

TECHNICAL EXHIBIT
MINOR AMENDMENT TO THE APPLICATION
FOR CONSTRUCTION PERMIT
STATION WXIN-DT (FACILITY ID 146)
INDIANAPOLIS, INDIANA

APRIL 6, 2001

CH 45 700 KW 285 M

TECHNICAL EXHIBIT
MINOR AMENDMENT TO THE APPLICATION
FOR CONSTRUCTION PERMIT
STATION WXIN-DT (FACILITY ID 146)
INDIANAPOLIS, INDIANA
CH 45 700 KW 285 M

Table of Contents

	Technical Narrative
Figure 1	Tower Sketch
Figure 2	Vertical Antenna Pattern
Figure 3	Coverage Map

TECHNICAL EXHIBIT
MINOR AMENDMENT TO THE APPLICATION
FOR CONSTRUCTION PERMIT
STATION WXIN-DT (FACILITY ID 146)
INDIANAPOLIS, INDIANA
CH 45 700 KW 285 M

Technical Narrative

This Technical Exhibit supports a minor amendment to the application for construction permit for digital television (DTV) station WXIN-DT on channel 45 at Indianapolis, Indiana. Station WXIN-DT has an application pending to operate with a non-directional antenna effective radiated power (ERP) of 750 kW and an antenna height above average terrain (HAAT) of 285 meters (BPCDT-19991029AHB).

Proposed Facilities

This amendment proposes ONLY to reduce 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: 39-53-20 N, 86-12-07 W) with a non-directional ERP of 700 kW and antenna HAAT of 285 meters is hereby proposed.

The proposed transmitter site is approximately 343 kilometers from the closest point of the Canadian border. The nearest Canadian allocation concern is co-channel station CBLN-TV-4, Wingham, ON (NTSC). CBLN-TV-4 is a class C facility while the proposed WXIN-DT operation is a class VU, as defined in the recently adopted U.S./Canada Letter on Understanding (LOU). The minimum required separation distance for this allocation is 252 kilometers. The proposed WXIN-DT operation is located 618.5 kilometers from the CBLN-TV-4 reference point, or clear by 366.5 kilometers. It is therefore believed that the proposed WXIN-DT operation is in compliance with the U.S./Canada LOU. If coordination with Canada is still necessary, it is respectfully requested.

The site is more than 1,700 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Allegan, Michigan, approximately 303 kilometers to the north. The closest point of the National Radio Quiet Zone (VA/WV) is more than 400 kilometers to the east. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 1,600 kilometers to the west. The closest radio astronomy site operating on TV channel 37 is at North Liberty, Iowa, more than 400 kilometers to the west-northwest. 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 NTSC station WRGT-TV. As shown in the table below, this proposal will reduce the interference caused to WRGT-TV to acceptable levels.

NTSC/DTV Station	Baseline	Proposed UNIQUE Interference
WRGT-TV (Lic), NTSC-45, Dayton, OH	2,952,013	58,520 (2.0%)
WRGT-TV (App)	2,952,013	57,372 (1.9%)

The proposed WXIN-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 WXIN-DT operation will not have any adverse impact on any current or potential Class A station over that already predicted to be caused by the current WXIN-DT application (filed prior to the FCC's May 1, 2001 DTV maximization deadline).

Radiofrequency Electromagnetic Field Exposure

The proposed WXIN-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 289.6 meters above ground level. The DTV ERP is 700 kW. A conservative relative field of 0.1 was used for the calculation (see Figure 2). Therefore, the "worst-case" calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0028 mW/cm^2 . This is less than 1% of the FCC's recommended limit of 0.44 mW/cm^2 for channel 45 for an "uncontrolled" environment.

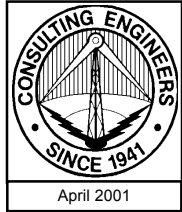
Access to the transmitting site will be restricted and appropriately marked with warning signs. As this is a multi-user site an agreement will control access. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure 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 WXIN-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.

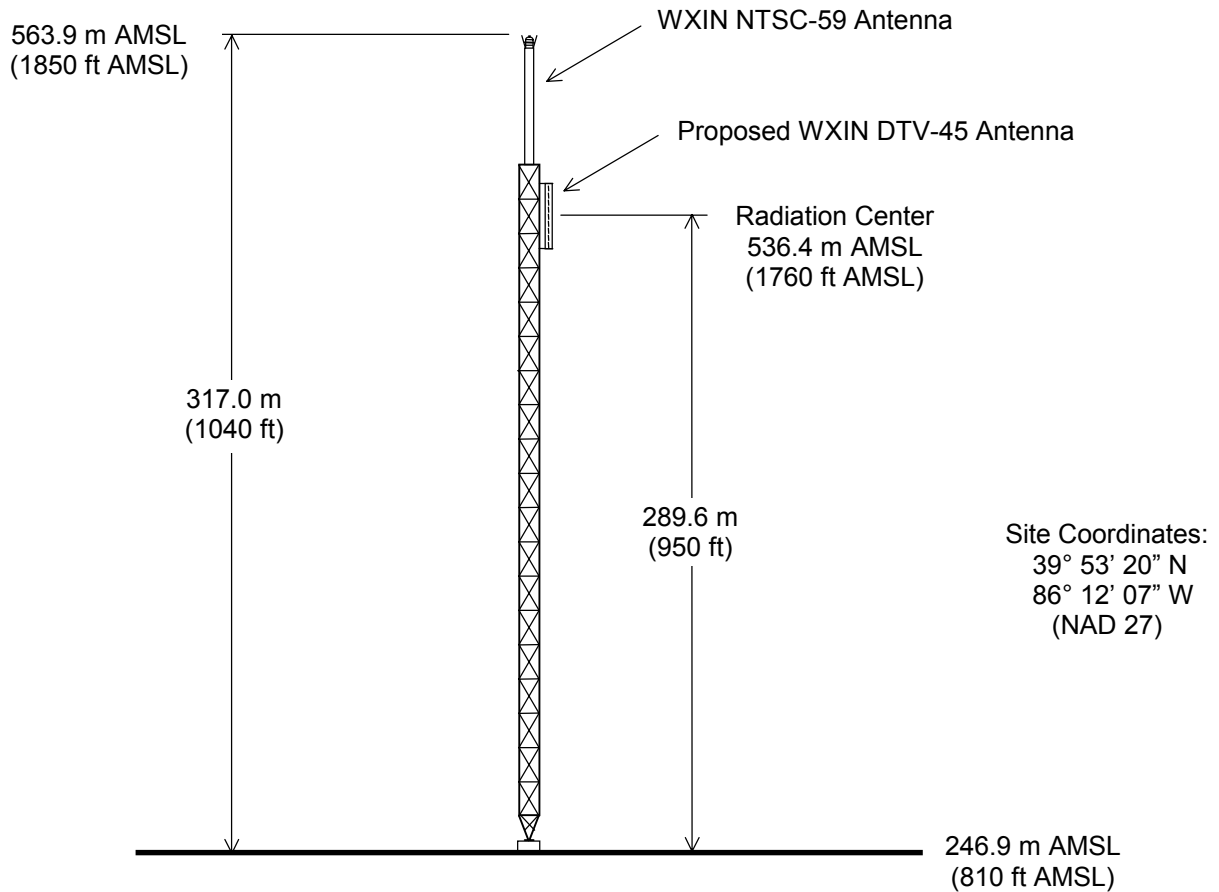
Jonathan N. Edwards

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000

April 9, 2001



Tower Reg. No. 1030684



Not to Scale

ANTENNA AND SUPPORTING STRUCTURE

STATION WXIN-DT

INDIANAPOLIS, INDIANA

CH 45 700 KW 285 M

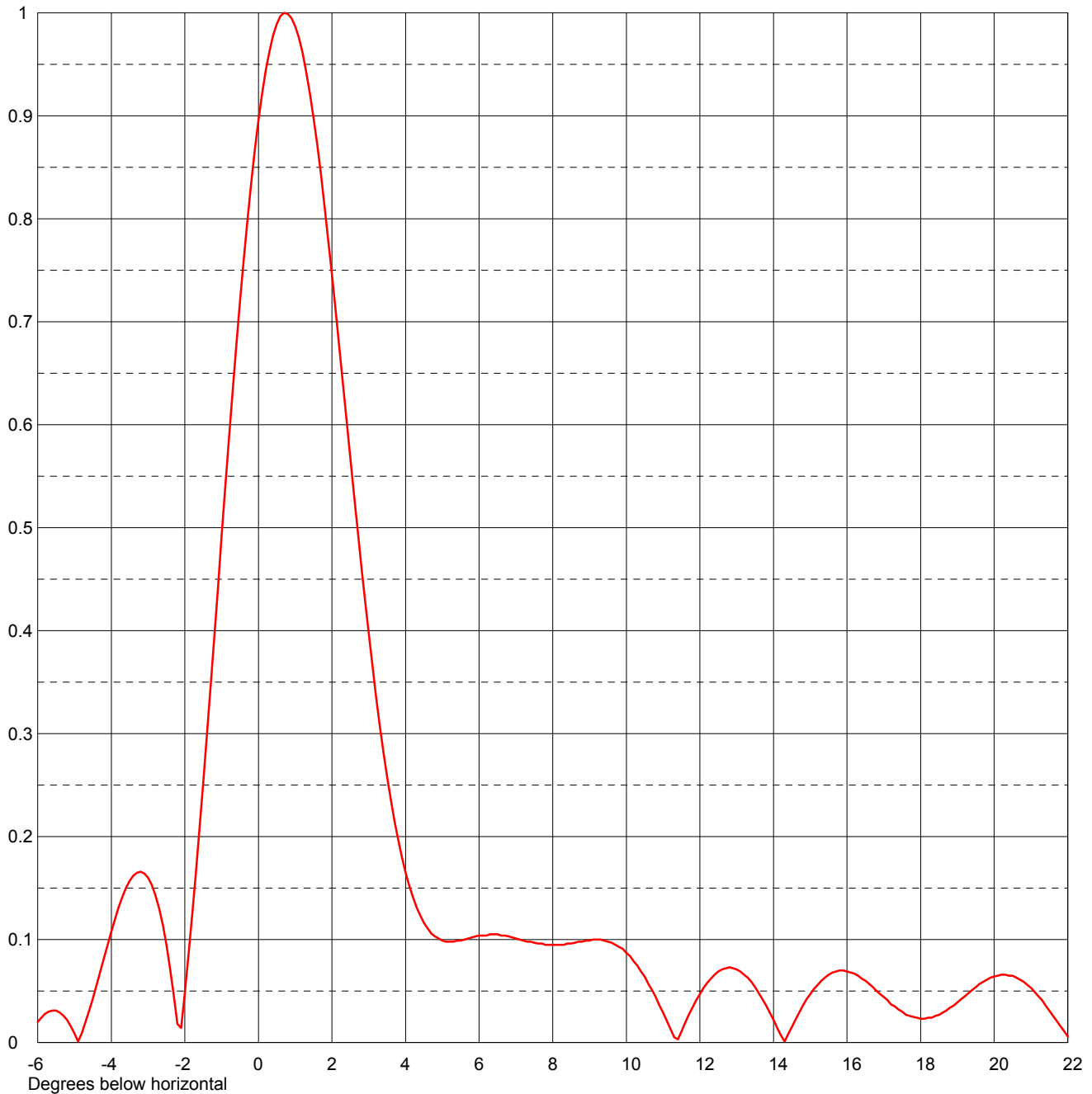
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Date	06 Apr 2001	
Call Letters	WXIN-DT	Channel
Location	Indianapolis, IN	
Customer		
Antenna Type	TFU-24GTH 04	

ELEVATION PATTERN

RMS Gain at Main Lobe	21.5 (13.32 dB)	Beam Tilt	0.75 Degrees
RMS Gain at Horizontal	17.3 (12.38 dB)	Frequency	MHz
Calculated / Measured	Calculated	Drawing #	24G215075



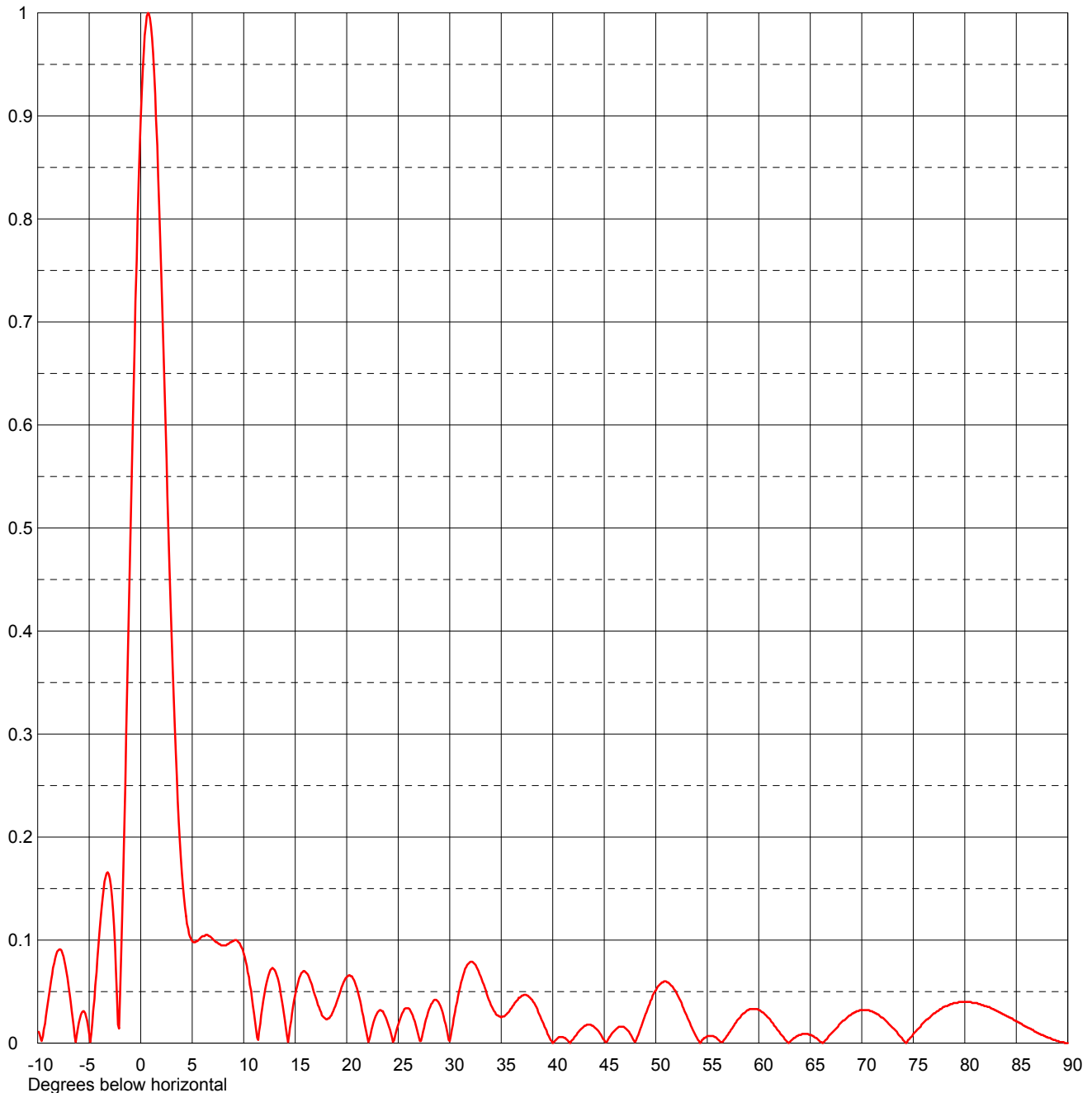
Remarks:



Date	06 Apr 2001	
Call Letters	WXIN-DT	Channel
Location	Indianapolis, IN	
Customer		
Antenna Type	TFU-24GTH 04	

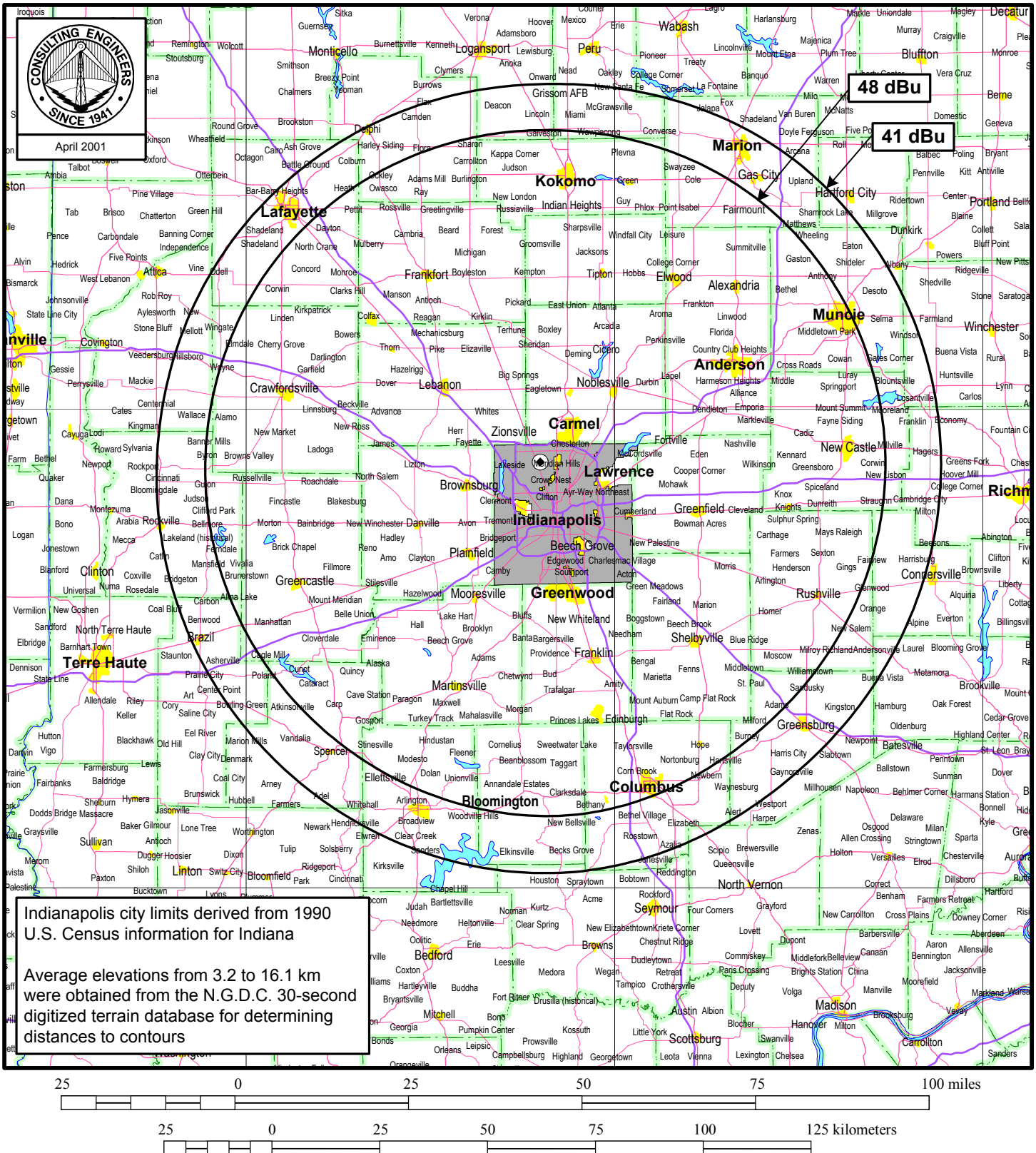
ELEVATION PATTERN

RMS Gain at Main Lobe	21.5 (13.32 dB)	Beam Tilt	0.75 Degrees
RMS Gain at Horizontal	17.3 (12.38 dB)	Frequency	MHz
Calculated / Measured	Calculated	Drawing #	24G215075-90



Remarks:

Figure 3



PREDICTED F(50,90) COVERAGE CONTOURS

STATION WXIN-DT

INDIANAPOLIS, INDIANA

CH 45 700 KW 285 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida