

**COMMENT**  
**Unlicensed Operation in the TV Broadcast Bands, Proceeding 04-186**



**Interference Protection**

It is well known in the Television engineering community that predictions using the f (50,50) and f (50,10) curves from 47CFR §73.699 are inaccurate in evaluating coverage and interference contours. The FCC is also aware of this inadequacy and so states in 47CFR §73.683. To solely base the proposed service's interference criteria on these contours would lead to disruption of television service to a significant number of viewers in rural areas, particularly those served by TV translators. A proven approach would be to use the methodology in FCC OET Bulletin 69 using the Longley-Rice Terrain Dependant Analysis.

This proceeding prompted the engineering staff of Pikes Peak Broadcasting to calculate predicted coverage for both of our full service TV stations, as well as, several UHF translators comparing the Grade B and 74 dBu contours respectively applying f (50,50) curves vs. Longley – Rice analysis. While not attached to this comment it is evident, from our studies, as well as, documented industry analysis, that “real world” coverage extends well beyond Grade B of the full service stations and the predicted 74 dBu contour of the UHF translators. If a fixed intentional radiator were allowed within the Grade B, or 74 dBu contour of a translator, significant interference would occur to both viewers and in many cases the input to the television translator that relies upon the full service station's input channel or from another translator. Presently there is no database that documents a TV translator's input so this data would have to be added to the FCC CDBS.

The same analysis, as described above, would indicate interference to our assigned Digital Television channels which might have an even more dramatic effect due to D/U ratio that would result in the “cliff effect”, as described in the NPRM, resulting in a complete loss of signal.

**DTV Transition**

Due to the uncertainties of the transition underway from analog to digital television, including the realignment of the TV band channels, changes in ERP and protected contours due to interference analysis by the FCC, LPTV conversion to the digital domain (FCC 04-220) and other factors this doesn't seem to be an appropriate time to initiate another use of this dynamic spectrum. We urge that this proceeding be delayed, at least, until the final Table of Allotments is issued. Further intrusion into this spectrum could only cause more confusion to the viewing public and delay the DTV transition.

**Licensing**

It is not inconsistent with FCC procedure to require Licensing, or at a minimum Registration, in view of the fact that Effective Radiated Power from these devices could exceed 2 watts. Information required might include contact information and location, in an accessible database, in the event of potential interference issues.

**GPS Interference**

An Erratum to MB Docket No. 03-185 discusses potential interference of the 2<sup>nd</sup> and 3<sup>rd</sup> harmonics from digital translators operating on UHF TV channels 22 – 24 and 32 – 38 to Radio Navigation Satellite Bands (GPS). These same Rules must be included in Rules governing intentional radiators to protect the GPS service.

