

ENGINEERING STATEMENT  
RE DTV BROADCAST ENGINEERING DATA  
APPLICATION FOR  
[MODIFICATION OF CONSTRUCTION PERMIT]  
ON BEHALF OF  
VIDEOINDIANA, INC.  
**WTHR-DT, INDIANAPOLIS, INDIANA**  
CHANNEL 13 22 KW ERP (H&V) 299 METERS HAAT

JUNE 2008

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;

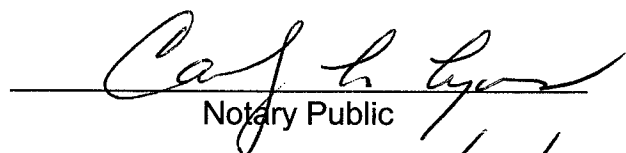
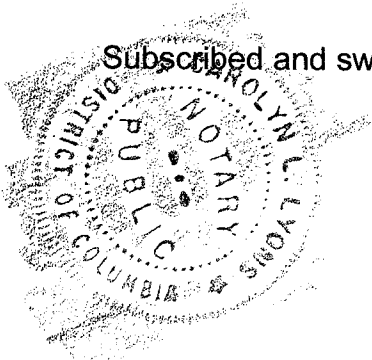
That the attached engineering report was prepared by him or under his supervision and direction and

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 19<sup>th</sup> day of June, 2008.



Notary Public

My Commission Expires: 2/28/2013

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

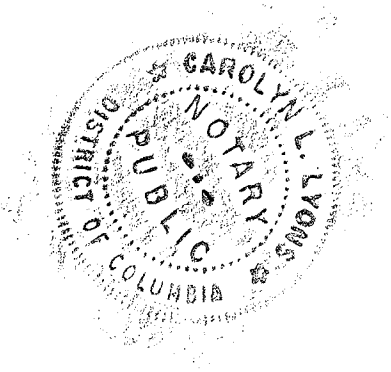
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

  
Martin R. Doczkat

Subscribed and sworn to before me this 19<sup>th</sup> day of June, 2008.

  
Notary Public

My Commission Expires: 2/28/2013



### Introduction

This engineering statement has been prepared on behalf of VideoIndiana, Inc. (“VideoIndiana”), licensee of WTHR(TV), Indianapolis, Indiana, in support of its request to modify its construction permit to maximize its DTV facilities for post-transition operation.

WTHR(TV) is licensed to operate on NTSC television Channel 13 with a maximum visual ERP of 316 kW (H&V) and an antenna height above average terrain (“HAAT”) of 299 meters (981.0 feet). In Appendix B of the revised DTV Table of Allotments<sup>1</sup>, VideoIndiana has been authorized to construct a post-transition DTV operation of 15.1 kW non-directional ERP and HAAT of 299 meters. The FCC File No. is BPCDT-20080508ABC. VideoIndiana hereby proposes to maximize by ultimately constructing a WTHR-DT post-transition operation of 22 kW non-directional ERP (H&V) at 299 meters HAAT.

### Maximization

The proposed WTHR-DT post-transition facilities will expand the noise-limited service contour beyond that established by Appendix B of the *Memorandum Opinion and Order*<sup>2</sup>. In accordance with the FCC Public Notice dated May 30, 2008,<sup>3</sup> VideoIndiana proposes a maximization expansion of its post-transition DTV allotment which will accommodate the use of

---

<sup>1</sup>“In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service”, MM Docket 87-268, Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order (FCC 08-72) Released March 6, 2008.

<sup>2</sup>Ibid .

<sup>3</sup>“Commission Lifts the Freeze on the Filing of Maximization Applications and Petitions for Digital Channel Substitutions Effective Immediately”, DA 08-1213, Released May 30, 2008.

the existing top-mounted analog antenna does not extend more than 5 miles in any direction beyond the WTHR-DT facility as defined by the post-transition DTV Table Appendix B (see Exhibit E-1). With the exception of WREX-DT, for which an agreement is in place, the proposed operation does not exceed the 0.5 percent new interference criteria to any other potentially affected station in Appendix B of the DTV Table.

#### Proposed Parameters

The WTHR-DT post-transition DTV antenna will be top-mounted on an existing tower. The existing tower has a total overall structure height above ground of 316.8 meters (1039.4 feet). The existing transmitter is located at Ditch Rd, at West 96<sup>th</sup> Street, Indianapolis, Indiana.

There is no proposed change in overall height and therefore an FAA aeronautical study is not required. The FCC antenna structure registration number of the existing tower is 1024109. Exhibit E-1 is a vertical sketch of the existing tower and top-mounted transmitting antenna.

The geographic coordinates of the proposed site are as follows:

North Latitude: 39° 55' 43"

West Longitude: 86° 10' 55"

NAD-27

#### Equipment Data

Antenna: RCA, Type TCL-16A13 (or equivalent) Circular Polarized Antenna  
0.9° electrical Beam Tilt  
Antenna information per Section 73.625 of the FCC Rules  
is provided in Exhibit E-2.

Transmission Line: 292.6 meters (960 ft) of Dielectric, Type 8863-62A,  
6-1/8", 50 ohm or equivalent, attenuation 0.076 dB/100 ft

Power Data

Transmitter Output	3.25 kW	5.12 dBk
Transmission Line Efficiency/Loss	84.7%	0.73 dB
Input Power to the Antenna	2.75 kW	4.39 dBk
Antenna Gain	8.0 ratio	9.03 dB
Effective Radiated Power	22 kW (H&V)	13.42 dBk

Elevation Data

Elevation of site above mean sea level	251.1 meters 823.8 feet
Overall height above ground of existing antenna structure (including appurtenances)	316.8 meters 1039.4 feet
Center of radiation of Channel 13 antenna above ground	299.9 meters 983.9 feet
Overall height above mean sea level of existing tower (including beacon)	567.9 meters 1863.2 feet
Center of radiation of Channel 13 antenna above mean sea level	551 meters 1807.7 feet
Antenna height above average terrain	299 meters

Note: Slight height differences may result due to conversion to metric.

Interference Analysis

A study of predicted interference (Table I) caused by the proposed WTHR-DT post-transition has been performed using a version of the Longley-Rice program as described in OET Bulletin No. 69 (February 6, 2004) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows XP platform. Comparison of service/interference areas and populations indicates that this model closely matches the FCC's evaluation program. Best efforts have been made to use data and calculations identical to the FCC's program. Any slight differences are attributable to compiler, operating system and/or processor characteristics. The effect of any variance in calculated population values versus the FCC's program is minimized when differencing a given model's results, such as calculating new interference as total interference less baseline interference. Any variance effect is further reduced when using ratios of calculated population values such as measuring the incremental population affected as a percent of the total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km<sup>2</sup> using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 census centroids. The Longley-Rice analysis considers all post-transition DTV allotments as listed in Appendix B of the 7<sup>th</sup> Report & Order. The results of the analysis predict that the proposed nondirectional post-transition operation of WTHR-DT will not cause any new interference above the 0.5% threshold criteria to other potentially affected stations

as listed in Appendix B of the Final DTV Table of Allotments, with the exception of WREX-DT, for which an agreement is in place.

#### Additional Broadcast Facilities

There are no AM stations located within 3.2 km and no FM stations within 0.5 km of the existing tower site. The following table lists the authorized pre-transition TV and DTV facilities located within 0.5 km of the transmitting site according to CDBS.

<u>Call</u>	<u>Status</u>	<u>Service</u>	<u>Ch</u>	<u>ERP</u> kW	<u>RCAMSL</u> Meters	<u>RCAGL</u> Meters	<u>Distance</u> km
WTHR(TV)	Lic	TV	13	316	551	299.9	0.0
WTHR-DT	Lic	DTV	46	1000	521.7	270.7	0.0
WIPX-LP	CP	LD	34	15	488.8	237.7	0.0
WALV-CA	Lic	CA	50	14.9	505	253.9	0.0

#### Coverage

The average elevation data for 3.2 to 16.1 km along each radial has been determined from the NGDC 3-second computerized terrain database. The F(50,90) DTV coverage contours have been computed from reference to the propagation data for Channels 7-13, as published by the FCC in Figure 10 and Figure 10a, 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 0.458 to 0.494 degrees.

Table II includes the distances to the F(50,90) 43 and 36 dBu coverage contours, the average elevation 3.2 to 16.1 km, and the antenna effective heights for each radial spaced 45 degrees in azimuth. Exhibit E-3 provides a map of the computed coverage contours.



FCC Rule, Section 1.1307

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.

The following equations from OET Bulletin No. 65 have been used to calculate the predicted post-transition radiofrequency fields at 2 meters above ground at the base of the tower:

**Television Broadcast Stations**

$$S = [(33.4)(F^2)(0.4 * ERP_V + ERP_A)]/R^2$$

**Digital Television Broadcast Stations**

$$S = [(33.4)(F^2)(ERP^2)]/R^2$$

S = Power Density in Microwatts/sq. cm (: W/cm<sup>2</sup>)

F = Relative Field Factor in the downward direction of interest (-60° to -90° elevation)

ERP<sub>V</sub> = Total Peak Visual ERP in Watts

ERP<sub>A</sub> = Total Aural ERP in Watts

ERP = Power in Watts

R = Distance from 2 meters above ground to center of radiation in meters

<u>Station</u>	<u>Statuts</u>	<u>ERP</u> (kW)	<u>Frequency</u> (MHz)	<u>Ch</u>	<u>RCAGL</u> (m)	<u>Relative</u> <u>Field</u>	<u>S</u> (: W/cm <sup>2</sup> )	<u>RFF</u> (%)
WIPX-LP	CP	15	590-596	34	237.7	0.2	0.36	0.08
WALV-CA	Lic	14.9	686-672	50	253.9	0.3	0.35	0.08
WTHR-DT	<b>Proposed</b>	22 (H&V)	210-216	13	299.9	0.084	0.06	0.03
							<b>Total</b>	<b>0.19%</b>

For the post-transition operation, WTHR-DT proposes to use the existing top-mounted RCA, Type TCL-16A13 antenna (or equivalent). The manufacturer's elevation pattern for this antenna indicates a maximum relative downward field of less than 0.084 towards the ground (45° to 90° below the horizontal) in the vicinity of the tower. Using this relative field factor and the procedures prescribed in OET Bulletin 65, the maximum RFF resulting from the proposed operation is less than 0.1  $\mu\text{W}/\text{cm}^2$ . This is less than 0.1% of the 200  $\mu\text{W}/\text{cm}^2$  maximum human exposure to RFF recommended by the current FCC guidelines for the general population.

The total contribution by the post-transition broadcast facilities and the addition of the proposed post-transition operation of WTHR-DT at 2 meters above ground level is less than 0.2% of the current FCC guidelines for maximum permissible exposure ("MPE") for the general population/uncontrolled 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 existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is 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 are located on a tower which was built prior to the adoption of WT Docket No. 03-128 and therefore grandfathered, and have not affected 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 installation of the DTV facilities on an existing guyed 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 contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

## ABOVE GROUND



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

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I  
LONGLEY-RICE INTERFERENCE ANALYSIS  
FOR THE PROPOSED OPERATION  
ABOVE ITS ALLOTTED APPENDIX B FACILITIES AND  
IN RELATION TO OTHER ALLOTTED APPENDIX B FACILITIES  
AND OTHER POTENTIALLY AFFECTED STATIONS IN CDBS  
WTHR-DT, INDIANAPOLIS, INDIANA  
CHANNEL 13 22 KW ND ERP 299 METERS HAAT  
JUNE 2008

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>FCC File No.</u>	<u>Result</u>
12	WINM-DT	ANGOLA IN	205.6	ALLOT		no interference
12	WINM-DT	ANGOLA IN	205.6	LIC	BLCDDT-20021025AAN	no interference
12	WKRC-DT	CINCINNATI OH	170	ALLOT		no interference
12	WKRC-DT	CINCINNATI OH	170	CP	BPCDDT-20080304ABV	no interference
13	WOCK-CA	CHICAGO IL	250.2	LIC	BLTVA-20021125AAU	no interference
13	WOCK-CA	CHICAGO IL	250.2	APP	BPTVA-20070611ABC	no interference
13	WREX-DT	ROCKFORD IL	367.2	CP	BPCDDT-20080328AAM	0.03%
13	WREX-DT	ROCKFORD IL	367.2	ALLOT		0.65%
13	WCFN-DT	SPRINGFIELD IL	284.7	ALLOT		0.11%
13	WBKO-DT	BOWLING GREEN KY	319.1	ALLOT		0.32%
13	WBKO-DT	BOWLING GREEN KY	319.2	CP	BPCDDT-20080327AHO	0.11%
13	WKYT-DT	LEXINGTON KY	260.2	LIC	BLCDDT-20021025AAO	0.03%
13	WKYT-DT	LEXINGTON KY	260.2	ALLOT		0.03%
13	WBXV-CA	LOUISVILLE KY	176.2	LIC	BLTVA-20050202ABW	no interference
13	WZZM-DT	GRAND RAPIDS MI	376.4	ALLOT		0.01%
13	WZZM-DT	GRAND RAPIDS MI	376.5	CP	BPCDDT-20080325AFK	0.00%
13	WSYX-DT	COLUMBUS OH	269.4	ALLOT		0.46%
13	WSYX-DT	COLUMBUS OH	269.4	LIC	BLCDDT-20030801AXM	0.46%
13	WTVG-DT	TOLEDO OH	303.8	ALLOT		no interference
13	WTVG-DT	TOLEDO OH	303.8	CP	BPCDDT-20080317AIO	0.00%
13	WOWK-DT	HUNTINGTON WV	376.9	CP MOD	BMPCDDT-20080317AGA	0.00%
13	WOWK-DT	HUNTINGTON WV	376.8	ALLOT		0.00%

COHEN, DIPPELL AND EVERIST, P.C.

TABLE II  
COMPUTED COVERAGE DATA  
FOR THE PROPOSED DTV OPERATION OF  
WTHR-DT, INDIANAPOLIS, INDIANA  
CHANNEL 13 22 KW ERP (H&V) 299 METERS HAAT  
JUNE 2008

Radial Bearing N ° E, T	Average* Elevation 3.2 to 16.1 km meters	Effective Height meters	Depression Angle	ERP At Radio Horizon kW	Distance to Contour F(50,90)	
					43 dBu City Grade km	36 dBu Noise-Limited km
0	277.5	273.5	0.458	22	84.8	97.2
45	256.1	294.9	0.476	22	85.8	98.1
90	242.4	308.6	0.487	22	86.6	99.1
135	243.6	307.4	0.486	22	86.5	99.0
180	233.0	318.0	0.494	22	87.3	99.8
225	257.1	293.9	0.475	22	85.7	98.1
270	274.3	276.7	0.461	22	84.9	97.3
315	272.1	278.9	0.463	22	85.0	97.4

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

DTV Channel 13 (210-216 MHz)  
Average Elevation 3.2 to 16.1 km 252 meters AMSL  
Center of Radiation 551 meters AMSL  
Antenna Height Above Average Terrain 299 meters  
Effective Radiated Power 22 kW (13.42 dBk) H&V

North Latitude: 39° 55' 43"  
West Longitude: 86° 10' 55"

(NAD-27)

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

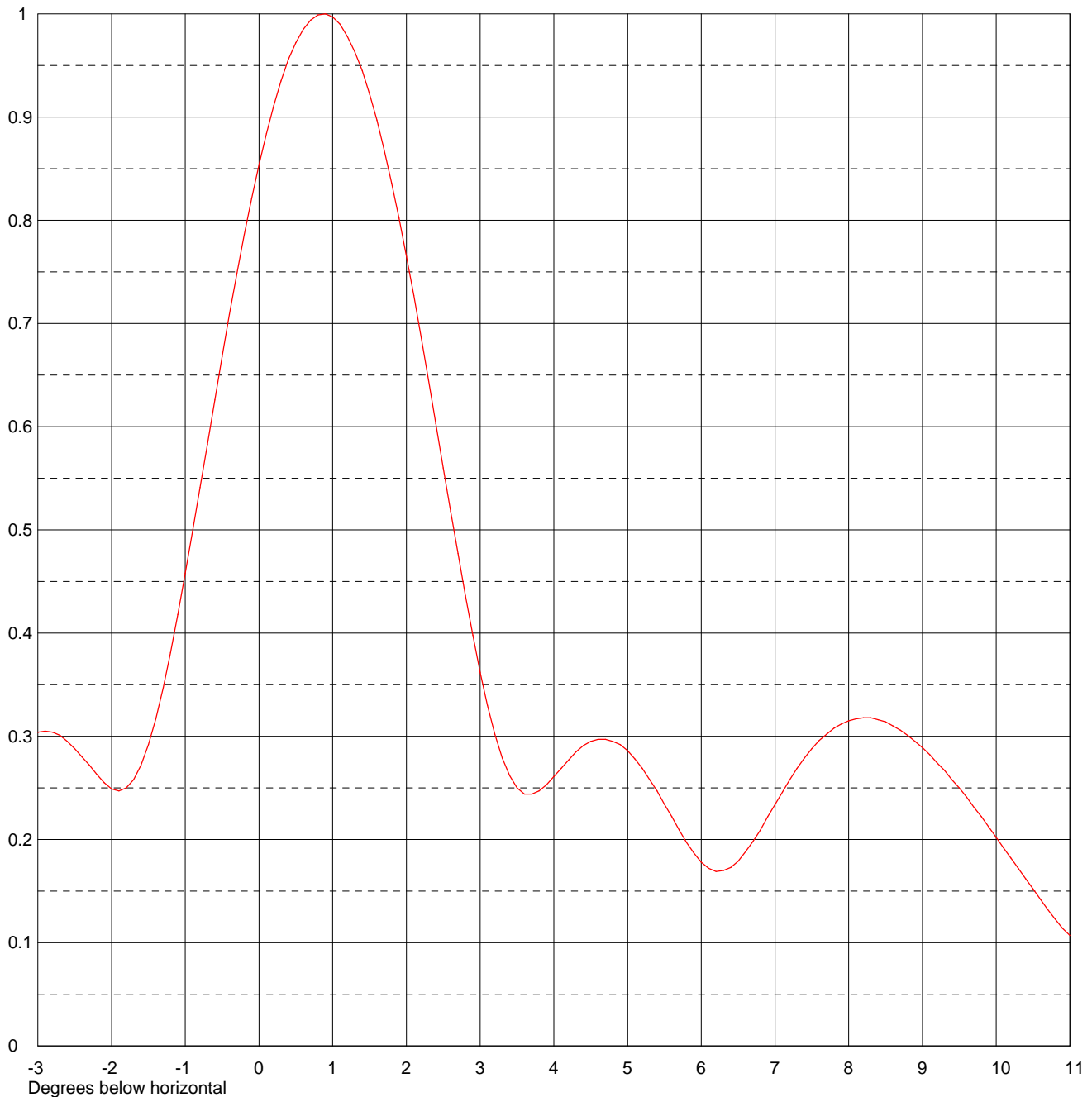
WTHR-DT, INDIANAPOLIS, INDIANA



Date **25 Apr 2008**  
Call Letters **WTHR** Channel **13**  
Location **Indianapolis, IN**  
Customer  
Antenna Type **TCL-16A**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>8.0 (9.03 dB)</b>	Beam Tilt	<b>0.90 Degrees</b>
RMS Gain at Horizontal	<b>5.8 (7.63 dB)</b>	Frequency	<b>213.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>03T080090</b>



Remarks:

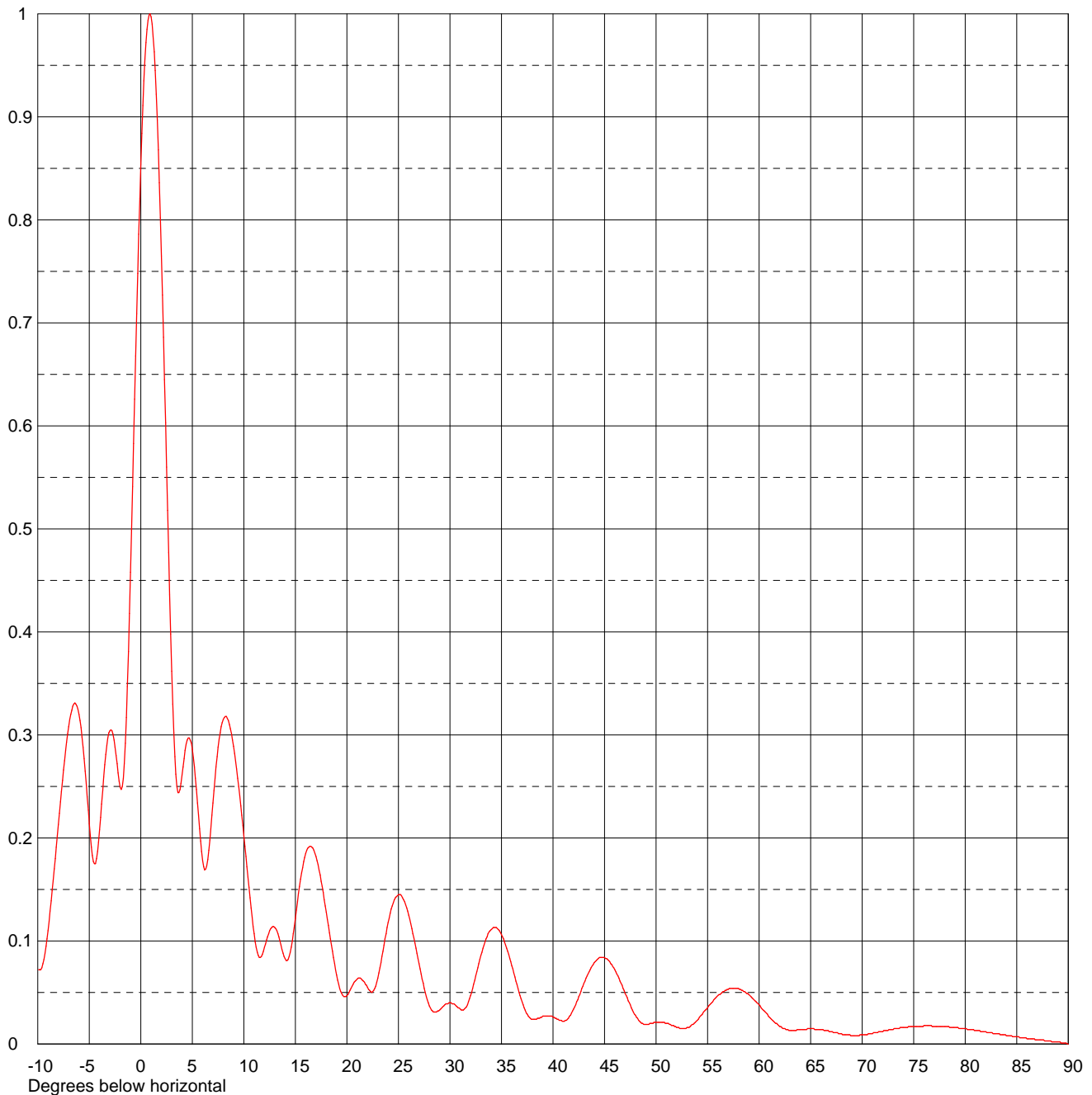




Date **25 Apr 2008**  
Call Letters **WTHR** Channel **13**  
Location **Indianapolis, IN**  
Customer  
Antenna Type **TCL-16A**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>8.0 (9.03 dB)</b>	Beam Tilt	<b>0.90 Degrees</b>
RMS Gain at Horizontal	<b>5.8 (7.63 dB)</b>	Frequency	<b>213.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>03T080090-90</b>



Remarks:



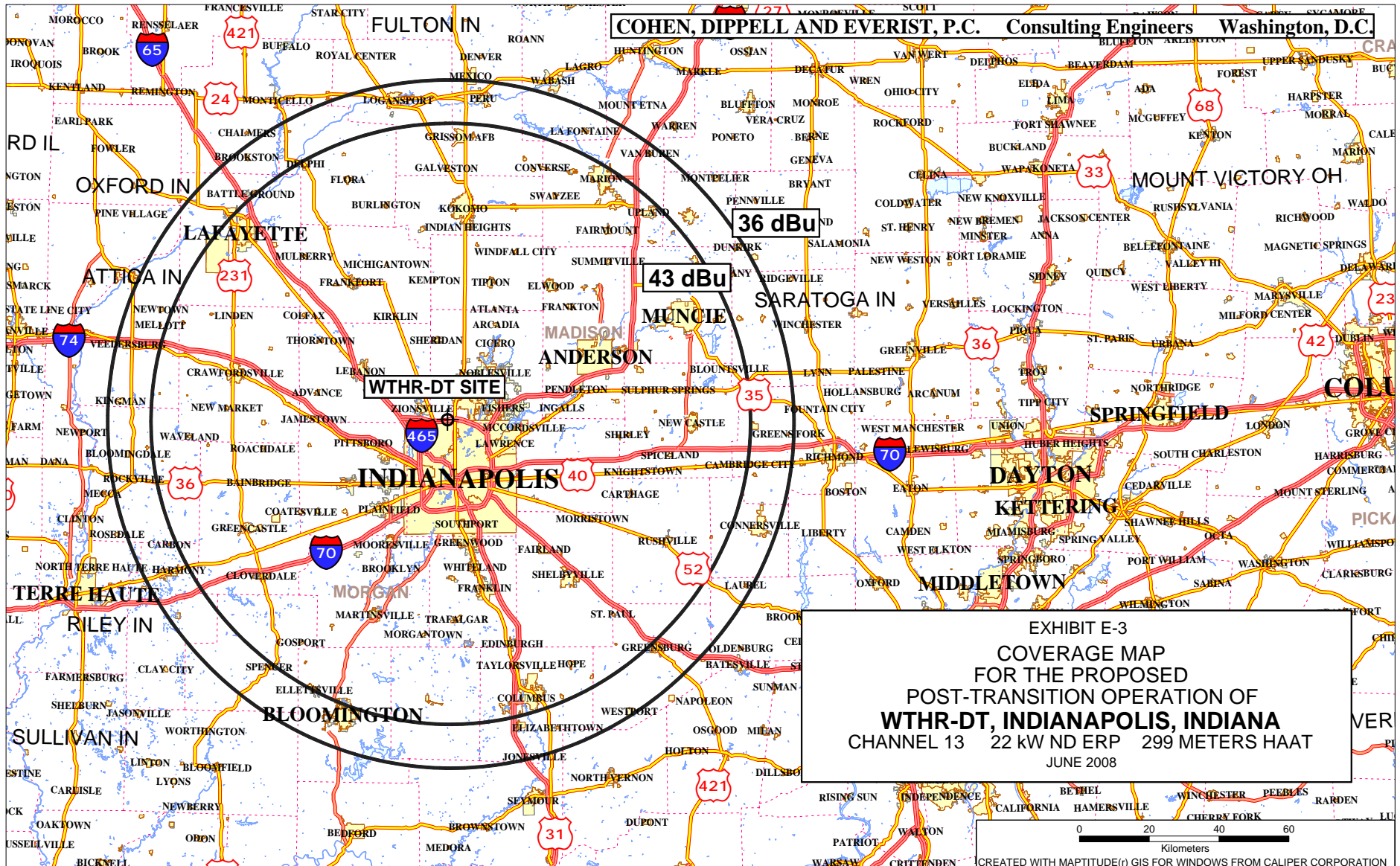
Date **25 Apr 2008**  
 Call Letters **WTHR** Channel **13**  
 Location **Indianapolis, IN**  
 Customer  
 Antenna Type **TCL-16A**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **03T080090**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.074	2.4	0.603	10.6	0.142	30.5	0.038	51.0	0.020	71.5	0.011
-9.5	0.078	2.6	0.518	10.8	0.123	31.0	0.034	51.5	0.018	72.0	0.012
-9.0	0.110	2.8	0.436	11.0	0.107	31.5	0.035	52.0	0.016	72.5	0.013
-8.5	0.159	3.0	0.362	11.5	0.084	32.0	0.047	52.5	0.015	73.0	0.014
-8.0	0.213	3.2	0.302	12.0	0.094	32.5	0.066	53.0	0.016	73.5	0.015
-7.5	0.266	3.4	0.262	12.5	0.110	33.0	0.086	53.5	0.019	74.0	0.016
-7.0	0.308	3.6	0.244	13.0	0.113	33.5	0.102	54.0	0.023	74.5	0.017
-6.5	0.330	3.8	0.247	13.5	0.100	34.0	0.111	54.5	0.029	75.0	0.017
-6.0	0.320	4.0	0.261	14.0	0.083	34.5	0.113	55.0	0.035	75.5	0.017
-5.5	0.277	4.2	0.277	14.5	0.089	35.0	0.106	55.5	0.041	76.0	0.018
-5.0	0.214	4.4	0.291	15.0	0.122	35.5	0.093	56.0	0.047	76.5	0.018
-4.5	0.175	4.6	0.297	15.5	0.160	36.0	0.076	56.5	0.051	77.0	0.017
-4.0	0.208	4.8	0.295	16.0	0.185	36.5	0.058	57.0	0.053	77.5	0.017
-3.5	0.271	5.0	0.286	16.5	0.192	37.0	0.041	57.5	0.054	78.0	0.017
-3.0	0.304	5.2	0.269	17.0	0.182	37.5	0.029	58.0	0.054	78.5	0.016
-2.8	0.304	5.4	0.247	17.5	0.158	38.0	0.024	58.5	0.051	79.0	0.016
-2.6	0.295	5.6	0.222	18.0	0.128	38.5	0.025	59.0	0.048	79.5	0.015
-2.4	0.280	5.8	0.197	18.5	0.096	39.0	0.027	59.5	0.043	80.0	0.015
-2.2	0.263	6.0	0.178	19.0	0.067	39.5	0.027	60.0	0.038	80.5	0.014
-2.0	0.249	6.2	0.169	19.5	0.049	40.0	0.026	60.5	0.032	81.0	0.013
-1.8	0.250	6.4	0.173	20.0	0.047	40.5	0.024	61.0	0.026	81.5	0.012
-1.6	0.272	6.6	0.188	20.5	0.056	41.0	0.022	61.5	0.021	82.0	0.012
-1.4	0.317	6.8	0.209	21.0	0.063	41.5	0.025	62.0	0.017	82.5	0.011
-1.2	0.381	7.0	0.234	21.5	0.062	42.0	0.034	62.5	0.015	83.0	0.010
-1.0	0.458	7.2	0.258	22.0	0.055	42.5	0.046	63.0	0.013	83.5	0.009
-0.8	0.541	7.4	0.279	22.5	0.051	43.0	0.059	63.5	0.013	84.0	0.008
-0.6	0.626	7.6	0.296	23.0	0.064	43.5	0.070	64.0	0.014	84.5	0.008
-0.4	0.709	7.8	0.308	23.5	0.090	44.0	0.079	64.5	0.014	85.0	0.007
-0.2	0.786	8.0	0.315	24.0	0.118	44.5	0.084	65.0	0.015	85.5	0.006
0.0	0.854	8.2	0.318	24.5	0.137	45.0	0.084	65.5	0.014	86.0	0.005
0.2	0.911	8.4	0.316	25.0	0.145	45.5	0.080	66.0	0.014	86.5	0.005
0.4	0.956	8.6	0.310	25.5	0.140	46.0	0.072	66.5	0.013	87.0	0.004
0.6	0.985	8.8	0.301	26.0	0.125	46.5	0.061	67.0	0.012	87.5	0.004
0.8	0.999	9.0	0.289	26.5	0.103	47.0	0.049	67.5	0.011	88.0	0.003
1.0	0.997	9.2	0.274	27.0	0.078	47.5	0.038	68.0	0.010	88.5	0.002
1.2	0.978	9.4	0.258	27.5	0.054	48.0	0.028	68.5	0.009	89.0	0.002
1.4	0.945	9.6	0.241	28.0	0.037	48.5	0.021	69.0	0.008	89.5	0.001
1.6	0.897	9.8	0.222	28.5	0.031	49.0	0.019	69.5	0.008	90.0	0.000
1.8	0.836	10.0	0.202	29.0	0.033	49.5	0.020	70.0	0.009		
2.0	0.765	10.2	0.182	29.5	0.038	50.0	0.021	70.5	0.009		
2.2	0.686	10.4	0.162	30.0	0.040	50.5	0.021	71.0	0.010		

Remarks:



### SECTION III - D - DTV Engineering

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

**Pre-Transition Certification Checklist:** An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction pen-nit application to modify pre-transition facilities. 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.

**Post-Transition Expedited Processing.** An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

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 a pre-transition facility 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 a pre-transition facility 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
  - (d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"). ☐ Yes ☐ No  
☐ N/A
  - (e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B. ☐ Yes ☐ No  
☐ N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RIF 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 pre-transition 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.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?

☐

Yes

☐

No

If "No," attach as an Exhibit justification therefore, 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 therefore. (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 radio frequency 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.**

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

☐ Yes ☐ No ☐ N/A


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 June 19, 2008	
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).