

TECHNICAL EXHIBIT  
APPLICATION FOR DTV MAXIMIZATION  
STATION WFXG-DT (FACILITY ID 3228)  
AUGUSTA, GEORGIA  
CH 51 333 KW (MAX-DA) 363 M

Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station WFXG-DT to maximize its post-transition facility. This application requests a construction permit (CP) for a digital television operation on channel 51, using its authorized directional antenna.

Proposed Facilities

Station WFXG-DT proposes to operate DTV channel 51 with a directional antenna effective radiated power (ERP) of 333 kilowatts and antenna height above average terrain (HAAT) of 363 meters. The transmitter site coordinates are:

33° 25' 00" North Latitude  
81° 50' 06" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. Figure 2 are the azimuthal and elevation antenna patterns. Figure 3 is a map showing the DTV predicted coverage contours. The predicted 48 dBu contour will encompass all of Augusta. The Augusta city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

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Population Served

The herein proposed WFXG-DT “maximized” facility is predicted to serve 759,047 persons, post-transition, based upon the 2000 Census. WFXG-DT’s associated Appendix B facility is predicted to serve 615,000 persons. Therefore, the herein proposed WFXG-DT facility would serve more than 100% of WFXG-DT’s Appendix B population.

Allocation Considerations

The proposed WFXG-DT operation meets the FCC’s 0.5% post-transition interference standards to pertinent Class A and DTV facilities using the procedures outlined in the FCC’s OET-69 Bulletin and a standard 2 kilometer cell size and 1 kilometer terrain distance increment.

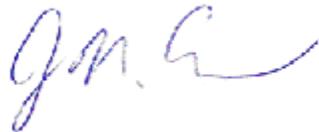
Radiofrequency Electromagnetic Field Exposure

The proposed WFXG-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 323 meters above ground level with a maximum ERP of 333 kW. A conservative relative field value of 0.3 was assumed for the calculation (see Figure 2). The calculated power density at a point 2 meters above ground level will not exceed 0.01 mW/cm<sup>2</sup>. This is less than 5% of the FCC's recommended limit of 0.46 mW/cm<sup>2</sup> for channel 51 for an “uncontrolled” environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by

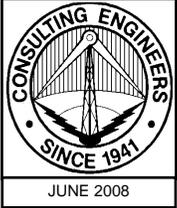
spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the station is at reduced power or shut down. The proposed WFXG-DT operation appears to be otherwise categorically excluded from environmental processing.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.

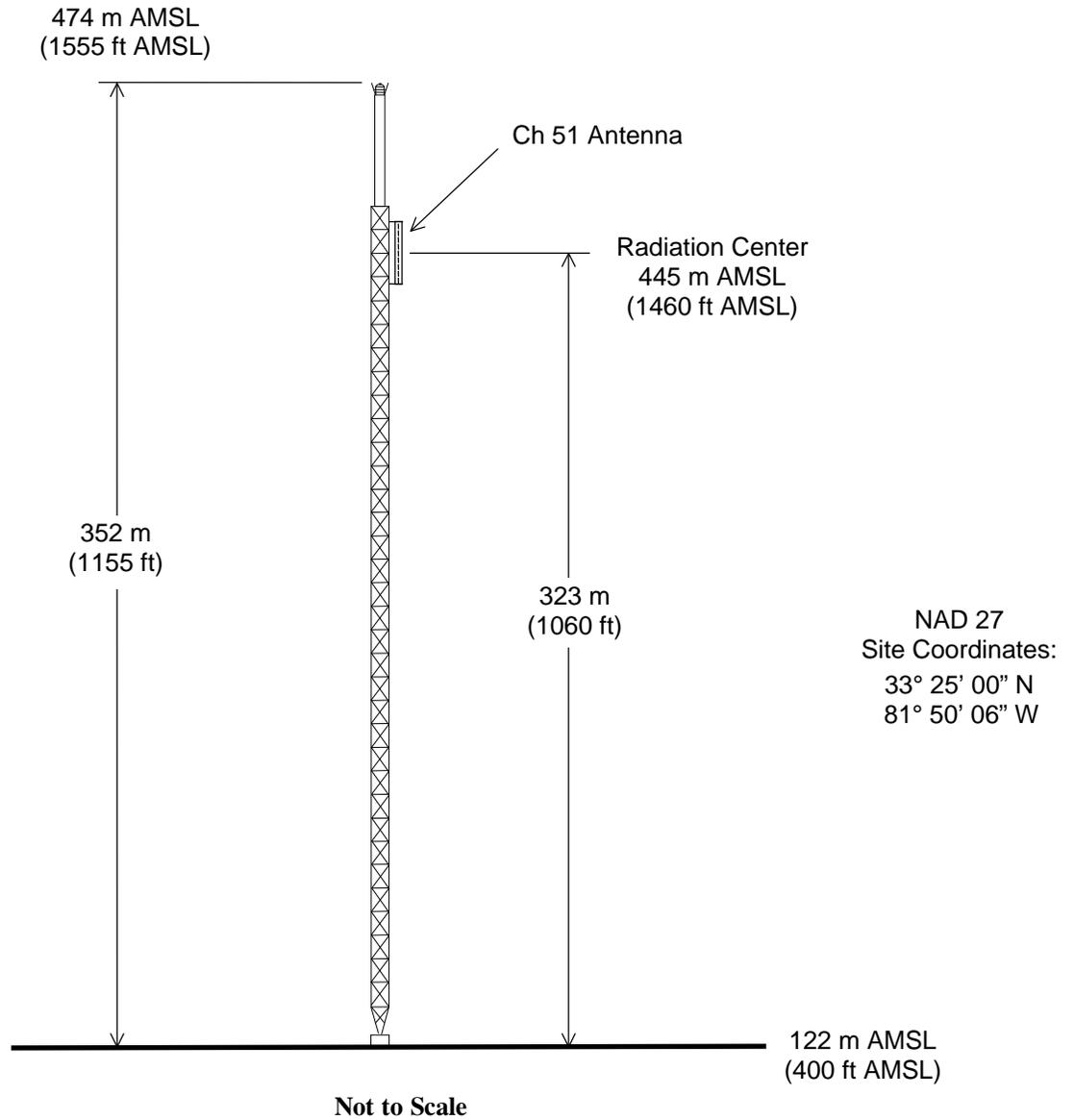


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Registration No. 1045869



## ANTENNA AND SUPPORTING STRUCTURE

STATION WFXG-DT  
AUGUSTA, GEORGIA

CH 51 333 KW (MAX-DA) 363 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2A



Proposal Number  
Date **22 Oct 2004** Revision  
Call Letters **WFXG-DT** Channel **51**  
Location **Augusta, GA**  
Customer  
Antenna Type **TFU-28DSC/VP-R CT150**

**Horizontal Polarization**  
**Peak Gain: 32.0**

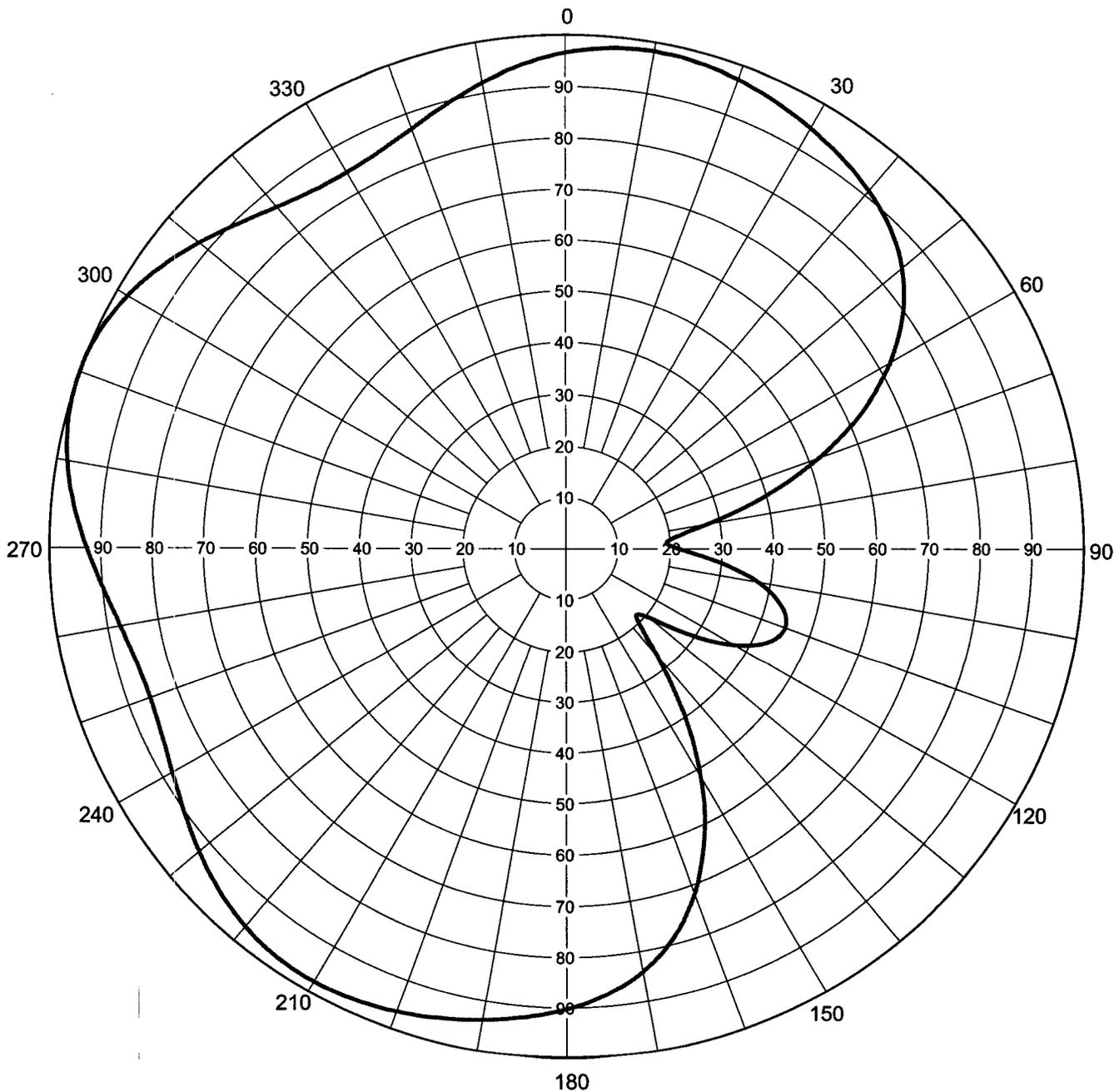
**AZIMUTH PATTERN**

Gain  
Calculated / Measured

**1.50 (1.76 dB)**  
**Calculated**

Frequency  
Drawing #

**695 MHz**  
**TFU-CT150-51**



Remarks:



Proposal Number  
Date **22 Oct 2004**  
Call Letters **WFXG-DT** Channel **51**  
Location **Augusta, GA**  
Customer  
Antenna Type **TFU-28DSC/VP-R CT150**

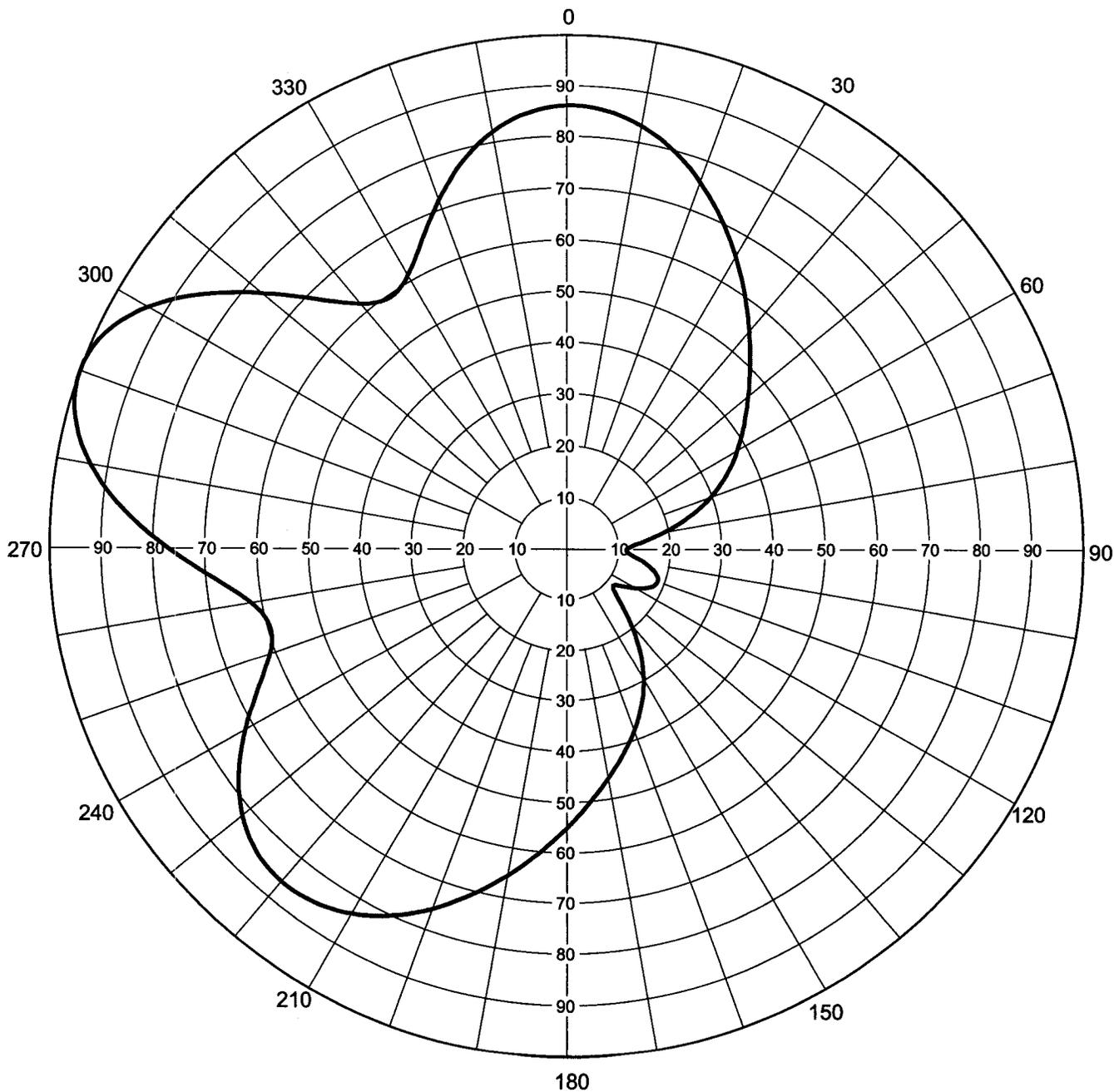
**Vertical Polarization**  
**Peak Gain: 8.0**

**AZIMUTH PATTERN**

Gain  
Calculated / Measured

**2.50 (3.98 dB)**  
**Calculated**

Frequency **695 MHz**  
Drawing # **TFU-CT250-51**



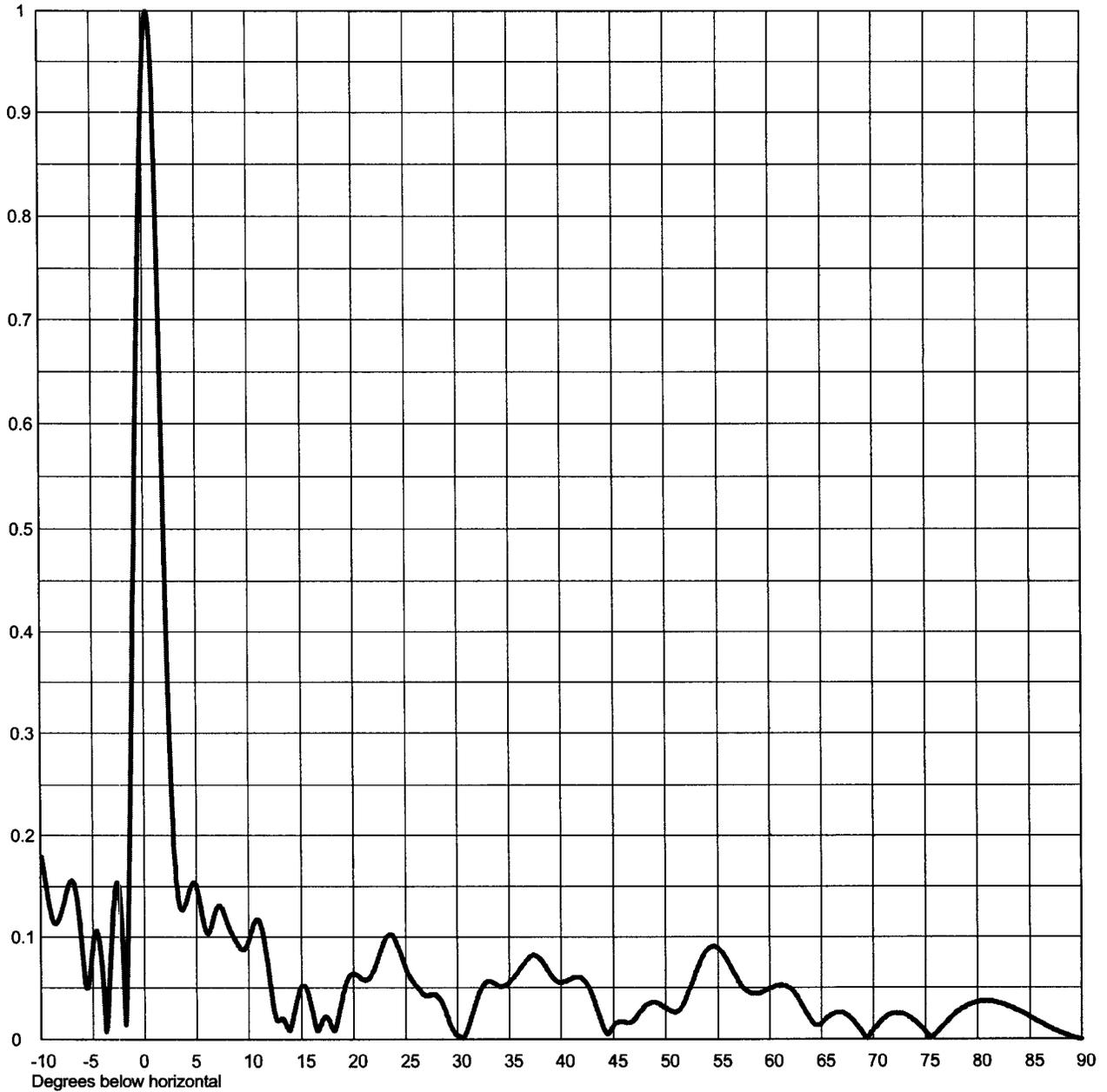
Remarks: Vpol



Proposal Number  
Date **22 Oct 2004**  
Call Letters **WFXG-DT** Channel **51**  
Location **Augusta, GA**  
Customer  
Antenna Type **TFU-28DSC/VP-R CT150**

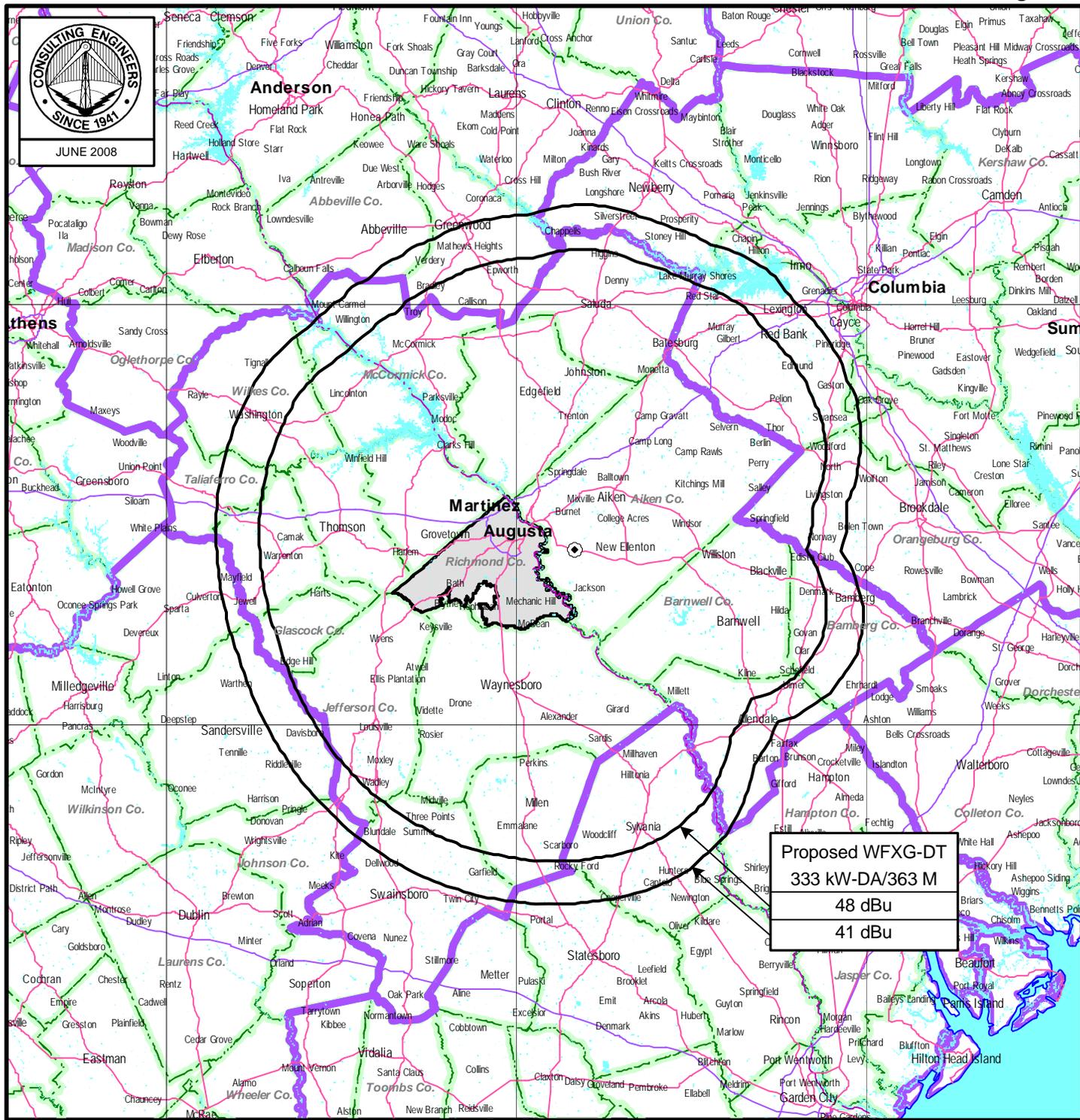
**ELEVATION PATTERN**

RMS Gain at Main Lobe	<b>24.5 (13.89 dB)</b>	Beam Tilt	<b>0.50 Degrees</b>
RMS Gain at Horizontal	<b>21.1 (13.24 dB)</b>	Frequency	<b>695.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>28Q24505-90</b>



Remarks:

Figure 3



# PREDICTED COVERAGE CONTOURS

STATION WFXG-DT  
AUGUSTA, GEORGIA

CH 51 333 kW (MAX-DA) 363 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida