

SECTION 74.1204(d) STUDY

This narrative exhibit demonstrates that the predicted interference to the 54 dBu contour of the second-adjacent WILQ, Williamsport, PA is allowable under the rules stated in 47 CFR 74.1204(d).

In support thereof this Applicant states the following:

1. WILQ, Williamsport, PA, second adjacent channel facility to this translator proposal, is protected from interference within its 54 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 (WILQ) 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 54 dBu contour (based on 73.333 F(50/50)) of WILQ, Williamsport, PA. This proposal will use the predicted desired to undesired coverage method to determine the appropriate interference contour that need be used with regard to WILQ. Included as an attachment (W290BS 105.5 Williamsport Desired to Undesired Ratios Map) is a map showing that the 100 dBu coverage contour of WILQ encompasses the proposed antenna site along with the entire proposed 140 dBu interference contour. As the proposed 140 dBu interference contour is 40 dBu greater than the 100 dBu contour of WILQ then this contour is the appropriate interference contour for this analysis and it is clearly evident that interference will only occur within this interference contour for this proposed translator.
3. Given this translator's requested effective radiated power of 9.5 watts Directional; the predicted 140 dBu interference contour for this

proposal would be very small. At any HAAT value, the maximum 140 dBu contour distance for this proposal is 0.00216 kilometers (2.16 meters) towards 240 and 30 degrees and smaller in all other directions.

4. This proposed translator antenna is to be situated 12 meters above ground on a 66 meter tall radio tower. Enclosed as W290BS 105.5 Williamsport Vertical Freespace BKG77, is a study showing the free space signal distance based on the Freespace Equation and factoring in the Vertical Pattern (downward radiation) of the proposed BKG77 Antenna. Based on this study, no part of the 140 dBu contour ever reaches the ground level. As such, no interference would be caused at any location on the ground. 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 WILQ, Williamsport, PA 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 facilities, WILQ, Williamsport, PA.

By: Kevin Fitzgerald, Chief Engineer