

## Exhibit 12

### Interference Analysis Overlap Requirements

According to CFR 47 §74.1204(a), translators are required to protect all existing FM stations from interference due to overlap of the protected contours of the existing stations with the interfering contours of the new translators.

#### US Stations

In the attached tabular printout, only WBMX, W279BQ, and WODS have outgoing contour overlaps from the proposed translator, so no interference to other stations is anticipated. Incoming overlap is not prohibited.

W279BQ is the current application, and need not be protected.

WBMX and WODS are both second adjacent to the proposed translator, and, according to §74.1204(d),

**"The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. 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 ... lack of population ... ."**

The F(50,50) signal from WBMX at the transmit site is 78.57 dBu and the signal from WODS at the proposed site is 71.11 dBu. The weaker and thus more fragile station is WODS, so protection sufficient for it will suffice for WBCN. A 40 dB ratio of undesired to desired signal strength gives an allowable interfering F(50,10) field strength of 111.11 dBu. The attached spreadsheet shows that this contour is at the lowest 24.54 m (80 ft) AGL. The nearby buildings are at most 20 feet high, so the interfering contour does not reach down to the roof.

Hence §74.1204(d) quoted above applies (no population), and the predicted area of interference is acceptable to the Commission.

All other facilities have over 20 km outgoing contour overlap clearance.

#### IF Separation

The proposal distant from all IF spaced facilities except WBOS. Since the ERP is less than 100 Watts, WBOS need not be protected.