

ENGINEERING STATEMENT
MODIFICATION OF CONSTRUCTION PERMIT
RE DTV BROADCAST ENGINEERING DATA
ON BEHALF OF
TELEVISION STATION GROUP LICENSE SUBSIDIARY, LLC
WTAJ-DT, ALTOONA, PENNSYLVANIA
CHANNEL 32 883 KW ERP ND 304 METERS HAAT

JUNE 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

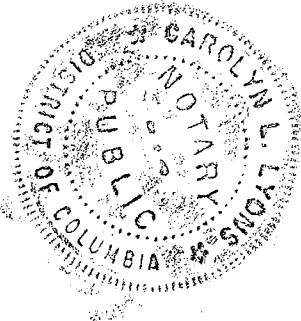
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


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

Subscribed and sworn to before me this 30th day of June, 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

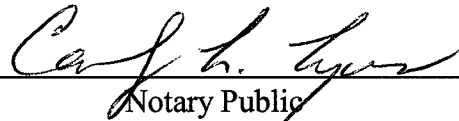
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Martin R. Doczkat

Subscribed and sworn to before me this 30th day of June, 2005.




Notary Public

My Commission Expires: 2/28/2008

This engineering statement has been prepared on behalf of Television Station Group License Subsidiary, LLC, licensee of WTAJ-TV, Altoona, Pennsylvania. The purpose of this engineering statement is to accompany its request to modify its outstanding construction permit for digital television ("DTV") facilities (FCC File No. BPCDT-19991021ACA) and to supplement those data required in FCC Form 301, Section III-D.

WTAJ-TV operates on NTSC Television Channel 10 with a maximum visual horizontal effective radiated power ("ERP") of 231 kW non-directional at a height above average terrain ("HAAT") of 335 meters (1099.1 feet). WTAJ-TV has been allocated DTV Channel 32 with facilities of 1000 kW at a HAAT of 338 meters in the revised DTV Table of Allotments.¹ WTAJ-DT proposes to construct DTV facilities of 883 kW non-directional, horizontal polarization, at a HAAT of 304 meters.

There are no AM stations located within 3.22 km of the existing WTAJ-TV tower site. There are three FM and one full-service NTSC station, WTAJ-TV located and transmitting within 100 meters from this site.

The DTV antenna will be side-mounted on the existing WTAJ-TV tower having a total overall structure height above ground of 82.2 meters (269.7 feet). The existing transmitter site is located 5 miles northwest of Altoona, Pennsylvania.

¹"In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket No. 87-286, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order (FCC 98-24), 2/12/98, DTV Table of Allotments, Appendix B.

Since there is no change in overall height, FAA airspace approval is not required. The tower registration number of the existing tower is 1026694. Exhibit E-1 is a diagram of the tower and transmitting antenna.

The geographic coordinates of the site are:

North Latitude: 40° 34' 01"

West Longitude: 78° 26' 30"

NAD-27

Equipment Data

Antenna: ERI, Type ATL32H3-HSO-32 (or equivalent) horizontally polarized antenna with 0.75° 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	29 kW	14.62 dBk
ERI, Type MACX650 50 ohm or equivalent—length 54.9 meters (180 ft)	95.1%	0.22 dB
Input power to the antenna	27.59 kW	14.41 dBk
Antenna power gain, Main Lobe	32	15.05 dB
Effective Radiated Power, Maximum	883 kW	29.46 dBk

Elevation Data

Vertical dimension of Channel 32 side-mounted antenna	18.57 meters 60.92 feet
---	----------------------------

Overall height above ground of the existing antenna structure (including beacon and lightning protection)	82.2 meters 269.7 feet
Center of radiation of Channel 32 antenna above ground	51.8 meters 170 feet
Elevation of site above mean sea level	778.1 meters 2552.8 feet
Center of radiation of Channel antenna above mean sea level	829.9 meters 2722.8 feet
Overall height above mean sea level of existing tower (including beacon)	860.3 meters 2822.5 feet
Antenna height above average terrain	304 meters

NOTE: Slight height differences result due to conversion to metric.

Allocation

An allocation spacing study from the proposed site has not been performed as the proposed DTV facilities are to be located at the site authorized for the WTAJ-DT facilities in the Sixth Report and the predicted 41 dBu contour is slightly less than that authorized by the construction permit.

Coverage

The average elevation data for 3.2 to 16.1 km along each radial has been determined from 3-second data. The F(50,90) DTV coverage contour has been computed from reference to the propagation data for Channels 14-69, as published by the FCC in Figure 10b and Figure 10c, Section 73.699 of the FCC Rules and Regulations. Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights, it is found that the

depression angle, A_h , varies from 0.315 to 0.568 degrees. Since the relative vertical field is greater than 90% of the maximum at these depression angles, the maximum power was used in determining the distance to the DTV contour.

Table I includes the distances to the 48 dBu and 41 dBu F(50,90) coverage contours, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain for the eight cardinal radials. Exhibit E-3 depicts the coverage map.

Interference Analysis

A Longley-Rice interference study has not been performed as the proposed F(50,90) 41 dBu contour is not predicted to extend beyond the currently authorized F(50,90) 41 dBu contour by the construction permit in any direction as shown in Exhibit E-4.

Other Licensed and Broadcast Facilities

No adverse technical effect is anticipated by the proposed DTV operation to any other FCC licensed facility. If required, the permittee will install filters or take other measures as necessary to resolve the problem.

FCC Rule, Section 1.1307

The proposed 883 kW operation will utilize an ERI, Type ATL32H3-HSO-32 antenna or the equivalent as described above with a center of radiation above ground of 51.8 meters. The proposed antenna will be side-mounted on a single guyed, uniform, cross-section, steel lattice tower with an overall height of 82.2 meters AGL.

As previously indicated, there are no AM stations located within 3.22 km of the existing tower site. According to the FCC data base with the exception of WFGY(FM), WALY(FM), WKRY-FM, and WTAJ-TV, there are no other stations located within

100 meters. We note that there are other FM and TV broadcast stations further than 100 meters from the proposed site, but these were not included in this study because they are not considered to be within the scope of this report. The property on which the proposed tower is located is 5 miles northwest of Altoona, PA. Access to the transmitter property is precluded by a ten foot chain link fence with razor wire and a locked gate.

The proposed operation based upon the current OET Bulletin No. 65, Edition No. 97-01, dated August 1997 and Supplement A meets the provisions of the FCC radio frequency field ("RFF") guidelines, and thus, complies with Section 1.1307 of the FCC Rules. Provisions will be made to reduce power or to terminate the transmitter emissions, as appropriate, when it is necessary for authorized personnel to be on the tower.

For NTSC, WTAJ-TV employs an Andrew, Type ATW12V3-HTO-10 TRASAR horizontally polarized antenna with a center of radiation 72 meters above ground level. The antenna manufacturer's data indicate that the elevation pattern for this antenna has a maximum relative field value of less than 0.2 towards the ground in the vicinity of the tower (from 70° to 90° below the horizontal).

The elevation pattern for WTAJ-DT proposed antenna for DTV operation shows a maximum relative field of less than 0.05 towards the ground in the vicinity of the tower (see Exhibit E-2).

Therefore, the RFF study considers the following stations:

<u>Station</u>	<u>Status</u>	<u>Ch</u>	<u>Frequency</u> MHz	<u>ERP</u> kW	Downward <u>RFV</u>	<u>RCAGL-2</u> m	<u>S</u> μW/cm ²	Uncontrolled <u>MPE</u> μW/cm ²	<u>%</u>
WTAJ-TV	Lic	10	192-198	231 (H)	0.2	70	31.5	200	15.75
WTAJ-DT	Prop	32	578-584	883 (H)	0.05	49.8	29.7	387.3	7.68
WFGY(FM)	Lic	251	98.1	30 (H+V)	0.2	36	61.9	200	30.93
WALY(FM)	Lic	280	103.9	0.38 (H+V)	0.25	29	1.9	200	0.94
WKRY-FM	Lic	201	88.1	0.5 (V)	0.25	72	0.2	200	0.10
WATM-DT	Lic	24	530-536	1000 (H)	0.1	62.6	82.3	355.3	24.0
WKBS-DT	CP	46	662-668	50 (H)	0.1	53.4	5.9	443.3	1.3
WATM-TV	Lic	23	524-530	354 (H)	0.2	77	79.8	351.3	22.7
WKBS-TV	Lic	47	668-674	755 (H)	0.2	52	373.1	447.3	83.4
W41CF (TX)	Lic	41	632-638	2.95 (H)	0.2	94	0.5	423.3	0.1
W57BM (TX)	Lic	57	728-734	0.3455 (H)	0.2	24	0.8	487.3	0.2
WFGI-FM	CP	238		0.4 (H+V)	0.3	59	0.7	200	0.4
WWOT(FM)	Lic	261		3 (H+V)	0.3	34	15.6	200	<u>+7.8</u>
Total									195.3

The total RFF contribution by the other broadcast stations within 400 meters and the WTAJ-DT proposed DTV operations at 2 meters above ground level within the WTAJ

property is less than 195.3% of the current FCC guidelines for general population exposure. The total RFF contribution including the proposed operation of WTAJ-DT is calculated to not exceed 39.1% of the current FCC guidelines for occupational exposure. As previously indicated the property in which the proposed facility will operate is surrounded by a ten foot chainlink fence with razor wire and a locked gate which precludes access to unauthorized personnel.

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.

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 facilities on an existing communications site are not located in an officially designated wilderness area.
- (a)(2) The proposed facilities on an existing communications site 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 operation of the DTV facilities on the tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines in accordance with OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A. A security fence with a locked gate precludes unauthorized access to the tower site.

ABOVE GROUND

ABOVE MEAN SEA LEVEL

82.2 m.

860.3 m.

C/R 72.0 m.

850.0 m. C/R

61.6 m.

C/R 51.8 m.

829.9 m. C/R

CH.10 ANTENNA

PROPOSED CH.32 DTV
ANTENNA
ERI TYPE ATL32H3-HSO-32

TOWER REGISTRATION
No. 1026694

GUYED TOWER

0.0 m.

778.1 m.

(NOT TO SCALE)

EXHIBIT E - 1
VERTICAL SKETCH
FOR THE PROPOSED DTV OPERATION OF
WTAJ-DT, ALTOONA, PENNSYLVANIA

JUNE 2005

COHEN, DIPPELL AND EVERIST, P.C. Consulting Engineers Washington, D.C.

TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED OPERATION OF
WTAJ-DT, ALTOONA, PENNSYLVANIA
CHANNEL 32 883 KW ERP 304 METERS HAAT
JUNE 2005

<u>Radial</u> <u>Bearing</u> N ° E, T	<u>Average*</u> <u>Elevation</u> <u>3.2 to 16.1 km</u>	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u>	<u>ERP At</u> <u>Radio</u> <u>Horizon</u> kW	<u>Distance to Contour F(50,90)</u>	
	meters				<u>48 dBu</u> <u>City Grade</u> km	<u>41 dBu</u> <u>Noise-Limited</u> km
0	648.9	181.0	0.373	883	71.6	81.0
45	469.0	360.9	0.526	883	88.6	101.7
90	411.5	418.4	0.567	883	92.2	106.5
135	445.1	384.8	0.543	883	90.3	103.6
180	410.0	419.9	0.568	883	92.3	106.7
225	700.2	129.7	0.315	883	67.6	76.2
270	585.4	244.5	0.433	883	76.2	88.0
315	534.7	295.2	0.476	883	81.5	95.1

*Based on data from FCC 3-second data base

DTV Channel 32 (578-584 MHz)
Average Elevation 3.2 to 16.1 km 525.9 meters AMSL
Center of Radiation 829.9 meters AMSL
Antenna Height Above Average Terrain 304 meters
Effective Radiated Power 883 kW (29.46 dBk) Max.

North Latitude: 40° 34' 01"
West Longitude: 78° 26' 30"

(NAD-27)

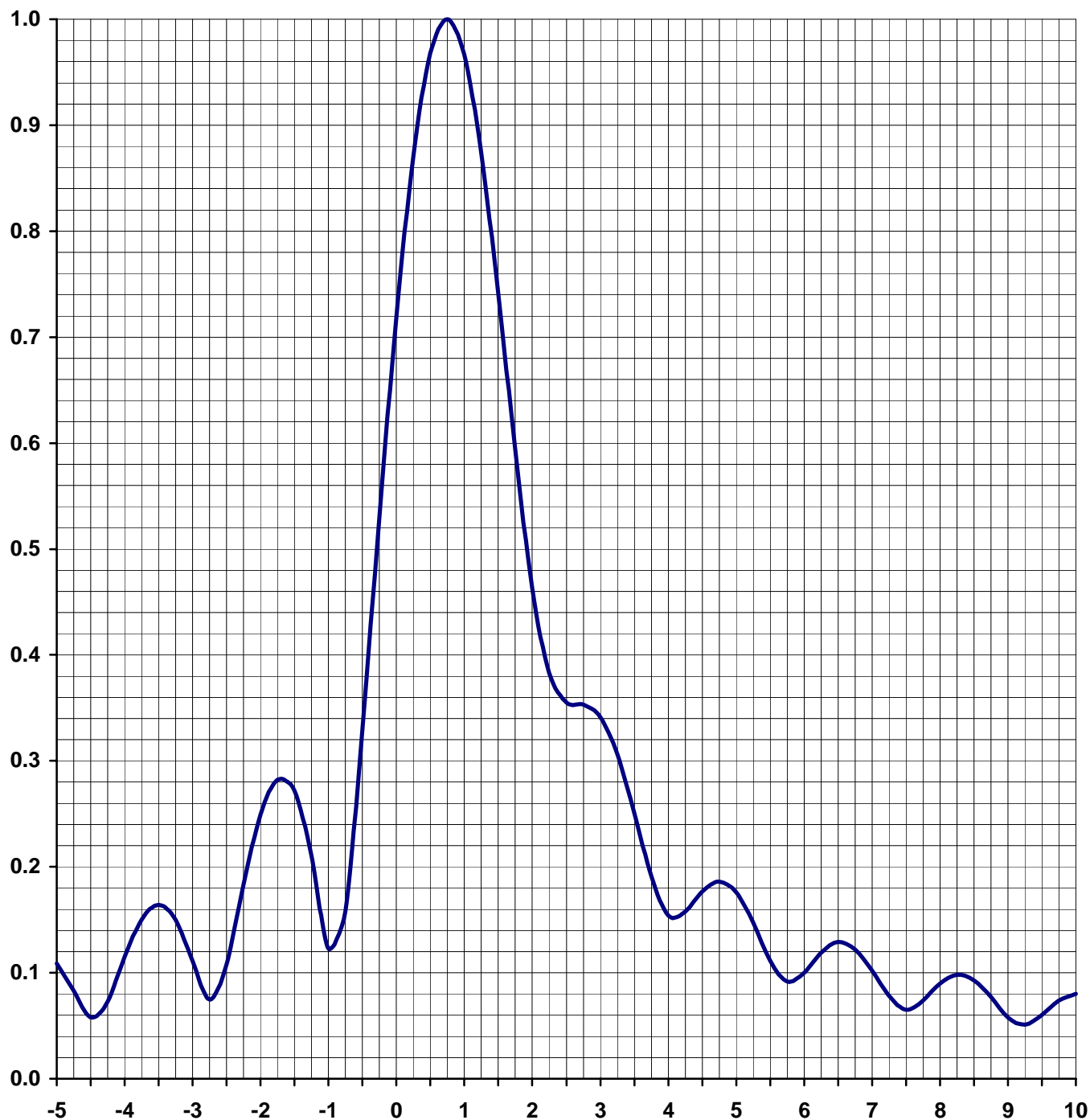
EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WTAJ-DT, ALTOONA, PENNSYLVANIA

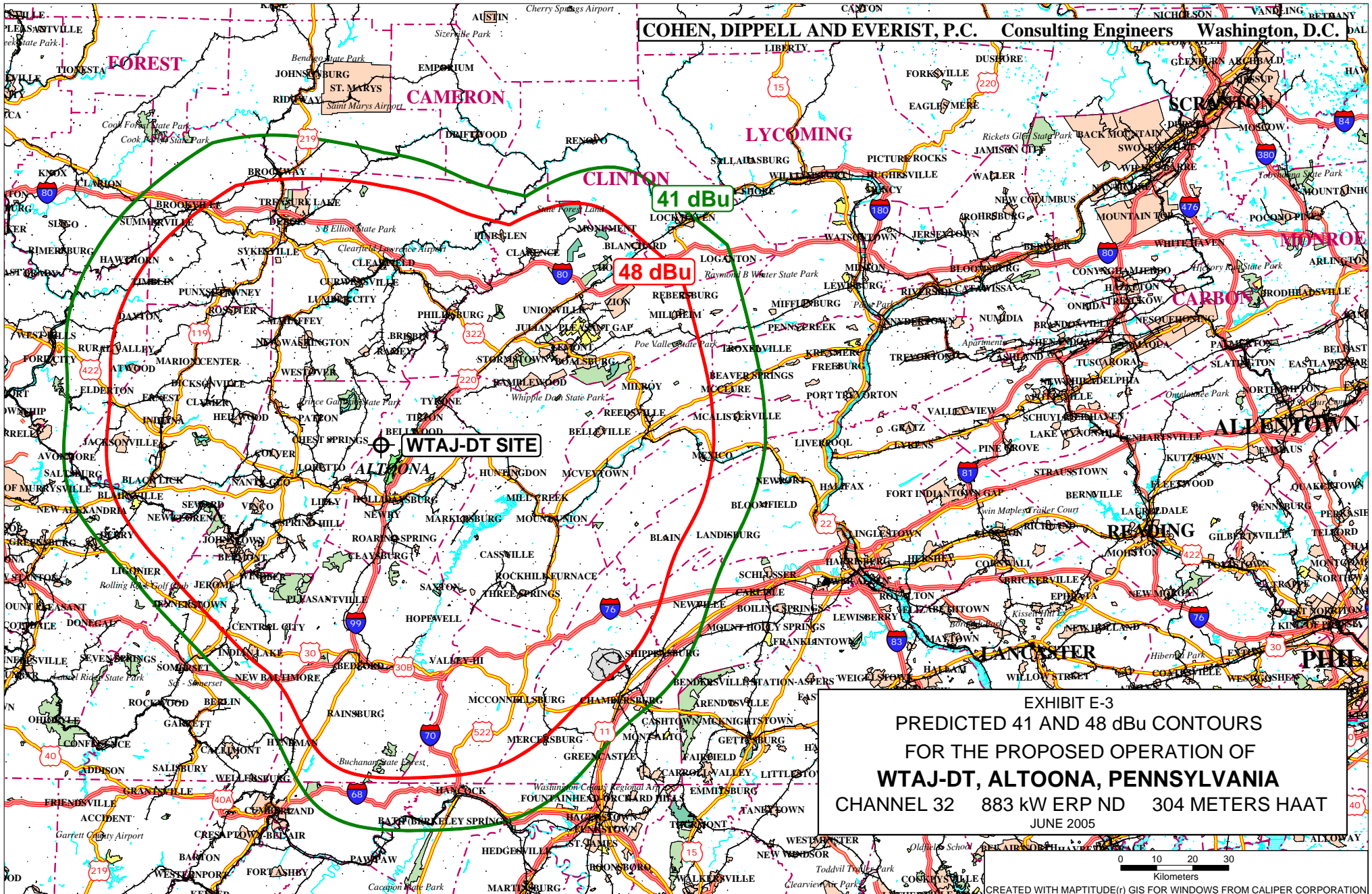
ELEVATION PATTERN

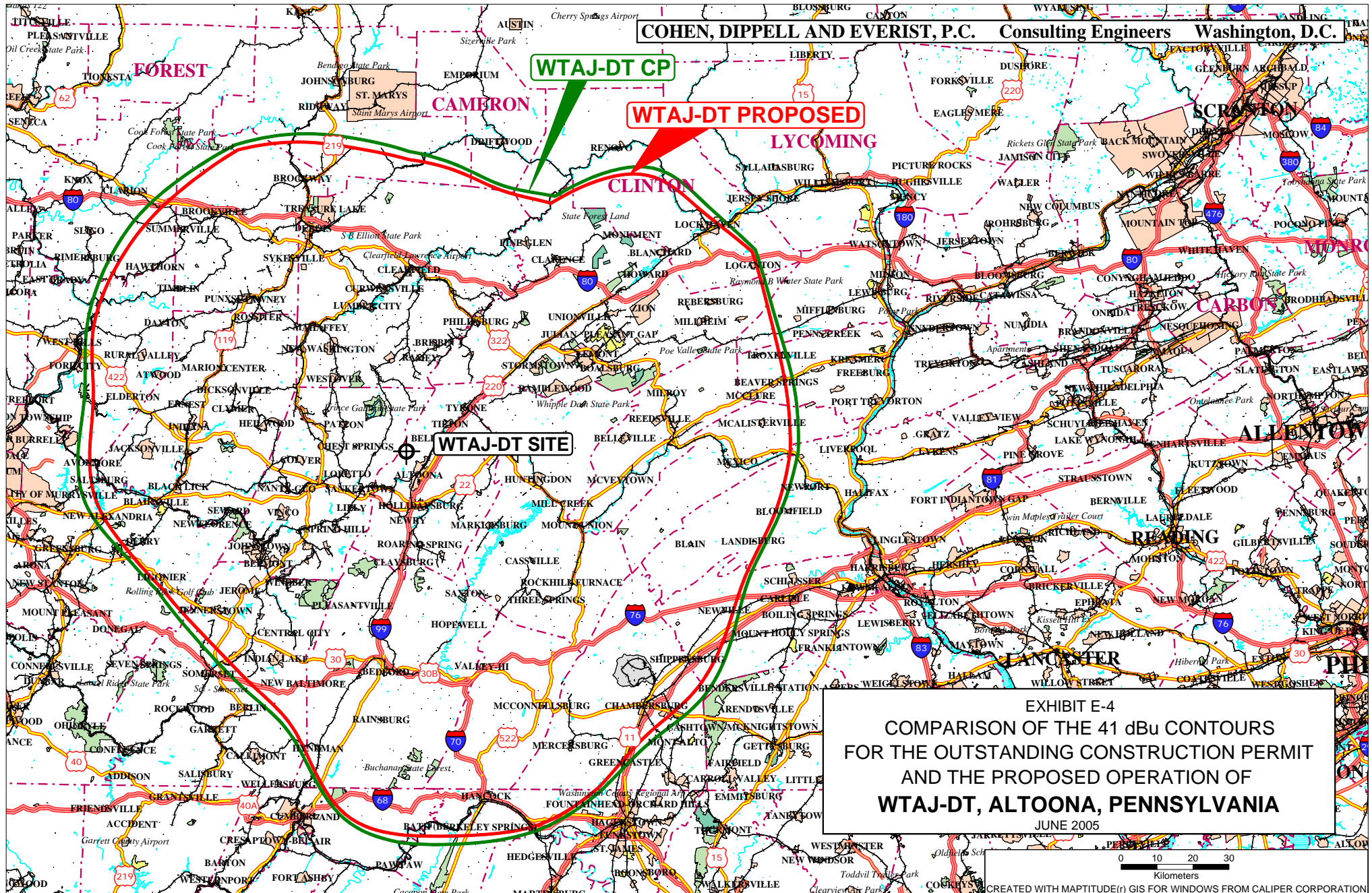
TYPE:	ATL32H3H	
Directivity:	Numeric	dBd
Main Lobe:	32.00	15.05
Horizontal:	16.50	12.17
Beam Tilt:	0.75	
Polarization:	Horizontal	
Frequency:	32 (Digital)	
Location:	Altoona, PA	



TABULATED DATA FOR ELEVATION PATTERN**TYPE: ATL32H3H****-5 to 10 degrees in 0.25 increments****10 to 90 degrees in 0.50 increments**

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.00	0.109	-19.25	6.75	0.122	-18.27	27.00	0.020	-33.98	50.50	0.030	-30.46	74.00	0.023	-32.77
-4.75	0.083	-21.62	7.00	0.102	-19.83	27.50	0.021	-33.56	51.00	0.025	-32.04	74.50	0.013	-37.72
-4.50	0.058	-24.73	7.25	0.078	-22.16	28.00	0.032	-29.90	51.50	0.015	-36.48	75.00	0.005	-46.02
-4.25	0.073	-22.73	7.50	0.065	-23.74	28.50	0.030	-30.46	52.00	0.014	-37.08	75.50	0.008	-41.94
-4.00	0.115	-18.79	7.75	0.074	-22.62	29.00	0.018	-34.89	52.50	0.024	-32.40	76.00	0.017	-35.39
-3.75	0.150	-16.48	8.00	0.090	-20.92	29.50	0.021	-33.56	53.00	0.031	-30.17	76.50	0.025	-32.04
-3.50	0.164	-15.70	8.25	0.098	-20.18	30.00	0.031	-30.17	53.50	0.030	-30.46	77.00	0.032	-29.90
-3.25	0.150	-16.48	8.50	0.093	-20.63	30.50	0.028	-31.06	54.00	0.022	-33.15	77.50	0.037	-28.64
-3.00	0.111	-19.09	8.75	0.077	-22.27	31.00	0.017	-35.39	54.50	0.013	-37.72	78.00	0.041	-27.74
-2.75	0.075	-22.50	9.00	0.058	-24.73	31.50	0.021	-33.56	55.00	0.016	-35.92	78.50	0.043	-27.33
-2.50	0.108	-19.33	9.25	0.051	-25.85	32.00	0.030	-30.46	55.50	0.026	-31.70	79.00	0.044	-27.13
-2.25	0.183	-14.75	9.50	0.060	-24.44	32.50	0.027	-31.37	56.00	0.032	-29.90	79.50	0.043	-27.33
-2.00	0.249	-12.08	9.75	0.074	-22.62	33.00	0.016	-35.92	56.50	0.031	-30.17	80.00	0.042	-27.54
-1.75	0.282	-11.00	10.00	0.080	-21.94	33.50	0.020	-33.98	57.00	0.023	-32.77	80.50	0.039	-28.18
-1.50	0.272	-11.31	10.50	0.062	-24.15	34.00	0.029	-30.75	57.50	0.014	-37.08	81.00	0.036	-28.87
-1.25	0.211	-13.51	11.00	0.042	-27.54	34.50	0.027	-31.37	58.00	0.015	-36.48	81.50	0.032	-29.90
-1.00	0.123	-18.20	11.50	0.063	-24.01	35.00	0.016	-35.92	58.50	0.025	-32.04	82.00	0.029	-30.75
-0.75	0.158	-16.03	12.00	0.064	-23.88	35.50	0.018	-34.89	59.00	0.032	-29.90	82.50	0.025	-32.04
-0.50	0.329	-9.66	12.50	0.040	-27.96	36.00	0.028	-31.06	59.50	0.034	-29.37	83.00	0.021	-33.56
-0.25	0.529	-5.53	13.00	0.044	-27.13	36.50	0.029	-30.75	60.00	0.029	-30.75	83.50	0.017	-35.39
0.00	0.718	-2.88	13.50	0.059	-24.58	37.00	0.019	-34.42	60.50	0.020	-33.98	84.00	0.014	-37.08
0.25	0.870	-1.21	14.00	0.046	-26.74	37.50	0.015	-36.48	61.00	0.012	-38.42	84.50	0.011	-39.17
0.50	0.968	-0.28	14.50	0.031	-30.17	38.00	0.026	-31.70	61.50	0.016	-35.92	85.00	0.008	-41.94
0.75	1.000	0.00	15.00	0.048	-26.38	38.50	0.029	-30.75	62.00	0.027	-31.37	85.50	0.006	-44.44
1.00	0.967	-0.29	15.50	0.050	-26.02	39.00	0.022	-33.15	62.50	0.034	-29.37	86.00	0.004	-47.96
1.25	0.874	-1.17	16.00	0.031	-30.17	39.50	0.013	-37.72	63.00	0.036	-28.87	86.50	0.002	-53.98
1.50	0.742	-2.59	16.50	0.034	-29.37	40.00	0.021	-33.56	63.50	0.033	-29.63	87.00	0.001	-60.00
1.75	0.595	-4.51	17.00	0.047	-26.56	40.50	0.029	-30.75	64.00	0.025	-32.04	87.50	0.001	-60.00
2.00	0.464	-6.67	17.50	0.039	-28.18	41.00	0.027	-31.37	64.50	0.015	-36.48	88.00	0.000	---
2.25	0.383	-8.34	18.00	0.024	-32.40	41.50	0.016	-35.92	65.00	0.011	-39.17	88.50	0.000	---
2.50	0.355	-9.00	18.50	0.038	-28.40	42.00	0.015	-36.48	65.50	0.019	-34.42	89.00	0.000	---
2.75	0.353	-9.04	19.00	0.043	-27.33	42.50	0.026	-31.70	66.00	0.029	-30.75	89.50	0.000	---
3.00	0.341	-9.34	19.50	0.029	-30.75	43.00	0.029	-30.75	66.50	0.036	-28.87	90.00	0.000	---
3.25	0.306	-10.29	20.00	0.026	-31.70	43.50	0.023	-32.77	67.00	0.039	-28.18			
3.50	0.250	-12.04	20.50	0.039	-28.18	44.00	0.013	-37.72	67.50	0.037	-28.64			
3.75	0.191	-14.38	21.00	0.036	-28.87	44.50	0.018	-34.89	68.00	0.031	-30.17			
4.00	0.154	-16.25	21.50	0.022	-33.15	45.00	0.028	-31.06	68.50	0.022	-33.15			
4.25	0.158	-16.03	22.00	0.029	-30.75	45.50	0.029	-30.75	69.00	0.012	-38.42			
4.50	0.177	-15.04	22.50	0.038	-28.40	46.00	0.021	-33.56	69.50	0.010	-40.00			
4.75	0.186	-14.61	23.00	0.030	-30.46	46.50	0.013	-37.72	70.00	0.018	-34.89			
5.00	0.176	-15.09	23.50	0.019	-34.42	47.00	0.019	-34.42	70.50	0.028	-31.06			
5.25	0.147	-16.65	24.00	0.031	-30.17	47.50	0.028	-31.06	71.00	0.036	-28.87			
5.50	0.111	-19.09	24.50	0.035	-29.12	48.00	0.029	-30.75	71.50	0.041	-27.74			
5.75	0.092	-20.72	25.00	0.024	-32.40	48.50	0.022	-33.15	72.00	0.043	-27.33			
6.00	0.100	-20.00	25.50	0.020	-33.98	49.00	0.013	-37.72	72.50	0.042	-27.54			
6.25	0.119	-18.49	26.00	0.032	-29.90	49.50	0.018	-34.89	73.00	0.037	-28.64			
6.50	0.129	-17.79	26.50	0.032	-29.90	50.00	0.027	-31.37	73.50	0.031	-30.17			





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 <i>June 30, 2005</i>	
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).