

**ENGINEERING STATEMENT**

The engineering data contained herein have been prepared on behalf of PAPPAS ARIZONA LICENSE, LLC, licensee of KSWT-DT, Channel 13 in Yuma, Arizona, in support of its Application for Construction Permit to operate with corrected site coordinates. No change in effective radiated power, antenna model or effective antenna height is proposed herein.

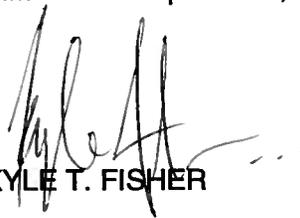
It is proposed to utilize the present directional antenna, which is mounted at the 116-meter level of an existing 123-meter tower. Exhibit B provides azimuth pattern data for the licensed antenna. Exhibit C is a map upon which the predicted service contours are plotted. As shown, the city of license is completely contained within the proposed 43 dBu service contour. An interference study is included in Exhibit D, and it is important to note that the study utilized a cell size of 1.0 kilometers and an increment spacing of 1.0 kilometer. 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 KSWT-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. In addition the FCC issued Antenna Structure Registration Number 1002752 to this tower.

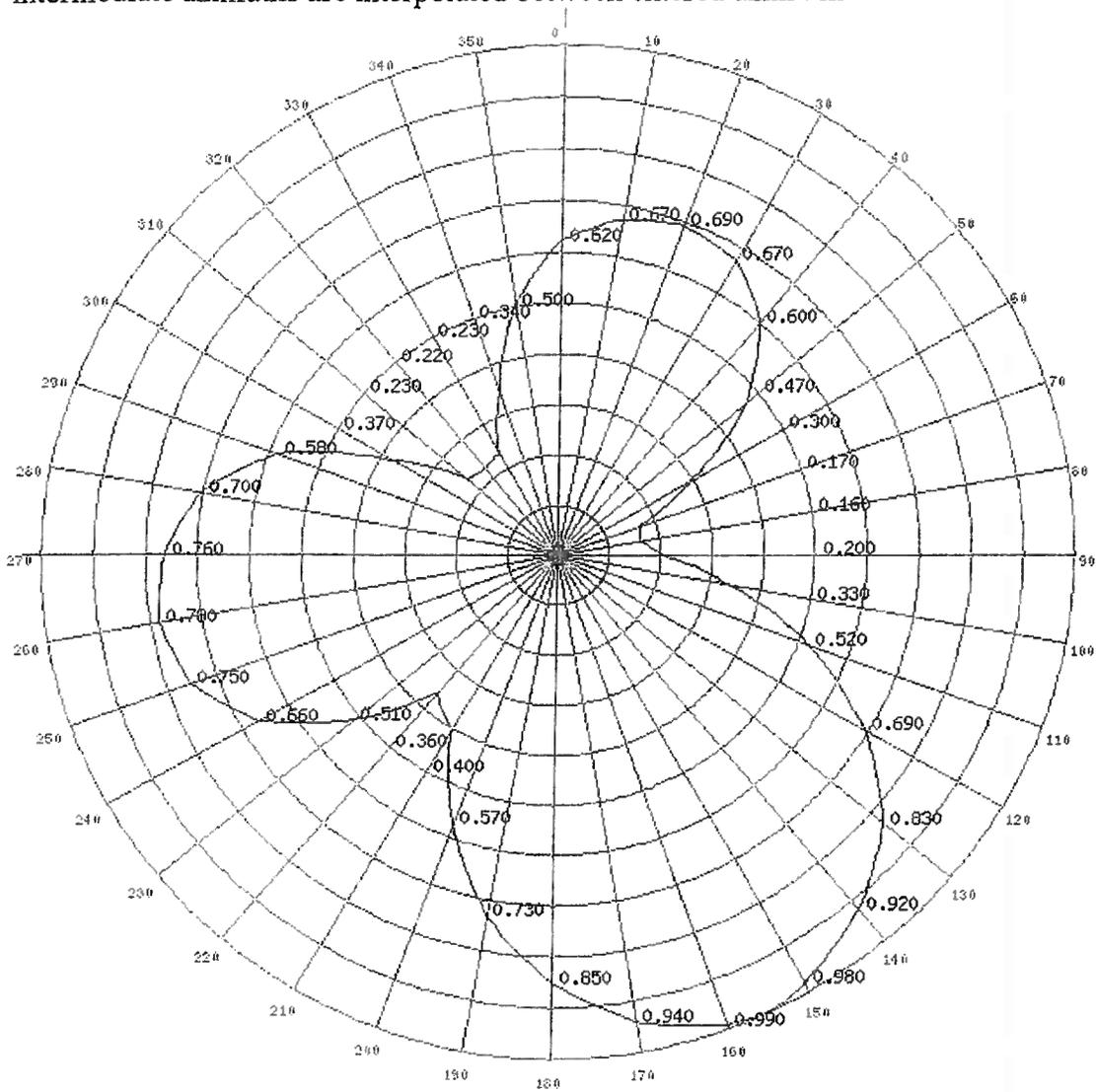
EXHIBIT A

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.

  
KYLE T. FISHER

January 26, 2012

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-1**  
**ANTENNA AZIMUTH PATTERN**  
**PROPOSED KSWT-DT**  
**CHANNEL 13 – YUMA, ARIZONA**  
**SMITH AND FISHER**

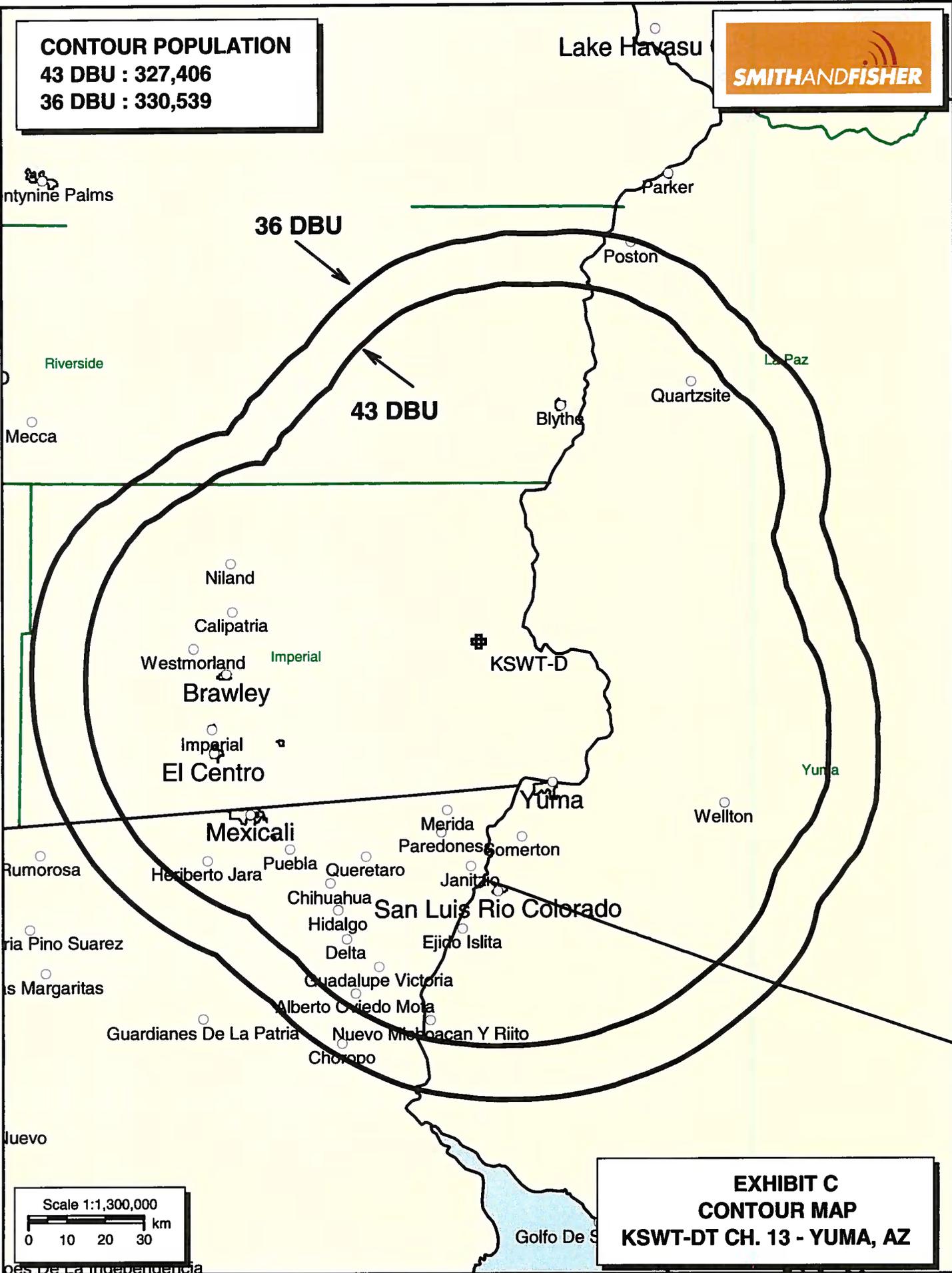
**ANTENNA AZIMUTH PATTERN DATA****PROPOSED KSWT-DT  
CHANNEL 13 – YUMA, ARIZONA**

<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	0.62	12.8	180	0.85	15.6
10	0.67	13.5	190	0.73	14.3
20	0.69	13.8	200	0.57	12.1
30	0.67	13.5	210	0.40	9.0
40	0.60	12.6	220	0.36	8.1
50	0.47	10.4	230	0.51	11.2
60	0.30	6.5	240	0.66	13.4
70	0.17	1.6	250	0.75	14.5
80	0.16	1.1	260	0.78	14.8
90	0.20	3.0	270	0.76	14.6
100	0.33	7.4	280	0.70	13.9
110	0.52	11.3	290	0.58	12.3
120	0.69	13.8	300	0.37	8.4
130	0.83	15.4	310	0.23	4.2
140	0.92	16.3	320	0.22	3.8
150	0.98	16.8	330	0.23	4.2
160	0.99	16.9	340	0.34	7.6
170	0.94	16.5	350	0.50	11.0

**CONTOUR POPULATION**

**43 DBU : 327,406**

**36 DBU : 330,539**



**EXHIBIT C**  
**CONTOUR MAP**  
**KSWT-DT CH. 13 - YUMA, AZ**

INTERFERENCE STUDY  
PROPOSED KSWT-DT  
CHANNEL 13 – YUMA, ARIZONA

The instant application specifies an ERP of 50 kw (directional) at 480 meters above average terrain, which we have determined to be allowable under the FCC's interference standards.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "Probe III" computer program, which has been found generally to mimic the FCC's program. In conducting our studies, we employed a cell size of 1.0 kilometers and an increment spacing of 1.0 kilometer along each radial. In addition, we utilized the 2000 U.S. Census. Changes in interference caused by proposed KSWT-DT to other pertinent stations are tabulated in Exhibit D-2.

As shown, the proposed KSWT-DT facility would not contribute more than 0.5% interference to the service population of any potentially affected post-transition DTV station.

A Longley-Rice interference study also reveals that the proposed KSWT-DT facility does not cause significant (0.5%) interference within the protected service contour of any potentially affected Class A low power television station.

Therefore, this proposal meets the FCC's *de minimis* interference standards for DTV operations.

EXHIBIT D-2

INTERFERENCE STUDY SUMMARY

PROPOSED KSWT-DT  
CHANNEL 13 – YUMA, ARIZONA

<u>Call Sign</u>	<u>City, State</u>	<u>CH.</u>	<u>Coverage Population</u>	<u>Interference Population From KSWT-DT</u>	<u>%</u>
KTNV-DT BMPCDT-20080609ABH	Las Vegas, NV	13	1,362,892	2,456	0.2
KCOP-DT BLCDT-20100709AFG	Los Angeles, CA	13	16,109,864	80	<0.1

Note: This study utilized a cell size of 2.0 km and an increment spacing of 1.0 km.

POWER DENSITY CALCULATION

PROPOSED KSWT-DT  
CHANNEL 13 – YUMA, 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 Yuma facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 50.0 kw, an antenna radiation center 116 meters above ground, and assuming a vertical relative field value of 20 percent at the steeper elevation angles for the existing Jampro antenna, maximum power density two meters above ground of 0.0053 mw/cm<sup>2</sup> is calculated to occur near the base of the tower. Since this is only 2.6 percent of the 0.2 mw/cm<sup>2</sup> reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 13 (210-216 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.