

Exhibit in Support of KTBG
Main Studio Location
Using Longley–Rice Coverage Analysis

KTBG (FM), 90.9mHz

BMPED 20130307ABU

Warrensburg, MO.

June 27, 2013

Background

The Commission's main studio rule (73.1125) requires that each broadcast station operate a main studio 1) within the station's community of license; 2) at any location within the principal community contour of any station, of any service, licensed to its community of license; or 3) within 25 miles of the reference coordinates of the center of its community of license.

Following the proposed transfer of control from the University of Central Missouri (UCM) to Public Television 19, Inc. (KCPT), and following the successful relocation of KTBG as contemplated in the pending FCC form 340 application number BMPED 20130307ABU, and in order to realize significant cost savings and programming synergies between KCPT (TV) and KTBG (FM), it is desired to relocate the main studio of KTBG to the KCPT main studio location. The KCPT studios are not within the Warrensburg city limits. Aside from KTBG there is one other broadcast station licensed to Warrensburg, MO. KOKO AM, however, its Principle Community Contour does not encompass the proposed KTBG main studio location. Utilizing the standard FCC F50/50 contour calculation method, the proposed KTBG 70dBu FCC Principle Community Contour falls approximately 10km east of the proposed KTBG main studio location, however, KCPT will show in this exhibit that, utilizing the Longley-Rice irregular terrain model with an appropriate clutter factor KTBG will, indeed, cover the proposed main studio location with 70dBu of signal and therefore KTBG should be allowed to utilize the KCPT main studio location as the KTBG main studio. The proposed KTBG studios are approximately 48 miles from central Warrensburg, MO.

Method of Analysis

The methodology used to determine coverage of KTBG at the proposed studio location consists of analyzing the proposed KTBG transmitter coverage (application BMPED 20130307ABU) using the Longley-Rice irregular terrain propagation model.

In determining whether Longley-Rice is appropriate to be used in this analysis, while the terrain in question between the proposed KTBG transmitter and studio does not fall within the <20 meter/ >100 meter delta-h threshold, it was determined that the calculated

Longley-Rice 70dBu contour as calculated by the supplemental method is at least 10% larger than the distance to the 70dBu contour of the standard prediction method¹. In fact, it was determined that the FCC 50/50 70dBu contour extends to 33km while the Longley-Rice 70dBu contour with land-use clutter extends to 47km, or approximately a 29.8% difference in the distance to the 70dBu contour compared to the distance provided by the standard prediction method. Based upon this information, it was determined that the coverage increase shown is enough to conclude that the terrain between the proposed KTBG antenna and the proposed main studio departs widely from the norm and is thus appropriate to use in this case.

The model was set with the following parameters:

Clutter Factor used	Variable Land Use Clutter (see Exhibit A)
Conductivity:	0.005
Dielectric Constant:	15.0
Climate Zone:	Continental Temperate
Mode	Broadcast
Time variability	50%
Location variability	50%

The receiver height was set to 9.1m per FCC policy.

The proposed KTBG studio is located at 125 East 31st St. Kansas City, MO. 64108. The building is attached to an existing tower (ASR1004499) at 39-04-21 N, 94-35-46 W (NAD83). This is the location used to determine the location of the KCPT studios and proposed KTBG studios for this study.

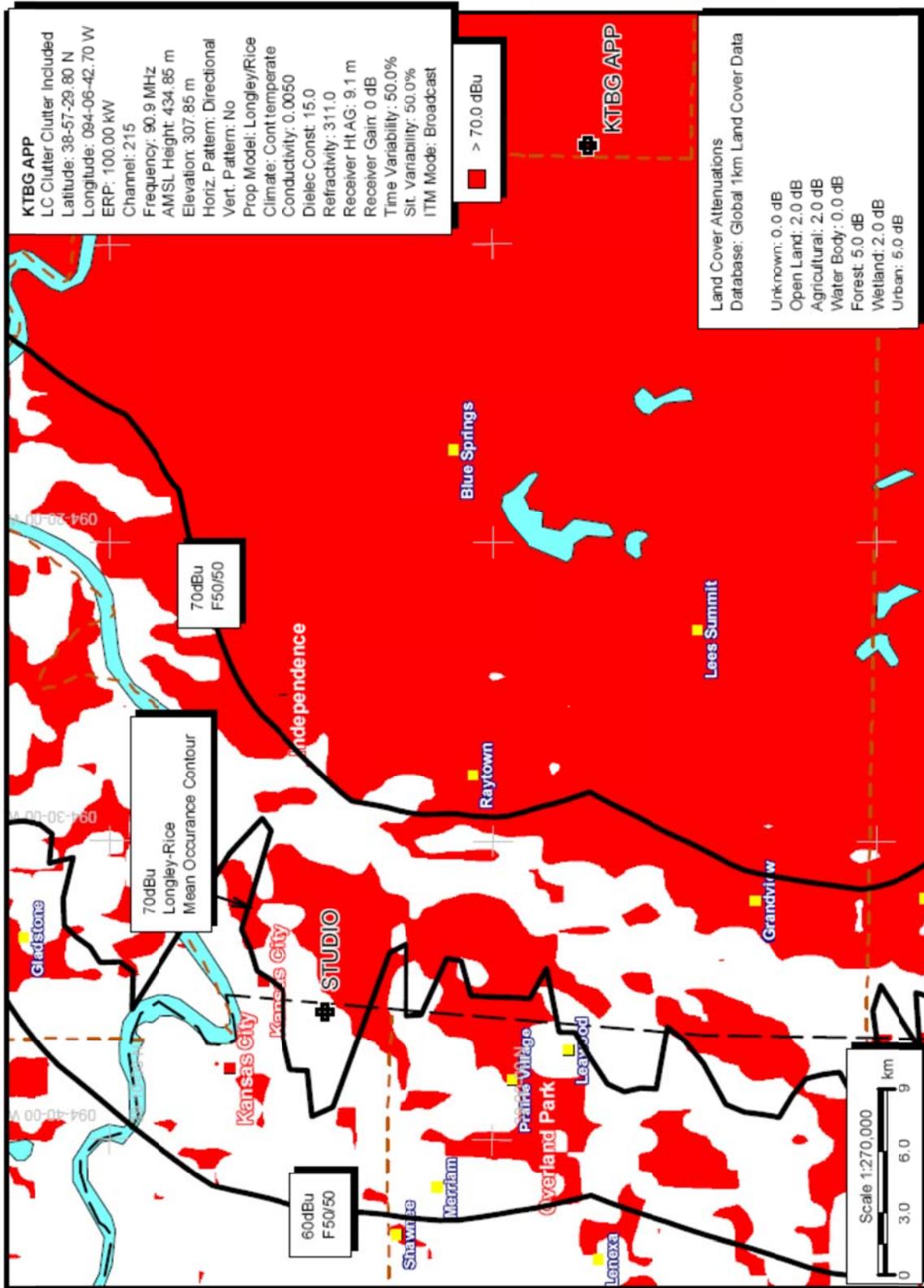
In keeping with FCC policy, an appropriate clutter factor was used to determine Longley-Rice terrain loss characteristics. The land use from the proposed KTBG transmitter site to the proposed main studio location consists primarily of three terrain characteristics; Agriculture and forest exists for much of the first 25km from the KTBG transmitter site toward the proposed Main Studio. This suggests land use clutter of between 2db (agriculture) and 5db (forest). For the next approximately 18km from the proposed KTBG tower site, urban clutter is considered with a 5db loss factor. A map showing the specific land use characteristics and losses utilized is shown in Exhibit A.

¹ See FCC DA-10-1760A1, paragraph 27

The 70dBu Longley-Rice contour was drawn by computing the mean value of the first and last occurrence of the 70dBu signal as computed using the specified parameters above. It is believed that using the mean value, a conservative value was obtained. As indicated in Exhibit B, the mean 70dBu contour completely encompasses the proposed KTBG main studio location.

EXHIBIT B, Longley-Rice Mean Computed Contours With Clutter

KTBG 70dBu Longley-Rice Main Studio Coverage-30sec DB, Land Cover Attenuations Shown, 70dBu Mean Occurance Contour



Conclusion

Based upon the preceding evaluation, it is believed that following its transmitter site relocation as contemplated in BMPED 20130307ABU, and following its main studio relocation, KTBG will remain compliant with §73.1125 (a)(2) of the rules. Specifically, the main studio of the station will be located within the 70dBu Principle Community Contour of KTBG licensed to Warrensburg, MO. using the Longley-Rice method.

The foregoing was prepared on behalf of Public Television 19, proposed assignee of station KTBG, by Bertram S. Goldman of Goldman Engineering Management, LLC., Dallas, Texas, whose qualifications are a matter of record with the Federal Communications Commission. The statements contained herein are true and correct of my own knowledge, except such statements made on information from others, and to these statements I believe them to be true and correct.

Sincerely,



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