

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Amendment of Parts 73 and 74 of the)
Commission’s Rules to Establish Rules for Digital) MB Docket No. 03-185
Low Power Television, Television Translator, and)
Television Booster Stations and to Amend Rules)
For Digital Class A Television Stations)

**REPLY COMMENTS OF
ZENITH ELECTRONICS CORPORATION**

Zenith Electronics Corporation (“Zenith”) hereby submits these reply comments in the above-captioned proceeding, in which the Commission seeks to establish a regulatory framework for the conversion of low power television (“LPTV”) and television translator stations to digital operation.¹ In particular, Zenith (1) urges the Commission to adopt use of the “regenerative” transmission mode for translators rebroadcasting digital television (“DTV”) signals; and (2) opposes the proposal advanced by Community Broadcasters Association (“CBA”), and by a smattering of other commenters,² that the Commission permit Class A and LPTV stations to “experiment” with technical standards other than 8-VSB. As discussed more fully below, such experimentation would in no way advance the transition to digital television and is unworthy of serious consideration.

¹ 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, Notice of Proposed Rule Making, MB Docket No. 03-185, FCC 03-198 (rel. August 29, 2003) (“NPRM”).

² See Comments of WatchTV, Inc.; Keily Miller; Viacel Corporation; P&P Cable Holdings, L.L.C.; TV-61 San Diego, Inc.; and H&R Production Group, LLC.

Zenith has long been at the forefront of the DTV transition, both as the primary developer of the 8-VSB transmission system at the heart of the FCC's DTV standard, and as a leading provider of digital high-definition television equipment. As such, we are enthusiastic about the significant progress made to date in the DTV transition. And, as a long-time leader in providing advanced DTV on-channel repeater technologies to rural broadcasters, we commend the Commission for initiating this proceeding to foster the ubiquitous deployment of digital technology to all Americans, including those in smaller markets and rural areas who rely upon the nation's system of LPTV and translator stations. The Commission must ensure, however, that these stations provide the highest quality DTV service possible so that all consumers can participate equally in the digital migration. In this regard, Zenith supports the use of "regenerative" digital translators.

As the Commission has noted, the technical quality of a DTV signal transmitted by a translator using the regenerative mode is far superior to that transmitted by a translator using the heterodyne frequency conversion mode.³ Indeed, Zenith has long pursued the development of products utilizing the regenerative mode for use with 8-VSB technology because of the regenerative mode's superior ability to mitigate interference. Accordingly, Zenith urges the agency to adopt the regenerative mode as the appropriate rebroadcast transmission mode for DTV translators.

With regard to the suggestion that Class A and LPTV stations be allowed to "experiment" with alternatives to the 8-VSB system, Zenith strongly opposes the proposal. The Commission unanimously adopted the 8-VSB system as its digital broadcast transmission standard following years of development and extensive testing under the auspices of the FCC's Advisory Committee on Advanced Television Services

³ See NPRM at ¶14.

(“ACATS”) and the Advanced Television Systems Committee (“ATSC”). Study after study, conducted at literally thousands of field test sites during an extraordinarily open, scientifically rigorous and painstakingly scrutinized peer review process, confirmed that the 8-VSB standard is superior in its ability to replicate analog service areas, thereby delivering DTV service to the largest number of viewers and satisfying the Commission’s top priority in the digital transition.

Despite this conclusion, in earlier stages of the DTV proceeding the Commission has had occasion to address requests from various parties that it permit alternative transmission standards other than, or in addition to, 8-VSB. In its first DTV periodic review, the Commission rejected suggestions that broadcasters be given the option of using COFDM transmission systems.⁴ Citing the industry’s reaffirmation of its endorsement of the 8-VSB standard following an extensive DTV receiver testing program, as well as the results of OET field tests, the Commission concluded that

the relative benefits of changing the DTV transmission system to COFDM are unclear and would not outweigh the costs or delays involved in making such a revision. . . . The industry and OET tests and other information submitted in the record indicate that DTV receivers are improving significantly, shortcomings of the early DTV receiver implementations are being addressed, and the system is sufficiently flexible to accommodate future improvements.⁵

In essence, CBA and its supporters seek to take the Commission down this already-traveled road, but at a far later stage of the DTV transition. Like the parties advocating use of the COFDM standard in the first periodic review, CBA asserts that

⁴ See Review of the Commission’s Rules and Policies Affecting the Conversion To Digital Television, Report and Order and Further Notice of Proposed Rule Making, 16 FCC Rcd 5946 (2001) (“First Periodic Review Order”).

⁵ Id. at 5980.

“there is not unanimity in the industry that 8-VSB is the best available standard,” and suggests that “allowing Class A and LPTV stations to experiment with different technical standards would be a very good way for the Commission to learn more about whether alternative systems might result in better service to the public.”⁶ As noted above, however, the Commission concluded three years ago—based on the results of numerous independent tests—that there was insufficient technical evidence to warrant altering the DTV transmission standard. It further found that the 8-VSB system was sufficiently flexible to accommodate further improvements.⁷

Perhaps most importantly at this stage of the transition, however, the Commission has already concluded that any benefits of modifying the DTV transmission system are outweighed by the costs and delays involved.⁸ Permitting the use of one or more alternative transmission standards would require the development of complete alternative standards, achievement of an industry consensus on those standards, and extensive testing. It could result in compatibility problems that could cause consumers and licensees to postpone purchasing DTV equipment.⁹ It would require the modification of spectrum use plans and analysis of the impact of alternative transmission systems on the existing allotment and technical rules for DTV. And it would cause uncertainty to

⁶ CBA Comments at 16.

⁷ See First Periodic Review Order, 16 FCC Rcd at 5978-80. In reply comments earlier in this year in the second DTV periodic review, Zenith observed that, at the request of broadcasters for more flexibility in their digital transmissions, it had assisted in the development of an enhancement to the ATSC A/53 standard called Enhanced 8-VSB. This enhancement will allow broadcasters to decide dynamically how much data to transmit in the normal 8-VSB mode and how much to transmit in the E-VSB mode. It will provide broadcasters the flexibility to enhance indoor, portable and potentially even mobile reception capabilities while retaining the ability to provide the highest quality of high-definition video signal. See Reply Comments of Zenith in MB Docket No. 03-15 (May 21, 2003), at 3-4.

⁸ First Periodic Review Order, 16 FCC Rcd at 5979.

⁹ See Letter to Martin R. Leader, Esq., FCC 00-35 (Feb. 4, 2000).

manufacturers who are investing millions of dollars in designing and making DTV products based on the established standard. Moreover, Zenith submits that very few, if any, manufacturers would be inclined to add to the cost and complexity of their products simply to accommodate an additional DTV transmission system that would necessarily have a limited number of users. Finally, as the number of 8-VSB receivers in the home continues to grow at an ever-increasing rate (spurred even faster by the Commission's DTV tuner mandate, which takes effect beginning in mid-2004), the introduction of an alternative modulation scheme at this juncture would only serve to confuse and frustrate consumers, especially those who rely on Class A or LPTV service. With an alternative transmission system, these viewers would see their existing DTV receivers go dark.

These considerations factored into the Commission's decision in 2001 to reject any modification of the DTV transmission standard. They hold even more weight today, three years later, as the DTV transition nears completion. Some 1,200 DTV stations are now on the air; millions of DTV products have been manufactured and sold; and the quantity of DTV programming available to the public is steadily increasing. Allowing Class A and LPTV stations to utilize – or even experiment with – alternative DTV transmission systems would produce little if any benefit to the television viewing public, but at this late date would almost certainly result in serious and lasting disruption and delay in the realization of a nationwide digital television system.¹⁰

¹⁰ Class A and LPTV stations are integral components of our national system of television stations. They are uniquely suited to providing specialized “niche” programming to narrower (including ethnic) audiences and particularly localized news and information to areas and communities that are underserved by full-power stations. Many Class A and LPTV stations are also primary affiliates of national networks, particularly UPN and WB, in smaller markets. It would be a mistake, therefore, for the Commission to adopt CBA's vision of the Class A and LPTV services as laboratories for experimental uses of alternative digital transmission standards.

CONCLUSION

Zenith continues to share the Commission's vision of a nation in which all Americans are able to enjoy the benefits of digital television. We support the Commission's efforts in this proceeding to expand the transition to encompass the numerous operating Class A, LPTV and translator stations, which play a vital role in bringing the nation's television service to smaller communities and specialized audiences. Accordingly, given the superior technical quality of digital signals retransmitted by translators using the regenerative mode, Zenith urges the Commission to require that all translators use this technology. Moreover, in light of the FCC's goal to expedite the transition to nationwide DTV service, Zenith opposes the proposal by CBA and others to allow Class A and LPTV stations to experiment with alternative DTV transmission systems. The Commission rejected the notion of modifying the transmission standard three years ago, and, even more at this late stage, permitting the use of alternative transmission systems would severely delay and disrupt the DTV transition.

Respectfully submitted,

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December 24, 2003