

**Exhibit 13-D**  
**Section 74.1204**  
**Contour Protection to**  
**K229AE CH229D Springfield, MO**

This comprehensive exhibit has been prepared to demonstrate that the proposed K227AO modification will not cause prohibited interference to K229AE, Channel 229D, Springfield, MO.

This statement demonstrates that a lack of population and/or other factors allow this proposal to be compliant with Section 74.1204. The process commonly called “Living Way,” allows for the use of U/D Analysis, also known as “signal strength ratio methodology.” In this instant case the facilities to be protected are second adjacent and are to be afforded protection from signals 40 dB stronger than they present in the location of the proposed antenna location.

The K227AO proposed FCC F(50,50) protected contour at the K229AE licensed site is 74.4 dBu. Therefore the K227AO F(50,10) interfering contour with respect to KOSP is the 114.4 dBu contour. Using the FCC's FM propagation curves program (see attached), the K227AO F(50,10) 114.4 dBu interfering contour was calculated to extend 211 meters from the antenna.

Please refer to Exhibit 13-C KOSP. Because the interfering contour with respect to KOSP (110.7 dBu) is shown to not touch the ground, it is impossible for the 114.4 dBu interfering contour with respect to K229AE to reach the ground. Therefore, a detailed exhibit using the vertical elevation pattern for the transmit antenna is not included with

this exhibit. It is believed the proposed K227AO modification is in compliance with Section 74.1204 contour protection rules with respect to K229AE.

**K227AO Appl.**

Springfield, MO

Latitude: 37-13-25 N

Longitude: 093-14-30 W

ERP: 0.25 kW

Channel: 227

Frequency: 93.3 MHz

AMSL Height: 599.3 m

Elevation: 424.3 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model: None

**K229AE**

Springfield, MO

BLFT19980624TH

Latitude: 37-12-33 N

Longitude: 093-16-56 W

ERP: 0.14 kW

Channel: 229

Frequency: 93.7 MHz

AMSL Height: 491.0 m

Elevation: 404.0 m

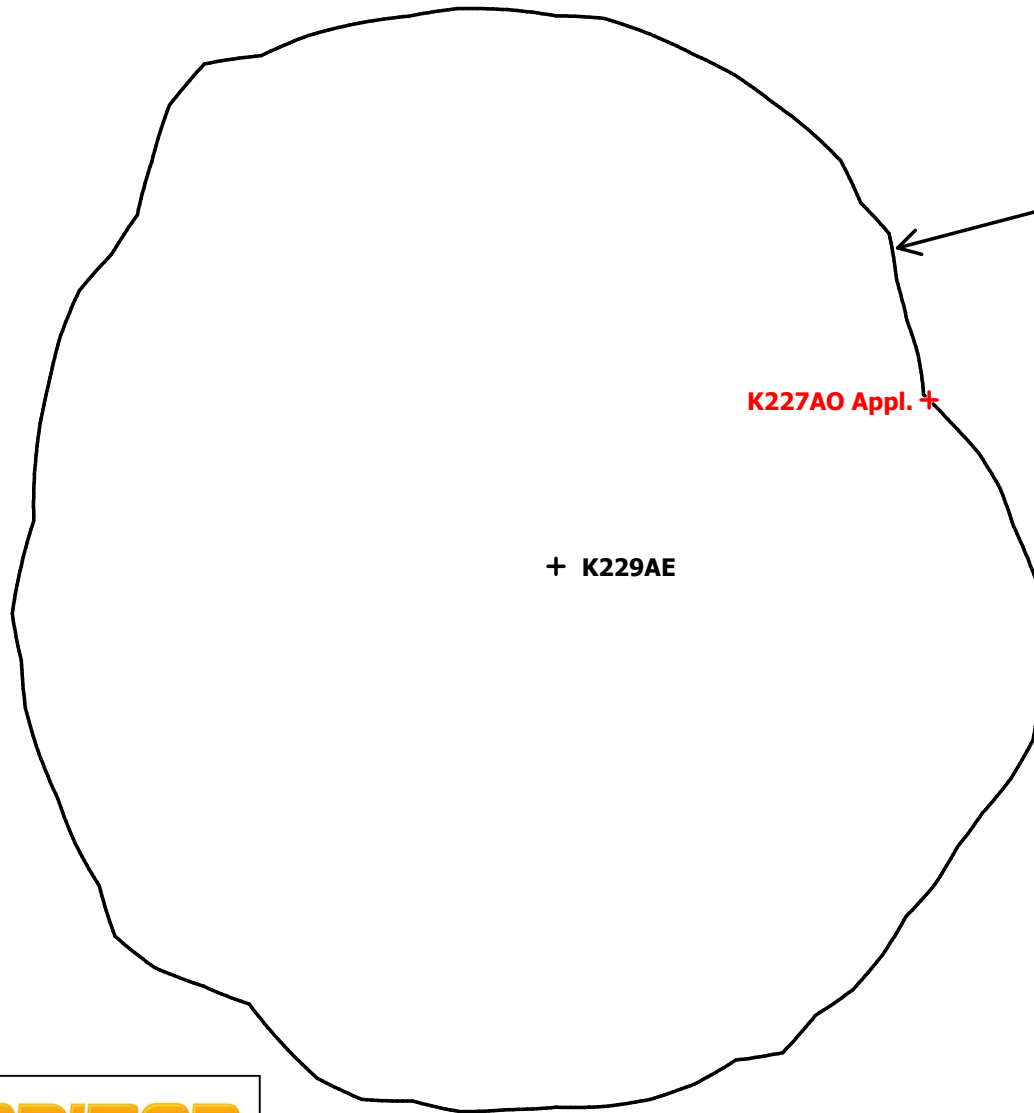
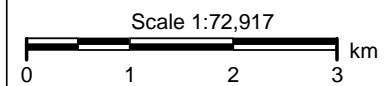
Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

**Exhibit 13-D Section 74.1204 Contour Protection**

K229AE Channel 229D Springfield, Missouri

**K229AE FCC F(50,50)  
74.4 dBu contour****K227AO Appl. +****+ K229AE****HORIZON**  
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# FM and TV Propagation Curves

This function uses the FM or TV television propagation curves to compute the distance to a service or interfering contour, or the corresponding field strength at a given contour distance. [More after the form.](#)

## Screen 3 - Results

### Results of Calculation

**Distance to Contour = 0.211 kilometers**

[Back to Numeric Entries](#)

[Back to Initial Selections](#)

### Input Data from Screens 1 and 2

ERP = 0.250 kW

HAAT = 203.0 meters

Field Strength = 114.4 dBu

**Distances** are in **meters and kilometers**

**Power** is in **kW (kilowatts)**

**Field Strength** is in **dBu**

**FM and NTSC TV Channels 2 through 6**

**F(50,10)** for interfering contours selected

**Find Distance, given a Field Strength**