

TECHNICAL EXHIBIT  
MINOR CHANGE APPLICATION  
STATION KTRE-DT (FACILITY ID 68541)  
LUFKIN, TEXAS

JANUARY 11, 2010

CH 9 25 KW (MAX-DA) 204 M

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Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station KTRE at Lufkin, Texas. Station KTRE is authorized (license application pending) to operate on channel 9 with a directional antenna maximum effective radiated power (ERP) of 10 kilowatts (kW) and antenna height above average terrain (HAAT) of 204 meters.<sup>1</sup> This application requests an increase in ERP only.

Proposed Facilities

Station KTRE proposes to increase its directional ERP to 25 kW. The transmitter site coordinates are:

31° 25' 09" North Latitude  
94° 48' 03" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. The antenna structure registration number is 1047439. Figure 2 depicts the antenna patterns for the installed directional antenna.

Figure 3 is a map showing the DTV predicted coverage contours. The proposed 43 dBu contour will encompass all of Lufkin. The Lufkin city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

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Allocation Considerations

The proposed KTRE 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 using a **non-standard 1 kilometer cell size and 1 kilometer terrain distance increment**.

Radiofrequency Electromagnetic Field Exposure

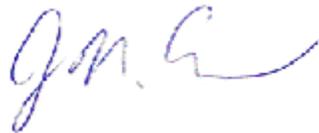
The proposed KTRE facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 158.4 meters above ground level with a maximum ERP of 25 kW. A conservative downward relative field value of 0.25 was assumed for the existing DIE TF-8HT antenna (see Figure 2). The calculated power density at a point 2 meters above ground level will not exceed 0.0021 mW/cm<sup>2</sup>. This is less than 5% of the FCC's recommended limit of 0.2 mW/cm<sup>2</sup> for channel 9 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 KTRE operation appears to be otherwise categorically excluded from environmental processing.

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<sup>1</sup> See BPCDT-20080516ABZ and BLCDT-20090622AAS

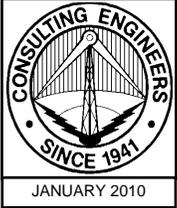
It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.



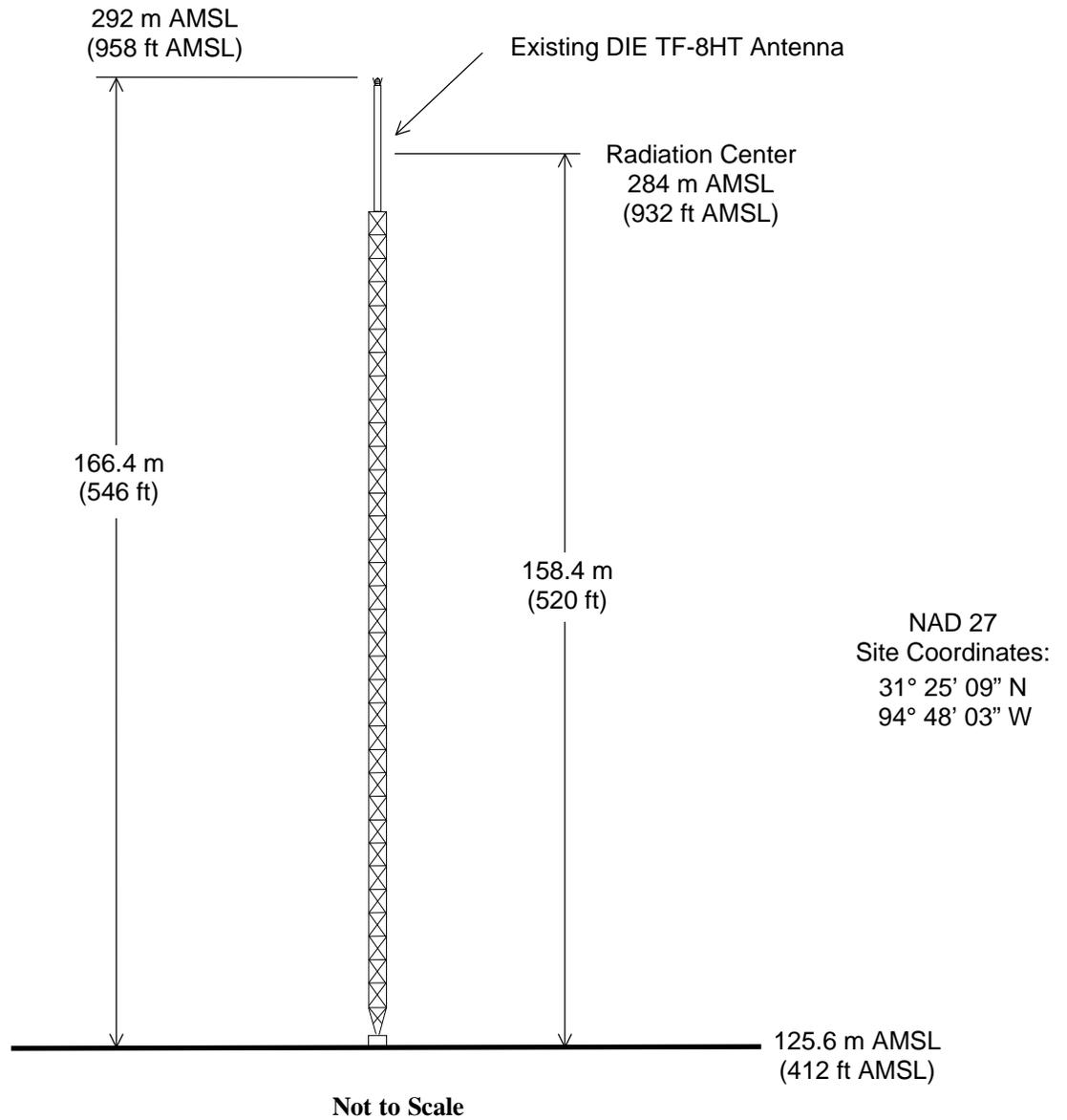
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201 Fletcher Avenue  
Sarasota, Florida 34237  
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JON@DLR.COM

January 11, 2010



Registration No. 1047439



## ANTENNA AND SUPPORTING STRUCTURE

STATION KTRE-DT

LUFKIN, TEXAS

CH 9 25 KW (MAX-DA) 204 M

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

Date  
Call Letters  
Location  
Customer  
Antenna Type

Channel **11**

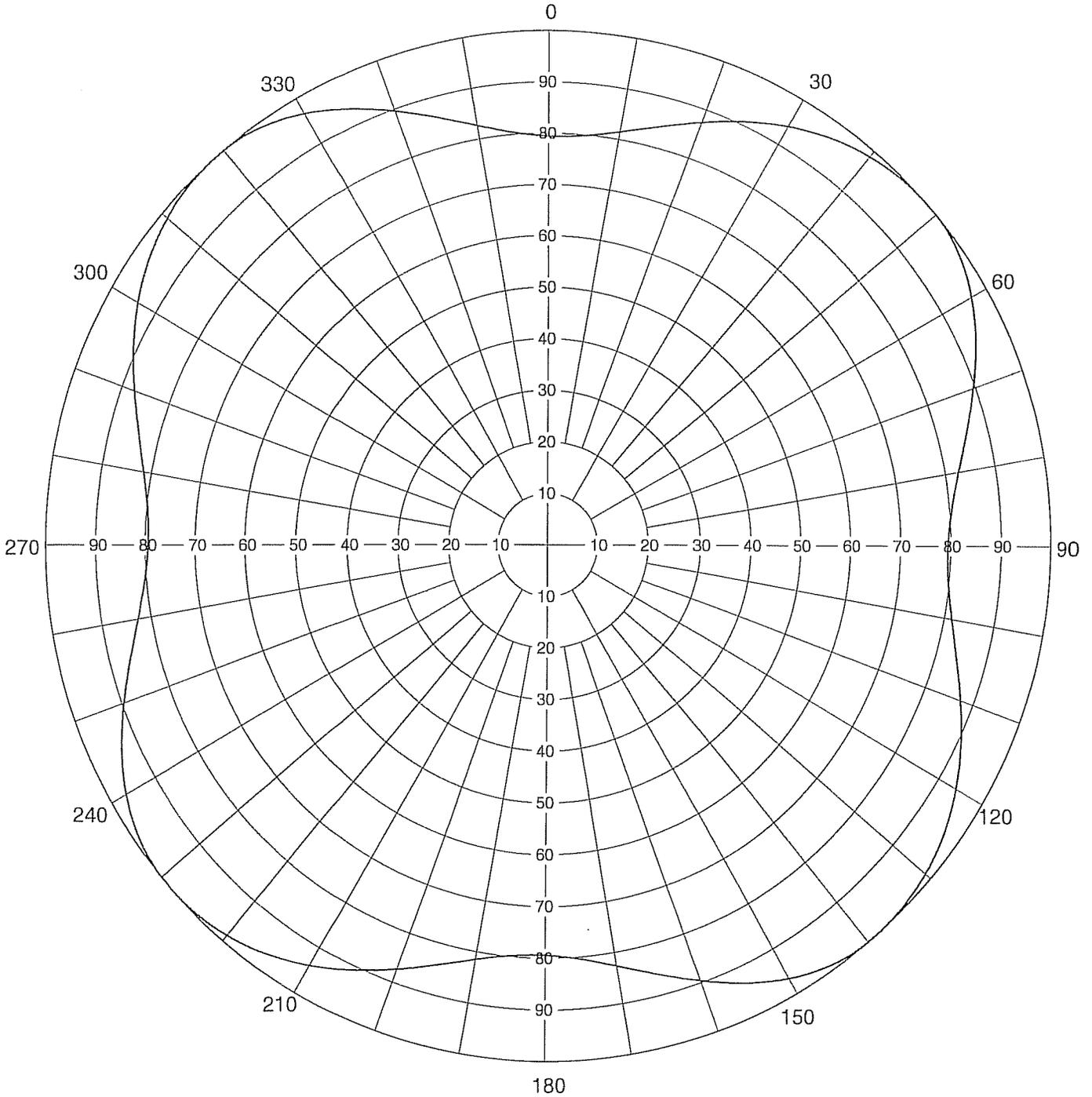
### AZIMUTH PATTERN

RMS Gain at Main Lobe  
Calculated / Measured

**1.20 (0.79 dB)**  
**Calculated**

Frequency  
Drawing #

**201 MHz**  
**TF-O**



Remarks:



Proposal Number **DCA-11418**  
Date **23-Feb-06**  
Call Letters **KTRE** Channel **9**  
Location **Lufkin, TX**  
Customer  
Antenna Type **TF-8HT-DC**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>7.40 (8.69 dB)</b>	Beam Tilt	<b>1.50 deg</b>
RMS Gain at Horizontal	<b>6.40 (8.06 dB)</b>	Frequency	<b>189.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>08S074150-90</b>

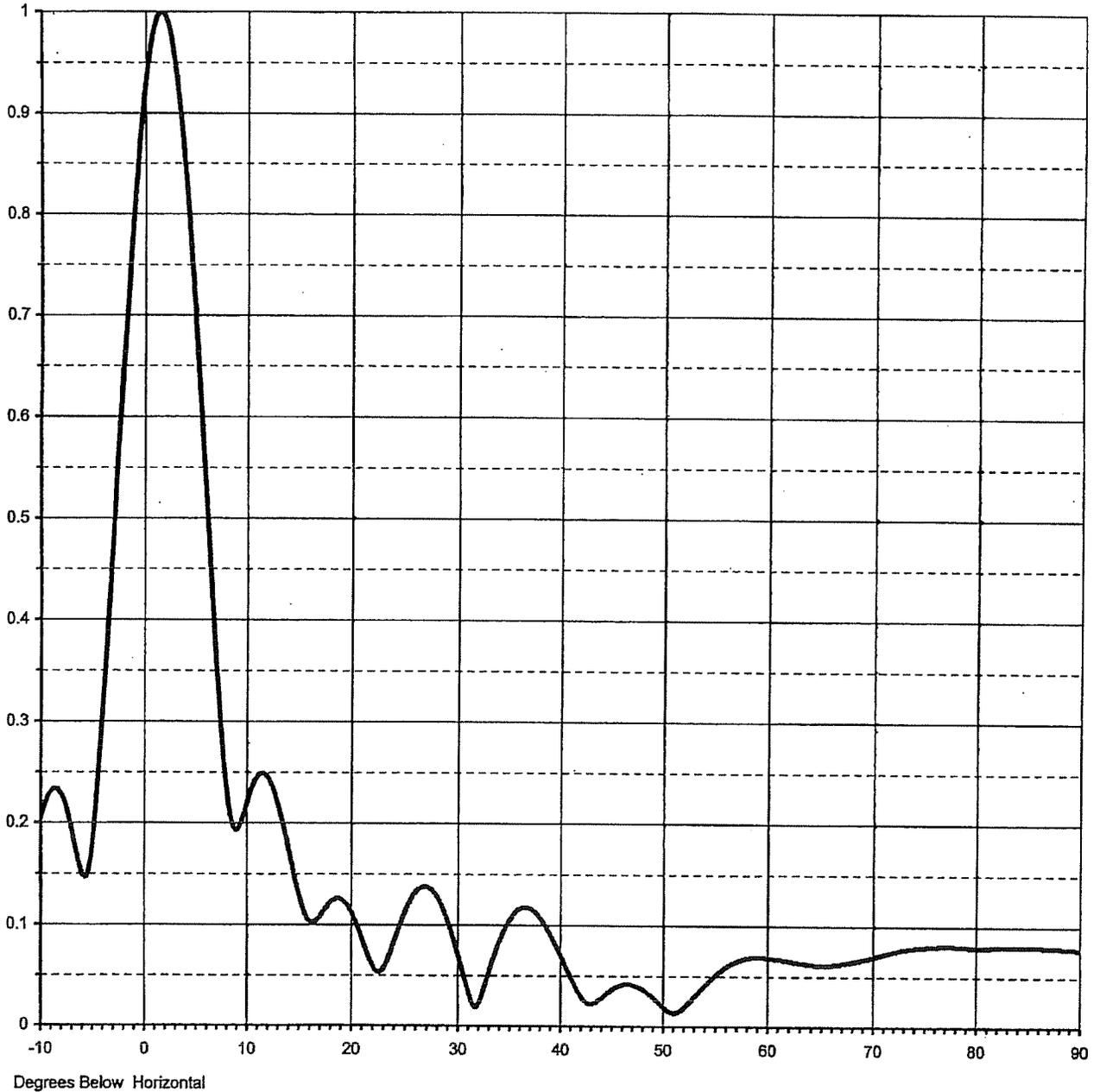
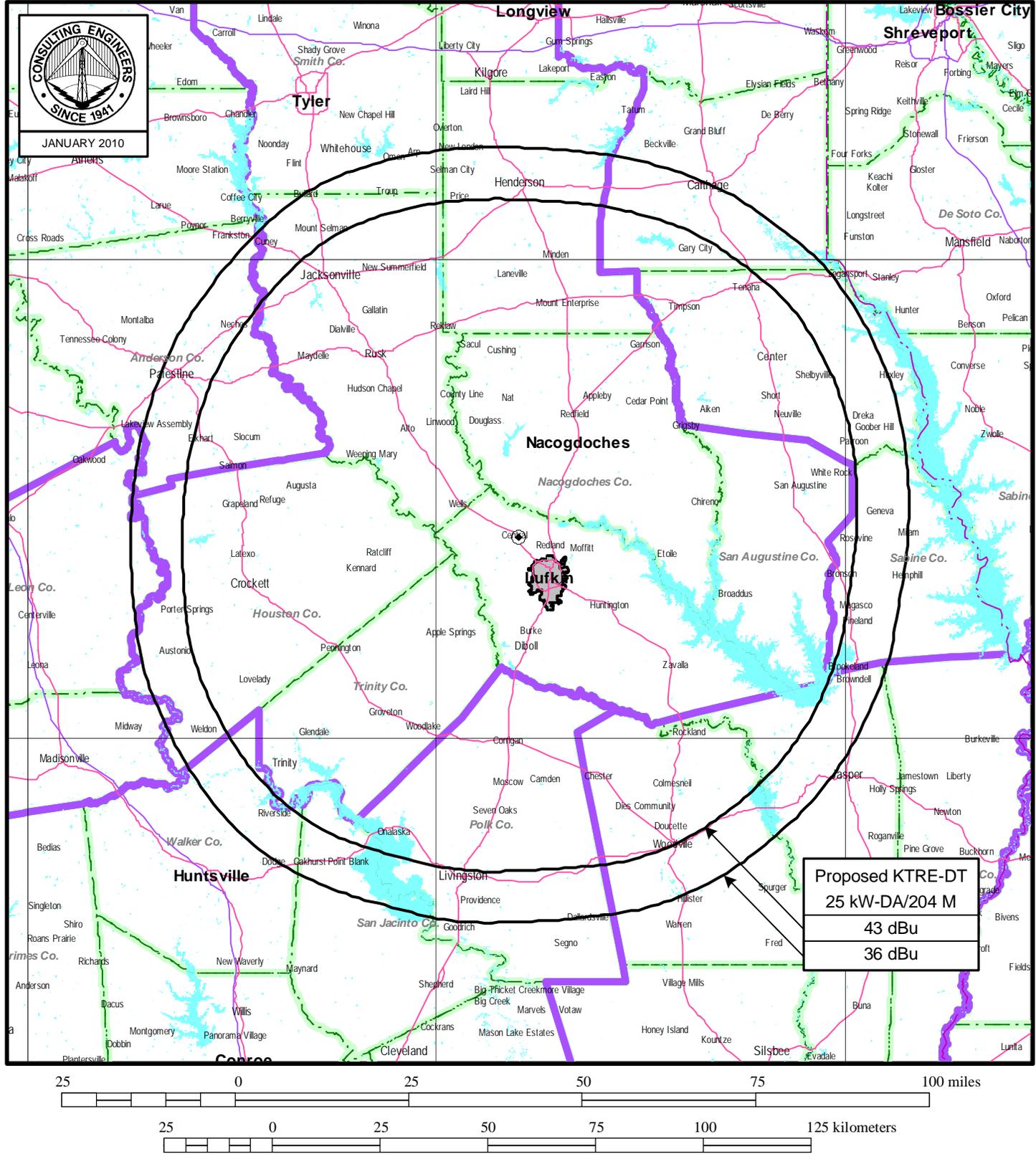


Figure 3



# PREDICTED COVERAGE CONTOURS

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LUFKIN, TEXAS

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du Treil, Lundin & Rackley, Inc Sarasota, Florida