

ENGINEERING STATEMENT  
RE REQUEST FOR A MINOR CHANGE IN DTV  
APPLICATION (BPEDT-20000501AGV)  
ON BEHALF OF  
EASTERN ILLINOIS UNIVERSITY  
**WEIU-DT, CHARLESTON, ILLINOIS**  
CHANNEL 50 250 KW ERP 180.2 METERS HAAT

JANUARY 2003

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

### Introduction

This engineering statement has been prepared on behalf of Eastern Illinois University ("WEIU"), licensee of TV station WEIU-TV, Charleston, Illinois, in support of its request to make a minor modification in its DTV application (BPEDT-20000501AGV). At present, WEIU-TV operates on NTSC TV Channel 51+ (692-698 MHz) with 46.8 kW effective radiated power ("ERP") and 70.0 meters antenna height above average terrain ("HAAT"). WEIU-TV's analog operation is with a non-directional TV antenna. Station WEIU-TV has been allotted Channel 50 (686-692 MHz) with 50 kW (directional maximum ERP) and 70.0 meters HAAT. In its aforementioned application, WEIU-DT requested facilities of 1000 kW (non-directional) with a HAAT of 238.1 meters. This engineering statement and accompanying Section VII of FCC Form 340 and related exhibits amend that application by changing the antenna site and reducing the proposed maximum ERP to 250 kW.

It is important to note that WEIU-TV will be submitting a request to move its NTSC operation to collocate with this new DTV facility, and duplex these two stations using the proposed antenna.

### Antenna Site

The proposed antenna site has been changed to an existing tower. The existing tower location for the proposed WEIU-DT antenna site is the Roy Reed Farm, 2 miles southeast of Charleston, Illinois. The existing antenna structure registration number is 1017210. The tower is owned by a cable company and is used as a backup system to receive off-the-air signals for cable distribution.

The geographic coordinates of this structure are as follows:

North Latitude: 39° 28' 31.9"

West Longitude: 88° 08' 21.9"

(NAD-27)

For completeness, a seven-and-a-half minute quadrangle map showing the proposed site is included in Exhibit E-4.

The WEIU-DT antenna will be side-mounted at 178.3 meters (585.0 feet) above ground level. The following data shows the pertinent information concerning the proposed operation.

Power Data

Transmitter output	22.34 kW	13.49 dBk
Combiner loss (STF N-1 combiner or equivalent)	1.16	0.65 dB
Transmission line loss	82.1%	0.858 dB
Input power to the antenna	15.8 kW	11.98 dBk
Antenna power gain, Main Lobe	16.0	12.0 dB
Effective Radiated Power, Maximum	250 kW	23.98 dBk

Antenna and Elevation Data

Antenna:	Dielectric	TFU-16DSB-A (C) DC or equivalent	
	Beam Tilt	1.0 ° electrical	
	Non-Directional Max. Power Gain	16.0 (See Exhibits E-2a - E-2c per §73.625(c))	12.0 dB
Elevation of the site above mean sea level:		207.3 meters (680.1 feet)	
Elevation of the top of the existing supporting structure above ground including appurtenances		185.6 meters (608.9 feet)	
Elevation of the top of supporting structure above mean sea level including appurtenances		392.9 meters (1289.0 feet)	
Height of DTV antenna radiation center meters above ground		178.3 meters (585.0 feet)	

Antenna and Elevation Data (continued)

Height of DTV antenna radiation center above mean sea level	385.6 meters (1265.1 feet)
Height of DTV antenna radiation center above average terrain	180.2 meters (591.2 feet)

Authorized Effective Radiated Power

The maximum ERP authorized by the outstanding allocation for the DTV operation is 50 kW at 70 meters HAAT. Station WEIU-DT is proposing to operate its facility with a maximum ERP of 250 kW and 180.2 meters HAAT using a non-directional transmitting antenna from a more opportune, existing site.

The attached map (Exhibit E-3) shows the computed F(50,90) 48 dBu and 41 dBu contour as predicted according to Section 73.625(b) of the Commission's rules.

Principal Community Coverage

In MM Docket No. 00-39, the Commission adopted rules to require DTV stations to place a stronger TV signal over the principal community. The operation proposed by WEIU-DT places a predicted 48 dBu contour over the entire community of Charleston, Illinois.

Topographic Data

The average elevation data of the eight cardinal radials from 3.2 to 16.1 kilometers, is based on the NGDC 3-second computerized terrain database.

Contour Data

Utilizing the formula in Section 73.625(b)(2) for the effective heights shown on the attached tabulation, the depression angle  $A_h$ , for each azimuth has been calculated. The maximum radiation value has been used to calculate ERP where the vertical radiation pattern at these angles is greater than 90% of the maximum.

Table I provides the distances along the eight cardinal radials to the predicted F(50,90) 48 dBu and 41 dBu contours, the average elevations, and the effective antenna heights.

The distances along each radial to the limits of F(50,90) 48 dBu and 41 dBu contours were determined as specified in Section 73.625(b) by reference to the propagation data for Channels 14-69, as published by the Commission in Figures 10b and 10c, Section 73.699 of its rules.

#### Interference Study in Accordance with §73.622 of the FCC's Rules

Due to change in coordinates and increase in power and height above that authorized by the allocation, a comprehensive FCC Longley-Rice study is required.

To perform this study, a version of the Longley-Rice program described in OET Bulletin No. 69 (July 2, 1997) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998) was executed. This version uses the FCC's FORTRAN-77 code that has been modified only to the extent necessary (primarily I/O handling) for the program to run on a Win32/Intel i386-based platform.

Comparison of service/interference areas and populations indicates that this model closely matches the FCC's evaluation program. Best efforts have been made to use data and calculations identical to the FCC's program. Any slight differences are attributable to compiler, operating system, and/or processor characteristics. The effect of any variance in calculated population values versus the FCC's program is minimized when differencing a given model's results, such as calculating new interference as total interference less baseline interference. Any variance effect is further reduced when using ratios of calculated population values such as measuring the incremental population affected as a percent of the total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km<sup>2</sup> using 3-second terrain data sampled approximately every 0.1 km at one degree azimuth intervals with 1990 census centroids.

This study shows potential interference to a handful of stations and prohibited contour overlap to one Class A station, WALV-CA. Nevertheless, after completing the entire study, it

was shown that the current proposal causes no new interference above that allowed by the Commission's rules. For more information, please consult Table II of this Engineering Statement.

#### Other Proposed or Licensed Broadcast Facilities

There are five FM and one TV broadcast operations or proposed operations located within 5 km of the proposed site. No objectionable interference problems are anticipated. However, if any problems occur, the applicant will take the necessary steps to resolve them. There are no AM stations within 3.22 km of the proposed site.

#### Environment Statement

The duplexed NTSC and DTV antenna will be side-mounted on the existing tower at 178.3 meters (585.0 feet) above ground. The following broadcast stations propose to operate from the tower:

WEIU-TV

WEIU-DT

The radiofrequency field level ("RFF") contribution of the two stations will be calculated and summed to form a total representative value for a point 2 meters above ground at the base of the tower.

#### Station WEIU-TV (to be filed)

Channel 51+ Freq: 692-698 MHz Range

$$S = \frac{33.4 (F^2) ERP}{R^2}$$

ERP =	50 kW (Horizontal only)
R =	178.2 meters (antenna height above ground -2 meters)
F =	0.2 (assumed worst-case)

$$S = <1.05 \mu\text{W}/\text{cm}^2$$

The limit for an uncontrolled environment (general population) for this frequency is  $463.3 \mu\text{W}/\text{cm}^2$ .

**WEIU-TV contributes less than 0.23% RFF level for an uncontrolled environment (general population) two meters above the ground.**

**Station WEIU-DT**

Channel 50    Freq: 686-692 MHz Range

$$S = \frac{33.4 (F^2) ERP}{R^2}$$

ERP	=	250 kW (Horizontal only)
R	=	178.2 meters (antenna height above ground -2 meters)
F	=	0.2 (assumed worst-case)

$$S = <10.52 \mu\text{W}/\text{cm}^2$$

The limit for an uncontrolled environment (general population) for this frequency is 459.3  $\mu\text{W}/\text{cm}^2$ .

**WEIU-DT contributes less than 2.29% RFF level for an uncontrolled environment (general population) two meters above the ground.**

Therefore the total RFF percentage two meters above the ground at the highest RFF point will still be less than 5.0% of the limit, when all transmitting antennas<sup>1</sup> on the tower are operational.

The applicant indicates that all authorized personnel climbing the tower will be alerted to the potential zones of high radiation, and if necessary, the station will operate with reduced power or terminated power should the situation require.

**Summary of Environmental Assessment**

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations since the applicant indicates:

- (a)(1)        The proposed facilities on the existing tower will not be located in an officially designated wilderness area.
- (a)(2)        The proposed facilities on the existing tower will not be located in an officially designated wildlife preserve.
- (a)(3)        The proposed facilities on the existing tower will not affect any listed threatened or endangered species or habitats.

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<sup>1</sup>There exists on the tower backup cable receive-only antennas which do not contribute to the RFF level.

- (a)(3)(ii) The proposed facilities on the existing tower 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 on the existing tower will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The proposed facilities on the existing tower will not be located near any known Indian religious sites.
- (a)(6) The proposed facilities on the existing tower will not be located in a flood plain.
- (a)(7) The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines. Authorized personnel will be alerted to areas of the antennas where potential radiation levels are in excess of the FCC guidelines.

TABLE I  
COMPUTED COVERAGE DATA  
FOR THE PROPOSED DTV OPERATION OF  
WEIU-DT, CHARLESTON, ILLINOIS  
CHANNEL 50 250 KW ERP 180.2 METERS  
JANUARY 2003

<u>Radial</u> <u>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 F(50,50)</u>	
					<u>48 dBu</u> <u>City Grade</u> <u>km</u>	<u>41 dBu</u> <u>Noise-Limited</u> <u>km</u>
0	204.8	180.8	0.372	250	65.7	73.4
45	203.2	182.4	0.374	250	65.8	73.5
90	218.1	167.5	0.358	250	64.8	72.4
135	207.2	178.4	0.370	250	65.5	73.2
180	196.6	189.0	0.381	250	66.2	74.0
225	205.0	180.6	0.372	250	65.6	73.4
270	205.1	180.5	0.372	250	65.6	73.4
315	203.6	182.0	0.374	250	65.7	73.5
Average	205.4	180.2				

\*Based on data from FCC 3-second database

DTV Channel 50 (686-692 MHz)  
Average Elevation 3.2 to 16.1 km 205.4 meters AMSL  
Center of Radiation 385.6 meters AMSL  
Antenna Height Above Average Terrain 180.2 meters  
Max. Effective Radiated Power 250 kW (23.98 dBk) Max.

North Latitude: 39° 28' 31.9"  
West Longitude: 88° 08' 21.9"

NAD-27

ABOVE GROUND

ABOVE MEAN SEA LEVEL

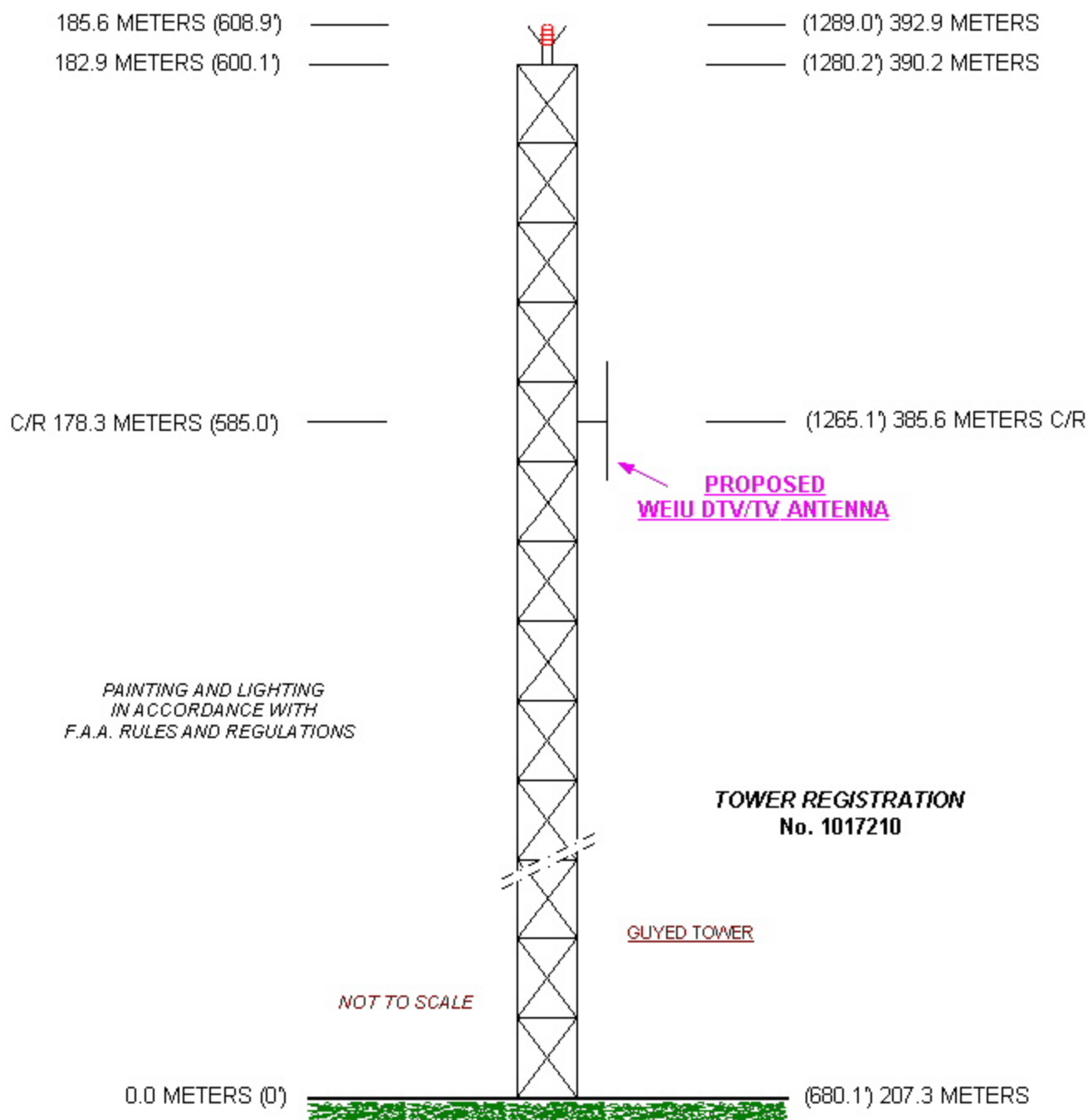


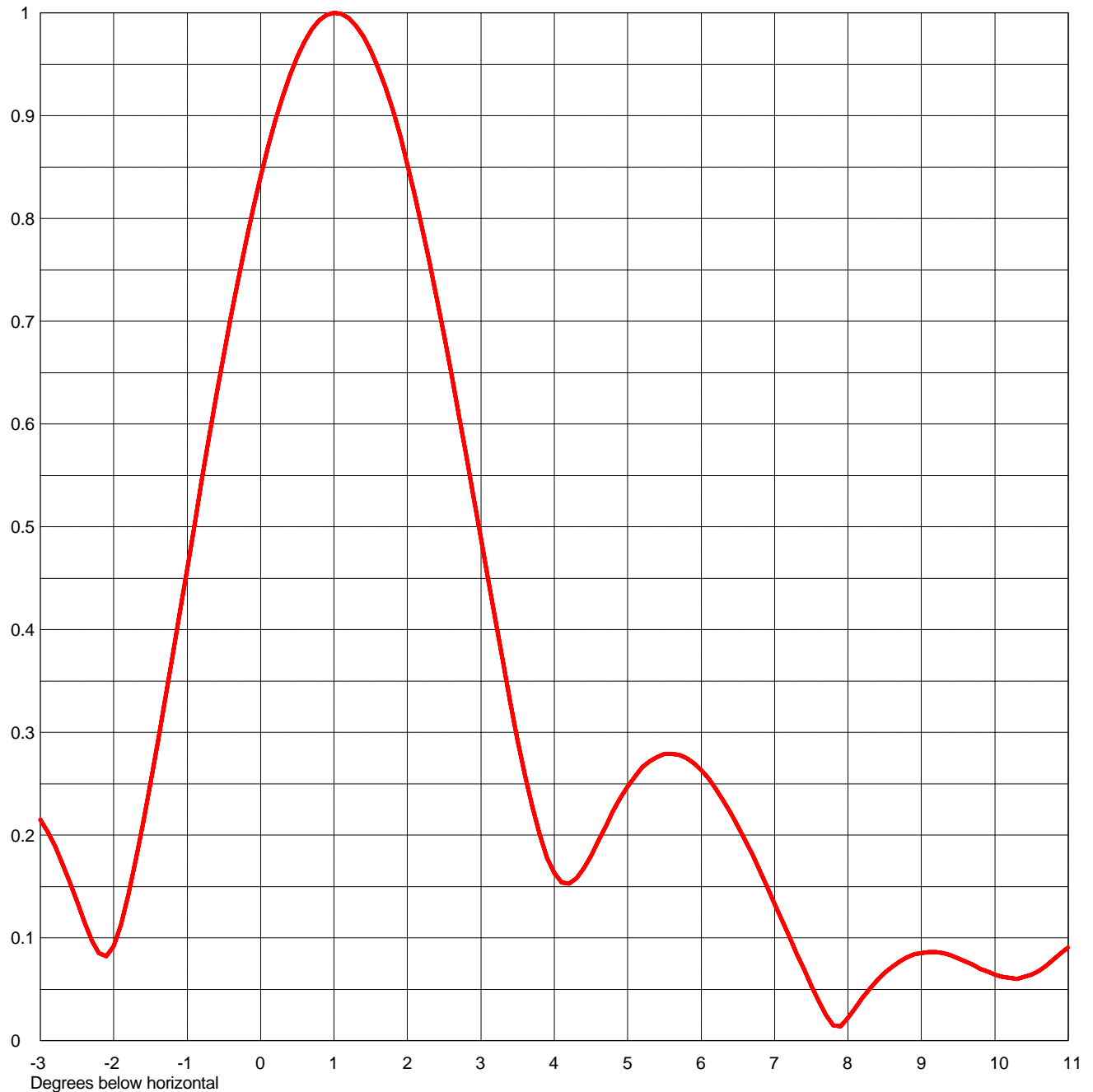
EXHIBIT E-1  
VERTICAL SKETCH  
FOR THE PROPOSED OPERATION OF  
**WEIU-DT, CHARLESTON, ILLINOIS**  
JANUARY 2003



Proposal Number		Revision	
Date	<b>18 Nov 2002</b>		
Call Letters	<b>WEIU-DT</b>	Channel	<b>50</b>
Location	<b>Charleston, IL</b>		
Customer			
Antenna Type	<b>TFU-16DSB-A (C) DC</b>		

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>16.0 (12.04 dB)</b>	Beam Tilt	<b>1.00 Degrees</b>
RMS Gain at Horizontal	<b>11.3 (10.53 dB)</b>	Frequency	<b>689.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>16B160100-50</b>



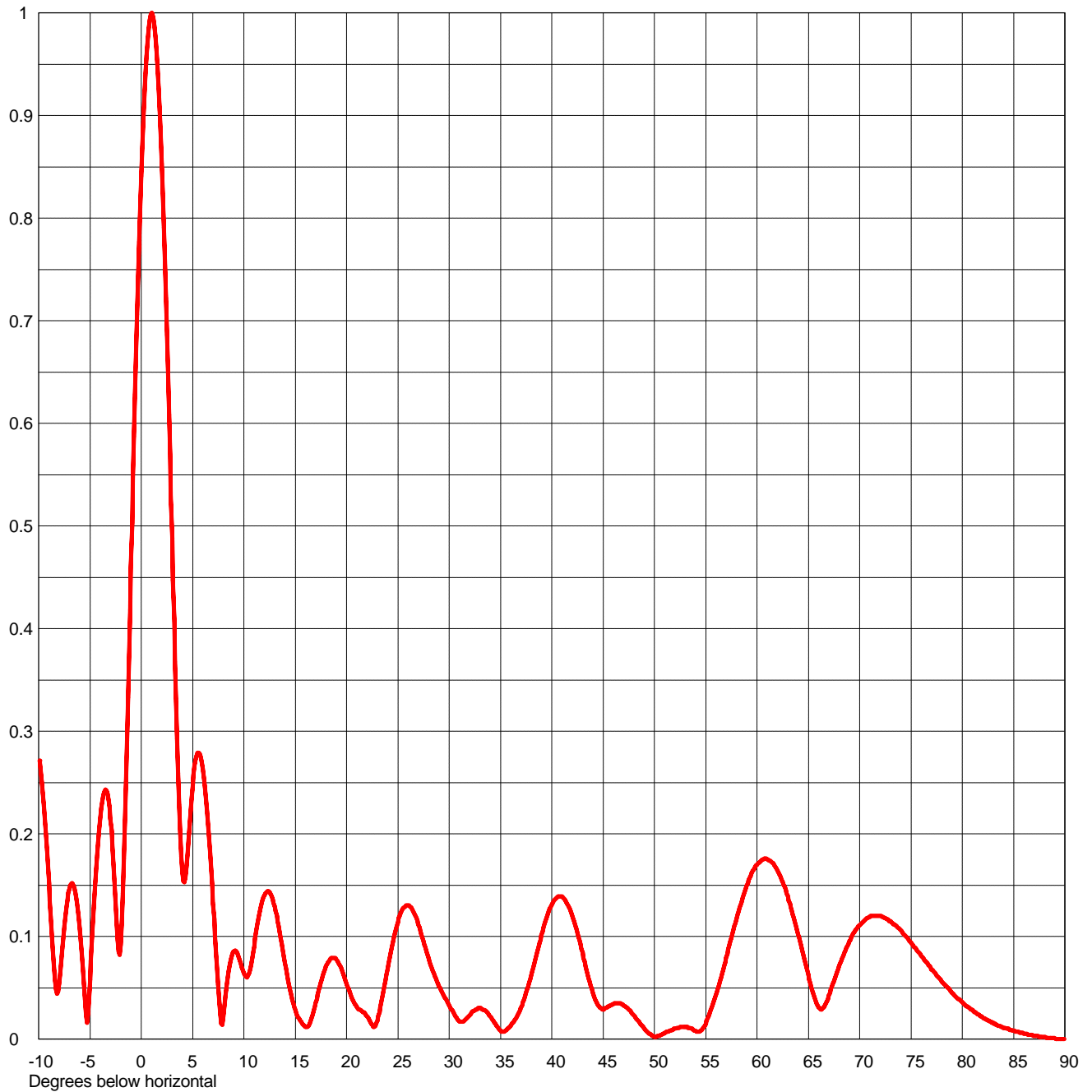
Remarks:



Proposal Number	Revision		
Date	<b>18 Nov 2002</b>		
Call Letters	<b>WEIU-DT</b>	Channel	<b>50</b>
Location	<b>Charleston, IL</b>		
Customer			
Antenna Type	<b>TFU-16DSB-A (C) DC</b>		

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>16.0 (12.04 dB)</b>	Beam Tilt	<b>1.00 Degrees</b>
RMS Gain at Horizontal	<b>11.3 (10.53 dB)</b>	Frequency	<b>689.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>16B160100-90-50</b>



Remarks:



Proposal Number  
 Date **18 Nov 2002**  
 Call Letters **WEIU-DT** Channel **50**  
 Location **Charleston, IL**  
 Customer  
 Antenna Type **TFU-16DSB-A (C) DC**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **16B160100-90-50**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.279	2.4	0.722	10.6	0.068	30.5	0.024	51.0	0.006	71.5	0.120
-9.5	0.227	2.6	0.648	10.8	0.079	31.0	0.017	51.5	0.008	72.0	0.120
-9.0	0.152	2.8	0.569	11.0	0.091	31.5	0.018	52.0	0.010	72.5	0.118
-8.5	0.071	3.0	0.488	11.5	0.121	32.0	0.023	52.5	0.012	73.0	0.115
-8.0	0.054	3.2	0.407	12.0	0.140	32.5	0.028	53.0	0.012	73.5	0.111
-7.5	0.110	3.4	0.330	12.5	0.143	33.0	0.030	53.5	0.011	74.0	0.106
-7.0	0.147	3.6	0.259	13.0	0.129	33.5	0.028	54.0	0.008	74.5	0.100
-6.5	0.147	3.8	0.201	13.5	0.104	34.0	0.022	54.5	0.008	75.0	0.094
-6.0	0.108	4.0	0.163	14.0	0.074	34.5	0.015	55.0	0.015	75.5	0.088
-5.5	0.039	4.2	0.153	14.5	0.047	35.0	0.008	55.5	0.028	76.0	0.081
-5.0	0.058	4.4	0.168	15.0	0.028	35.5	0.008	56.0	0.043	76.5	0.075
-4.5	0.147	4.6	0.195	15.5	0.018	36.0	0.013	56.5	0.060	77.0	0.068
-4.0	0.215	4.8	0.223	16.0	0.012	36.5	0.020	57.0	0.079	77.5	0.062
-3.5	0.243	5.0	0.247	16.5	0.018	37.0	0.030	57.5	0.098	78.0	0.056
-3.0	0.215	5.2	0.266	17.0	0.035	37.5	0.045	58.0	0.117	78.5	0.051
-2.8	0.189	5.4	0.276	17.5	0.055	38.0	0.062	58.5	0.134	79.0	0.045
-2.6	0.154	5.6	0.279	18.0	0.071	38.5	0.082	59.0	0.149	79.5	0.040
-2.4	0.115	5.8	0.275	18.5	0.079	39.0	0.101	59.5	0.162	80.0	0.036
-2.2	0.085	6.0	0.263	19.0	0.078	39.5	0.118	60.0	0.170	80.5	0.032
-2.0	0.092	6.2	0.245	19.5	0.069	40.0	0.131	60.5	0.175	81.0	0.028
-1.8	0.142	6.4	0.222	20.0	0.054	40.5	0.138	61.0	0.175	81.5	0.024
-1.6	0.212	6.6	0.195	20.5	0.040	41.0	0.139	61.5	0.172	82.0	0.021
-1.4	0.291	6.8	0.165	21.0	0.031	41.5	0.132	62.0	0.164	82.5	0.018
-1.2	0.375	7.0	0.133	21.5	0.027	42.0	0.120	62.5	0.153	83.0	0.016
-1.0	0.460	7.2	0.101	22.0	0.022	42.5	0.103	63.0	0.139	83.5	0.013
-0.8	0.545	7.4	0.069	22.5	0.014	43.0	0.084	63.5	0.121	84.0	0.011
-0.6	0.628	7.6	0.039	23.0	0.018	43.5	0.063	64.0	0.102	84.5	0.010
-0.4	0.706	7.8	0.015	23.5	0.041	44.0	0.045	64.5	0.082	85.0	0.008
-0.2	0.777	8.0	0.022	24.0	0.068	44.5	0.033	65.0	0.062	85.5	0.007
0.0	0.841	8.2	0.042	24.5	0.094	45.0	0.029	65.5	0.044	86.0	0.005
0.2	0.896	8.4	0.059	25.0	0.114	45.5	0.032	66.0	0.031	86.5	0.004
0.4	0.940	8.6	0.072	25.5	0.127	46.0	0.034	66.5	0.031	87.0	0.003
0.6	0.972	8.8	0.081	26.0	0.130	46.5	0.035	67.0	0.042	87.5	0.002
0.8	0.993	9.0	0.085	26.5	0.124	47.0	0.033	67.5	0.056	88.0	0.002
1.0	1.000	9.2	0.086	27.0	0.112	47.5	0.029	68.0	0.071	88.5	0.001
1.2	0.995	9.4	0.083	27.5	0.096	48.0	0.023	68.5	0.084	89.0	0.001
1.4	0.977	9.6	0.077	28.0	0.079	48.5	0.017	69.0	0.095	89.5	0.000
1.6	0.946	9.8	0.070	28.5	0.064	49.0	0.011	69.5	0.104	90.0	0.000
1.8	0.905	10.0	0.064	29.0	0.052	49.5	0.005	70.0	0.111		
2.0	0.853	10.2	0.061	29.5	0.042	50.0	0.002	70.5	0.116		
2.2	0.791	10.4	0.062	30.0	0.033	50.5	0.003	71.0	0.119		

Remarks:

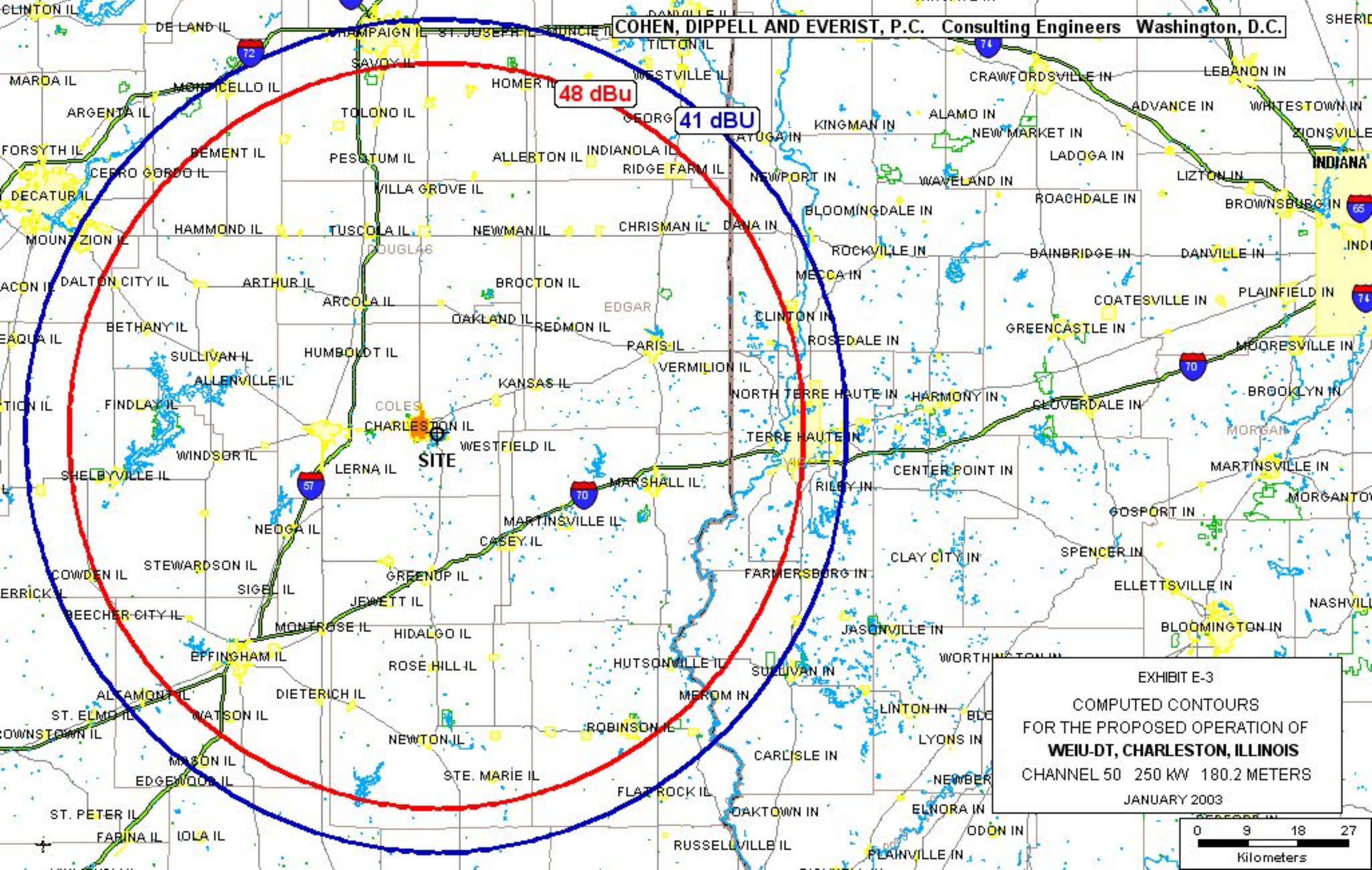
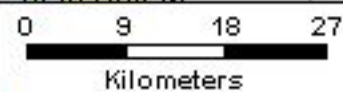
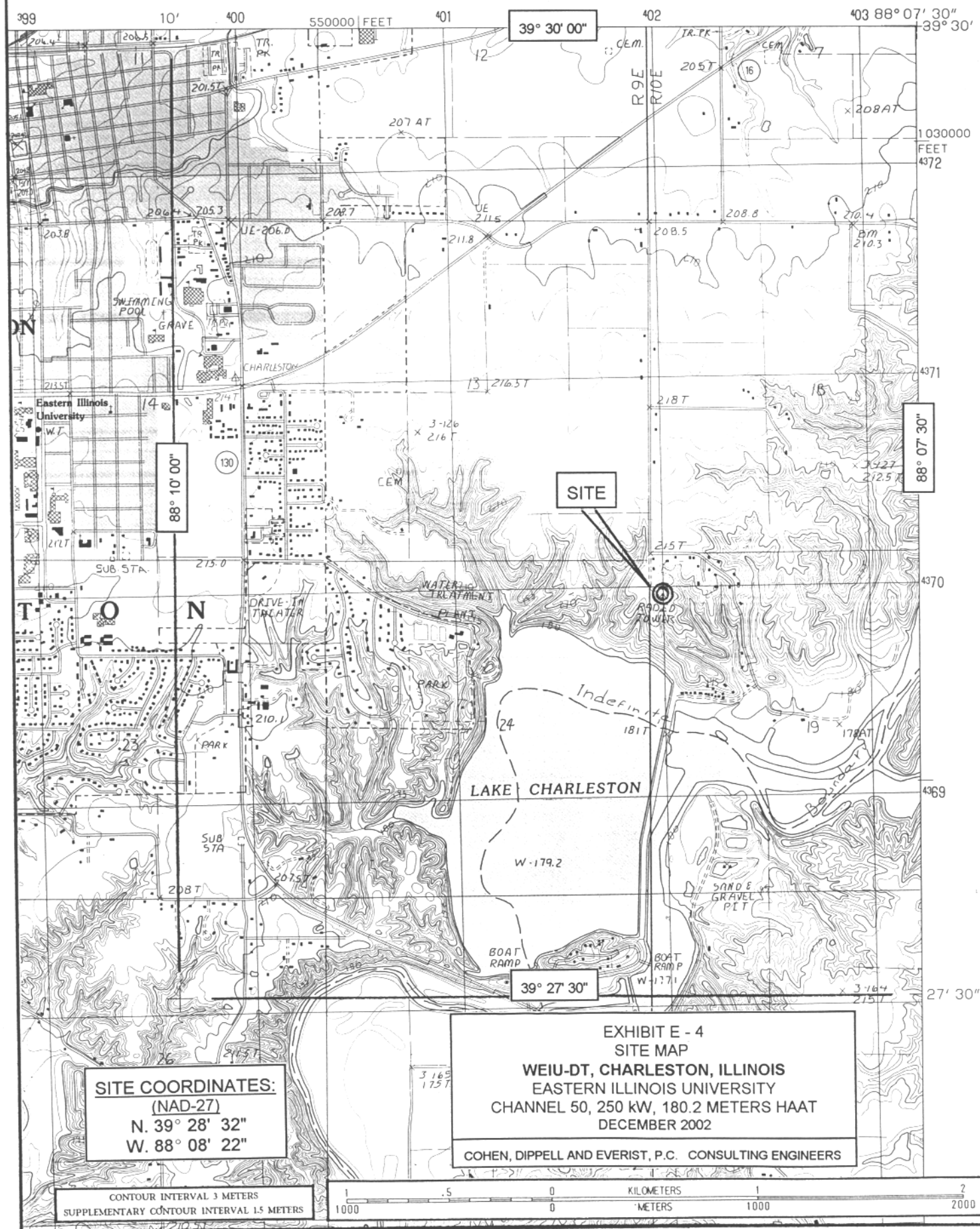


EXHIBIT E-3  
COMPUTED CONTOURS  
FOR THE PROPOSED OPERATION OF  
**WEIU-DT, CHARLESTON, ILLINOIS**  
CHANNEL 50 250 kW 180.2 METERS  
JANUARY 2003



SOURCES

CHARLESTON SOUTH QUADRANGLE  
ILLINOIS  
7.5 MINUTE SERIES (TOPOGRAPHIC)



## Section VII -- Preparer's Certification

I certify that I have prepared Section VII (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		Relationship to Applicant (e.g., Consulting Engineer)	
Signature		Date	
Mailing Address			
City		State or Country (if foreign address)	ZIP Code
Telephone Number (include area code)		E-Mail Address (if available)	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001),  
AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)),  
AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

## SECTION VII- DTV Engineering

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

**Certification Checklist:** A correct answer of "Yes" to all of the questions below will ensure an expeditious grant of a construction permit. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:

- (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
- (b) It will operate from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
- (c) It will operate with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No

2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. ☐ Yes ☐ No

Applicant must **submit the Exhibit** called for in Item 13.

3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. ☐ Yes ☐ No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. ☐ Yes ☐ No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. ☐ Yes ☐ No

## SECTION VII - DTV Engineering

### TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

### TECH BOX

1. Channel Number: DTV \_\_\_\_\_ Analog TV, if any \_\_\_\_\_
2. Zone: ☐ I ☐ II ☐ III
3. Antenna Location Coordinates: (NAD 27)
- \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ N ☐ S Latitude  
\_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " ☐ E ☐ W Longitude
4. Antenna Structure Registration Number: \_\_\_\_\_
- ☐ Not applicable ☐ FAA Notification Filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level: \_\_\_\_\_ meters
6. Overall Tower Height Above Ground Level: \_\_\_\_\_ meters
7. Height of Radiation Center Above Ground Level: \_\_\_\_\_ meters
8. Height of Radiation Center Above Average Terrain: \_\_\_\_\_ meters
9. Maximum Effective Radiated Power (average power): \_\_\_\_\_ kW
10. Antenna Specifications:
- a. 

Manufacturer	Model
--------------	-------
- b. Electrical Beam Tilt: \_\_\_\_\_ degrees ☐ Not Applicable
- c. Mechanical Beam Tilt: \_\_\_\_\_ degrees toward azimuth \_\_\_\_\_ degrees True ☐ Not Applicable
- Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). 

Exhibit No.
-------------
- d. Polarization: ☐ Horizontal ☐ Circular ☐ Elliptical

# TECH BOX

e. Directional Antenna Relative Field Values: ☐ Not applicable (Nondirectional)

Rotation: \_\_\_\_\_ ° ☐ No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the interference protection provisions of 47 C.F.R. Section 73.623(a)? (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") ☐ Yes ☐ No

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefor. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

- a. If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

**PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.**