

WEKF

Eastern Kentucky University

Corbin, Kentucky

Engineering Exhibit

May 2003

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WEKF
Eastern Kentucky University
Corbin, Kentucky
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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Engineering Exhibit for the Eastern Kentucky University, and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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Narrative

This exhibit provides technical information about the antenna pattern and mounting for WEKF, file number BPED-19990114ME.

Antenna Pattern Compliance with §73.316

The proof of performance for the WEKF antenna is provided by Shively Laboratories, the antenna manufacturer. The proof of performance addresses the issues of antenna design, relationship to the tower, and compliance with FCC requirements. Separate certifications are provided by the engineer who supervised the installation and by a registered surveyor.

The measured pattern is in compliance with §73.316(c)(2)(ix)(A). The RMS value of the measured pattern using 36 evenly spaced values is 94.6% of the authorized pattern at the same azimuths.

The measured pattern is in compliance with §73.316(c)(2)(is)(B). Figure 1 shows the 60 dBu F(50,50) contours for the authorized pattern and for the measured pattern as mounted on the tower. As shown, the 60 dBu F(50,50) contour does not exceed the authorized contour at any point. Figure 2 provides greater detail of the community of license showing that the entire community of license is within the 60 dBu F(50,50) contour for the measured pattern as mounted on the tower.

WEKF.C

BPED19990114ME
Latitude: 37-01-13 N
Longitude: 084-23-41 W
ERP: 21.00 kW
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 465.0 m
Elevation: 419.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

WEKFmeas

BPED19990114ME
Latitude: 37-01-13 N
Longitude: 084-23-41 W
ERP: 21.00 kW
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 462.0 m
Elevation: 419.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

WEKF

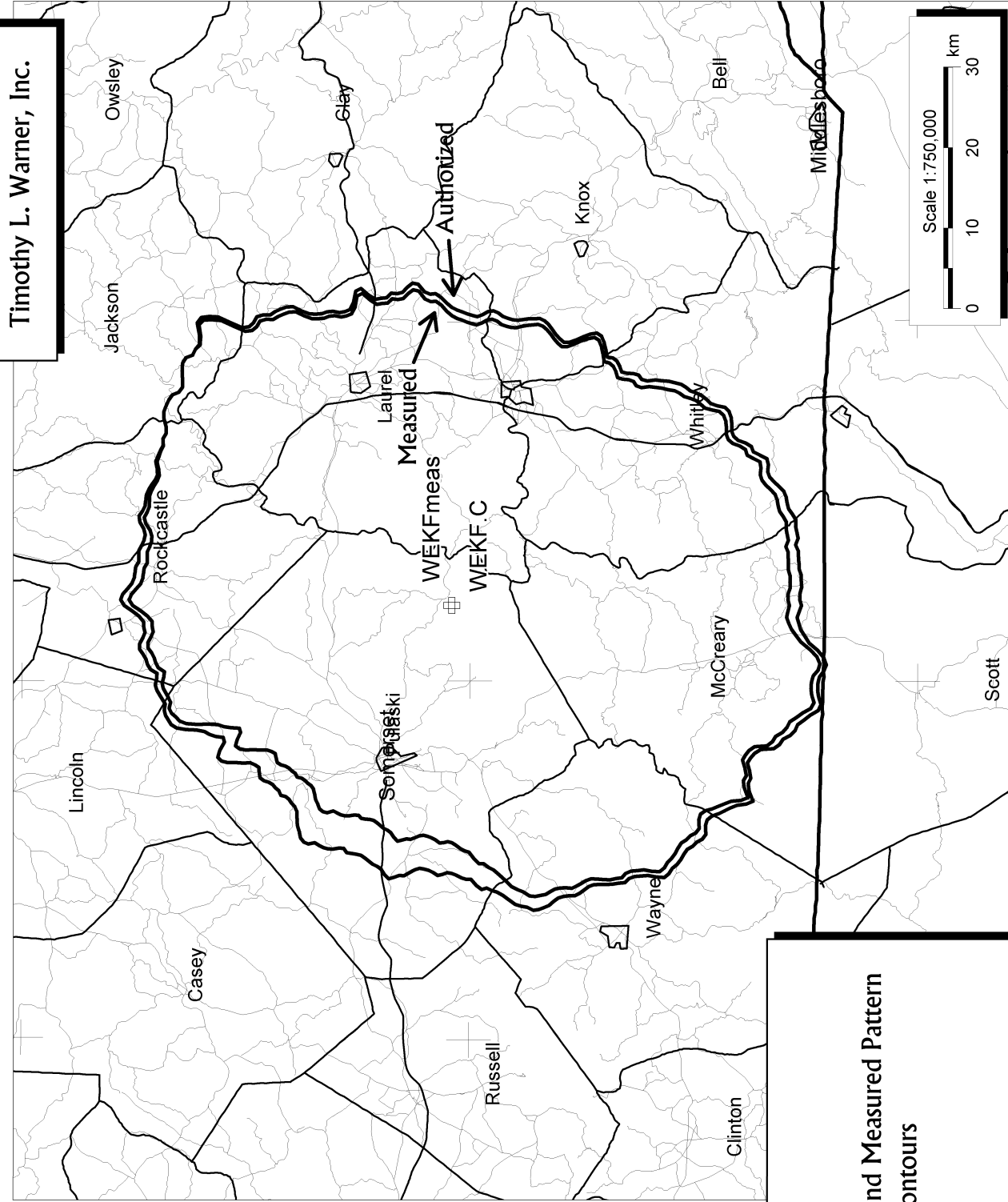
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Authorized Pattern and Measured Pattern

60 dBu F(50,50) Contours

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Figure 1



WEKF.C

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Latitude: 37-01-13 N
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WEKFmeas

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Latitude: 37-01-13 N
Longitude: 084-23-41 W
ERP: 21.00 kW
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 462.0 m
Elevation: 419.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

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Authorized Pattern and Measured Pattern

60 dBu F(50,50) Contours

Detail Community Coverage

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Figure 2

