

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, permittee of WMPV-DT, Channel 20 in Mobile, Alabama, in support of its application for modification of Construction Permit BPCDT-19991101AHY to specify a new site, an increase in effective antenna height, and a reduction in effective radiated power. No change in antenna pattern or orientation is proposed herein.

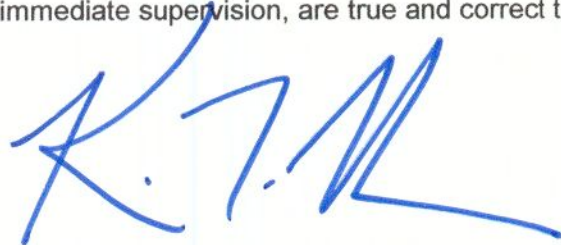
It is proposed to mount a standard directional ERI antenna at the 538-meter level of an existing 593-meter communications tower. Elevation and azimuth pattern data for the antenna are provided in Exhibit B. Operating parameters for the proposed facility are tabulated in Exhibit C. Exhibit D is a map upon which the predicted service contours are plotted. As shown, the city of license (Mobile) is completely contained within the proposed 48 dBu service contour. It is important to note that since the proposed 41 dBu service contour lies completely within that authorized to WMPV-DT, this application meets the terms of acceptability with respect to the Commission's current freeze on DTV modification proposals. In addition, and for the same reasons, no interference study is provided herein. A power density calculation is provided in Exhibit E.

It is not expected that the proposed facility would cause objectionable interference to any other broadcast or non-broadcast station authorized to operate at or near the new WMPV-DT site. However, if such should occur, the owner of the station recognizes its obligation to take whatever corrective actions are necessary.

EXHIBIT A

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1064671 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read 'K. T. Fisher', with a stylized, sweeping flourish at the end.

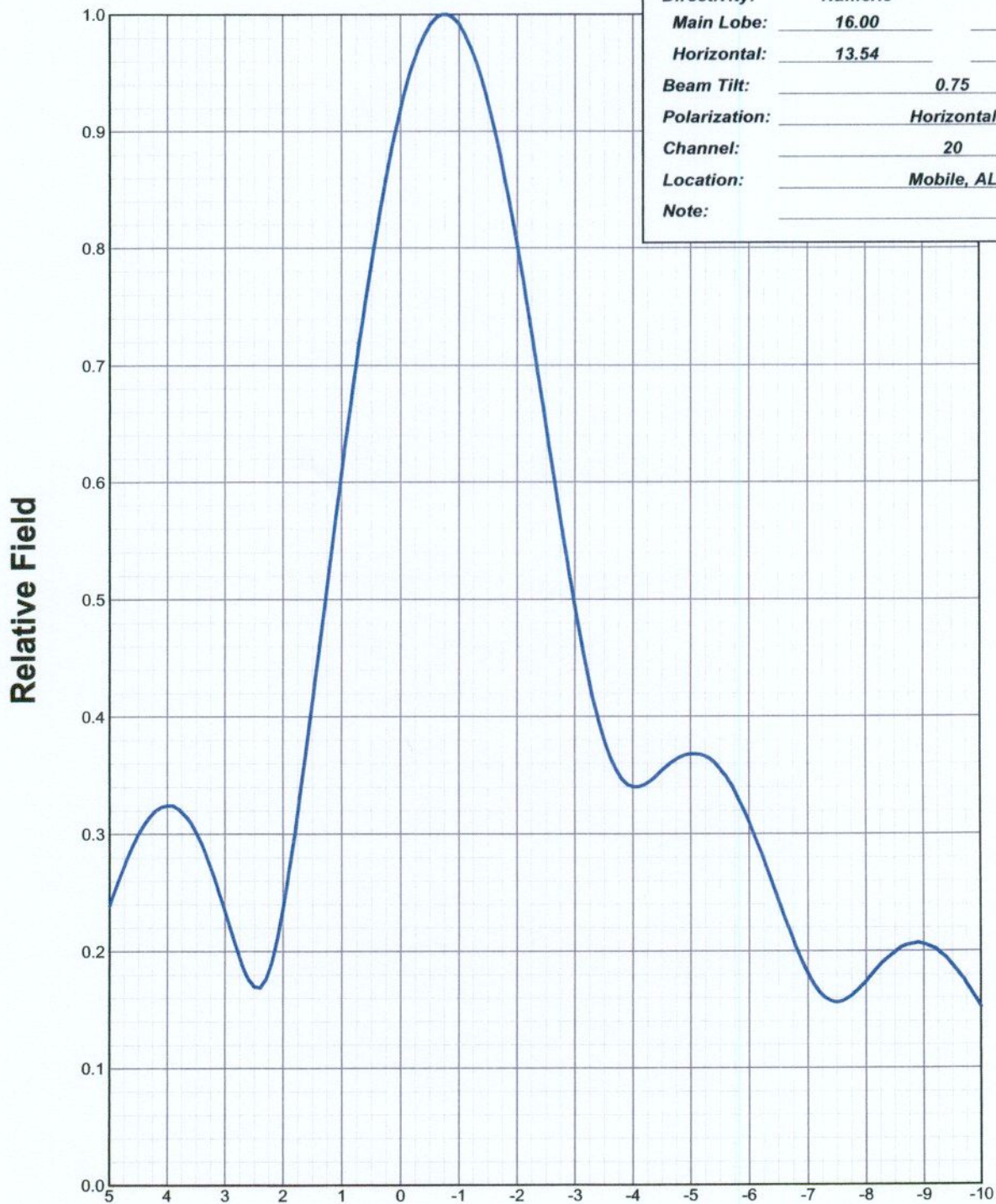
KEVIN T. FISHER

October 5, 2005



## ELEVATION PATTERN

Type:	ATW16H3H	
Directivity:	Numeric	dBd
Main Lobe:	16.00	12.04
Horizontal:	13.54	11.32
Beam Tilt:	0.75	
Polarization:	Horizontal	
Channel:	20	
Location:	Mobile, AL	
Note:		



Electronics Research, Inc.  
7777 Gardner Road  
Chandler, Indiana U.S.A 47610

### EXHIBIT B-1

#### ANTENNA ELEVATION PATTERN

**PROPOSED WMPV-DT**  
**CHANNEL 20 - MOBILE, ALABAMA**  
**[MODIFICATION OF BPCDT-19991101AHY]**

SMITH AND FISHER



**EXHIBIT B-2****ANTENNA AZIMUTH PATTERN**

**PROPOSED WMPV-DT  
CHANNEL 20 - MOBILE, ALABAMA  
[MODIFICATION OF BPCDT-19991101AHY]**

SMITH AND FISHER

**AZIMUTH PATTERN  
FCC FILING FORMAT**

Type: ATW-P5

Polarization: Horizontal

<i>Angle</i>	<i>Field</i>	<i>ERP (kW)</i>	<i>ERP (dBk)</i>
0	0.309	10.025	10.011
10	0.333	11.643	10.661
20	0.309	10.025	10.011
30	0.251	6.615	8.205
40	0.213	4.764	6.779
50	0.294	9.075	9.579
60	0.467	22.898	13.598
70	0.663	46.152	16.642
80	0.838	73.732	18.677
90	0.957	96.159	19.830
100	1.000	104.995	20.212
110	0.957	96.159	19.830
120	0.838	73.732	18.677
130	0.663	46.152	16.642
140	0.467	22.898	13.598
150	0.294	9.075	9.579
160	0.213	4.764	6.779
170	0.251	6.615	8.205
180	0.309	10.025	10.011
190	0.333	11.643	10.661
200	0.309	10.025	10.011
210	0.251	6.615	8.205
220	0.213	4.764	6.779
230	0.294	9.075	9.579
240	0.467	22.898	13.598
250	0.663	46.152	16.642
260	0.838	73.732	18.677
270	0.957	96.159	19.830
280	1.000	104.995	20.212
290	0.957	96.159	19.830
300	0.838	73.732	18.677
310	0.663	46.152	16.642
320	0.467	22.898	13.598
330	0.294	9.075	9.579
340	0.213	4.764	6.779
350	0.251	6.615	8.205



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**EXHIBIT B-3**

**ANTENNA RELATIVE FIELD VALUES**

PROPOSED WMPV-DT  
CHANNEL 20 - MOBILE, ALABAMA  
[MODIFICATION OF BPCDT-19991101AHY]

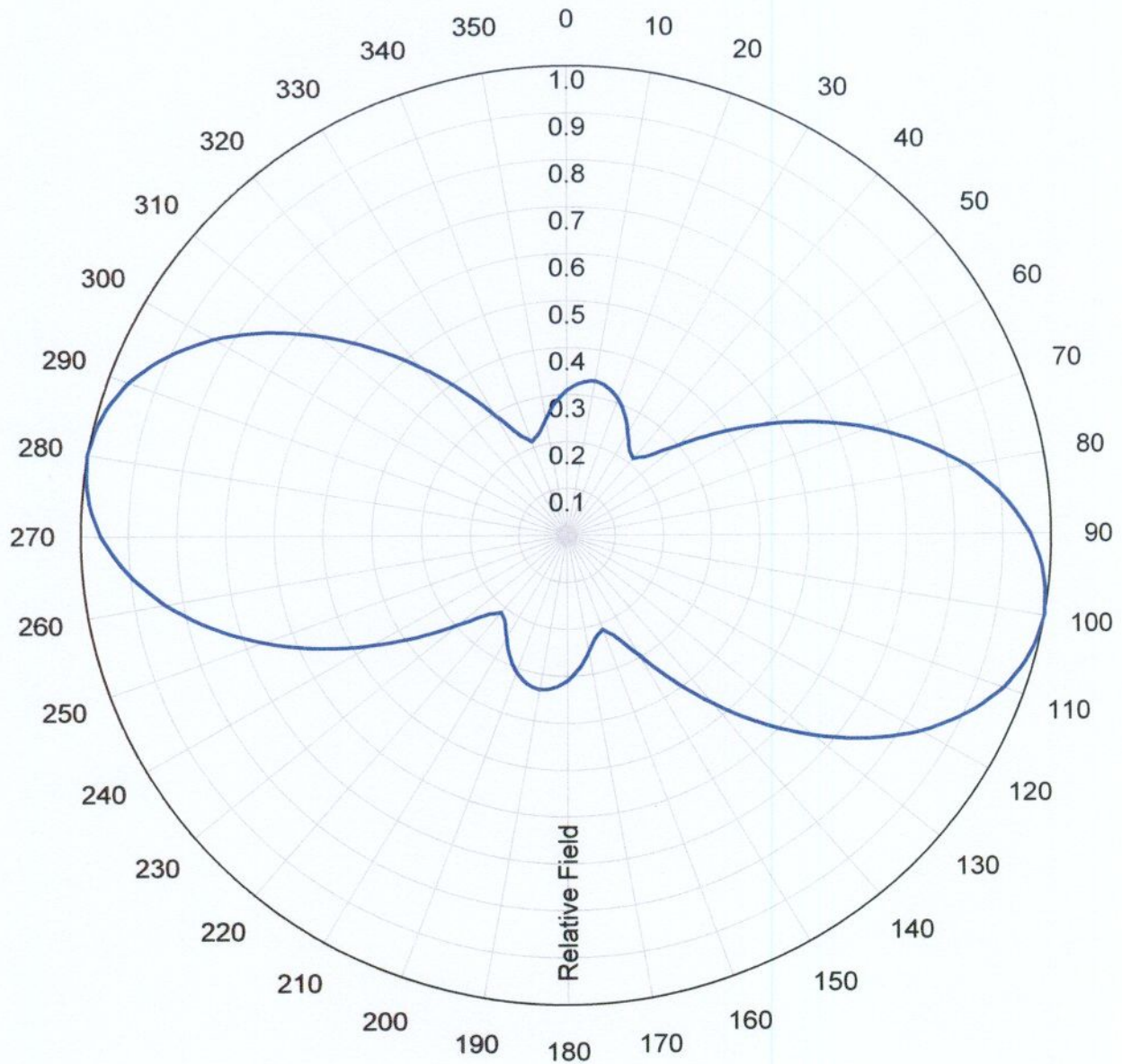
SMITH AND FISHER



**AZIMUTH PATTERN**

Type: ATW-P5

	Numeric	dBd
Directivity:	<u>2.90</u>	<u>4.62</u>
Peak(s) at:		
Polarization:	<u>Horizontal</u>	
Channel:	<u>20</u>	
Location:		
Note:		



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## PROPOSED OPERATING PARAMETERS

PROPOSED WMPV-DT  
CHANNEL 20 - MOBILE, ALABAMA  
[MODIFICATION OF BPCDT-19991101AHY]

Transmitter power output	4.93 kw
Transmission line loss	2.66 kw
Input to antenna	2.26 kw
Antenna gain (maximum)	46.4
Effective radiated power (maximum)	105 kw

Transmitter make and model:	Type-accepted
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## Transmission line

Make and model:	Andrew MACX450
Size:	4-1/16"
Type:	Rigid
Length:	1994 feet
Efficiency:	45.9%

## Antenna

Make and model:	ERI ATW16H3-HTP5-20H
Type:	Directional
Electrical Beam Tilt:	0.75°



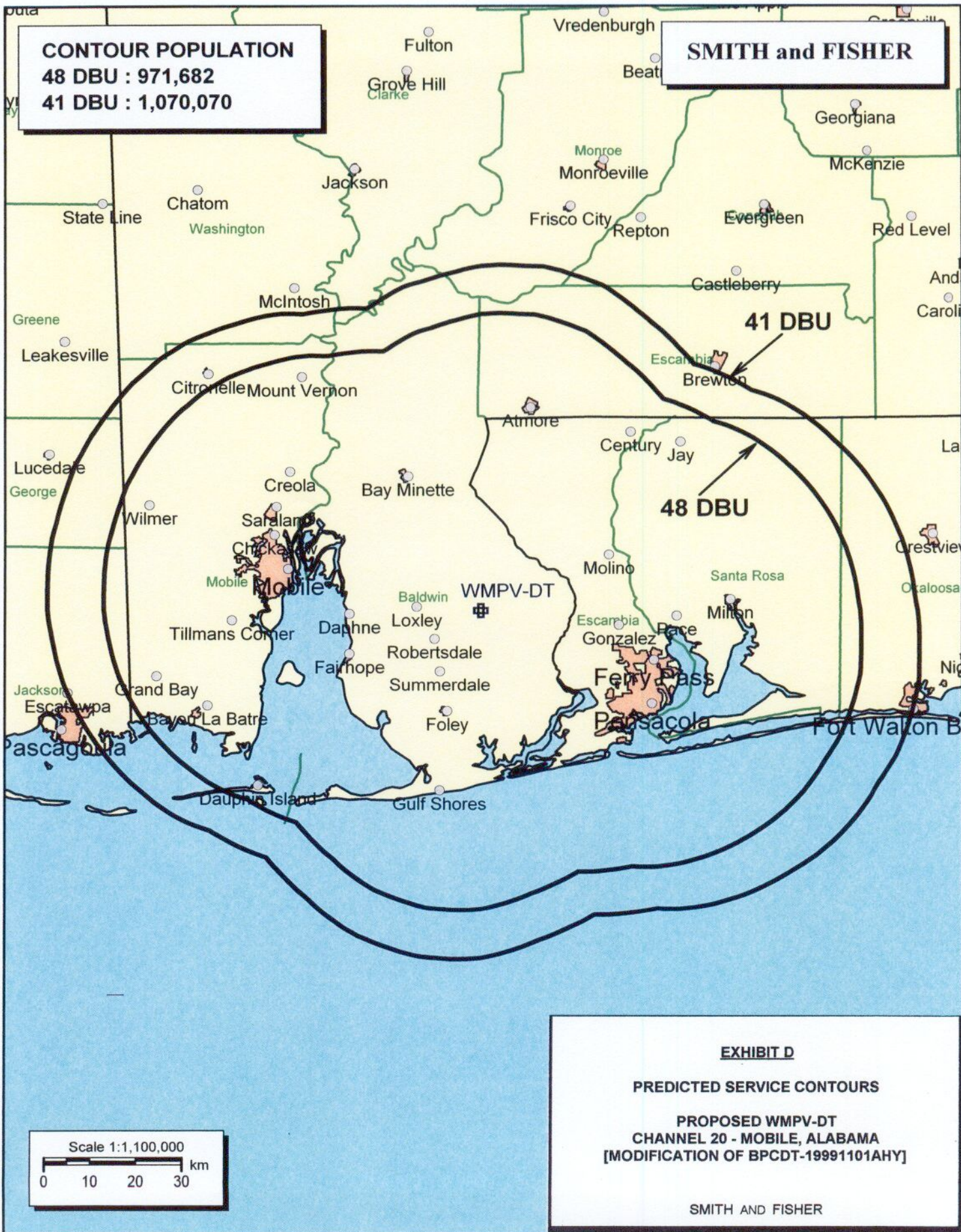




EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED WMPV-DT  
CHANNEL 20 – MOBILE, ALABAMA  
[MODIFICATION OF BPCDT-19991101AHY]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Mobile facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 105 kw, an effective antenna height of 538 meters above ground, and the elevation pattern of the ERI antenna, maximum power density two meters above ground of  $0.000080 \text{ mw/cm}^2$  is calculated to occur 195 meters east and west of the base of the tower. Since this is significantly less than 0.1 percent of the  $0.34 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 20 (506-512 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational ground-level exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.