

TECHNICAL EXHIBIT  
APPLICATION FOR DTV CONSTRUCTION PERMIT  
STATION KPLC-DT (FACILITY ID 13994)  
LAKE CHARLES, LOUISIANA

JULY 20, 2009

CH 7 62 KW 451 M

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Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station KPLC-DT, on channel 7 at Lake Charles, Louisiana. Station KPLC-DT is authorized (license application pending) to operate with a non-directional effective radiated power (ERP) of 31 kilowatts (kW) and an antenna height above average terrain (HAAT) of 451 meters.<sup>1</sup>

Proposed Facilities

This application proposes to increase ERP only. Station KPLC-DT proposes to operate DTV channel 7, with a non-directional antenna ERP of 62 kilowatts and antenna HAAT of 451 meters. The transmitter site coordinates remain:

30° 23' 46" North Latitude  
93° 00' 03" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. The antenna structure registration number is 1020915. Figure 2 depicts the proposed antenna elevation pattern.

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

Allocation Considerations

The proposed KPLC-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.

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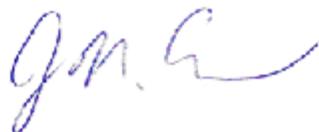
<sup>1</sup> See BPCDT-20080520AAY and BLCDT-20090622AAQ

Radiofrequency Electromagnetic Field Exposure

The proposed KPLC-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 450 meters above ground level with an ERP of 62 kW. A conservative downward relative field value of 0.5 was assumed for the calculation (see Figure 3). The calculated power density at a point 2 meters above ground level will not exceed 0.0026 mW/cm<sup>2</sup>. This is less than 2% of the FCC's recommended limit of 0.2 mW/cm<sup>2</sup> for channel 7 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 KPLC-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.

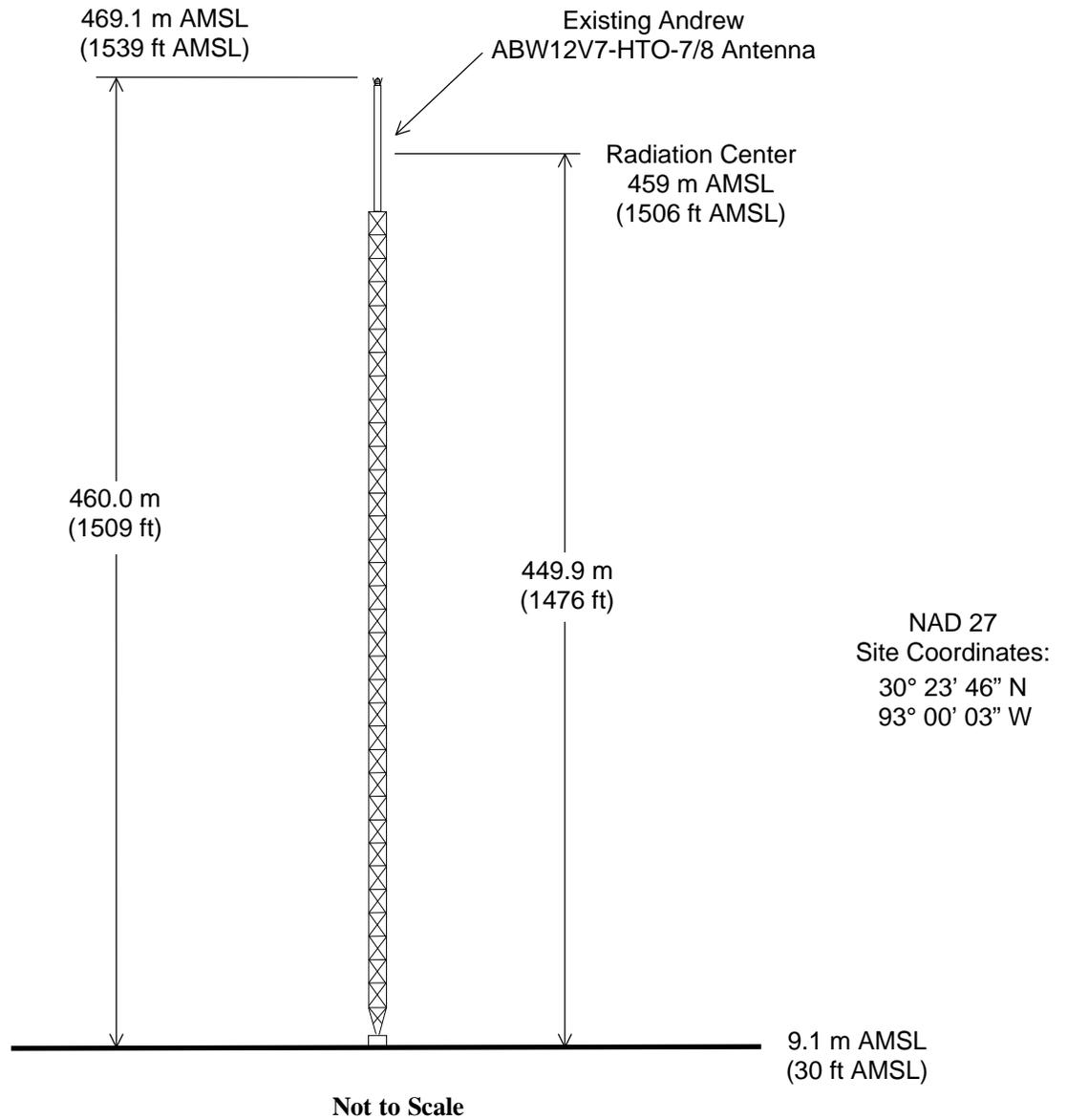


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Registration No. 1020915



## ANTENNA AND SUPPORTING STRUCTURE

STATION KPLC-DT

LAKE CHARLES, LOUISIANA

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

**ANDREW** Figure 2  
**ELEVATION PATTERN**

Type:	ABW12V7H-8	
Directivity:	Numeric	dBd
Main Lobe:	11.00	(10.41)
Horizontal:	7.53	( 8.77)
Beam Tilt:	1.75	
Polarization:	Horizontal	
Channel:	DTV 8	
Location:	Lake Charles, LA	

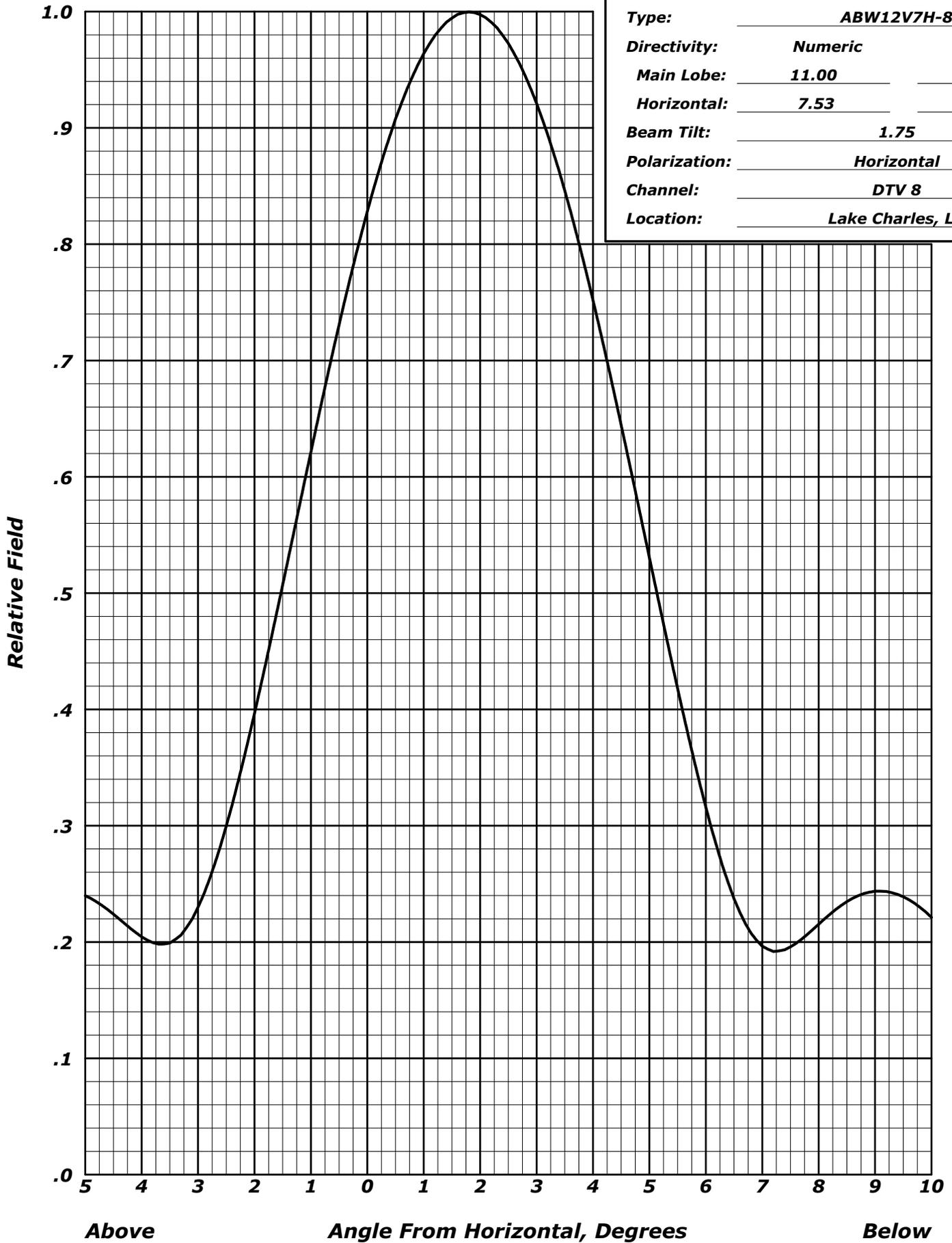
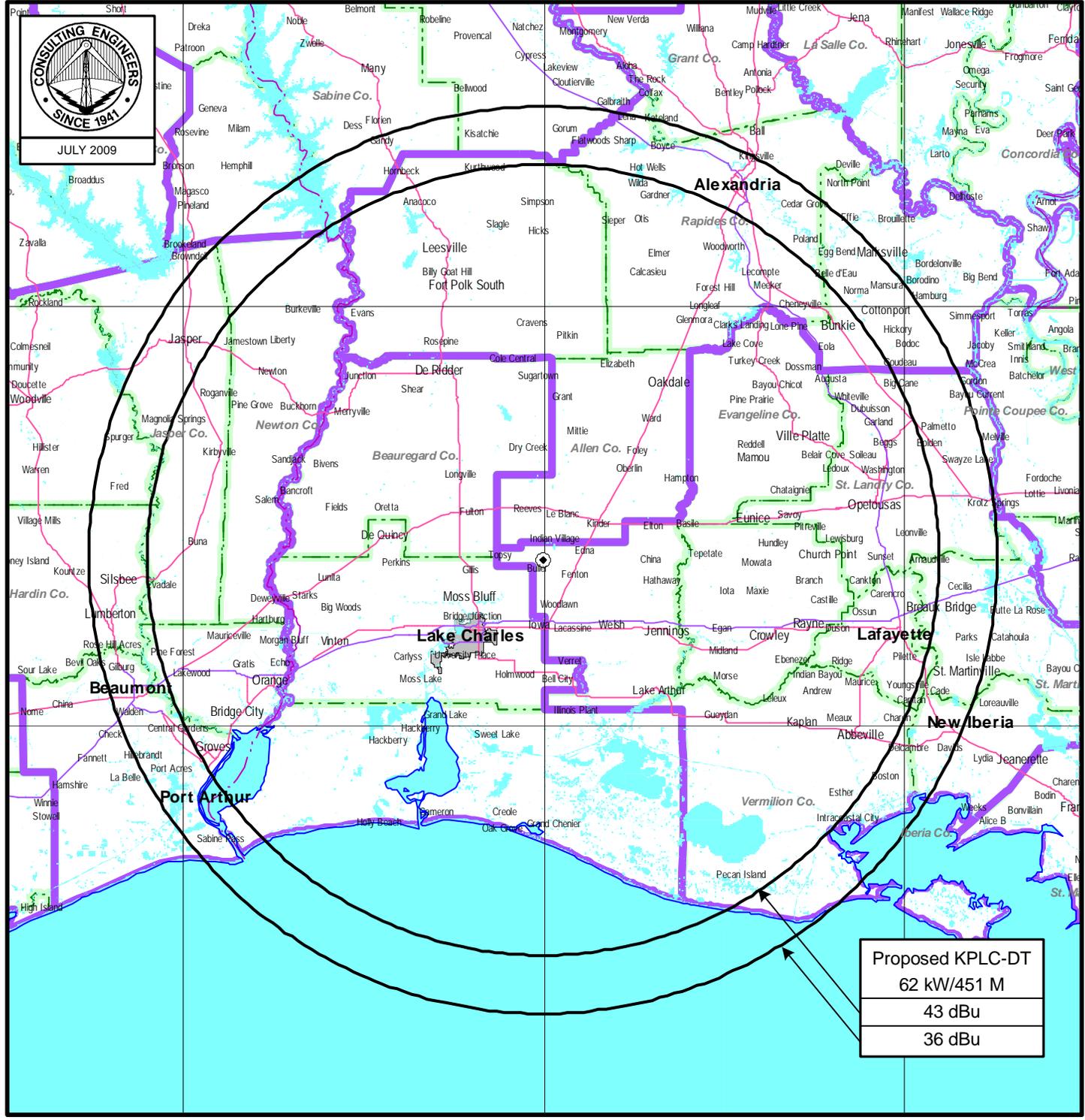


Figure 3



# PREDICTED COVERAGE CONTOURS

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