



Testimony of

**David L. Donovan
President**

The Association for Maximum Service Television, Inc.

***Broadcasters' Efforts to Prevent Loud
Commercials***

**Before the
Subcommittee on Communications, Technology, and the Internet
of the
Committee on Energy and Commerce
United States House of Representatives**

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Thank you, Chairman Boucher, Ranking Member Stearns, and Members of the Subcommittee, for the opportunity to address you today regarding broadcasters' ongoing efforts to resolve variations in volume between regular programming and commercials in digital television. My name is David Donovan, and I am the President of the Association for Maximum Service Television, Inc. ("MSTV").

MSTV is a nonprofit trade association representing television broadcast stations across the country. We are the "engineering arm" of the television broadcasting industry. Our mission is to ensure that American consumers have the highest quality, interference free, local over-the-air television. For example, we have been involved in the digital transition since the 1980s. We worked with the Federal Communications

Commission (“FCC”) to help create the table of DTV channels. Working with the National Telecommunication and Information Administration (“NTIA”), the National Association of Broadcasters (“NAB”) and the Consumer Electronics Association (“CEA”), we helped develop the digital to analog converter box that has become the backbone of the digital transition. We have also spent a considerable amount of time addressing the issue of loud commercials.

MSTV and the entire broadcast engineering community look forward to tomorrow’s (June 12th) transition to digital television. We believe this transition will also prove an added incentive to resolve your concerns regarding loud commercials. With the termination of analog service, we can now focus our undivided attention to our “new” digital viewers.

I. THE TELEVISION BROADCAST INDUSTRY RECOGNIZES THAT LOUD COMMERCIALS ARE A PROBLEM

The Commercial Advertisement Loudness Mitigation Act, H.R. 1084, (“CALM Act”) would require the FCC to prescribe rules regulating loud commercials within one year of enactment. Specifically, the legislation would enact several measures that, when taken together, would preclude the broadcast of commercials at a louder volume than that of the surrounding programs.

At the outset, MSTV wants the Committee to understand that we fully recognize the problem. Unexpected changes in volume can annoy consumers and disrupt the

viewing experience. Consumers who are unable to easily use volume controls or a mute button may be particularly frustrated by sudden spikes in loudness as a program goes to a commercial break. The television broadcast industry has every interest in ensuring that consumers are not subjected to such frustrations. As a matter of pure economics, we do not want to lose viewers because they are annoyed by loud commercials. Free, over-the-air television is fundamentally an advertiser supported medium. Our revenue depends on viewers watching programs and commercials. The broadcast industry depends on keeping these viewers satisfied. If viewers skip the advertisements, turn the channel, or shut off their television all together, a station loses advertising revenue. Accordingly, we know how important it is to develop technical standards to avoid excessively loud commercials.

The television broadcasting industry has a long history in developing systems to measure and control loud commercials. Measuring audio loudness has, however, been a complex challenge. Audio loudness is the human psychoacoustic perception of a sound level and is measured with devices that attempt to replicate the human ear's sensing system. As early as the 1960s, the industry has been focusing on the psychoacoustic perceptions of sounds. In 1967, CBS Labs designed and built the first "loudness meter." The "Audimax" and "Volumax" controllers became the gold standard. These controllers were used by the industry for years to address the loudness issue.

As will be discussed below, following on to a long history in which we successfully addressed loud commercials in the analog broadcast context, the television broadcast industry has been working on this issue as it relates to digital transmission since 2007. Because analog television for full-power television stations ends in 2009,

the industry believed it was important to begin addressing the loud commercial issues in the context of digital transmission. At the same time, the industry has worked to ensure that in addressing loud commercials, we do not deprive consumers of one of the core benefits of digital technology — the superior sound experience offered by digital television. Unlike in the analog context, the broadcast television standard adopted by the Advanced Television Systems Committee (“ATSC”), which in turn has been incorporated into the rules and regulations of the FCC, employs the Dolby 5.1 system. The dynamic range of this system, *i.e.*, the audio highs and lows, allows for theater quality sound. In fact, digital television has more than two times the dynamic range of a standard analog television set. Consumers purchasing expensive large screen television sets expect an in-home theater experience with superior sound. Thus, when developing a solution for loud commercials, we must be careful not to impair the full audio range that is possible with the new digital system.

Despite these complexities, the industry has made significant progress resolving these issues. In my testimony, I will describe the industry’s efforts to address this issue in the context of digital television. I will also explain why an immediate legislative response, at this point in time, may be unnecessary and ultimately, counterproductive. We all share the same goal. The only question is how to achieve the objective.

II. THE MAJOR SUPPLIERS OF BROADCAST PROGRAMMING ARE IMPLEMENTING POLICIES TO ADDRESS LOUD COMMERCIALS

It is important to remember that, as a general matter, the technical parameters established by our primary programming suppliers -- the major television broadcast networks -- help to create a “norm” for the entire television broadcast industry. In this regard, the major television broadcast networks, including ABC, NBC, CBS and Fox are each, individually, implementing policies that attempt to control loud commercials in the context of digital transmission.

CBS and the CW Networks have had policies in place to control commercial loudness since December 2007. CBS has issued a detailed manual explaining its practices. CBS conducted a yearlong study of loudness for a variety of content including: dramas, comedies, news, sports and commercials. More than 10,000 loudness measurements were used to help develop a loudness controller with TC electronics and other manufacturers. This loudness controller uses the ITU-R BS 1770 measurement process and controls all Dolby 5.1 channels of surround sound.

Fox has reached out to its licensors of prime time programs and its commercial advertisers to explain the challenge that DTV audio presents to the viewer. For six months, Fox has been measuring and evaluating program and commercial content as delivered to Fox using BS 1770 to measure subjective loudness. It has implemented a

screening process to measure content act by act and to meet a loudness specification of (-23dBFS) within 2 dB.¹

NBC/Universal has been active in addressing the management of audio for programs and commercials. With respect to in-house production, advertisers and suppliers provide NBC with soundtracks that are compatible with its in-place ATSC audio practices. It requires that all content be produced and delivered with consistent loudness. Equipment is then set to operate at this loudness level. To the extent content is delivered outside the range of NBC's guidelines, new technology is ready at WNBC-DT to automatically normalize the loudness of promotional material to match the rest of NBC's programming. NBC Universal has been an active participant in the ATSC's Subgroup on Digital Loudness, about which you will hear more today.²

Currently, ABC has policies concerning peak audio levels, which can negatively affect the transmission path. ABC plans to include new, strict guidelines for audio mixing and loudness in its program and commercial delivery specification later this year. ABC intends to either reject commercials that do not meet its program delivery

¹ Fox supports a common industry target of -24LKFS +/- 2dB and has formally added it to its commercial and program delivery specification. Fox has participated in the ATSC Ad-Hoc Working Subgroup on Audio Loudness since its inception in 2007. This work has included initial testing to confirm the use of the ITU BS 1770 Subjective Loudness Measurement for TV programs and commercials, development of a Recommended Practice on the use of BS 1770 along with AC 3 meta data (dial-norm) and the proposed revision of ATSC A53 part 5 Standard to formalize the adoption of BS 1770 to set the dial-norm value.

² Mr. Jim Starzynski, Principal Engineer and Audio Architect, NBC Universal, Inc, who will be testifying today, is the Chairman of the ATSC's Working Group on Loudness.

specifications for audio loudness or modify the audio to conform. ABC also participates in the ATSC's working group on digital television loudness.

As noted above, the activities of the major broadcasting programming suppliers generally established the "norm" for the industry. As a result, we would anticipate similar solutions to be adopted by programming syndicators, national advertisers, local stations and local advertisers. Moreover, other multichannel video suppliers would generally look to these solutions and apply them to their own technologies. For example, as a competitive matter, when broadcasters implement solutions to address and prevent loud commercials, other programming platforms must find solutions as well or risk losing viewers. In this instance, however, we have greater assurance of an industry-wide solution because of the significant work of the Advanced Television Systems Committee's Subgroup on Digital Loudness.

III. SIGNIFICANT PROGRESS HAS BEEN MADE ADDRESSING THE PROBLEM OF LOUD COMMERCIALS

We have made significant progress in resolving the loud commercial problem. There have been numerous discussions in the MSTV Engineering Committee, which is comprised of the chief engineers from television stations across the country. However,

because these issues necessarily implicate the ATSC digital standard, the industry looked to the ATSC as the proper forum to address this issue.³

Recognizing the need to address digital transmission and loud commercial issues within the context of the ATSC, the broadcast industry established a Digital Loudness Subgroup in April 2007.⁴ The work of the committee recognizes that technology provides a mechanism to mitigate loud commercials.

ATSC's Subgroup on Digital Loudness has been working on a "Recommended Practice." Once adopted, the Recommended Practice will explain to stations how to implement the ATSC audio standard. For the purposes of this hearing, the Recommended Practice will provide specific guidance for commercial loudness. I understand that the Recommended Practice is expected to be voted on and released in September 2009.

Importantly, the Recommended Practice will provide guidance for all local television stations. It will provide guidance for stations when they broadcast syndicated programming, national spot advertising, local programming and local advertising. Moreover, while the ATSC's Recommended Practice is applicable primarily to over-the-air television broadcasting, it will provide guidance for closely-related standards and technologies that are currently used by cable and satellite systems. In effect, by

³ As noted previously, the digital broadcast standard (ATSC A53) provides for a significant improvement in audio quality over analog transmission. Indeed, Dolby 5.1 (A-3) is an important part of this standard.

⁴ The testimony of Jim Starzynski, Chairman of the Advanced Television Systems Committee's Subgroup on Digital Television Loudness, provides specific detail of this Working Group's activities.

working through the engineering community, the broadcast television industry is on the verge of resolving much of this problem.

IV. WE RESPECTFULLY URGE CAUTION MOVING FORWARD WITH LEGISLATION AT THIS TIME

It is worth noting that the industry's voluntary efforts have surpassed previous government efforts to regulate loud commercials. In 1962, the FCC opened an investigation into the causes and cures of excessively loud commercials. At the time, technical equipment to measure the loudness of complex sounds did not exist to aid the FCC's efforts, and the FCC ended its investigation by adopting a statement of policy in 1965 offering guidance on how to avoid excessive contrasts in loudness between programs and commercials.⁵

Over a decade later, the FCC initiated a second inquiry into the loudness of commercial advertisements in 1979.⁶ However, after a three-year fact finding *Notice of Inquiry*, the FCC found in 1984 that "although the Commission would like to see the matter resolved, it appears that little more can be gained with additional government

⁵ *Amendment of Part 73 of the Commission's Rules and Regulations To Eliminate Objectionable Loudness of Commercial Announcements and Commercial Continuity over Standard, FM and Television Broadcast Stations*, Docket No. 14904, Report and Order, 1 F.C.C.2d 1, 10 (1965).

⁶ *Amendment of Part 73 of the Commission's Rules and Regulations To Eliminate Objectionable Loudness of Commercial Announcements and Commercial Continuity over AM, FM, and Television Broadcast Stations*, BC Docket No. 79-168, Notice of Inquiry, 72 F.C.C.2d 677 (1979).

studies.”⁷ The FCC terminated the proceeding stating, “It seems unlikely that the more subjective factors, peculiar to each listener, can be controlled by machinery. Electronics may reduce the number of complaints of loudness, but it is unlikely that the loudness question can ever be resolved to everyone’s satisfaction.”⁸

In the context of digital transmission, industry engineers have been able to work through most of the problems, and we are on the verge of reaching solutions that will resolve the issue, while at the same time providing flexibility. With the cessation of analog transmission on Friday, the industry has a tremendous incentive to resolve this issue quickly. Moreover, the very existence of H.R. 1084 provides a strong incentive to move forward.

It is possible, however, that forcing the FCC to complete a rulemaking would have the unintended consequence of delaying proposed technical solutions. As with any FCC legal proceeding involving highly-complex technical issues, there would be a wide variety of debate from all sides. Indeed, it may reopen some of the issues that have already been resolved. Subsequent reconsideration petitions and potential court appeals may lead to further delay. Simply stated, a requirement that the FCC commence a proceeding may inject tremendous uncertainty into the process. It may actually slow down implementation of solutions that already are being developed.

⁷ Amendment of Commission’s Rules to Eliminate Objectionable Loudness of Commercial Announcements, BC Docket No. 79-168, 49 Fed Reg 28077 (1984).

⁸ *Id.*

The proposed legislation has had the positive effect of focusing broadcasters' efforts on this issue. Now that the digital transition has occurred, broadcasters have a tremendous incentive to focus their attention and fix this problem. Accordingly, we would respectfully request that you forgo moving forward with legislation at this point in time. I am confident in their work, and I believe that the industry is on the right path to a timely solution.

* * *

I appreciate Representative Eshoo's initiative in proposing this legislation and thank Chairman Boucher and Ranking Member Stearns for holding this hearing today. These efforts are good reminders that this is an issue of importance to the Subcommittee, just as it has been for the members of the ATSC committee and the broadcast industry over the past years.

Thank you again for providing me an opportunity to describe the broadcast industry's efforts to resolve the loud commercial issue, and I would be pleased to respond to any questions that you may have.