

ENGINEERING STATEMENT
TO MODIFY OUTSTANDING
CONSTRUCTION PERMIT BPCDT-19991029ABZ
WOWK-DT, HUNTINGTON, WEST VIRGINIA
CHANNEL 47 562 KW ERP 396 METERS HAAT

AUGUST 2005

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)

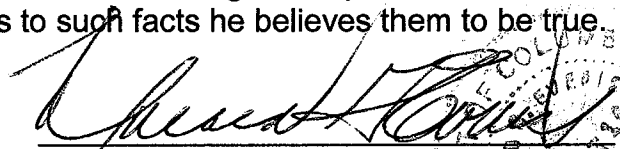
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

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;

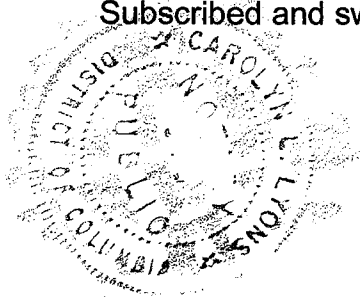
That his qualifications are a matter of record in the Federal Communications Commission;

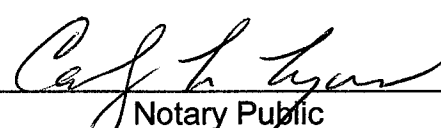
That the attached engineering report was prepared by him or under his supervision and direction and

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 12th day of August, 2005.




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;

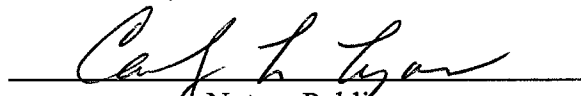
That the attached engineering report was prepared by him or under his supervision and direction and

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.



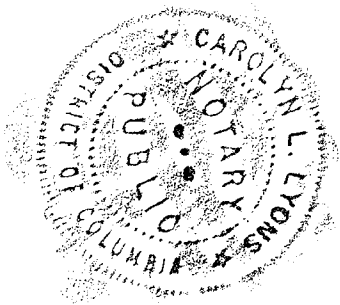
Martin R. Doczkat

Subscribed and sworn to before me this 12th day of August, 2005.



Notary Public

My Commission Expires: 2/18/2008



Introduction

This engineering statement has been prepared on behalf of West Virginia Media Holdings, L.L.C., licensee of TV station WOWK-TV, Huntington, West Virginia, in support of its request to modify the outstanding construction permit (FCC File No. BPCDT-19991029ABZ) for a digital television (“DTV”) operation. This request for construction permit modification is exempt from the filing freeze announced by FCC Public Notice, DA 04-2446, released August 3, 2004 for DTV service area changes, as the proposed operation will not extend beyond that currently authorized by the outstanding construction permit in any direction. As modified WOWK-DT will continue to serve its license community with at least a 48 dBu signal.

At present, WOWK-TV is licensed to operate on NTSC TV Channel 13 (+) (210-216 MHz) which permits 114.8 kW effective radiated power (“ERP”) at 414 meters antenna height above average terrain (“HAAT”) under FCC File No. BLCT-20021220ADY. The current analog Channel 13 operation of WOWK-TV is with a non-directional TV antenna.

WOWK-DT is allotted Channel 47 (668-674 MHz) through a rule making for its digital TV operation and has been authorized to construct a facility on Channel 47 with 895 kW maximum ERP at 396 meters HAAT on the same property under FCC File No. BPCDT-19991029ABZ.

It is herein proposed to operate WOWK-DT on Channel 47 from the tower currently authorized for WOWK-DT (no change in overall height) with 562 kW ERP and a directional antenna at a HAAT of 396 meters.

Antenna Site

As noted above, there is no change in the proposed antenna site or the overall height of the existing tower. The DTV antenna is a top-mounted stack arrangement on an existing tower (Exhibit E-1) at 325.4 meters above ground level.

The WOWK-DT antenna site is located on Barkers Ridge Road in Huntington, West Virginia. The antenna structure registration number is 1234025.

The geographic coordinates of the existing tower are as follows:

North Latitude: 38° 30' 20.8"

West Longitude: 82° 12' 32.8"

(NAD-27)

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

Equipment Data

Antenna: Dielectric, Type TUE-05-12/60H-B (or equivalent) horizontally polarized antenna with 0.90° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included in Exhibit E-2.

Power Data

Transmitter output (after filter)	24 kW	13.8 dBk
Transmission line in building, efficiency loss Dielectric, 6-1/8" 75 ohm DigiTLine or equivalent, length: 18.3 meters (60 feet)	98.3%	0.08 dB
Transmission line efficiency loss Dielectric, 7-3/16" 75 ohm DigiTLine or equivalent, length: 280.4 meters (1070 feet)	76%	1.177 dB
Input power to the antenna	17.95 kW	12.54 dBk
Antenna power gain, Main lobe	31.1	14.93 dB
Effective Radiated Power, Maximum	562 kW	27.5 dBk

Elevation Data

Vertical dimension of Channel 47 antenna	14.2 meters
bottom section of top-mounted stack (including appurtenances)	46.6 feet
Overall height above ground of antenna structure (including appurtenances)	353.3 meters 1159 feet
Center of radiation of Channel 47 antenna above ground	325.4 meters 1067.5 feet
Elevation of site above mean sea level	296.2 meters 972.0 feet
Center of radiation of Channel 47 antenna above mean sea level	621.6 meters 2039.5 feet
Overall height above mean sea level of new tower (including beacon)	649.5 meters 2131 feet
Antenna height above average terrain	396.0 meters

Authorized Effective Radiated Power

The maximum ERP authorized by the outstanding construction permit for the WOWK-DT operation is 895 kW at 396 meters HAAT. Station WOWK-DT is proposing to operate with a modified facility with a maximum ERP of 562 kW at 396 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 outstanding construction permit.

The attached map (Exhibit E-3) shows the computed F(50,90) 48 dBu and 41 dBu contours predicted according to Section 73.625(b) of the Commission's rules based on the requested DTV facilities of 562 kW ERP at 396 meters HAAT.

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 operation proposed by WOWK-DT places a predicted 48 dBu contour over Huntington, West Virginia.

Topographic Data

The average elevation data of radials spaced every 10 degrees 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 spaced every 10 degrees beginning with true north to the predicted F(50,90) 48 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 Licensed and Broadcast Facilities

There are no AM stations located within 3.2 km of the existing WOWK-TV site. NTSC station WOWK-TV, Channel 13, operates from the tower. WAMX(FM), 292B1, 106.3 MHz has a license for facilities on the tower with a center of radiation approximately 274 meters above ground. No adverse technical effect is anticipated by the proposed DTV operation to any other

FCC licensed facility. If required, the licensee of WOWK-DT will install filters or take other measures as necessary to resolve any problem.

Radio Astronomy

Pursuant to Section 73.1030(a)(1) of the FCC Rules, the WOWK-TV site is located outside the Greenbank, West Virginia, Radio Astronomy Notification Zone defined as a rectangle (NAD-27) with the northwest corner at 39° 15' 00" North Latitude, 80° 30' 00" West Longitude and southeast corner at 37° 30' 00" North Latitude, 78° 30' 00" West Longitude.

Radio Frequency Field Level

This section evaluates the radio frequency field ("RFF") exposure condition created by the operation of the proposed WOWK-DT, the licensed (modified) WOWK-TV operation, and construction permit WAMX(FM). As previously indicated, there are no AM stations located within 3.2 km of the existing WOWK-TV tower site. According to the FCC database, there are no other stations located within 500 meters. Access to the tower is prevented by a fence with a locked gate.

For NTSC Channel 13, WOWK-TV operates from a Dielectric, Type TW-9A13-R. The antenna manufacturer's data indicates that the elevation pattern for the antenna shows a maximum relative field of less than 0.1 towards the ground in the vicinity of the tower. Using this relative field factor and the procedures prescribed in OET Bulletin No. 65, the maximum RFF resulting from the NTSC operation at two meters above the base of the tower is calculated to be less than $0.16 \mu\text{W}/\text{cm}^2$. This is less than one percent of the $200 \mu\text{W}/\text{cm}^2$ RFF exposure guideline for the general population.

For its DTV operation, WOWK-DT proposes to use a Dielectric, Type TU-O5-12/60H-B or equivalent antenna as described above. The elevation pattern for this antenna shows a maximum relative field of less than 0.25 towards the ground in the vicinity of the tower. Using this relative field factor and the procedures prescribed in OET Bulletin No. 65, the maximum

RFF resulting from the proposed operation is less than $11.2 \mu\text{W}/\text{cm}^2$. This is less than 2.5 percent of the $447.33 \mu\text{W}/\text{cm}^2$ MPE guideline for the general population.

WAMX(FM) specifies 1.65 kW for both horizontal and vertical polarization. Assuming the maximum relative field value of 1.0 toward the ground and the procedures described above, the maximum RFF contribution of the FM antenna 2 meters above the tower base is calculated to be less than $2 \mu\text{W}/\text{cm}^2$ or less than one percent of the $200 \mu\text{W}/\text{cm}^2$ RFF exposure guidelines for the general population.

The total contribution by the NTSC station, the proposed DTV operation, and the FM license at 2 meters above ground level is less than five percent of the current FCC guidelines for general population exposure. Authorized personnel and rigging contractors will be alerted to the potential zone of high radiation 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.

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 RFF guidelines, and thus, complies with Section 1.1307 of the FCC's Rules.

Summary of Environmental Assessment

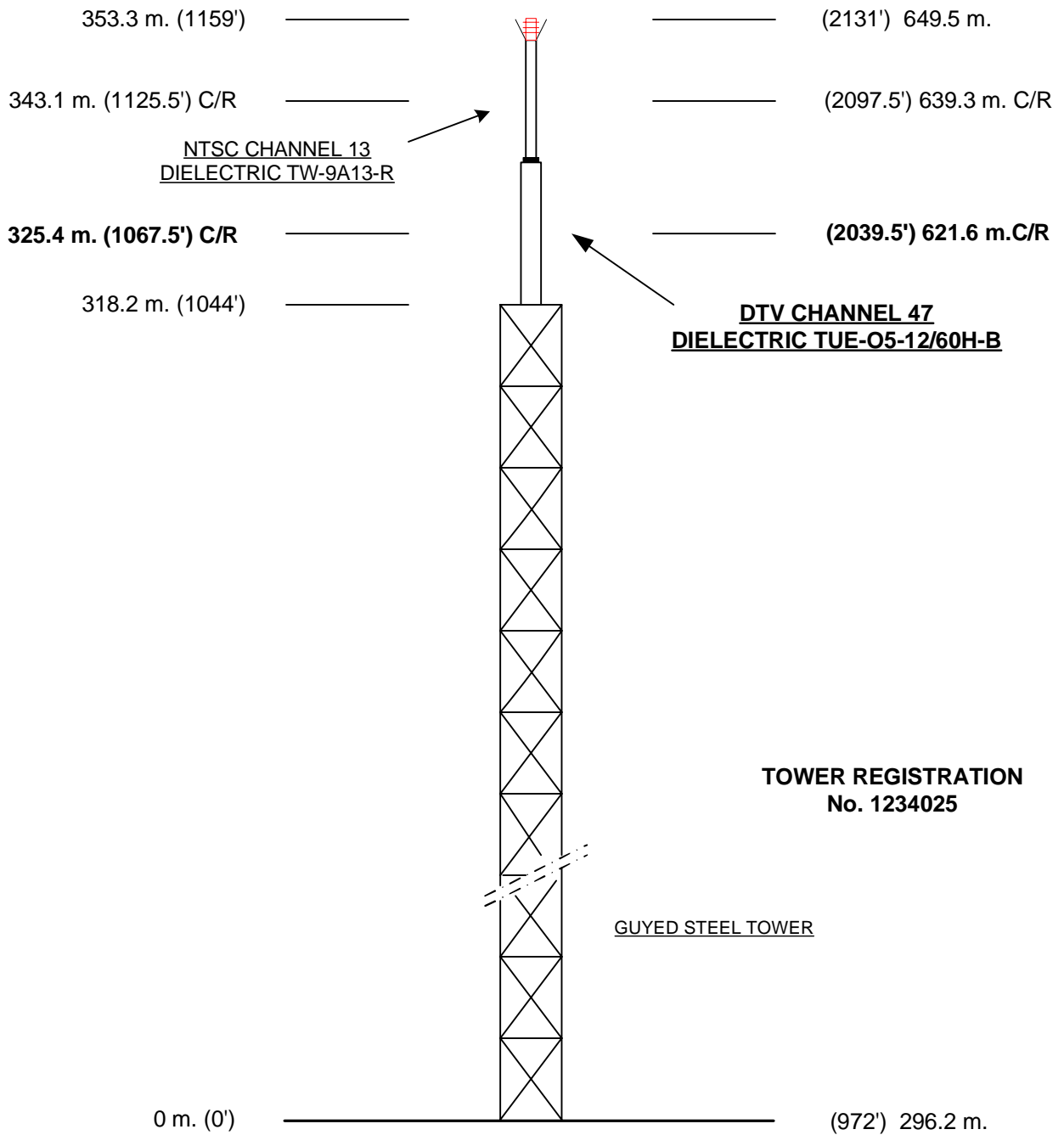
An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations since the permittee indicates:

- (a)(1) The proposed DTV facilities located on an existing tower are not located in an officially designated wilderness area.
- (a)(2) The proposed DTV facilities located on an existing tower are not located in an officially designated wildlife preserve.
- (a)(3) The proposed DTV facilities located on an existing tower will not affect any listed threatened or endangered species or habitats.

- (a)(3)(ii) The proposed DTV facilities located on an existing tower 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 DTV facilities located on an existing tower will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The proposed facilities located on an existing tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) Dual lighting is specified for the tower.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines. Authorized personnel will be alerted to areas of the tower where potential radiation levels are in excess of the FCC guidelines. A security fence with a locked gate deters unauthorized access to the tower site.

ABOVE GROUND

ABOVE MEAN SEA LEVEL



NOT TO SCALE

EXHIBIT E-1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
WOWK-DT, HUNTINGTON, WEST VIRGINIA
AUGUST 2005

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WOWK-DT, HUNTINGTON, WEST VIRGINIA



Proposal #: **DCA-8564-4** Antenna Type: **TUE-O5-12/60H-B** Channel: **47 DTV**
 Call Letters: **WOWK-DT** Location: **Huntington, WV**

Electrical Specifications		Value		Remarks
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	23.0	13.62	
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	8.6	9.34	
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol	31.1	14.93	
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol	11.6	10.64	
	Vpol			
Circularity		+/- 1.5 dB		
Axial Ratio		dB		
Beam Tilt		0.90 deg		
Average Power DTV		65 kW	18.13 dBk	
Antenna Input: T/L		7 3/16 in	75.0 ohm	Type: EIA/DCA
Maximum Antenna Input VSWR		Channel 1.10 : 1		
Patterns	Azimuth	TUE-O5-47		
	Elevation	47EL-3090	47EL-3090-90	
Mechanical Specifications		Metric	English	Full Stack
Height with Lightning Protector	H4	m	ft	115.0 ft
Height Less Lightning Protector	H2	14.2 m	46.7 ft	112.0 ft
Height of Center of Radiation	H3	7.2 m	23.5 ft	Above tower top 81.5 ft Ch: 13
Basic Wind Speed	V	128.7 km/h	80 mi/h	TIA/EIA-222-F.
Force Coeff. x Projected Area	CfAc	16.91 m ²	182.0 ft ²	Above tower top 250 ft ²
Moment Arm	D1	m	ft	Above tower top 45 ft
Force Coeff. x Projected Area	CaAc	m ²	ft ²	ft ²
Moment Arm	D3	m	ft	ft
Pole Bury Length	D2	m	ft	ft
Weight	W	8.9 t	19,700 lbs	with tran. mast. 32,000 lbs
Radome				Weight is calculated without ice.
Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.				

NOTE:

Prepared By : EHM/WAK Approved By : AJS/RLN
 Original Date : 31-Mar-00 Revision: 4 12/28/2000

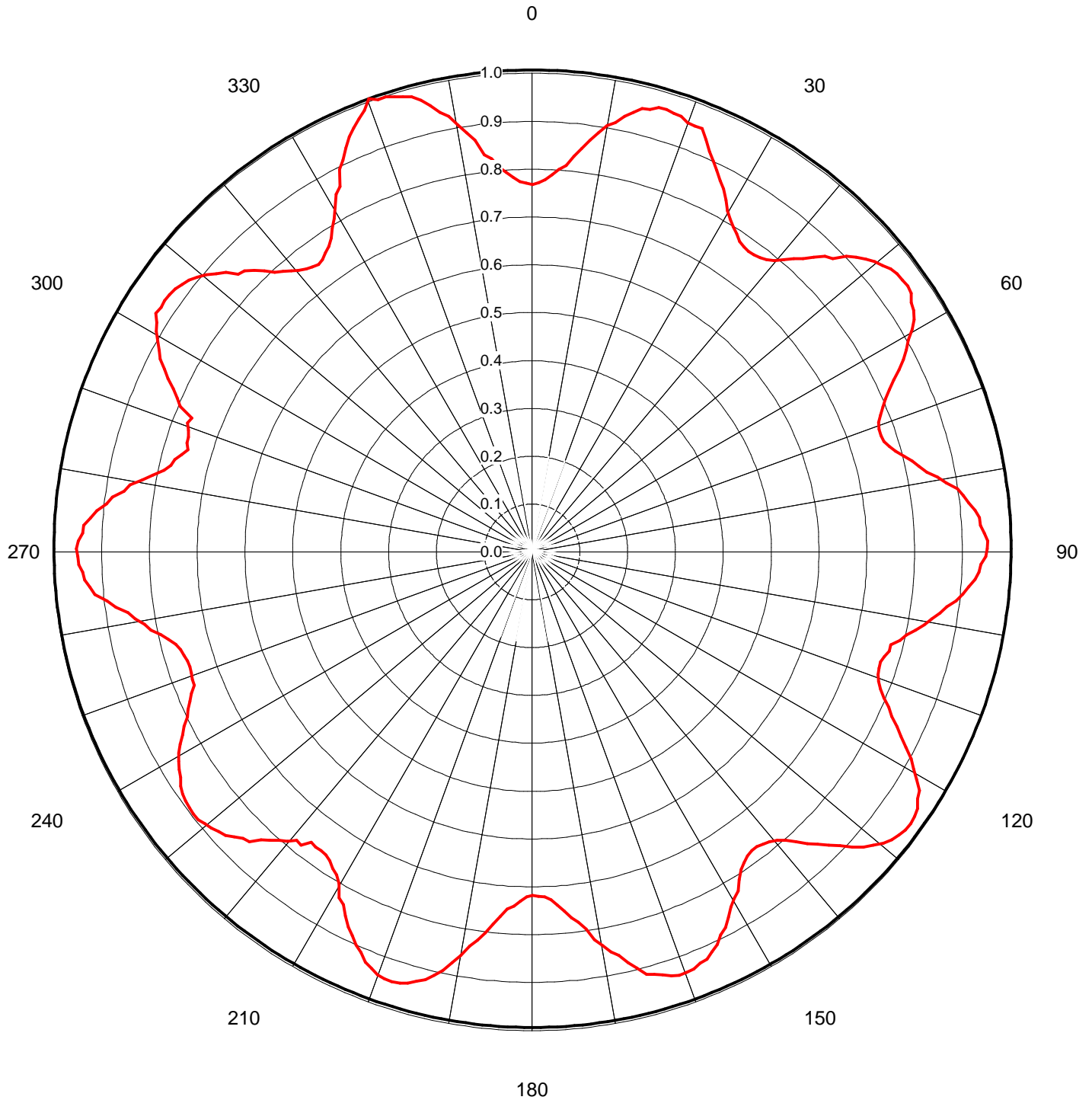


Proposal Number	DCA-8654	Revision:	4
Date	28-DEC-00		
Call Letters	WOWK-DT	Channel	47
Location	Huntington, WV		
Customer	Gateway Comm.		
Antenna Type	TUE-05-12/60H-B		

AZIMUTH PATTERN

Gain	1.35	(1.30 dB)
Calculated / Measured	Calculated	

Frequency	671.00 MHz
Drawing #	TUE-05-47





Proposal Number	DCA-8654	Revision:	4
Date	28-DEC-00		
Call Letters	WOWK-DT	Channel	47
Location	Huntington, WV		
Customer	Gateway Comm.		
Antenna Type	TUE-O5-12/60H-B		

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TUE-O5-47**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.761	45	0.863	90	0.950	135	0.875	180	0.724	225	0.855	270	0.953	315	0.822
1	0.765	46	0.873	91	0.947	136	0.857	181	0.727	226	0.867	271	0.949	316	0.807
2	0.771	47	0.897	92	0.938	137	0.842	182	0.736	227	0.878	272	0.941	317	0.790
3	0.782	48	0.910	93	0.933	138	0.824	183	0.748	228	0.883	273	0.939	318	0.779
4	0.794	49	0.923	94	0.927	139	0.808	184	0.754	229	0.889	274	0.925	319	0.768
5	0.803	50	0.934	95	0.914	140	0.796	185	0.771	230	0.893	275	0.914	320	0.760
6	0.823	51	0.941	96	0.904	141	0.787	186	0.788	231	0.899	276	0.896	321	0.752
7	0.842	52	0.950	97	0.892	142	0.783	187	0.808	232	0.899	277	0.884	322	0.747
8	0.861	53	0.954	98	0.873	143	0.779	188	0.826	233	0.899	278	0.862	323	0.743
9	0.880	54	0.956	99	0.861	144	0.779	189	0.840	234	0.896	279	0.851	324	0.747
10	0.897	55	0.957	100	0.847	145	0.783	190	0.863	235	0.893	280	0.828	325	0.754
11	0.906	56	0.954	101	0.834	146	0.791	191	0.881	236	0.887	281	0.809	326	0.761
12	0.924	57	0.944	102	0.818	147	0.799	192	0.900	237	0.877	282	0.787	327	0.773
13	0.936	58	0.939	103	0.801	148	0.816	193	0.914	238	0.871	283	0.776	328	0.789
14	0.948	59	0.929	104	0.791	149	0.834	194	0.927	239	0.863	284	0.770	329	0.804
15	0.950	60	0.915	105	0.775	150	0.843	195	0.935	240	0.854	285	0.759	330	0.824
16	0.958	61	0.898	106	0.775	151	0.855	196	0.944	241	0.842	286	0.749	331	0.847
17	0.960	62	0.885	107	0.769	152	0.872	197	0.949	242	0.828	287	0.754	332	0.856
18	0.956	63	0.869	108	0.765	153	0.888	198	0.951	243	0.817	288	0.755	333	0.889
19	0.956	64	0.853	109	0.766	154	0.897	199	0.950	244	0.802	289	0.761	334	0.903
20	0.947	65	0.833	110	0.767	155	0.912	200	0.947	245	0.794	290	0.767	335	0.924
21	0.946	66	0.815	111	0.774	156	0.922	201	0.939	246	0.785	291	0.763	336	0.942
22	0.947	67	0.800	112	0.784	157	0.932	202	0.931	247	0.775	292	0.794	337	0.955
23	0.928	68	0.790	113	0.798	158	0.934	203	0.917	248	0.761	293	0.807	338	0.969
24	0.909	69	0.779	114	0.815	159	0.940	204	0.907	249	0.762	294	0.822	339	0.980
25	0.893	70	0.770	115	0.828	160	0.942	205	0.891	250	0.758	295	0.840	340	1.000
26	0.879	71	0.766	116	0.847	161	0.942	206	0.879	251	0.757	296	0.856	341	0.992
27	0.862	72	0.766	117	0.865	162	0.938	207	0.861	252	0.757	297	0.873	342	0.993
28	0.851	73	0.768	118	0.883	163	0.931	208	0.842	253	0.762	298	0.884	343	0.987
29	0.833	74	0.776	119	0.904	164	0.925	209	0.834	254	0.765	299	0.896	344	0.982
30	0.814	75	0.785	120	0.920	165	0.920	210	0.808	255	0.772	300	0.908	345	0.978
31	0.803	76	0.800	121	0.936	166	0.903	211	0.794	256	0.784	301	0.917	346	0.965
32	0.793	77	0.813	122	0.953	167	0.887	212	0.787	257	0.797	302	0.929	347	0.950
33	0.784	78	0.826	123	0.960	168	0.869	213	0.777	258	0.815	303	0.925	348	0.932
34	0.774	79	0.839	124	0.971	169	0.858	214	0.772	259	0.826	304	0.928	349	0.921
35	0.770	80	0.860	125	0.975	170	0.842	215	0.770	260	0.844	305	0.926	350	0.899
36	0.768	81	0.875	126	0.977	171	0.827	216	0.771	261	0.855	306	0.923	351	0.880
37	0.769	82	0.897	127	0.976	172	0.803	217	0.768	262	0.879	307	0.917	352	0.862
38	0.772	83	0.907	128	0.971	173	0.786	218	0.785	263	0.896	308	0.911	353	0.829
39	0.777	84	0.917	129	0.965	174	0.775	219	0.784	264	0.919	309	0.901	354	0.818
40	0.787	85	0.927	130	0.957	175	0.759	220	0.797	265	0.928	310	0.891	355	0.799
41	0.800	86	0.936	131	0.943	176	0.746	221	0.806	266	0.938	311	0.876	356	0.788
42	0.816	87	0.937	132	0.930	177	0.734	222	0.819	267	0.941	312	0.862	357	0.777
43	0.829	88	0.945	133	0.913	178	0.727	223	0.831	268	0.949	313	0.841	358	0.767
44	0.846	89	0.951	134	0.893	179	0.726	224	0.851	269	0.950	314	0.836	359	0.764

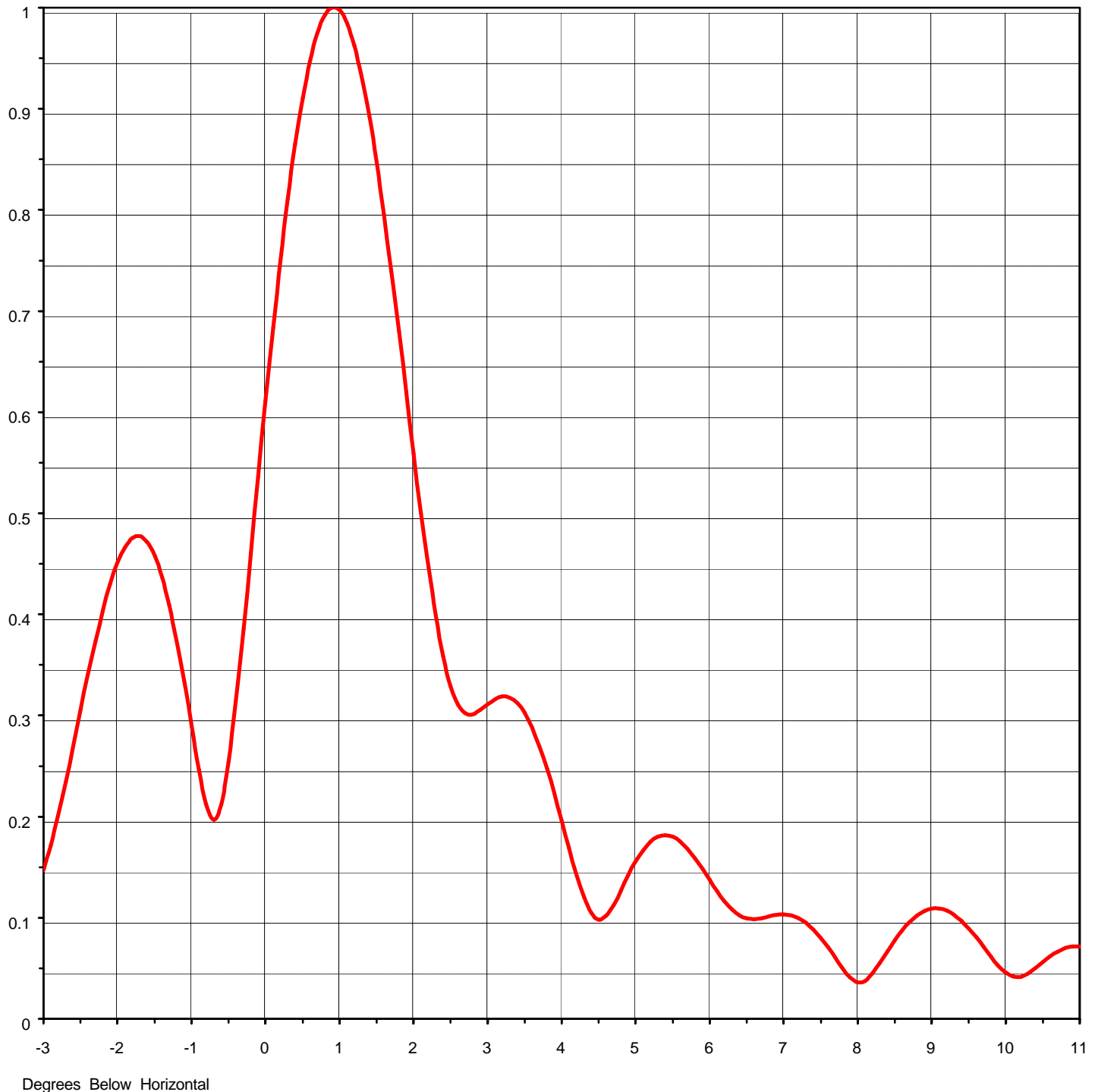


Proposal Number	DCA-8654	Revision:	4
Date	28-DEC-00		
Call Letters	WOWK-DT	Channel	47
Location	Huntington, WV		
Customer	Gateway Comm.		
Antenna Type	TUE-O5-12/60H-B		

ELEVATION PATTERN

RMS Gain at Main Lobe	23.00 (13.62 dB)
RMS Gain at Horizontal	8.60 (9.34 dB)
Calculated / Measured	Calculated

Beam Tilt	0.90 deg
Frequency	671.00 MHz
Drawing #	47EL-3090



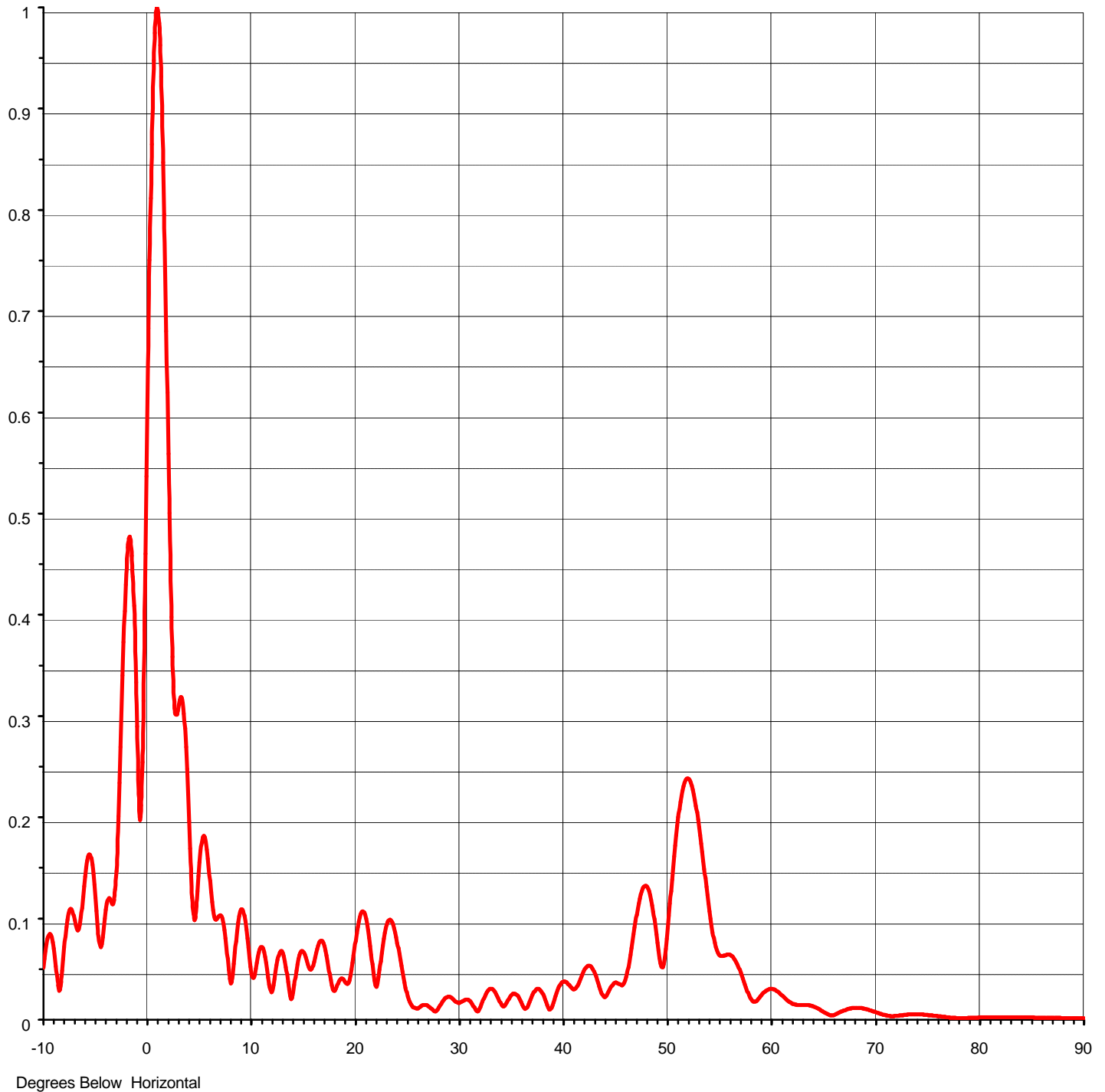


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RMS Gain at Main Lobe	23.00 (13.62 dB)
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Calculated / Measured	Calculated

Beam Tilt	0.90 deg
Frequency	671.00 MHz
Drawing #	47EL-3090-90





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 Location **Huntington, WV**
 Customer **Gateway Comm.**
 Antenna Type **TUE-O5-12/60H-B**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **47EL-3090-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.052	2.4	0.359	10.6	0.056	30.5	0.019	51.0	0.191	71.5	0.004
-9.5	0.083	2.6	0.310	10.8	0.067	31.0	0.019	51.5	0.226	72.0	0.004
-9.0	0.070	2.8	0.301	11.0	0.072	31.5	0.012	52.0	0.238	72.5	0.004
-8.5	0.029	3.0	0.311	11.5	0.056	32.0	0.011	52.5	0.227	73.0	0.005
-8.0	0.072	3.2	0.319	12.0	0.027	32.5	0.023	53.0	0.198	73.5	0.005
-7.5	0.108	3.4	0.312	12.5	0.054	33.0	0.030	53.5	0.157	74.0	0.005
-7.0	0.098	3.6	0.288	13.0	0.068	33.5	0.027	54.0	0.115	74.5	0.005
-6.5	0.094	3.8	0.248	13.5	0.045	34.0	0.017	54.5	0.081	75.0	0.005
-6.0	0.142	4.0	0.196	14.0	0.022	34.5	0.015	55.0	0.064	75.5	0.004
-5.5	0.163	4.2	0.143	14.5	0.055	35.0	0.024	55.5	0.063	76.0	0.003
-5.0	0.121	4.4	0.105	15.0	0.068	35.5	0.025	56.0	0.064	76.5	0.003
-4.5	0.072	4.6	0.102	15.5	0.055	36.0	0.017	56.5	0.060	77.0	0.002
-4.0	0.108	4.8	0.127	16.0	0.053	36.5	0.011	57.0	0.049	77.5	0.002
-3.5	0.117	5.0	0.156	16.5	0.073	37.0	0.022	57.5	0.035	78.0	0.002
-3.0	0.147	5.2	0.175	17.0	0.076	37.5	0.030	58.0	0.022	78.5	0.002
-2.8	0.201	5.4	0.182	17.5	0.051	38.0	0.027	58.5	0.018	79.0	0.002
-2.6	0.269	5.6	0.175	18.0	0.028	38.5	0.015	59.0	0.023	79.5	0.002
-2.4	0.340	5.8	0.159	18.5	0.038	39.0	0.014	59.5	0.029	80.0	0.002
-2.2	0.403	6.0	0.137	19.0	0.039	39.5	0.029	60.0	0.030	80.5	0.002
-2.0	0.451	6.2	0.116	19.5	0.039	40.0	0.038	60.5	0.029	81.0	0.002
-1.8	0.475	6.4	0.102	20.0	0.071	40.5	0.036	61.0	0.025	81.5	0.003
-1.6	0.472	6.6	0.099	20.5	0.101	41.0	0.030	61.5	0.020	82.0	0.003
-1.4	0.437	6.8	0.101	21.0	0.104	41.5	0.035	62.0	0.016	82.5	0.003
-1.2	0.374	7.0	0.103	21.5	0.073	42.0	0.048	62.5	0.015	83.0	0.003
-1.0	0.289	7.2	0.100	22.0	0.034	42.5	0.054	63.0	0.015	83.5	0.002
-0.8	0.212	7.4	0.089	22.5	0.058	43.0	0.048	63.5	0.014	84.0	0.002
-0.6	0.212	7.6	0.071	23.0	0.090	43.5	0.033	64.0	0.013	84.5	0.002
-0.4	0.315	7.8	0.049	23.5	0.098	44.0	0.023	64.5	0.011	85.0	0.002
-0.2	0.460	8.0	0.036	24.0	0.081	44.5	0.030	65.0	0.007	85.5	0.002
0.0	0.612	8.2	0.045	24.5	0.053	45.0	0.036	65.5	0.005	86.0	0.002
0.2	0.750	8.4	0.067	25.0	0.027	45.5	0.035	66.0	0.005	86.5	0.002
0.4	0.865	8.6	0.087	25.5	0.014	46.0	0.039	66.5	0.007	87.0	0.002
0.6	0.947	8.8	0.102	26.0	0.011	46.5	0.064	67.0	0.009	87.5	0.002
0.8	0.992	9.0	0.109	26.5	0.014	47.0	0.097	67.5	0.011	88.0	0.002
1.0	0.998	9.2	0.107	27.0	0.014	47.5	0.124	68.0	0.012	88.5	0.002
1.2	0.962	9.4	0.097	27.5	0.009	48.0	0.132	68.5	0.012	89.0	0.002
1.4	0.893	9.6	0.080	28.0	0.010	48.5	0.118	69.0	0.010	89.5	0.001
1.6	0.795	9.8	0.071	28.5	0.019	49.0	0.084	69.5	0.009	90.0	0.001
1.8	0.680	10.0	0.052	29.0	0.023	49.5	0.052	70.0	0.007		
2.0	0.559	10.2	0.042	29.5	0.020	50.0	0.080	70.5	0.006		
2.2	0.446	10.4	0.045	30.0	0.017	50.5	0.139	71.0	0.004		

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
WOWK-DT, HUNTINGTON, WEST VIRGINIA
CHANNEL 47 562 KW ERP 396 METERS HAAT
AUGUST 2005

<u>Radial</u> N ° E, T	<u>Average*</u>	<u>Effective</u>	<u>Depression</u>	<u>ERP</u> kW	<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	206.7	414.9	0.564	325.5	85.1	96.9
10	208.7	412.9	0.563	452.2	87.2	99.6
20	221.9	399.7	0.554	504.0	87.2	99.6
30	219.0	402.6	0.556	372.4	85.4	97.2
40	217.3	404.3	0.557	348.1	85.0	96.7
50	219.4	402.2	0.556	490.3	87.2	99.5
60	233.0	388.6	0.546	470.5	86.1	98.2
70	246.5	375.1	0.536	333.2	82.8	94.5
80	247.6	374.0	0.536	415.7	84.2	96.3
90	264.3	357.3	0.524	507.2	84.2	96.7
100	250.1	371.5	0.534	403.2	83.8	95.8
110	247.6	374.0	0.536	330.6	82.7	94.4
120	245.8	375.8	0.537	475.7	85.3	97.5
130	232.3	389.3	0.547	514.7	86.7	99.0
140	218.5	403.1	0.556	356.1	85.1	96.8
150	215.3	406.3	0.558	399.4	86.0	98.0
160	236.1	385.5	0.544	498.7	86.3	98.5
170	242.1	379.5	0.540	398.4	84.3	96.3
180	220.6	401.0	0.555	294.6	83.7	95.1
190	221.5	400.1	0.554	418.6	86.0	98.0
200	211.8	409.8	0.561	504.0	87.8	100.4
210	212.6	409.0	0.560	366.9	85.6	97.5
220	216.0	405.6	0.558	357.0	85.2	97.0
230	225.3	396.3	0.551	448.2	86.2	98.3
240	195.7	425.9	0.572	409.9	87.2	99.7
250	213.3	408.3	0.560	322.9	84.7	96.3
260	225.4	396.2	0.551	400.3	85.4	97.4
270	217.1	404.5	0.557	510.4	87.6	100.1
280	221.6	400.0	0.554	385.3	85.4	97.3

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
WOWK-DT, HUNTINGTON, WEST VIRGINIA
CHANNEL 47 562 KW ERP 396 METERS HAAT
AUGUST 2005
 (continued)

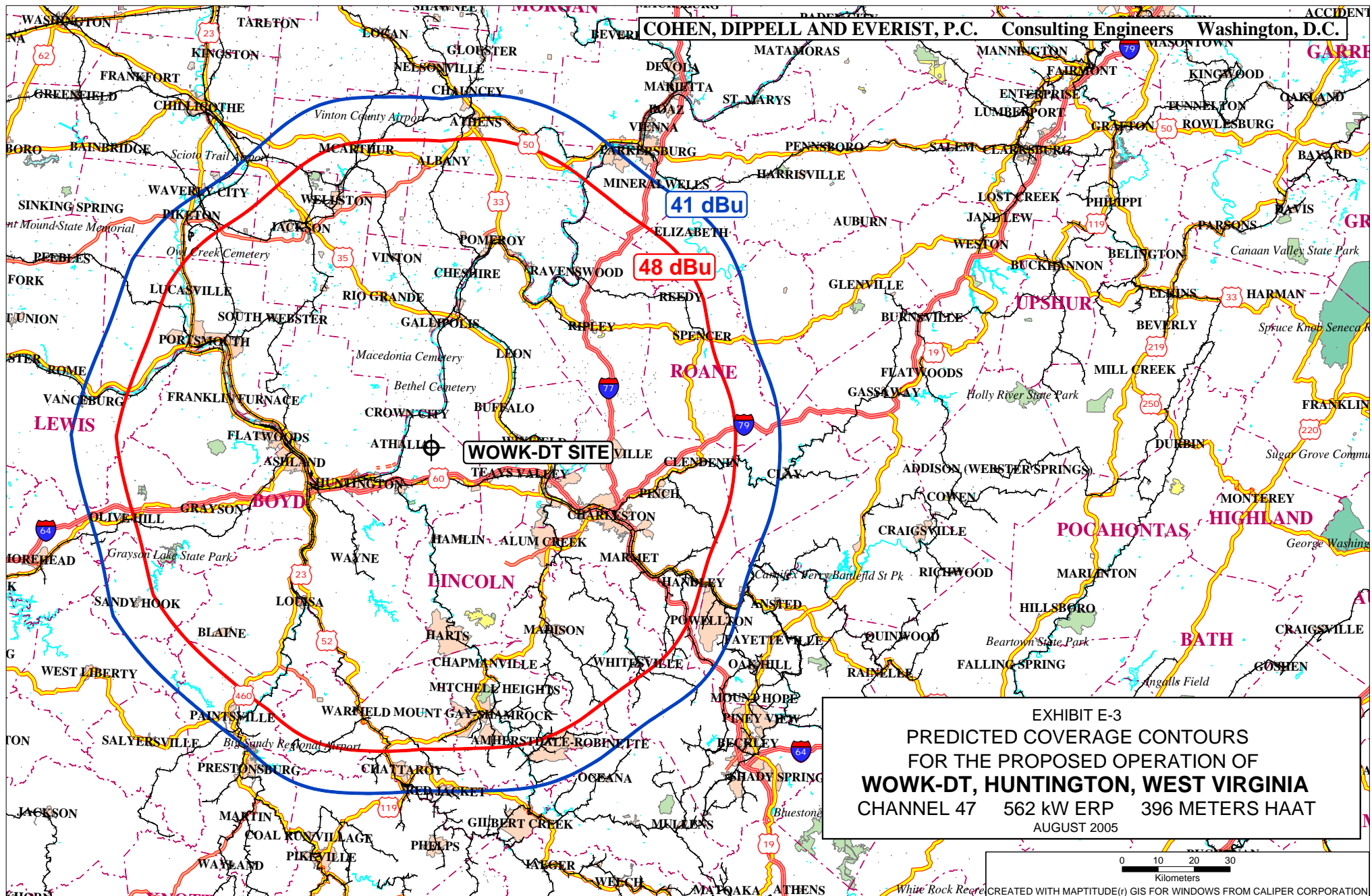
<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u>	<u>Effective</u> <u>Height</u>	<u>Depression</u> <u>Angle</u>	<u>ERP</u> kW	<u>Distance to Contour</u>	
	meters	meters	degrees		48 dBu km	41 dBu km
290	223.0	398.6	0.553	330.6	84.3	95.9
300	230.4	391.2	0.548	463.3	86.1	98.3
310	237.8	383.8	0.543	446.2	85.4	97.5
320	236.8	384.8	0.543	324.6	83.3	94.9
330	224.1	397.5	0.552	381.6	85.2	97.0
340	228.5	393.1	0.549	562.0	87.6	100.1
350	227.2	394.4	0.550	454.2	86.2	98.3

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

DTV Channel 47 (668-674 MHz)
 Average Elevation 3.2 to 16.1 km 225.6 meters AMSL
 Center of Radiation 621.6 meters AMSL
 Antenna Height Above Average Terrain 396 meters
 Effective Radiated Power 562 kW (27.5 dBk) Max

North Latitude: 38° 30' 20.8"
 West Longitude: 82° 12' 32.8"

(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.

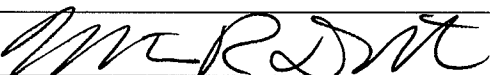
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular 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 Martin R. Doczkat	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date August 12, 2005	
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).