Thursday, December 13, 2012. For TV broadcasters, the date sits like an offshore tempest. Will it marry and disperse into the atmosphere? At this point, no one at the FCC is reveling just how relentless the CALM Act loudness regulations will be enforced. One thing is for sure - happy viewers equal compliance.

FEELING WORRIED? OR FEELING CALM?

It’s been nearly a year since the CALM Act was signed into law. The CALM Act itself and the broader topics of controlling and monitoring loudness have been the subjects of much conversation, some debate, and a good bit of confusion. We'd like to provide some clarity.

CAN LINEAR ACOUSTIC HELP ME BE CALM COMPLIANT?

In a word, Yes.

Linear Acoustic Audio/Loudness Managers deliver CALM-compliant audio when properly installed and calibrated per the user manual. Correct installation requires the use of an ITU-R BS.1770 compliant meter such as the Linear Acoustic LQ-1000 to accurately measure LKFS average loudness as outlined in ATSC A/85 and referenced in the CALM Act.

As an active participant in the ATSC and other standards groups, Linear Acoustic is committed to helping broadcasters deliver the highest quality audio possible. We pride ourselves on excellent customer service and 24/7 assistance is always just a phone call away.

WHAT THE CALM ACT MEANS TO BROADCASTERS

On December 13th, 2010, the FCC moved to implement the 2010 Commercial Advertisement Loudness Mitigation (CALM) Act. On December 13th, 2012, the rules of CALM go into effect and the FCC will carry out its responsibility to enforce them.

In its simplest terms, this means over-the-air (OTA) broadcasters, cable operators, satellite television providers, and multichannel video program distributors (MVPDs) must ensure that commercials have the same average loudness as the programs they accompany. More specifically, it means applying the ATSC A/85 Recommended Practice - a set of methods to measure and control the loudness of digital audio - to commercial advertisements delivered to viewers.

While the FCC has placed a responsibility upon broadcasters to ensure compliance, it has also stated that enforcement will be primarily complaint-driven. If viewers establish a pattern of complaints, the FCC will address them; but if viewers are satisfied that stations and MVPDs have effectively controlled the loudness levels of commercials (as evidenced by a lack of complaints) there is unlikely to be a problem.

Our “Beginning to End” Philosophy

Adhering compliance and delivering viewer-pleasing audio isn’t about finding just one solution. Rather, it’s a comprehensive process that involves measuring and controlling audio throughout the entire facility. Linear Acoustic’s loudness management programming comes from a wide variety of sources, including network feeds, locally produced commercials, syndicated programming (with its own commercial content), live news cut-ins from OB trucks, and local news programs. We provide file-based loudness control and metering for the protection of entire stations and MVPDs have effectively controlled the loudness levels in their facilities. They’ve done so not only to comply with the “letter” of the law but also the “spirit” of the law, which endeavors to keep viewers happy, and happy viewers don’t complain.

It simply comes down to not upsetting your viewers. Linear Acoustic continues to provide transmission encoding and processing equipment via our AERO line of products which ensure stations and MVPDs are in compliance by having a real-time processor installed and operating. We provide file-based loudness control and metering equipment for compliance with the “Safe Harbor” portion of the CALM Act. Finally, we provide metering solutions that let operators keep a real-time eye on average levels and generate data that can be exported and archived should the station ever be called upon to prove compliance. Operators combing measurement and manual or automatic loudness control can then easily know they will have high quality audio, satisfied viewers and thus compliance.

WHY MONITORING ALONE WILL NOT PROTECT YOU

Among the many misunderstandings and misinterpretations of the CALM Act is the claim that simply by monitoring loudness, your facility will be compliant.

That’s like saying that just because you have a speedometer in your car you won’t exceed the speed limit, and therefore can’t get a ticket. Or because you own a clock, you’ll never be late. It simply isn’t true.

It IS true that an ITU-R BS.1770 meter such as the Linear Acoustic™ LQ-1000™ must be used to accurately measure LKFS loudness, but monitoring alone is not enough to ensure compliance.

Compliance demands that careful attention be paid to levels throughout the plant from all sources, from origination and ingest all the way through to the transmission chain. It is almost always necessary to apply some sort of level correction along the way, whether by a file-based solution at ingest, by a dedicated hardware loudness controller in an OB truck during a live broadcast, or at the end of the transmission audio chain.

Interestingly - and somewhat ironically - another common misconception is that as long as the meter hangs tight at -24LFS, all is well. This situation is easily achieved by crushing the audio with a rudimentary processor at the very end of the audio chain, but that logic is faulty too. The CALM Act requires that audio viewers were not annoyed by television audio - specifically loud commercials. Aggressively processing the audio is annoying, too, and isn’t going to make for happy viewers. And at its core, that’s what CALM is all about. Keeping your viewers happy so they have no reason to complain about your audio.

WHY CHOOSE LINEAR ACOUSTIC

Choosing the right company to help you meet compliance regulations is an important decision. As the industry leader in loudness control, Linear Acoustic’s AERO Transmission Audio Loudness Managers, LQ-1000 Loudness Quality Monitor, and LAMBDA™ Digital Audio and Metadata Monitor are widely regarded as best-in-class solutions for controlling, metering, and monitoring DTV audio.

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Finally, our AERO line of Loudness Controllers, including AERO.ai™, AERO.1000™, and AERO.lite™ provide sophisticated metadata and multiband control of your audio, and are capable of delivering CALM-compliant audio without ever compromising audio quality.

Speaking of Audio Quality

One of our favorite sayings at Linear Acoustic is “a happy meter does not necessarily make for a happy viewer.” By this we mean that it’s relatively easy to make a loudness meter read out a constant LKFS value, simply stick an uncalibrated compression/expander at the end of the transmission audio chain and you’ll have a “compliant” meter reading all day long.

If you’re wondering what that does to your audio, you probably already know the answer: it sacrifices quality, erodes the exciting and immersive experience that makes multi-channel television audio so compelling, and irritates viewers. The CALM Act is supposed to eliminate these annoyances, not trade one for another. All Linear Acoustic AERO-series products use available metadata values and sophisticated algorithms to deliver consistent loudness to all of your audio, resulting in audio that is pleasing to viewers and thus compliant.

The Choice of Broadcast Professionals

In just ten short years, we have established ourselves as the trusted leader in multi-channel DTV audio. Major broadcast and cable television networks around the country and the world count on Linear Acoustic products. We have provided upstream, metering, loudness control, and transcoding equipment to NBC for the 2008 Beijing Summer Games, the 2010 Vancouver Winter Games, and at the 2012 London Summer Games.

We are humbled and honored to have received a Technology and Engineering Emmy® Award in 2010 for “Development of an Audio/Metadata Processor for Conforming Audio to the ATSC Standard.” We are proud members of the ATSC, a sustaining member of SMPTE, and a founding member of the Sports Video Group’s DTV Audio Group.

Superior Build Quality, Superior Support

All Linear Acoustic products are designed and manufactured in the US at our headquarters in Lancaster, Pennsylvania. Because we know they are relied upon in mission-critical applications, we use only the highest quality components when building our products and have established a rigorous and thorough quality control process.

Should you have questions or need assistance with a Linear Acoustic product or even DTV audio in general, 24/7 support is always just a phone call away. Not some clever marketing scheme, your call will be answered by Linear Acoustic employees, because unlike a third-party call center, we understand what “On Air” means.

LET US HELP

For many television stations the need to be CALM compliant is just one of many issues or projects on their radar, but there’s no doubt that it’s one of the most pressing and important.

The details of the CALM Act itself have been the subject of much discussion in our industry. While this has certainly increased awareness of the need to be compliant, it has also given rise to much misinformation and misunderstanding.

Linear Acoustic understands both the letter and the spirit of CALM, and knows the documentation andust-enforcement that are referenced in the legislation well. While we are in the business of building and manufacturing the equipment you need to take your order and ship off a product. We are here to provide information, knowledge, and expertise in choosing, purchasing, installing, configuring, and supporting your new purchase. Our responsibility to you doesn’t end with the sale, it begins there.

If you are concerned about whether your station is truly ready for CALM, please call us: 717-735-3505, e-mail us: sales@linearacoustic.com, or visit the support section of our website at http://linearacoustic.com
BEGINNING-TO-END QUALITY AND COMPLIANCE.

When, where and how to measure your audio is your choice. From production to transmission, our products are built for one purpose - digital audio perfection. www.linearacoustic.com

TRUST YOUR AUDIO TO A TECHNOLOGY AND ENGINEERING EMMY® AWARD WINNING COMPANY.