

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of )  
)  
Amendment of Parts 73 and 74 of the Commission’s ) MB Docket 03-185  
Rules to Establish Rules for Digital Low Power )  
Television, Television Translator, and Television ) (WT Docket 06-142)  
Booster Stations and to Amend Rules for Digital ) (WT Docket 11-27)  
Class A Television Stations ) (WT Docket 11-79)  
) (ET Docket 10-235)

To: The Commission

**Petition for Reconsideration by Hammett & Edison, Inc.**

The firm of Hammett & Edison, Inc., Consulting Engineers, respectfully submits these comments in the above-captioned proceeding relating to digital Low Power Television (LPTV), TV Translator, TV Booster and Class A TV stations. Hammett & Edison, Inc. is a professional service organization that provides consultation to commercial and governmental clients on communications, radio, television, and related engineering matters.

**I. The Second R&O States That Part 74 Channel 6 Digital TV Stations  
Have an Obligation To Protect NCEFM Stations from Actual Interference**

1. The July 15, 2011, MB Docket 03-185 *Second Report and Order* (Second R&O) states, at Paragraph 38, that digital low power stations operating on TV Channel 6 have an obligation to protect Noncommercial Educational FM (NCEFM) stations in the event of actual interference. While in theory this is correct, how can it be meaningful, if there is no such Part 74 rule for LPTV, TV Translator, and TV Booster stations? That is, Section 74.703(b) of the Commission’s Rules discusses the obligation of a secondary LPTV/TV Translator/TV Booster station not to cause interference to the reception of existing TV signals, but makes no mention of interference to the reception of FM signals. Further, there are no specified protection ratios or DTV Channel 6 interfering contour(s) to NCEFM stations given in the FCC rules. If there are no such benchmarks, then how can a dLPTV Channel 6 applicant or permittee know if there may be a problem if it goes to the trouble to file an application, obtain a construction permit, and build the dLPTV Channel 6 facilities? dLPTV applicants, especially those building a 3 kW ERP facility, need a benchmark for being able to reasonably determine, in advance, whether a D06 facility will not be subject to allegations of “actual interference” if the facility is built. That means

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having technical standards for D06-into-NCEFM stations, and such technical standards do not now exist.

2. For example, what if a NCEFM station were to have loyal listeners beyond its 60 dBu contour? Never mind that those extra-distance listeners might be on a hilltop, or using a dedicated receiving antenna, perhaps even with a mast-mounted pre-amplifier; the NCEFM licensee would still be entitled to file a complaint pursuant to the flawed Paragraph 38 language.

3. And what desired-to-undesired (D/U) signal ratio should be used? The NCEFM-into-NECFM first-adjacent D/U ratio of 6 dB, or the NCEFM-into-NCEFM second and third-adjacent D/U ratio of -40 dB? Further, since these ratios were derived for NCEFM-into-NCEFM interference, and not for DTV-into-NCEFM interference, no one knows if either ratio would be appropriate for DTV-into-NCEFM interference.

4. We additionally note that there is currently no obligation for NCEFM stations to protect DTV Channel 6 stations, either. This is because Section 73.525 of the FCC rules applies only to NCEFM stations protecting *analog* TV Channel 6 stations, not *digital* TV Channel 6 stations. The fact that Section 73.525 only applies to analog TV Channel 6 stations was documented in the timely-filed March 25, 2008, H&E *Petition for Reconsideration* of the March 6, 2008, MB Docket 87-268 *Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order on Reconsideration*, and in the May 30, 2008, H&E *Reply To Oppositions for Petition for Reconsideration*.

5. Since the Commission has yet to rule on this H&E *Petition for Reconsideration*, the policy established at Paragraph 14 of the February 23, 1998, MB Docket 87-268 *Memorandum Opinion and Order on Reconsideration of the Fifth Report and Order*, that FCC rules clearly specific to analog TV operations and “inapplicable to digital technology” do not apply to digital television (DTV) operations, remains in effect.<sup>1</sup> Because the Section 73.525 rules were developed to protect analog TV signals and to protect the VHF low band F(50,50) 47 dBu Grade B contour, the current and now obsolete wording in Section 73.525 cannot apply to the DTV Channel 6 stations, of any class.

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<sup>1</sup> Paragraph 14 of the Fifth MO&O reads as follows:

In addition, such a new permittee of licensee's DTV facility must generally comply with the analog operation rules, such as minimum operating hours, except where the analog rule is inconsistent with the digital rules or inapplicable to digital technology.

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## II. Corollary SVRS and AMTS Issues

6. Corollary issues are updated SVRS-into-DTV Channel 7 protection ratios (WT Docket 06-142) for 173.025 MHz Stolen Vehicle Recovery System (SVRS) signals,<sup>2</sup> and updated AMTS-into-DTV Channels 10 and 13 protection ratios for Automated Maritime Telecommunications System (AMTS) stations at 216–220 MHz.<sup>3</sup> Both SVRS and AMTS suffer from the same problem as Section 73.525 of the Commission’s NCEFM rules: They have not been updated to reflect protection ratios needed for digital television (DTV) signals; instead, they are still based on ratios derived for protection of analog (NTSC) television signals. Given that MB 03-185 Second R&O has now established a sunset date of September 15, 2015, for the termination of analog operations by Class A TV, LPTV, and TV translator stations, it is even more timely for the Commission to update its other services-into-DTV protection requirements.

7. While digital TV signals have the advantage of coding isolation that analog signals did not, the transmitter powers for digital TV stations are substantially less than they were for analog TV stations, and the protected signal contours have also substantially changed.<sup>4</sup> Further, while analog TV signals could “fail gracefully,” digital TV signals do not.

## III. Summary

8. We do not want to see a non-existent protection requirement for DTV-into-NCEFM arbitrarily and capriciously established. We do not want to see obsolete NCEFM-into-DTV, SVRS-into-DTV, or AMTS-into-DTV protection ratios inappropriately applied. It is past time for the Commission to complete the process of updating its various rules to reflect the reality of current, digital TV operations. Outdated rules, applicable to discontinued full-service analog operations and soon also to Class A TV, LPTV and TV translator stations, help no one: Not digital TV stations, not other stations susceptible to causing or receiving interference, and also not Commission staff as it works to regulate the operation of all those stations. If the Commission wishes to establish a method for a secondary Part 74 DTV Channel 6 station to

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<sup>2</sup> Stolen Vehicle Recovery Systems (SVRS), operated by Lojack Corporation; WT Docket 06-142. See the February 18, 2011, H&E reply comments and February 8, 2011, H&E initial comments to the Commission’s January 24, 2011, public notice DA 11-23, *Public Safety and Homeland Security Bureau Seeks Comment on Partial Request for Waiver Filed by Lojack Corporation*.

<sup>3</sup> WT Dockets 11-79 and 11-27. See the July 11, 2011, H&E comments to WT 11-79; the March 18, 2011, H&E reply comments to WT 11-27; and the March 8, 2011, H&E WT 11-27 initial comments.


<sup>4</sup> The protected contours for VHF low band, VHF high band, and UHF full-service analog TV stations were the F(50,50) 47 dBu, 56 dBu and 64 dBu contours, respectively. The protected contours for VHF low band, VHF high band, and UHF full-service digital TV stations are the F(50,90) 28 dBu, 36 dBu and 41 dBu contours, respectively.

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protect adjacent-band NCEFM stations, the proper procedure is to commence a Notice of Proposed Rulemaking (NPRM) to that effect. Similarly, if the Commission wants to require NCEFM stations to protect full-service DTV Channel 6 stations, or Class A DTV Channel 6 stations, or even LPTV/TV Translator/TV Booster DTV Channel 6 stations, it needs to complete a rulemaking establishing such rules, as well. Finally, the SVRS and AMTS rules need to be updated to ensure protection of DTV signals.

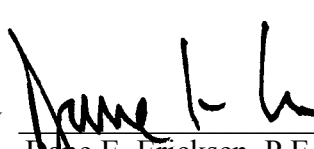
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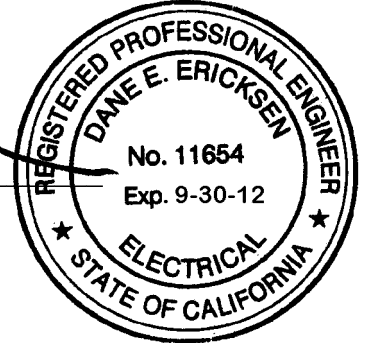
By

  
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By


  
Dane E. Ericksen, P.E.  
Senior Engineer



August 9, 2011

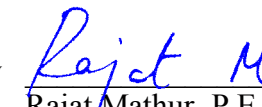
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