

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
STATION WAFF-DT (FACILITY ID 591)
HUNTSVILLE, ALABAMA

OCTOBER 21, 2008

CH 48 356 KW 576 M

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Technical Narrative

This Technical Exhibit supports an application for construction permit for digital television (DTV) station WAFF-DT at Huntsville, Alabama. In MB Docket No. 08-105, the FCC ordered WAFF-DT to file an application for construction permit to specify DTV channel 48 in lieu of DTV channel 49. This application requests a construction permit (CP) for a digital television operation on channel 48 with the same parameters specified in the petition for rulemaking (i.e., this is a checklist application).

Proposed Facilities

Station WAFF-DT proposes to operate DTV channel 48, using its existing non-directional, analog antenna. The proposed effective radiated power (ERP) is 356 kilowatts and antenna height above average terrain (HAAT) is 576 meters. The transmitter site coordinates are:

34° 42' 39" North Latitude
86° 32' 07" 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 Huntsville. The Huntsville city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Allocation Considerations

The proposed WAFF-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 non-standard 1 kilometer cell size and 1 kilometer terrain distance increment.

Radiofrequency Electromagnetic Field Exposure

The proposed WAFF-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 455.8 meters above ground level with an ERP of 356 kW. A downward relative field value of 0.1 was assumed for the 28-bay antenna (see Figure 3). The calculated power density at a point 2 meters above ground level will not exceed 0.0006 mW/cm^2 . This is less than 5% of the FCC's recommended limit of 0.45 mW/cm^2 for channel 48 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 WAFF-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

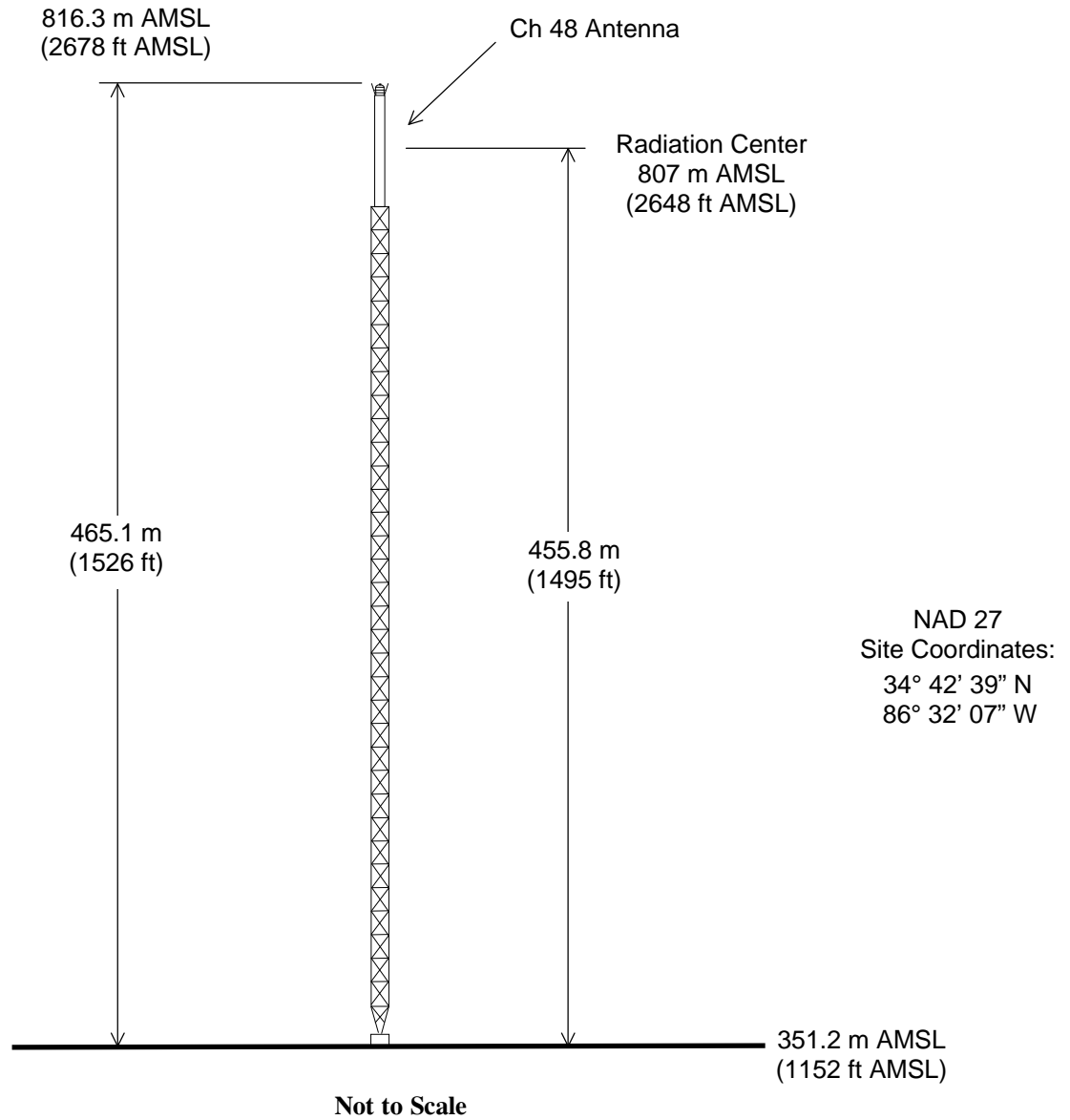
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000
JON@DLR.COM

October 21, 2008

Figure 1



Registration No. 1204889



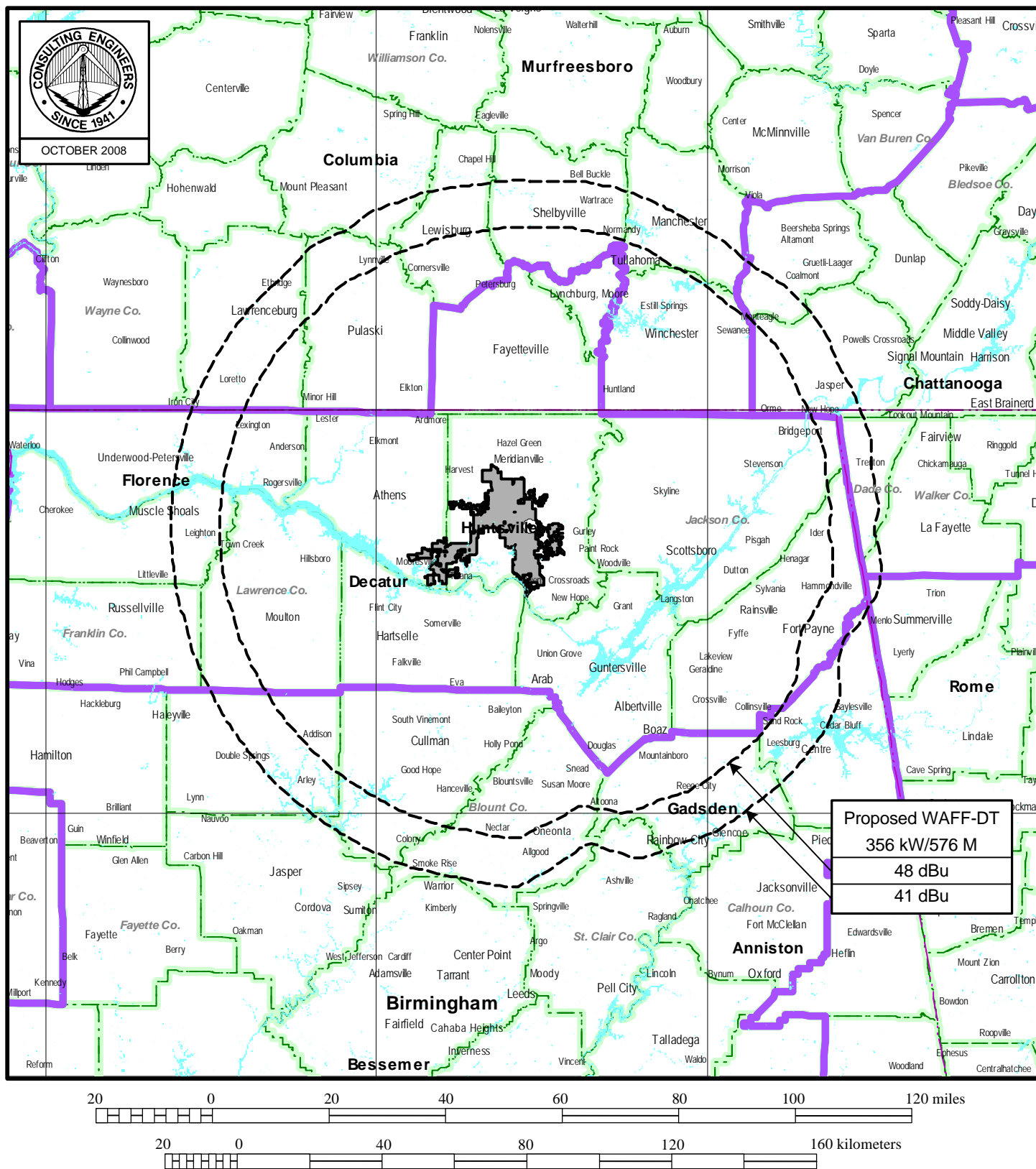
ANTENNA AND SUPPORTING STRUCTURE

STATION WAFF-DT
HUNTSVILLE, ALABAMA

CH 48 356 KW 576 M

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

Figure 2



PREDICTED COVERAGE CONTOURS

STATION WAFF-DT

HUNTSVILLE, ALABAMA

CH 48 356 kW 576 M

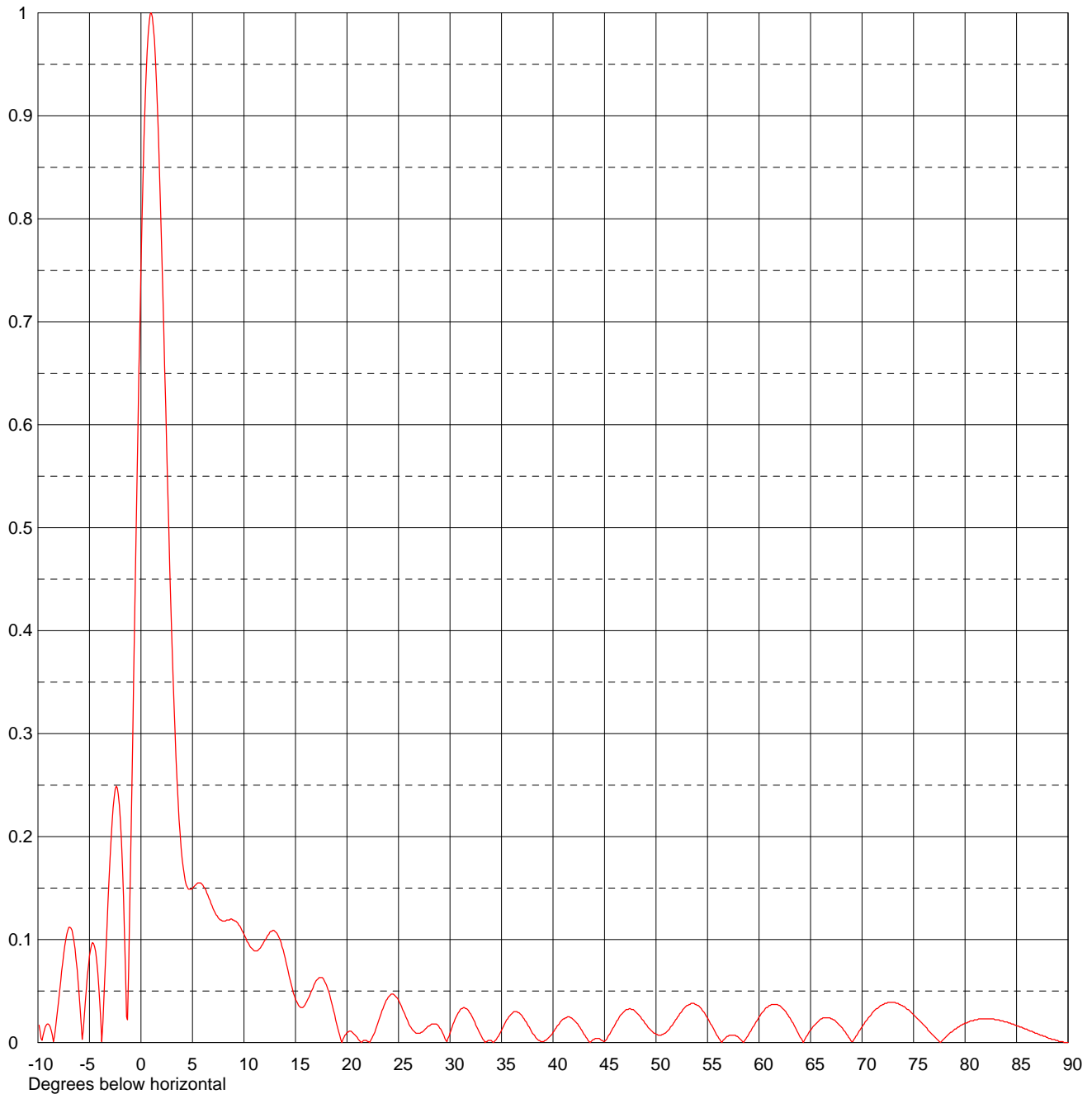
du Treil, Lundin & Rackley, Inc Sarasota, Florida



Date	21 Oct 2008	
Call Letters	WAFF	Channel 48
Location		
Customer		
Antenna Type	TFU-28G	

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	677.00 MHz
Calculated / Measured	Calculated	Drawing #	28G240100-90



Remarks: