

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FOX TELEVISION STATIONS, INC., licensee of KRIV-DT, Channel 26 in Houston, Texas, in support of its Application for Construction Permit to operate an auxiliary facility.

It is proposed to utilize an existing Dielectric directional antenna, which is mounted at the 525-meter level of the existing 596-meter tower on which the present KTXH-DT antenna is located. Exhibit B provides antenna azimuth and elevation pattern data for the proposed antenna. Exhibit C is a map upon which the predicted service contours of licensed KRIV-DT and the proposed auxiliary facility are plotted. As shown, the auxiliary's 41 dBu contour is completely contained within that authorized to KRIV-DT. As a result, and since this proposal is for an auxiliary facility, an interference study is not provided. Predicted service contours for the proposed auxiliary are plotted in Exhibit D. As shown, the facility places a city-grade service contour over the entirety of the station's city of license. 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 proposed 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. In addition, the FCC issued Antenna Structure Registration Number 1059622 to this tower.

EXHIBIT A

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". The signature is stylized with a large "K" and a long horizontal stroke at the end.

KEVIN T. FISHER

September 27, 2012



Proposal Number **C-02230** Revision: **1**
Date **11-Jan-08**
Call Letters **KRIV-DT** Channel **26**
Location **Houston, TX**
Customer
Antenna Type **TFU-24WB-R**

ELEVATION PATTERN

RMS Gain at Main Lobe	21.50 (13.32 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	10.40 (10.17 dB)	Frequency	545.00 MHz
Calculated / Measured	Calculated	Drawing #	24H215075-90

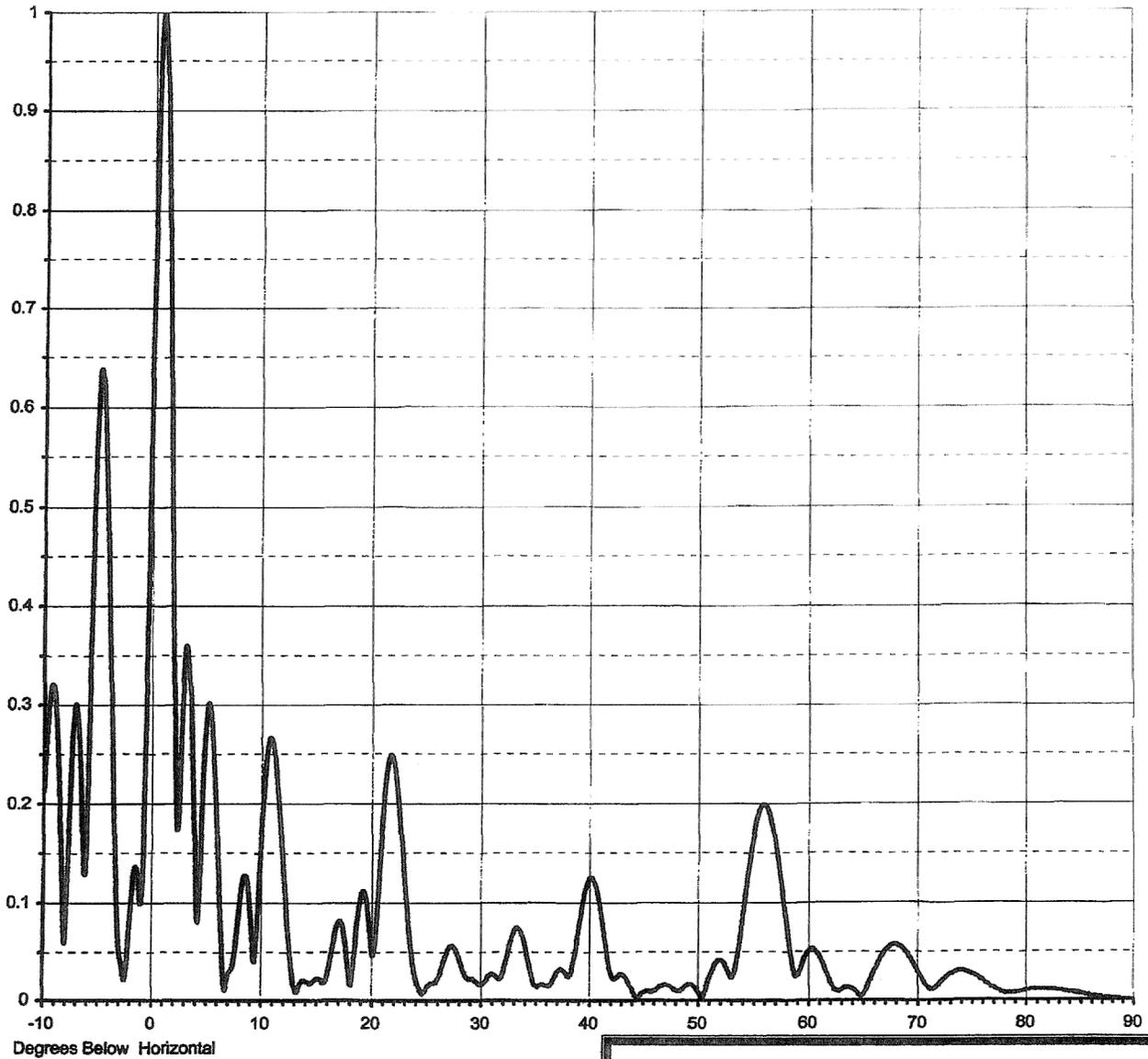


EXHIBIT B-1
ANTENNA ELEVATION PATTERN
PROPOSED KRIV-DT AUXILIARY
CHANNEL 26 – HOUSTON, TEXAS
SMITH AND FISHER



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Customer
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AZIMUTH PATTERN

Gain **2.30 (3.62 dB)**
Calculated / Measured **Calculated**

Frequency **545.00 MHz**
Drawing # **TFU-C230**

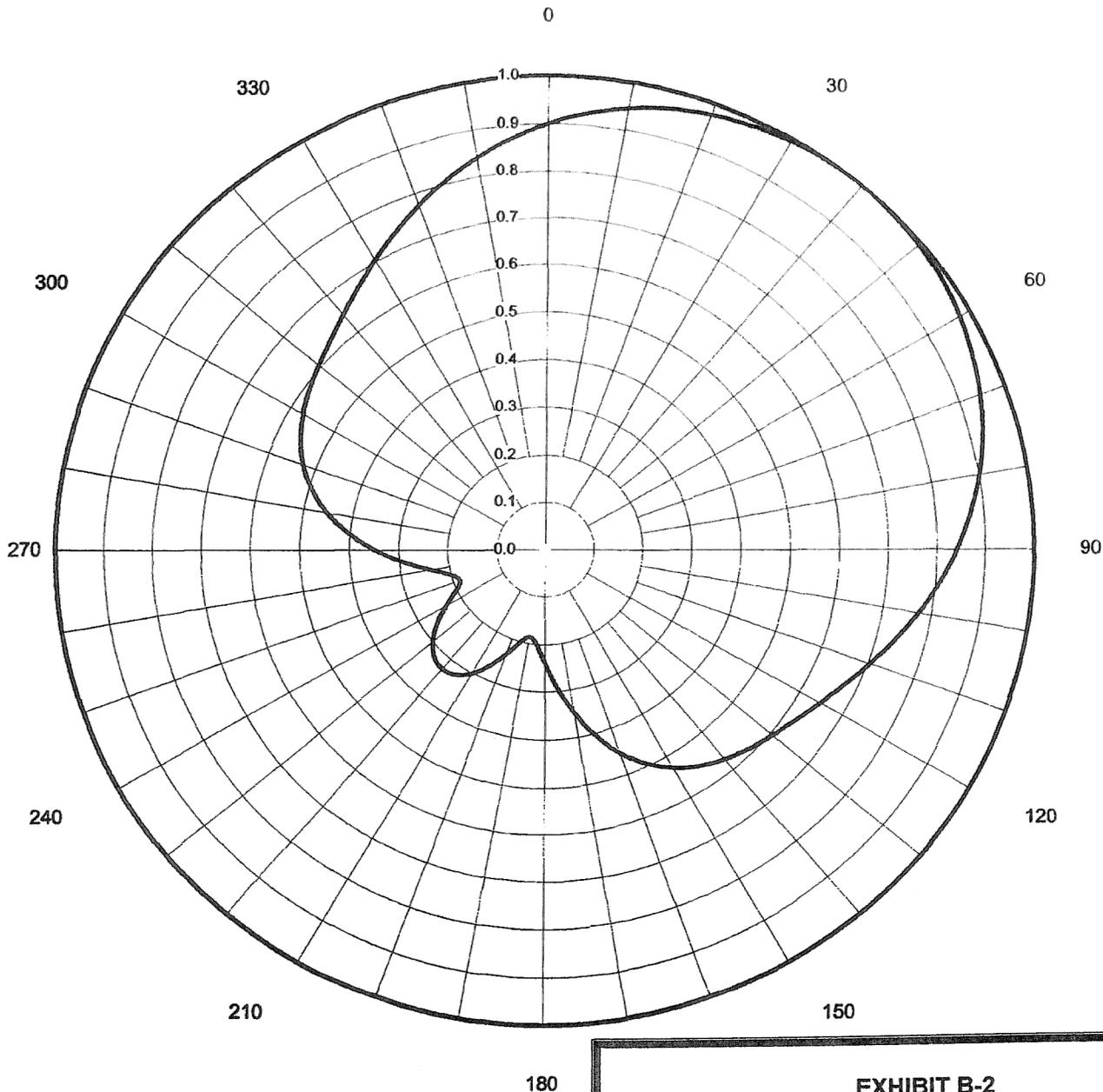


EXHIBIT B-2
ANTENNA AZIMUTH PATTERN
PROPOSED KRIV-DT AUXILIARY
CHANNEL 26 – HOUSTON, TEXAS
SMITH AND FISHER

ANTENNA AZIMUTH PATTERN DATA

PROPOSED KRIV-DT AUXILIARY
CHANNEL 26 – HOUSTON, TEXAS

<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	0.901	25.5	180	0.238	13.9
10	0.946	25.9	190	0.186	11.8
20	0.977	26.2	200	0.234	13.8
30	0.994	26.3	210	0.300	15.9
40	1.000	26.4	220	0.327	16.7
50	0.994	26.3	230	0.300	15.9
60	0.977	26.2	240	0.234	13.8
70	0.946	25.9	250	0.186	11.8
80	0.901	25.5	260	0.238	13.9
90	0.841	24.9	270	0.349	17.2
100	0.773	24.1	280	0.453	19.5
110	0.704	23.3	290	0.527	20.8
120	0.647	22.6	300	0.572	21.5
130	0.606	22.0	310	0.606	22.0
140	0.572	21.5	320	0.647	22.6
150	0.527	20.8	330	0.704	23.3
160	0.453	19.5	340	0.773	24.1
170	0.349	17.2	350	0.841	24.9

KRIV-DT MAIN 41 DBU
 KRIV-DT AUXILIARY 41 DBU



EXHIBIT C
41 DBU CONTOUR COMPARISON
MAIN VS. AUXILIARY FACILITIES
PROPOSED KRIV-DT AUXILIARY
CHANNEL 26 - HOUSTON, TEXAS

**CONTOUR POPULATION
2010 U.S. CENSUS DATA**
48 DBU : 5,865,384
41 DBU : 5,991,663



**EXHIBIT D
PREDICTED SERVICE CONTOURS
PROPOSED KRIV-DT AUXILIARY
CHANNEL 26 - HOUSTON, TEXAS**

POWER DENSITY CALCULATION

PROPOSED KRIV-DT AUXILIARY
CHANNEL 26 – HOUSTON, TEXAS

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Houston facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 435 kW, an antenna radiation center 525 meters above ground, and the elevation pattern of the Dielectric antenna, maximum power density two meters above ground of 0.0014 mw/cm^2 is calculated to occur 353 meters northeast of the base of the tower. Since this is only 0.4 percent of the 0.36 mw/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 26 (542-548 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational ground-level exposure to non-ionizing 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 non-ionizing radiation.