

TECHNICAL SUMMARY
SPECIAL DISPLACEMENT WINDOW
APPLICATION FOR CONSTRUCTION PERMIT
LOW POWER DIGITAL STATION KKTM-LP
ALTUS, OKLAHOMA
CHANNEL 21 15 KW (ND)

1. Application Purpose: The instant application is a special displacement window application for KKTM-LP currently on channel 17 at Altus, Oklahoma (FCC File No. BLTTL-20041001AFP).¹ As detailed below, KKTM-LP is eligible for displacement due to impermissible interference received from the authorized operation of full power station KTEN on repacked channel 17 at Ada, Oklahoma (LMS File No. 0000034216). Therefore, it is proposed to operate KKTM-LP on “in core” channel 21 with a maximum effective radiated power (ERP) of 15 kW using a Dielectric model TLP-8A/CP elliptically polarized nondirectional antenna. The antenna radiation center height will be 460.1 m AMSL. There will be no change in the overall structure height (no ASRN).

2. Eligibility to File in Special Displacement Window: Station KKTM-LP is eligible to file in the special displacement window as it was operating with its currently licensed facilities (FCC File No. BLTTL-20041001AFP) prior to April 13, 2017 – the release date of the *Closing and Channel Reassignment Public Notice*.² In addition, KKTM-LP is considered to be displaced due to impermissible interference received from the authorized operation of full power station KTEN on repacked channel 17 at Ada, Oklahoma (LMS File No. 0000034216). Specifically, as indicated by the attached *TVStudy* analysis, KKTM-LP’s licensed channel 17 operation is predicted to receive 8.79% new interference from KTEN (a 2% threshold was used by the FCC for determination of displacement in the FCC Special Displacement Window PN).

3. Interference Compliance: As indicated in the attached *TVStudy* analysis, KKTM-LP’s proposed channel 21 displacement operation meets the FCC’s interference

¹ See FCC Public Notice dated February 9, 2018 entitled “*Incentive Auction Task Force and Media Bureau Announce Post-Incentive Auction Special Displacement Window April 10, 2018 through May 15, 2018 and Make Location and Channel Data Available*” (DA 18-124, MB Docket No. 16-306, GN Docket No. 12-268) (“FCC Special Displacement Window PN”).

² See *Media Bureau Announces Date by Which LPTV and TV Translator Stations Must Be “Operating” In Order to Participate In Post-Incentive Auction Special Displacement Window, Public Notice*, 31 FCC Rcd 5383 (MB 2016).

protection requirements with respect to all protected facilities based on both a pre-transition and post-transition environment. A cell size of 1.0 km and a profile resolution of 1.0 points/km were utilized for the *TVStudy* analysis.

4. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 17 meters above ground level. The total DTV ERP is 21.3 (15 kW horizontal polarization, 6.3 kW vertical polarization). A greater than expected vertical plane relative field value of 0.25 is presumed for the antenna's downward radiation (-60° to -90° elevation, see attached antenna information). The calculated power density at a point 2 meters above ground level is 197.6 uW/cm^2 which is 57.6% of the FCC's recommended limit of 343.3 uW/cm^2 for channel 21 for an uncontrolled environment. Thus, as KKTm-LP is the only broadcast station located at the proposed site, it is believed that the KKTm-LP facility is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, a formal RFR protection protocol will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.