

TECHNICAL EXHIBIT  
AMENDMENT TO THE APPLICATION  
FOR CONSTRUCTION PERMIT  
STATION WGNO-DT (FACILITY ID 72119)  
NEW ORLEANS, LOUISIANA

MARCH 13, 2001

CH 15    870 KW (MAX-DA)    312 M

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Technical Narrative

This Technical Exhibit supports an amendment to the application for construction permit for digital television (DTV) station WGNO-DT on channel 15 at New Orleans, Louisiana. Station WGNO-DT has an application pending to operate with a directional antenna maximum effective radiated power (ERP) of 900 kW and an antenna height above average terrain (HAAT) of 312 meters (BPCDT-19990901AAE).

Proposed Facilities

This amendment proposes ONLY to reduce directional ERP from the application on file. Changes are being made to FCC form 301, Section III-D, questions 9 (ERP), 12 (coverage map) and 13 (RFR analysis). Operation at the current site (coordinates: 29-58-57 N, 89-56-58 W) with a maximum directional ERP of 870 kW and antenna HAAT of 312 meters is hereby proposed.

The proposed transmitter site is more than 1,400 kilometers from the closest point of the Canadian border. The site is more than 800 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Powder Springs, Georgia, more than 600 kilometers to the northeast. The closest point of the National Radio Quiet Zone (VA/WV) is more than 1,200 kilometers to the northeast. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 1,700 kilometers to the northwest. The closest radio astronomy site operating on TV channel 37 is at North Liberty, Iowa, more than 1,300 kilometers to the north. These separations are sufficient to not be a concern for coordination purposes.

### Allocation Study

Interference calculations have been made using the procedures outlined in the FCC's OET-69 bulletin, using a **1 kilometer grid spacing**. The pending application appears to cause excessive interference to the DTV allotment for station WHNO. As shown in the table below, this proposal will reduce the interference caused to the WHNO-DT allotment to acceptable levels.

NTSC/DTV Station	Baseline	Proposed UNIQUE Interference
WHNO, DTV-14 allotment, New Orleans, LA	1,448,687	28,791 (2.0%)

The proposed WGNO-DT operation does not cause prohibitive interference to any other analog or DTV assignments and therefore complies with the FCC's 2%/10% interference standard.

### Class A Consideration

The FCC's CDBS and its list of low power television (LPTV) assignments eligible for Class A status has been reviewed for potential impact. Interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin. The proposed WGNO-DT operation does not cause any new calculated interference to any current or potential Class A station over that already predicted to be caused by the current WGNO-DT application (filed prior to the FCC's May 1, 2001 DTV maximization deadline). If necessary, a waiver of the FCC rules is requested based on use of the FCC's OET-69 procedures to demonstrate no interference to LPTV assignments requesting Class A status.

### Radiofrequency Electromagnetic Field Exposure

The proposed WGNO-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 312 meters above ground level. The

maximum DTV ERP is 870 kW. A conservative relative field of 0.1 was used for the calculation (see Exhibit 1). Therefore, the "worst-case" calculated power density at a point 2 meters (6.6 feet) above ground level is  $0.0030 \text{ mW/cm}^2$ . This is less than 1% of the FCC's recommended limit of  $0.32 \text{ mW/cm}^2$  for channel 15 for an "uncontrolled" environment.

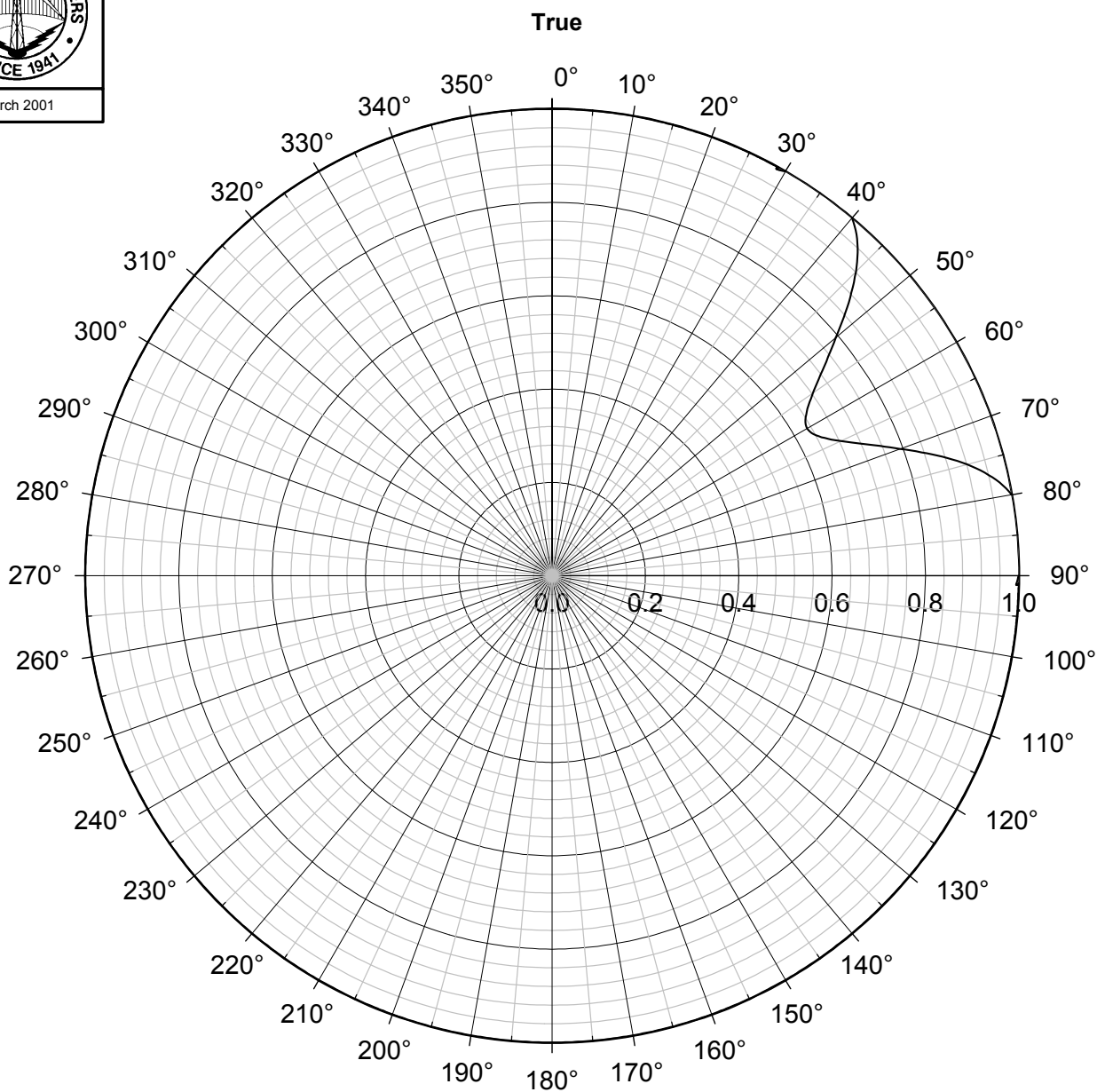
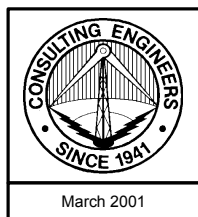
Access to the transmitting site will be restricted and appropriately marked with warning signs. As this is a multi-user site an agreement will control access. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure 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. The proposed WGNO-DT operation appears to be otherwise categorically excluded from environmental processing.

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

Jonathan N. Edwards

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201 Fletcher Avenue  
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March 13, 2001



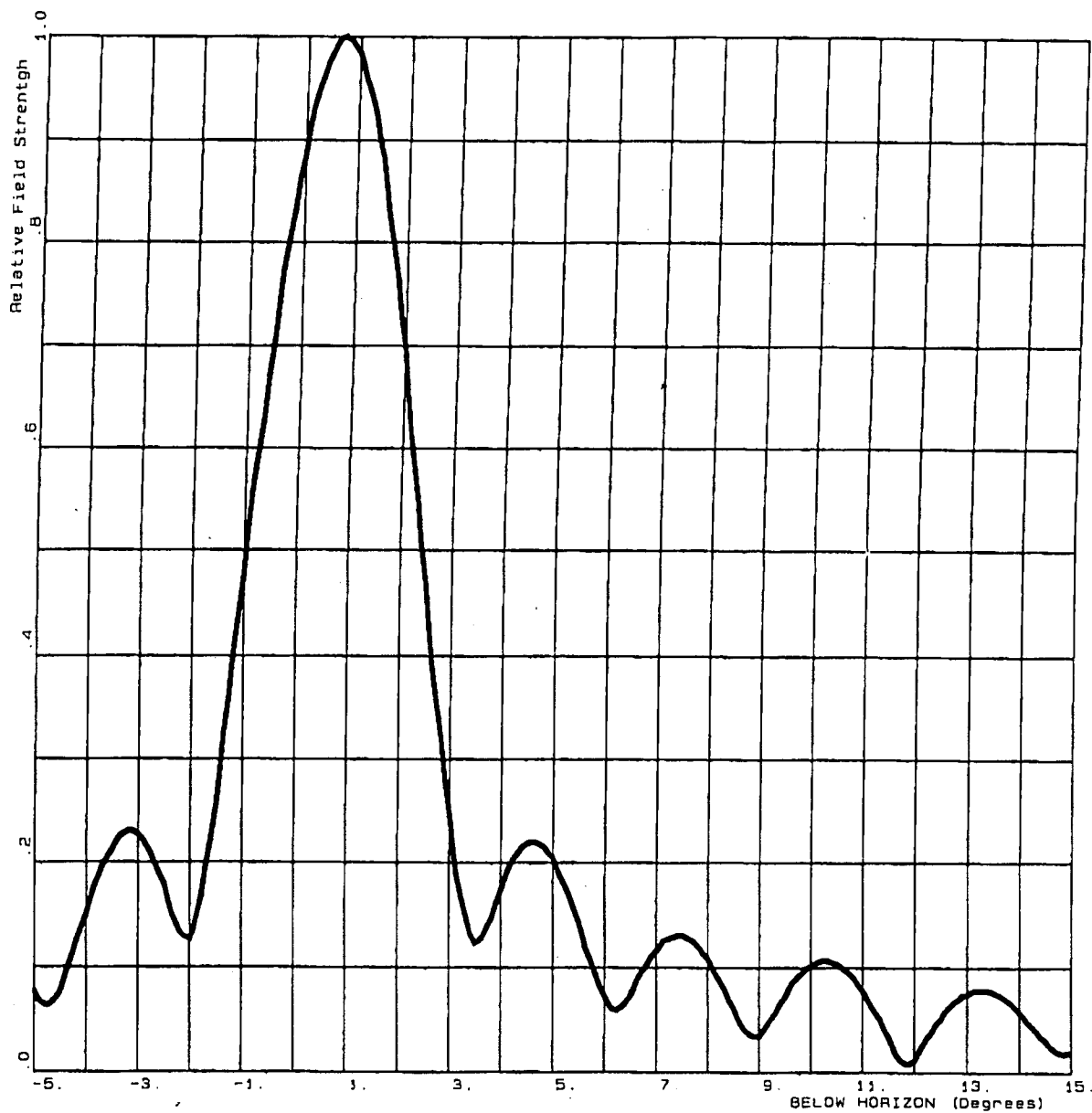
## **HORIZONTAL RELATIVE FIELD PATTERN**

STATION WGNO-DT

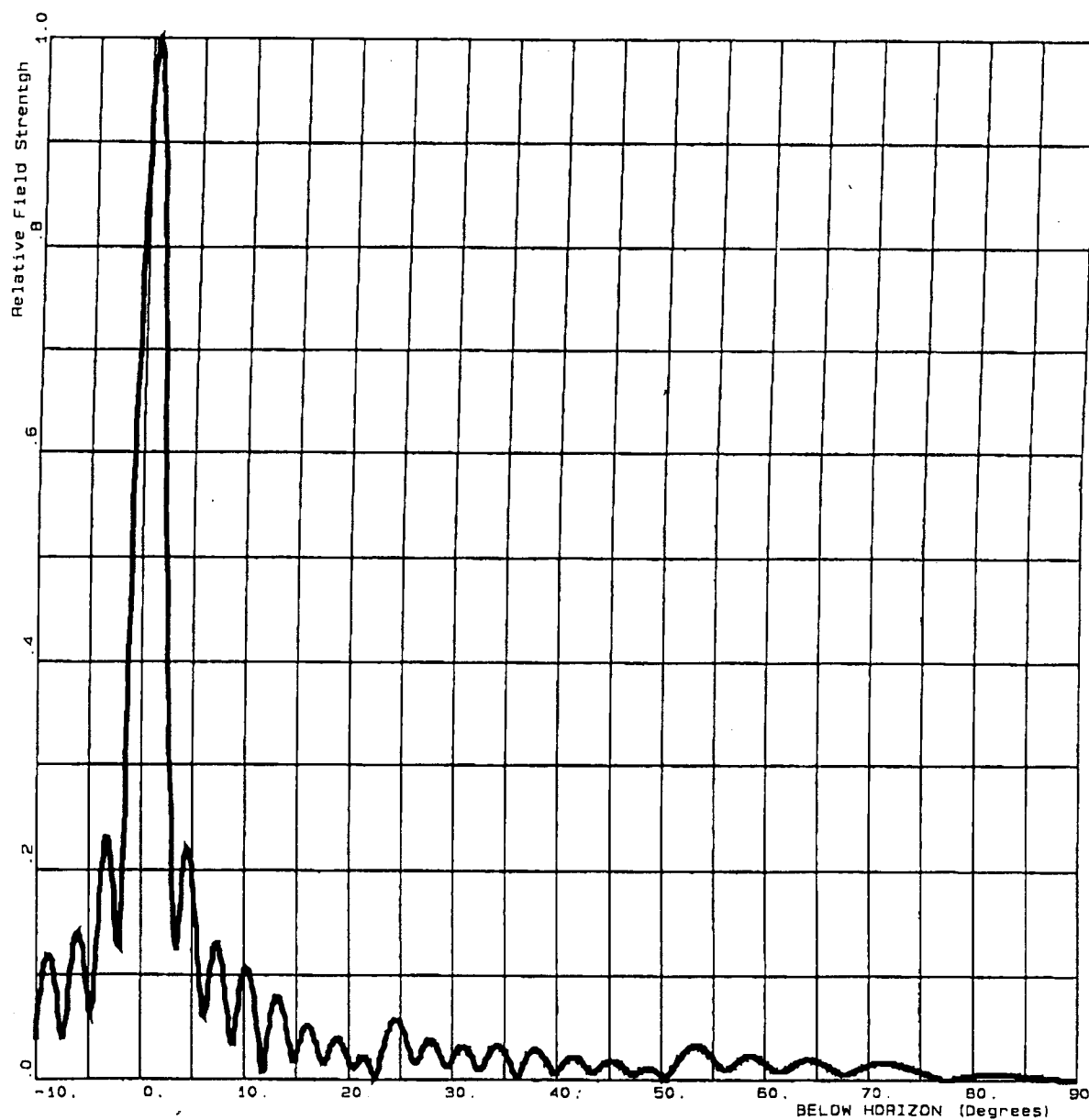
NEW ORLEANS, LOUISIANA

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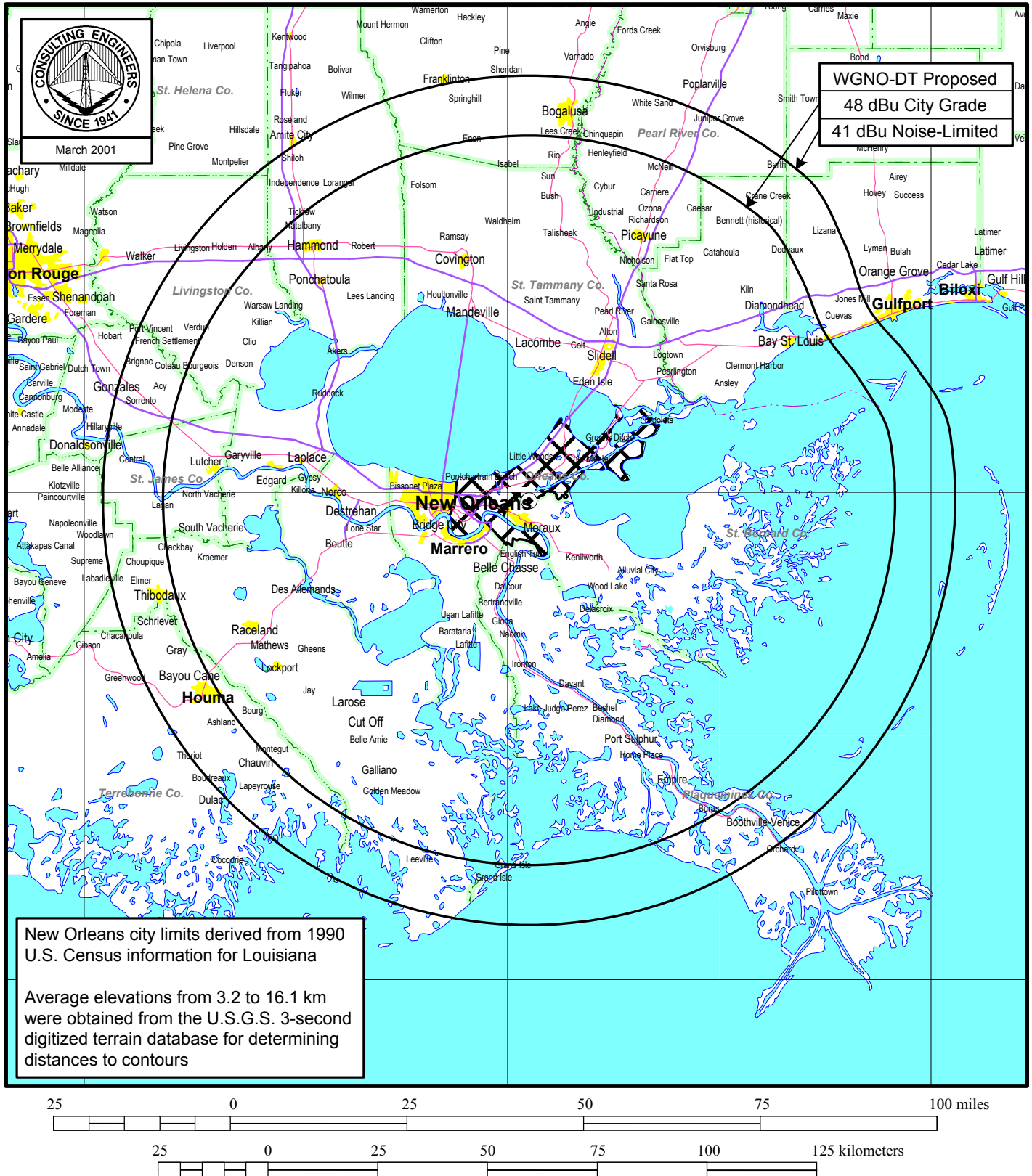
TCI 888 SLOT ANTENNA FOR WGNO  
TYPICAL 15% NULL FILL  
32-BAY CONFIGURATION  
ELECTRICAL BEAM TILT -.75 Degrees  
MECHANICAL BEAM TILT .00 Degrees  
CHANNEL 15 (479.00 MHz) . VERTICAL PATTERN.  
ANTENNA GAIN 44.0 ( 16.4 dBd)



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CHANNEL 15 (479.00 MHz) . VERTICAL PATTERN.  
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**Figure 2**



## **PREDICTED F(50,90) COVERAGE CONTOURS**

**STATION WGNO-DT**

**NEW ORLEANS, LOUISIANA**

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du Treil, Lundin & Rackley, Inc Sarasota, Florida