



October 31, 2014

VIA ELECTRONIC FILING

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Re: Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268; Office of Engineering and Technology Releases and Seeks Comment on Updated OET-69 Software, ET Docket No. 13-26

Dear Ms. Dortch:

The Expanding Opportunities for Broadcasters Coalition (the “Coalition”) hereby submits these Informal Comments pursuant to Section 1.1206 of the Commission’s rules. In these comments, we identify an outdated input used in the FCC’s *TVStudy* software that appears to undervalue the coverage area of many Class A television stations.

In 2004, the Commission determined that “use of the assumed transmitting antenna vertical plane radiation patterns set forth in Table 8 of OET Bulletin 69 could under-predict LPTV and translator service and interference potential” and, therefore, declared that “the assumed vertical patterns in Table 8 of OET Bulletin 69 are not appropriate for LPTV and TV translator stations.”<sup>1</sup> Because the agency was “hesitant to make the digital LPTV/TV translator procedures significantly more complicated than those for full-service stations” and did not “have suitable replacement patterns to adopt,” it adopted a “temporary” solution: assuming that the downward

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<sup>1</sup> *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, Report and Order, 19 FCC Rcd. 19331 ¶¶ 96 & n.191, 104 (2004) (*Digital LPTV Order*).



relative field strengths for digital and analog Class A TV stations (along with low power and translator stations) are double the Table 8 values.<sup>2</sup> More than ten years after the FCC adopted this “temporary” solution, it remains the basis for predicting coverage and interference for most digital Class A TV stations.<sup>3</sup>

By failing to double the vertical antenna patterns for Class A stations, *TVStudy* undervalues the service and interference potential of some Class A TV stations.<sup>4</sup> For example, the *TVStudy* software predicts a 95.7% population loss for Station KSKT-CA (Facility ID No. 58927). Simply using the inputs that the Commission adopted in the *Digital LPTV Order*,<sup>5</sup> however, completely erases this coverage loss and produces a population count of 193,506—the exact population count produced by legacy OET-69 software. Similarly, doubling the Table 8 vertical field values reduces the 97.2% population loss for station WBGH-CA (Facility ID No. 15569) to just 1.5%. The following contour maps illustrate the effects of this approach—with the red lines showing the contours using the *TVStudy* default values and the purple lines showing the contours when following the approach adopted by the FCC in the *Digital LPTV Order*:

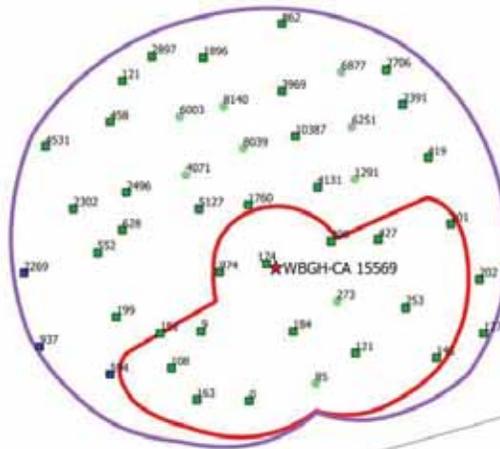
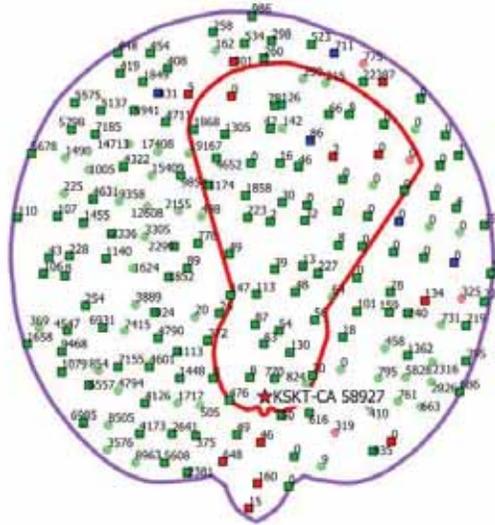
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<sup>2</sup> *Id.*

<sup>3</sup> In 2011, the Commission amended Section 74.793(d) to provide licensees and permittees with the *option* of submitting actual vertical patterns for their existing facilities for use in lieu of the assumed vertical patterns adopted in the *Digital LPTV Order*. See *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, Second Report and Order, 26 FCC Rcd. 10732 ¶¶ 64-66 (2011). Accordingly, Section 74.793(d) was amended to read: “For analysis of predicted interference from digital low power TV and TV translator stations, the relative field strength values of the antenna vertical radiation pattern if provided by the applicant will be used instead of the doubled values in Table 8 in OET Bulletin 69 up to a value of 1.0.”

<sup>4</sup> The size of the error increases as the downward angle from the transmitting antenna increases. Thus, the use of inappropriate inputs has the greatest effect on stations with very low power and very high antenna locations, where the angle from the antenna to the noise-limited contour is steep. See Presentation by Keith Larson, FCC Media Bureau, *CBA 2004* at 20, available at <http://www.fcc.gov/mb/video/files/cbadtlptv2.ppt>

<sup>5</sup> All other *TVStudy* parameters were set to match those in Comments of the National Association of Broadcasters, ET Docket No. 13-26 and GN Docket No. 12-268, at Attachment A (May 8, 2014).



The continued use of input values in *TVStudy* that the FCC has deemed “not appropriate” will have a tremendous negative impact on certain Class A TV stations both in the auction and the subsequent repack. *First*, it will unfairly reduce compensation for affected stations considering auction participation. *Second*, it will result in a failure to identify many unacceptable repacking scenarios—leading to real world interference after the auction that will, in some cases, greatly exceed the predictions in *TVStudy*.

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We urge the Commission to act promptly to revise the vertical antenna pattern inputs in *TVStudy* to reflect the same values that the agency has used for years to determine a Class A TV station's coverage and interference. Time is of the essence. Adopting this approach will affect the constraint files that the FCC will use in the auction for both Class A TV stations and full power stations (due to changes in incoming and outgoing interference). Accordingly, the Commission should make these changes as soon as possible so they do not interfere with the FCC's ability to conduct a successful Incentive Auction without any unnecessary delay.

Respectfully Yours,

/s/ Preston Padden /s/\_\_\_\_\_

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