

TECHNICAL EXHIBIT
APPLICATION FOR MINOR CHANGE
MODIFICATION OF CONSTRUCTION PERMIT
STATION WSAV-DT (FACILITY ID 48662)
SAVANNAH, GEORGIA

JANUARY 7, 2004

CH 39 1000 KW-ND 442 M

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Table of Contents

Technical Narrative

Figure 1	Antenna and Supporting Structure
Figure 2	Antenna Vertical Plane Pattern
Figure 3	Predicted DTV Coverage Contours

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Technical Narrative

This Technical Exhibit supports a minor change application to modify the construction permit (CP) of digital television (DTV) station WSAV-DT at Savannah, Georgia (Facility ID 48662). Station WSAV-DT currently has a CP to operate on DTV channel 3 (BPCDT-19991025ADX). Station WSAV-DT is authorized to use a directional antenna (DA) system. The maximum effective radiated power (ERP) is 1000 kilowatts (kW). The antenna center of radiation is 425 meters above ground level (AGL), and 430 meters above mean sea level (AMSL). The antenna height above average terrain (HAAT) is 425 meters. The transmitter site coordinates are 32-03-32, 81-17-57 (NAD-27).

Proposed DTV Facilities

This minor change application proposes to change to a dual channel (NTSC-3 & DTV-39) non-directional antenna system. It is proposed to remove the existing top-mounted channel 3 antenna system (RCA TF-6) and replace it with a dual channel non-directional antenna system for a combined operation of analog (NTSC) station WSAV-TV on channel 3 and DTV station WSAV-DT on channel 39. The proposed antenna is a Dielectric TUV-28GTH/3L-R-O4SP/O4 system with 0.75 degree of electrical beam tilt on channel 39. The proposed antenna radiation center height is 442.2 meters AGL, and 447.1 meters AMSL. The proposed antenna HAAT will be 442 meters. The FCC antenna structure registration number for the WSAV-TV tower is 1049788. The coordinates for the tower are 32-03-31, 81-

17-55 (NAD-27). The proposed DTV ERP will be 1000 kW. There is no proposed change in channel (39) or city of assignment (Savannah, GA). The Federal Aviation Administration (FAA) Southern Regional Office is being advised since the proposed change in top-mounted antenna system will result in a 16.9 meters (55 feet) reduction in the overall height of the structure.

The WSAV-DT transmitter site is approximately 1073 kilometers from the closest point of the Canadian border. The WSAV-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, approximately 377 kilometers to the northwest. The closest point of the National Radio Quiet Zone (VA/WV) is more than 600 kilometers to the north. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 2300 kilometers to the west-northwest. The closest radio astronomy site operating on TV channel 37 is at Green Bank, West Virginia, approximately 721 kilometers to the north. These separations are considered sufficient to not be a coordination concern.

The WSAV-DT transmitter site will also be used for the WSAV-TV operation on channel 3. Station WSVH(FM) on channel 216C at Savannah, GA also operates on the WSAV-DT tower. There are no AM stations within 5 kilometers (3 miles) of the WSAV-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 TUV-28GTH/3L-R-O4SP/O4 antenna system.

Figure 3 is a map showing the predicted 48 dBu and 41 dBu F(50,90) DTV contours for the proposed WSAV-DT operation. The city limits of Savannah, as defined in the 2000 US Census for Georgia, are identified. The estimated population (2000 Census) within the predicted 41 dBu contour is 1,009,284 people. As shown on Figure 3, the predicted 48 dBu contour encompasses all of the Savannah city limits.

Allocation Study

No allocation study is required for the proposed WSAV-DT operation since it is considered "checklist". The FCC allotted DTV channel 39 to WSAV-TV and assigned it an ERP of 1000 kW and antenna HAAT of 451 meters. The proposed WSAV-DT operation is within 5 kilometers of the allotment site. The DTV ERP adjustment formula in Section 73.622(f)(3)(ii) of the FCC Rules permits the proposed WSAV-DT operation.

Radiofrequency Electromagnetic Field Exposure

The proposed WSAV-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 442.2 meters above ground level. The ERP is 1000 kW. 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 0.00388 mW/cm^2 . This is less than 1% of the FCC's recommended limit of 0.42 mW/cm^2 for channel 39 for an "uncontrolled" environment. The calculated power density is also less than 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.

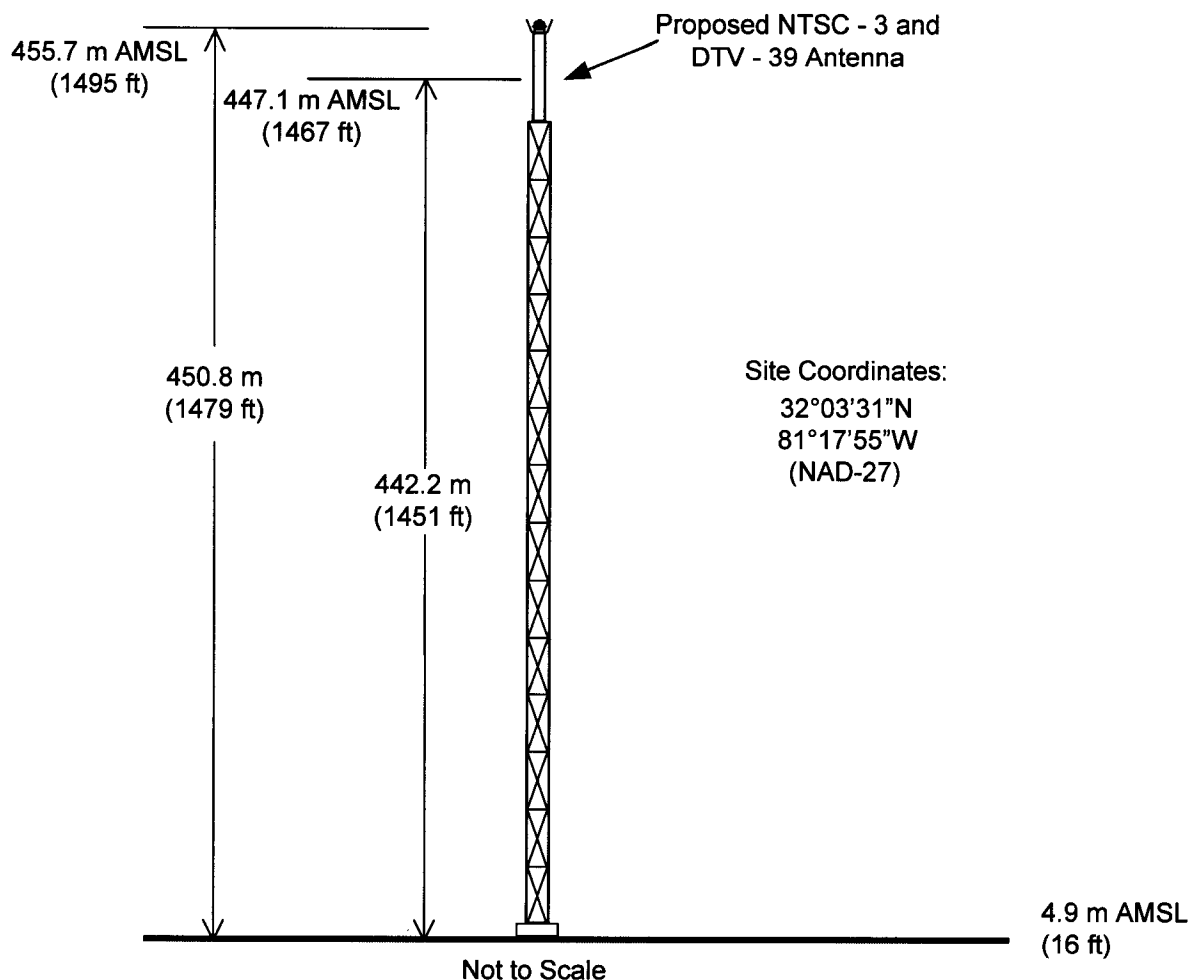
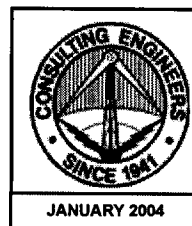
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January 7, 2004

Figure 1

FCC Tower ID: 1049788



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION WSAV-DT
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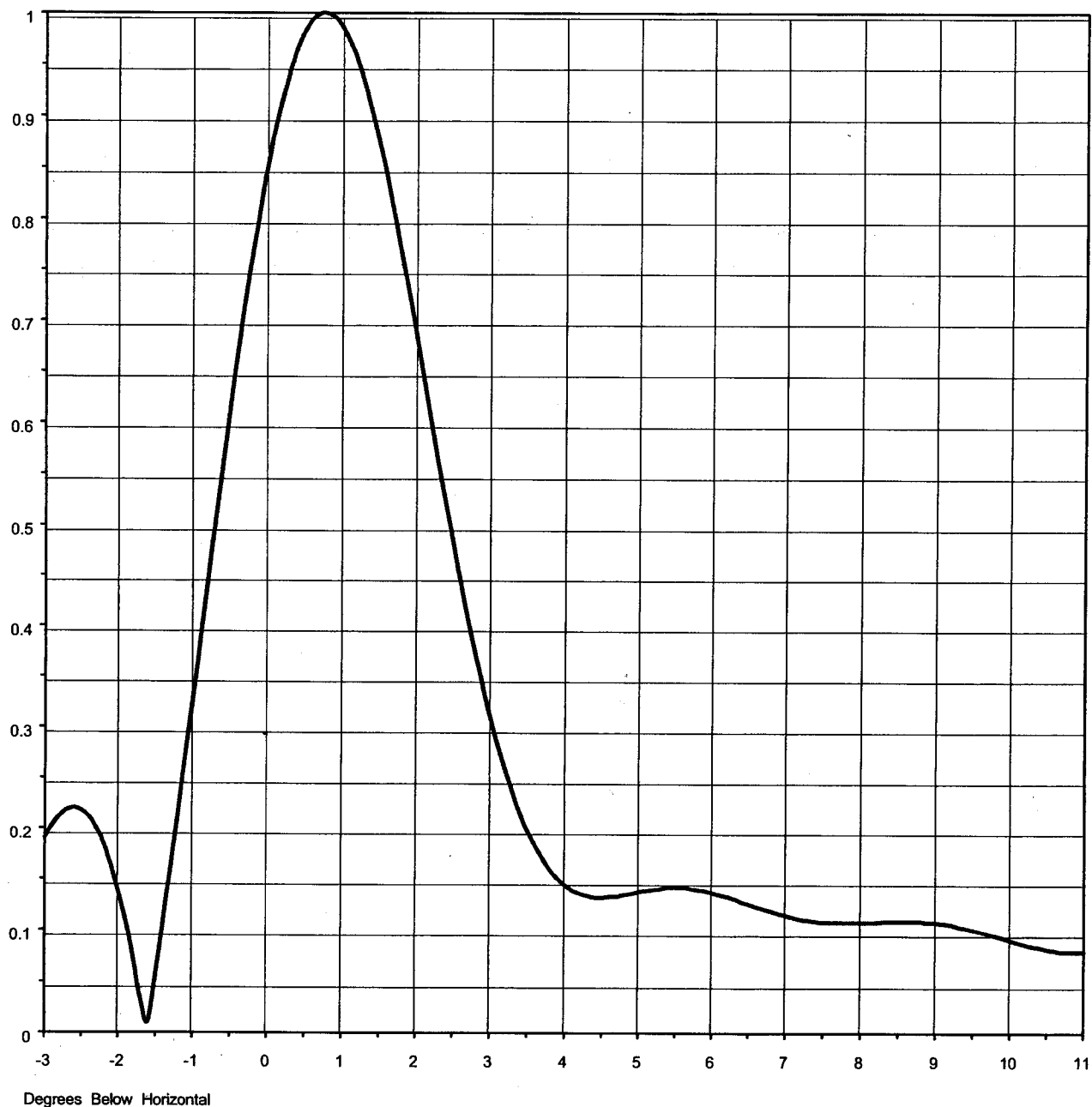
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Proposal Number	DCA-10044
Date	26-Aug-01
Call Letters	WSAV-DT Channel 39
Location	Savannah, GA
Customer	Media General
Antenna Type	TUV-28GTH/3L-R O4SP/O4

ELEVATION PATTERN

RMS Gain at Main Lobe	24.50 (13.89 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	18.00 (12.55 dB)	Frequency	623.00 MHz
Calculated / Measured	Calculated	Drawing #	28G245075





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RMS Gain at Horizontal	18.00 (12.55 dB)	Frequency	623.00 MHz
Calculated / Measured	Calculated	Drawing #	28G245075-90

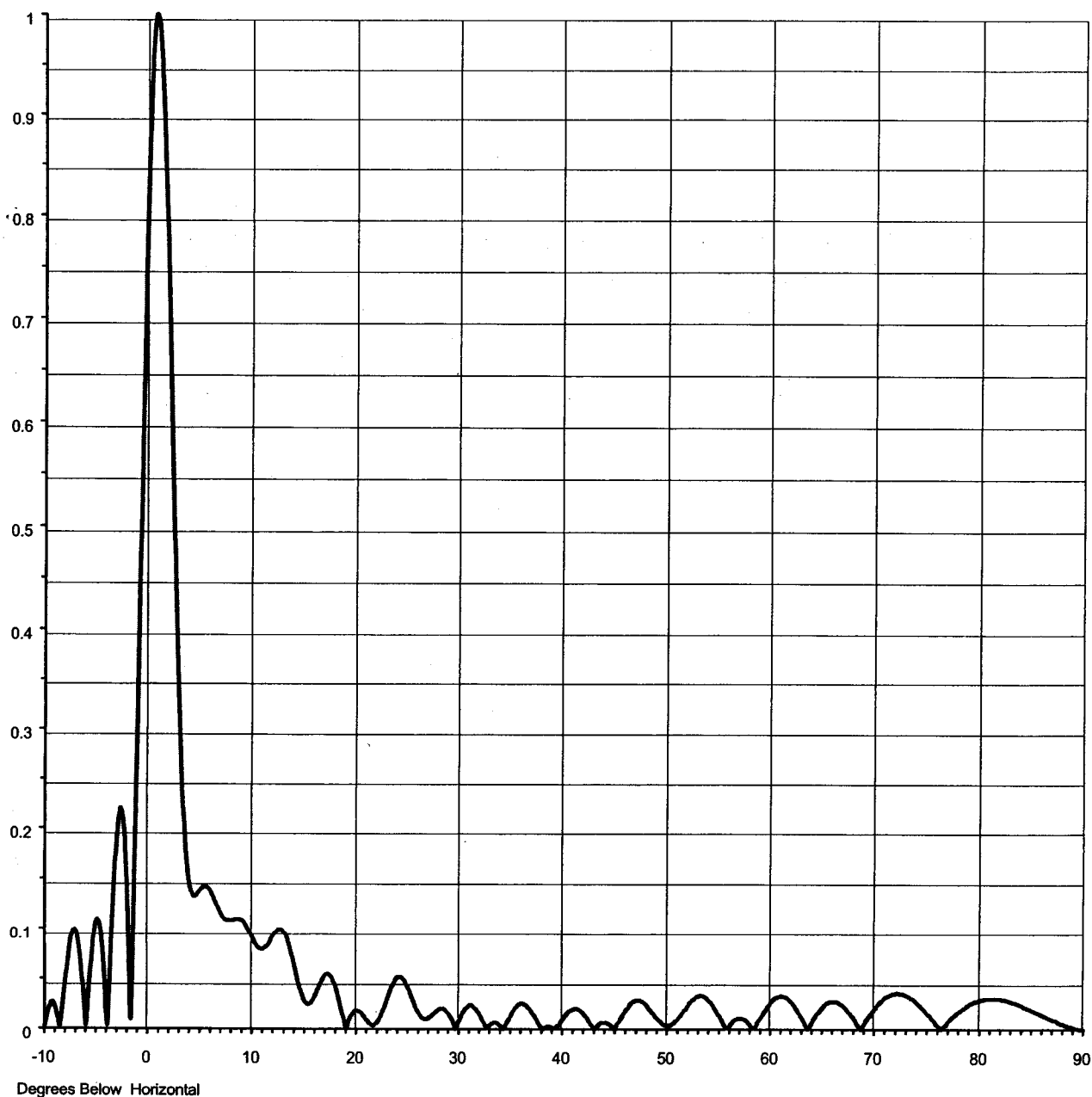
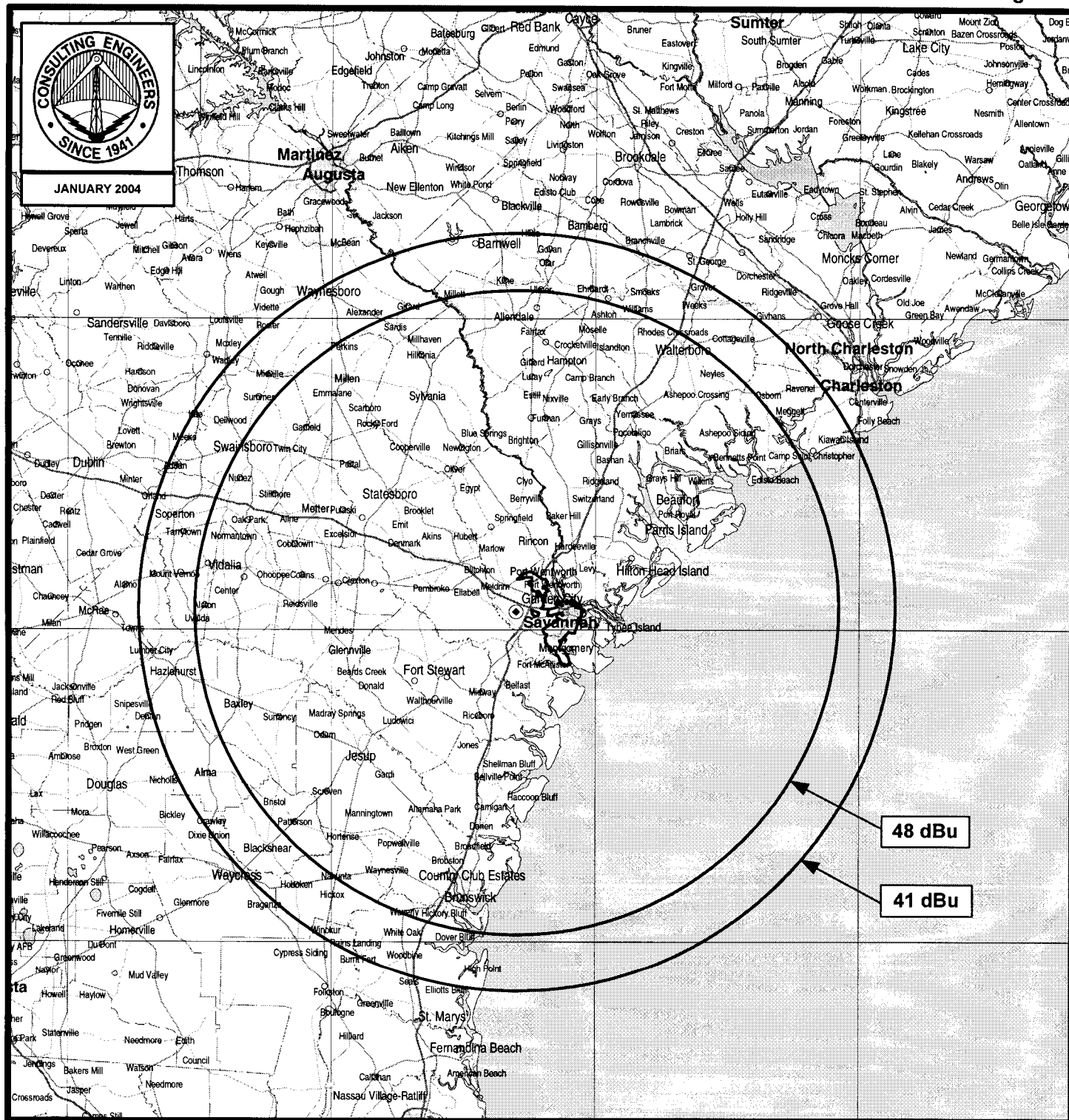


Figure 3



PREDICTED COVERAGE CONTOURS

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