

**Longley-Rice Narrative**  
**KLTR – 231 C2 – 50 KW – 101 M HAAT**  
**Hempstead, TX**  
**September 2017**

The City of Hempstead, TX resides between 92 and 104 degrees from the proposed KLTR transmitter site. All of Hempstead is within the traditionally calculated 60 dBu contour and none is within the traditionally calculated 70 dBu contour. In this case it is appropriate to calculate the 70 dBu city grade contour by using Longley-Rice methodology.

Calculations were made on each azimuth (92 through 104 degrees). The traditional distance to the 70 dBu contour and the distance to the Longley-Rice 70 dBu contour was determined using the NED 03 second terrain database. The increase was determined for each azimuth as well as the percent of increase for each azimuth.

In each azimuth the percentage of increase was greater than 10%. In fact, the minimum increase was 52.3% on the 95 degree azimuth. The maximum increase of 70.9% occurred on the 104 degree azimuth.

We therefore conclude that 100% of Hempstead, TX is served by the proposed 70 dBu contour of KLTR when using Longley-Rice methodology to calculate the contour.