

SECTION 74.1204(d) STUDY

This narrative exhibit demonstrates that the predicted interference to the 60 dBu contour of the second-adjacent WLTB, Johnson City, NY is allowable under the rules stated in 47 CFR 74.1204(d).

In support thereof this Applicant states the following:

1. WLTB, Johnson City, NY, second adjacent channel facility to this translator proposal, is protected from interference within its 60 dBu contour from the associated interference contour (based on 47 CFR 74.1204(a)(1); using the FCC F(50/10) curves) which need be 40 dBu greater than the associated coverage contour (WLTB) that would encompass the proposed translator antenna site and that contour which is 40 dBu greater than the associated coverage contour.
2. This translator's antenna location is located within the 60 dBu contour (based on 73.333 F(50/50)) of WLTB, Johnson City, NY. This proposal will use the predicted desired to undesired coverage method to determine the appropriate interference contour that need be used with regard to WLTB. Included as an attachment (101.3 Binghamton, NY Desired to Undesired Ratios Map) is a map showing that the 91 dBu coverage contour of WLTB (currently licensed and operating site) encompasses the proposed antenna site along with the entire proposed 131 dBu interference contour. As the proposed 131 dBu interference contour is 40 dBu greater than the 91 dBu contour of WLTB then this contour is the appropriate interference contour for this analysis and it is clearly evident that interference will only occur within this 131 dBu interference contour of this proposed translator.
3. Given this translator's requested effective radiated power of 17 watts, directional; the predicted 131 dBu interference contour for this proposal would be exceedingly small. At any HAAT value, the maximum 131

dBu contour distance for this proposal is 0.008146 kilometers (8.146 meters) at 10 degrees from true north and smaller than this in all other directions.

4. This proposed translator antenna is to be situated on a 9 meter tall mast located on the roof of the elevator/air conditioning/radio transmitter penthouse which in turn is located on the top of the roof of a tall office building at 20 Hawley Street in downtown Binghamton, NY. The top of this roof on the top of the penthouse is 32 meters above ground. Enclosed as 101.3 Bing Vertical Freespace FMV1b is a table showing the contour distances based on the Freespace Equation to the 131 dBu contour and also factoring in the Vertical Pattern (downward radiation) of the proposed FMV1 antenna. Looking at the horizontal perspective (indicated on the first line of results from the Vertical Freespace Table), the maximum distance the signal can travel to the 131 dBu contour is 8.146 meters. 101.3 Bing Roof Sketch shows that the entire 131 dBu contour is located within the boundaries of the rooftop at 20 Hawley Street (horizontal perspective). Additionally, based on the vertical perspective, no part of the 131 dBu contour even reaches the top of the penthouse roof. Based on 101.3 Bing Vertical Freespace FMV1b, the closest the 131 dBu contour will come to the penthouse rooftop is 5.593 meters (18.3 ft.) above the penthouse roof which would occur 4.522 (14.8 ft.) meters out from the antenna mast. This point is well above the top of the penthouse roof, thus no interference could occur within the building at 20 Hawley Street. This point is within the boundary of the penthouse roof, thus no interference will occur anywhere outside the perimeter of the roof of the building at 20 Hawley Street (at any angle from the antenna, horizontally, diagonally, or vertically). The rule in 47 CFR 74.1204(d) states "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 such factors as may be applicable." In this particular case, as shown in this exhibit, it is clearly evident that there is a "lack of population" as defined in 47 CFR 1204(d) thus allowing this translator to operate at this proposed location.

For the foregoing reasons this Applicant submits that the predicted interference to WLTB, Johnson City, NY is allowable under Section 74.1204(d) of the Commission's rules. Furthermore, grant of this application is in the public interest as it would increase the coverage area of a radio facility in this area and impose no hardship to the referenced facility, WLTB, Johnson City, NY.

By: Kevin Fitzgerald, Technical Consultant