

**DELAWDER COMMUNICATIONS, INC.**

P.O. Box 1095  
Ashburn, Virginia 20146-1095  
(703) 299-9222

**ENGINEERING REPORT**

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**K245DE, Boerne, TX, Channel 244D FM Translator Application**

**ENGINEERING STATEMENT**

All contour non-overlap protection requirements are met with the exception of San Antonio, TX stations KXXM (241C1) and KAJA (247C0), discussed below.

**PROTECTION TO KAJA(FM) AND KXXM**

KAJA (22 kilometers at 203 degrees True from proposed translator site) and KXXM (8 kilometers at 180 degrees True from proposed translator site) are third adjacent-channel to the proposed channel 244D facility. The 60 dBu F50,50 service contours of KAJA and KXXM extend well beyond the proposed 244D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KAJA or KXXM.

Note that a rule waiver of Section 74.1204 for this second/third adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to any station.

The F50,50 signal strength from KAJA at the proposed 244D transmitter site is greater than 85 dBu (the “desired” signal of KAJA). The F50,50 signal strength from KXXM at the proposed 244D transmitter site is greater than 90 dBu (the “desired” signal of KXXM). The second/third adjacent-channel protection of Section 74.1204 is an undesired-to-desired (“U/D”) dB signal strength ratio of 40:1. Therefore, predicted interference to the worst case protection requirement to KAJA from the proposed 244D facility is a signal of greater than or equal to 125 dBu.

The 125 dBu signal based on a free space field determination is predicted to extend out to 63 meters from the proposed 244D transmitter site. The 125 dBu FSL signal will not reach ground level (the clearance is at least 22 meters). Therefore, pursuant to Section 74.1204(d) of the FCC Rules, KAJA and KXXM are adequately protected by the proposed facility.