



ENGINEERING STATEMENT

In support of a request for
Special Transmission Authority (STA)

For

Digital Station

KCEB CH51 Longview, TX

27 kW ERP

379m HAAT

PURPOSE

MARSAND, INC. has been retained by Estes Broadcasting, Inc., permittee of KCEB, CH51 of Longview, TX, to prepare this engineering statement in support of a request for STA. It is proposed herein to establish initial digital service on CH51 at the height and location authorized under the existing CP (BMPCDT-20081118AAA) but at a lower power.

DISCUSSION

In order to transition from the present service on CH54 analog to CH51 digital, KCEB applied for and was granted a CP to establish the CH51 transmission facilities near Overton, TX. Due to financial hardship as documented in Exhibit 21 of this application, KCEB proposes to establish digital service at a reduced power of 27kW ERP

The calculated F(50,90) 41 dBu service grade contour encompasses the principal community, Longview, TX, entirely as shown in **Figure 1**. Also shown in **Figure 1** is the FCC(50,90) 41 dBu service grade contour of the existing CP service. The proposed digital contour lies entirely within the authorized service, so no interference is anticipated other than what is already allowed under the existing CP.

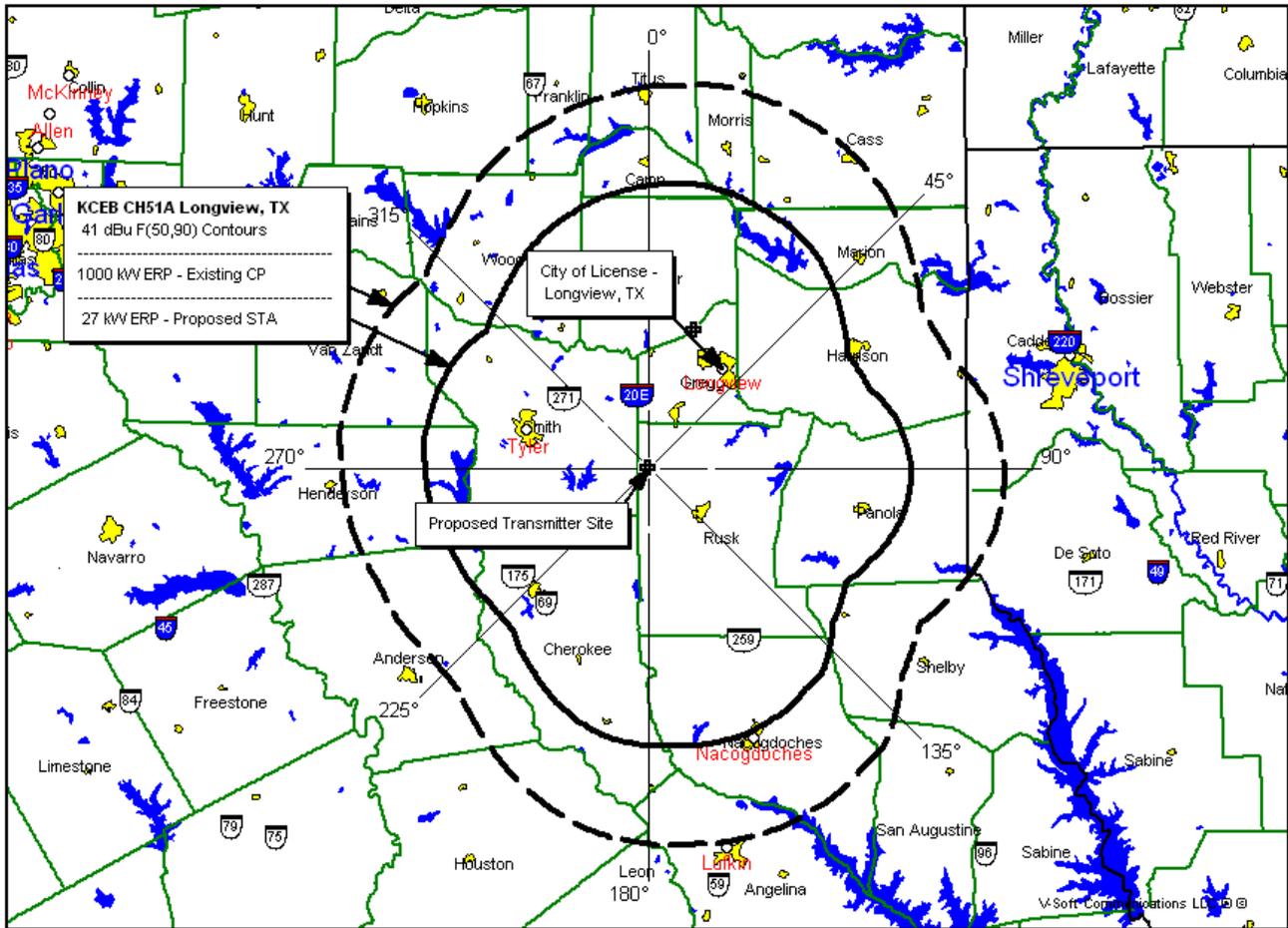


Figure 1

The results of a population study are listed below in **Table 1**.

Channel	Service	Status	Service Grade Contours	
			Total Population (persons)	Total Coverage Area (square km)
CH51	Digital	CP	724,613	26,165
CH51	Digital	Proposed	508,116	14,134

Table 1

RF Radiation Exposure Statement

The requirements of Section 73.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy are met under this instant application for the post-transition digital television facility proposed herein.

The proposed KCEB facility utilizes a top mount antenna located on an existing, multi-use tower structure (ASR 1047436) located near Overton, TX. The site is restricted access. The station agrees to maintain full compliance with the safety precautions to workers on the tower (controlled) and the general public (uncontrolled) by reducing or removing radiated power during the time of construction or maintenance on or near the antenna. The station also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from Radiofrequency Electromagnetic exposure in excess of FCC guidelines.

Table 2 shows the calculations of RF level 2m above ground level for the General Public / Uncontrolled (GP/U) would not exceed 5% of the Maximum Permissible Exposure (MPE) limit. The calculations are shown in the Appendix. The proposed facility is therefore a negligible contributor to the RF environment at all ground level locations and is excluded from the routine environmental evaluation pursuant to Section 1.1307(b) of the FCC Rules.

Call Letters	Channel / Frequency	Distance from RCAGL to 2 m AGL	Worst Case Downward Radiation (Relative Field)	Calculated Power Density (uW/cm ²)	GP/U MPE (uW/cm ²)	Percentage of GP/U MPE
KCEB	CH51 692 – 698 MHz	356	0.2	0.28	463	0.06 %

Table 2

CONCLUSION

It is respectfully requested that the Commission grant this request for STA for the proposed transmission facility.

DECLARATION

Matthew A. Sanderford, Jr., P.E., declares and states that he is a graduate Electrical Engineer with a Bachelor of Science Degree in Electrical Engineering from the University of Texas at El Paso, a Licensed Professional Engineer in the State of Texas, and his qualifications are known to the Federal Communications Commission, and that he is President of MARSAND, INC., a Registered Professional Engineering firm in the State of Texas, and that firm has been retained by Estes Broadcasting, Inc. to perform the engineering support as contained in this report.

All facts contained herein are true of his own knowledge except where stated to be on information or belief provided by Estes Broadcasting, Inc., and as to those facts, he believes them to be true.

I declare under penalty of perjury that the foregoing is true and correct.



Matthew A. Sanderford, Jr., P.E.
President - MARSAND, INC.

Executed this 12th day of October, 2009
State of Texas

Appendix

Radio Frequency Radiation Human Exposure Calculations

Call letters: **KCEB** Date: **10/12/2009**
City of License: **Longview, TX**
Channel: **51A**

Reference:

FCC Rules Section 73.1307(b) & 73.1310
OET Bulletin No. 65 Edition 97-01, August, 1997
OET Bulletin No. 56

DTV Average Power **27,000 W ERP**

Typical relative field factor in the downward direction: **0.20**
(conservative estimate)

Antenna Radiation Center Above Ground Level (RCAGL): **358.0 m**

Occupational/Controlled (O/C) Exposure

Highest Calculated Power Density: **0.28 $\mu\text{W}/\text{cm}^2$**

Maximum Permissible Exposure (MPE) for this Channel -

Frequency (middle of the band): **695 MHz**
MPE O/C Limit (6 minutes average): **2.3 mW/cm^2**
Percentage of MPE O/C Limit: **0.01 %**

General Population/Uncontrolled (GP/U) Exposure

Typical height of a person's head standing at ground level: **2 m**
Distance from head height to antenna radiation center: **356.0 m**
Highest Calculated Power Density: **0.28 $\mu\text{W}/\text{cm}^2$**

Maximum Permissible Exposure (MPE) for this Channel -

Frequency (middle of the band): **695 MHz**
MPE GP/U Limit (30 minutes average): **0.463 mW/cm^2**
Percentage of MPE GP/U Limit: **0.06 %**