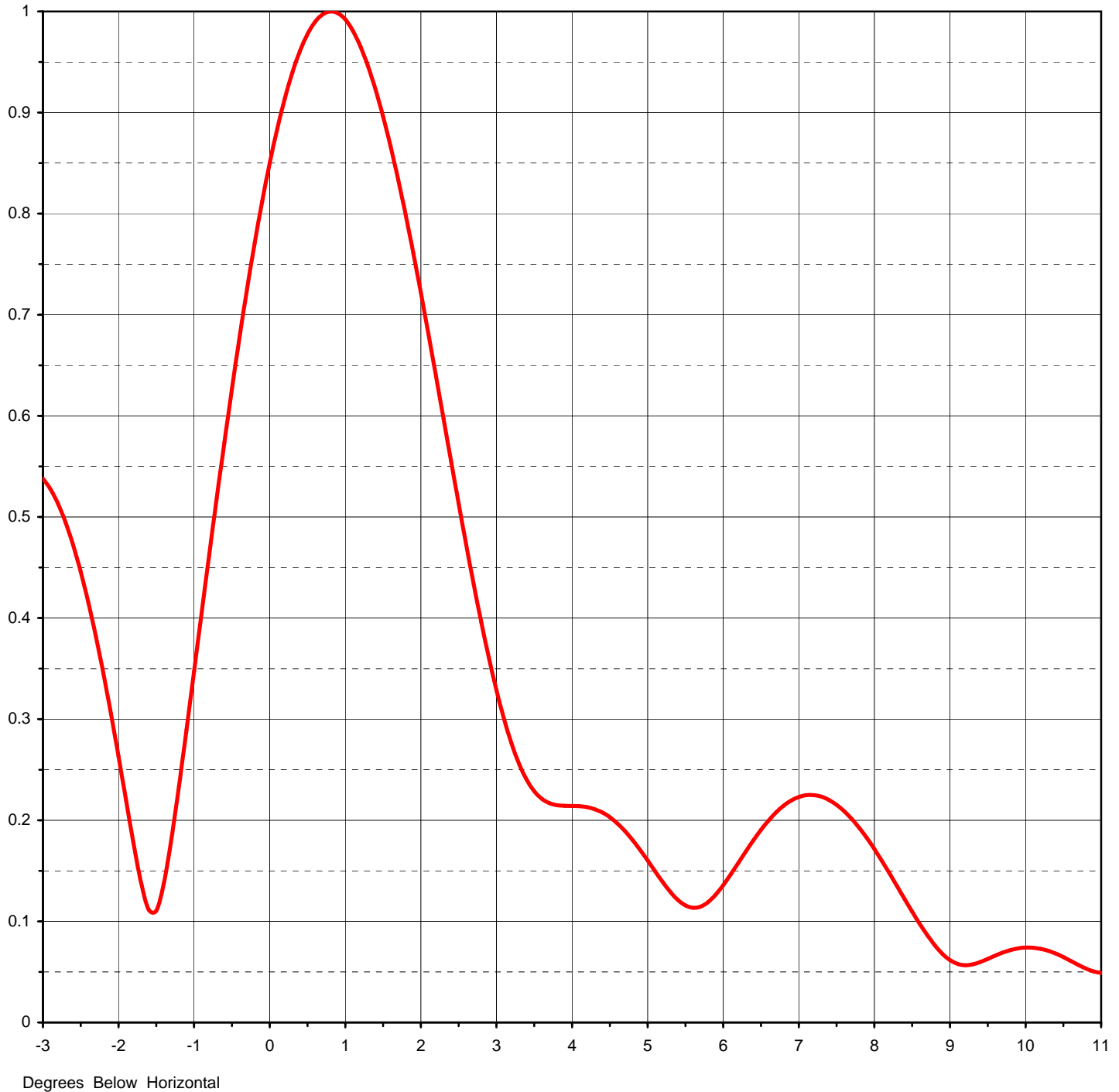




Proposal Number	DCA-11376		
Date	26-Jan-06		
Call Letters	WYDC-DT	Channel	48
Location	Corning, NY		
Customer			
Antenna Type	TUA-C4SP-8/28M-1-T		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.00 (11.76 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	10.80 (10.33 dB)	Frequency	677.00 MHz
Calculated / Measured	Calculated	Drawing #	08U160075

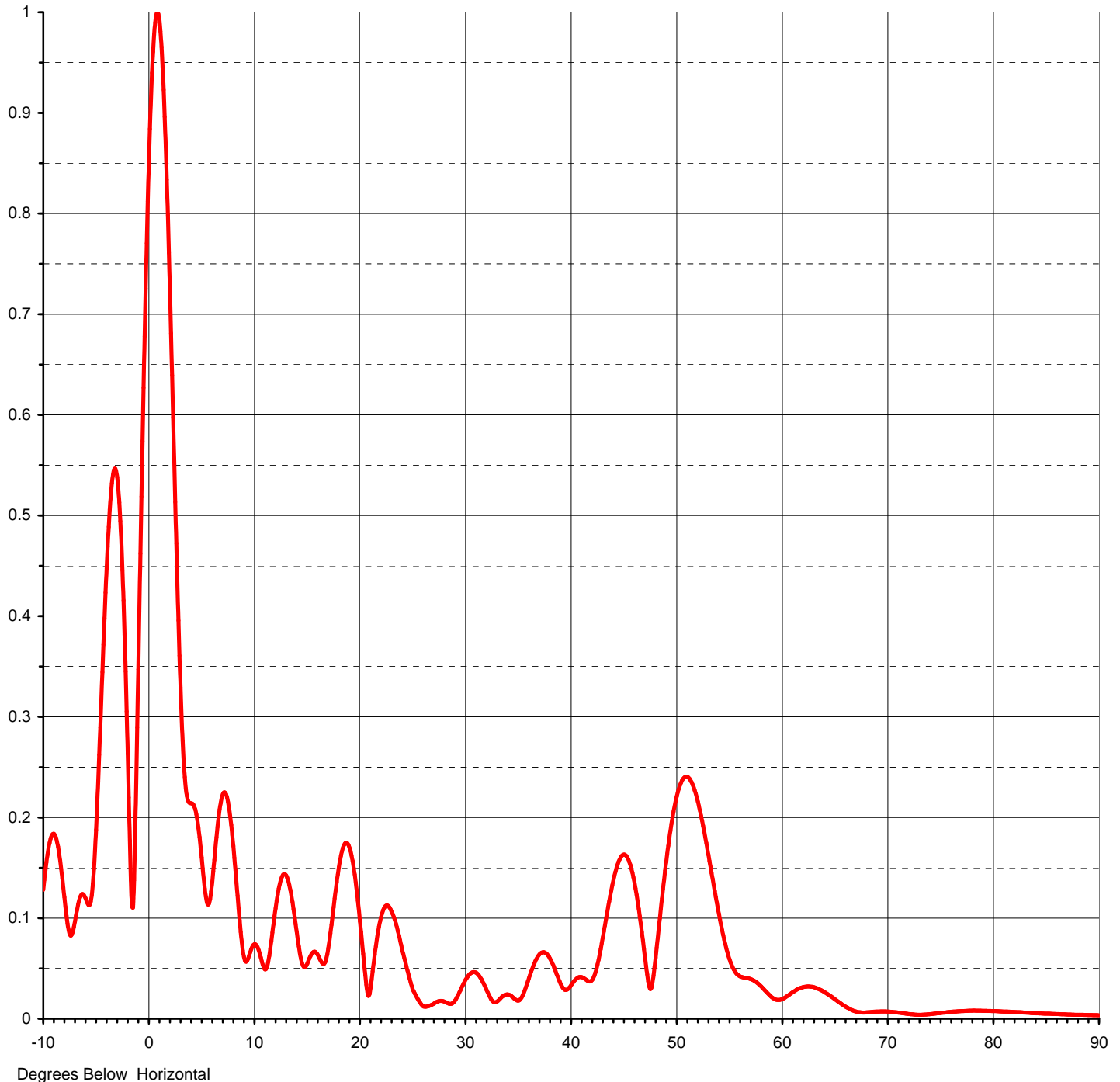




Proposal Number	DCA-11376	
Date	26-Jan-06	
Call Letters	WYDC-DT	Channel 48
Location	Corning, NY	
Customer		
Antenna Type	TUA-C4SP-8/28M-1-T	

ELEVATION PATTERN

RMS Gain at Main Lobe	15.00 (11.76 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	10.80 (10.33 dB)	Frequency	677.00 MHz
Calculated / Measured	Calculated	Drawing #	08U160075-90





Proposal Number **DCA-11376**
 Date **26-Jan-06**
 Call Letters **WYDC-DT** Channel **48**
 Location **Corning, NY**
 Customer
 Antenna Type **TUA-C4SP-8/28M-1-T**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **08U160075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.128	2.4	0.555	10.6	0.065	30.5	0.044	51.0	0.241	71.5	0.005
-9.5	0.169	2.6	0.472	10.8	0.057	31.0	0.046	51.5	0.235	72.0	0.005
-9.0	0.184	2.8	0.396	11.0	0.051	31.5	0.041	52.0	0.220	72.5	0.004
-8.5	0.164	3.0	0.329	11.5	0.062	32.0	0.031	52.5	0.197	73.0	0.004
-8.0	0.121	3.2	0.276	12.0	0.102	32.5	0.020	53.0	0.169	73.5	0.004
-7.5	0.084	3.4	0.240	12.5	0.134	33.0	0.017	53.5	0.139	74.0	0.005
-7.0	0.097	3.6	0.221	13.0	0.144	33.5	0.021	54.0	0.109	74.5	0.005
-6.5	0.121	3.8	0.215	13.5	0.128	34.0	0.024	54.5	0.083	75.0	0.006
-6.0	0.120	4.0	0.214	14.0	0.094	34.5	0.022	55.0	0.062	75.5	0.006
-5.5	0.116	4.2	0.213	14.5	0.060	35.0	0.018	55.5	0.049	76.0	0.007
-5.0	0.188	4.4	0.208	15.0	0.053	35.5	0.023	56.0	0.043	76.5	0.007
-4.5	0.317	4.6	0.197	15.5	0.064	36.0	0.037	56.5	0.041	77.0	0.008
-4.0	0.447	4.8	0.181	16.0	0.065	36.5	0.052	57.0	0.040	77.5	0.008
-3.5	0.532	5.0	0.160	16.5	0.056	37.0	0.063	57.5	0.037	78.0	0.008
-3.0	0.538	5.2	0.139	17.0	0.064	37.5	0.066	58.0	0.033	78.5	0.008
-2.8	0.513	5.4	0.121	17.5	0.102	38.0	0.062	58.5	0.028	79.0	0.008
-2.6	0.472	5.6	0.113	18.0	0.144	38.5	0.051	59.0	0.022	79.5	0.008
-2.4	0.416	5.8	0.119	18.5	0.170	39.0	0.037	59.5	0.019	80.0	0.008
-2.2	0.345	6.0	0.136	19.0	0.173	39.5	0.029	60.0	0.019	80.5	0.007
-2.0	0.263	6.2	0.158	19.5	0.150	40.0	0.032	60.5	0.022	81.0	0.007
-1.8	0.177	6.4	0.180	20.0	0.107	40.5	0.039	61.0	0.026	81.5	0.007
-1.6	0.112	6.6	0.200	20.5	0.054	41.0	0.041	61.5	0.029	82.0	0.007
-1.4	0.138	6.8	0.214	21.0	0.025	41.5	0.039	62.0	0.031	82.5	0.007
-1.2	0.234	7.0	0.223	21.5	0.064	42.0	0.038	62.5	0.032	83.0	0.006
-1.0	0.347	7.2	0.225	22.0	0.097	42.5	0.050	63.0	0.032	83.5	0.006
-0.8	0.462	7.4	0.220	22.5	0.112	43.0	0.075	63.5	0.030	84.0	0.005
-0.6	0.574	7.6	0.209	23.0	0.109	43.5	0.105	64.0	0.027	84.5	0.005
-0.4	0.678	7.8	0.192	23.5	0.095	44.0	0.133	64.5	0.023	85.0	0.005
-0.2	0.771	8.0	0.172	24.0	0.073	44.5	0.153	65.0	0.019	85.5	0.005
0.0	0.850	8.2	0.148	24.5	0.052	45.0	0.163	65.5	0.015	86.0	0.005
0.2	0.914	8.4	0.122	25.0	0.032	45.5	0.159	66.0	0.012	86.5	0.004
0.4	0.961	8.6	0.097	25.5	0.021	46.0	0.140	66.5	0.009	87.0	0.004
0.6	0.990	8.8	0.076	26.0	0.013	46.5	0.109	67.0	0.007	87.5	0.004
0.8	1.000	9.0	0.062	26.5	0.012	47.0	0.069	67.5	0.006	88.0	0.004
1.0	0.992	9.2	0.057	27.0	0.014	47.5	0.032	68.0	0.006	88.5	0.004
1.2	0.965	9.4	0.060	27.5	0.017	48.0	0.051	68.5	0.007	89.0	0.004
1.4	0.923	9.6	0.066	28.0	0.017	48.5	0.100	69.0	0.007	89.5	0.004
1.6	0.866	9.8	0.069	28.5	0.015	49.0	0.147	69.5	0.007	90.0	0.004
1.8	0.798	10.0	0.073	29.0	0.017	49.5	0.187	70.0	0.007		
2.0	0.722	10.2	0.074	29.5	0.026	50.0	0.216	70.5	0.007		
2.2	0.639	10.4	0.071	30.0	0.037	50.5	0.234	71.0	0.006		



Proposal Number

DCA-11376

Date

26-Jan-06

Call Letters

WYDC-DT

Channel

48

Location

Corning, NY

Customer

Antenna Type

TUA-C4SP-8/28M-1-T

AZIMUTH PATTERN

Gain

2.00

(3.01 dB)

Frequency

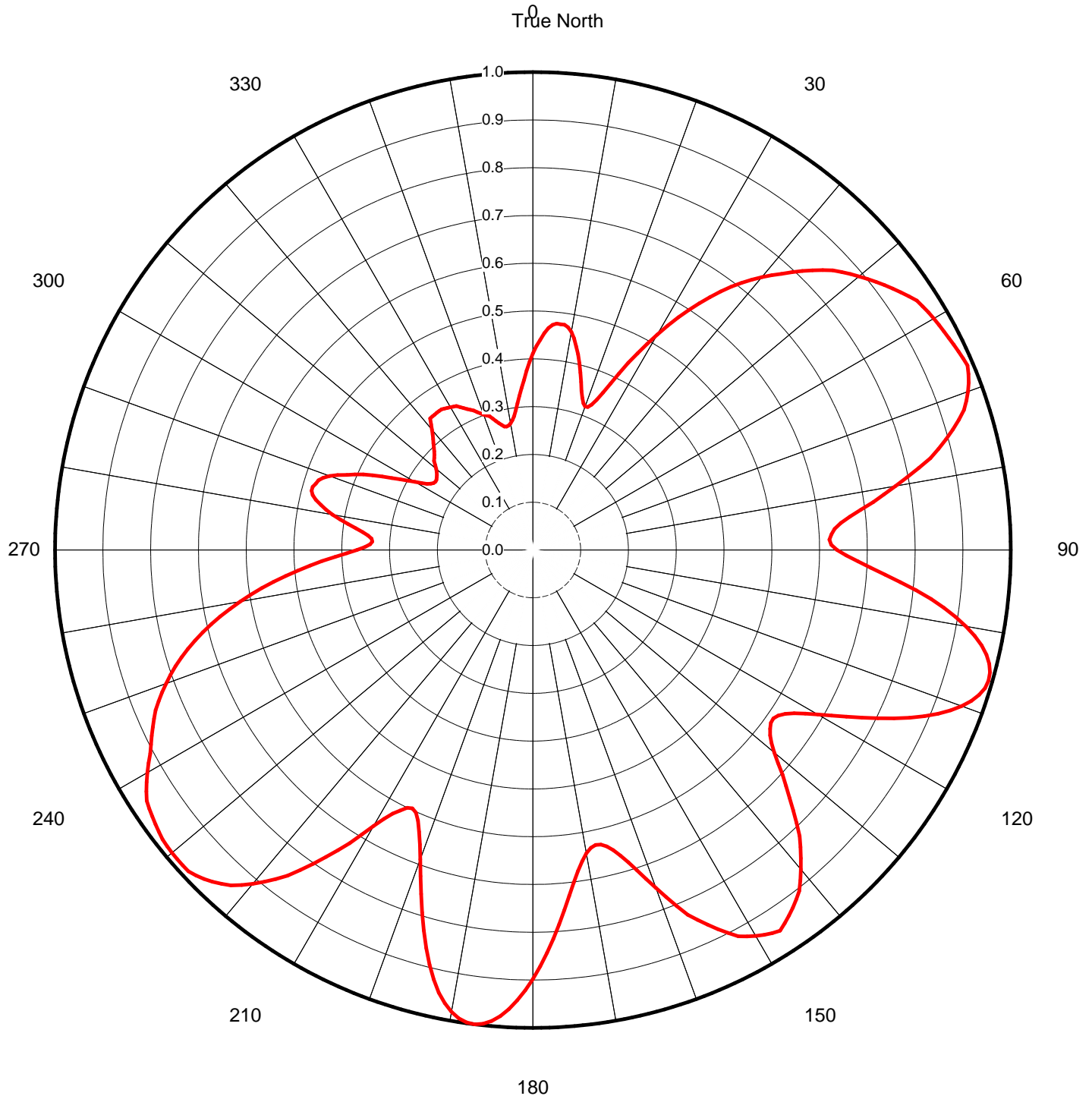
677.00 MHz

Calculated / Measured

Calculated

Drawing #

TUA-C4SP-6770





Proposal Number

DCA-11376

Date

26-Jan-06

Call Letters

WYDC-DT

Channel

48

Location

Corning, NY

Customer

Antenna Type

TUA-C4SP-8/28M-1-T**TABULATION OF AZIMUTH PATTERN**Azimuth Pattern Drawing #: **TUA-C4SP-6770**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.411	45	0.828	90	0.636	135	0.770	180	0.898	225	0.973	270	0.368	315	0.292
1	0.427	46	0.843	91	0.656	136	0.794	181	0.922	226	0.980	271	0.352	316	0.298
2	0.440	47	0.858	92	0.681	137	0.819	182	0.943	227	0.986	272	0.341	317	0.305
3	0.454	48	0.869	93	0.708	138	0.837	183	0.962	228	0.986	273	0.336	318	0.312
4	0.465	49	0.880	94	0.739	139	0.855	184	0.978	229	0.986	274	0.338	319	0.320
5	0.473	50	0.891	95	0.772	140	0.872	185	0.989	230	0.986	275	0.346	320	0.329
6	0.476	51	0.901	96	0.806	141	0.889	186	0.997	231	0.985	276	0.358	321	0.338
7	0.476	52	0.911	97	0.840	142	0.906	187	1.000	232	0.984	277	0.374	322	0.349
8	0.476	53	0.921	98	0.869	143	0.916	188	0.998	233	0.980	278	0.391	323	0.350
9	0.472	54	0.931	99	0.896	144	0.925	189	0.992	234	0.976	279	0.409	324	0.350
10	0.463	55	0.940	100	0.920	145	0.934	190	0.981	235	0.972	280	0.426	325	0.351
11	0.451	56	0.949	101	0.942	146	0.942	191	0.966	236	0.968	281	0.441	326	0.351
12	0.435	57	0.958	102	0.960	147	0.950	192	0.947	237	0.964	282	0.453	327	0.351
13	0.420	58	0.962	103	0.974	148	0.945	193	0.922	238	0.954	283	0.466	328	0.349
14	0.403	59	0.966	104	0.984	149	0.940	194	0.894	239	0.943	284	0.475	329	0.347
15	0.384	60	0.969	105	0.990	150	0.933	195	0.862	240	0.932	285	0.479	330	0.345
16	0.366	61	0.972	106	0.992	151	0.924	196	0.829	241	0.919	286	0.479	331	0.343
17	0.348	62	0.974	107	0.989	152	0.915	197	0.793	242	0.907	287	0.475	332	0.341
18	0.334	63	0.977	108	0.982	153	0.899	198	0.757	243	0.897	288	0.472	333	0.336
19	0.325	64	0.980	109	0.970	154	0.882	199	0.722	244	0.887	289	0.464	334	0.330
20	0.320	65	0.983	110	0.955	155	0.865	200	0.689	245	0.878	290	0.453	335	0.325
21	0.321	66	0.985	111	0.936	156	0.847	201	0.660	246	0.868	291	0.438	336	0.321
22	0.328	67	0.988	112	0.915	157	0.829	202	0.636	247	0.858	292	0.420	337	0.317
23	0.341	68	0.983	113	0.890	158	0.804	203	0.615	248	0.845	293	0.405	338	0.311
24	0.360	69	0.977	114	0.863	159	0.778	204	0.602	249	0.831	294	0.388	339	0.306
25	0.384	70	0.969	115	0.834	160	0.752	205	0.597	250	0.817	295	0.370	340	0.302
26	0.411	71	0.960	116	0.803	161	0.728	206	0.600	251	0.802	296	0.351	341	0.298
27	0.440	72	0.949	117	0.772	162	0.705	207	0.612	252	0.786	297	0.331	342	0.295
28	0.466	73	0.932	118	0.743	163	0.684	208	0.625	253	0.769	298	0.315	343	0.287
29	0.493	74	0.914	119	0.715	164	0.665	209	0.643	254	0.751	299	0.299	344	0.281
30	0.520	75	0.895	120	0.688	165	0.650	210	0.667	255	0.732	300	0.285	345	0.275
31	0.547	76	0.875	121	0.665	166	0.639	211	0.694	256	0.712	301	0.272	346	0.270
32	0.574	77	0.854	122	0.645	167	0.633	212	0.724	257	0.691	302	0.261	347	0.265
33	0.599	78	0.826	123	0.630	168	0.631	213	0.749	258	0.669	303	0.255	348	0.264
34	0.623	79	0.798	124	0.619	169	0.635	214	0.775	259	0.646	304	0.251	349	0.265
35	0.646	80	0.770	125	0.614	170	0.645	215	0.801	260	0.622	305	0.249	350	0.269
36	0.669	81	0.744	126	0.615	171	0.659	216	0.828	261	0.598	306	0.249	351	0.275
37	0.690	82	0.719	127	0.622	172	0.678	217	0.853	262	0.573	307	0.252	352	0.282
38	0.710	83	0.691	128	0.630	173	0.702	218	0.874	263	0.547	308	0.255	353	0.295
39	0.728	84	0.667	129	0.643	174	0.728	219	0.893	264	0.520	309	0.259	354	0.309
40	0.745	85	0.647	130	0.659	175	0.756	220	0.912	265	0.493	310	0.264	355	0.324
41	0.762	86	0.633	131	0.680	176	0.785	221	0.929	266	0.467	311	0.271	356	0.340
42	0.777	87	0.626	132	0.703	177	0.815	222	0.944	267	0.442	312	0.278	357	0.356
43	0.795	88	0.621	133	0.724	178	0.844	223	0.955	268	0.414	313	0.282	358	0.375
44	0.812	89	0.624	134	0.747	179	0.872	224	0.965	269	0.390	314	0.287	359	0.394

Section III - Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel _____			
2. Operating Constants			
Transmitter power output (average power at input to transmission line, after any filter attached to the transmitter, if used)		Transmission line power loss	
kW		dBk	
dB		dB	
Antenna Input power	Maximum antenna power gain	Effective radiated power (average power)	
dBk	dB	kW	dBk
3. Antenna Data			
Manufacturer		Model	

NOTE: In addition to the information called for in the Certification Checklist, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

4. Main Studio Location. The main studio location complies with 47 C.F.R. Section 73.1125.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<div style="border: 1px solid black; padding: 2px;">See Explanation in Exhibit No.</div>
5. Constructed Facility. The facility was constructed as authorized in the underlying construction permit or complies with 47 C.F.R. Section 73.1690.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<div style="border: 1px solid black; padding: 2px;">See Explanation in Exhibit No.</div>
6. Special Operating Conditions. The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<div style="border: 1px solid black; padding: 2px;">See Explanation in Exhibit No.</div>
An exhibit may be required. Review the underlying construction permit.		<div style="border: 1px solid black; padding: 2px;">Exhibit No.</div>
7. Transmitter. The transmitter complies with 47 C.F.R. Section 73.1660.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<div style="border: 1px solid black; padding: 2px;">See Explanation in Exhibit No.</div>

PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.

APPLICATION FILED PURSUANT TO 47 C.F.R. SECTIONS 73.1675(c) or 73.1690(c).

Only applicants filing this application pursuant to 47 C.F.R. Sections 73.1675(c) or 73.1690(c) must complete the following

8. **Changing transmitter power output.** Is this application being filed to authorize a change in transmitter power output caused by the replacement of an omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10). ☐ Yes ☐ No

9. **Replacing a directional antenna.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(3) to replace a directional antenna with another directional antenna? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Pattern of Directional Antenna.** The proposed theoretical antenna pattern complies with 47 C.F.R. Section 73.1690(c)(3). **Exhibit is required.** ☐ Yes ☐ No

See Explanation in Exhibit No.

Exhibit No.

10. **Use a formerly licensed main facility as an auxiliary facility.** Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Auxiliary antenna service area.** The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a). **Exhibit is required.** ☐ Yes ☐ No

See Explanation in Exhibit No.

- b. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.*, the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). ☐ Yes ☐ No

See Explanation in Exhibit No.

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

11. **Change the license status.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(9) to change the license status from commercial to noncommercial or from noncommercial to commercial? ☐ Yes ☐ No

Exhibit No.

If "Yes" to the above, submit an exhibit providing full particulars. For applications changing license status from commercial to noncommercial, include Section II of FCC Form 340 as an exhibit to this application.

PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Donald G. Everist		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 		Date February 10, 2009	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100			
City Washington	State or Country (if foreign address) DC		ZIP Code 20005
Telephone Number (include area code) (202) 898-0111		E-Mail Address (if available) cde@attglobal.net	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001),
AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)),
AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).