

TECHNICAL EXHIBIT  
APPLICATION FOR DTV MAXIMIZATION  
STATION WDFX-DT (FACILITY ID 32851)  
OZARK, ALABAMA  
CH 33 538 KW (MAX-DA) 148 M

Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station WDFX-DT to maximize its post-transition facility. This application requests a construction permit (CP) for a digital television operation on channel 33, using its licensed DTV Dielectric TFU-28ETT-R 4C190 DC directional transmitting antenna.

Proposed Facilities

Station WDFX-DT proposes to operate DTV channel 33 with a directional effective radiated power (ERP) of 538 kilowatts and antenna height above average terrain (HAAT) of 148 meters. The transmitter site coordinates are:

31° 12' 28" North Latitude  
85° 36' 49" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. Figure 2 is a map showing the DTV predicted coverage contours. The predicted 48 dBu contour will encompass all of Ozark. The Ozark city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

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Population Served

The herein proposed WDFX-DT “maximized” facility is predicted to serve 348,832 persons, post-transition, based upon the 2000 Census. WDFX-DT’s associated Appendix B facility is predicted to serve 244,000 persons. Therefore, the herein proposed WDFX-DT facility would serve more than 100% of WDFX-DT’s Appendix B population.

Allocation Considerations

The proposed WDFX-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.

Radiofrequency Electromagnetic Field Exposure

The proposed WDFX-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 144.2 meters above ground level with an ERP of 538 kW. A conservative relative field value of 0.1 was assumed for the calculation (see Figure 3b). The calculated power density at a point 2 meters above ground level will not exceed 0.009 mW/cm<sup>2</sup>. This is less than 5% of the FCC's recommended limit of 0.39 mW/cm<sup>2</sup> for channel 33 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 WDFX-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.

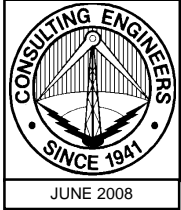


Jonathan N. Edwards

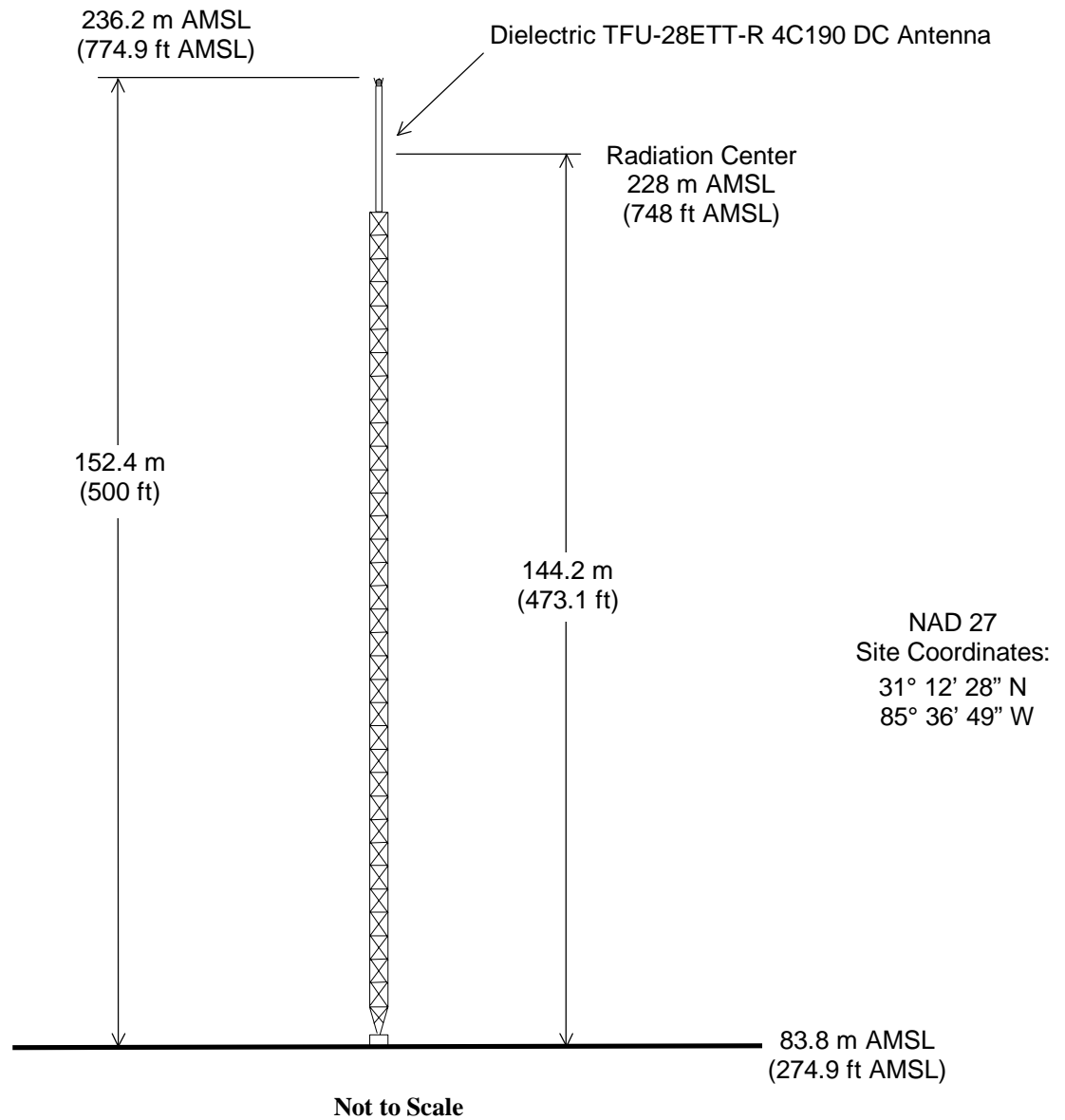
du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
(941) 329-6000  
JON@DLR.COM

June 19, 2008

Figure 1



Registration No. 1244456



## ANTENNA AND SUPPORTING STRUCTURE

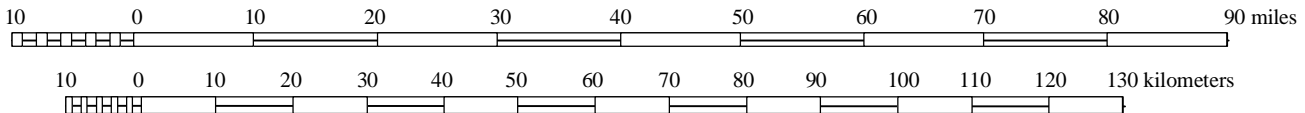
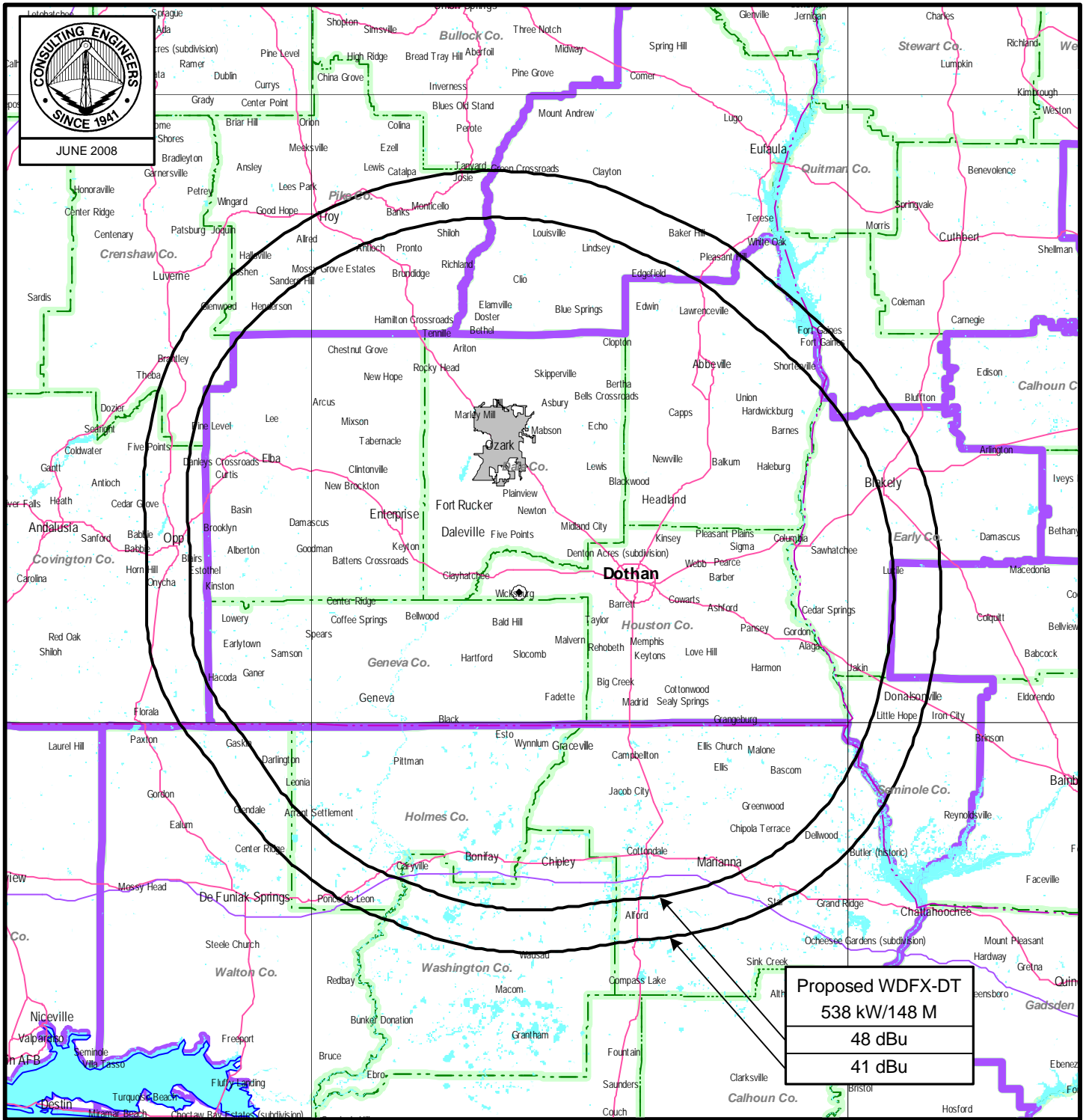
STATION WDFX-DT

OZARK, ALABAMA

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

Figure 2



## PREDICTED COVERAGE CONTOURS

STATION WDFX-DT

OZARK, ALABAMA

CH 33 538 kW (MAX-DA) 148 M

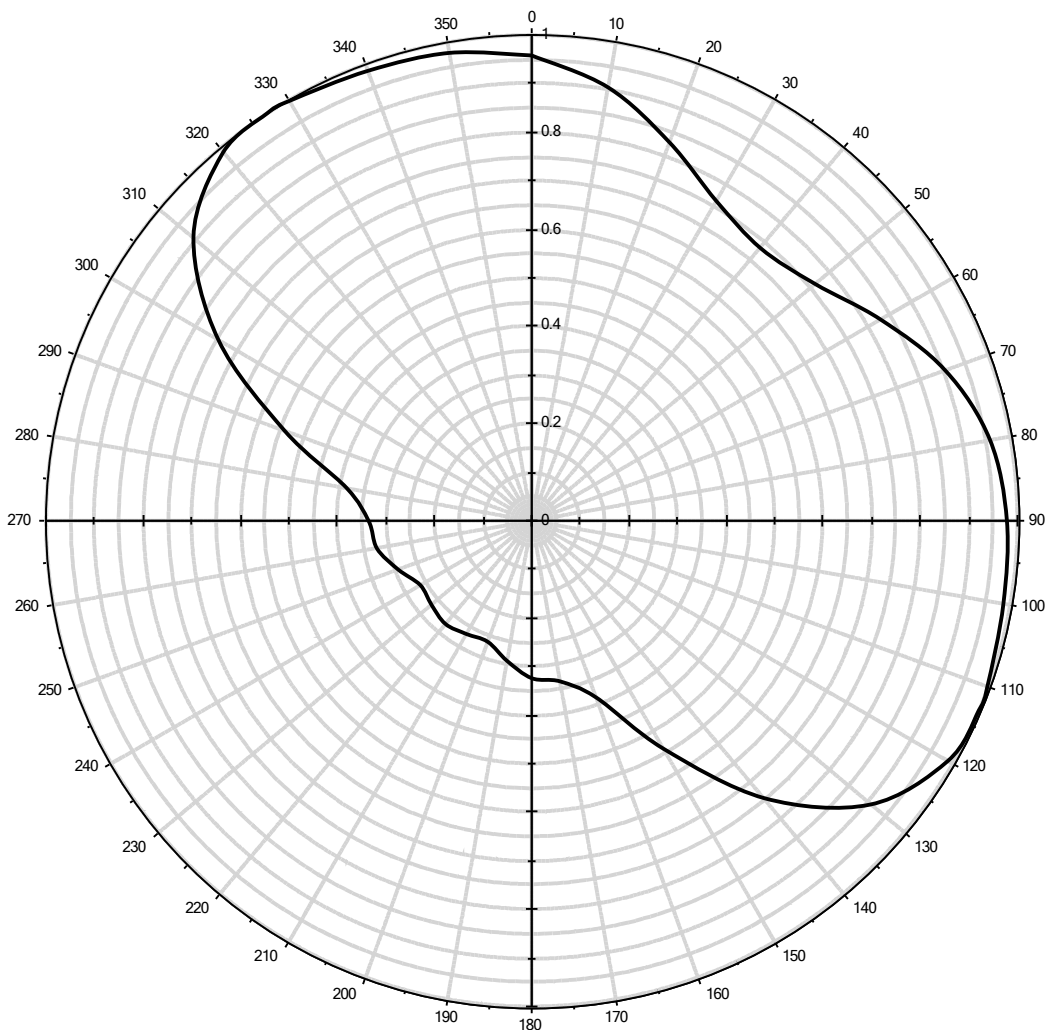
du Treil, Lundin & Rackley, Inc Sarasota, Florida

# DA Inquiry

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



**Antenna Pattern:** Antenna ID: 68078



**Note:** display reflects rotation of 0.00°

**Antenna Details:**

0°	0.958	60°	0.829	120°	0.989	180°	0.324	240°	0.265	300°	0.745	113°	1.000
10°	0.906	70°	0.906	130°	0.909	190°	0.293	250°	0.293	310°	0.909	327°	1.000
20°	0.829	80°	0.958	140°	0.745	200°	0.265	260°	0.324	320°	0.989		
30°	0.760	90°	0.978	150°	0.541	210°	0.269	270°	0.336	330°	0.998		
40°	0.733	100°	0.986	160°	0.387	220°	0.277	280°	0.387	340°	0.986		
50°	0.760	110°	0.998	170°	0.336	230°	0.269	290°	0.541	350°	0.978		

**Antenna Make:** DIE

**Standard Pattern:**

**Antenna Model:** TFU-28ETT-R 4C190 DC

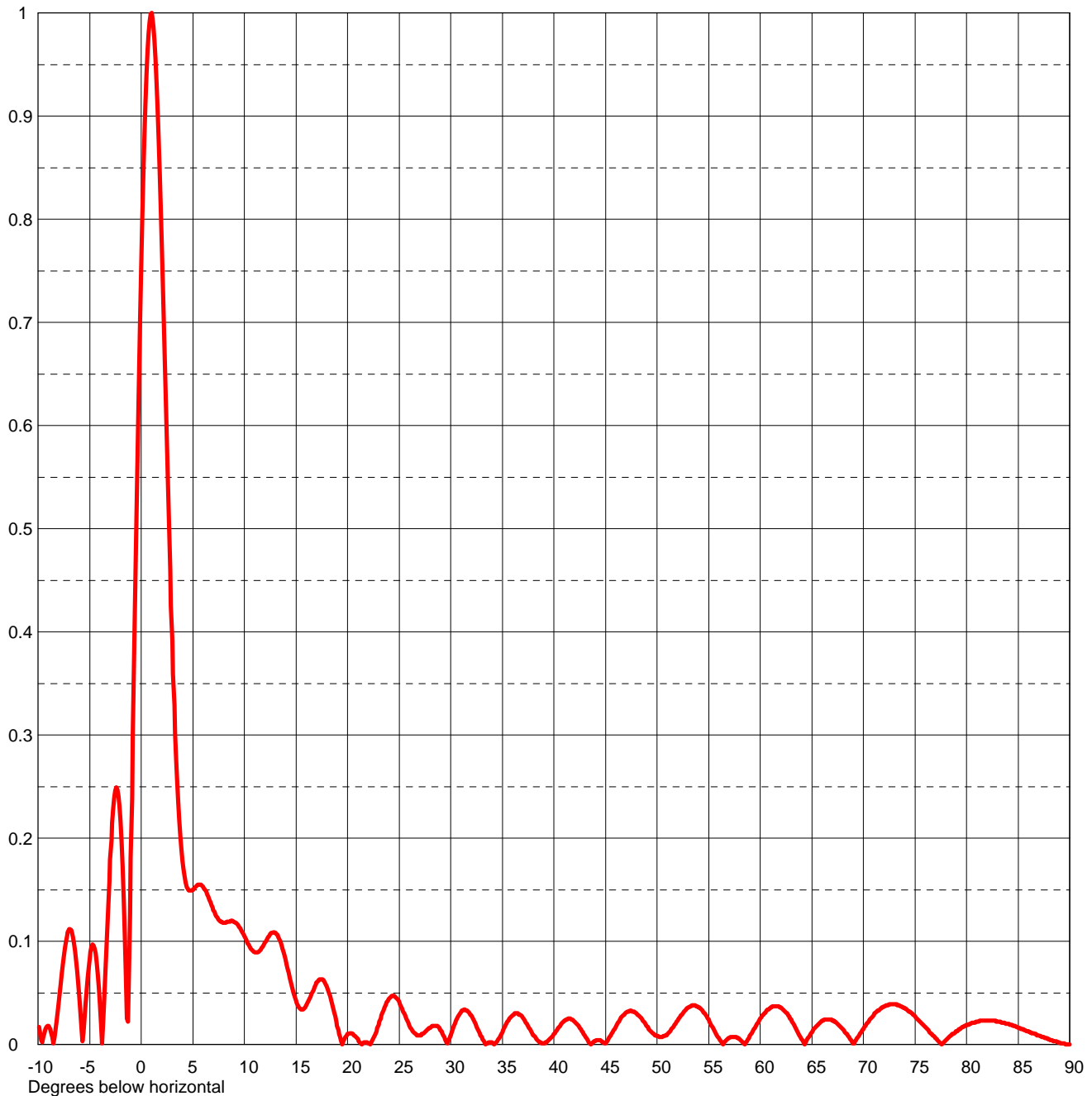
**Last Change Date:**



Date	19 Jun 2008	
Call Letters	WDFX-DT	Channel 33
Location	Ozark, AL	
Customer		
Antenna Type	TFU-28GTH-R	

### TYPICAL ELEVATION PATTERN

RMS Gain at Main Lobe	24.0 (13.80 dB)	Beam Tilt	1.00 Degrees
RMS Gain at Horizontal	13.6 (11.34 dB)	Frequency	587.00 MHz
Calculated / Measured	Calculated	Drawing #	28G240100-90



Remarks: