



Engineering Report

Forum Communications , Inc.
WZUU (FM)

This consultant has been retained on behalf of Forum Communications, Inc., licensee WZUU (FM) in Mattawan, MI for the purpose of providing technical support to Form 301 in application for a minor change in its licensed facilities. WZUU has been ordered from channel 222 A in Allegan, MI to Channel 223 A in Mattawan in the report and order associated with RM-1126.

Proposed WZUU Operation

The tower proposed for the WZUU operation is an existing structure which carries the registration number 1007711. The tower is 81.3 m high and it is proposed that WZUU operate with a two bay antenna centered at the 66.45 meter level on the structure. The ground elevation at the tower base is 294.2 m AMSL hence the WZUU antenna would be centered at 360.65 m AMSL. The HAAT of the proposed WZUU operation is 98 meters. Exhibit 1 of this report is a digitally generated map which shows the predicted 60 dBu and 70 dBu contours for the proposed operation as well as the corporate boundaries of Mattawan, MI. As shown in Exhibit 1, the entire community of Mattawan is illuminated by a signal well in excess of the 70 dBu required by 47 CFR 73.315.

Exhibit 2 of this report is a full search of the Commission's June 1, 2006 FM database which shows that the proposed WZUU operation is fully spaced to all other radio stations with the exception of WYVN (FM) in Suagatuck, MI. The proposed WZUU operation is 62.31 km distant from WYVN which is 9.69 km less than the 72 km required by 47 CFR 73.207. The 62.31 km distance is in excess of the 49 km "super minimum" spacing required under 47 CFR 73.215(e). The WYVN operation was itself authorized under the provisions of 47 CFR 73.125 and as such, in accordance with the provisions of 47 CFR 73.215 (b)(2)(iii), the actual licensed WYVN facilities were used for the purpose of calculating the distance to its protected and interfering contours.

So as to protect WYVN it is proposed that WZUU operate with a directional antenna. The antenna pattern is described in Exhibit 5 of this report. The pattern has a maximum field depth of 9.0 dB at 320° from true north. The departure from the null does not exceed 2 dB per 10°. The proposed directional antenna is thus compliant with the provisions of 47 CFR 73.510(b).

Exhibit 3 of this report is a digitally generated map which shows the protected 60 dBu and interfering 54 dBu contours of both WYVN and WZUU. As shown in exhibit 3, there is considerable distance between the proposed WZUU 54 dBu interfering contour and the WYVN protected 60 dBu contour. The WYVN interfering 54 dBu contour does come close to the proposed WZUU protected 60 dBu contour. So as to further demonstrate that no overlap occurs between the two contours a Fmover study was performed which calculates the interfering signal level at point along the WZUU 60 dBu contour. A copy of that study is included in this report as Exhibit 4 and, as shown in that exhibit, the maximum interfering signal level along the WZUU 60 dBu contour is 53.8 dBu which occurs along the arc between 296° and 305° from the proposed WZUU operation.

Environmental Considerations

The construction associated with this application is limited to installing a 2 bay, low power FM antenna on an existing tower structure. Exhibits 6 and 7 of this report demonstrate that the proposed WZUU operation will pose no threat to the public due to passive overexposure to excessive levels of non-ionizing RF radiation.

Certification

All information in this report and its associated exhibits is true and accurate to the best of my belief. Having had numerous matters before the Commission, my qualifications are a matter of record.

June 6, 2006

Date

R. Lee Wheeler

R. Lee Wheeler