

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FOX TELEVISION STATIONS, INC., licensee of Digital Television Station WTXF-DT, Channel 42 in Philadelphia, Pennsylvania, in support of its Application for Construction Permit to utilize the pre-transition DTV facility for post-transition auxiliary use. While the antenna orientation will be different and the effective radiated power reduced from 1000 kw to 530 kw, no change in site location, antenna model or antenna height is proposed herein.

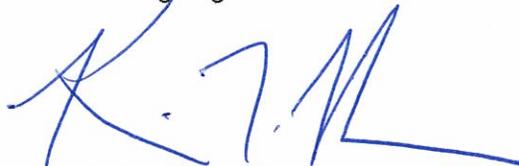
Antenna elevation and azimuth pattern data are provided in Exhibit B. Exhibit C is a map upon which the predicted service contours for the proposed auxiliary facility are plotted. Exhibit D is a map upon which the authorized WTXF-DT post-transition 41 dBu contour is plotted in relation to that proposed for the auxiliary facility. As shown, the auxiliary contour is completely contained within the authorized service contour. As a result, no interference study is required. A power density calculation follows as 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 WTXF-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 FCC has issued Antenna Structure Registration Number 1037800 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements are true and correct
to the best of my knowledge and belief.

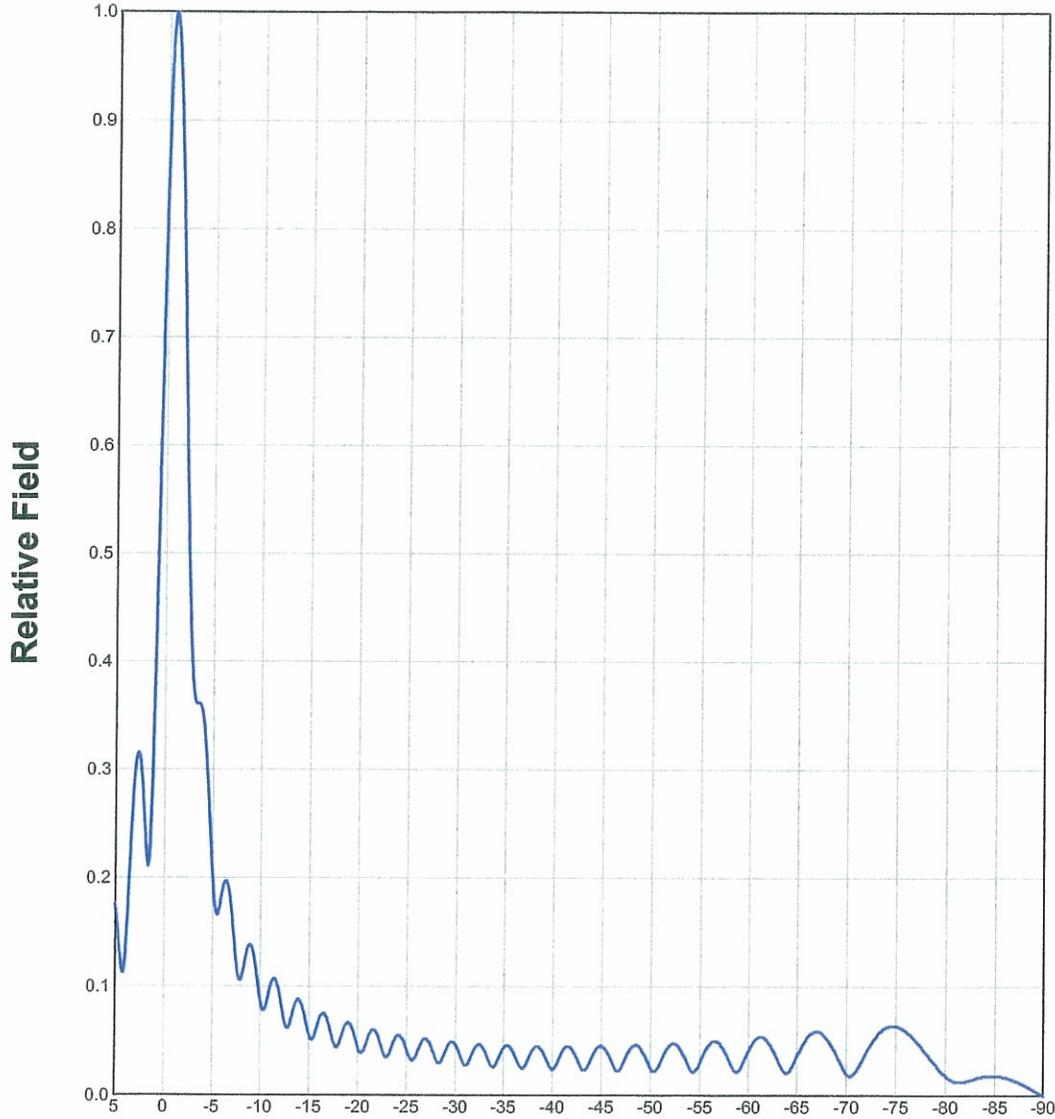


KEVIN T. FISHER

June 1, 2009

ELEVATION PATTERN

Type:	<u>ATW22H3H</u>		Channel:	<u>42</u>
Directivity:	<u>Numeric</u>	<u>dBd</u>	Location:	<u> </u>
Main Lobe:	<u>22.00</u>	<u>13.42</u>	Beam Tilt:	<u>-0.75</u>
Horizontal:	<u>16.16</u>	<u>12.08</u>	Polarization:	<u>Horizontal</u>



Preliminary, subject to final design and review.

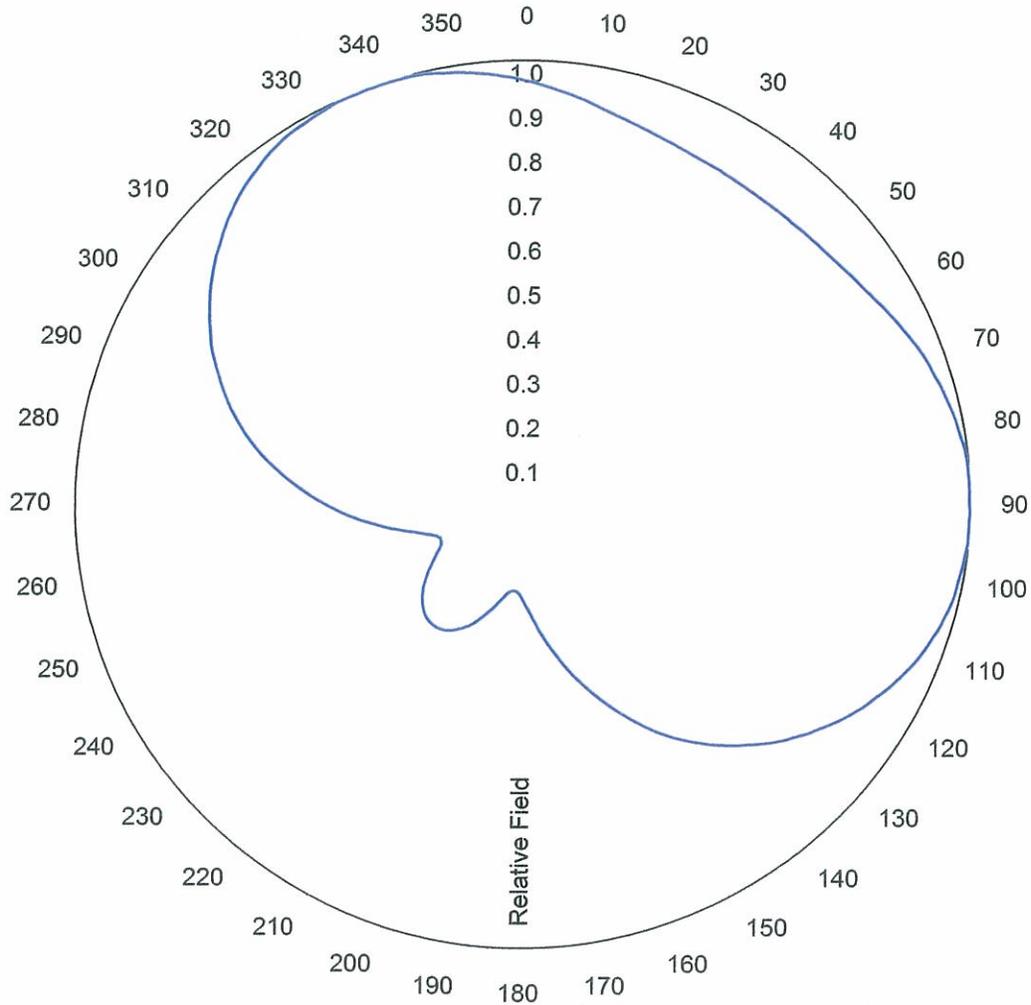
ELECTRONICS RESEARCH, INC. **ERI**

EXHIBIT B-1
ANTENNA ELEVATION PATTERN
PROPOSED WTXF-DT AUXILIARY
CHANNEL 42 – PHILADELPHIA, PENNSYLVANIA
SMITH AND FISHER

AZIMUTH PATTERN

Type: ATW-C2
Directivity: Numeric 1.80 dBd 2.55
Peak(s) at: _____

Channel: 42
Location: _____
Polarization: Horizontal
Note: Pattern shape and directivity may vary with channel and mouting configuration.



Preliminary, subject to final design and review.

ELECTRONICS RESEARCH, INC. **ERI**

EXHIBIT B-2
ANTENNA AZIMUTH PATTERN
PROPOSED WTXF-DT AUXILIARY
CHANNEL 42 – PHILADELPHIA, PENNSYLVANIA
SMITH AND FISHER

TABULATED DATA FOR AZIMUTH PATTERN FCC FILING FORMAT

Type: ATW-C2

Polarization: Horizontal

ANGLE	FIELD	ERP (kW)	ERP (dBk)
0	0.956	484.387	26.852
10	0.913	441.792	26.452
20	0.882	412.300	26.152
30	0.871	402.080	26.043
40	0.870	401.157	26.033
50	0.882	412.300	26.152
60	0.913	441.792	26.452
70	0.957	485.401	26.861
80	0.988	517.357	27.138
90	0.999	528.941	27.234
100	0.990	519.454	27.155
110	0.958	486.416	26.870
120	0.895	424.544	26.279
130	0.811	348.593	25.423
140	0.709	266.421	24.256
150	0.587	182.622	22.616
160	0.446	105.426	20.229
170	0.310	50.933	17.070
180	0.209	23.151	13.646
190	0.214	24.272	13.851
200	0.281	41.849	16.217
210	0.330	57.717	17.613
220	0.330	57.717	17.613
230	0.281	41.849	16.217
240	0.214	24.272	13.851
250	0.209	23.151	13.646
260	0.309	50.605	17.042
270	0.446	105.426	20.229
280	0.587	182.622	22.616
290	0.709	266.421	24.256
300	0.811	348.593	25.423
310	0.894	423.596	26.270
320	0.958	486.416	26.870
330	0.990	519.454	27.155
340	0.999	528.941	27.234
350	0.988	517.357	27.138

Preliminary, subject to final design and review.

ELECTRONICS RESEARCH, INC. **ERI**

EXHIBIT B-3

ANTENNA RELATIVE FIELD VALUES
PROPOSED WTXF-DT AUXILIARY
CHANNEL 42 – PHILADELPHIA, PENNSYLVANIA

SMITH AND FISHER

CONTOUR POPULATION

48 DBU : 7,042,456

41 DBU : 8,083,018

Smith and Fisher

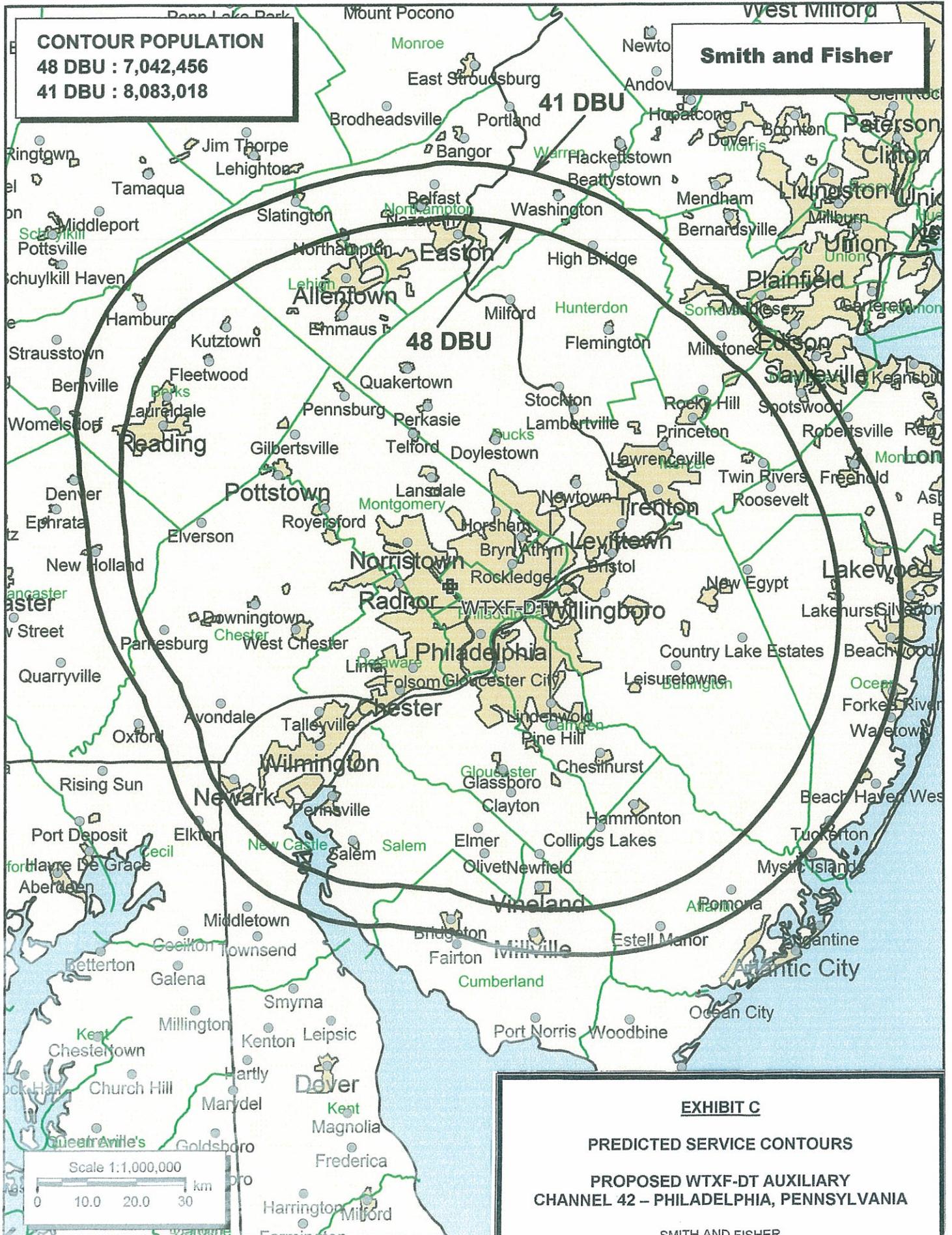


EXHIBIT C
PREDICTED SERVICE CONTOURS
PROPOSED WTXF-DT AUXILIARY
CHANNEL 42 - PHILADELPHIA, PENNSYLVANIA
SMITH AND FISHER



POWER DENSITY CALCULATION
PROPOSED WTXF-DT AUXILIARY
CHANNEL 42 – PHILADELPHIA, PENNSYLVANIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Philadelphia facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 530 kw (H) and 133 kw (V), an antenna radiation center 278 meters above ground, and the elevation pattern of the ERI antenna, maximum power density two meters above ground of 0.0011 mw/cm^2 is calculated to occur 74 meters from the base of the tower. Since this is only 0.3 percent of the 0.43 mw/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 42 (638-644 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.