

ENGINEERING STATEMENT
RE REQUEST FOR MODIFICATION OF
CONSTRUCTION PERMIT
(FCC FILE NO. BPCDT-19991029AID)
TO OPERATE NEW DTV STATION
WYDC-DT, CORNING, NEW YORK
CHANNEL 50 0.76 KW ERP 223.6 METERS HAAT

JULY 2006

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)

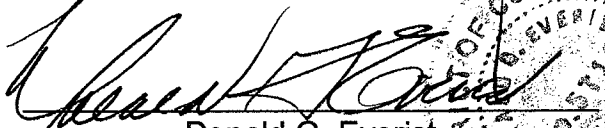
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

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

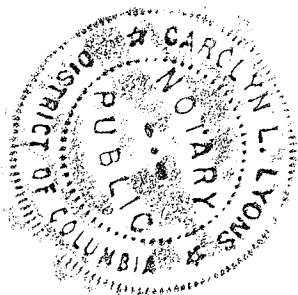
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


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

Subscribed and sworn to before me this 6th day of July, 2006.


Notary Public

My Commission Expires: 2/28/2008



COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

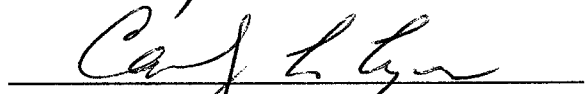
He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

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

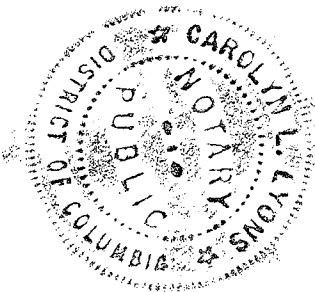
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


Martin R. Doczkat

Subscribed and sworn to before me this 6th day of July, 2006.


Notary Public

My Commission Expires: 2/28/2008



Introduction

This engineering statement has been prepared on behalf of WYDC, Inc., licensee of TV Station WYDC, Corning, New York, in support of its request for modification of construction permit (FCC File No. BPCDT-19991029AID) for its digital television (DTV) operation. At present, WYDC operates on NTSC TV Channel 48 (+) (674-680 MHz) with 12 kW maximum effective radiated power ("ERP") and 166 meters antenna height above average terrain ("HAAT"). The current analog Channel 48 (+) operation of WYDC is with a directional TV antenna. Station WYDC has been allotted Channel 50 (686-692 MHz) for its digital TV operation with an ERP of 50 kW and 166 meters HAAT, and has been authorized to construct a facility (FCC File No. BPCDT-19991029AID) with 600 kW ERP non-directional at 160 meters HAAT on the same property.¹ WYDC now proposes to modify its DTV construction permit (FCC File No. BPCDT-19991029AID) to 0.76 kW ERP directional at 223.6 meters HAAT at its site currently operational under a DTV special temporary authority.

Antenna Site

The DTV antenna will be side-mounted on an existing tower (Exhibit E-1) at 117.7 meters above ground level. The WYDC-DT antenna site is located at Higman Hill in Corning, New York. The WYDC-DT antenna structure registration number is 1045276.

The geographic coordinates of the existing tower are as follows:

North Latitude: 42° 08' 31"

West Longitude: 77° 04' 40"

(NAD-27)

The following data shows the pertinent information concerning the proposed operation.

¹On June 23, 2005, the FCC tentatively approved Channel 48 for WYDC-DT's permanent DTV operation.

Power Data

Transmitter output (after filter loss)	100 watts	-10 dBk
Transmission line efficiency loss Dielectric, 1-5/8", 50 ohm foam heliax length: 133 m (436 ft) or equivalent	56.5 %	-2.48 dB
Input power to antenna	0.056 kW	-12.48 dBk
Antenna power gain, Main Lobe	13.6	11.34 dB
Effective Radiated Power	0.76 kW	-1.14 dBk

Antenna and Elevation Data

Antenna:	Dielectric	Model No. DL-8 or equivalent
	Beam Tilt	1.0° electrical
	Non-Directional Max. Power Gain	13.6 11.34 dB See antenna information contained in Exhibit E-2 in response to Section 73.625 of the FCC Rules.
Elevation of the site above mean sea level:	512.0 meters 1679.8 feet	
Elevation of the top of existing supporting structure above ground including appurtenances	135.6 meters 444.9 feet	
Elevation of the top of supporting structure above mean sea level including appurtenances	647.6 meters 2124.7 feet	
Height of DTV antenna radiation center meters above ground	117.7 meters 386 feet	
Height of DTV antenna radiation center above mean sea level	629.7 meters 2065.9 feet	
Height of DTV antenna radiation center above average terrain	223.6 meters 733.6 feet	

Authorized Effective Radiated Power

The ERP authorized by the granted construction permit for the DTV operation is 600 kW at 160 meters HAAT. WYDC-DT is proposing to operate with a maximum ERP of 0.76 kW and 223.6 meters HAAT using a directional transmitting antenna. This power and height will ensure that it does not extend the predicted 41 dBu contour in any direction beyond that authorized by the construction permit.

The attached map (Exhibit E-3) shows the computed F(50,90) 48 dBu and 41 dBu contours. These contours were predicted according to Section 73.625(b) of the Commission's rules.

Principal Community Coverage

In MM Docket No. 00-39, the Commission adopted rules to require DTV stations to place a stronger TV signal over the principal community. The proposed operation by Station WYDC-DT places a predicted 48 dBu contour over Corning, New York.

Topographic Data

The average elevation data of the eight cardinal radials from 3.2 to 16.1 kilometers, are based on the NGDC 3-second computerized terrain database.

Contour Data

Utilizing the formula in Section 73.625(b)(2) for the effective heights shown on the attached tabulation, the depression angle A_h , for each azimuth has been calculated. The maximum radiation value has been used to calculate ERP where the vertical radiation pattern at these angles is greater than 90 percent of the maximum.

Table I provides the distances along every ten degrees in azimuth beginning with true north to the predicted F(50,90) 48 dBu and 41 dBu contours, the average elevations, and the effective antenna heights.

The distances along each radial to the limits of F(50,90) 48 dBu and 41 dBu contours were determined as specified in Section 73.625(b) by reference to the propagation data for Channels 14-69, as published by the Commission in Figures 10b and 10c, Section 73.699 of its rules.

Other Stations

There are no AM stations located within 2 km of the proposed WYDC-DT site. Other broadcast stations of significance within 500 meters of the proposed site were considered. No adverse technical effect is anticipated by the proposed DTV operation to any other FCC licensed facility. If required, the licensee of WYDC-DT will install filters or take other measures as necessary to resolve any problem.

Environment Statement

There are numerous other transmitters operating from the tower. The radio frequency field level ("RFF") contribution of WYDC-DT will be added to the calculated value of the total RFF level of all other broadcast stations operating from the tower. The proposed operation based upon the current OET Bulletin No.65, Edition 97-01 dated August 1997 and Supplement A meets the provisions of the FCC radio frequency field guidelines, and thus, complies with Section 1.1307 of the FCC Rules.

<u>Station</u>	<u>Frequency</u>	<u>Channel</u>	<u>ERP (kW)</u>	<u>RCAGL(m) ¹</u>	<u>F ²</u>	<u>S (μW/cm²)</u>	<u>RFF % ³</u>
WYDC-DT	689 MHz	50	0.76	115.7	0.1	0.02	0.004
WSKA-DT (CP)	569 MHz	30	25	234	0.2	0.61	0.16
WYDC-TV (CP)	677 MHz	48	163.0	121.5	0.2	7.37	1.63
WJKP-LP	623 MHz	39	1.5	121.5	0.2	0.07	0.02
W41DB (TX)	635 MHz	41	7.0	121.5	0.2	0.07	0.0
W202BN (FX)	88.3 MHz	202	0.01/0.01	41	--PART 74 SUBPART L EXEMPT--		
W208BC (FX)	89.5 MHz	208	0.01/0.01	44	--PART 74 SUBPART L EXEMPT--		
W214AA (FX)	90.7 MHz	214	0.00/0.00	8	--PART 74 SUBPART L EXEMPT--		
W236AK (FX)	95.1 MHz	236	0.05/0.05	41	--PART 74 SUBPART L EXEMPT--		
WENI-FM	97.7 MHz	249	0.61/0.61	112	0.2	0.06	0.03
WGMM(FM)	98.7 MHz	254	1.20/1.20	112	0.2	0.13	0.064
WLRG-LP, FL	107.5 MHz	298	0.002	41	--PART 74 SUBPART L EXEMPT--		

1. Radiation Center - 2 m

2. F = Assumed Relative Downward Field

3. Limit for an uncontrolled environment

The total contribution of all stations, 2 meters above the ground at the base of the tower, will be less than 3% of the current FCC guidelines for general population exposure.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

Environmental Assessment

An environmental assessment (“EA”) is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

- (a)(1) The proposed facilities are not located in an officially designated wilderness area.
- (a)(2) The proposed facilities are not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The proposed facilities are not located near any known Indian religious sites.
- (a)(6) The proposed facilities are not located in a flood plain.
- (a)(7) The installation of the DTV facilities on an existing tower at an existing site will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) The existing tower lighting will remain unchanged.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin 65 (Edition 97-01) and Supplement A. Authorized personnel will be alerted to areas of the antennas where potential radiation levels are in excess of the FCC guidelines. A security fence with a locked gate precludes access to the tower site.

ABOVE MEAN SEA LEVEL

647.6 METERS
640 METERS
C/R 635.5 METERS

C/R 629.7 METERS

C/R 626 METERS

ABOVE GROUND

135.6 METERS
128 METERS
WYDC-TV (CP) 123.5 METERS C/R

WYDC-DT 117.7 METERS C/R

WGMM-FM, WCBA-FM 114 METERS
C/R

GUYED TOWER

TOWER REGISTRATION:
1045276

512 METERS

0.0 METERS

NOT TO SCALE

EXHIBIT E - 1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
WYDC-DT, CORNING, NEW YORK
JUNE 2006

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WYDC-DT, CORNING, NEW YORK



Date
Call Letters
Location
Customer
Antenna Type

06 Jul 2006
WYDC-DT
Corning, NY
DL-8

Channel 50

AZIMUTH PATTERN

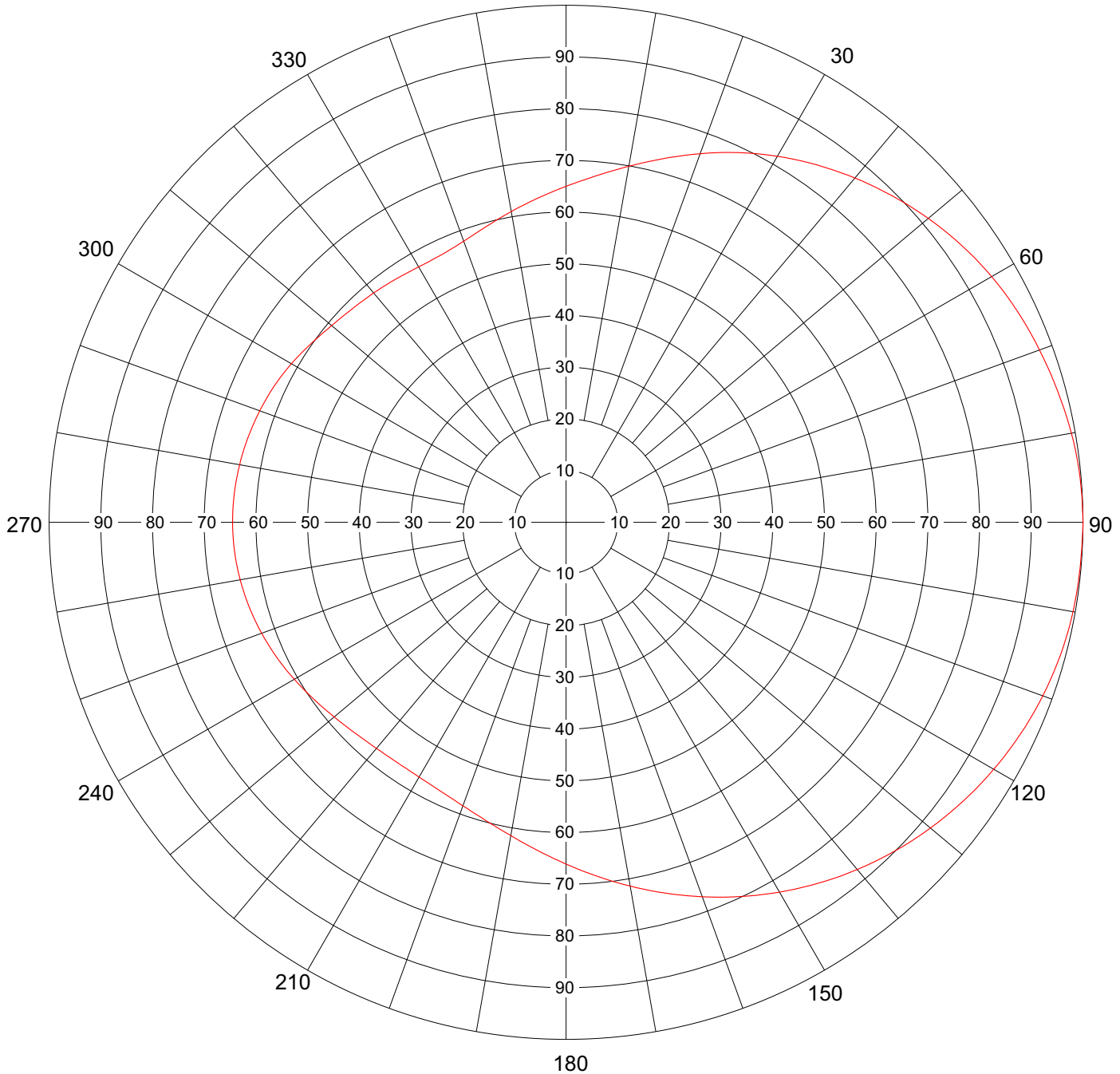
Gain
Calculated / Measured

1.70 (2.30 dB)
Calculated

Frequency
Drawing #

689 MHz
DL-B

N 0° E T



Remarks:



Date	06 Jul 2006	
Call Letters	WYDC-DT	Channel 50
Location	Corning, NY	
Customer		
Antenna Type	DL-8	

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **DL-B**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.650	45	0.893	90	1.000	135	0.899	180	0.661	225	0.577	270	0.645	315	0.584
1	0.654	46	0.897	91	1.000	136	0.895	181	0.656	226	0.578	271	0.645	316	0.583
2	0.659	47	0.902	92	0.999	137	0.890	182	0.651	227	0.580	272	0.645	317	0.582
3	0.663	48	0.906	93	0.999	138	0.886	183	0.646	228	0.582	273	0.645	318	0.581
4	0.668	49	0.910	94	0.999	139	0.881	184	0.641	229	0.584	274	0.645	319	0.580
5	0.673	50	0.914	95	0.998	140	0.876	185	0.637	230	0.586	275	0.644	320	0.579
6	0.678	51	0.919	96	0.998	141	0.872	186	0.632	231	0.588	276	0.644	321	0.578
7	0.683	52	0.923	97	0.998	142	0.867	187	0.628	232	0.590	277	0.643	322	0.577
8	0.688	53	0.927	98	0.997	143	0.862	188	0.624	233	0.592	278	0.643	323	0.576
9	0.694	54	0.930	99	0.996	144	0.857	189	0.619	234	0.594	279	0.642	324	0.575
10	0.699	55	0.934	100	0.996	145	0.852	190	0.615	235	0.596	280	0.641	325	0.574
11	0.705	56	0.938	101	0.995	146	0.847	191	0.612	236	0.598	281	0.640	326	0.573
12	0.711	57	0.941	102	0.994	147	0.842	192	0.608	237	0.600	282	0.640	327	0.572
13	0.716	58	0.944	103	0.993	148	0.836	193	0.604	238	0.603	283	0.639	328	0.572
14	0.722	59	0.948	104	0.992	149	0.831	194	0.601	239	0.605	284	0.638	329	0.571
15	0.728	60	0.951	105	0.990	150	0.826	195	0.597	240	0.607	285	0.637	330	0.570
16	0.734	61	0.954	106	0.989	151	0.820	196	0.594	241	0.609	286	0.636	331	0.570
17	0.740	62	0.956	107	0.987	152	0.815	197	0.591	242	0.611	287	0.634	332	0.570
18	0.747	63	0.959	108	0.985	153	0.810	198	0.589	243	0.614	288	0.633	333	0.570
19	0.753	64	0.962	109	0.983	154	0.804	199	0.586	244	0.616	289	0.632	334	0.570
20	0.759	65	0.964	110	0.981	155	0.799	200	0.583	245	0.618	290	0.631	335	0.571
21	0.765	66	0.966	111	0.979	156	0.793	201	0.581	246	0.619	291	0.629	336	0.572
22	0.771	67	0.968	112	0.977	157	0.787	202	0.579	247	0.621	292	0.628	337	0.573
23	0.777	68	0.971	113	0.975	158	0.782	203	0.577	248	0.623	293	0.626	338	0.575
24	0.783	69	0.973	114	0.972	159	0.776	204	0.575	249	0.625	294	0.625	339	0.577
25	0.789	70	0.975	115	0.970	160	0.771	205	0.574	250	0.627	295	0.623	340	0.579
26	0.795	71	0.977	116	0.967	161	0.765	206	0.573	251	0.628	296	0.621	341	0.581
27	0.801	72	0.979	117	0.964	162	0.759	207	0.571	252	0.630	297	0.619	342	0.584
28	0.806	73	0.980	118	0.961	163	0.754	208	0.570	253	0.632	298	0.618	343	0.587
29	0.812	74	0.982	119	0.958	164	0.748	209	0.569	254	0.633	299	0.616	344	0.590
30	0.817	75	0.984	120	0.955	165	0.742	210	0.569	255	0.634	300	0.613	345	0.593
31	0.823	76	0.986	121	0.952	166	0.737	211	0.568	256	0.636	301	0.611	346	0.596
32	0.828	77	0.988	122	0.949	167	0.731	212	0.568	257	0.637	302	0.609	347	0.600
33	0.834	78	0.990	123	0.946	168	0.726	213	0.568	258	0.638	303	0.607	348	0.603
34	0.839	79	0.991	124	0.942	169	0.720	214	0.568	259	0.639	304	0.605	349	0.607
35	0.844	80	0.993	125	0.939	170	0.714	215	0.568	260	0.640	305	0.602	350	0.610
36	0.849	81	0.994	126	0.935	171	0.709	216	0.568	261	0.641	306	0.600	351	0.614
37	0.854	82	0.995	127	0.932	172	0.703	217	0.569	262	0.642	307	0.598	352	0.618
38	0.859	83	0.996	128	0.928	173	0.698	218	0.569	263	0.643	308	0.596	353	0.622
39	0.864	84	0.997	129	0.924	174	0.692	219	0.570	264	0.643	309	0.594	354	0.625
40	0.869	85	0.998	130	0.920	175	0.687	220	0.571	265	0.644	310	0.592	355	0.629
41	0.874	86	0.999	131	0.916	176	0.682	221	0.572	266	0.644	311	0.590	356	0.633
42	0.879	87	0.999	132	0.912	177	0.676	222	0.573	267	0.645	312	0.589	357	0.637
43	0.883	88	0.999	133	0.908	178	0.671	223	0.574	268	0.645	313	0.587	358	0.641
44	0.888	89	1.000	134	0.904	179	0.666	224	0.575	269	0.645	314	0.586	359	0.646

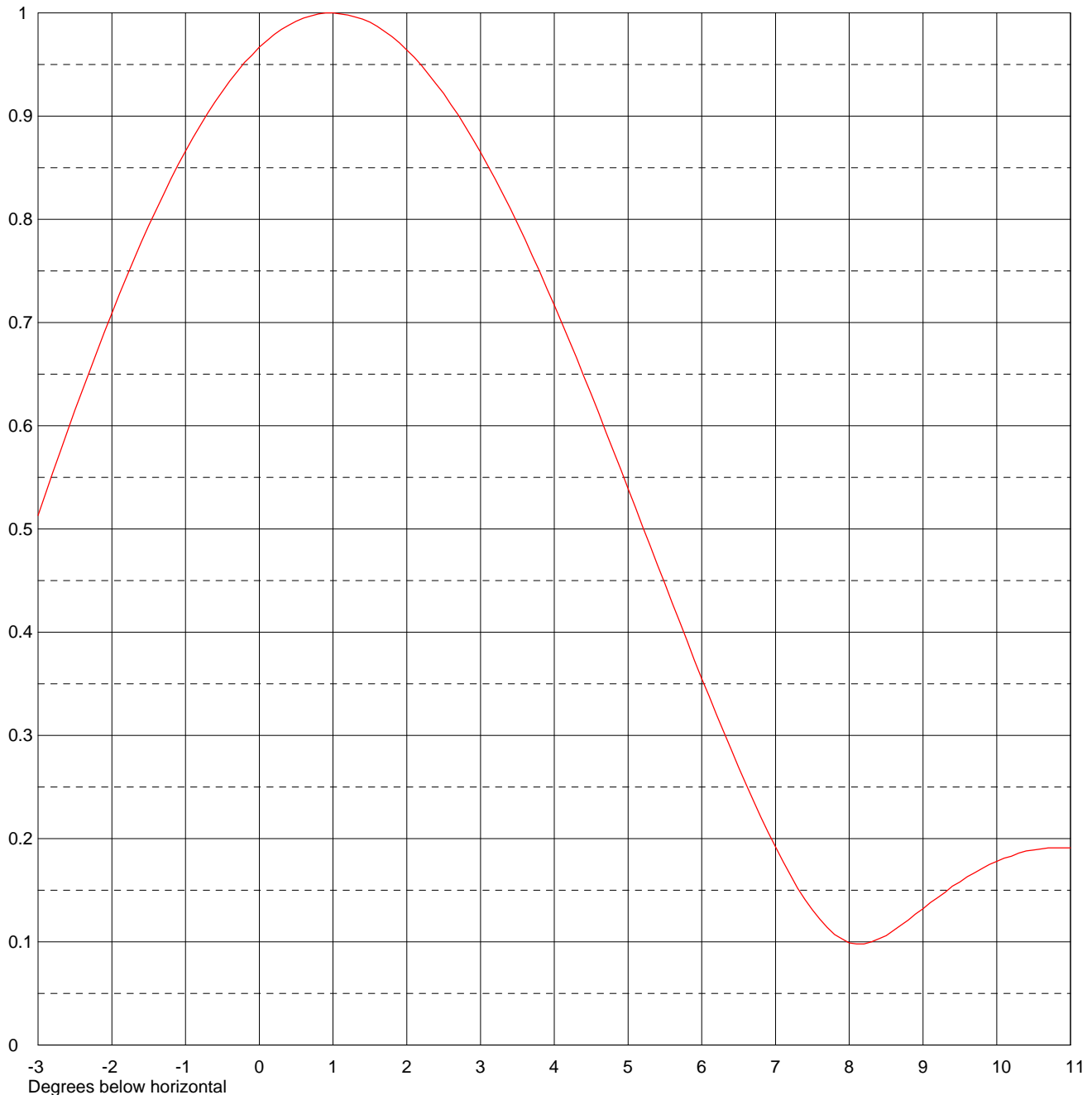
Remarks:



Date	06 Jul 2006	
Call Letters	WYDC-DT	Channel 50
Location	Corning, NY	
Customer		
Antenna Type	DL-8	

ELEVATION PATTERN

RMS Gain at Main Lobe	8.0 (9.03 dB)	Beam Tilt	1.00 Degrees
RMS Gain at Horizontal	7.5 (8.75 dB)	Frequency	689.00 MHz
Calculated / Measured	Calculated	Drawing #	08L080100



Remarks:



Date
Call Letters
Location
Customer
Antenna Type

06 Jul 2006
WYDC-DT
Corning, NY
DL-8

Channel 50

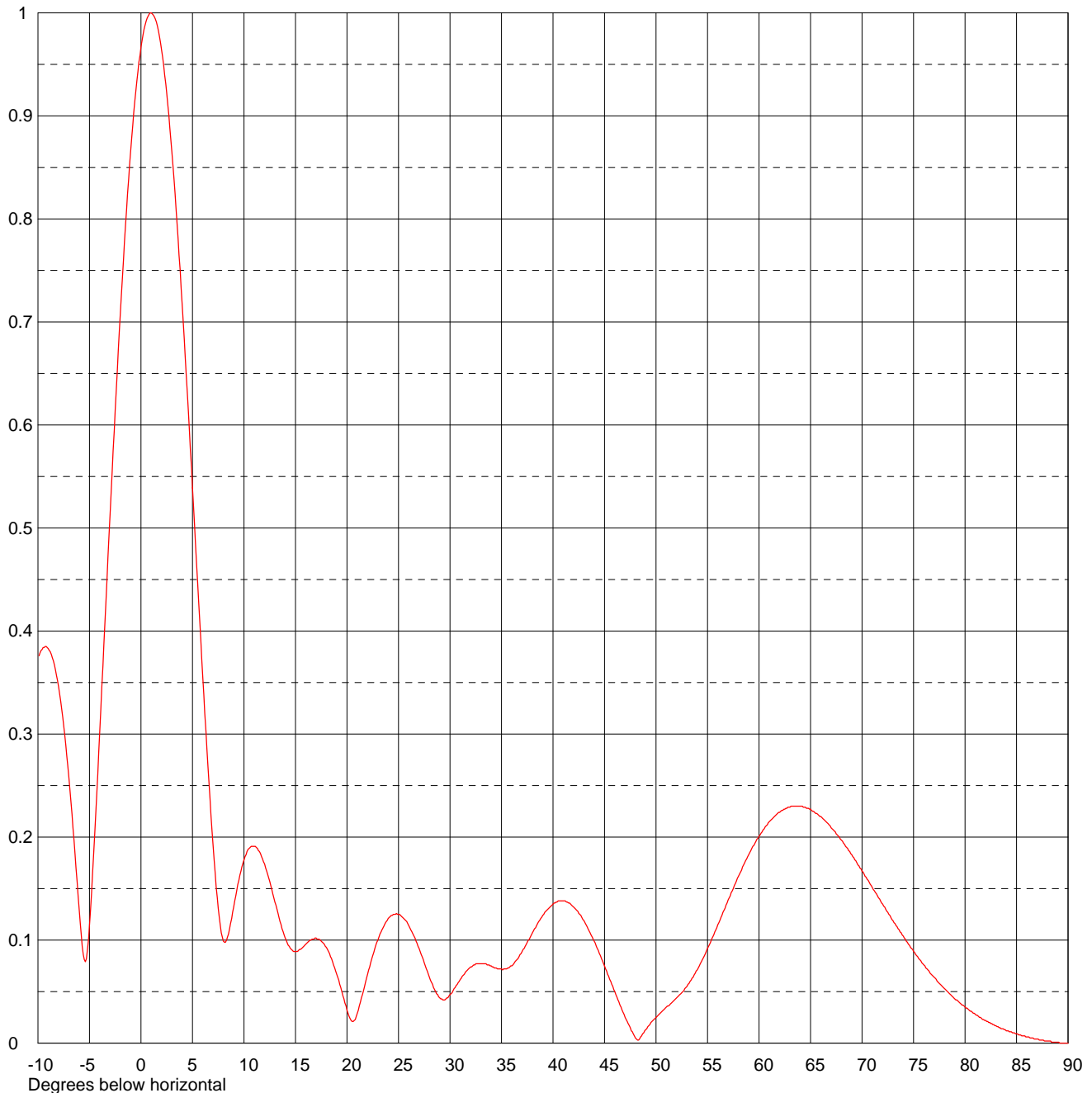
ELEVATION PATTERN

RMS Gain at Main Lobe
RMS Gain at Horizontal
Calculated / Measured

8.0 (9.03 dB)
7.5 (8.75 dB)
Calculated

Beam Tilt
Frequency
Drawing #

1.00 Degrees
689.00 MHz
08L080100-90



Remarks:



Date **06 Jul 2006**
Call Letters **WYDC-DT** Channel **50**
Location **Corning, NY**
Customer
Antenna Type **DL-8**

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	0.190	30.5	0.054	51.0	0.035	71.5	0.143
-9.5	0.384	2.6	0.911	10.8	0.191	31.0	0.062	51.5	0.039	72.0	0.135
-9.0	0.383	2.8	0.889	11.0	0.191	31.5	0.069	52.0	0.044	72.5	0.127
-8.5	0.371	3.0	0.865	11.5	0.186	32.0	0.074	52.5	0.049	73.0	0.119
-8.0	0.346	3.2	0.839	12.0	0.174	32.5	0.077	53.0	0.055	73.5	0.111
-7.5	0.308	3.4	0.811	12.5	0.157	33.0	0.077	53.5	0.063	74.0	0.104
-7.0	0.258	3.6	0.781	13.0	0.137	33.5	0.077	54.0	0.071	74.5	0.096
-6.5	0.197	3.8	0.750	13.5	0.118	34.0	0.075	54.5	0.081	75.0	0.089
-6.0	0.130	4.0	0.717	14.0	0.102	34.5	0.073	55.0	0.092	75.5	0.082
-5.5	0.081	4.2	0.683	14.5	0.092	35.0	0.072	55.5	0.103	76.0	0.076
-5.0	0.114	4.4	0.648	15.0	0.089	35.5	0.072	56.0	0.115	76.5	0.070
-4.5	0.201	4.6	0.613	15.5	0.091	36.0	0.075	56.5	0.127	77.0	0.064
-4.0	0.303	4.8	0.576	16.0	0.096	36.5	0.081	57.0	0.139	77.5	0.058
-3.5	0.408	5.0	0.539	16.5	0.100	37.0	0.089	57.5	0.150	78.0	0.053
-3.0	0.513	5.2	0.502	17.0	0.102	37.5	0.098	58.0	0.162	78.5	0.048
-2.8	0.555	5.4	0.465	17.5	0.099	38.0	0.107	58.5	0.173	79.0	0.043
-2.6	0.595	5.6	0.428	18.0	0.093	38.5	0.116	59.0	0.183	79.5	0.039
-2.4	0.634	5.8	0.392	18.5	0.082	39.0	0.124	59.5	0.192	80.0	0.035
-2.2	0.672	6.0	0.355	19.0	0.067	39.5	0.130	60.0	0.201	80.5	0.031
-2.0	0.709	6.2	0.320	19.5	0.050	40.0	0.135	60.5	0.208	81.0	0.028
-1.8	0.744	6.4	0.286	20.0	0.032	40.5	0.138	61.0	0.215	81.5	0.025
-1.6	0.778	6.6	0.253	20.5	0.021	41.0	0.138	61.5	0.220	82.0	0.022
-1.4	0.809	6.8	0.221	21.0	0.029	41.5	0.136	62.0	0.224	82.5	0.019
-1.2	0.839	7.0	0.192	21.5	0.047	42.0	0.132	62.5	0.227	83.0	0.017
-1.0	0.866	7.2	0.165	22.0	0.067	42.5	0.126	63.0	0.229	83.5	0.014
-0.8	0.891	7.4	0.141	22.5	0.085	43.0	0.119	63.5	0.230	84.0	0.012
-0.6	0.914	7.6	0.122	23.0	0.100	43.5	0.109	64.0	0.230	84.5	0.011
-0.4	0.934	7.8	0.107	23.5	0.112	44.0	0.099	64.5	0.229	85.0	0.009
-0.2	0.952	8.0	0.099	24.0	0.121	44.5	0.087	65.0	0.227	85.5	0.007
0.0	0.967	8.2	0.098	24.5	0.125	45.0	0.075	65.5	0.223	86.0	0.006
0.2	0.979	8.4	0.103	25.0	0.125	45.5	0.062	66.0	0.220	86.5	0.005
0.4	0.988	8.6	0.111	25.5	0.121	46.0	0.050	66.5	0.215	87.0	0.004
0.6	0.995	8.8	0.121	26.0	0.114	46.5	0.037	67.0	0.209	87.5	0.003
0.8	0.999	9.0	0.132	26.5	0.104	47.0	0.025	67.5	0.203	88.0	0.002
1.0	1.000	9.2	0.143	27.0	0.092	47.5	0.015	68.0	0.197	88.5	0.001
1.2	0.998	9.4	0.154	27.5	0.078	48.0	0.005	68.5	0.190	89.0	0.001
1.4	0.994	9.6	0.163	28.0	0.064	48.5	0.006	69.0	0.183	89.5	0.000
1.6	0.987	9.8	0.171	28.5	0.052	49.0	0.013	69.5	0.175	90.0	0.000
1.8	0.977	10.0	0.178	29.0	0.044	49.5	0.020	70.0	0.167		
2.0	0.964	10.2	0.183	29.5	0.042	50.0	0.025	70.5	0.159		
2.2	0.949	10.4	0.188	30.0	0.047	50.5	0.030	71.0	0.151		

Remarks:

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
WYDC, CORNING, NEW YORK
CHANNEL 50 0.76 KW ERP 223.6 METERS HAAT
JULY 2006

<u>Radial</u> N ° E, T	<u>Average*</u>	<u>Effective</u>	<u>Depression</u>	<u>ERP</u>	<u>Distance to Contour</u>	
	<u>Elevation</u> meters	<u>Height</u> meters	<u>Angle</u> degrees		<u>48 dBu</u> km	<u>41 dBu</u> km
0	470.1	159.6	0.350	0.32	31.1	39.6
10	485.7	144.0	0.332	0.37	30.8	39.3
20	501.3	128.4	0.314	0.44	30.6	39.2
30	510.4	119.3	0.303	0.51	30.8	39.3
40	399.4	230.3	0.420	0.57	38.2	46.6
50	474.6	155.1	0.345	0.63	34.5	42.8
60	480.9	148.8	0.338	0.69	34.5	42.7
70	435.9	193.8	0.386	0.72	37.4	45.7
80	386.4	243.3	0.432	0.75	40.3	48.7
90	326.1	303.6	0.483	0.76	43.2	52.0
100	327.0	302.7	0.482	0.75	43.1	51.9
110	323.5	306.2	0.485	0.73	43.1	51.9
120	404.7	225.0	0.416	0.69	38.9	47.3
130	435.6	194.1	0.386	0.64	36.9	45.1
140	457.6	172.1	0.363	0.58	35.1	43.4
150	448.5	181.2	0.373	0.52	35.0	43.3
160	454.1	175.6	0.367	0.45	33.9	42.3
170	481.0	148.7	0.338	0.39	31.4	39.8
180	467.2	162.5	0.353	0.33	31.5	39.9
190	451.8	177.9	0.369	0.29	31.6	40.1
200	402.5	227.2	0.418	0.26	33.8	42.3
210	423.2	206.5	0.398	0.25	32.4	40.9
220	413.3	216.4	0.408	0.25	33.0	41.5
230	373.5	256.2	0.443	0.26	35.4	43.8
240	407.9	221.8	0.413	0.28	34.0	42.4
250	343.8	285.9	0.468	0.30	37.4	46.0
260	402.1	227.6	0.418	0.31	34.9	43.3
270	422.3	207.4	0.399	0.32	33.8	42.2
280	447.2	182.5	0.374	0.31	32.3	40.8

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
WYDC, CORNING, NEW YORK
CHANNEL 50 0.76 KW ERP 223.6 METERS HAAT
JULY 2006
 (continued)

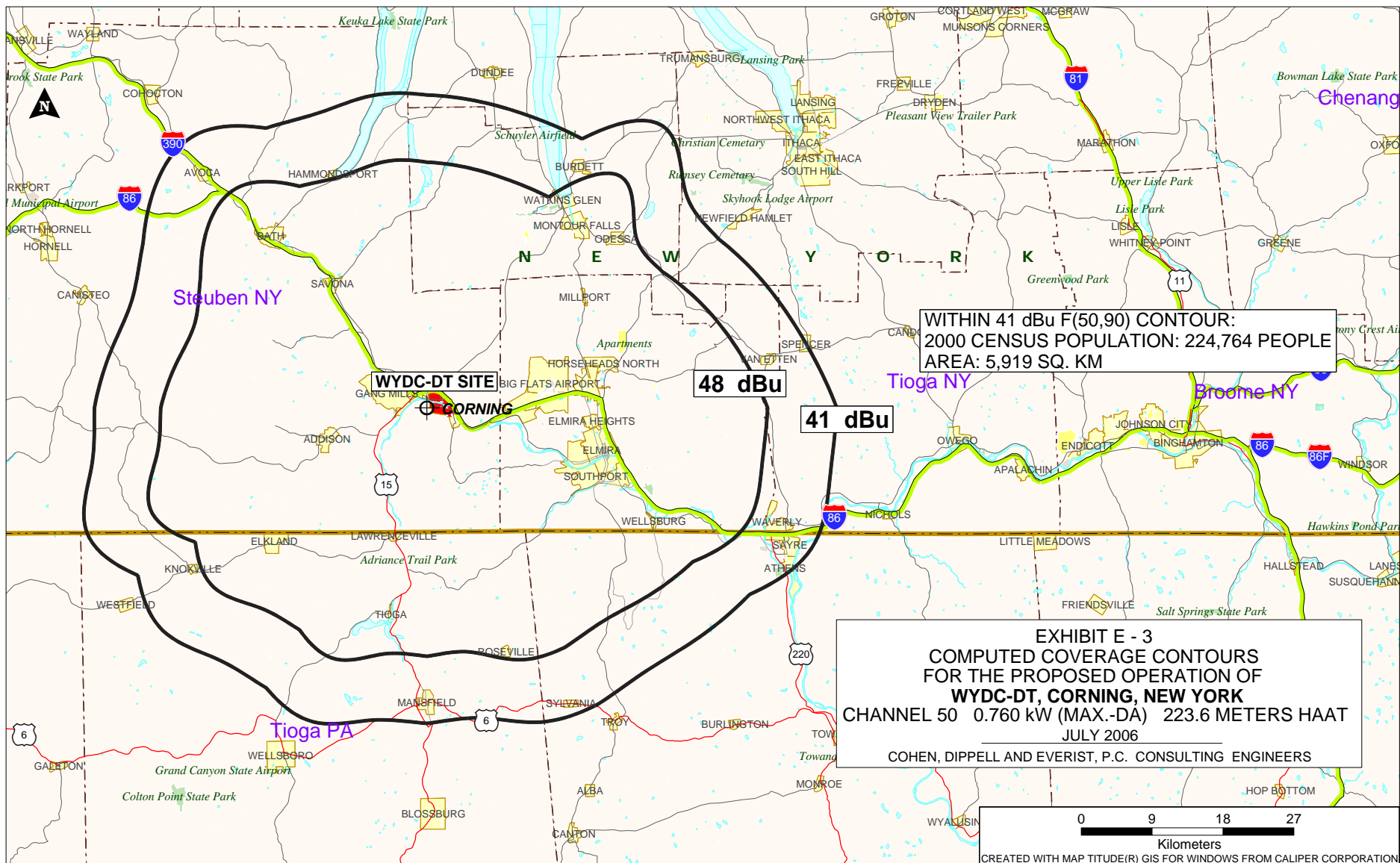
<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u>	<u>Effective</u> <u>Height</u>	<u>Depression</u> <u>Angle</u>	<u>ERP</u> kW	<u>Distance to Contour</u>	
	meters	meters	degrees		48 dBu km	41 dBu km
290	460.4	169.3	0.360	0.30	31.4	39.9
300	423.5	206.2	0.398	0.29	33.2	41.7
310	357.5	272.2	0.457	0.27	36.2	44.7
320	340.7	289.0	0.471	0.25	36.7	45.3
330	424.1	205.6	0.397	0.25	32.4	40.9
340	446.9	182.8	0.374	0.25	31.3	39.8
350	450.2	179.5	0.371	0.28	31.6	40.1

*Based on data from FCC 3-second data base.

DTV Channel 50 (686-692 MHz)
 Average Elevation 3.2 to 16.1 km 406.2 meters AMSL
 Center of Radiation 629.7 meters AMSL
 Antenna Height Above Average Terrain 223.6 meters
 Effective Radiated Power 0.76 kW (-1.14 dBk) Max

North Latitude: 42° 08' 31"
 West Longitude: 77° 04' 40"

(NAD-27)



SECTION III-D - DTV Engineering

Complete Questions 1-5 of the Certification Checklist and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Certification Checklist: A correct answer of "Yes" to all of the questions below will ensure an expeditious grant of a construction permit. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:

- (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
- (b) It will operate from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
- (c) It will operate with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. ☐ Yes ☐ No

Applicant must **submit the Exhibit** called for in Item 13.

3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. ☐ Yes ☐ No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. ☐ Yes ☐ No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. ☐ Yes ☐ No

SECTION III-D DTV 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 Number: DTV _____ Analog TV, if any _____

2. Zone: ☐ I ☐ II ☐ III

3. Antenna Location Coordinates: (NAD 27)

_____ ° _____ ' _____ " ☐ N ☐ S Latitude
_____ ° _____ ' _____ " ☐ E ☐ W Longitude

4. Antenna Structure Registration Number: _____

☐ Not applicable ☐ FAA Notification Filed with FAA

5. Antenna Location Site Elevation Above Mean Sea Level: _____ meters

6. Overall Tower Height Above Ground Level: _____ meters

7. Height of Radiation Center Above Ground Level: _____ meters

8. Height of Radiation Center Above Average Terrain: _____ meters

9. Maximum Effective Radiated Power (average power): _____ kW

10. Antenna Specifications:

a.

Manufacturer	Model
--------------	-------

b. Electrical Beam Tilt: _____ degrees ☐ Not Applicable

c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True ☐ Not Applicable

Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).

Exhibit No.

d. Polarization: ☐ Horizontal ☐ Circular ☐ Elliptical

TECH BOX

e. Directional Antenna Relative Field Values: ☐ Not applicable (Nondirectional)

Rotation: _____ ° ☐ No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the interference protection provisions of 47 C.F.R. Section 73.623(a)? (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") ☐ Yes ☐ No

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefor. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

- a. If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, 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.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.

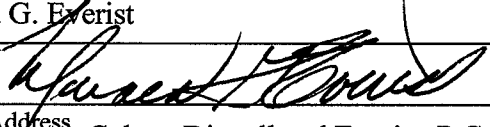
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

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).

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 <u>July 6, 2006</u>	
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	

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