

TECHNICAL EXHIBIT  
MINOR CHANGE APPLICATION FOR  
MODIFICATION OF CONSTRUCTION PERMIT  
STATION WRBL-DT (FACILITY ID 3359)  
COLUMBUS, GEORGIA

APRIL 6, 2006

CH 15 1000 KW-ND 507 M

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Technical Narrative

This Technical Exhibit supports a minor change application for modification of construction permit (CP) for digital television (DTV) station WRBL-DT at Columbus, Georgia (Facility ID 3359).

Station WRBL was allotted DTV channel 15 at its analog site (32-19-25, 84-46-46). The FCC assigned the channel 15 DTV allotment an effective radiated power (ERP) of 1000 kilowatts (kW) and antenna height above average terrain (HAAT) of 543 meters.

Station WRBL-DT is currently authorized to operate on channel 15 (BPCDT-19991015ABE) with a non-directional (ND) antenna system. The ERP is 1000 kW and the antenna HAAT is 448.7 meters. The antenna center of radiation is 439.3 meters above ground level (AGL), and 591.7 meters above mean sea level (AMSL). The transmitter site coordinates are 32-19-25, 84-46-46 (NAD-27). The FCC antenna structure registration number is 1019721.

Proposed DTV Facilities

This minor change application to modify the CP proposes to relocate to a nearby tower and increase the antenna HAAT. It is proposed to use a Dielectric, model TFU-30GTH-R O4 non-directional antenna system. The proposed tower is 1.1 kilometers

west-southwest of the WRBL-DT CP site. The proposed site coordinates are 32-19-16, 84-47-28 (NAD-27) and the FCC antenna structure registration number is 1243417. The antenna will be mounted on the tower with the center of radiation 481 meters AGL, and 628.2 meters AMSL. The proposed antenna HAAT will be 507 meters. The ERP will remain at 1000 kW-ND. There is no proposed change in channel (15) or city of license (Columbus, GA).

Figure 1 is a map showing the predicted 41 dBu and 48 dBu contours for the proposed WRBL-DT operation. The city limits of Columbus, Georgia are indicated. The predicted 48 dBu contour encompasses all of the Columbus city limits. The estimated population (2000 Census) and land area within the predicted 41 dBu contour are 1,157,146 people and 41,003 square kilometers, respectively.

Figure 1 also shows the predicted 41 dBu contour for the WRBL DTV allotment operation (Ch.15, 1000 kW-DA, 543 m). The proposed 41 dBu contour is completely within the DTV allotment 41 dBu contour, complying with the FCC's freeze exemption for minor change DTV applications.

Figure 2 shows the proposed antenna's vertical radiation pattern.

### Allocation Study

An interference study was conducted using the procedures outlined in the FCC's OET-69 Bulletin, a 2 kilometer grid, and the 1990 Census (current FCC processing method). The proposed WRBL-DT operation complies with the FCC's interference standards.

There are no known AM stations within 5 kilometers (3.1 miles) of the proposed WRBL-DT site. There are no FM stations within 1 kilometer of the proposed site. The co-located operations of WLGA-TV (Ch.66) and WLGA-DT (Ch.31) at Opelika, Alabama are the only TV stations within 1 kilometer of the proposed site. No adverse electromagnetic interaction is expected from WRBL-DT's proposed operation. The applicant recognizes its responsibility to correct prohibited interference problems that its proposed operation may create.

The WRBL-DT site is more than 1000 kilometers from the closest point of the Canadian border. The WRBL-DT site is more than 1200 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Powder Springs, Georgia, 171 kilometers to the north. The closest point of the National Radio Quiet Zone (VA/WVA) is more than 600 kilometers to the northeast. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 2000 kilometers to the northwest. The closest radio astronomy site using channel 37 is at Green Bank, West Virginia, more than 800 kilometers to the northeast.

Calculations have been made concerning interference that the proposed WRBL-DT operation would receive. The calculations are based on the OET-69 procedures using a 2 kilometer grid and the 2000 Census. After consideration of terrain and interference, the proposed WRBL-DT operation would serve 1,157,018 people. This complies with the WRBL-DT certification and FCC's "use-it-or-lose-it" requirement.

#### Radiofrequency Electromagnetic Field Exposure

The proposed WRBL-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 antenna is located 481 meters above ground level. The proposed ERP of 1000 kW is assumed. A relative field value of 0.15 was assumed for the antenna's downward radiation (see Figure 2). The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.003276 mW/cm<sup>2</sup>. This is 1% of the FCC's recommended limit of 0.32 mW/cm<sup>2</sup> for channel 15 for an "uncontrolled" environment. The calculated power density is less than 1% of the FCC's recommended limit for a "controlled" environment.

Access to the transmitting equipment 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 stations are at reduced power or shut down. 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 as part of the tower registration process.

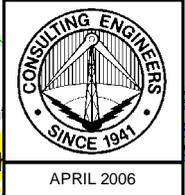
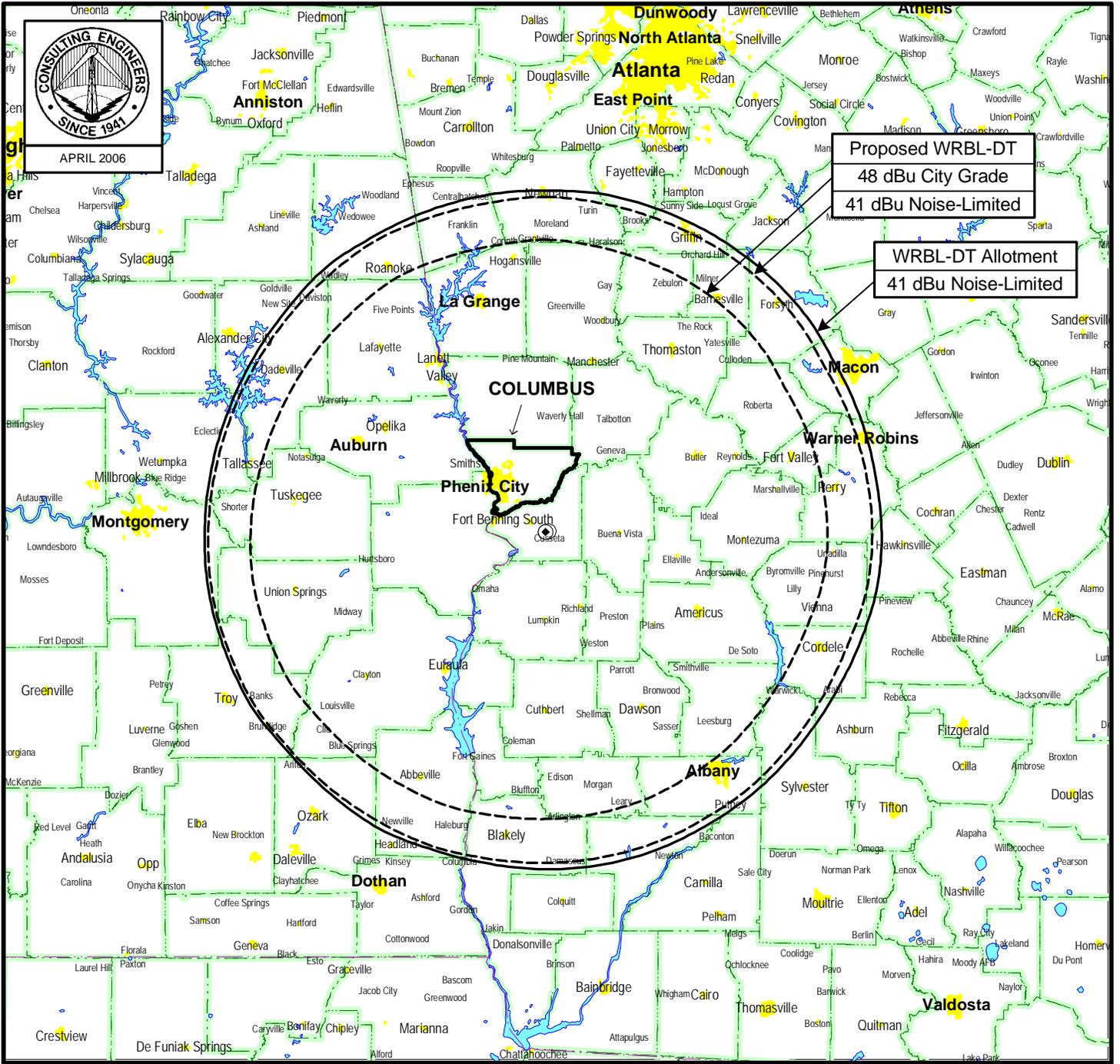
If there are questions concerning the technical portion of this application, please contact the office of the undersigned.

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April 6, 2006

Figure 1



Proposed WRBL-DT  
48 dBu City Grade  
41 dBu Noise-Limited

WRBL-DT Allotment  
41 dBu Noise-Limited

20 0 20 40 60 80 100 120 140 160 180 200 miles

20 0 20 60 100 140 180 220 260 300 kilometers

**PREDICTED COVERAGE CONTOURS**

STATION WRBL-DT

COLUMBUS, GEORGIA

CH 15 1000 KW 507 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

# Dielectric

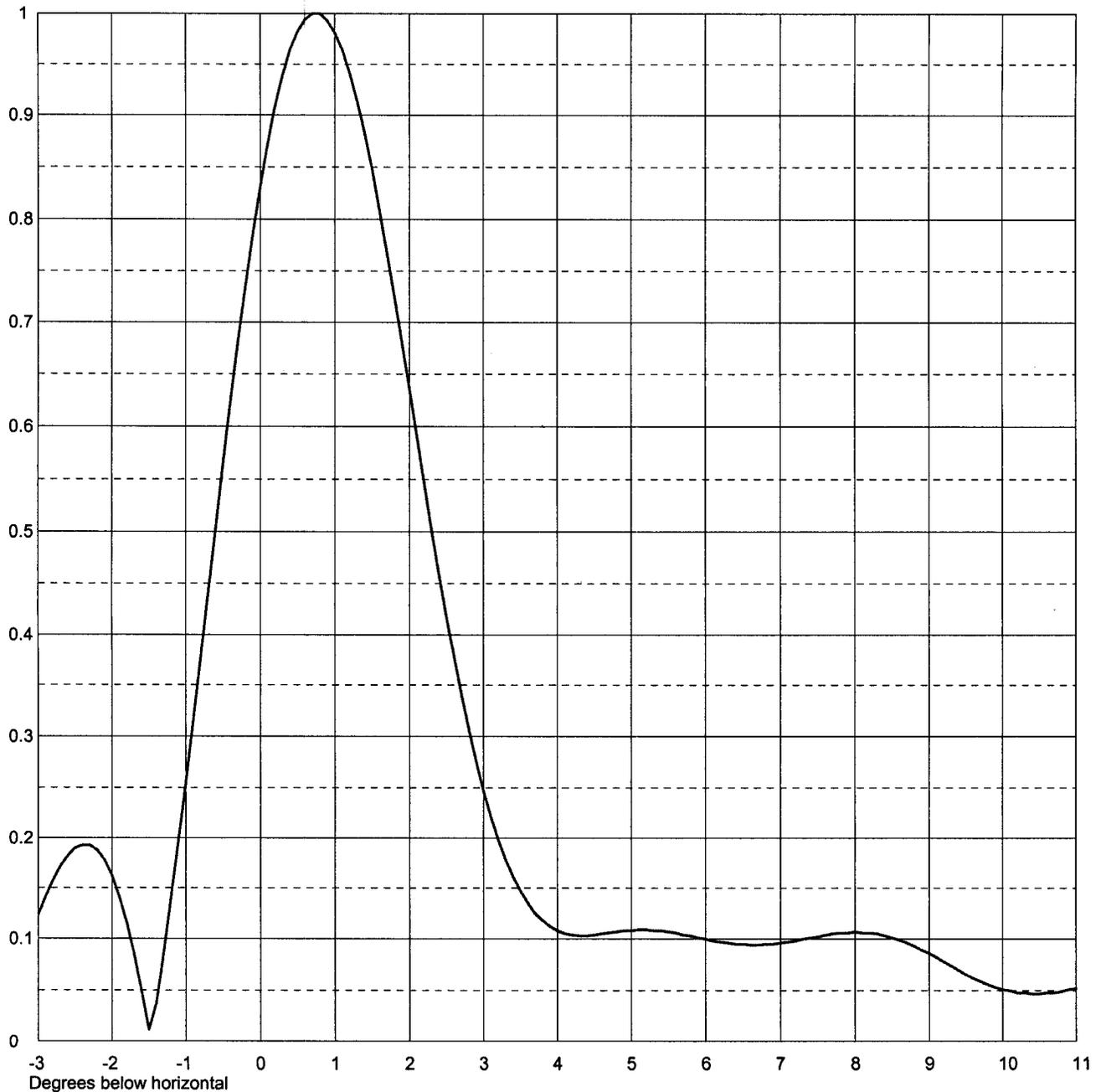
Date **06 Apr 2006**  
Call Letters **WRBL-DT** Channel **15**  
Location **Columbus, GA**  
Customer **Media General**  
Antenna Type **TFU-30GTH O4**

## ELEVATION PATTERN

RMS Gain at Main Lobe  
RMS Gain at Horizontal  
Calculated / Measured

**27.0 (14.31 dB)**  
**18.7 (12.72 dB)**  
**Calculated**

Beam Tilt **0.75 Degrees**  
Frequency **479.00 MHz**  
Drawing # **30G270075**



Remarks:

# Dielectric

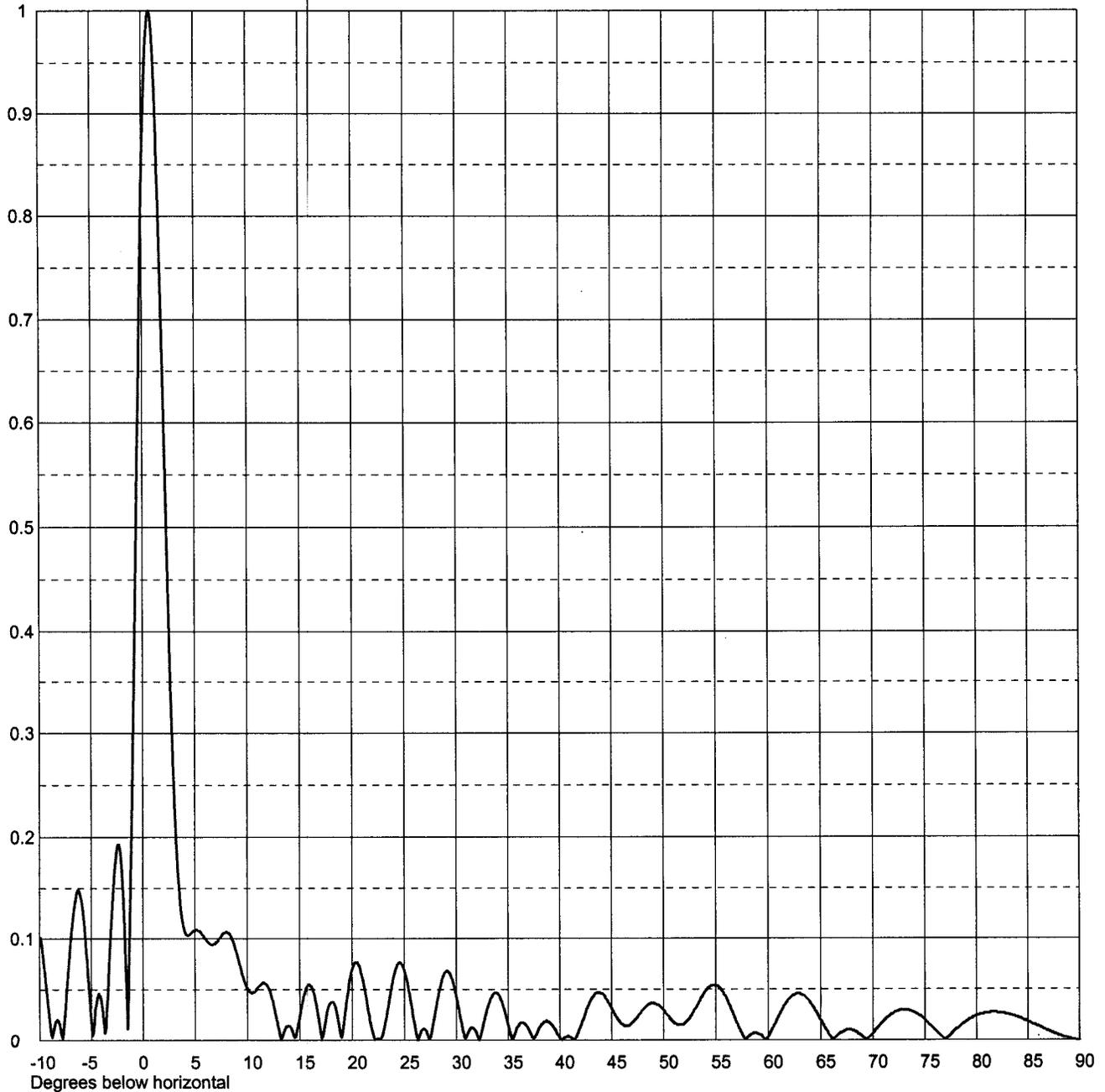
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RMS Gain at Main Lobe  
RMS Gain at Horizontal  
Calculated / Measured

**27.0 (14.31 dB)**  
**18.7 (12.72 dB)**  
**Calculated**

Beam Tilt **0.75 Degrees**  
Frequency **479.00 MHz**  
Drawing # **30G270075-90**



Remarks: