

## **Exhibit #13, Overlap Requirements**

Town of Monroe, Connecticut  
W220CE  
Southington, CT

### **W220CE Move to a New Location**

The proposed facility causes no contour overlap with stations having a frequency and distance relationship except for 3rd adjacent WWYZ.

Section 73.1204(a) states that “an application for an FM translator station will not be accepted for filing if the proposed operation would involve overlap of predicted field strength contours with any other station, including commercial and noncommercial educational FM stations, FM translators and Class D (secondary) noncommercial educational FM stations.” However, Section 74.1204(d) states that *“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 intervening terrain, lack of population or other such factors as may be applicable.”* (Emphasis added.)

WWYZ: Using the undesired-to-desired ratio method regarding interference to a third adjacent frequency<sup>1</sup>, “interference is predicted to occur where the translator’s undesired signal exceeds the protected station’s desired signal by more than 40 dB.”<sup>2</sup> The free space formula<sup>3</sup> was used to determine the signal strength, in dBu, of WWYZ to the proposed translator’s transmitter site. That signal strength was calculated to be 135.7 dBu, based on an ERP of 17 kW and a distance of 0.149 kilometers.

Incorporating the 40 dB U/D ratio, the resulting translator interference contour is 175.7 dBu. Using the free space formula<sup>3</sup>, it was determined that the 175.7 dBu interference contour of the new W220CE 1 watt ERP translator extends less than 1 meter from the antenna. The antenna height above ground is 8 meters. Therefore the interference area never touches the ground.

Consequently, we conclude that the instant proposal meets the Commission’s Rules and regulations and does not cause interference to WWYZ.

There are no prohibited contour overlaps other than with WWYZ.

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<sup>1</sup> Second Report and Order, FCC 00-368 at 9 and 39.

<sup>2</sup> Memorandum Opinion and Order, FCC 02-244 at 5 and 6, (In response to application of Living Way Ministries, Inc., File No. BPFT-19981001ITA.

<sup>3</sup> <http://www.fcc.gov/mb/audio/bickel/curves.html#START>.

Exhibit #13, Page 2

Page #3 is a topographic map depicting the proposed translator site.

Page #4 to this exhibit is a change-area map showing the proposed facility's 60 dBu and the existing licensed 60 dBu.

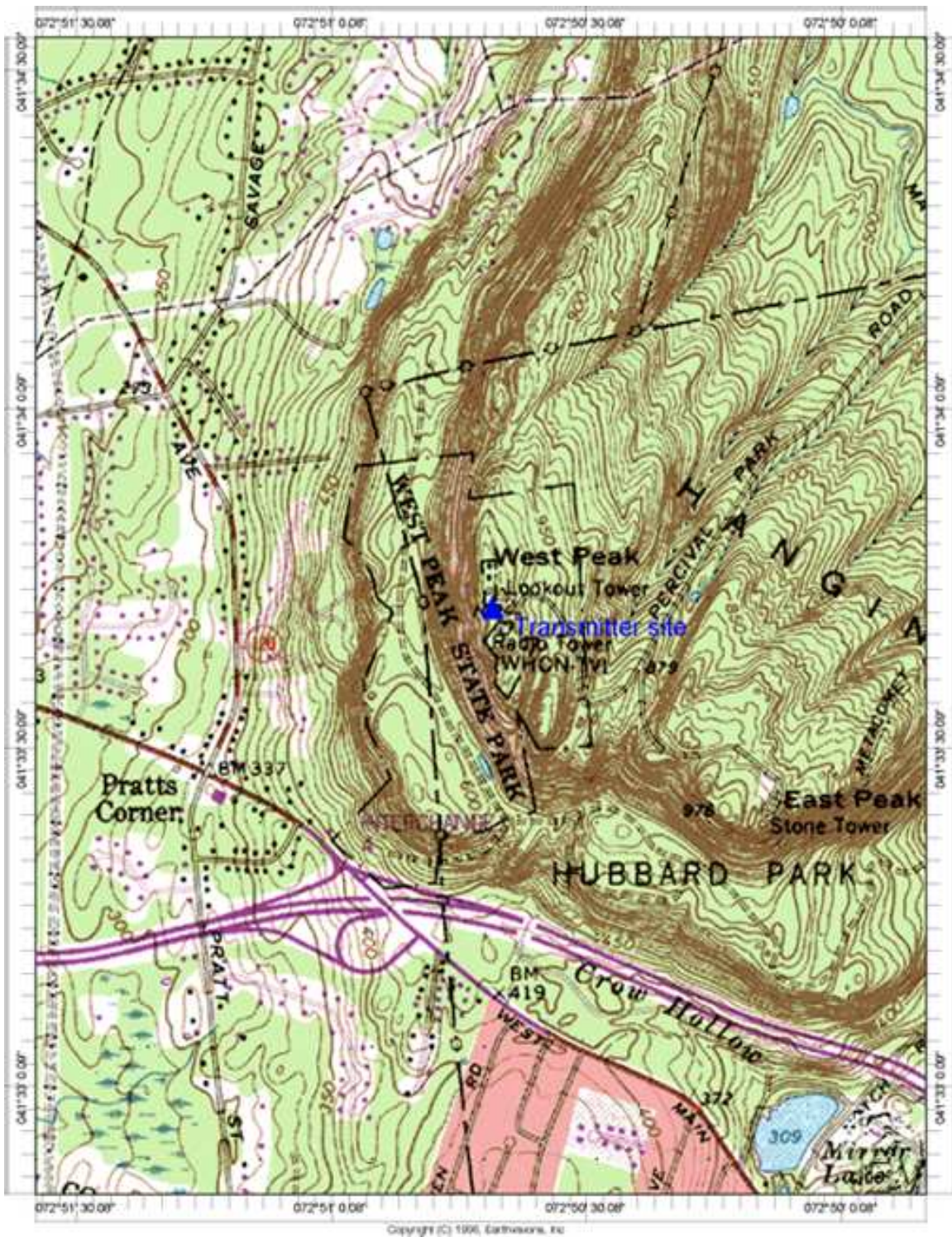
On Page # 4 the change-area map shows that the proposed facility's 60 dBu is completely within the existing licensed 60 dBu. As a result, except for the existing contour overlap with WWYZ, there are no prohibited overlaps with any FM signal.

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Exhibit #13, Page #3    **Topographic map depicting the proposed translator site**

Town of Monroe, Connecticut W220CE Southington, CT



## W220CE Proposed 60 dBu Change Area and Interference

Town of Monroe, Connecticut  
W220CE  
Southington, CT

The proposed new location for W220CE is 149 meters away from the existing licensed location of W220CE.

The 60 dbu contour of the licensed W220CE will encompass 100% the 60 dbu of the proposed W220CE at its new site resulting in an application that is a minor change.

Since the 60 dbu contour of the proposed W220CE at its new site does not extend past the existing licensed W220CE, at any point around the compass, there will be no interference with any station, except for the interference with WWYZ, which is shown in page 1 of this exhibit to be so small that it does not reach the ground.

