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*Via Electronic Filing*

Marlene H. Dortch  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

**Re: Ex Parte Letter – Unlicensed Operation in the TV Broadcast Band  
ET Docket Nos. 02-380 & 04-186**

Dear Ms. Dortch:

As specified in the TV Bands Report and Order, Section 15.173, the TV Bands Database Administrator (“Database”) must store geographic coordinates using the North American Datum of 1983 (NAD-83). This requirement applies to all geographic registrations in the Database, regardless of origin.

Section 15.713 (h)(1) requires that the Database store the transmitter coordinates of digital television stations, digital and analog Class A, low power, translator and booster stations according to the NAD-83 datum. This information is currently stored in the FCC Media Bureau’s Consolidated Database System (CDBS) according to the NAD-27 datum.

Equivalently described points in NAD-27 and NAD-83 can differ by many tens of meters<sup>1</sup>. Key Bridge believes that receiving location information in mixed datum formats will create uncertainty about the exact location and coverage of incumbent’s protected contours.

<sup>1</sup> Key Bridge measured a mean shift for sites in CDBS of latitude at -3m and longitude at +31m, with maximum latitude at -355m and longitude at -293m. Please see the full statistics of our CDBS NAD-83 conversion in the Appendix.



While Key Bridge has implemented a datum translation for CDBS sites from NAD-27 to NAD-83, we recognize there may be more than one authorized Database and that all parties must treat FCC data as authoritative.

We therefore respectfully request that the Commission:

- Calculate and provide NAD-83 coordinates for all relevant facilities in the CDBS database

Key Bridge requests that NAD-83 converted data is stored in Degree/Minute/Second (DMS) format, consistent with the current NAD-27 data format. The existing CDBS data is only significant to 1 arc-second and additional, false precision could be implied in a new decimal notation.<sup>2</sup>

We have no preference as to how the new location data is incorporated in to CDBS, except that the new NAD-83 coordinates must be easily assigned to their proper respective transmitter (currently referenced by 'facility\_id').

Geo-location is the Commission's principal mechanism for TV Bands interference protection. Accurate geo-location of protected entities and unlicensed transmitters is a mandatory requirement for the Database which cannot be reliably implemented using current CDBS data formats.

Key Bridge believes the request to calculate and add transformed location data does not impose an unreasonable burden on the Commission. We note that a Federal standard for NAD-27 to NAD-83 conversion exists and tools are readily available from the National Geodetic Survey which should further assist the Commission.<sup>3</sup>

Respectfully,

/s/

Jesse Caulfield, President

Key Bridge Global LLC

<sup>2</sup> See FCC Form 301: APPLICATION FOR CONSTRUCTION PERMIT FOR A COMMERCIAL BROADCAST STATION at B. General Engineering Instructions for Sections III-A, B, C, & D.

<sup>3</sup> See North American Datum Conversion Utility at <http://www.ngs.noaa.gov/TOOLS/Nadcon/Nadcon.html>