New LPFM Application
Channel 268-LP100 Amarillo TX
Technical Exhibit

Site Information:

Tower Structure - Building with Mast (Owned by Applicant)
Structure Coordinates 35-11-19.3 N 101-49-35.1 W (NAD 83)
Ground Elevation: 1115.2 m Overall Structure Height: 17.5 m
Antenna: Circular Antenna Height: 17.0 m.

The Proposed location meets all distance separation requirements with respect to co-channel and first adjacent facilities.

The proposed 100dBu contour is located inside the protected 60dBu contour of KATP(FM) Channel 270-C1 which is located 17.07km away from the proposed facility. An interference analysis has been conducted based on the U/D ratio of +40 dB at the proposed site. The signal of KATP(FM) is 88.9dBu (50,50) making the relevant interfering contour of the proposed facility 128.9 (50, 10). The free space distance to the 128.9dBu in a worse-case scenario utilizing a single dipole antenna at 22.1 meters from the aperture of the antenna.

The use of any common single-bay circularly polarized FM antenna would limit the downward radiation from the antenna to the point that the 128.9 dBu (50,10) contour will not reach a point 2 meters above the ground at any depression angle.

A waiver to operate on a second adjacent channel to KATP(FM) is respectfully requested on the basis of zero population in the area of real interference.

Allocation Distances and 2nd Adjacent Waiver Contour Map: