

ENGINEERING STATEMENT

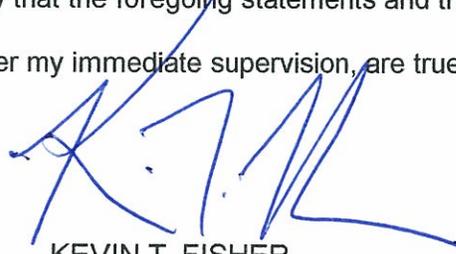
The engineering data contained herein have been prepared on behalf of PAPPAS TELECASTING OF CENTRAL NEBRASKA, L.P., licensee of KHGI-DT, Channel 13 in Kearney, Nebraska, in support of its Application for Construction Permit to operate with an increase in effective radiated power from 8.0 kw to 19.8 kw. No change in site location, antenna model or effective antenna height is proposed herein.

It is proposed to utilize the existing GE omnidirectional antenna, which is mounted at the 342-meter level of the existing 358-meter KHGI-TV tower. Exhibit B 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 C, and it is important to note that the study utilized a cell size of 1.0 kilometer and an increment spacing of 0.1 kilometer. A power density calculation is provided in Exhibit D.

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 KHGI-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 has issued Antenna Structure Registration Number 1026197 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.



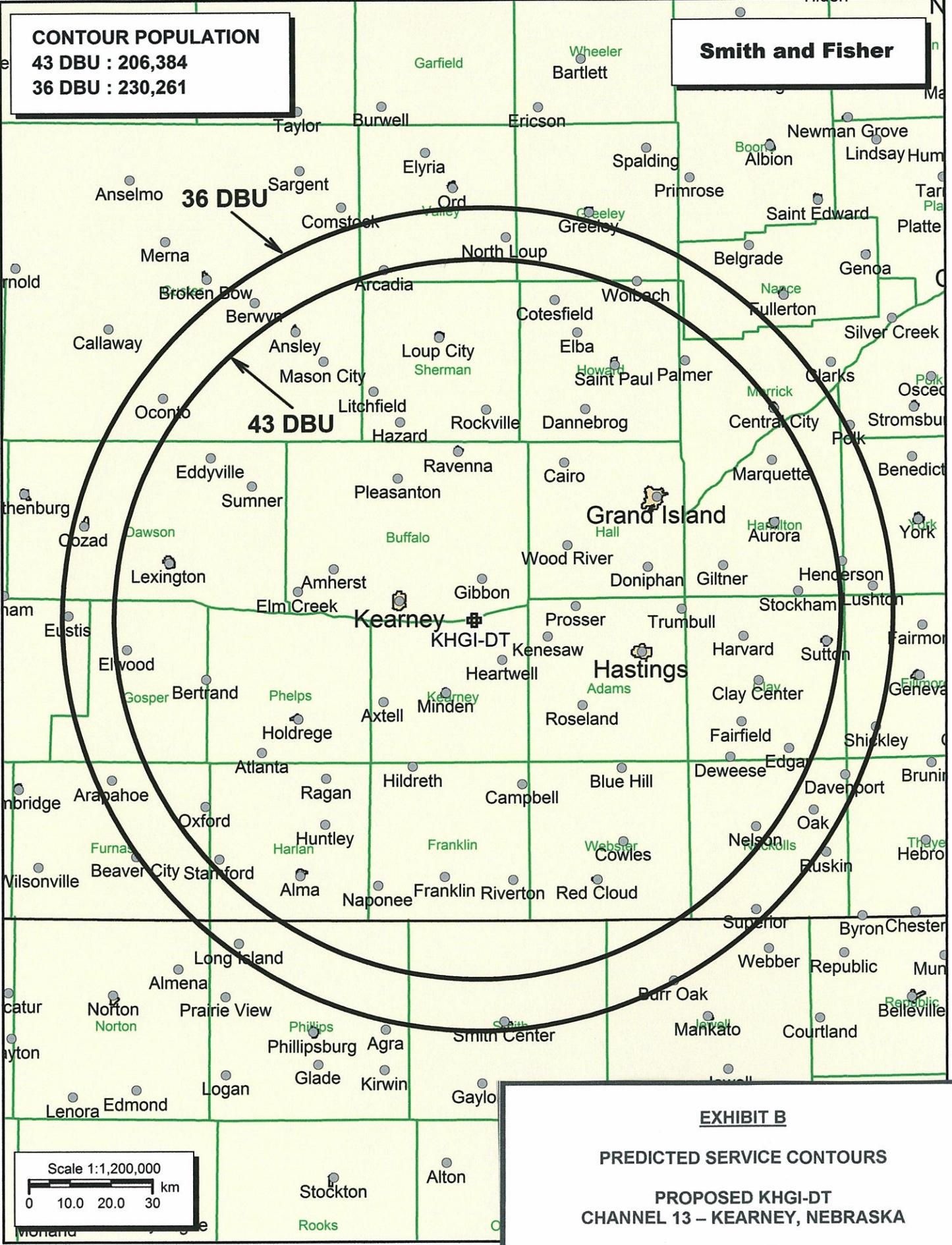
Handwritten signature in blue ink, appearing to read 'K. Fisher'.

KEVIN T. FISHER

July 24, 2009

**Smith and Fisher**

**CONTOUR POPULATION**  
43 DBU : 206,384  
36 DBU : 230,261



**EXHIBIT B**  
**PREDICTED SERVICE CONTOURS**  
**PROPOSED KHGI-DT**  
**CHANNEL 13 – KEARNEY, NEBRASKA**  
**SMITH AND FISHER**

INTERFERENCE STUDY  
PROPOSED KHGI-DT  
CHANNEL 13 – KEARNEY, NEBRASKA

The instant application specifies an ERP of 19.8 kw (omnidirectional) at 340 meters above average terrain, which we have determined to be allowable under the FCC's interference standards with respect to various post-transition digital television facilities as they have existed since June 12, 2009, the date by which all stations must operate with the parameters adopted in the Commission's DTV Table of Allotments.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "SunDTV" computer program, which mimics the FCC's interference program. In conducting our study, we employed a cell size of 1.0 kilometer and an increment spacing of 0.1 kilometer along each radial. In addition, we utilized the 2000 U.S. Census. Changes in interference caused by proposed KHGI-DT to other pertinent stations are summarized in Exhibit C-2.

As shown, the proposed KHGI-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 KHGI-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.

Summary Study

Percent allowed new interference: 0.500  
Percent allowed new interference to Class A: 0.500  
Census data selected 2000  
Post Transition Data Base Selected ./data\_files/pt\_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 07-22-2009 Time: 09:39:08

Record Selected for Analysis

KHGI-TV- USERRECORD-01 KEARNEY NE US  
Channel 13 ERP 19.8 kW HAAT 335. m RCAMSL 00972 m  
Latitude 040-39-28 Longitude 0098-52-04  
Status APP Zone 2 Border  
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.  
Last update Cutoff date Docket  
Comments  
Applicant

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 0.10 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	19.800	334.3	100.2
45.0	19.800	350.1	101.5
90.0	19.800	348.9	101.4
135.0	19.800	339.4	100.6
180.0	19.800	329.1	99.8
225.0	19.800	323.3	99.3
270.0	19.800	327.8	99.7
315.0	19.800	329.3	99.8

Evaluation toward Class A Stations

Contour overlap to Class A station  
KHGI-CA 13 NORTH PLATTE NE BLTTV 19891010JS  
Offset Proposed Offset Class A + Required D/U ratio: 34.0

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KHGI-TV- 13 KEARNEY NE USERRECORD01

and station

SHORT TO: KHGI-TV 13 KEARNEY NE DTVPLN DTVP0455  
 40 -39-28 98 -52-04  
 Req. separation 273.6 Actual separation 0.0 Short 273.6 km

- Proposed facility OK to FCC Monitoring Stations
- Proposed facility OK toward West Virginia quiet zone
- Proposed facility OK toward Table Mountain
- Proposed facility is beyond the Canadian coordination distance
- Proposed facility is beyond the Mexican coordination distance
- Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Proposed Station	Call	City/State	ARN
13	KHGI-TV-	KEARNEY	NE	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
12	KUON-TV	LINCOLN NE	209.6	CP MOD	BMPEdT	-
20080620AKC						
12	KUON-TV	LINCOLN NE	209.6	PLN	DTVPLN	-
DTVP0388						
12	KSNK	MCCOOK NE	180.7	LIC	BLCdT	-
20031017ABP						
12	KSNK	MCCOOK NE	180.7	PLN	DTVPLN	-
DTVP0389						
13	KUPK-TV	GARDEN CITY KS	368.5	CP MOD	BMPCdT	-
20080609ACN						
13	KUPK-TV	GARDEN CITY KS	368.6	PLN	DTVPLN	-
DTVP0435						
13	WIBW-TV	TOPEKA KS	302.6	CP	BPCdT	-
20090629ADA						
13	WIBW-TV	TOPEKA KS	302.6	PLN	DTVPLN	-
DTVP0437						
13	KTNE-TV	ALLIANCE NE	373.8	CP MOD	BMPEdT	-
20080620AJD						
13	KTNE-TV	ALLIANCE NE	373.7	PLN	DTVPLN	-
DTVP0454						
13	KHGI-CA	NORTH PLATTE NE	167.7	LIC	BLTTV	-
19891010JS						
13	KPLO-TV	RELIANCE SD	372.6	LIC	BLCdT	-
20030519AER						
13	KPLO-TV	RELIANCE SD	372.6	PLN	DTVPLN	-
DTVP0473						



POWER DENSITY CALCULATION  
PROPOSED KHGI-DT  
CHANNEL 13 – KEARNEY, NEBRASKA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Kearney facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 19.8 kw, an antenna radiation center 342 meters above ground, and assuming a vertical relative field value of 20 percent at the steeper elevation angles for the licensed GE antenna, maximum power density two meters above ground of 0.00023 mw/cm<sup>2</sup> is calculated to occur near the base of the tower. Since this is only 0.1 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.