

ENGINEERING STATEMENT
RE DTV BROADCAST ENGINEERING DATA
APPLICATION FOR
MODIFICATION OF CONSTRUCTION PERMIT
ON BEHALF OF
VIDEOINDIANA, INC.
WTHR-DT, INDIANAPOLIS, INDIANA
CHANNEL 13 30 KW ERP (H&V) 299 METERS HAAT

SEPTEMBER 2009

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

COHEN, DIPPELL AND EVERIST, P. C.

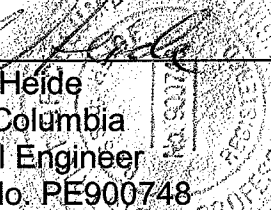
City of Washington)
) ss
District of Columbia)

Ross J. Heide, being duly sworn upon his oath, deposes and states that:

He is a graduate of the Massachusetts Institute of Technology in Operations Research and Management Science, a Registered Professional Engineer in the District of Columbia, and employed by Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

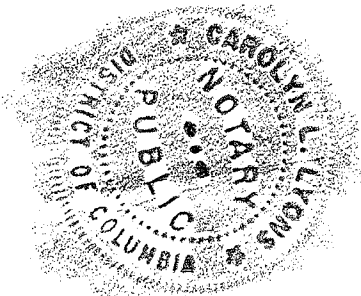
That the attached engineering report was prepared by him or under his supervision and direction and

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.



Ross J. Heide
District of Columbia
Professional Engineer
Registration No. PE900748

Subscribed and sworn to before me this 15th day of September, 2009.



Carolyn Lyons
Notary Public

My Commission Expires: 2/28/2013

Introduction

This engineering statement has been prepared on behalf of VideoIndiana, Inc. (“VideoIndiana”), licensee of WTHR, Indianapolis, Indiana, in support of its request to modify its construction permit to maximize its DTV facilities. Pursuant to the authorized construction permit (“CP”) [FCC File No. BMPCDT-20080620AMQ], VideoIndiana has constructed facilities on DTV Channel 13 with a maximum ERP of 22 kW (H&V) and an antenna height above average terrain (“HAAT”) of 299 meters (981.0 feet). VideoIndiana is operating the facilities under program test authority and has filed for license to cover the outstanding CP. VideoIndiana hereby proposes to use the same built-out facilities, but increase the ERP from 22 kW to 30 kW.

Proposed Parameters

The WTHR-DT Channel 13 DTV antenna is 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 96th Street, Indianapolis, Indiana.

There are no proposed changes to WTHR’s antenna or the overall height of its existing tower, 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	4.43 kW	6.46 dBk
Transmission Line Efficiency/Loss	84.7%	0.72 dB
Input Power to the Antenna	3.75 kW	5.74 dBk
Antenna Gain	8.0 ratio	9.03 dB
Effective Radiated Power	30 kW (H&V)	14.77 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 km² using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 census centroids.

Upon FCC approval of the pending NPRM to change WSYX's post-transition channel from 13 to 48, WSYX has agreed to accept the excess interference predicted to be caused by WTHR's proposed 30 kW operation. Approval of the WSYX NPRM is expected soon. For this reason,

interference to WSYX-DT, Channel 13, Columbus, Ohio has been ignored for this analysis. Also, this analysis excludes masking interference from WSYX to other stations potentially affected by WTHR's proposed power increase.

The results of the analysis predict that the proposed non-directional operation of WTHR will not cause any new interference above the 0.5% threshold criteria to other potentially affected authorized stations and allotments with the exception of the allotment of WREX-DT. The excess predicted interference to the WREX-DT allotment is irrelevant. WREX has already constructed its maximized facilities and is currently operating pursuant to automatic program test authority. WREX also filed a pending license to cover application of its maximized construction permit [FCC File No. BLCDDT-20090414ACM].

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 and potential 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	Prop	DTV	13	30	551.0	299.9	0.0
WTHR	STA	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	505.0	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_n , 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 ($\mu\text{W}/\text{cm}^2$)

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

ERP_V = Total Peak Visual ERP in Watts

ERP_A = 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> ($\mu\text{W}/\text{cm}^2$)	<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	Proposed	30 (H&V)	210-216	13	299.9	0.084	0.08	0.04
WTHR-DT	STA	1000	662-668	46	270.7	0.1	4.63	1.05
							Total	1.25%

For the proposed operation, WTHR-DT will 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 authorized and expected broadcast facilities at 2 meters above ground level is less than 1.3% 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 MEAN SEA LEVEL

ABOVE GROUND

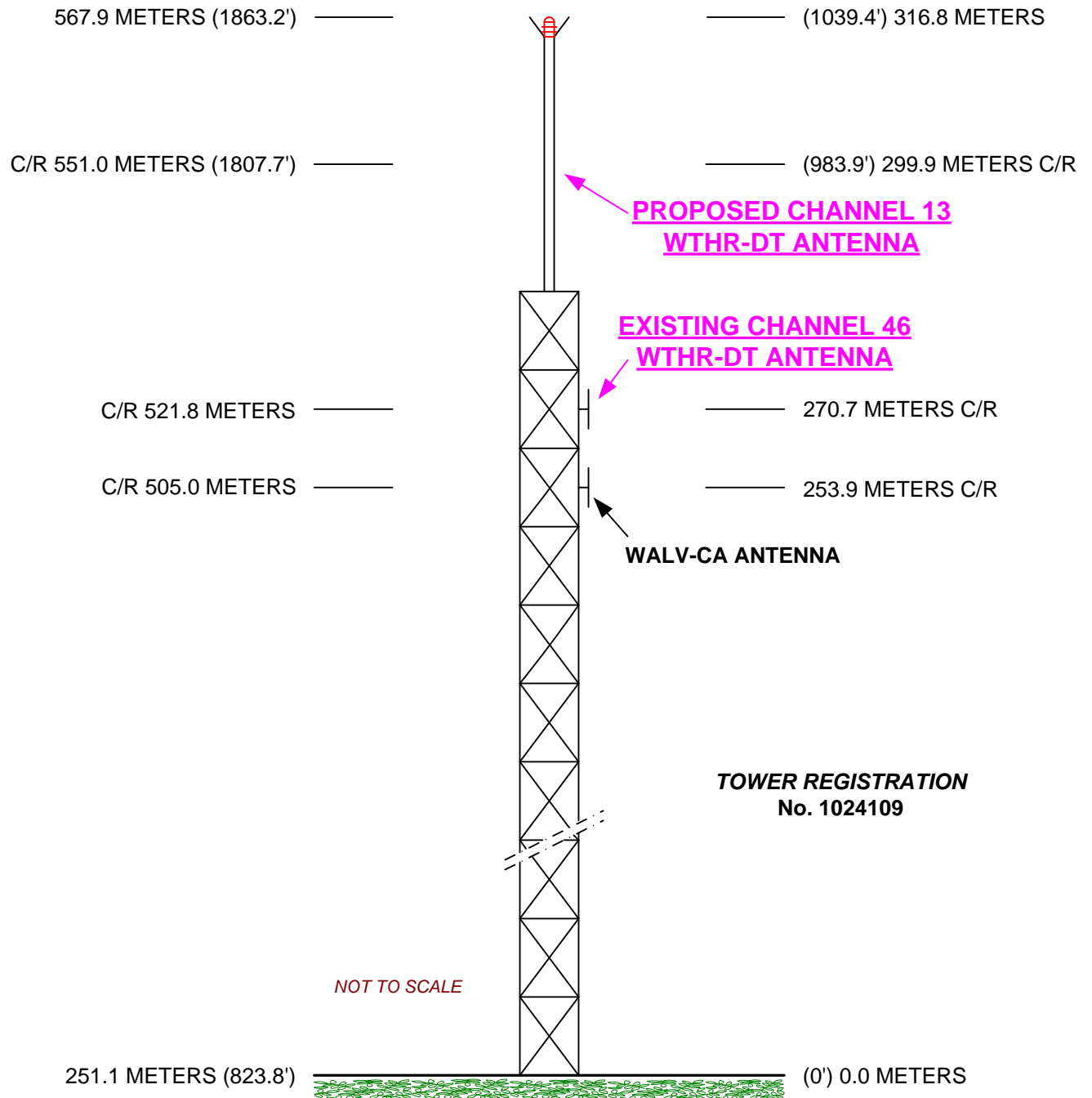


EXHIBIT E-1
VERTICAL SKETCH
FOR THE PROPOSED POST-TRANSITION OPERATION OF
WTHR-DT, INDIANAPOLIS, INDIANA
SEPTEMBER 2009

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
LONGLEY-RICE INTERFERENCE ANALYSIS
FOR THE PROPOSED OPERATION OF
WTHR-DT, INDIANAPOLIS, INDIANA
CHANNEL 13 30 KW ND ERP 299 METERS HAAT
SEPTEMBER 2009

<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	ANGOLA IN	205.6	LIC	BLCDT-20021025AAN	No interference
13	WKYT-TV	LEXINGTON KY	260.2	LIC	BLCDT-20021025AAO	0.21%
13	WOCK-CD	CHICAGO IL	250.2	LIC	BLTVA-20021125AAU	No interference
13	WBXV-CA	LOUISVILLE KY	176.2	LIC	BLTVA-20050202ABW	No interference
12	WKRC-TV	CINCINNATI OH	170	CP	BPCDT-20080304ABV	No interference
13	WBKO	BOWLING GREEN KY	319.2	CP MO	BMPCDT-20080611AAQ	0.31%
13	WREX-TV	ROCKFORD IL	367.2	CP MO	BMPCDT-20080619ADW	0.04%
13	WCFN	SPRINGFIELD IL	284.7	CP MO	BMPCDT-20080619AJM	0.18%
13	WOWK-TV	HUNTINGTON WV	376.9	CP	BMPCDT-20080620AJA	0.00%
13	WZZM	GRAND RAPIDS MI	376.5	CP MO	BMPCDT-20080620ANB	0.01%
13	WTVG	TOLEDO OH	303.8	CP MO	BMPCDT-20090507AAD	0.02%
12	WKRC-TV	CINCINNATI OH	170	PLN	DTVPLN-DTVPLN11289	No interference
13	WOWK-TV	HUNTINGTON WV	376.8	PLN	DTVPLN-DTVPLN23342	0.01%
13	WKYT-TV	LEXINGTON KY	260.2	PLN	DTVPLN-DTVPLN24914	0.22%
13	WCFN	SPRINGFIELD IL	284.7	PLN	DTVPLN-DTVPLN42116	0.20%
13	WBKO	BOWLING GREEN KY	319.1	PLN	DTVPLN-DTVPLN4692	0.40%
13	WZZM-TV	GRAND RAPIDS MI	376.4	PLN	DTVPLN-DTVPLN49713	0.01%
12	WINM	ANGOLA IN	205.6	PLN	DTVPLN-DTVPLN67787	No interference
13	WREX-TV	ROCKFORD IL	367.2	PLN	DTVPLN-DTVPLN73940	0.73%
13	WTVG	TOLEDO OH	303.8	PLN	DTVPLN-DTVPLN74150	0.00%

*Excludes any masking interference from WSYX-DT, Ch. 13, Columbus, Ohio.

COHEN, DIPPELL AND EVERIST, P.C.

TABLE II
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WTHR-DT, INDIANAPOLIS, INDIANA
CHANNEL 13 30 KW ERP 299 METERS HAAT
SEPTEMBER 2009

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	30	87.2	99.6
45	256.1	294.9	0.476	30	88.1	100.6
90	242.4	308.6	0.487	30	89.0	101.6
135	243.6	307.4	0.486	30	88.9	101.5
180	233.0	318.0	0.494	30	89.6	102.4
225	257.1	293.9	0.475	30	88.1	100.5
270	274.3	276.7	0.461	30	87.3	99.8
315	272.1	278.9	0.463	30	87.4	99.9
Average	257	299				

*Based on data from FCC 3-second data base

DTV Channel 13 (210-216 MHz)
Average Elevation 3.2 to 16.1 km 257 meters AMSL
Center of Radiation 551 meters AMSL
Antenna Height Above Average Terrain 299 meters
Effective Radiated Power 30 kW (14.77 dBk) Max.

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

(NAD-27)

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

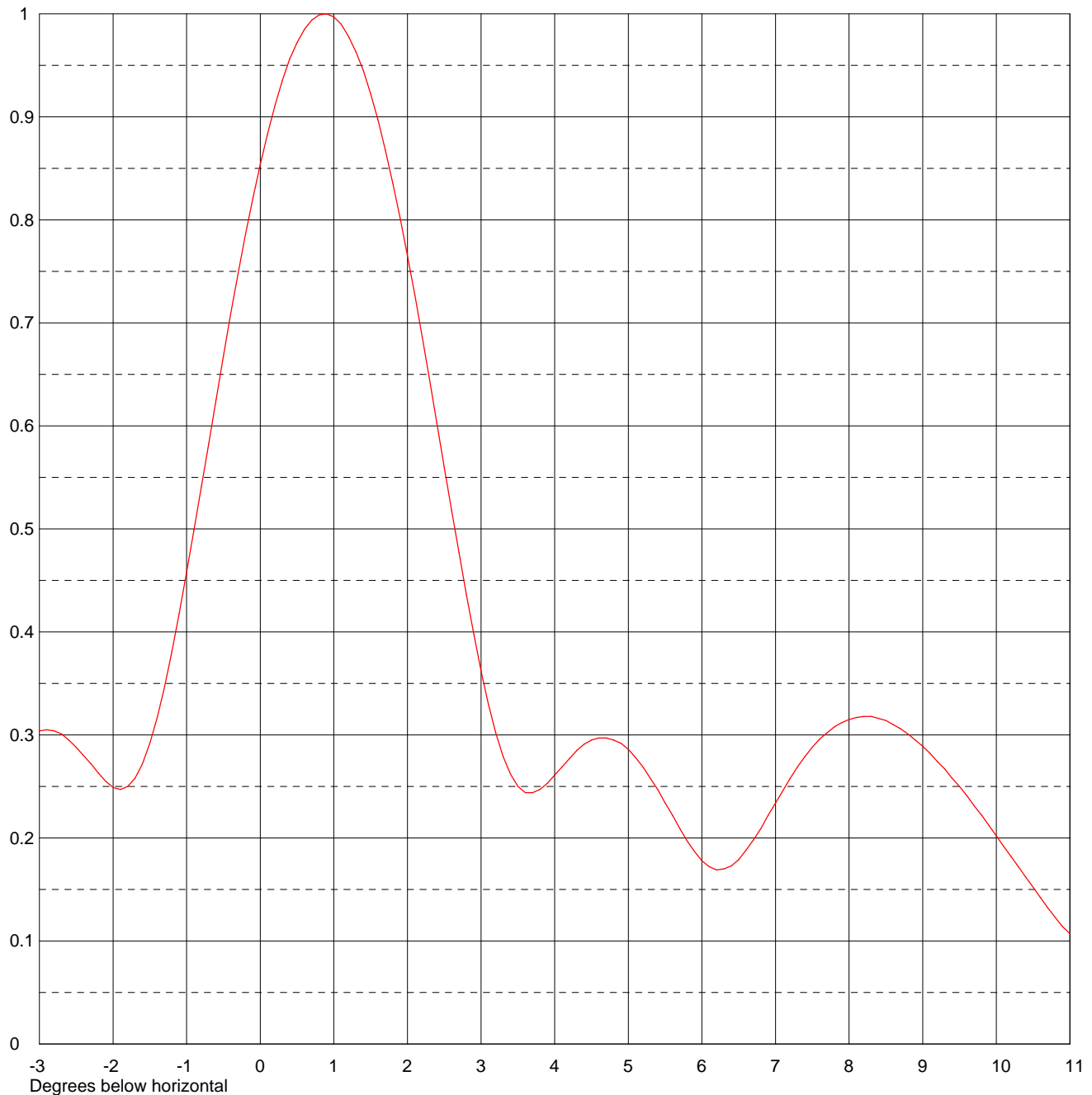
WTHR-DT, INDIANAPOLIS, INDIANA



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

ELEVATION PATTERN

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



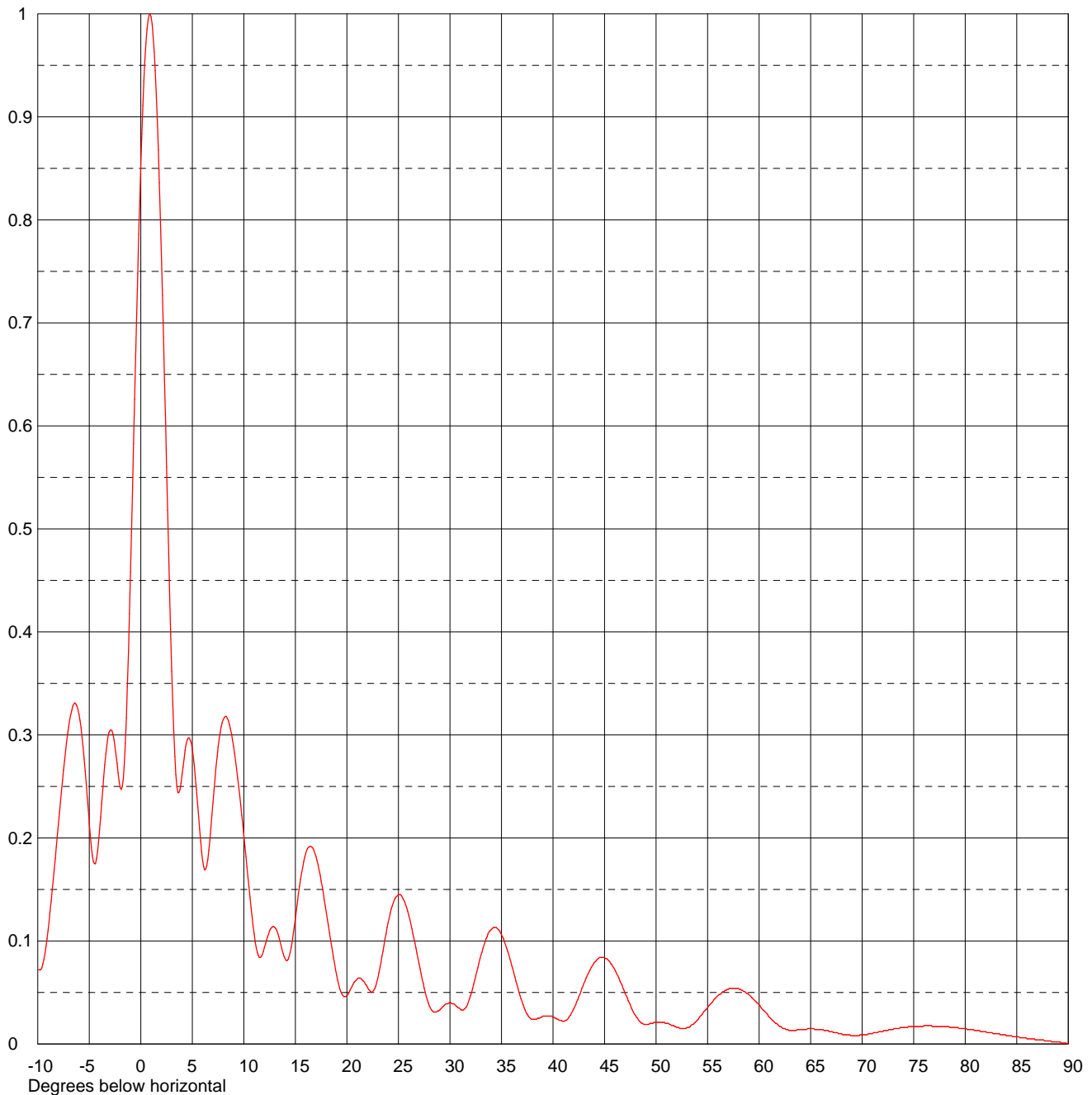
Remarks:



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

ELEVATION PATTERN

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



Remarks:



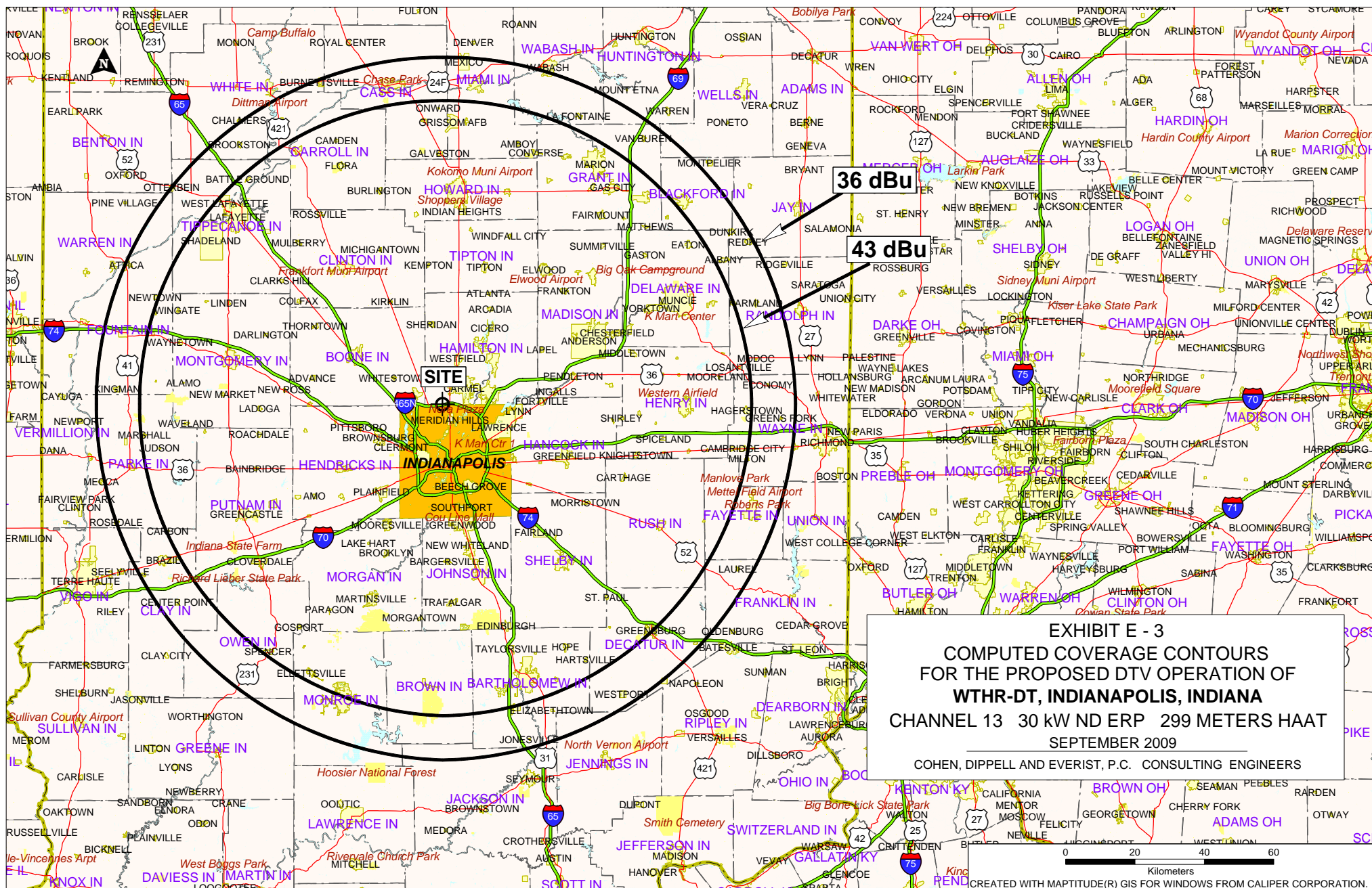
Date **25 Apr 2008**
 Call Letters **WTHR** Channel **13**
 Location **Indianapolis, IN**
 Customer
 Antenna Type **TCL-16A**

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 permit 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 on or before March 17, 2008 (45 days of 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.

10. **Auction Authorization.** If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.

Exhibit No.

An exhibit is required unless this question is inapplicable.

11. **Anti-Drug Abuse Act Certification.** Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

☐ Yes ☐ No

12. **Equal Employment Opportunity (EEO).** If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.

☐ Yes ☐ No ☐ N/A

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 Ross J. Heide	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature <i>Ross J. Heide</i>	Date September 15, 2009	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, N.W., 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).