

Educational Public Radio, Inc

WAZQ-FM, Class C1, 88.3 MHz, Key West, FL, 90,000 watts

Modification of Construction Permit

Exhibit #18 – TV Channel 6 Exhibit

TV Channel 6 Reporting Threshold Issues

The proposed transmitter site in the instant application is located 131.52 kilometers from the nearest TV Channel 6 station, WTVJ, Miami, FL. This is within the threshold set forth by Table A in Title 47, Section 73.525(a). Thus the proposed facility is required to comply with the regulations set forth in 73.525 related to TV Channel 6 calculated contour overlap and population reporting.

TV Channel 6 Population Interference Calculation

The applicant proposes a vertical power of 90,000 watts and a horizontal power of 250 watts. The equivalent horizontal polarized only power is $250 + 90,000/40 = 2,500$ watts. The proposed f(50,10) 56.8 dBu contour does not overlap, in any azimuth, the Grade A contour of WTVJ-TV, Miami, FL. The applicant has opted for the -6 dB option accounting for the directional nature of TV receive antennas as permitted in 73.525. The entire predicted area of interference spans the bearings of 330 degrees clockwise to 110 degrees with respect to the proposed transmitter site. This is clearly within the boundaries for the -6 dB directional receive antenna area as specified in 73.525(e)(1)(iii). Below is a chart of the appropriate ratios in determining the area of just perceptible interference. This area falls almost entirely over water. There is one section of population in this area.

The ratios used pursuant to the Chart in 73.599 (Figure 1) are as follows:

| <u>WTVJ-TV Channel 6 Service Contour</u> | <u>Channel 202 Interfering Contour with 6 dB directivity adjustment</u> |
|--|---|
| f(50,50) 47 dBu | f(50,10) 56.8 dBu |
| f(50,50) 49 dBu | f(50,10) 58.0 dBu |
| f(50,50) 51 dBu | f(50,10) 59.2 dBu |
| f(50,50) 53 dBu | f(50,10) 60.5 dBu |

Map #1 attached to this exhibit shows the calculated interference contour with ratios complying with 73.525(e)(1)(v) and the charts in 73.599 (Figure 1). The population within the equivalent 2,500 watt horizontal only polarization area of “just-perceptible” interference is 29 persons. This calculation was derived using Comstudy from Radiosoft population count program having generated a contour that covers the area identical to the calculation area of “just perceptible” interference. Consequently, this application is permissible with respect to TV Channel 6 regulations for the WAZQ modification application for Channel 202.