

ENGINEERING STATEMENT

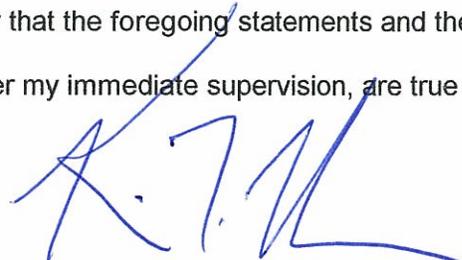
The engineering data contained herein have been prepared on behalf of NEW DMIC, INC., permittee of KDFI-DT, Channel 36 in Dallas, Texas, in support of this amendment to its pending application for modification of Construction Permit BMPCDT-20080610ACJ, which seeks operation with a broadband panel antenna. It is proposed herein to reduce the effective radiated power from 1000 kw to 810 kw in order to keep the newly proposed contour completely within that authorized to KDFI-DT. No change in site location, antenna pattern or antenna height is proposed herein.

It is proposed to utilize an existing directional antenna mounted at the 449-meter level of the existing 498-meter tower. Exhibit B provides elevation and azimuth pattern data for the proposed antenna. Exhibit C is a map upon which the revised service contours are plotted. As shown, the city of license is completely contained within the proposed 48 dBu service contour. Exhibit D is a map upon which the newly proposed 41 dBu service contour is plotted along with that authorized to KDFI-DT. As shown, the proposed contour is completely contained within that authorized to this station. For this reason, no interference study is required. It is also important to note that the proposed facility will serve at least 95% of the service population of KDFI-DT, as allotted. 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 KDFI-DT site. However, if such should occur, the owner of this station recognizes its obligation to take whatever corrective actions are necessary.

Since no change in overall height or location of the existing tower is proposed herein, the FAA has not been notified of this application. The Commission issued Antenna Structure Registration Number 1059733 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.

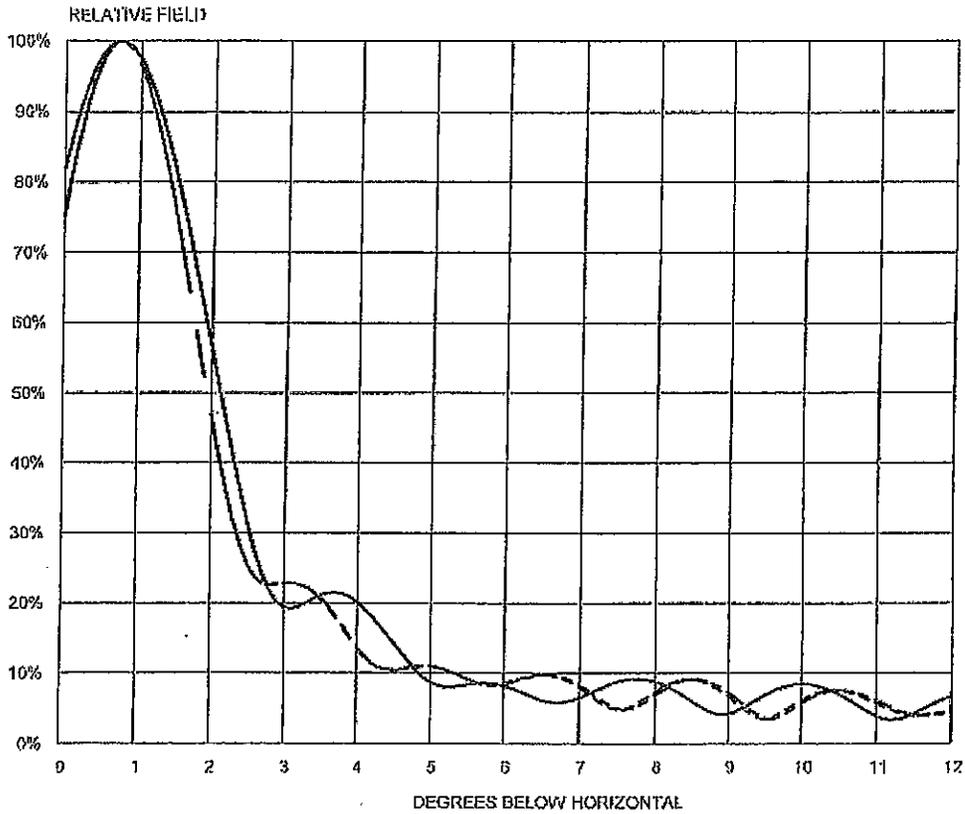


KEVIN T. FISHER

July 1, 2008

# VERTICAL RADIATION PATTERN

Station *CEDAR HILLS*  
Channel *36,54,55*  
Type *12 TIER BB PANEL*  
Aperture *12 TIERS*



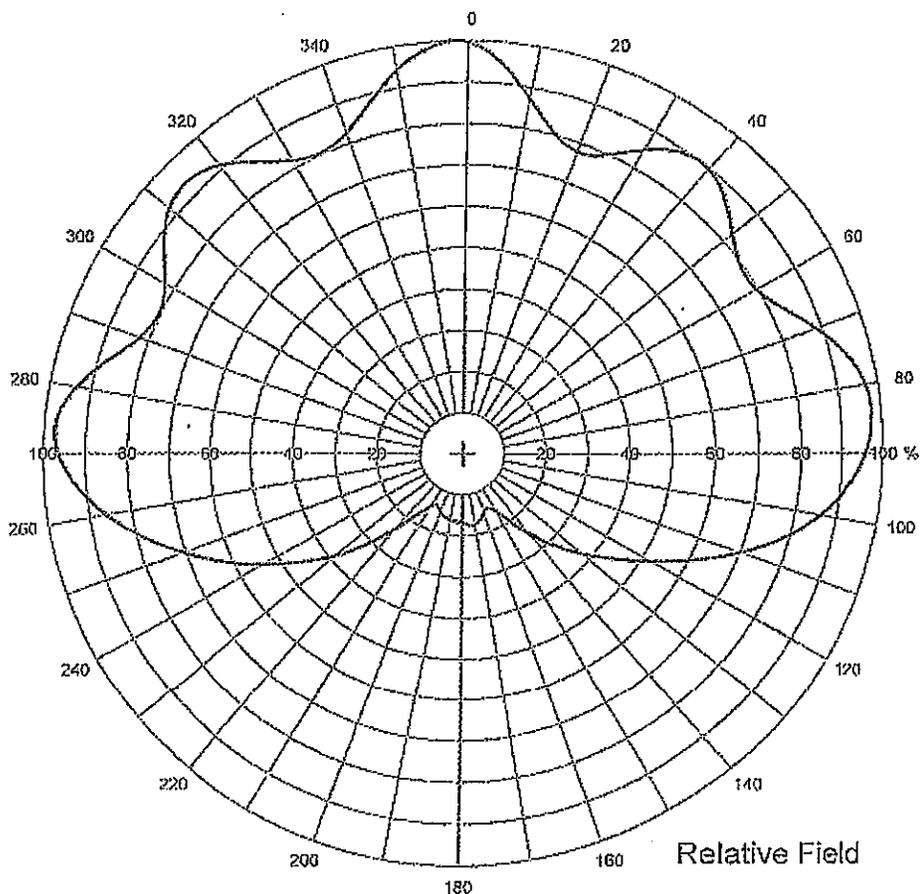
\_\_\_\_\_ *USA CH36 605MHz*  
----- *USA CH55 719MHz*  
-.-.-.- *USA CH54 713MHz*

Engineer *H GREEN* Date *2 Jun 2005*

**EXHIBIT B-1**  
**ANTENNA ELEVATION PATTERN**  
**PROPOSED KDFI-DT**  
**CHANNEL 36 – DALLAS, TEXAS**  
**[AMENDMENT TO BMPCDT-20080610ACJ]**  
**SMITH AND FISHER**

# HORIZONTAL RADIATION PATTERN

Station **CEDAR HILLS**  
Channel **36 USA** Frequency **605 MHz**  
Type **12 TIER BB PANEL**



HRP Max/Mean Gain **1.9 power ratio , & 2.9 dB**

Engineer **H GREEN** Date **8 Jun 2005**

**EXHIBIT B-2**  
**ANTENNA AZIMUTH PATTERN**  
**PROPOSED KDFI-DT**  
**CHANNEL 36 - DALLAS, TEXAS**  
**[AMENDMENT TO BMPCDT-20080610ACJ]**  
**SMITH AND FISHER**

ANTENNA AZIMUTH PATTERN DATA  
PROPOSED KDFI-DT  
CHANNEL 36 – DALLAS, TEXAS  
[AMENDMENT TO BMPCDT-20080610ACJ]

<u>Azimuth</u> <u>(° T)</u>	<u>Relative</u> <u>Field</u>	<u>ERP</u> <u>(dbk)</u>	<u>Azimuth</u> <u>(° T)</u>	<u>Relative</u> <u>Field</u>	<u>ERP</u> <u>(dbk)</u>
0	1.00	29.1	180	0.17	13.7
10	0.87	27.9	190	0.17	13.7
20	0.78	26.9	200	0.16	13.2
30	0.85	27.7	210	0.16	13.2
40	0.90	28.2	220	0.24	16.7
50	0.83	27.5	230	0.40	21.1
60	0.80	27.2	240	0.54	23.7
70	0.88	28.0	250	0.71	26.1
80	0.97	28.8	260	0.87	27.9
90	0.96	28.7	270	0.97	28.8
100	0.87	27.9	280	0.94	28.6
110	0.71	26.1	290	0.82	27.4
120	0.52	23.4	300	0.83	27.5
130	0.38	20.7	310	0.93	28.5
140	0.24	16.7	320	0.92	28.4
150	0.16	13.2	330	0.82	27.4
160	0.16	13.2	340	0.83	27.5
170	0.18	14.2	350	0.95	28.7

**CONTOUR POPULATION**  
**PROPOSED 48 DBU : 5,204,048**  
**PROPOSED 41 DBU : 5,350,266**  
**[AUTHORIZED 41 DBU : 5,408,698]**

**SMITH and FISHER**

**41 DBU**

**48 DBU**

**Dallas**

**Fort Worth**

**KDFI-DT**

**EXHIBIT C**

**PREDICTED SERVICE CONTOURS**

**PROPOSED KDFI-DT**  
**CHANNEL 36 - DALLAS, TEXAS**  
**[AMENDMENT TO BMPCDT-20080610ACJ]**

SMITH AND FISHER

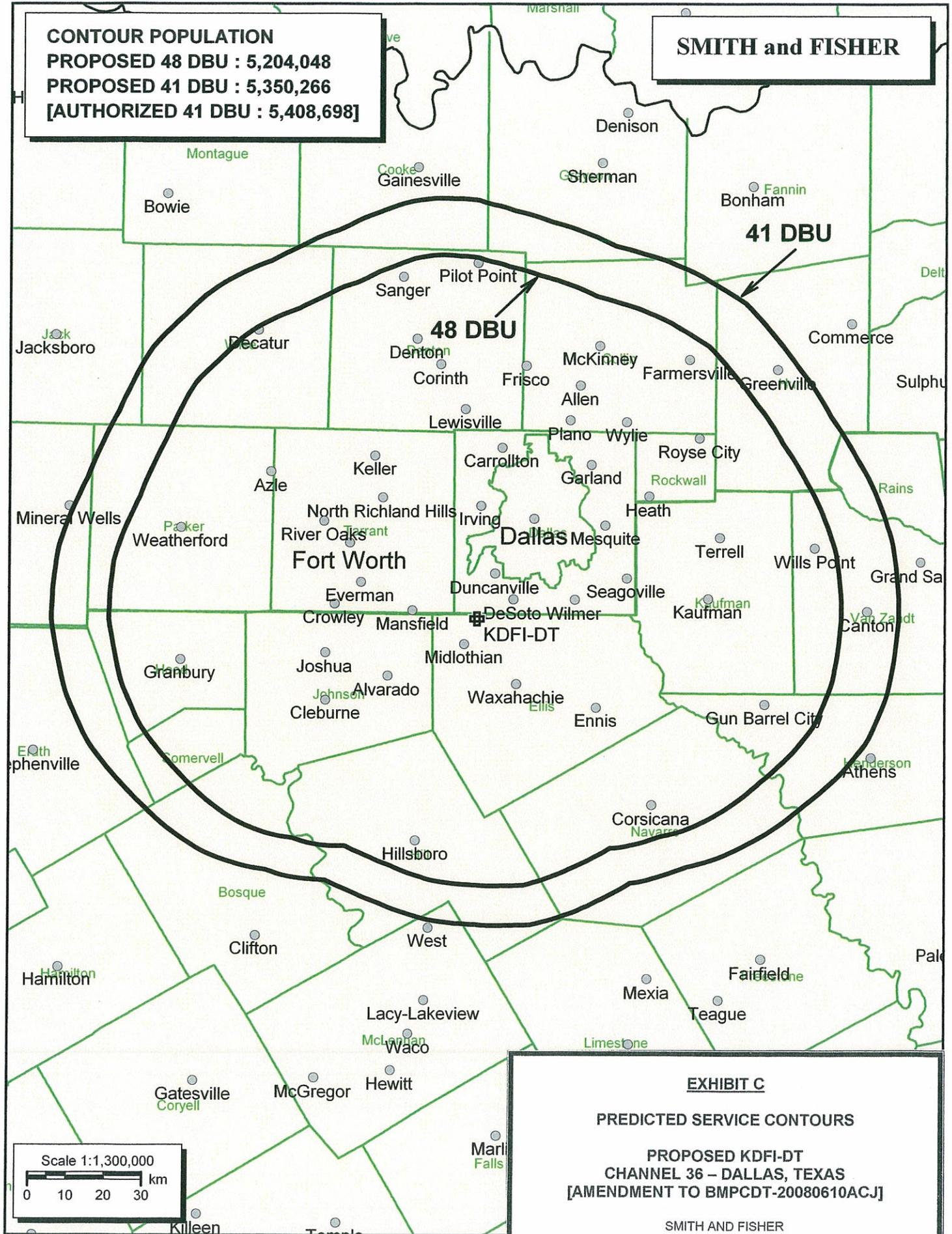
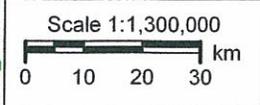




EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED KDFI-DT  
CHANNEL 36 – DALLAS, TEXAS

[AMENDMENT TO BMPCDT-20080610ACJ]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Dallas facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 810 kw, an antenna radiation center 449 meters above ground, and assuming a vertical relative field value of 20 percent at the steeper elevation angles for the Alan-Dick antenna, maximum power density two meters above ground of  $0.0054 \text{ mw/cm}^2$  is calculated to occur near the base of the tower. Since this is only 1.4 percent of the  $0.40 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 36 (602-608 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.