

ENGINEERING STATEMENT  
RE BROADCAST ENGINEERING DATA  
APPLICATION FOR CLASS A FACILITY  
FCC FILE NO. BDISTTA-20081208AAT  
**WALV-CA, INDIANAPOLIS, INDIANA**  
CHANNEL 46 15 KW ND ERP 521.8 METERS RCAMSL

OCTOBER 2011

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 1420 N Street, N.W., Suite One, Washington, D.C. 20005;

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

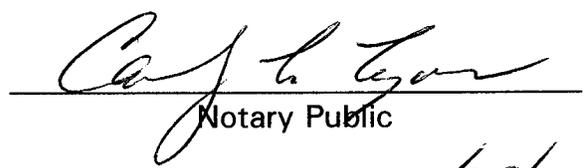
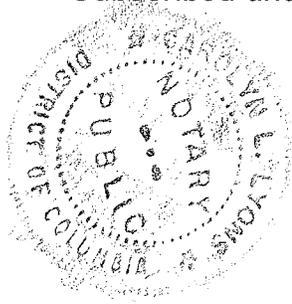
That the attached engineering report was prepared by him or under his supervision and direction and

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 27<sup>th</sup> day of October, 2011.

  
Notary Public

My Commission Expires: 2/28/2013

This engineering statement has been prepared in support of an application for digital operation of a currently authorized Class A facility (FCC File No. BLTTA-20020621AAJ) on behalf of VideOhio, Inc., licensee of Class A TV station WALV-CA, Indianapolis, Indiana. WALV-CA presently is licensed to operate on NTSC television Channel 50 with a maximum visual effective radiated power (“ERP”) of 14.9 kW and an antenna radiation center above mean sea level (“RCAMSL”) of 505 meters. The FCC has already granted WALV-CA an outstanding construction permit to relocate to NTSC television Channel 46 at a maximum visual ERP of 46 kW and a RC/AMSL of 521.8 meters (FCC File No. BDISTTA-20081208AAT). WALV-CA is relocating to Channel 46 for technical reasons explained in its prior application.

WALV-CA is filing this application so that when it ceases Channel 50 analog operations, it may immediately commence Channel 46 *digital* operations. In essence, WALV-CA will be flash cutting to digital, albeit on Channel 46 (for which it already holds an analog construction permit) instead of on Channel 50. WALV-CA will provide its viewers appropriate advance notice of its plans to cease analog operations on Channel 50 prior to the transition, and will cease operating on Channel 50 before commencing Channel 46 digital operations.

The DTV transmitter site will be located at Ditch Road and 96<sup>th</sup> Street, Hamilton County, Indiana. The existing tower (Exhibit E-1) has a total overall structure height above ground of 316.8 meters (1039.4 feet). The WALV-CA antenna will be side-mounted on this tower at 270.7 meters above ground level. The registration number for the existing tower is 1024109.

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: Dielectric, Type TFU-30DSC-R O4 (or equivalent) antenna with 0.75° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as Exhibits E-2a through E-2d.

Transmission Line: ERI, Type MAXC350A, 3-/18", 50 ohm, rigid, with a length, 282 meters (926 feet) with a loss of 0.251 dB/100'

Emission Mask: Full-Service

Power Data

Transmitter output	1.017 kW	0.0732 dBk
Antenna/load test switch efficiency/loss	98.6%	0.06 dB
Transmission line efficiency/loss 282 meters (926 feet)	58.6%	2.321 dB
Input power to the antenna	0.588 kW	-2.309 dBk
Antenna power gain, Main Lobe	25.5	14.07 dB
Effective Radiated Power, Maximum	15 kW	11.76 dBk

Elevation Data  
(unchanged)

Vertical dimension for Channel 46 antenna	15 meters 49.3 feet
Overall height above ground of the antenna structure (including beacon)	316.8 meters 1039.4 feet
Center of radiation of Channel 46 antenna above ground	270.7 meters 888 feet
Elevation of site above mean sea level	251.1 meters 824 feet
Center of radiation of Channel 46 antenna above mean sea level	521.8 meters 1712 feet
Overall height above mean sea level of proposed tower and antenna (including beacon)	567.9 meters 1863 feet

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

Allocation

The digital analog operation on Channel 46 at Indianapolis, Indiana, conforms to the requirements of Sections 73.6016, 73.6017, 73.6018, 73.6019, 73.6020, 73.6027, 74.794(b), and 74.1030 of the Commission's Rules. The requirements of these sections regarding this proposed Channel 46 digital operation of WALV-CA are met through demonstration of Longley-Rice prediction methodology where applicable, attached as Table I. The proposed Class A television station will not cause any objectionable interference to any existing or proposed full-service DTV station or LPTV/TV translators.

### Interference Analysis

A study of predicted interference caused by the proposed WALV-CA digital television station operation has been performed as shown in Table I using the Longley-Rice program for which the source data has been posted by the Commission on its website at [http://www.fcc.gov/oet/dtv/dtv\\_apps.html](http://www.fcc.gov/oet/dtv/dtv_apps.html). The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Microsoft Windows XP platform. Comparison of service/interference areas and population indicates this model closely matches the FCC's digital low-power TV/translator evaluation program. Best efforts have been made to use data and calculation identical to the FCC's program with the full service emission mask. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 1 sq. km. Using 3-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 2000 census centroids, all studies are based upon data in the current CDBS database update of the FCC's engineering database. A Longley-Rice study was performed with the proposed WALV-CA low-power digital facilities and all relevant stations listed in the FCC database as of October 26, 2011.

### Environmental Statement

There are no AM stations located within one km of the existing WTHR-DT tower site. According to the FCC CDBS database, there are no FM stations and with the exception of WTHR-DT, no other full-service TV are stations located within 100 meters. Only one LPTV, WALV-CA, licensed to Indianapolis, Indiana, shares the WTHR-DT tower.

Access to the tower property is prevented by a six-foot chain link fence with a locked gate. In addition, to prevent unauthorized access to the tower, a fence with three strands of barb wire with a locked gate encloses the tower base.

The proposed operation, based upon the current OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A, meets the provisions of the FCC radio frequency field (“RFF”) guidelines, and thus, complies with Section 1.1307 of the FCC Rules.

For post-transition DTV, WTHR-DT currently operates under Special Temporary Authority using a Dielectric, TCL-16A13 antenna with 42.1 kW ERP (circular polarization). See FCC File No. BDSTA-20110510ACM. The antenna manufacturer representative indicates that the elevation pattern for this antenna shows a maximum relative field of less than 0.132 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 present operation at two meters above the base (297.9 meters) of the tower is calculated to be less than one microwatts/cm<sup>2</sup>. This is less than one percent of the 200 microwatts/cm<sup>2</sup> maximum human exposure to RFF recommended by the current FCC guidelines for an uncontrolled environment.

WALV-CA proposes to operate with a Dielectric, Type TFU-30DSC-R O4 antenna with an effective radiated power of 15 kW on UHF Channel 46 with a center of radiation above ground of 270.7 meters (888.1 feet). As shown, the elevation pattern for this 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 65, the maximum RFF resulting from the proposed operation is less than one  $\mu\text{W}/\text{cm}^2$  at 2 meters above the ground.

This is less than one percent of the  $443.3 \mu\text{W}/\text{cm}^2$  maximum human exposure to RFF recommended by the FCC guidelines for an uncontrolled environment.

The total contribution by both existing stations and the proposed DTV operation at 2 meters above ground level is less than two percent of the current FCC guidelines for an uncontrolled environment.

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 Statement

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

- (a)(1) The proposed facilities are not located in an officially designated wilderness area.
- (a)(2) The proposed facilities are not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.

- (a)(4) The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has 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 operation of the DTV facilities into an existing antenna that is on an existing tower at an existing site will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) The existing tower lighting will remain unchanged.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin 65 (Edition 97-01) and Supplement A. Authorized personnel will be alerted to areas of the antennas where potential radiation levels are in excess of the FCC guidelines. A security fence with a locked gate precludes access to the tower site.

ABOVE MEAN SEA LEVEL

ABOVE GROUND

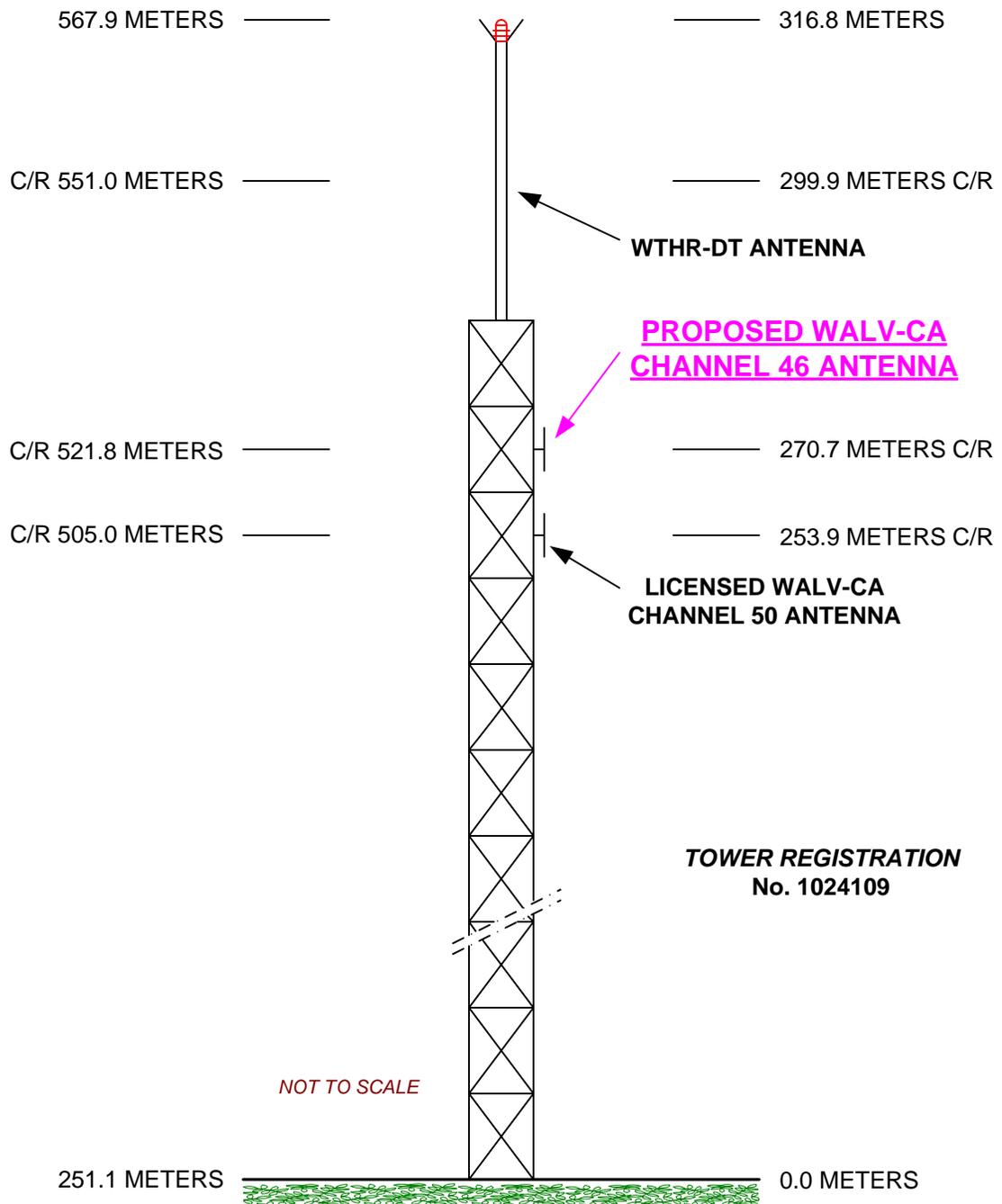


EXHIBIT E-1  
VERTICAL SKETCH  
FOR THE PROPOSED OPERATION OF  
**WALV-CA, INDIANAPOLIS, INDIANA**  
OCTOBER 2011

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WALV-CA, INDIANAPOLIS, INDIANA

Proposal #: **DCA-9684**  
 Call Letters: **WTHR-DT**

Antenna Type: **TFU-30DSC-R O4**  
 Location: **Indianapolis, IN**

Channel: **46 DTV**

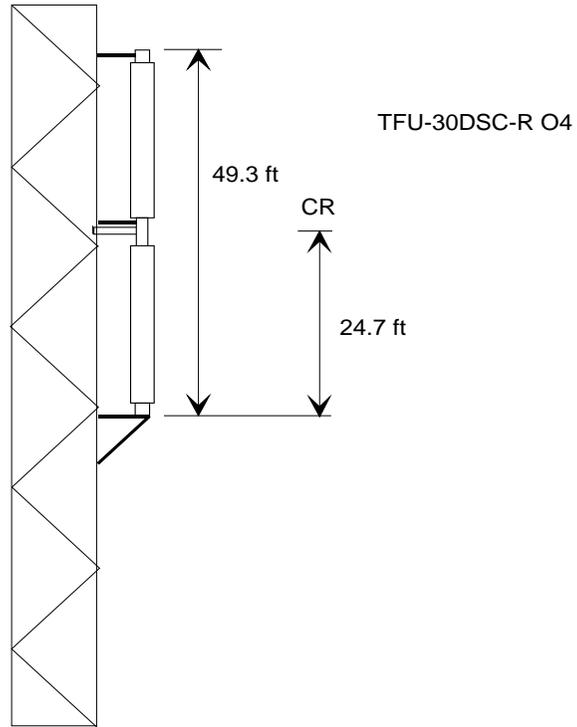
Electrical Specifications		Value		Remarks
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	25.5	14.07	
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	16.6	12.20	
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol			
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol			
	Vpol			
Circularity		+/- 1.0 dB		In free space
Axial Ratio		dB		
Beam Tilt		0.75 deg		
Average Power	DTV	60 kW	17.78 dBk	
Antenna Input:	T/L	6-1/8 in	50.0 ohm	Type: EIA/DCA
Maximum Antenna Input VSWR		Channel 1.08 : 1		
Patterns	Azimuth	TFU-O4-46		
	Elevation	30Q255075	30Q255075-90	
Mechanical Specifications		Metric	English	Preliminary
Height with Lightning Protector	H4	m	ft	Side mounted
Height Less Lightning Protector	H2	15.0 m	49.3 ft	
Height of Center of Radiation	H3	7.5 m	24.7 ft	
Basic Wind Speed	V	112.7 km/h	70 mi/h	TIA/EIA-222-F.
Force Coeff. x Projected Area	CaAc	7.55 m <sup>2</sup>	81.3 ft <sup>2</sup>	Excludes Mounts
Weight	W	0.6 t	1,300 lbs	Excludes Mounts
Radome				
Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.				

NOTE:

Prepared By : JBC  
 Original Date : 7-Nov-01

Approved By : AIS

**DTV SIDE MOUNTED ANTENNA  
TFU-30DSC-R O4  
WTHR-DT Channel 46  
Indianapolis, IN**



**PRELIMINARY MECHANICAL DATA**

CaAc = 81.3 ft<sup>2</sup> Excludes Mounts

Center of Radiation = 24.7 ft

Weight = 1,300 lbs Excludes Mounts

EIA-222-F Specification  
(70mph basic wind speed)

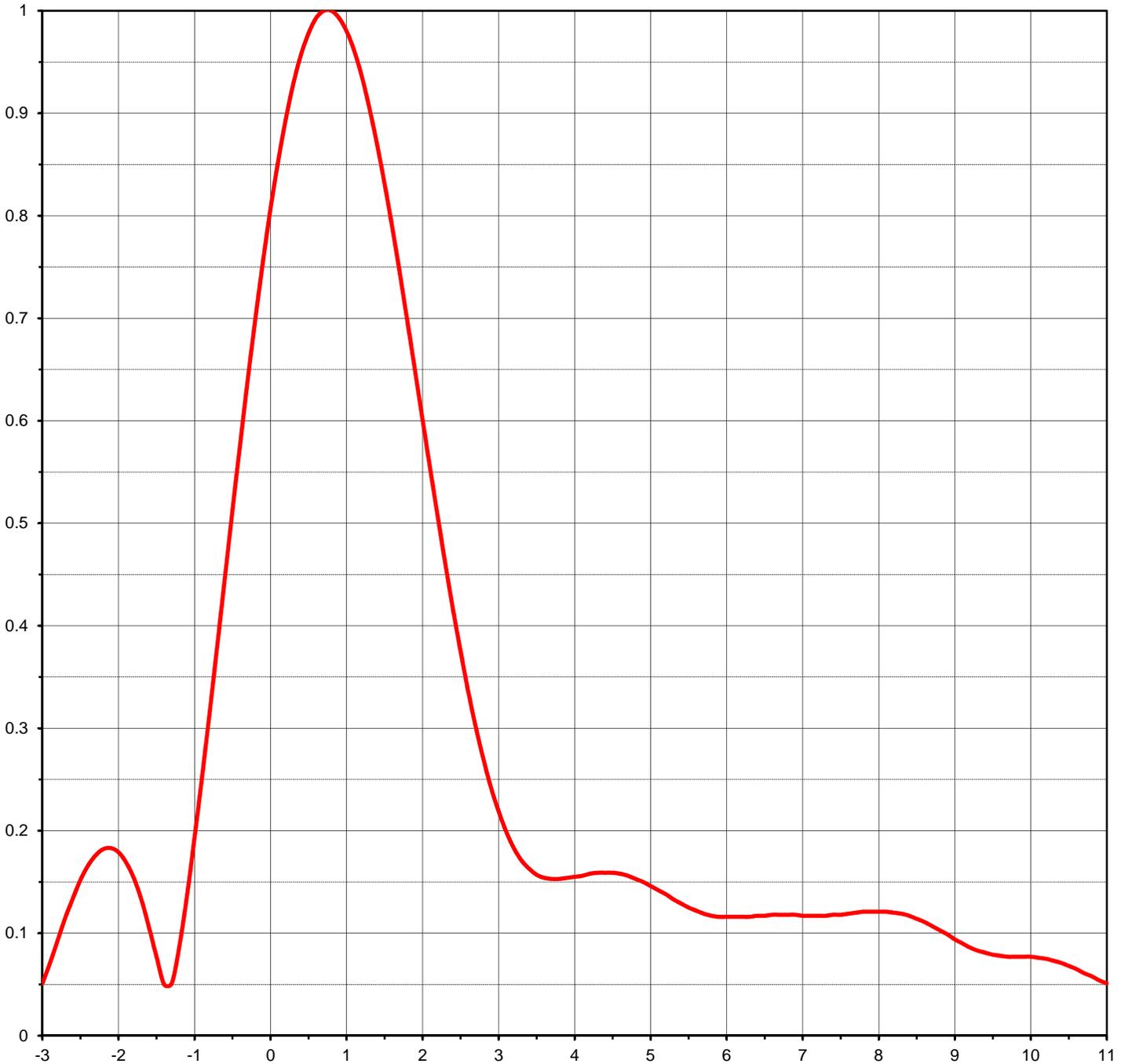
JBC-011107-1SK

NOT DRAWN TO SCALE

Proposal Number **DCA-9684**  
Date **7-Nov-01**  
Call Letters **WTHR-DT** Channel **46**  
Location **Indianapolis, IN**  
Customer **Dispatch Broadcast**  
Antenna Type **TFU-30DSC-R 04**

### ELEVATION PATTERN

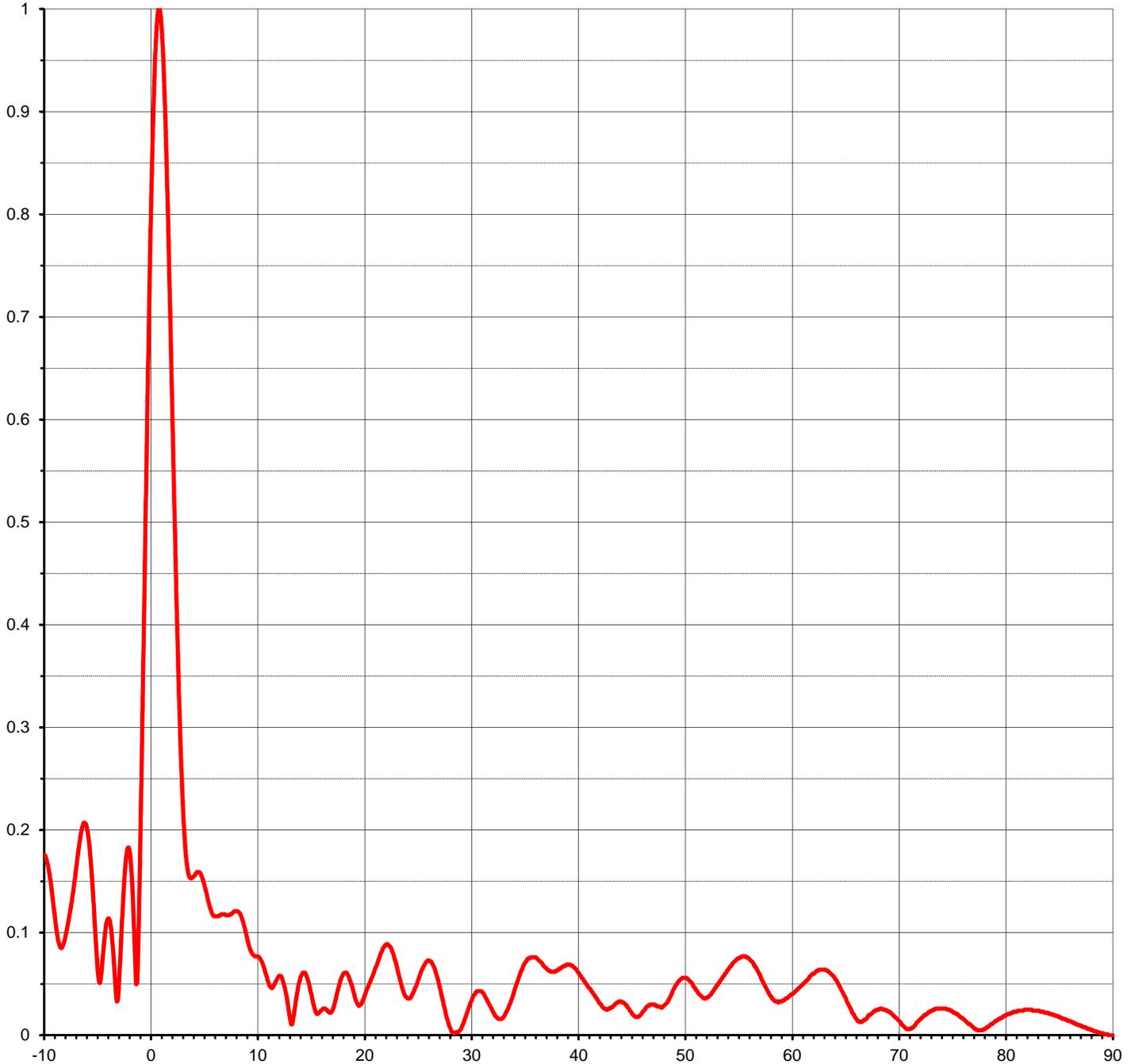
RMS Gain at Main Lobe **25.50 ( 14.07 dB )** Beam Tilt **0.75 deg**  
RMS Gain at Horizontal **16.60 ( 12.20 dB )** Frequency **665.00 MHz**  
Calculated / Measured **Calculated** Drawing # **30Q255075**



Proposal Number **DCA-9684**  
Date **7-Nov-01**  
Call Letters **WTHR-DT** Channel **46**  
Location **Indianapolis, IN**  
Customer **Dispatch Broadcast**  
Antenna Type **TFU-30DSC-R 04**

### ELEVATION PATTERN

RMS Gain at Main Lobe **25.50 ( 14.07 dB )** Beam Tilt **0.75 deg**  
RMS Gain at Horizontal **16.60 ( 12.20 dB )** Frequency **665.00 MHz**  
Calculated / Measured **Calculated** Drawing # **30Q255075-90**



Proposal Number **DCA-9684**  
 Date **7-Nov-01**  
 Call Letters **WTHR-DT** Channel **46**  
 Location **Indianapolis, IN**  
 Customer **Dispatch Broadcast**  
 Antenna Type **TFU-30DSC-R O4**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **30Q255075-90**

Angle	Field										
-10.0	0.176	2.4	0.416	10.6	0.068	30.5	0.042	51.0	0.046	71.5	0.010
-9.5	0.157	2.6	0.336	10.8	0.061	31.0	0.043	51.5	0.039	72.0	0.016
-9.0	0.116	2.8	0.270	11.0	0.054	31.5	0.035	52.0	0.036	72.5	0.020
-8.5	0.086	3.0	0.219	11.5	0.047	32.0	0.025	52.5	0.040	73.0	0.024
-8.0	0.097	3.2	0.183	12.0	0.057	32.5	0.017	53.0	0.048	73.5	0.026
-7.5	0.125	3.4	0.163	12.5	0.051	33.0	0.017	53.5	0.055	74.0	0.026
-7.0	0.163	3.6	0.154	13.0	0.023	33.5	0.026	54.0	0.063	74.5	0.025
-6.5	0.200	3.8	0.153	13.5	0.023	34.0	0.040	54.5	0.070	75.0	0.023
-6.0	0.202	4.0	0.155	14.0	0.053	34.5	0.056	55.0	0.075	75.5	0.020
-5.5	0.149	4.2	0.158	14.5	0.061	35.0	0.069	55.5	0.077	76.0	0.016
-5.0	0.065	4.4	0.159	15.0	0.044	35.5	0.075	56.0	0.075	76.5	0.011
-4.5	0.078	4.6	0.158	15.5	0.023	36.0	0.076	56.5	0.069	77.0	0.007
-4.0	0.114	4.8	0.153	16.0	0.024	36.5	0.072	57.0	0.060	77.5	0.005
-3.5	0.075	5.0	0.146	16.5	0.025	37.0	0.066	57.5	0.049	78.0	0.006
-3.0	0.051	5.2	0.138	17.0	0.023	37.5	0.062	58.0	0.039	78.5	0.010
-2.8	0.093	5.4	0.129	17.5	0.041	38.0	0.063	58.5	0.033	79.0	0.014
-2.6	0.134	5.6	0.122	18.0	0.058	38.5	0.066	59.0	0.033	79.5	0.017
-2.4	0.166	5.8	0.117	18.5	0.059	39.0	0.069	59.5	0.036	80.0	0.020
-2.2	0.182	6.0	0.116	19.0	0.044	39.5	0.068	60.0	0.040	80.5	0.022
-2.0	0.179	6.2	0.116	19.5	0.029	40.0	0.062	60.5	0.044	81.0	0.023
-1.8	0.154	6.4	0.117	20.0	0.036	40.5	0.055	61.0	0.049	81.5	0.024
-1.6	0.106	6.6	0.118	20.5	0.050	41.0	0.047	61.5	0.054	82.0	0.025
-1.4	0.050	6.8	0.118	21.0	0.063	41.5	0.040	62.0	0.060	82.5	0.024
-1.2	0.087	7.0	0.117	21.5	0.077	42.0	0.032	62.5	0.063	83.0	0.024
-1.0	0.193	7.2	0.117	22.0	0.088	42.5	0.026	63.0	0.064	83.5	0.023
-0.8	0.316	7.4	0.118	22.5	0.086	43.0	0.026	63.5	0.062	84.0	0.021
-0.6	0.447	7.6	0.119	23.0	0.071	43.5	0.030	64.0	0.057	84.5	0.020
-0.4	0.577	7.8	0.121	23.5	0.050	44.0	0.033	64.5	0.046	85.0	0.018
-0.2	0.699	8.0	0.121	24.0	0.037	44.5	0.030	65.0	0.036	85.5	0.016
0.0	0.807	8.2	0.120	24.5	0.039	45.0	0.023	65.5	0.025	86.0	0.014
0.2	0.894	8.4	0.117	25.0	0.051	45.5	0.018	66.0	0.016	86.5	0.011
0.4	0.957	8.6	0.111	25.5	0.065	46.0	0.021	66.5	0.013	87.0	0.009
0.6	0.993	8.8	0.103	26.0	0.073	46.5	0.028	67.0	0.017	87.5	0.007
0.8	1.000	9.0	0.094	26.5	0.068	47.0	0.030	67.5	0.022	88.0	0.005
1.0	0.980	9.2	0.086	27.0	0.052	47.5	0.028	68.0	0.025	88.5	0.003
1.2	0.936	9.4	0.081	27.5	0.029	48.0	0.028	68.5	0.025	89.0	0.002
1.4	0.870	9.6	0.078	28.0	0.009	48.5	0.034	69.0	0.023	89.5	0.001
1.6	0.789	9.8	0.077	28.5	0.002	49.0	0.045	69.5	0.019	90.0	0.000
1.8	0.697	10.0	0.077	29.0	0.005	49.5	0.053	70.0	0.014		
2.0	0.601	10.2	0.076	29.5	0.017	50.0	0.056	70.5	0.008		
2.2	0.506	10.4	0.073	30.0	0.032	50.5	0.053	71.0	0.006		

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I  
LONGLEY-RICE INTERFERENCE  
FOR THE OPERATION OF  
WALV-CA, INDIANAPOLIS, INDIANA  
CHANNEL 46 15 KW ERP 521.8 METERS RCAMSL  
OCTOBER 2011

N 39° 55' 43"  
W 86° 10' 55"  
NAD-27

Full-Service Mask

<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>
32	WKMF-LP	SULLIVAN IN	138.4	LIC	BLTTL-20060905AAC	0.00%
43	DWAJN-LP	BROOKSTON IN	117.7	LIC	BLTTL-20050422AEH	0.00%
43	W43BV	TERRE HAUTE IN	117.7	LIC	BLTT-20010713AAI	0.00%
45	WWJS-CA	CLARKSVILLE IN	176	LIC	BLTTA-20030210AAO	0.00%
45	WFWC-CA	FORT WAYNE IN	156.9	LIC	BLTTL-19900727IO	0.00%
45	WXIN	INDIANAPOLIS IN	4.7	CP	BPCDT-20101208AAS	No interference
45	WXIN	INDIANAPOLIS IN	4.7	LIC	BLCDDT-20090921ACE	No interference
45	WLQP-LP	LIMA OH	196.1	CP	BDISDTL-20090623AAW	0.00%
46	NEW	CHAMPAIGN IL	176.6	APP	BDCCDTL-20110901ABH	No interference
46	WBXC-CA	CHAMPAIGN, ETC. IL	176.6	LIC	BLTTA-20040723ABO	No interference
46	WBKM-LP	CHANA IL	342.2	LIC	BLTTL-20050228ACV	No interference
46	WMEU-LD	CHICAGO IL	248.8	CP MO	BMPDTL-20081008AHH	No interference
46	W46ER-D	EFFINGHAM IL	229.5	CP	BNPDTT-20090825BYD	No interference
46	WTVP	PEORIA IL	297.6	LIC	BLEDT-20040105ACV	No interference
46	WWJS-CA	CLARKSVILLE IN	175.9	APP	BSTA-20090114AAE	0.00%
46	WFIE	EVANSVILLE IN	254.6	CP	BPCDT-20080620AGW	No interference
46	WFIE	EVANSVILLE IN	254.6	LIC	BLCDDT-20050916ACR	No interference
46	WHME-DR	SOUTH BEND IN	185.3	RULE	BPRM-20080619AET	0.10%
46	WHME-TV	SOUTH BEND IN	185.3	CP	BPCDT-20090716AAZ	0.09%
46	WPBM-CD	SCOTTSVILLE KY	344.1	LIC	BLDTA-20100519ABW	No interference
46		MUSKEGON MI	370.7	STA	BMSTA-20060808AAB	0.00%
46		MUSKEGON MI	367	STA	BSTA-20001003APS	0.00%
46		MUSKEGON MI	367	STA	BSTA-20001002AGO	0.00%
46	WOOD-TV	MUSKEGON MI	370.7	LIC	BLCDDT-20101215AHH	0.00%

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FOR THE OPERATION OF  
WALV-CA, INDIANAPOLIS, INDIANA  
CHANNEL 46 15 KW ERP 521.8 METERS RCAMSL  
OCTOBER 2011

N 39° 55' 43"  
W 86° 10' 55"  
NAD-27

Full-Service Mask

<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>
46	WWHO	CHILLICOTHE OH	265	LIC	BLCDT-20021025AAA	0.00%
46	WUPW	TOLEDO OH	299.8	CP	BPCDT-20080619AJB	No interference
46	WUPW	TOLEDO OH	299.8	LIC	BLCDT-20030411AAF	No interference
46	WDJT-TV	MILWAUKEE WI	382.5	LIC	BLCDT-20050722ABL	No interference
47	WBXI-CA	INDIANAPOLIS IN	17.8	LIC	BLTTL-20000211AAQ	0.44%
47	WBXI-CA	INDIANAPOLIS IN	17.8	CP	BDFCDTA-20100901ACI	0.01%
47	WAVE	LOUISVILLE KY	176	LIC	BLCDT-20030306ABQ	No interference
47	WBQC-LD	CINCINNATI OH	169.7	LIC	BLDTL-20081201DCM	No interference
47	WLMO-LP	LIMA OH	196.1	CP	BDISDTL-20090623AAZ	0.00%

COHEN, DIPPELL AND EVERIST, P.C.

TABLE II  
COMPUTED COVERAGE DATA  
FOR THE PROPOSED DIGITAL OPERATION OF  
WALV-CA, INDIANAPOLIS, INDIANA  
CHANNEL 46 46 KW 521.8 METERS RCAMSL  
OCTOBER 2011

<u>Radial Bearing</u> N ° E, T	<u>Average*</u> <u>Elevation</u> <u>3.2 to 16.1 km</u> <u>meters</u>	<u>Effective</u> <u>Height</u> <u>meters</u>	<u>Depression</u> <u>Angle</u>	<u>ERP At</u> <u>Radio</u> <u>Horizon</u> <u>kW</u>	<u>Distance to Contour</u> <u>F(50,90)</u> <u>51 dBu</u> <u>City Grade</u> <u>km</u>
0	277.5	244.3	0.433	15	52.4
45	256.1	265.7	0.451	15	53.6
90	242.4	279.4	0.463	15	54.4
135	243.6	278.2	0.462	15	54.3
180	233.0	288.8	0.471	15	54.9
225	257.1	264.7	0.451	15	53.5
270	274.3	247.5	0.436	15	52.6
315	272.1	249.7	0.438	15	52.7

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

DTV Channel 46 (662-668 MHz)  
Center of Radiation 521.8 meters AMSL  
Effective Radiated Power 15 kW (11.76 dBk) Max.

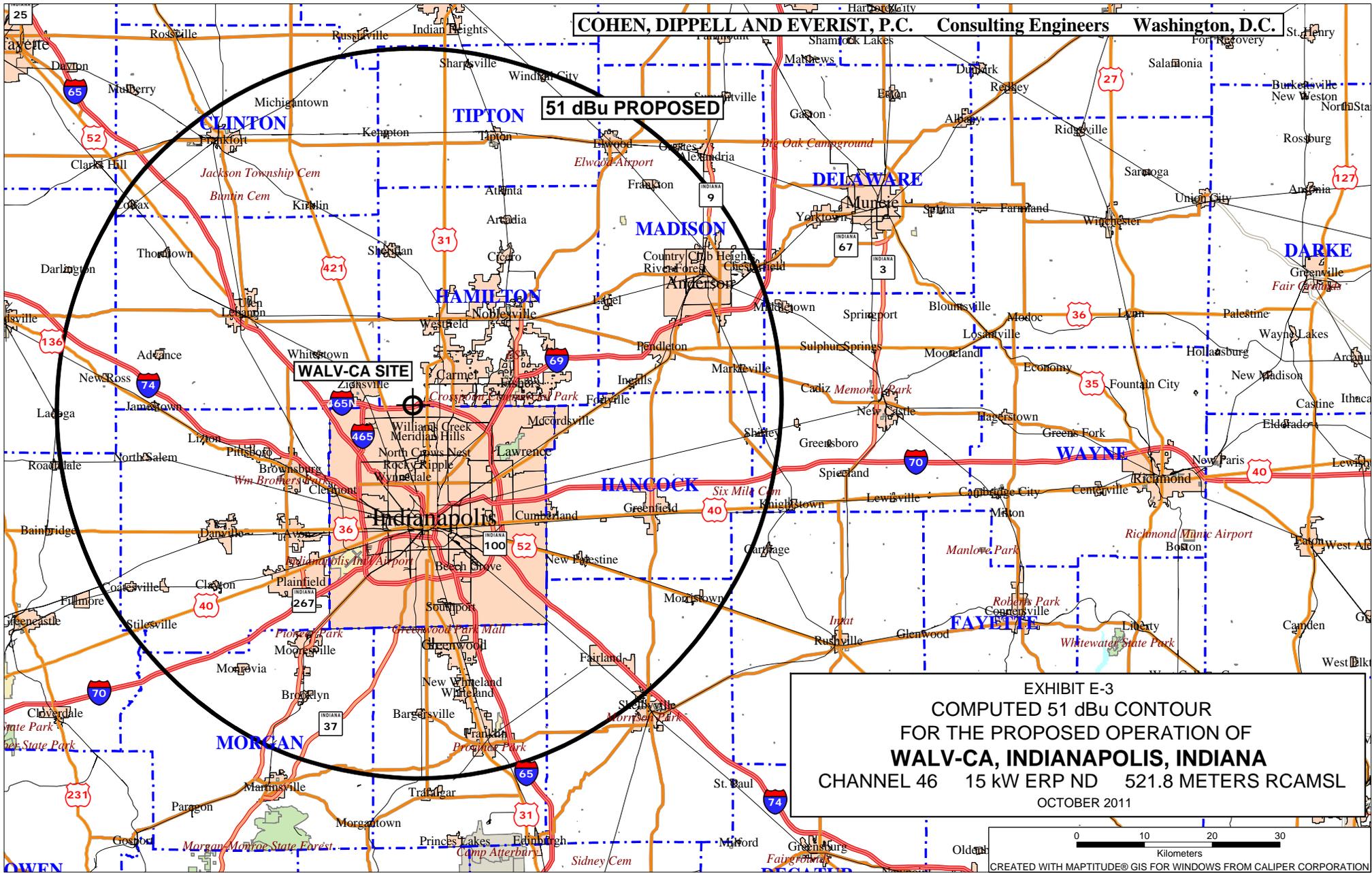
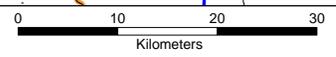
North Latitude: 39° 55' 43"  
West Longitude: 86° 10' 55"

(NAD-27)

51 dBu PROPOSED

WALV-CA SITE

EXHIBIT E-3  
COMPUTED 51 dBu CONTOUR  
FOR THE PROPOSED OPERATION OF  
WALV-CA, INDIANAPOLIS, INDIANA  
CHANNEL 46 15 kW ERP ND 521.8 METERS RCAMSL  
OCTOBER 2011



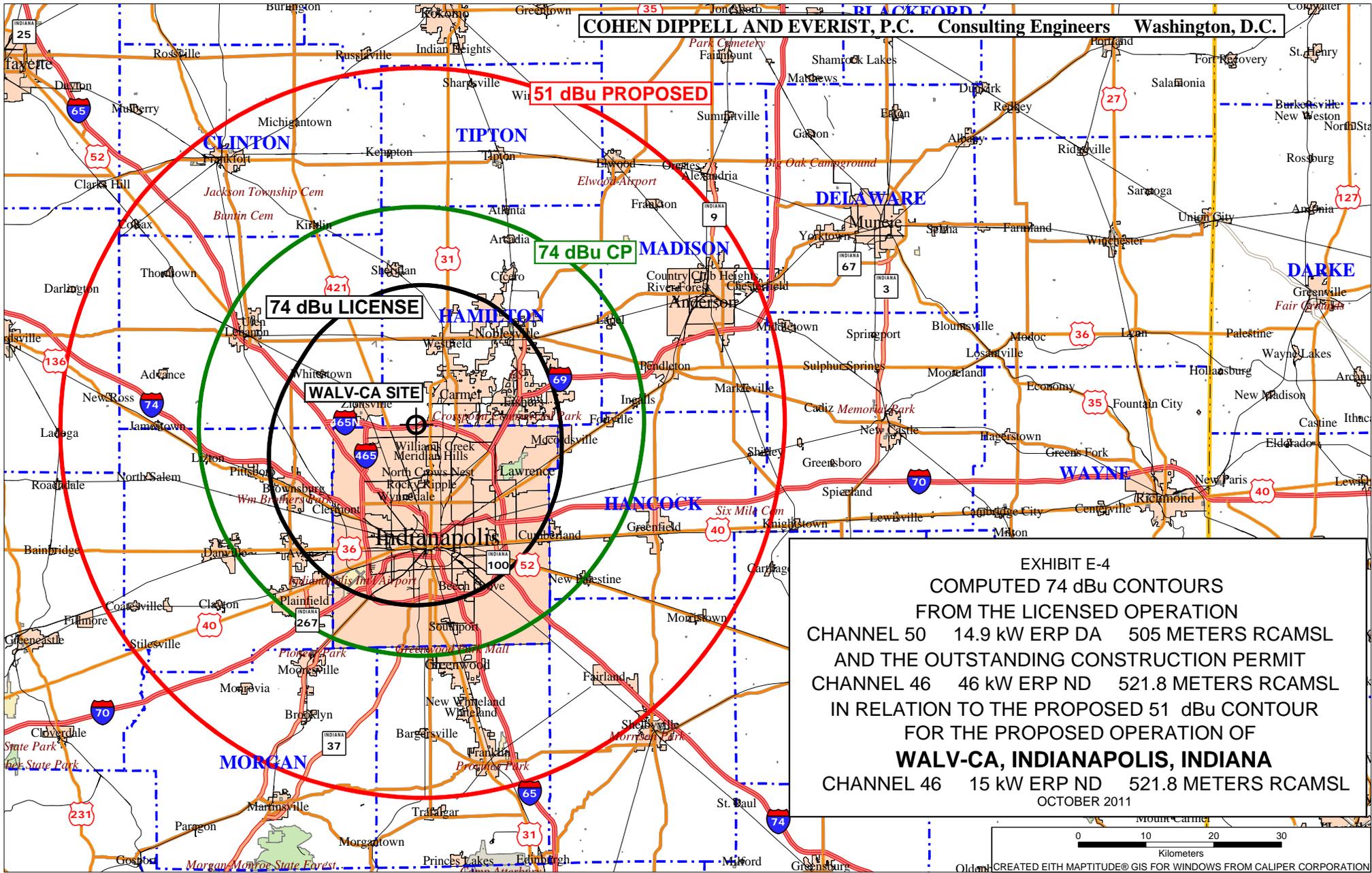


EXHIBIT E-4  
COMPUTED 74 dBu CONTOURS  
FROM THE LICENSED OPERATION  
CHANNEL 50 14.9 kW ERP DA 505 METERS RCAMSL  
AND THE OUTSTANDING CONSTRUCTION PERMIT  
CHANNEL 46 46 kW ERP ND 521.8 METERS RCAMSL  
IN RELATION TO THE PROPOSED 51 dBu CONTOUR  
FOR THE PROPOSED OPERATION OF  
**WALV-CA, INDIANAPOLIS, INDIANA**  
CHANNEL 46 15 kW ERP ND 521.8 METERS RCAMSL  
OCTOBER 2011

**Section III - Engineering (Digital)**

**TECHNICAL SPECIFICATIONS**

Ensure that the specifications below are accurate. All items must be completed. The response "on file" is not acceptable.

**NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.**

**TECH BOX**

1. Channel: \_\_\_\_\_

2. Antenna Location Coordinates: (NAD 27)

N     S Latitude  
 E     W Longitude

3. Antenna Structure Registration Number: \_\_\_\_\_

Not applicable

See Explanation in Exhibit No.

FAA Notification Filed with FAA

4. Antenna Location Site Elevation Above Mean Sea Level: \_\_\_\_\_ meters

5. Overall Tower Height Above Ground Level: \_\_\_\_\_ meters

6. Height of Radiation Center Above Ground Level: \_\_\_\_\_ meters

7. Maximum Effective Radiated Power (ERP): \_\_\_\_\_ kW

8. Transmitter Output Power: \_\_\_\_\_ kW

9. a. Transmitting Antenna:     Nondirectional     Directional "Off-the-shelf"     Directional composite

Manufacturer	Model
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b. Electrical Beam Tilt: \_\_\_\_\_ degrees     Not applicable

c. Directional Antenna Relative Field Values:

Rotation: \_\_\_\_\_ °     No rotation     N/A (Nondirectional)

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											

d. Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?     Yes     No

If Yes, attach an Exhibit (see instructions for details).

Exhibit No.

10. Out-of-channel Emission Mask:    Simple        Stringent        Full Service

**CERTIFICATION**

11. **Interference.** The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 73.6016, 73.6017, 73.6018, 73.6019, 73.6020, 73.6027 and 74.794(b).

Yes  No See Explanation in Exhibit No. E

12. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radio frequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. **An Exhibit is required.**

Yes  No See Explanation in Exhibit No. E

By checking "Yes" above, 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.

Exhibit No.

13. **Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

Yes  No See Explanation in Exhibit No.

The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.

Pursuant \_\_\_\_\_ to \_\_\_\_\_ Section \_\_\_\_\_ this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

**SECTION III PREPARER'S CERTIFICATION**

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Donald G. Everist	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date 10/27/11	
Mailing Address Cohen, Dippell and Everist, P.C.	1420 N Street, NW Suite One	
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).