

ENGINEERING STATEMENT – SECOND ADJACENT CHANNEL PROTECTION

WWFS, New York, NY, 274B and WFAN-FM, New York, NY, 270B (both 42.3 kilometers at 22 degrees True from LPFM site) are second adjacent-channel stations to the proposed channel 272 LPFM facility. The 54 dBu F50,50 protected service contour of each extends beyond the LPFM transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to WWFS or WFAN-FM.

Note that a rule waiver of Section 73.807 for this second adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to this station.

The F50,50 signal strength from WWFS at the proposed LPFM transmitter site is 64.3 dBu (the “desired” signal for WWFS). The F50,50 signal strength from WFAN-FM at the proposed LPFM transmitter site is 65.2 dBu (the “desired” signal for WFAN-FM). The second/third adjacent-channel protection is an undesired-to-desired (“U/D”) dB signal strength ratio of 40:1. Therefore, predicted interference to the worst-case of the above two protected facilities is to that of WWFS and is a LPFM signal of greater than or equal to 104.3 dBu.

The 104.3 dBu signal based on a free space field determination is predicted to extend out to 96 meters from the proposed LPFM transmitter site. As shown by the attached aerial photograph of the proposed site, *there is no population located within the 104.3 dBu interfering contour distance of 96 meters*. Therefore, both WWFS and WFAN-FM are adequately protected by the proposed facility.

HAZLET, NJ LPFM AERIAL PHOTO OF PROPOSED SITE



Google earth

feet
meters



96 meters

