

Clearance to WAMJ (FM) and WAKL (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 stations WAMJ (FM), Roswell, GA and WAKL (FM), Gainesville, GA. 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.”

WAMJ (FM) places 63.3 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 63.3 dBu signal produces an interfering contour of 103.3 dBu. This interfering contour extends a distance of 759.5 meters in the main lobe of the signal. The antenna that is being proposed is a 1-bay SWR FMEC/1 antenna with a center of radiation of 430.3 meters above ground. This antenna significantly focuses the 103.3 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 35.5 meters. This occurs at a distance of 394.8 meters from the tower base and is generated by the 45 degree azimuth of the SWR antenna.

WAKL (FM) places an 84.6 dBu signal over the proposed translator site. Adding the 40 dBu U/D ratio to the 84.6 dBu signal produces an interfering contour of 124.6 dBu. The interfering contour extends a distance of 65.1 meters from the antenna. This contour is much smaller than the WAMJ (FM) contour described above. Therefore, if the interfering contour to WAMJ (FM) clears all population, the smaller interfering contour to WAKL (FM) 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).

103.3 dBu Interference SWR FMEC/1 1-Bay

