

# Memorandum

**To:** The Federal Communications Commission  
**CC:**  
**From:** William Hayes, Director of Engineering and Technology  
**Date:** 8/15/2007  
**Re:** KTIN DT, Fort Dodge, IA

The construction of KTIN varies significantly from the DTV allotment because we determined that by using a directional antenna we could provide DTV service to the population that relies on KTIN for their service while reducing the amount of signal radiated to areas that used alternate IPTV stations. On the attached map you can see that the allotment contour (lt. blue) completely encompassed the granted CP contour (red). However, to the north and west where KTIN is the primary source of service, there is very little reduction in coverage. The majority of service reduction for KTIN is to the east. The area to the east and slightly north are served by stations licensed to the Mason City market and receive IPTV programming via KYIN. The area to the east and south, including the Fort Dodge (the KTIN city of license) receive their services from station in the Des Moines market and receive programming from KDIN. There are some smaller areas of reduction to the southwest and in those areas; IPTV service is available via KSIN from Sioux City and KHIN in Red Oak.

Using 2000 census data, the KTIN allotment will serve a total population of approximately 652,000 people while the facilities specified in the CP will serve approximately 407,000 people. On the surface, this would appear to be a reduction in service of close to 38% by population count. However, analysis of the overlap areas between the KTIN allotment and the KDIN facility shows that approximately 155,000 of the allotment total are within this area. The analysis of the KTIN allotment and KYIN overlap area reveals another 41,000 people in this area. Although not as significant as the overlaps to the east and southeast, the overlaps to the west account for an additional 50,000 people. Based on the geography of the areas and the broadcast service centers it is most likely that the vast majority of these people that watch IPTV, will watch one of the other stations rather than KTIN. In that case the total population served by the KTIN allotment can be reduced by 246,000 and a more realistic service number is 406,000 which is virtually identical to the projected service population.

The selection of a directional antenna for KTIN DT allowed IPTV to construct a facility that better served the population that relies on the signal while simultaneously reducing the operating costs of the facility by allowing us to use a lower power transmitter and antenna with higher gain and