

ENGINEERING STATEMENT  
APPLICATION FOR A DTV DISPLACEMENT  
FOR OUTSTANDING CONSTRUCTION PERMIT  
(FCC FILE NO. BNPDTT-20090825BYD)  
TELEVISION TRANSLATOR  
W46ER, EFFINGHAM, ILLINOIS  
CHANNEL 33 15 KW MAX ERP  
310.9 METERS RC/AMSL

APRIL 2019

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 25<sup>th</sup> day of April, 2019.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 2/28/2023



### Introduction

This engineering statement has been prepared on behalf of WAND(TV) Partnership, licensee of low-power translator station W46ER-D, Effingham, Illinois. This statement supports the licensee's request for displacement to convert the current construction permit (FCC File No. BNPDTT-20090833BYD) DTV operation on the digital Channel 46 to Channel 33 with a DTV effective radiated power ("ERP") of 15 kW at a radiation center above mean sea level ("RCAMSL") of 310.9 meters. The site is being moved from a dismantled tower to an existing communications tower near Neoga, Illinois and the proposed operation's predicted noise-limited contour overlaps the authorized W46ER-D contour. Further, the construction permit site to the proposed site is 19.5 miles (31.3 km) or well within the 30 mile requirement. This filing is in accordance with the FCC Public Notice dated March 19, 2019, DA 19-193.

### Transmitter Site

The proposed non-directional antenna will protect all domestic constraints. The existing tower is located at 2.4 km south of Seven Mile Curve on Rt. 121 and 2.3 km north of Roslyn in Cumberland County. The geographic coordinates of the site follow below.

North Latitude: 39° 15' 01.2"

West Longitude: 88° 22' 46.4"

NAD-27

North Latitude: 39° 15' 01.3"

West Longitude: 88° 22' 46.6"

NAD-83

The Antenna Structure Registration Number ("ASRN") for the existing tower is 1051455.

Equipment Data

|                    |   |
|--------------------|---|
| Transmitter:       | Type-approved   |
| Transmission Line: | 1-5/8", 50 ohm Jacket Air Flex line, 137.2 meters (450 feet) or equivalent with a loss of 0.52 dB per 100 feet                |
| Antenna:           | Alive Telecom, Model ATC-BCE414O-V0-33, 1.0° electrical beam tilt. Exhibit E-1 provides the antenna manufacturer antenna data |
| Filter Type:       | Full-Service  |

Power Data

|                                   |   |         |           |
|-----------------------------------|---|---------|-----------|
| Transmitter Power Output          |   | 2.39 kW | 3.79 dBk  |
| Transmission Line Efficiency/Loss |   | 59.3%   | 2.35 dB   |
| Input Power to Antenna            |   | 1.39 kW | 1.44 dBk  |
| Antenna Power Gain                | H | 10.77   | 10.32 dB  |
|                                   | V | 3.23    | 5.09 dB   |
| Effective Radiated Power          | H | 15 kW   | 11.76 dBk |
|                                   | V | 4.50 kW | 6.53 dBk  |

Elevation Data

|   |                               |
|---|-------------------------------|
| Elevation of site above mean sea level  | 189 meters<br>(620 feet)      |
| Center of radiation of antenna above<br>ground level                              | 121.9 meters<br>(400 feet)    |
| Center of radiation of antenna above<br>mean sea level                            | 310.9 meters<br>(1020.1 feet) |
| Overall antenna structure height<br>above ground level including<br>appurtenances | 150 meters<br>(492.1 feet)    |
| Overall antenna structure height<br>above mean sea level                          | 339 meters<br>(1112.2 feet)   |

Note: slight height differences may result due to conversion to/from metric.

Interference Analysis

A study of predicted interference caused by the proposed W46ER-D low-power digital operation on Channel 33 has been performed using the Longley-Rice program for which the source data has been posted by the Commission on its website at [fcc.gov/oet/tvstudy](http://fcc.gov/oet/tvstudy). 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. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 1 sq. km. Using one-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 2010 census centroids, all studies are based upon data in the current LMS database update of the FCC's engineering database. A Longley-Rice study was performed with the proposed

Channel 33 low-power digital facilities and all relevant stations listed in the FCC data base. The study results and the included stations are listed in Exhibit E-2.

Other Licensed and Broadcast Facilities

No adverse technical effect is anticipated by the proposed DTV operation to any other FCC licensed facility. There are three other broadcast FM or FM translators and no TV or TV broadcast stations within 0.2 km. There are no AM broadcast stations within 5 km. If required, the licensee will install filters or take other measures as necessary to resolve the problem.

FCC Rule, Section 1.1307

The proposed 15 kW non-directional operation will utilize an Alive Telecom, Model ATC-BCE414O-V0-33 antenna (or equivalent) described above with a center of radiation above ground of 121.9 meters. The proposed antenna is side-mounted on a steel lattice tower with an overall height of 150 meters above ground. The FM stations are: WHQQ (Ch. 335A), W338CQ (Ch. 338D) and WMCI (Channel 267B1).

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 radiofrequency field ("RFF") guidelines, and thus, complies with Section 1.1307 of the FCC Rules. The elevation pattern for the Alive Telecom, Model ATC-BCE414O-V0-33 antenna, Exhibit E-1 shows a maximum relative field of less than 0.092 toward the ground (20° to 90° below the horizontal). Calculation according to OET Bulletin 65 predicts a maximum RFF power density of less than one  $\mu\text{W}/\text{cm}^2$ , 2 meters above ground or less than 1% of the 359  $\mu\text{W}/\text{cm}^2$  uncontrolled Maximum Permissible Exposure ("MPE") guideline.

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 or near the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

EXHIBIT E-1

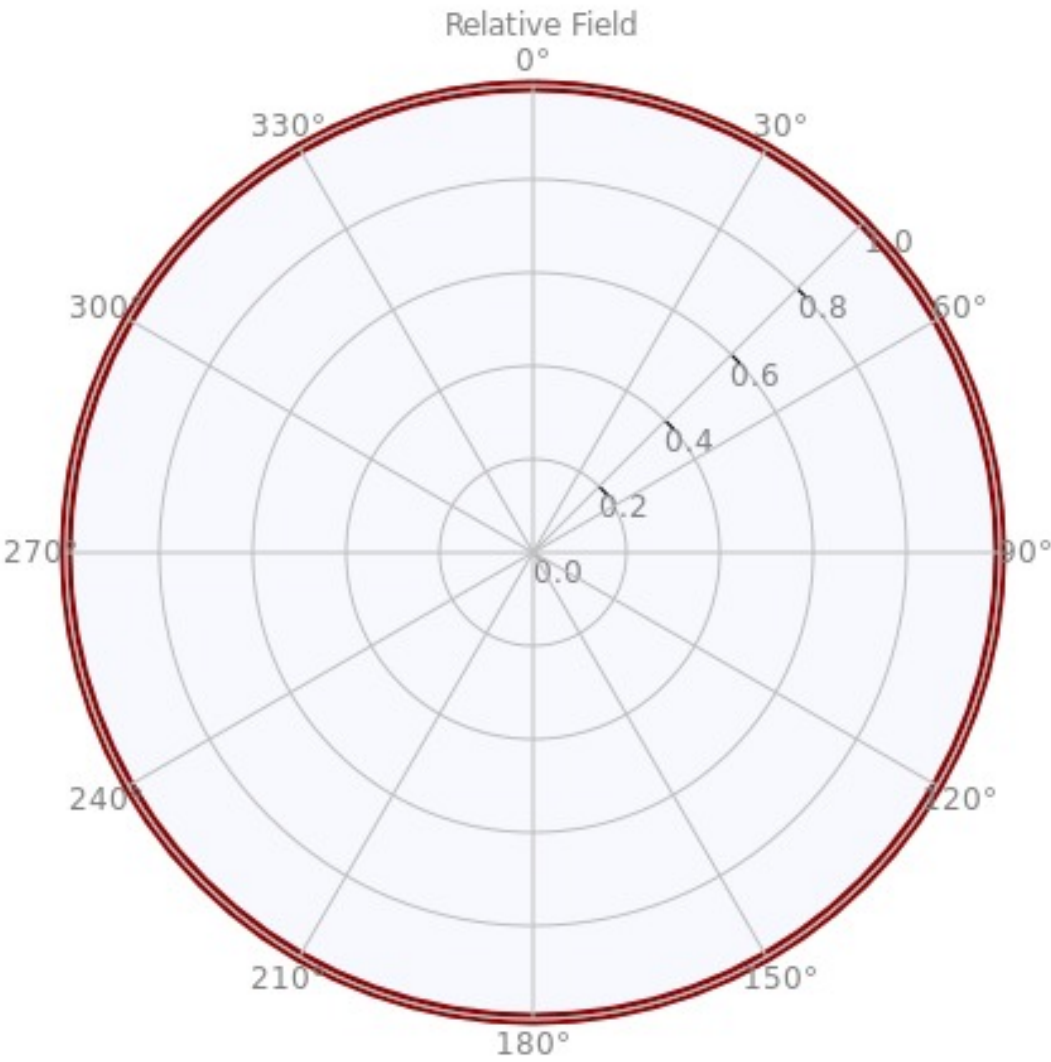
ANTENNA MANUFACTURER DATA



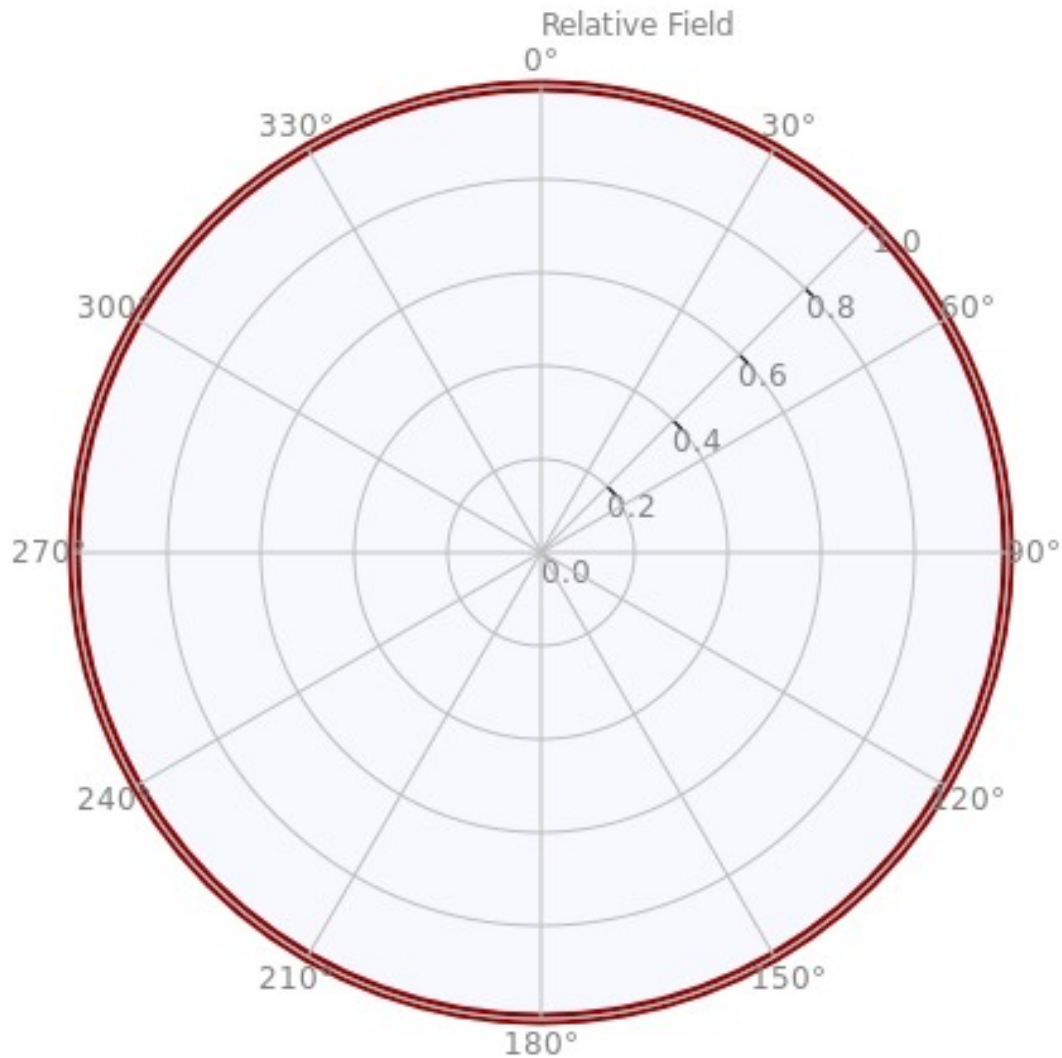
## Summary

| Antenna Specifications         |                             |
|--------------------------------|-----------------------------|
| Antenna Type                   | Coaxial Slot                |
| Antenna Model                  | ATC-BCE414O-V0-33           |
| Electrical Specifications      |                             |
| Channel(s)                     | 33                          |
| Frequency Range (MHz)          | 584 - 590                   |
| Polarization                   | Elliptical                  |
| Horizontal Azimuth Pattern     | Omni                        |
| Directivity                    | 1.00                        |
| dB                             | 0.00                        |
| Vertical Azimuth Pattern       | V-Omni                      |
| Directivity                    | 1.00                        |
| dB                             | 0.00                        |
| Vertical Component             | 30 %                        |
| Azimuth Peak of Beam           | 0 °                         |
| Elevation Pattern              | 14                          |
| Directivity                    | 14.00                       |
| dB                             | 11.46                       |
| Electrical Beam Tilt           | 1.00 °                      |
| Antenna Peak Power Gain        |                             |
| Horizontal Gain Power          | 10.77                       |
| Horizontal Gain Ratio          | 10.32 dBd                   |
| Vertical Gain Power            | 3.23                        |
| Vertical Gain Ratio            | 5.09 dBd                    |
| Line Type                      | 1-5/8" 50 Ohm Air Flex Line |
| Line Length                    | 450 ft                      |
| Total Line Loss                | 2.34 dB                     |
| Effective Radiated Power (ERP) | 15 kW                       |
| ERP Vertical Power             | 4.50 kW                     |
| Transmitter Power Output (TPO) |                             |
| TPO Power                      | 2.39 kW                     |
| TPO Ratio                      | 3.78 dBk                    |
| Input Type                     | EIA 1-5/8"                  |
| Mechanical Specifications      |                             |
| Mount Type                     | Side Mount                  |
| Length of Antenna              | 26.39 ft                    |
| Center of Radiation            | 13.20 ft                    |
| Radome Diameter                | TBD                         |
| Color                          | White                       |
| Calculated Weight              | Contact Alive Telecom 1 2   |
| Windload (Shear)               | Contact Alive Telecom 1 2   |

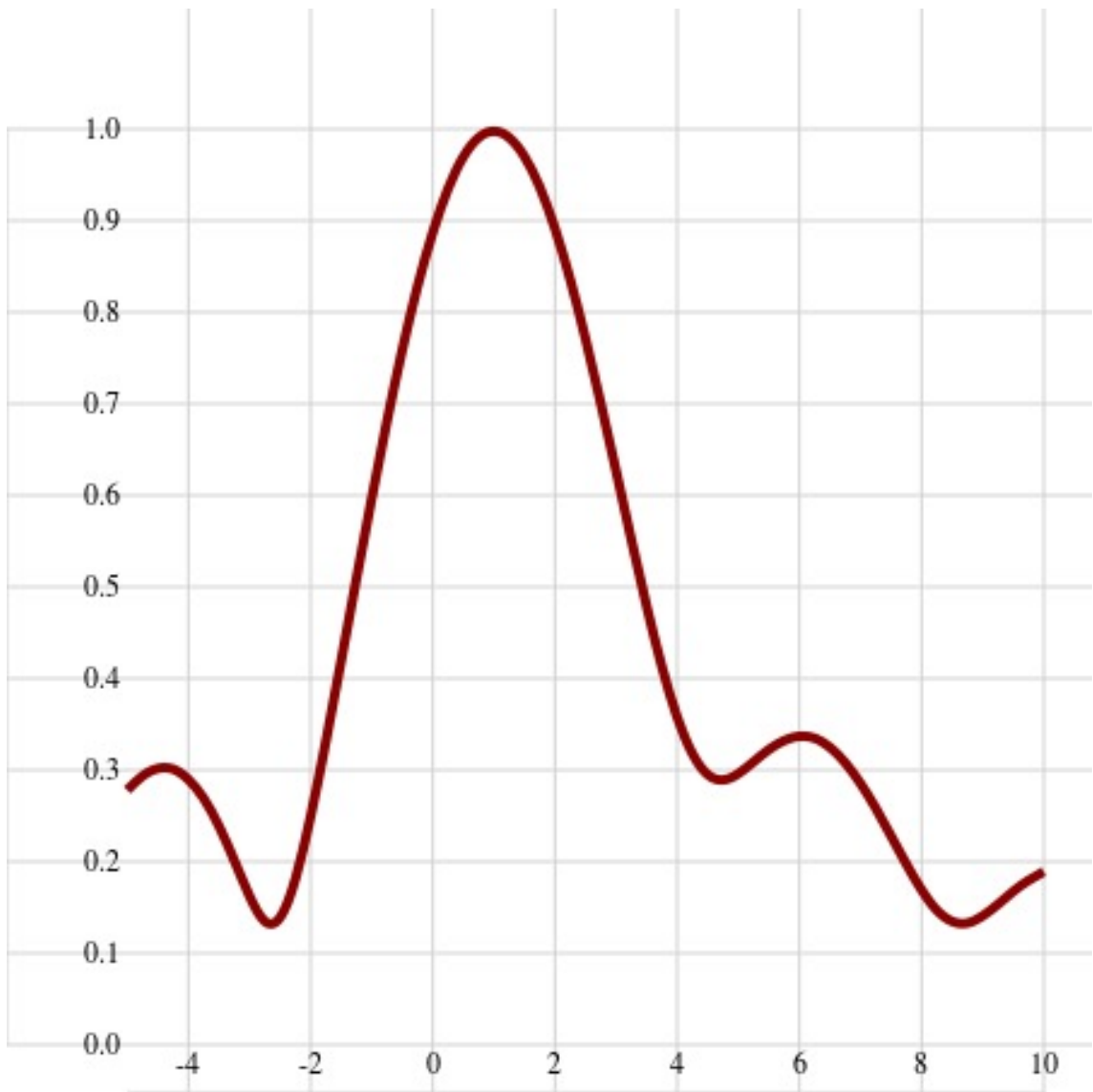
# Horizontal Azimuth Pattern



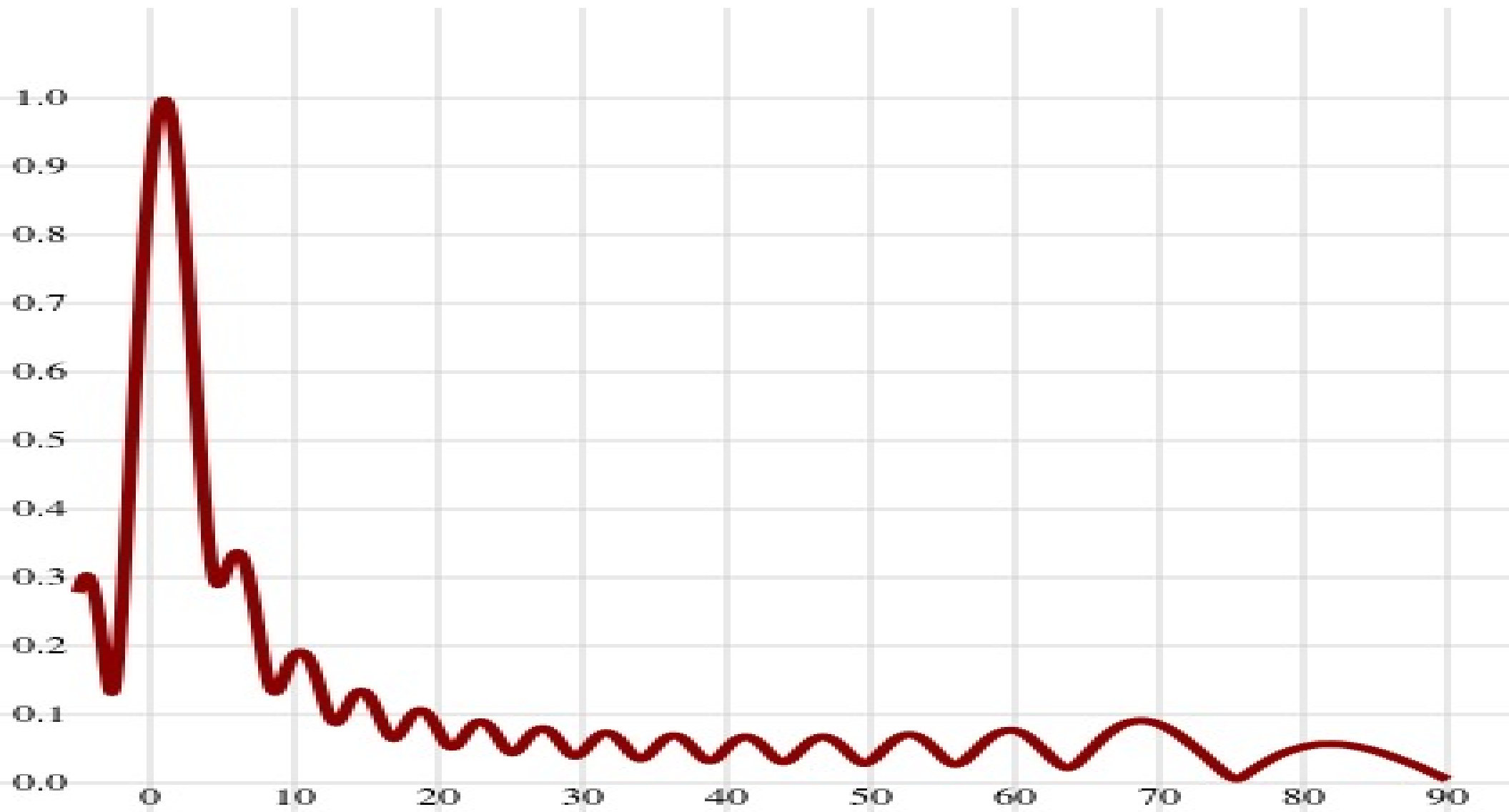
## Vertical Azimuth Pattern



# Elevation pattern -5 to 10



## Elevation pattern -5 to 90



## Azimuth Horizontal Pattern Tabulation

| Angle | Field | dB   | Angle | Field | dB   | Angle | Field | dB   | Angle | Field | dB   |
|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| 0°    | 1.000 | 0.00 | 90°   | 1.000 | 0.00 | 180°  | 1.000 | 0.00 | 270°  | 1.000 | 0.00 |
| 2°    | 1.000 | 0.00 | 92°   | 1.000 | 0.00 | 182°  | 1.000 | 0.00 | 272°  | 1.000 | 0.00 |
| 4°    | 1.000 | 0.00 | 94°   | 1.000 | 0.00 | 184°  | 1.000 | 0.00 | 274°  | 1.000 | 0.00 |
| 6°    | 1.000 | 0.00 | 96°   | 1.000 | 0.00 | 186°  | 1.000 | 0.00 | 276°  | 1.000 | 0.00 |
| 8°    | 1.000 | 0.00 | 98°   | 1.000 | 0.00 | 188°  | 1.000 | 0.00 | 278°  | 1.000 | 0.00 |
| 10°   | 1.000 | 0.00 | 100°  | 1.000 | 0.00 | 190°  | 1.000 | 0.00 | 280°  | 1.000 | 0.00 |
| 12°   | 1.000 | 0.00 | 102°  | 1.000 | 0.00 | 192°  | 1.000 | 0.00 | 282°  | 1.000 | 0.00 |
| 14°   | 1.000 | 0.00 | 104°  | 1.000 | 0.00 | 194°  | 1.000 | 0.00 | 284°  | 1.000 | 0.00 |
| 16°   | 1.000 | 0.00 | 106°  | 1.000 | 0.00 | 196°  | 1.000 | 0.00 | 286°  | 1.000 | 0.00 |
| 18°   | 1.000 | 0.00 | 108°  | 1.000 | 0.00 | 198°  | 1.000 | 0.00 | 288°  | 1.000 | 0.00 |
| 20°   | 1.000 | 0.00 | 110°  | 1.000 | 0.00 | 200°  | 1.000 | 0.00 | 290°  | 1.000 | 0.00 |
| 22°   | 1.000 | 0.00 | 112°  | 1.000 | 0.00 | 202°  | 1.000 | 0.00 | 292°  | 1.000 | 0.00 |
| 24°   | 1.000 | 0.00 | 114°  | 1.000 | 0.00 | 204°  | 1.000 | 0.00 | 294°  | 1.000 | 0.00 |
| 26°   | 1.000 | 0.00 | 116°  | 1.000 | 0.00 | 206°  | 1.000 | 0.00 | 296°  | 1.000 | 0.00 |
| 28°   | 1.000 | 0.00 | 118°  | 1.000 | 0.00 | 208°  | 1.000 | 0.00 | 298°  | 1.000 | 0.00 |
| 30°   | 1.000 | 0.00 | 120°  | 1.000 | 0.00 | 210°  | 1.000 | 0.00 | 300°  | 1.000 | 0.00 |
| 32°   | 1.000 | 0.00 | 122°  | 1.000 | 0.00 | 212°  | 1.000 | 0.00 | 302°  | 1.000 | 0.00 |
| 34°   | 1.000 | 0.00 | 124°  | 1.000 | 0.00 | 214°  | 1.000 | 0.00 | 304°  | 1.000 | 0.00 |
| 36°   | 1.000 | 0.00 | 126°  | 1.000 | 0.00 | 216°  | 1.000 | 0.00 | 306°  | 1.000 | 0.00 |
| 38°   | 1.000 | 0.00 | 128°  | 1.000 | 0.00 | 218°  | 1.000 | 0.00 | 308°  | 1.000 | 0.00 |
| 40°   | 1.000 | 0.00 | 130°  | 1.000 | 0.00 | 220°  | 1.000 | 0.00 | 310°  | 1.000 | 0.00 |
| 42°   | 1.000 | 0.00 | 132°  | 1.000 | 0.00 | 222°  | 1.000 | 0.00 | 312°  | 1.000 | 0.00 |
| 44°   | 1.000 | 0.00 | 134°  | 1.000 | 0.00 | 224°  | 1.000 | 0.00 | 314°  | 1.000 | 0.00 |
| 46°   | 1.000 | 0.00 | 136°  | 1.000 | 0.00 | 226°  | 1.000 | 0.00 | 316°  | 1.000 | 0.00 |
| 48°   | 1.000 | 0.00 | 138°  | 1.000 | 0.00 | 228°  | 1.000 | 0.00 | 318°  | 1.000 | 0.00 |
| 50°   | 1.000 | 0.00 | 140°  | 1.000 | 0.00 | 230°  | 1.000 | 0.00 | 320°  | 1.000 | 0.00 |
| 52°   | 1.000 | 0.00 | 142°  | 1.000 | 0.00 | 232°  | 1.000 | 0.00 | 322°  | 1.000 | 0.00 |
| 54°   | 1.000 | 0.00 | 144°  | 1.000 | 0.00 | 234°  | 1.000 | 0.00 | 324°  | 1.000 | 0.00 |
| 56°   | 1.000 | 0.00 | 146°  | 1.000 | 0.00 | 236°  | 1.000 | 0.00 | 326°  | 1.000 | 0.00 |
| 58°   | 1.000 | 0.00 | 148°  | 1.000 | 0.00 | 238°  | 1.000 | 0.00 | 328°  | 1.000 | 0.00 |
| 60°   | 1.000 | 0.00 | 150°  | 1.000 | 0.00 | 240°  | 1.000 | 0.00 | 330°  | 1.000 | 0.00 |
| 62°   | 1.000 | 0.00 | 152°  | 1.000 | 0.00 | 242°  | 1.000 | 0.00 | 332°  | 1.000 | 0.00 |
| 64°   | 1.000 | 0.00 | 154°  | 1.000 | 0.00 | 244°  | 1.000 | 0.00 | 334°  | 1.000 | 0.00 |
| 66°   | 1.000 | 0.00 | 156°  | 1.000 | 0.00 | 246°  | 1.000 | 0.00 | 336°  | 1.000 | 0.00 |
| 68°   | 1.000 | 0.00 | 158°  | 1.000 | 0.00 | 248°  | 1.000 | 0.00 | 338°  | 1.000 | 0.00 |
| 70°   | 1.000 | 0.00 | 160°  | 1.000 | 0.00 | 250°  | 1.000 | 0.00 | 340°  | 1.000 | 0.00 |
| 72°   | 1.000 | 0.00 | 162°  | 1.000 | 0.00 | 252°  | 1.000 | 0.00 | 342°  | 1.000 | 0.00 |
| 74°   | 1.000 | 0.00 | 164°  | 1.000 | 0.00 | 254°  | 1.000 | 0.00 | 344°  | 1.000 | 0.00 |
| 76°   | 1.000 | 0.00 | 166°  | 1.000 | 0.00 | 256°  | 1.000 | 0.00 | 346°  | 1.000 | 0.00 |
| 78°   | 1.000 | 0.00 | 168°  | 1.000 | 0.00 | 258°  | 1.000 | 0.00 | 348°  | 1.000 | 0.00 |
| 80°   | 1.000 | 0.00 | 170°  | 1.000 | 0.00 | 260°  | 1.000 | 0.00 | 350°  | 1.000 | 0.00 |
| 82°   | 1.000 | 0.00 | 172°  | 1.000 | 0.00 | 262°  | 1.000 | 0.00 | 352°  | 1.000 | 0.00 |
| 84°   | 1.000 | 0.00 | 174°  | 1.000 | 0.00 | 264°  | 1.000 | 0.00 | 354°  | 1.000 | 0.00 |
| 86°   | 1.000 | 0.00 | 176°  | 1.000 | 0.00 | 266°  | 1.000 | 0.00 | 356°  | 1.000 | 0.00 |
| 88°   | 1.000 | 0.00 | 178°  | 1.000 | 0.00 | 268°  | 1.000 | 0.00 | 358°  | 1.000 | 0.00 |



Azimuth Pattern Tabulation, FCC

| Angle | Field | dB   | Angle | Field | dB   | Angle | Field | dB   | Angle | Field | dB   |
|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| 0°    | 1.000 | 0.00 | 90°   | 1.000 | 0.00 | 180°  | 1.000 | 0.00 | 270°  | 1.000 | 0.00 |
| 10°   | 1.000 | 0.00 | 100°  | 1.000 | 0.00 | 190°  | 1.000 | 0.00 | 280°  | 1.000 | 0.00 |
| 20°   | 1.000 | 0.00 | 110°  | 1.000 | 0.00 | 200°  | 1.000 | 0.00 | 290°  | 1.000 | 0.00 |
| 30°   | 1.000 | 0.00 | 120°  | 1.000 | 0.00 | 210°  | 1.000 | 0.00 | 300°  | 1.000 | 0.00 |
| 40°   | 1.000 | 0.00 | 130°  | 1.000 | 0.00 | 220°  | 1.000 | 0.00 | 310°  | 1.000 | 0.00 |
| 50°   | 1.000 | 0.00 | 140°  | 1.000 | 0.00 | 230°  | 1.000 | 0.00 | 320°  | 1.000 | 0.00 |
| 60°   | 1.000 | 0.00 | 150°  | 1.000 | 0.00 | 240°  | 1.000 | 0.00 | 330°  | 1.000 | 0.00 |
| 70°   | 1.000 | 0.00 | 160°  | 1.000 | 0.00 | 250°  | 1.000 | 0.00 | 340°  | 1.000 | 0.00 |
| 80°   | 1.000 | 0.00 | 170°  | 1.000 | 0.00 | 260°  | 1.000 | 0.00 | 350°  | 1.000 | 0.00 |

## Elevation Pattern Tabulation

-5 to 10 in 0.25 increments, 10 to 90 in 0.50 increments

| Angle | Field | dB     | Angle | Field | dB     | Angle | Field | dB     | Angle | Field | dB     |
|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|
| -5.00 | 0.278 | -11.12 | 8.75  | 0.131 | -17.65 | 35.00 | 0.051 | -25.85 | 62.50 | 0.037 | -28.64 |
| -4.75 | 0.295 | -10.60 | 9.00  | 0.140 | -17.08 | 35.50 | 0.062 | -24.15 | 63.00 | 0.027 | -31.37 |
| -4.50 | 0.303 | -10.37 | 9.25  | 0.153 | -16.31 | 36.00 | 0.069 | -23.22 | 63.50 | 0.021 | -33.56 |
| -4.25 | 0.303 | -10.37 | 9.50  | 0.168 | -15.49 | 36.50 | 0.070 | -23.10 | 64.00 | 0.023 | -32.77 |
| -4.00 | 0.291 | -10.72 | 9.75  | 0.180 | -14.89 | 37.00 | 0.065 | -23.74 | 64.50 | 0.032 | -29.90 |
| -3.75 | 0.271 | -11.34 | 10.00 | 0.189 | -14.47 | 37.50 | 0.055 | -25.19 | 65.00 | 0.043 | -27.33 |
| -3.50 | 0.240 | -12.40 | 10.50 | 0.193 | -14.29 | 38.00 | 0.043 | -27.33 | 65.50 | 0.054 | -25.35 |
| -3.25 | 0.202 | -13.89 | 11.00 | 0.185 | -14.66 | 38.50 | 0.033 | -29.63 | 66.00 | 0.064 | -23.88 |
| -3.00 | 0.161 | -15.86 | 11.50 | 0.159 | -15.97 | 39.00 | 0.031 | -30.17 | 66.50 | 0.073 | -22.73 |
| -2.75 | 0.129 | -17.79 | 12.00 | 0.123 | -18.20 | 39.50 | 0.040 | -27.96 | 67.00 | 0.080 | -21.94 |
| -2.50 | 0.132 | -17.59 | 12.50 | 0.091 | -20.82 | 40.00 | 0.052 | -25.68 | 67.50 | 0.086 | -21.31 |
| -2.25 | 0.176 | -15.09 | 13.00 | 0.084 | -21.51 | 40.50 | 0.062 | -24.15 | 68.00 | 0.089 | -21.01 |
| -2.00 | 0.247 | -12.15 | 13.50 | 0.103 | -19.74 | 41.00 | 0.067 | -23.48 | 68.50 | 0.091 | -20.82 |
| -1.75 | 0.330 | -9.63  | 14.00 | 0.125 | -18.06 | 41.50 | 0.068 | -23.35 | 69.00 | 0.091 | -20.82 |
| -1.50 | 0.419 | -7.56  | 14.50 | 0.136 | -17.33 | 42.00 | 0.063 | -24.01 | 69.50 | 0.089 | -21.01 |
| -1.25 | 0.509 | -5.87  | 15.00 | 0.133 | -17.52 | 42.50 | 0.055 | -25.19 | 70.00 | 0.086 | -21.31 |
| -1.00 | 0.597 | -4.48  | 15.50 | 0.117 | -18.64 | 43.00 | 0.043 | -27.33 | 70.50 | 0.081 | -21.83 |
| -0.75 | 0.682 | -3.32  | 16.00 | 0.091 | -20.82 | 43.50 | 0.033 | -29.63 | 71.00 | 0.075 | -22.50 |
| -0.50 | 0.760 | -2.38  | 16.50 | 0.068 | -23.35 | 44.00 | 0.029 | -30.75 | 71.50 | 0.068 | -23.35 |
| -0.25 | 0.830 | -1.62  | 17.00 | 0.062 | -24.15 | 44.50 | 0.035 | -29.12 | 72.00 | 0.060 | -24.44 |
| 0.00  | 0.889 | -1.02  | 17.50 | 0.077 | -22.27 | 45.00 | 0.046 | -26.74 | 72.50 | 0.052 | -25.68 |
| 0.25  | 0.937 | -0.57  | 18.00 | 0.096 | -20.35 | 45.50 | 0.057 | -24.88 | 73.00 | 0.043 | -27.33 |
| 0.50  | 0.972 | -0.25  | 18.50 | 0.107 | -19.41 | 46.00 | 0.064 | -23.88 | 73.50 | 0.034 | -29.37 |
| 0.75  | 0.993 | -0.06  | 19.00 | 0.107 | -19.41 | 46.50 | 0.068 | -23.35 | 74.00 | 0.024 | -32.40 |
| 1.00  | 1.000 | 0.00   | 19.50 | 0.096 | -20.35 | 47.00 | 0.067 | -23.48 | 74.50 | 0.015 | -36.48 |
| 1.25  | 0.993 | -0.06  | 20.00 | 0.077 | -22.27 | 47.50 | 0.062 | -24.15 | 75.00 | 0.007 | -43.10 |
| 1.50  | 0.972 | -0.25  | 20.50 | 0.057 | -24.88 | 48.00 | 0.054 | -25.35 | 75.50 | 0.005 | -46.02 |
| 1.75  | 0.939 | -0.55  | 21.00 | 0.049 | -26.20 | 48.50 | 0.043 | -27.33 | 76.00 | 0.012 | -38.42 |
| 2.00  | 0.893 | -0.98  | 21.50 | 0.060 | -24.44 | 49.00 | 0.033 | -29.63 | 76.50 | 0.019 | -34.42 |
| 2.25  | 0.837 | -1.55  | 22.00 | 0.076 | -22.38 | 49.50 | 0.027 | -31.37 | 77.00 | 0.026 | -31.70 |
| 2.50  | 0.772 | -2.25  | 22.50 | 0.088 | -21.11 | 50.00 | 0.031 | -30.17 | 77.50 | 0.032 | -29.90 |
| 2.75  | 0.701 | -3.09  | 23.00 | 0.091 | -20.82 | 50.50 | 0.041 | -27.74 | 78.00 | 0.038 | -28.40 |
| 3.00  | 0.627 | -4.05  | 23.50 | 0.085 | -21.41 | 51.00 | 0.052 | -25.68 | 78.50 | 0.043 | -27.33 |
| 3.25  | 0.551 | -5.18  | 24.00 | 0.071 | -22.97 | 51.50 | 0.062 | -24.15 | 79.00 | 0.047 | -26.56 |
| 3.50  | 0.478 | -6.41  | 24.50 | 0.054 | -25.35 | 52.00 | 0.068 | -23.35 | 79.50 | 0.050 | -26.02 |
| 3.75  | 0.411 | -7.72  | 25.00 | 0.042 | -27.54 | 52.50 | 0.071 | -22.97 | 80.00 | 0.053 | -25.51 |
| 4.00  | 0.355 | -9.00  | 25.50 | 0.046 | -26.74 | 53.00 | 0.070 | -23.10 | 80.50 | 0.055 | -25.19 |
| 4.25  | 0.315 | -10.03 | 26.00 | 0.060 | -24.44 | 53.50 | 0.066 | -23.61 | 81.00 | 0.057 | -24.88 |
| 4.50  | 0.292 | -10.69 | 26.50 | 0.073 | -22.73 | 54.00 | 0.058 | -24.73 | 81.50 | 0.057 | -24.88 |
| 4.75  | 0.287 | -10.84 | 27.00 | 0.080 | -21.94 | 54.50 | 0.048 | -26.38 | 82.00 | 0.057 | -24.88 |
| 5.00  | 0.295 | -10.60 | 27.50 | 0.080 | -21.94 | 55.00 | 0.037 | -28.64 | 82.50 | 0.057 | -24.88 |
| 5.25  | 0.309 | -10.20 | 28.00 | 0.071 | -22.97 | 55.50 | 0.028 | -31.06 | 83.00 | 0.056 | -25.04 |
| 5.50  | 0.323 | -9.82  | 28.50 | 0.058 | -24.73 | 56.00 | 0.026 | -31.70 | 83.50 | 0.054 | -25.35 |
| 5.75  | 0.333 | -9.55  | 29.00 | 0.043 | -27.33 | 56.50 | 0.032 | -29.90 | 84.00 | 0.052 | -25.68 |
| 6.00  | 0.338 | -9.42  | 29.50 | 0.037 | -28.64 | 57.00 | 0.042 | -27.54 | 84.50 | 0.050 | -26.02 |
| 6.25  | 0.336 | -9.47  | 30.00 | 0.044 | -27.13 | 57.50 | 0.053 | -25.51 | 85.00 | 0.047 | -26.56 |
| 6.50  | 0.326 | -9.74  | 30.50 | 0.057 | -24.88 | 58.00 | 0.063 | -24.01 | 85.50 | 0.044 | -27.13 |
| 6.75  | 0.309 | -10.20 | 31.00 | 0.068 | -23.35 | 58.50 | 0.070 | -23.10 | 86.00 | 0.040 | -27.96 |
| 7.00  | 0.286 | -10.87 | 31.50 | 0.074 | -22.62 | 59.00 | 0.075 | -22.50 | 86.50 | 0.036 | -28.87 |
| 7.25  | 0.259 | -11.73 | 32.00 | 0.073 | -22.73 | 59.50 | 0.077 | -22.27 | 87.00 | 0.032 | -29.90 |
| 7.50  | 0.228 | -12.84 | 32.50 | 0.065 | -23.74 | 60.00 | 0.077 | -22.27 | 87.50 | 0.028 | -31.06 |
| 7.75  | 0.197 | -14.11 | 33.00 | 0.053 | -25.51 | 60.50 | 0.073 | -22.73 | 88.00 | 0.024 | -32.40 |
| 8.00  | 0.168 | -15.49 | 33.50 | 0.039 | -28.18 | 61.00 | 0.067 | -23.48 | 88.50 | 0.019 | -34.42 |
| 8.25  | 0.145 | -16.77 | 34.00 | 0.033 | -29.63 | 61.50 | 0.058 | -24.73 | 89.00 | 0.014 | -37.08 |
| 8.50  | 0.133 | -17.52 | 34.50 | 0.039 | -28.18 | 62.00 | 0.048 | -26.38 | 89.50 | 0.010 | -40.00 |
| 8.75  | 0.131 | -17.65 | 35.00 | 0.051 | -25.85 | 62.50 | 0.037 | -28.64 | 90.00 | 0.005 | -46.02 |



## Azimuth Vertical Pattern Tabulation

| Angle | Field | dB   | Angle | Field | dB   | Angle | Field | dB   | Angle | Field | dB   |
|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| 0°    | 1.000 | 0.00 | 90°   | 1.000 | 0.00 | 180°  | 1.000 | 0.00 | 270°  | 1.000 | 0.00 |
| 2°    | 1.000 | 0.00 | 92°   | 1.000 | 0.00 | 182°  | 1.000 | 0.00 | 272°  | 1.000 | 0.00 |
| 4°    | 1.000 | 0.00 | 94°   | 1.000 | 0.00 | 184°  | 1.000 | 0.00 | 274°  | 1.000 | 0.00 |
| 6°    | 1.000 | 0.00 | 96°   | 1.000 | 0.00 | 186°  | 1.000 | 0.00 | 276°  | 1.000 | 0.00 |
| 8°    | 1.000 | 0.00 | 98°   | 1.000 | 0.00 | 188°  | 1.000 | 0.00 | 278°  | 1.000 | 0.00 |
| 10°   | 1.000 | 0.00 | 100°  | 1.000 | 0.00 | 190°  | 1.000 | 0.00 | 280°  | 1.000 | 0.00 |
| 12°   | 1.000 | 0.00 | 102°  | 1.000 | 0.00 | 192°  | 1.000 | 0.00 | 282°  | 1.000 | 0.00 |
| 14°   | 1.000 | 0.00 | 104°  | 1.000 | 0.00 | 194°  | 1.000 | 0.00 | 284°  | 1.000 | 0.00 |
| 16°   | 1.000 | 0.00 | 106°  | 1.000 | 0.00 | 196°  | 1.000 | 0.00 | 286°  | 1.000 | 0.00 |
| 18°   | 1.000 | 0.00 | 108°  | 1.000 | 0.00 | 198°  | 1.000 | 0.00 | 288°  | 1.000 | 0.00 |
| 20°   | 1.000 | 0.00 | 110°  | 1.000 | 0.00 | 200°  | 1.000 | 0.00 | 290°  | 1.000 | 0.00 |
| 22°   | 1.000 | 0.00 | 112°  | 1.000 | 0.00 | 202°  | 1.000 | 0.00 | 292°  | 1.000 | 0.00 |
| 24°   | 1.000 | 0.00 | 114°  | 1.000 | 0.00 | 204°  | 1.000 | 0.00 | 294°  | 1.000 | 0.00 |
| 26°   | 1.000 | 0.00 | 116°  | 1.000 | 0.00 | 206°  | 1.000 | 0.00 | 296°  | 1.000 | 0.00 |
| 28°   | 1.000 | 0.00 | 118°  | 1.000 | 0.00 | 208°  | 1.000 | 0.00 | 298°  | 1.000 | 0.00 |
| 30°   | 1.000 | 0.00 | 120°  | 1.000 | 0.00 | 210°  | 1.000 | 0.00 | 300°  | 1.000 | 0.00 |
| 32°   | 1.000 | 0.00 | 122°  | 1.000 | 0.00 | 212°  | 1.000 | 0.00 | 302°  | 1.000 | 0.00 |
| 34°   | 1.000 | 0.00 | 124°  | 1.000 | 0.00 | 214°  | 1.000 | 0.00 | 304°  | 1.000 | 0.00 |
| 36°   | 1.000 | 0.00 | 126°  | 1.000 | 0.00 | 216°  | 1.000 | 0.00 | 306°  | 1.000 | 0.00 |
| 38°   | 1.000 | 0.00 | 128°  | 1.000 | 0.00 | 218°  | 1.000 | 0.00 | 308°  | 1.000 | 0.00 |
| 40°   | 1.000 | 0.00 | 130°  | 1.000 | 0.00 | 220°  | 1.000 | 0.00 | 310°  | 1.000 | 0.00 |
| 42°   | 1.000 | 0.00 | 132°  | 1.000 | 0.00 | 222°  | 1.000 | 0.00 | 312°  | 1.000 | 0.00 |
| 44°   | 1.000 | 0.00 | 134°  | 1.000 | 0.00 | 224°  | 1.000 | 0.00 | 314°  | 1.000 | 0.00 |
| 46°   | 1.000 | 0.00 | 136°  | 1.000 | 0.00 | 226°  | 1.000 | 0.00 | 316°  | 1.000 | 0.00 |
| 48°   | 1.000 | 0.00 | 138°  | 1.000 | 0.00 | 228°  | 1.000 | 0.00 | 318°  | 1.000 | 0.00 |
| 50°   | 1.000 | 0.00 | 140°  | 1.000 | 0.00 | 230°  | 1.000 | 0.00 | 320°  | 1.000 | 0.00 |
| 52°   | 1.000 | 0.00 | 142°  | 1.000 | 0.00 | 232°  | 1.000 | 0.00 | 322°  | 1.000 | 0.00 |
| 54°   | 1.000 | 0.00 | 144°  | 1.000 | 0.00 | 234°  | 1.000 | 0.00 | 324°  | 1.000 | 0.00 |
| 56°   | 1.000 | 0.00 | 146°  | 1.000 | 0.00 | 236°  | 1.000 | 0.00 | 326°  | 1.000 | 0.00 |
| 58°   | 1.000 | 0.00 | 148°  | 1.000 | 0.00 | 238°  | 1.000 | 0.00 | 328°  | 1.000 | 0.00 |
| 60°   | 1.000 | 0.00 | 150°  | 1.000 | 0.00 | 240°  | 1.000 | 0.00 | 330°  | 1.000 | 0.00 |
| 62°   | 1.000 | 0.00 | 152°  | 1.000 | 0.00 | 242°  | 1.000 | 0.00 | 332°  | 1.000 | 0.00 |
| 64°   | 1.000 | 0.00 | 154°  | 1.000 | 0.00 | 244°  | 1.000 | 0.00 | 334°  | 1.000 | 0.00 |
| 66°   | 1.000 | 0.00 | 156°  | 1.000 | 0.00 | 246°  | 1.000 | 0.00 | 336°  | 1.000 | 0.00 |
| 68°   | 1.000 | 0.00 | 158°  | 1.000 | 0.00 | 248°  | 1.000 | 0.00 | 338°  | 1.000 | 0.00 |
| 70°   | 1.000 | 0.00 | 160°  | 1.000 | 0.00 | 250°  | 1.000 | 0.00 | 340°  | 1.000 | 0.00 |
| 72°   | 1.000 | 0.00 | 162°  | 1.000 | 0.00 | 252°  | 1.000 | 0.00 | 342°  | 1.000 | 0.00 |
| 74°   | 1.000 | 0.00 | 164°  | 1.000 | 0.00 | 254°  | 1.000 | 0.00 | 344°  | 1.000 | 0.00 |
| 76°   | 1.000 | 0.00 | 166°  | 1.000 | 0.00 | 256°  | 1.000 | 0.00 | 346°  | 1.000 | 0.00 |
| 78°   | 1.000 | 0.00 | 168°  | 1.000 | 0.00 | 258°  | 1.000 | 0.00 | 348°  | 1.000 | 0.00 |
| 80°   | 1.000 | 0.00 | 170°  | 1.000 | 0.00 | 260°  | 1.000 | 0.00 | 350°  | 1.000 | 0.00 |
| 82°   | 1.000 | 0.00 | 172°  | 1.000 | 0.00 | 262°  | 1.000 | 0.00 | 352°  | 1.000 | 0.00 |
| 84°   | 1.000 | 0.00 | 174°  | 1.000 | 0.00 | 264°  | 1.000 | 0.00 | 354°  | 1.000 | 0.00 |
| 86°   | 1.000 | 0.00 | 176°  | 1.000 | 0.00 | 266°  | 1.000 | 0.00 | 356°  | 1.000 | 0.00 |
| 88°   | 1.000 | 0.00 | 178°  | 1.000 | 0.00 | 268°  | 1.000 | 0.00 | 358°  | 1.000 | 0.00 |

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ALLOCATION STUDY

tvstudy v2.2.5 (4uoc83)  
 Database: localhost, Study: 46ER-NewLocation33-IX3, Model: Longley-Rice  
 Start: 2019.04.25 12:48:24

Study created: 2019.04.25 12:48:24

Study build station data: LMS TV 2019-04-25

Proposal: W46ER D33 LD CP EFFINGHAM, IL  
 File number: NewLocation33  
 Facility ID: 182814  
 Station data: User record  
 Record ID: 212  
 Country: U.S.

Build options:  
 Protect pre-transition records not on baseline channel

Search options:  
 Non-U.S. records included  
 Baseline record excluded if station has CP

Stations potentially affected by proposal:

| IX  | Call    | Chan | Svc | Status | City, State     | File Number        | Distance |
|-----|---------|------|-----|--------|-----------------|--------------------|----------|
| Yes | WICD    | D32  | DT  | LIC    | CHAMPAIGN, IL   | BLANK0000059351    | 99.4 km  |
| No  | W32EF-D | D32  | LD  | LIC    | PEORIA, IL      | BLANK0000010565    | 177.2    |
| No  | WTJR    | D32  | DT  | LIC    | QUINCY, IL      | BLCDDT20091110ADL  | 264.9    |
| No  | NEW     | D32  | LD  | APP    | EVANSVILLE, IN  | BNPDTL20090825AZT  | 180.3    |
| No  | WDRB    | D32  | DT  | CP     | LOUISVILLE, KY  | BLANK0000060325    | 240.9    |
| No  | WPSD-TV | D32  | DT  | LIC    | PADUCAH, KY     | BLCDDT20040227ABD  | 234.7    |
| No  | KUMO-LD | D32  | LD  | CP     | ST LOUIS, MO    | BLANK0000030456    | 184.3    |
| No  | K33MV-D | D33  | LD  | CP     | PARAGOULD, AR   | BNPDTL20101019AAP  | 377.8    |
| No  | K20KF-D | D33  | LD  | CP     | DAVENPORT, IA   | BLANK0000051752    | 342.7    |
| No  | WMAQ-TV | D33  | DT  | CP     | CHICAGO, IL     | BLANK0000034535    | 298.8    |
| No  | WCHU-LD | D33  | LD  | LIC    | CHICAGO, IL     | BLDTL20110928ALC   | 301.2    |
| No  | W33DV-D | D33  | LD  | CP     | PEORIA, IL      | BDCCDTT20120713ADV | 177.1    |
| No  | WIDN-LD | D33  | LD  | CP     | ROCKFORD, IL    | BLANK0000051604    | 345.6    |
| No  | W33AY-D | D33  | LD  | LIC    | SPRINGFIELD, IL | BLDTL20101122ABA   | 120.5    |
| Yes | WTIU    | D33  | DT  | CP     | BLOOMINGTON, IN | BLANK0000034852    | 162.8    |
| No  | WUCU-LD | D33  | LD  | LIC    | EVANSVILLE, IN  | BLANK0000010568    | 150.7    |
| No  | WUCU-LD | D33  | LD  | CP     | EVANSVILLE, IN  | BLANK0000036384    | 158.6    |
| No  | W33DC-D | D33  | LD  | CP     | FORT WAYNE, IN  | BNPDTL20091228AAX  | 343.8    |

|     |         |     |    |     |                    |                    |       |
|-----|---------|-----|----|-----|--------------------|--------------------|-------|
| Yes | WHFE-LD | D33 | LD | CP  | SULLIVAN, IN       | BDCCDTL20061027ABH | 79.1  |
| No  | WQDE-LD | D33 | LD | LIC | WOLCOTT, IN        | BLANK0000001378    | 186.1 |
| No  | K33MN-D | D33 | LD | CP  | JEFFERSON CITY, MO | BLANK0000001282    | 342.0 |
| No  | KTVO    | D33 | DT | APP | KIRKSVILLE, MO     | BPCDT20130206ADL   | 374.4 |
| No  | KTVO    | D33 | DT | APP | KIRKSVILLE, MO     | BLANK0000035797    | 374.4 |
| No  | KTVO    | D33 | DT | LIC | KIRKSVILLE, MO     | BLCDDT20030604AAC  | 374.4 |
| No  | KBGU-LP | D33 | LD | LIC | ST. LOUIS, MO      | BLANK0000001766    | 184.3 |
| Yes | KTVI    | D33 | DT | CP  | ST. LOUIS, MO      | BLANK0000034468    | 189.9 |
| No  | WSTR-TV | D33 | DT | LIC | CINCINNATI, OH     | BLCDDT20091117ACS  | 332.1 |
| No  | WHIO-TV | D33 | DT | CP  | DAYTON, OH         | BLANK0000025295    | 358.4 |
| No  | WPGD-TV | D33 | DT | LIC | HENDERSONVILLE, TN | BMLCDDT20131125BGF | 359.5 |
| No  | WPXX-TV | D33 | DT | LIC | MEMPHIS, TN        | BLANK0000063435    | 466.5 |
| No  | WITI    | D33 | DT | LIC | MILWAUKEE, WI      | BLANK0000040653    | 428.7 |
| No  | W34EH-D | D34 | LD | LIC | CHAMPAIGN, IL      | BLANK0000014112    | 31.3  |
| Yes | WCIA    | D34 | DT | CP  | CHAMPAIGN, IL      | BLANK0000034728    | 95.3  |
| Yes | WCIA    | D34 | DT | APP | CHAMPAIGN, IL      | BLANK0000072063    | 95.3  |
| No  | WSIL-TV | D34 | DT | LIC | HARRISBURG, IL     | BLCDDT20080718AAR  | 186.9 |
| No  | W42EM-D | D34 | LD | CP  | MOUNT VERNON, IL   | BLANK0000051636    | 169.6 |
| No  | WQEC    | D34 | DT | APP | QUINCY, IL         | BLANK0000035763    | 263.5 |
| No  | WQEC    | D34 | DT | LIC | QUINCY, IL         | BLEDT20040715ADL   | 263.5 |
| No  | WEAE-LD | D34 | LD | CP  | SPRINGFIELD, IL    | BLANK0000013472    | 120.5 |
| No  | W34ET-D | D34 | LD | CP  | BRAZIL, IN         | BNPDDL20100510AFJ  | 85.4  |
| No  | WKMJ-TV | D34 | DT | CP  | LOUISVILLE, KY     | BLANK0000034636    | 241.5 |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D33  
 Mask: Full Service  
 Latitude: 39 15 1.30 N (NAD83)  
 Longitude: 88 22 46.60 W  
 Height AMSL: 310.9 m  
 HAAT: 123.4 m  
 Peak ERP: 15.0 kW  
 Antenna: Omnidirectional  
 Elev Pattn: Generic  
 Elec Tilt: 1.00

50.6 dBu contour:

| Azimuth | ERP | HAAT | Distance |
|---------|-----|------|----------|
|---------|-----|------|----------|

|         |         |         |         |
|---------|---------|---------|---------|
| 0.0 deg | 15.0 kW | 111.7 m | 44.4 km |
| 45.0    | 15.0    | 125.2   | 45.5    |
| 90.0    | 15.0    | 133.3   | 46.0    |
| 135.0   | 15.0    | 134.1   | 46.1    |
| 180.0   | 15.0    | 128.5   | 45.7    |
| 225.0   | 15.0    | 122.2   | 45.3    |
| 270.0   | 15.0    | 118.9   | 45.0    |
| 315.0   | 15.0    | 113.7   | 44.6    |

Distance to Canadian border: 534.1 km

Distance to Mexican border: 1588.3 km

Conditions at FCC monitoring station: Allegan MI  
 Bearing: 27.8 degrees Distance: 424.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
 Bearing: 279.4 degrees Distance: 1441.9 km

Study cell size: 1.00 km  
 Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
 Maximum new IX to LPTV: 2.00%

-----  
 Interference to BLANK0000059351 LIC scenario 1

|             | Call         | Chan            | Svc       | Status          | City, State    | File Number       | Distance       |
|-------------|--------------|-----------------|-----------|-----------------|----------------|-------------------|----------------|
| Desired:    | WICD         | D32             | DT        | LIC             | CHAMPAIGN, IL  | BLANK0000059351   |                |
| Undesireds: | W46ER        | D33             | LD        | CP              | EFFINGHAM, IL  | NewLocation33     | 99.4 km        |
|             | WLPD-CD      | D32             | DC        | CP              | PLANO, IL      | BLANK0000034861   | 197.1          |
|             | WTJR         | D32             | DT        | LIC             | QUINCY, IL     | BLC DT20091110ADL | 290.9          |
|             | WANE-TV      | D32             | DT        | CP              | FORT WAYNE, IN | BLANK0000034806   | 257.2          |
|             | WDRB         | D32             | DT        | CP              | LOUISVILLE, KY | BLANK0000060325   | 260.9          |
|             |              |                 |           |                 |                |                   |                |
|             | Service area | Terrain-limited |           | IX-free, before |                | IX-free, after    | Percent New IX |
| 35952.4     | 1,238,207    | 35923.5         | 1,237,780 | 35001.5         | 1,222,519      | 34724.6 1,219,707 | 0.79 0.23      |

|                   |       |          |                   |                  |
|-------------------|-------|----------|-------------------|------------------|
| Undesired         |       | Total IX | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP   | 283.8 | 2,836    |                   | 276.9 2,812      |
| WLPD-CD D32 DC CP | 41.7  | 132      | 41.7 132          | 41.7 132         |
| WTJR D32 DT LIC   | 275.2 | 7,400    | 270.2 7,386       | 270.2 7,386      |
| WANE-TV D32 DT CP | 122.3 | 2,441    | 117.3 2,393       | 117.3 2,393      |
| WDRB D32 DT CP    | 492.8 | 5,350    | 482.8 5,288       | 477.9 5,264      |

-----  
Interference to BLANK0000034852 CP scenario 1

| Desired:    | Call    | Chan | Svc | Status | City, State        | File Number       | Distance |
|-------------|---------|------|-----|--------|--------------------|-------------------|----------|
|             | WTIU    | D33  | DT  | CP     | BLOOMINGTON, IN    | BLANK0000034852   |          |
| Undesireds: | W46ER   | D33  | LD  | CP     | EFFINGHAM, IL      | NewLocation33     | 162.8 km |
|             | WICD    | D32  | DT  | LIC    | CHAMPAIGN, IL      | BLANK0000059351   | 159.3    |
|             | WDRB    | D32  | DT  | CP     | LOUISVILLE, KY     | BLANK0000060325   | 104.3    |
|             | WMAQ-TV | D33  | DT  | CP     | CHICAGO, IL        | BLANK0000034535   | 319.1    |
|             | KTVI    | D33  | DT  | CP     | ST. LOUIS, MO      | BLANK0000034468   | 342.4    |
|             | WHIO-TV | D33  | DT  | CP     | DAYTON, OH         | BLANK0000025295   | 203.8    |
|             | WPGD-TV | D33  | DT  | LIC    | HENDERSONVILLE, TN | BMLCDT20131125BGF | 320.5    |
|             | WKMJ-TV | D34  | DT  | CP     | LOUISVILLE, KY     | BLANK0000034636   | 103.6    |

|                   |                   |                   |                   |                |
|-------------------|-------------------|-------------------|-------------------|----------------|
| Service area      | Terrain-limited   | IX-free, before   | IX-free, after    | Percent New IX |
| 20270.2 1,575,591 | 20175.9 1,573,952 | 19451.4 1,555,600 | 19401.8 1,551,584 | 0.25 0.26      |

|                    |       |          |                   |                  |
|--------------------|-------|----------|-------------------|------------------|
| Undesired          |       | Total IX | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP    | 67.5  | 4,543    |                   | 49.6 4,016       |
| WICD D32 DT LIC    | 16.8  | 749      | 10.9 483          | 9.9 275          |
| WDRB D32 DT CP     | 496.9 | 12,766   | 388.8 9,800       | 388.8 9,800      |
| WMAQ-TV D33 DT CP  | 4.0   | 71       | 0.0 0             | 0.0 0            |
| KTVI D33 DT CP     | 4.0   | 64       | 0.0 0             | 0.0 0            |
| WHIO-TV D33 DT CP  | 287.8 | 6,751    | 158.7 4,357       | 155.8 4,342      |
| WPGD-TV D33 DT LIC | 69.2  | 1,077    | 10.0 64           | 10.0 64          |
| WKMJ-TV D34 DT CP  | 53.1  | 1,863    | 1.0 3             | 1.0 3            |

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Interference to BDCCDTL20061027ABH CP scenario 1

| Desired:    | Call    | Chan | Svc | Status | City, State   | File Number        | Distance |
|-------------|---------|------|-----|--------|---------------|--------------------|----------|
|             | WHFE-LD | D33  | LD  | CP     | SULLIVAN, IN  | BDCCDTL20061027ABH |          |
| Undesireds: | W46ER   | D33  | LD  | CP     | EFFINGHAM, IL | NewLocation33      | 79.1 km  |

|         |     |    |     |                 |                   |       |
|---------|-----|----|-----|-----------------|-------------------|-------|
| WICD    | D32 | DT | LIC | CHAMPAIGN, IL   | BLANK0000059351   | 89.9  |
| WTIU    | D33 | DT | CP  | BLOOMINGTON, IN | BLANK0000034852   | 86.4  |
| WUCU-LD | D33 | LD | LIC | EVANSVILLE, IN  | BLANK0000010568   | 158.3 |
| WCIA    | D34 | DT | CP  | CHAMPAIGN, IL   | BLANK0000034728   | 119.9 |
| W34ET-D | D34 | LD | CP  | BRAZIL, IN      | BNPDTL20100510AFJ | 17.6  |

|                |                 |                 |                |                |
|----------------|-----------------|-----------------|----------------|----------------|
| Service area   | Terrain-limited | IX-free, before | IX-free, after | Percent New IX |
| 4284.0 176,592 | 4284.0 176,592  | 2581.7 136,021  | 2571.7 135,925 | 0.38 0.07      |

|                         |          |                   |                  |
|-------------------------|----------|-------------------|------------------|
| Undesired               | Total IX | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP 151.8   | 677      | 9.9 96            |                  |
| WICD D32 DT LIC 2.0     | 25       | 0.0 0             |                  |
| WTIU D33 DT CP 1507.5   | 31,923   | 1383.1 30,144     | 1242.2 29,588    |
| W34ET-D D34 LD CP 317.3 | 10,402   | 194.9 8,648       | 194.9 8,648      |

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Interference to BLANK0000034468 CP scenario 1

| Desired:    | Call    | Chan | Svc | Status | City, State    | File Number      | Distance |
|-------------|---------|------|-----|--------|----------------|------------------|----------|
|             | KTVI    | D33  | DT  | CP     | ST. LOUIS, MO  | BLANK0000034468  |          |
| Undesireds: | W46ER   | D33  | LD  | CP     | EFFINGHAM, IL  | NewLocation33    | 189.9 km |
|             | KNWA-TV | D33  | DT  | CP     | ROGERS, AR     | BLANK0000027617  | 394.2    |
|             | WAOE    | D33  | DT  | BL     | PEORIA, IL     | DTVBL52280       | 243.3    |
|             | KTVO    | D33  | DT  | APP    | KIRKSVILLE, MO | BPCDT20130206ADL | 283.9    |
|             | WPXX-TV | D33  | DT  | LIC    | MEMPHIS, TN    | BLANK0000063435  | 372.8    |
|             | WSIL-TV | D34  | DT  | LIC    | HARRISBURG, IL | BLCDT20080718AAR | 166.5    |
|             | WQEC    | D34  | DT  | APP    | QUINCY, IL     | BLANK0000035763  | 179.5    |

|                   |                   |                   |                   |                |
|-------------------|-------------------|-------------------|-------------------|----------------|
| Service area      | Terrain-limited   | IX-free, before   | IX-free, after    | Percent New IX |
| 32260.9 2,996,454 | 31673.9 2,990,074 | 31576.1 2,985,930 | 31572.1 2,985,921 | 0.01 0.00      |

|                         |          |                   |                  |
|-------------------------|----------|-------------------|------------------|
| Undesired               | Total IX | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP 5.0     | 9        | 4.0 9             |                  |
| KNWA-TV D33 DT CP 5.0   | 61       | 5.0 61            | 4.0 61           |
| WAOE D33 DT BL 4.0      | 59       | 4.0 59            | 4.0 59           |
| WPXX-TV D33 DT LIC 8.1  | 112      | 8.1 112           | 8.1 112          |
| WSIL-TV D34 DT LIC 80.7 | 3,912    | 80.7 3,912        | 80.7 3,912       |

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Interference to BLANK0000034468 CP scenario 2

| Call | Chan | Svc | Status | City, State | File Number | Distance |
|------|------|-----|--------|-------------|-------------|----------|
|------|------|-----|--------|-------------|-------------|----------|

|             |         |     |    |     |                |                   |          |
|-------------|---------|-----|----|-----|----------------|-------------------|----------|
| Desired:    | KTVI    | D33 | DT | CP  | ST. LOUIS, MO  | BLANK0000034468   |          |
| Undesireds: | W46ER   | D33 | LD | CP  | EFFINGHAM, IL  | NewLocation33     | 189.9 km |
|             | KNWA-TV | D33 | DT | CP  | ROGERS, AR     | BLANK0000027617   | 394.2    |
|             | WAOE    | D33 | DT | BL  | PEORIA, IL     | DTVBL52280        | 243.3    |
|             | KTVO    | D33 | DT | APP | KIRKSVILLE, MO | BLANK0000035797   | 283.9    |
|             | WPXX-TV | D33 | DT | LIC | MEMPHIS, TN    | BLANK0000063435   | 372.8    |
|             | WSIL-TV | D34 | DT | LIC | HARRISBURG, IL | BLCDDT20080718AAR | 166.5    |
|             | WQEC    | D34 | DT | APP | QUINCY, IL     | BLANK0000035763   | 179.5    |

|                   |                   |                   |                   |                |
|-------------------|-------------------|-------------------|-------------------|----------------|
| Service area      | Terrain-limited   | IX-free, before   | IX-free, after    | Percent New IX |
| 32260.9 2,996,454 | 31673.9 2,990,074 | 31508.4 2,985,688 | 31504.4 2,985,679 | 0.01 0.00      |

|                    |            |                   |                  |
|--------------------|------------|-------------------|------------------|
| Undesired          | Total IX   | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP    | 5.0 9      | 4.0 9             |                  |
| KNWA-TV D33 DT CP  | 5.0 61     | 5.0 61            |                  |
| WAOE D33 DT BL     | 4.0 59     | 0.0 0             |                  |
| KTVO D33 DT APP    | 71.7 301   | 67.7 242          |                  |
| WPXX-TV D33 DT LIC | 8.1 112    | 8.1 112           |                  |
| WSIL-TV D34 DT LIC | 80.7 3,912 | 80.7 3,912        |                  |

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Interference to BLANK0000034468 CP scenario 3

|                   |      |     |        |                |                   |          |
|-------------------|------|-----|--------|----------------|-------------------|----------|
| Call              | Chan | Svc | Status | City, State    | File Number       | Distance |
| Desired: KTVI     | D33  | DT  | CP     | ST. LOUIS, MO  | BLANK0000034468   |          |
| Undesireds: W46ER | D33  | LD  | CP     | EFFINGHAM, IL  | NewLocation33     | 189.9 km |
| KNWA-TV           | D33  | DT  | CP     | ROGERS, AR     | BLANK0000027617   | 394.2    |
| WAOE              | D33  | DT  | BL     | PEORIA, IL     | DTVBL52280        | 243.3    |
| WPXX-TV           | D33  | DT  | LIC    | MEMPHIS, TN    | BLANK0000063435   | 372.8    |
| WSIL-TV           | D34  | DT  | LIC    | HARRISBURG, IL | BLCDDT20080718AAR | 166.5    |
| WQEC              | D34  | DT  | APP    | QUINCY, IL     | BLANK0000035763   | 179.5    |

|                   |                   |                   |                   |                |
|-------------------|-------------------|-------------------|-------------------|----------------|
| Service area      | Terrain-limited   | IX-free, before   | IX-free, after    | Percent New IX |
| 32260.9 2,996,454 | 31673.9 2,990,074 | 31576.1 2,985,930 | 31572.1 2,985,921 | 0.01 0.00      |

|                    |            |                   |                  |
|--------------------|------------|-------------------|------------------|
| Undesired          | Total IX   | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP    | 5.0 9      | 4.0 9             |                  |
| KNWA-TV D33 DT CP  | 5.0 61     | 5.0 61            |                  |
| WAOE D33 DT BL     | 4.0 59     | 4.0 59            |                  |
| WPXX-TV D33 DT LIC | 8.1 112    | 8.1 112           |                  |
| WSIL-TV D34 DT LIC | 80.7 3,912 | 80.7 3,912        |                  |



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Interference to BLANK0000034728 CP scenario 1

|             | Call    | Chan | Svc | Status | City, State     | File Number      | Distance |
|-------------|---------|------|-----|--------|-----------------|------------------|----------|
| Desired:    | WCIA    | D34  | DT  | CP     | CHAMPAIGN, IL   | BLANK0000034728  |          |
| Undesireds: | W46ER   | D33  | LD  | CP     | EFFINGHAM, IL   | NewLocation33    | 95.3 km  |
|             | WAOE    | D33  | DT  | BL     | PEORIA, IL      | DTVBL52280       | 109.7    |
|             | KQIN    | D34  | DT  | LIC    | DAVENPORT, IA   | BLEDT20120921ADS | 210.7    |
|             | WCPX-TV | D34  | DT  | CP     | CHICAGO, IL     | BLANK0000034347  | 208.6    |
|             | WSIL-TV | D34  | DT  | LIC    | HARRISBURG, IL  | BLCDT20080718AAR | 279.4    |
|             | WQEC    | D34  | DT  | APP    | QUINCY, IL      | BLANK0000035763  | 243.7    |
|             | WISE-TV | D34  | DT  | LIC    | FORT WAYNE, IN  | BLANK0000064330  | 297.0    |
|             | WKMJ-TV | D34  | DT  | CP     | LOUISVILLE, KY  | BLANK0000034636  | 296.9    |
|             | WKEF    | D34  | DT  | CP     | DAYTON, OH      | BLANK0000034522  | 360.1    |
|             | WTVP    | D35  | DT  | CP     | PEORIA, IL      | BLANK0000028050  | 111.2    |
|             | WTWO    | D35  | DT  | CP     | TERRE HAUTE, IN | BLANK0000028193  | 131.9    |

| Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New IX |
|--------------|-----------------|-----------------|----------------|----------------|
| 27710.7      | 860,602         | 27651.8         | 858,911        | 25646.4        |
|              |                 |                 |                | 830,210        |
|              |                 |                 |                | 25529.4        |
|              |                 |                 |                | 829,131        |
|              |                 |                 |                | 0.46           |
|              |                 |                 |                | 0.13           |

| Undesired          | Total IX | Unique IX, before | Unique IX, after |
|--------------------|----------|-------------------|------------------|
| W46ER D33 LD CP    | 130.9    | 1,221             | 117.0            |
| WAOE D33 DT BL     | 51.8     | 2,621             | 2.0              |
| KQIN D34 DT LIC    | 8.0      | 289               | 0.0              |
| WCPX-TV D34 DT CP  | 1355.9   | 18,830            | 1297.0           |
| WSIL-TV D34 DT LIC | 67.4     | 668               | 33.7             |
| WQEC D34 DT APP    | 145.3    | 1,690             | 87.4             |
| WISE-TV D34 DT LIC | 11.0     | 138               | 0.0              |
| WKMJ-TV D34 DT CP  | 2.0      | 22                | 0.0              |
| WKEF D34 DT CP     | 13.0     | 133               | 0.0              |
| WTVP D35 DT CP     | 268.2    | 7,188             | 184.4            |
| WTWO D35 DT CP     | 294.0    | 1,850             | 264.3            |

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Interference to BLANK0000034728 CP scenario 2

|             | Call  | Chan | Svc | Status | City, State   | File Number     | Distance |
|-------------|-------|------|-----|--------|---------------|-----------------|----------|
| Desired:    | WCIA  | D34  | DT  | CP     | CHAMPAIGN, IL | BLANK0000034728 |          |
| Undesireds: | W46ER | D33  | LD  | CP     | EFFINGHAM, IL | NewLocation33   | 95.3 km  |
|             | WAOE  | D33  | DT  | BL     | PEORIA, IL    | DTVBL52280      | 109.7    |

|         |     |    |     |                 |                   |       |
|---------|-----|----|-----|-----------------|-------------------|-------|
| KQIN    | D34 | DT | LIC | DAVENPORT, IA   | BLEDT20120921ADS  | 210.7 |
| WCPX-TV | D34 | DT | CP  | CHICAGO, IL     | BLANK0000034347   | 208.6 |
| WSIL-TV | D34 | DT | LIC | HARRISBURG, IL  | BLCDDT20080718AAR | 279.4 |
| WQEC    | D34 | DT | LIC | QUINCY, IL      | BLEDT20040715ADL  | 243.7 |
| WISE-TV | D34 | DT | LIC | FORT WAYNE, IN  | BLANK0000064330   | 297.0 |
| WKMJ-TV | D34 | DT | CP  | LOUISVILLE, KY  | BLANK0000034636   | 296.9 |
| WKEF    | D34 | DT | CP  | DAYTON, OH      | BLANK0000034522   | 360.1 |
| WTVP    | D35 | DT | CP  | PEORIA, IL      | BLANK0000028050   | 111.2 |
| WTWO    | D35 | DT | CP  | TERRE HAUTE, IN | BLANK0000028193   | 131.9 |

| Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New IX |
|--------------|-----------------|-----------------|----------------|----------------|
| 27710.7      | 860,602         | 27651.8         | 858,911        | 25729.8        |
|              |                 | 831,173         | 25612.8        | 830,094        |
|              |                 |                 |                | 0.45           |
|              |                 |                 |                | 0.13           |

| Undesired          | Total IX | Unique IX, before | Unique IX, after |
|--------------------|----------|-------------------|------------------|
| W46ER D33 LD CP    | 130.9    | 1,221             | 117.0            |
| WAOE D33 DT BL     | 51.8     | 2,621             | 2.0              |
| KQIN D34 DT LIC    | 8.0      | 289               | 0.0              |
| WCPX-TV D34 DT CP  | 1355.9   | 18,830            | 1300.0           |
| WSIL-TV D34 DT LIC | 67.4     | 668               | 33.7             |
| WQEC D34 DT LIC    | 11.0     | 258               | 4.0              |
| WISE-TV D34 DT LIC | 11.0     | 138               | 0.0              |
| WKMJ-TV D34 DT CP  | 2.0      | 22                | 0.0              |
| WKEF D34 DT CP     | 13.0     | 133               | 0.0              |
| WTVP D35 DT CP     | 268.2    | 7,188             | 208.4            |
| WTWO D35 DT CP     | 294.0    | 1,850             | 264.3            |

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Interference to BLANK0000072063 APP scenario 1

| Desired:    | Call    | Chan | Svc | Status | City, State     | File Number       | Distance |
|-------------|---------|------|-----|--------|-----------------|-------------------|----------|
|             | WCIA    | D34  | DT  | APP    | CHAMPAIGN, IL   | BLANK0000072063   |          |
| Undesireds: | W46ER   | D33  | LD  | CP     | EFFINGHAM, IL   | NewLocation33     | 95.3 km  |
|             | WAOE    | D33  | DT  | BL     | PEORIA, IL      | DTVBL52280        | 109.7    |
|             | KQIN    | D34  | DT  | LIC    | DAVENPORT, IA   | BLEDT20120921ADS  | 210.7    |
|             | WCPX-TV | D34  | DT  | CP     | CHICAGO, IL     | BLANK0000034347   | 208.6    |
|             | WSIL-TV | D34  | DT  | LIC    | HARRISBURG, IL  | BLCDDT20080718AAR | 279.4    |
|             | WQEC    | D34  | DT  | APP    | QUINCY, IL      | BLANK0000035763   | 243.7    |
|             | WISE-TV | D34  | DT  | LIC    | FORT WAYNE, IN  | BLANK0000064330   | 297.0    |
|             | WKMJ-TV | D34  | DT  | CP     | LOUISVILLE, KY  | BLANK0000034636   | 296.9    |
|             | WKEF    | D34  | DT  | CP     | DAYTON, OH      | BLANK0000034522   | 360.1    |
|             | WTVP    | D35  | DT  | CP     | PEORIA, IL      | BLANK0000028050   | 111.2    |
|             | WTWO    | D35  | DT  | CP     | TERRE HAUTE, IN | BLANK0000028193   | 131.9    |

|                 |                 |                 |                 |                |
|-----------------|-----------------|-----------------|-----------------|----------------|
| Service area    | Terrain-limited | IX-free, before | IX-free, after  | Percent New IX |
| 28091.7 870,490 | 28031.8 868,778 | 25949.0 838,690 | 25827.1 837,518 | 0.47 0.14      |

|                    |               |                   |                  |
|--------------------|---------------|-------------------|------------------|
| Undesired          | Total IX      | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP    | 135.8 1,273   | 122.0 1,172       |                  |
| WAOE D33 DT BL     | 52.8 2,452    | 2.0 0             | 2.0 0            |
| KQIN D34 DT LIC    | 6.0 86        | 0.0 0             | 0.0 0            |
| WCPX-TV D34 DT CP  | 1395.6 19,232 | 1335.7 18,574     | 1335.7 18,574    |
| WSIL-TV D34 DT LIC | 63.5 609      | 31.7 380          | 20.8 295         |
| WQEC D34 DT APP    | 143.3 2,154   | 82.4 1,548        | 82.4 1,548       |
| WISE-TV D34 DT LIC | 8.0 135       | 0.0 0             | 0.0 0            |
| WKMJ-TV D34 DT CP  | 1.0 22        | 0.0 0             | 0.0 0            |
| WKEF D34 DT CP     | 11.0 133      | 0.0 0             | 0.0 0            |
| WTVP D35 DT CP     | 288.2 7,338   | 197.4 4,671       | 197.4 4,671      |
| WTWO D35 DT CP     | 321.8 2,039   | 292.0 1,862       | 292.0 1,862      |

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Interference to BLANK0000072063 APP scenario 2

|          |      |      |     |        |               |                 |          |
|----------|------|------|-----|--------|---------------|-----------------|----------|
| Desired: | Call | Chan | Svc | Status | City, State   | File Number     | Distance |
|          | WCIA | D34  | DT  | APP    | CHAMPAIGN, IL | BLANK0000072063 |          |

|             |         |     |    |     |                 |                   |         |
|-------------|---------|-----|----|-----|-----------------|-------------------|---------|
| Undesireds: | W46ER   | D33 | LD | CP  | EFFINGHAM, IL   | NewLocation33     | 95.3 km |
|             | WAOE    | D33 | DT | BL  | PEORIA, IL      | DTVBL52280        | 109.7   |
|             | KQIN    | D34 | DT | LIC | DAVENPORT, IA   | BLEDT20120921ADS  | 210.7   |
|             | WCPX-TV | D34 | DT | CP  | CHICAGO, IL     | BLANK0000034347   | 208.6   |
|             | WSIL-TV | D34 | DT | LIC | HARRISBURG, IL  | BLCDDT20080718AAR | 279.4   |
|             | WQEC    | D34 | DT | LIC | QUINCY, IL      | BLEDT20040715ADL  | 243.7   |
|             | WISE-TV | D34 | DT | LIC | FORT WAYNE, IN  | BLANK0000064330   | 297.0   |
|             | WKMJ-TV | D34 | DT | CP  | LOUISVILLE, KY  | BLANK0000034636   | 296.9   |
|             | WKEF    | D34 | DT | CP  | DAYTON, OH      | BLANK0000034522   | 360.1   |
|             | WTVP    | D35 | DT | CP  | PEORIA, IL      | BLANK0000028050   | 111.2   |
|             | WTWO    | D35 | DT | CP  | TERRE HAUTE, IN | BLANK0000028193   | 131.9   |

|                 |                 |                 |                 |                |
|-----------------|-----------------|-----------------|-----------------|----------------|
| Service area    | Terrain-limited | IX-free, before | IX-free, after  | Percent New IX |
| 28091.7 870,490 | 28031.8 868,778 | 26027.4 840,217 | 25905.4 839,045 | 0.47 0.14      |

|                   |               |                   |                  |
|-------------------|---------------|-------------------|------------------|
| Undesired         | Total IX      | Unique IX, before | Unique IX, after |
| W46ER D33 LD CP   | 135.8 1,273   | 122.0 1,172       |                  |
| WAOE D33 DT BL    | 52.8 2,452    | 2.0 0             | 2.0 0            |
| KQIN D34 DT LIC   | 6.0 86        | 0.0 0             | 0.0 0            |
| WCPX-TV D34 DT CP | 1395.6 19,232 | 1340.6 18,609     | 1340.6 18,609    |

|                    |       |       |       |       |       |       |
|--------------------|-------|-------|-------|-------|-------|-------|
| WSIL-TV D34 DT LIC | 63.5  | 609   | 31.7  | 380   | 20.8  | 295   |
| WQEC D34 DT LIC    | 10.0  | 260   | 4.0   | 21    | 4.0   | 21    |
| WISE-TV D34 DT LIC | 8.0   | 135   | 0.0   | 0     | 0.0   | 0     |
| WKMJ-TV D34 DT CP  | 1.0   | 22    | 0.0   | 0     | 0.0   | 0     |
| WKEF D34 DT CP     | 11.0  | 133   | 0.0   | 0     | 0.0   | 0     |
| WTVP D35 DT CP     | 288.2 | 7,338 | 225.4 | 4,803 | 225.4 | 4,803 |
| WTWO D35 DT CP     | 321.8 | 2,039 | 292.0 | 1,862 | 292.0 | 1,862 |

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Interference to proposal scenario 1

|             | Call    | Chan | Svc | Status | City, State     | File Number        | Distance |
|-------------|---------|------|-----|--------|-----------------|--------------------|----------|
| Desired:    | W46ER   | D33  | LD  | CP     | EFFINGHAM, IL   | NewLocation33      |          |
| Undesireds: | WICD    | D32  | DT  | LIC    | CHAMPAIGN, IL   | BLANK0000059351    | 99.4 km  |
|             | WTIU    | D33  | DT  | CP     | BLOOMINGTON, IN | BLANK0000034852    | 162.8    |
|             | WUCU-LD | D33  | LD  | LIC    | EVANSVILLE, IN  | BLANK0000010568    | 150.7    |
|             | WHFE-LD | D33  | LD  | CP     | SULLIVAN, IN    | BDCCDTL20061027ABH | 79.1     |
|             | KTVI    | D33  | DT  | CP     | ST. LOUIS, MO   | BLANK0000034468    | 189.9    |
|             | W34EH-D | D34  | LD  | LIC    | CHAMPAIGN, IL   | BLANK0000014112    | 31.3     |
|             | WCIA    | D34  | DT  | CP     | CHAMPAIGN, IL   | BLANK0000034728    | 95.3     |

|                    |                   |                 |                 |
|--------------------|-------------------|-----------------|-----------------|
| Service area       | Terrain-limited   | IX-free         | Percent IX      |
| 6477.5             | 137,832           | 135,905         | 2.34 1.40       |
| Undesired          | Total IX          | Unique IX       | Prcnt Unique IX |
| WICD D32 DT LIC    | 4.0 2 2.0         | 2 0.03 0.00     |                 |
| WTIU D33 DT CP     | 19.8 265 11.9     | 240 0.18 0.17   |                 |
| WHFE-LD D33 LD CP  | 126.0 1,654 117.1 | 1,432 1.81 1.04 |                 |
| KTVI D33 DT CP     | 11.9 220 5.0      | 23 0.08 0.02    |                 |
| W34EH-D D34 LD LIC | 2.0 0 2.0         | 0 0.03 0.00     |                 |
| WCIA D34 DT CP     | 1.0 8 1.0         | 8 0.02 0.01     |                 |

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Interference to proposal scenario 2

|             | Call    | Chan | Svc | Status | City, State     | File Number        | Distance |
|-------------|---------|------|-----|--------|-----------------|--------------------|----------|
| Desired:    | W46ER   | D33  | LD  | CP     | EFFINGHAM, IL   | NewLocation33      |          |
| Undesireds: | WICD    | D32  | DT  | LIC    | CHAMPAIGN, IL   | BLANK0000059351    | 99.4 km  |
|             | WTIU    | D33  | DT  | CP     | BLOOMINGTON, IN | BLANK0000034852    | 162.8    |
|             | WUCU-LD | D33  | LD  | LIC    | EVANSVILLE, IN  | BLANK0000010568    | 150.7    |
|             | WHFE-LD | D33  | LD  | CP     | SULLIVAN, IN    | BDCCDTL20061027ABH | 79.1     |

|         |     |    |     |               |                 |       |
|---------|-----|----|-----|---------------|-----------------|-------|
| KTVI    | D33 | DT | CP  | ST. LOUIS, MO | BLANK0000034468 | 189.9 |
| W34EH-D | D34 | LD | LIC | CHAMPAIGN, IL | BLANK0000014112 | 31.3  |
| WCIA    | D34 | DT | APP | CHAMPAIGN, IL | BLANK0000072063 | 95.3  |

|              |         |                 |         |         |         |            |
|--------------|---------|-----------------|---------|---------|---------|------------|
| Service area |         | Terrain-limited |         | IX-free |         | Percent IX |
| 6477.5       | 137,832 | 6477.5          | 137,832 | 6325.7  | 135,905 | 2.34 1.40  |

|                    |       |          |       |           |      |                 |
|--------------------|-------|----------|-------|-----------|------|-----------------|
| Undesired          |       | Total IX |       | Unique IX |      | Prcnt Unique IX |
| WICD D32 DT LIC    | 4.0   | 2        | 2.0   | 2         | 0.03 | 0.00            |
| WTIU D33 DT CP     | 19.8  | 265      | 11.9  | 240       | 0.18 | 0.17            |
| WHFE-LD D33 LD CP  | 126.0 | 1,654    | 117.1 | 1,432     | 1.81 | 1.04            |
| KTVI D33 DT CP     | 11.9  | 220      | 5.0   | 23        | 0.08 | 0.02            |
| W34EH-D D34 LD LIC | 2.0   | 0        | 2.0   | 0         | 0.03 | 0.00            |
| WCIA D34 DT APP    | 1.0   | 8        | 1.0   | 8         | 0.02 | 0.01            |

COHEN, DIPPELL AND EVERIST, P.C.

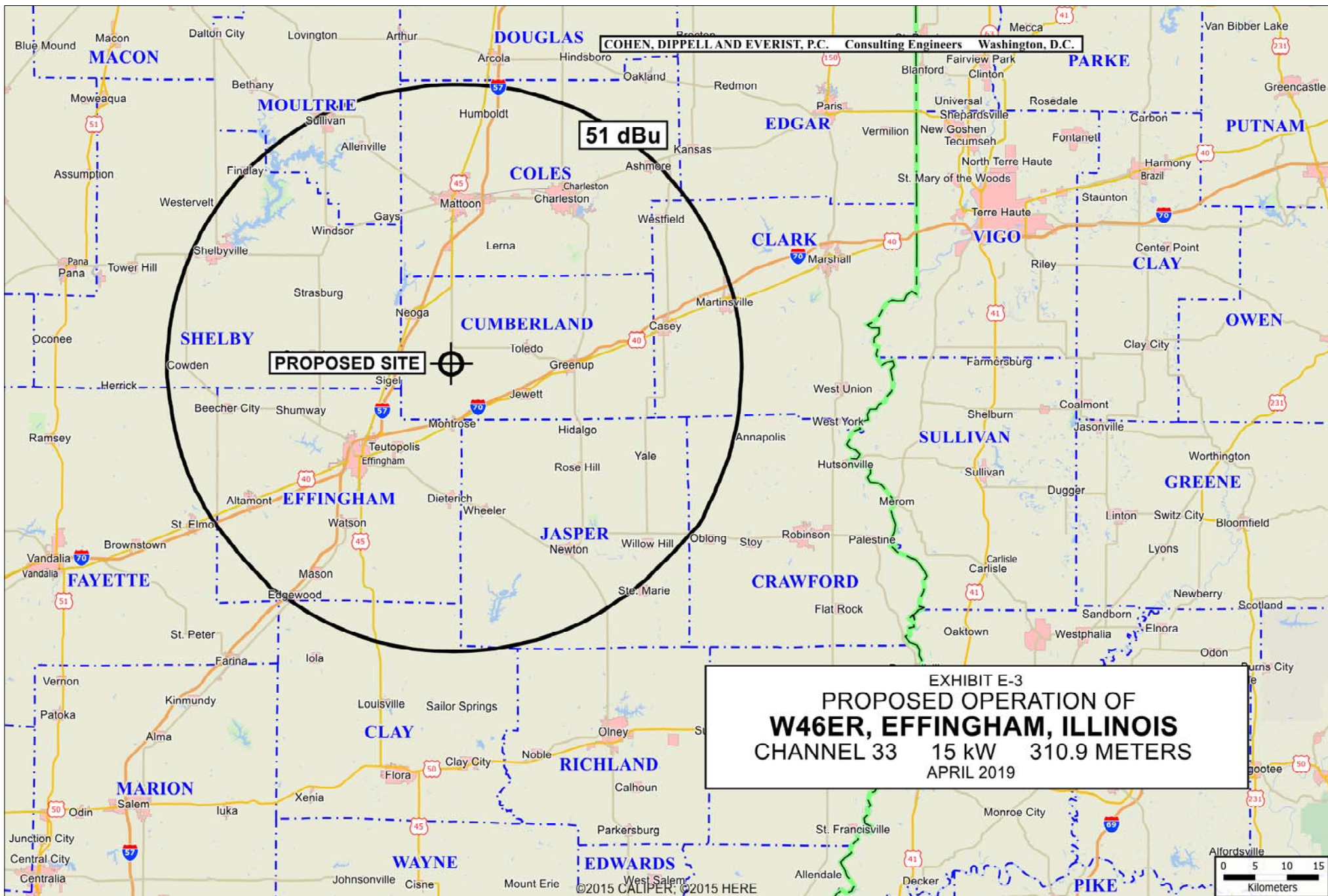
TABLE I  
COMPUTED COVERAGE DATA  
FOR THE DTV OPERATION OF  
W46ER, EFFINGHAM, ILLINOIS  
CHANNEL 33 15 KW MAX ERP 310.9 METERS RC/AMSL  
APRIL 2019

| <u>Radial</u><br>N ° E, T | <u>Average</u><br><u>Elevation</u><br>meters | <u>Effective</u><br><u>Height</u><br>meters | <u>Depression</u><br><u>Angle</u><br>degrees | <u>Effective</u><br><u>Radiated</u><br><u>Power</u><br>kW | <u>Distance to Contour</u><br><u>51 dBu</u><br>km |
|---------------------------|--|---|--|---|---|
| 0                         | 199.2  | 111.7                                       | 0.293  | 15.0  | 44.0  |
| 10                        | 196.4  | 114.5                                       | 0.296  | 15.0  | 44.2  |
| 20                        | 194.4  | 116.5                                       | 0.299  | 15.0  | 44.4  |
| 30                        | 190.4  | 120.5                                       | 0.304  | 15.0  | 44.7  |
| 40                        | 187.5  | 123.4                                       | 0.308  | 15.0  | 44.9  |
| 50                        | 186.0  | 124.9                                       | 0.310  | 15.0  | 45.0  |
| 60                        | 182.9  | 128.0                                       | 0.313  | 15.0  | 45.2  |
| 70                        | 180.8  | 130.1                                       | 0.316  | 15.0  | 45.3  |
| 80                        | 178.8  | 132.1                                       | 0.318  | 15.0  | 45.5  |
| 90                        | 177.6  | 133.3                                       | 0.320  | 15.0  | 45.6  |
| 100                       | 174.7  | 136.2                                       | 0.323  | 15.0  | 45.8  |
| 110                       | 172.5  | 138.4                                       | 0.326  | 15.0  | 45.9  |
| 120                       | 167.8  | 143.1                                       | 0.331  | 15.0  | 46.2  |
| 130                       | 174.1  | 136.8                                       | 0.324  | 15.0  | 45.8  |
| 140                       | 176.9  | 134.0                                       | 0.321  | 15.0  | 45.6  |
| 150                       | 177.6  | 133.3                                       | 0.320  | 15.0  | 45.6  |
| 160                       | 178.9  | 132.0                                       | 0.318  | 15.0  | 45.5  |
| 170                       | 181.3  | 129.6                                       | 0.315  | 15.0  | 45.3  |
| 180                       | 182.4  | 128.5                                       | 0.314  | 15.0  | 45.2  |
| 190                       | 182.7  | 128.2                                       | 0.314  | 15.0  | 45.2  |
| 200                       | 183.4  | 127.5                                       | 0.313  | 15.0  | 45.2  |
| 210                       | 184.7  | 126.2                                       | 0.311  | 15.0  | 45.1  |
| 220                       | 184.9  | 126.0                                       | 0.311  | 15.0  | 45.1  |
| 230                       | 190.2  | 120.7                                       | 0.304  | 15.0  | 44.7  |
| 240                       | 188.3  | 122.6                                       | 0.307  | 15.0  | 44.8  |
| 250                       | 190.9  | 120.0                                       | 0.303  | 15.0  | 44.7  |
| 260                       | 193.0  | 117.9                                       | 0.301  | 15.0  | 44.5  |
| 270                       | 192.0  | 118.9                                       | 0.302  | 15.0  | 44.6  |

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TABLE I  
COMPUTED COVERAGE DATA  
FOR THE DTV OPERATION OF  
W46ER, EFFINGHAM, ILLINOIS  
CHANNEL 33 15 KW MAX ERP 310.9 METERS RC/AMSL  
APRIL 2019

| <u>Radial</u>   | <u>Average</u>   | <u>Effective</u> | <u>Depression</u> | <u>Effective</u> | <u>Distance to Contour</u> |
|-----------------|------------------|------------------|-------------------|------------------|----------------------------|
| <u>N ° E, T</u> | <u>Elevation</u> | <u>Height</u>    | <u>Angle</u>      | <u>Radiated</u>  | <u>51 dBu</u>              |
|                 | meters           | meters           | degrees           | kW               | km                         |
| 280             | 193.8            | 117.2            | 0.300             | 15.0             | 44.4                       |
| 290             | 195.2            | 115.7            | 0.298             | 15.0             | 44.3                       |
| 300             | 196.3            | 114.6            | 0.297             | 15.0             | 44.2                       |
| 310             | 197.2            | 113.7            | 0.295             | 15.0             | 44.1                       |
| 320             | 198.0            | 112.9            | 0.294             | 15.0             | 44.1                       |
| 330             | 198.4            | 112.5            | 0.294             | 15.0             | 44.0                       |
| 340             | 199.9            | 111.0            | 0.292             | 15.0             | 43.9                       |
| 350             | 200.8            | 110.1            | 0.291             | 15.0             | 43.8                       |





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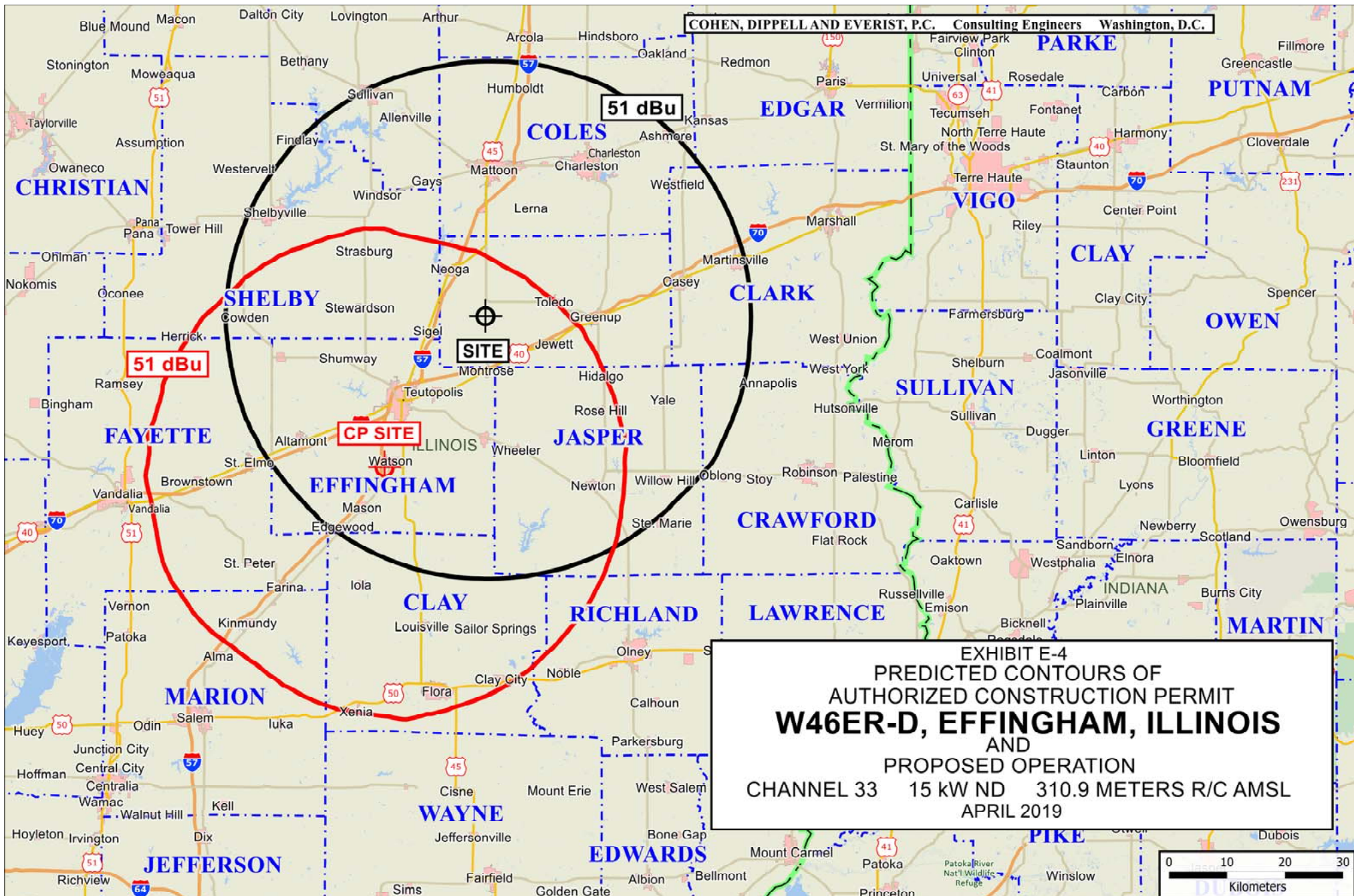


EXHIBIT E-4  
PREDICTED CONTOURS OF  
AUTHORIZED CONSTRUCTION PERMIT  
**W46ER-D, EFFINGHAM, ILLINOIS**  
AND  
PROPOSED OPERATION  
CHANNEL 33 15 kW ND 310.9 METERS R/C AMSL  
APRIL 2019