

Clearance to KXDG (FM) and KKOW-FM

This instant translator application clears all allocation constraints of Section 74.1204. On first glance, it appears that interference is created to second-adjacent channel station KXDG (FM) Webb City, MO and third-adjacent channel station KKOW-FM Pittsburg, KS. However, Section 74.1204(d) instructs us:

“In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.”

KXDG (FM) places 72.4 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 72.4 dBu signal produces an interfering contour of 112.4 dBu. This interfering contour extends a distance of 267.5 meters in the main lobe of the signal. The antenna that is being proposed is a 2-bay 0.85 wave spaced Nicom BKG77 antenna with a center of radiation of 91 meters above ground. This antenna significantly focuses the 112.4 dBu interfering contour over the heads of any nearby resident. Please see the drawing that follows. The closest the interfering contour comes to the ground is 14.7 meters. This is generated by the 60 degree azimuth of the antenna. Therefore, the interfering contour cannot be received by any listener.

KKOW-FM places 76.6 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 76.6 dBu signal produces an interfering contour of 116.6 dBu. This interfering contour extends a distance of 163.5 meters from the antenna. This contour is smaller than the KXDG (FM) contour described above. Therefore, if KXDG (FM) clears the ground and population, the smaller KKOW-FM contour will clear also.

In conclusion, based on the foregoing explanation showing that no persons will receive interference, it is thought this application is in compliance will Section 74.1204 using Section 74.1204(d).

**112.4 dBu Interference
Nicom 2-Bay 0.85 Wave Spaced BKG77**

