

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FOX TELEVISION STATIONS, INC., licensee of digital television station KUTP-DT, Channel 26 in Phoenix, Arizona, in support of its Application for Construction Permit to correct the station's site coordinates, ground elevation antenna heights and overall tower height, based on a survey that was conducted recently at the transmitter site. No change in effective radiated power or antenna pattern is proposed herein. These corrections result in essentially no change in the KUTP-DT service contour.

For completeness, the azimuth and elevation patterns for the licensed antenna are provided in Exhibit B. Exhibit C is a map upon which the corrected service contours are plotted. It is important to note that the corrected 48 dBu contour encompasses the entirety of Phoenix, the city of license. The licensed and corrected 41 dBu service contours are plotted in Exhibit D. As shown, there is no significant difference between the two. Since there are a few azimuths where the corrected contour slightly exceeds that of the licensed contour, a waiver of the Commission's current freeze on the filing of a modification application that results in an extension of a digital television station's service contour is requested and believed to be justified, since this application merely seeks to correct the operating parameters of an existing and licensed station. It would not be in the public interest to require KUTP-DT to reduce power and therefore reduce service to existing viewers by attempting to keep the corrected contour inside the incorrect one.

EXHIBIT A

An interference study is provided in Exhibit E, and it is important to note that a cell size of 2.0 kilometers and increment spacing of 1.0 kilometer were both used for the analysis. A power density calculation follows as Exhibit F.

Since changes in the overall height and location of the existing tower were found to exist by the survey, the FAA was duly notified and, as a result, a new Determination of No Hazard was issued on May 2, 2013, under Aeronautical Study Number 2013-AWP-1528-OE. Subsequently, the FCC's Antenna Structure Registration record was modified to include the data from the new survey. The Commission's ASRN for this tower is 1002348.

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



KEVIN T. FISHER

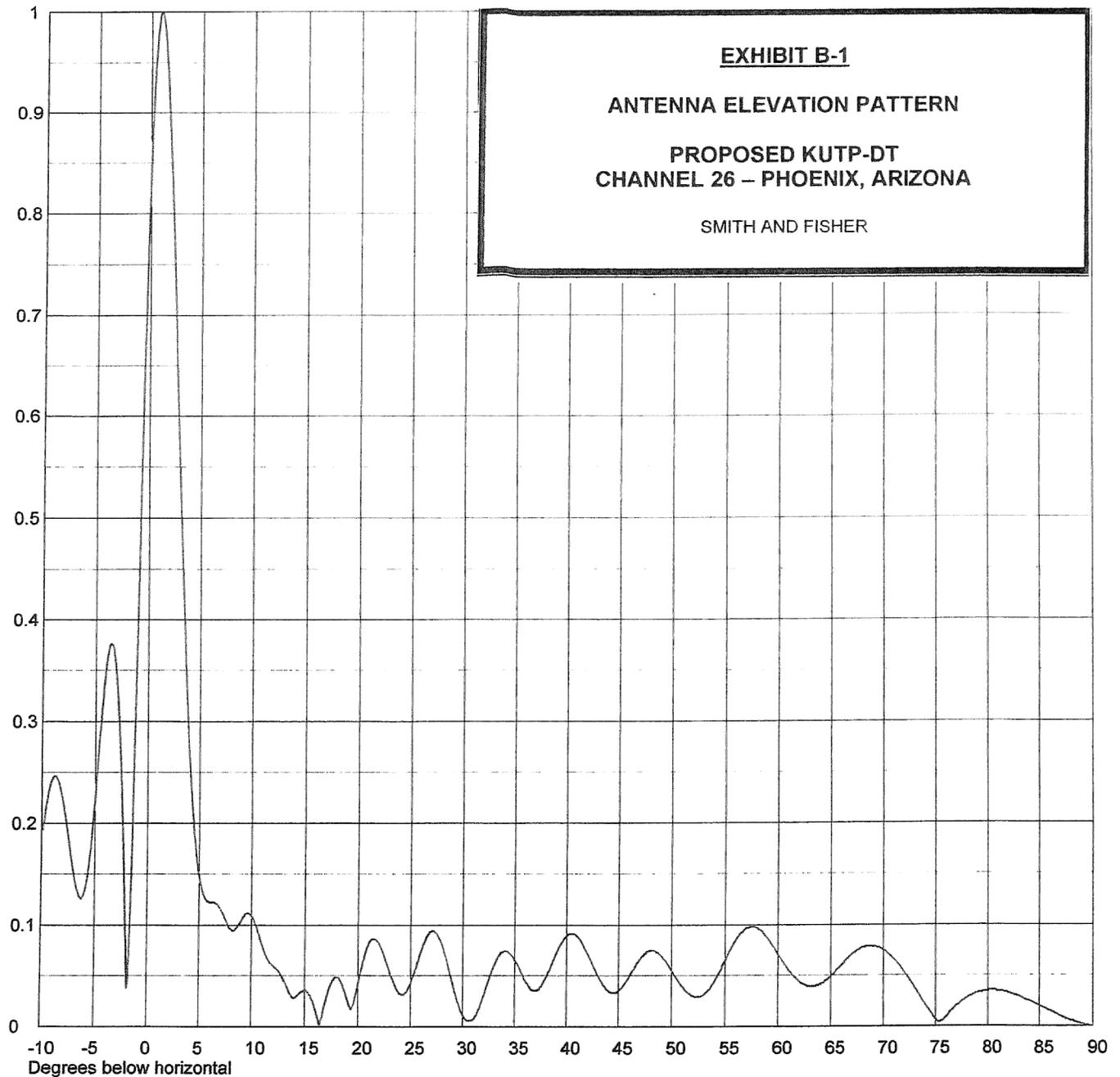
May 14, 2013

Dielectric

Date **29 Feb 2008**
 Call Letters **Channel 26**
 Location
 Customer
 Antenna Type **TFU-20DSC-R CT150**

ELEVATION PATTERN

RMS Gain at Main Lobe	17.0 (12.30 dB)	Beam Tilt	1.00 Degrees
RMS Gain at Horizontal	12.0 (10.79 dB)	Frequency	545.00 MHz
Calculated / Measured	Calculated	Drawing #	20q170100-90



Remarks:

Any specified rotation has already been applied to the plotted pattern.
Field strength values shown on a rotated pattern may differ from the listed values because intermediate azimuths are interpolated between entered azimuths.

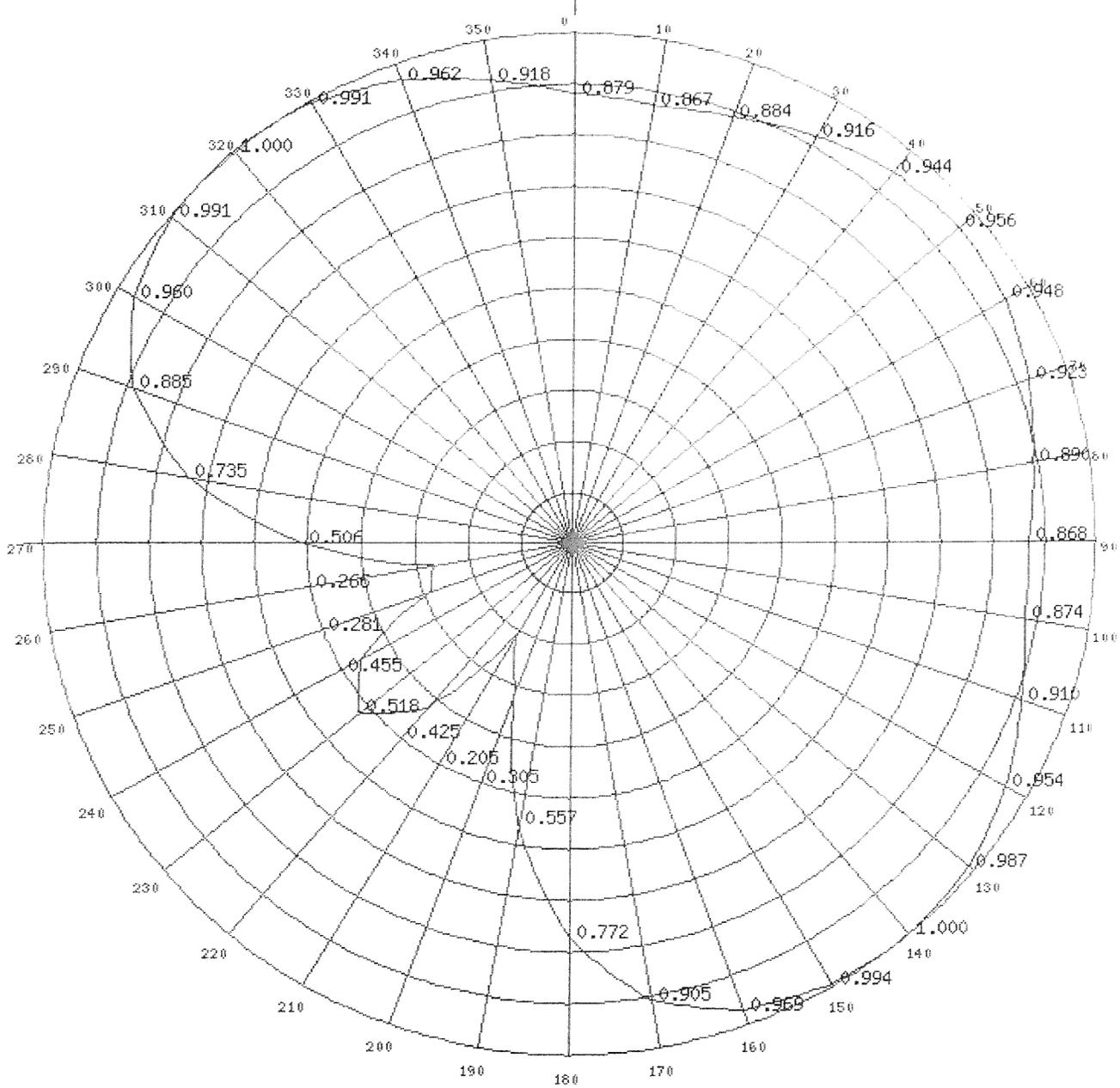


EXHIBIT B-2
ANTENNA AZIMUTH PATTERN
PROPOSED KUTP-DT
CHANNEL 26 – PHOENIX, ARIZONA
SMITH AND FISHER

ANTENNA AZIMUTH PATTERN DATA

PROPOSED KUTP-DT
CHANNEL 26 – PHOENIX, ARIZONA

<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	0.879	28.9	180	0.772	27.8
10	0.867	28.8	190	0.557	24.9
20	0.884	28.9	200	0.305	19.7
30	0.916	29.2	210	0.205	16.2
40	0.944	29.5	220	0.425	22.6
50	0.956	29.6	230	0.518	24.3
60	0.948	29.5	240	0.455	23.2
70	0.923	29.3	250	0.281	19.0
80	0.890	29.0	260	0.266	18.5
90	0.868	28.8	270	0.506	24.1
100	0.874	28.8	280	0.735	27.3
110	0.910	29.2	290	0.885	28.9
120	0.954	29.6	300	0.960	29.6
130	0.987	29.9	310	0.991	29.9
140	1.000	30.0	320	1.000	30.0
150	0.994	29.9	330	0.991	29.9
160	0.969	29.7	340	0.962	29.7
170	0.905	29.1	350	0.918	29.3

CONTOUR POPULATION
2010 U.S. CENSUS DATA
48 DBU : 4,168,640
41 DBU : 4,186,322

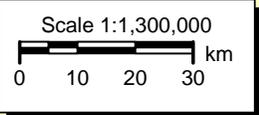
SMITHANDFISHER



41 DBU

48 DBU

EXHIBIT C
PREDICTED SERVICE CONTOURS
PROPOSED KUTP-DT
CHANNEL 26 - PHOENIX, ARIZONA





- LICENSED 41 DBU CONTOUR
- CORRECTED 41 DBU CONTOUR (DASHED)

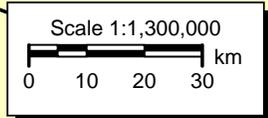
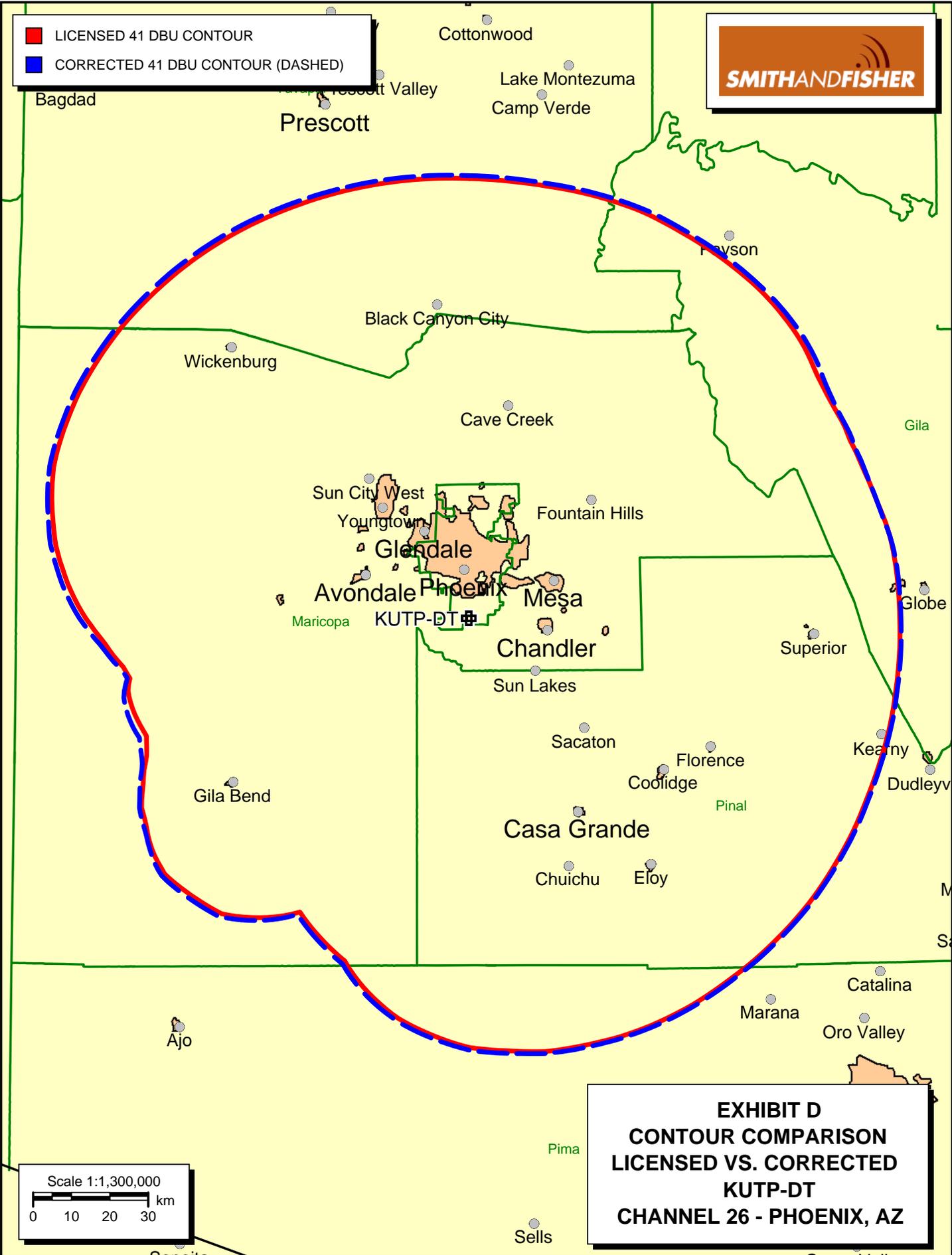


EXHIBIT D
CONTOUR COMPARISON
LICENSED VS. CORRECTED
KUTP-DT
CHANNEL 26 - PHOENIX, AZ

LONGLEY-RICE INTERFERENCE STUDY
PROPOSED KUTP-DT
CHANNEL 26 – PHOENIX, ARIZONA

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 2-square kilometer cell size, calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 2000 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than the proposed KUTP-DT facility) already is predicted to exist (also known as "masking"). The results of this study are provided in Exhibit E-2. It concludes that the facility proposed herein causes no significant interference to any of the potentially affected stations.

INTERFERENCE SUMMARY
PROPOSED KUTP-DT
CHANNEL 26 – PHOENIX, ARIZONA

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
KMSB-DT BLCDT-20050623ABE	Lic.	Tucson, AZ	25	906,651	1,336	0.15

POWER DENSITY CALCULATION

PROPOSED KUTP-DT
CHANNEL 26 – PHOENIX, ARIZONA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Phoenix facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 1000 kW, an antenna radiation center 88 meters above ground, and the specific elevation pattern the Dielectric TFU-20DSC-R CT150 antenna, maximum power density two meters above ground of 0.031 mW/cm² is calculated to occur 55 meters northeast of the base of the tower. Since this is only 1.7 percent of the 1.8 mW/cm² reference for controlled environments (areas with public access) surrounding a facility operating on Channel 26 (542-548 MHz), and since the South Mountain antenna farm (within which the KUTP-DT transmitting facility is located) is secure from unauthorized access, a grant of this proposal may be considered a minor environmental action with respect to public and occupational 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.