TECHNICAL EXHIBIT
APPLICATION FOR MINOR CHANGE
DTV CONSTRUCTION PERMIT
STATION WNCT-DT (FACILITY ID 57838)
GREENVILLE, NORTH CAROLINA

JULY 29, 2004

CH 10 35 KW-ND 575 M

TECHNICAL EXHIBIT
APPLICATION FOR MINOR CHANGE
DTV CONSTRUCTION PERMIT
STATION WNCT-DT (FACILITY ID 57838)
GREENVILLE, NORTH CAROLINA
CH 10 35 KW-ND 575 M

Table of Contents

TECHNICAL EXHIBIT
APPLICATION FOR MINOR CHANGE
DTV CONSTRUCTION PERMIT
STATION WNCT-DT (FACILITY ID 57838)
GREENVILLE, NORTH CAROLINA
CH 10 35 KW-ND 575 M

Technical Narrative

This Technical Exhibit supports a minor change application to modify the facilities of digital television (DTV) station WNCT-DT at Greenville, North Carolina (Facility ID 57838). Station WNCT-DT is currently authorized to operate on channel 10 (CP: BPCDT-19991025ADP, pending license application BLCDT-20030725ADL). Station WNCT-DT is authorized to use a non-directional (ND) antenna system. The effective radiated power (ERP) is 35 kilowatts (kW). The antenna center of radiation is 549 meters above ground level (AGL), and 558 meters above mean sea level (AMSL). The antenna height above average terrain (HAAT) is 548 meters. The transmitter site coordinates are 35-21-55, 77-23-38 (NAD-27). The Federal Communications Commission (FCC) antenna structure registration number is 1006359.

Proposed DTV Facilities

This minor change application proposes to increase the antenna height and employ a multi-channel non-directional antenna system for a combined operation of stations WNCT-TV analog (NTSC-9), WNCT-DT digital television (DTV-10), and WITN-TV analog (NTSC-7). The proposed antenna is a Dielectric THA-O4-6H/24D-1-R system with 0.7 degree of electrical beam tilt. The proposed antenna radiation center height is 577.3 meters above ground level (AGL), and 585.2 meters above mean sea level (AMSL). The proposed antenna HAAT will be 575 meters. The proposed ERP will remain 35 kW. There is no

proposed change in channel (10), transmitter site coordinates (35-21-55, 77-23-38), supporting structure (1006359), or city of assignment (Greenville, NC).

The WNCT-DT transmitter site is approximately 815 kilometers from the closest point of the Canadian border. The WNCT-DT site is more than 1700 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Laurel, Maryland, approximately 425 kilometers to the north. The closest point of the National Radio Quiet Zone (VA/WV) is more than 250 kilometers to the northwest. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 2400 kilometers to the west-northwest. The closest radio astronomy site operating on TV channel 37 is at Green Bank, West Virginia, approximately 404 kilometers to the northwest. These separations are considered sufficient to not be a coordination concern.

The WNCT-DT transmitter site will also be used for the WNCT-TV analog (NTSC) operation on channel 9, the analog operation of WITN-TV on channel 7 (Washington, NC), and the WITN-DT operation on channel 32. Station WERO(FM) on channel 227C (Washington, NC) and WNCT-FM on channel 300C (Greenville, NC) operate at the same site. There are no AM stations within 16 kilometers (10 miles) of the WNCT-DT site. No adverse electromagnetic interaction is expected. The supporting structure exists and the proposed change in the antenna is not expected to have an adverse impact. The applicant recognizes that it is responsible to remedy prohibited electromagnetic problems that its proposed operation may create.

Figure 2 provides the antenna vertical plane relative field pattern for the proposed Dielectric THA-O4-6H/24D-1-R antenna system.

Figure 3 is a map showing the predicted 43 dBu and 36 dBu contours for the proposed WNCT-DT operation. The city limits of Greenville, as defined in the 2000 US Census for North Carolina, are identified. The estimated population (2000 Census) within the predicted 36 dBu contour is 1,649,315 people, and the land area is 40,530 square kilometers. As shown on Figure 3, the predicted 43 dBu contour encompasses all of the Greenville city limits.

Allocation Study

Interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid. Pertinent low power television (LPTV) stations that qualify for Class A consideration and are operating within the FCC's core band (ie, 2-51) have been examined. The proposed WNCT-DT operation does not adversely impact any known Class A TV assignment.

Interference calculations have been made to pertinent analog (NTSC) TV assignments and digital television (DTV) assignments and allotments on channel 8, 9 and 10 using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid. The proposed WNCT-DT operation does not cause calculated interference in excess of the FCC standards.

Radiofrequency Electromagnetic Field Exposure

The proposed WNCT-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 577.3 meters above ground level. The ERP is 35 kW and a relative field value of 0.25 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 0.000221 mW/cm^2. This is less than 1% of the FCC's recommended limit of 0.2 mW/cm^2 for channel 10 for an "uncontrolled" environment. The calculated power density is 1% of the FCC's recommended limit for a "controlled" 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.

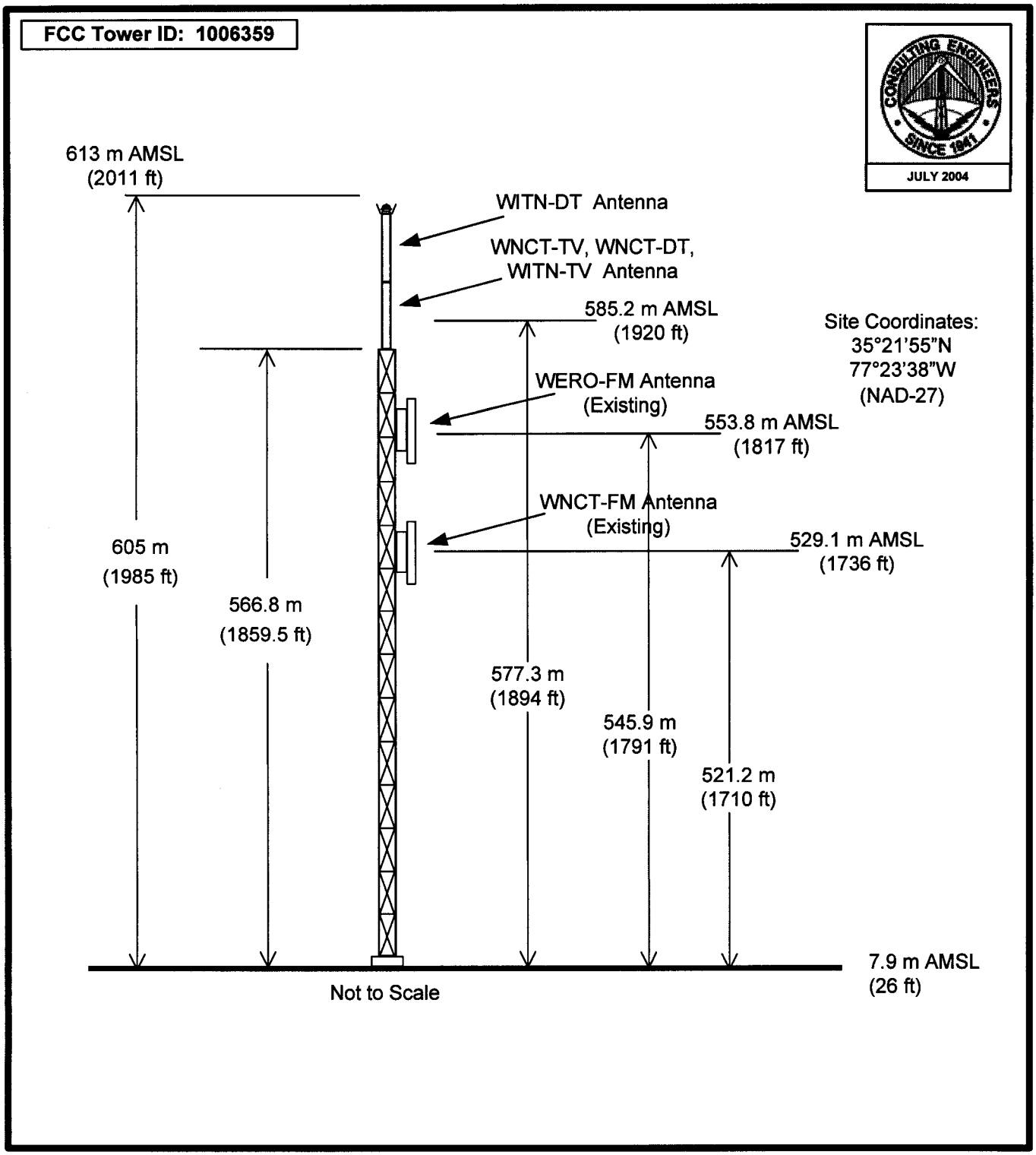
If there are questions concerning the technical portion of this application, please contact the office of the undersigned.

John A. Lundin

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000 voice
(941) 329-6030 fax
john@DLR.com e-mail

July 29, 2004

Figure 1



ANTENNA AND SUPPORTING STRUCTURE

STATION WNCT-DT
GREENVILLE, NORTH CAROLINA
CH 10 35 KW 575 M

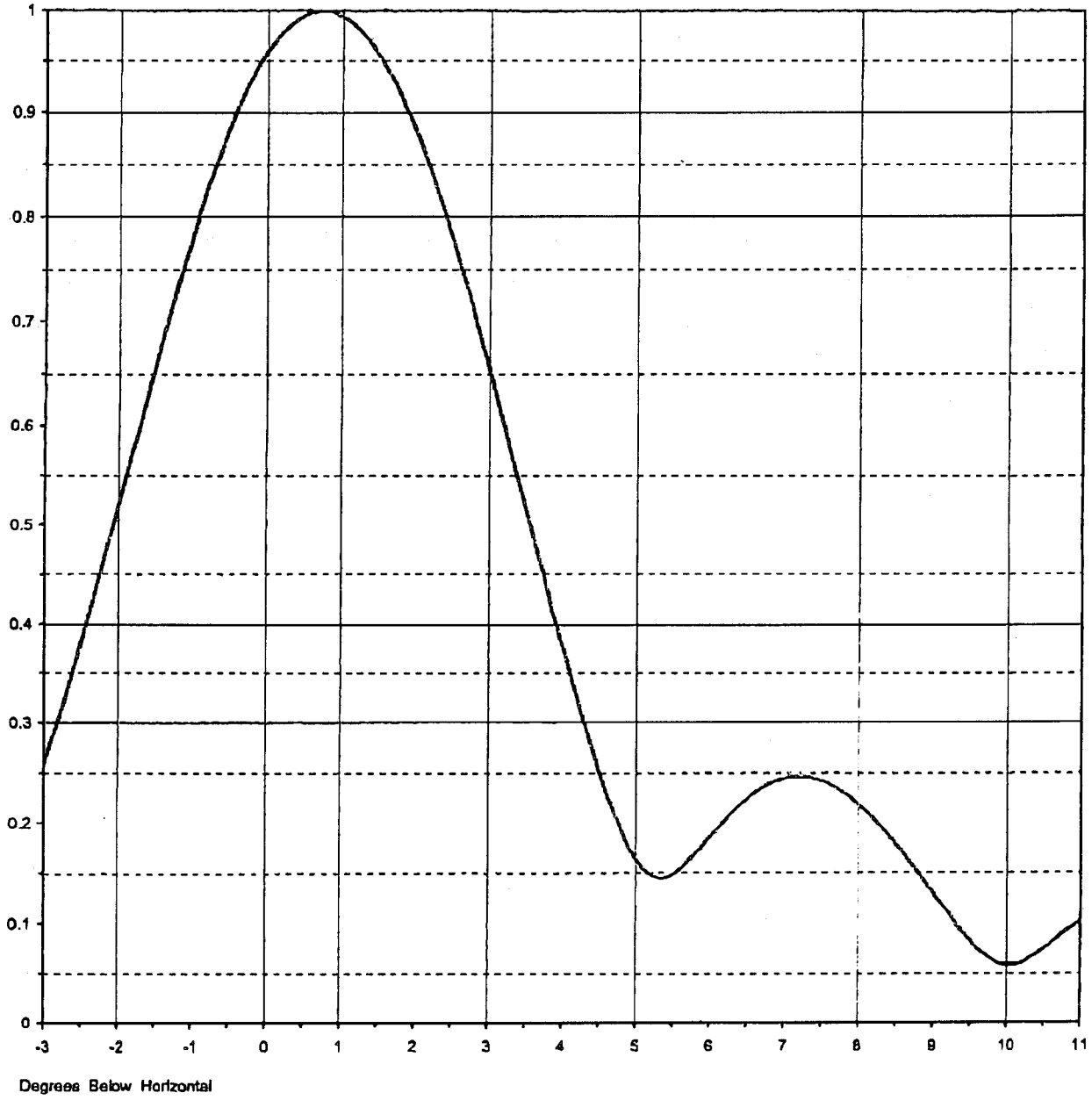
du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Dielectric

Proposal Number	DCA-9797	Revision:	3
Date	25-Sep-02		
Call Letters	WNCT-DT	Channel	10
Location	Greenville, NC		
Customer			
Antenna Type	THA-O4-6H/24HD-1-R		

ELEVATION PATTERN

RMS Gain at Main Lobe	12.80 (11.07 dB)	Beam Tilt	0.70 deg
RMS Gain at Horizontal	11.80 (10.72 dB)	Frequency	195.00 MHz
Calculated / Measured	Calculated	Drawing #	6HD128070



Dielectric

Proposal Number	DCA-9797	Revision:	3
Date	25-Sep-02		
Call Letters	WNCT-DT	Channel	10
Location	Greenville, NC		
Customer			
Antenna Type	THA-O4-6H/24HD-1-R		

ELEVATION PATTERN

RMS Gain at Main Lobe	12.80 (11.07 dB)	Beam Tilt	0.70 deg
RMS Gain at Horizontal	11.80 (10.72 dB)	Frequency	195.00 MHz
Calculated / Measured	Calculated	Drawing #	6HD128070-90

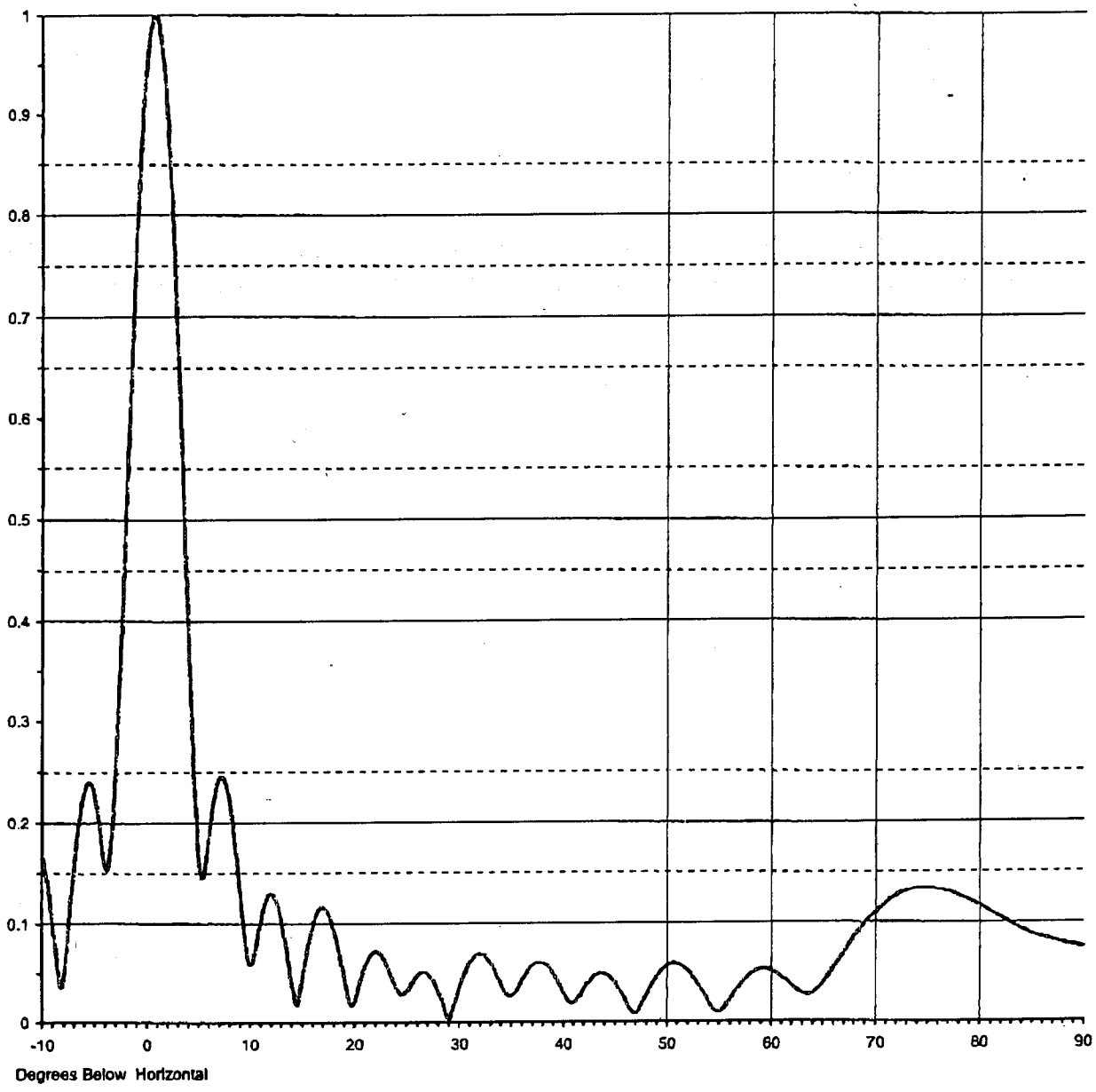
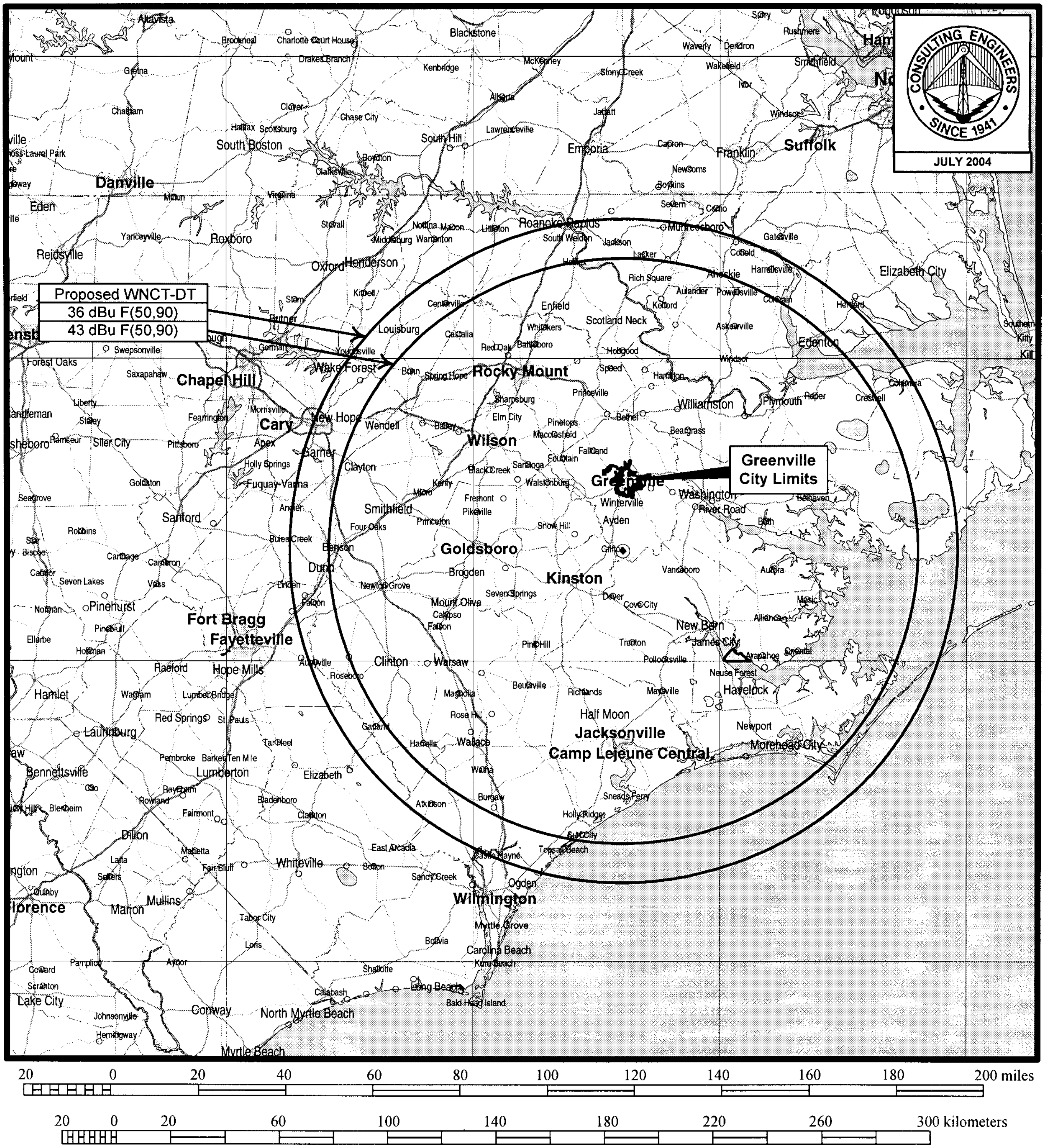


Figure 3



PREDICTED DTV COVERAGE CONTOURS

STATION WNCT-DT
GREENVILLE, NORTH CAROLINA
CH 10 35 KW-ND 575 M

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