

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Implementation of Section 304 of the Telecommunications Act of 1996)	CS Docket No. 97-80
)	
Commercial Availability of Navigation Devices)	
)	
Compatibility Between Cable Systems and Consumer Electronics Equipment)	PP Docket No. 00-67
)	

**COMMENTS OF THE NATIONAL ASSOCIATION OF BROADCASTERS
AND
THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC.**

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Summary

The National Association of Broadcasters and the Association for Maximum Service Television, Inc. comment on the Agreement and proposed rules submitted to the FCC by the Consumer Electronics Association and the National Cable Television Association on a cable compatibility standard for an integrated, unidirectional digital cable television receiver and other products. NAB and MSTV were gratified that CEA and NCTA had concluded their years' long negotiations on a basic digital "cable-ready" receiver, thus achieving cable/DTV inter-operability so central to consumer participation in the DTV transition. NAB and MSTV have long urged the FCC to step in and force the parties to agree on cable/DTV inter-operability requirements. We believe that agreement has finally been reached *only* because of the forceful demands of Chairman Powell and Media Bureau Chief Ferree, and we commend them for their actions. We also applaud Chairmen Upton and Tauzin and Congressman Markey for their leadership in bringing the parties to agreement.

But NAB and MSTV were greatly disappointed that the industry standard developed by set manufacturers (along with broadcasters and other industry participants) defining the parameters of a "cable-ready" DTV receiver was not the one included in the CEA-NCTA Agreement, to the tremendous detriment of cable consumers and the DTV transition. Inclusion of that industry standard would all but assure over-the-air reception capability in "cable-ready" digital receivers, thus meeting the expectations of consumers that "televisions," including "cable-ready" televisions, would include the capability for over-the-air reception.

NAB and MSTV believe that the lack of 8-VSB tuning capability in “cable-ready” receivers would be contrary to the public interest, frustrate expectations of consumers and leave them with less capable devices, undermine the DTV tuner mandate and slow the DTV transition. As Chairman Tauzin has commented, “consumers reasonably expect that in the future their TVs will receive broadcast signals just as they do today.” Chairman Powell emphasized this point when the DTV tuner mandate was adopted in saying “consumers will expect their television sets to go on working in the digital world just as they do today Indeed, the expectation that TV sets receive broadcast signals is so ingrained that consumers simply assume this functionality is incorporated into their television set.” Consumers should be able to rely on this expectation, so that the “cable-ready” DTV set they buy will continue to work off-air if they stop cable service, when the cable does down temporarily, particularly in emergency situations, and when they buy a newer DTV and move the original DTV set into a non-cable room. Without inclusion of over-the-air capability in “cable-ready” sets, DTV homes with those sets will not count towards reaching the 85% standard for ending the transition. Further, the net effect of more consumer confusion at retail stores will be to further slow the transition. To reverse this unfortunate element of the CEA-NCTA Agreement, NAB and MSTV ask the FCC in adopting the proposed rules, to so amend them to require over-the-air reception capability.

The proposed rules also must be amended to include critical PSIP, standards-based navigational data provided in the broadcast digital stream.

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THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC.**

The National Association of Broadcasters (“NAB”) and the Association for Maximum Service Television, Inc. (“MSTV”)¹ hereby respond to the *Further Notice of Proposed Rulemaking*² released by the Commission seeking comment on the Memorandum of Understanding and proposed Commission rules submitted by the Consumer Electronics Association (“CEA”) and the National Cable Television Association (“NCTA”) on a cable compatibility standard for an integrated, unidirectional digital cable television receiver and other unidirectional digital cable products.³ This

¹ NAB serves and represents the American broadcast industry as a nonprofit, incorporated association of radio and television stations and broadcast networks. MSTV represents nearly 400 local television stations on technical issues relating to analog and digital television services.

² *Further Notice of Proposed Rule Making*, In the Matter of Compatibility Between Cable Systems and Consumer Electronic Equipment, CS Docket No. 97-80, PP Docket No. 00-67 (rel. Jan. 10, 2003).

³ *Memorandum of Understanding Among Cable MSOs and Consumer Electronics Manufacturers* (hereinafter “Agreement”) (signed by Charter Communications, Inc., Comcast Cable Communications, Inc., Cox Communications, Inc., Time Warner Cable,

Agreement and proposed rules specify minimum parameters for the long-awaited “cable-ready” digital television, including both the technical requirements for direct connection of digital receivers to digital cable systems and provision of tuning and schedule information to support the navigation function of digital television receivers, including on-screen program guides.

NAB and MSTV were gratified that, finally, after years of waiting for detailed, agreed-upon specification of inter-operable DTV/cable products so central to consumer participation in the DTV transition, CEA and NCTA had concluded their negotiations on a basic digital “cable-ready receiver.” We recite below our years of urging the Commission to step in and force the parties to agree on cable/DTV inter-operability requirements, for the sake of the DTV transition and the consumers for whom the transition was begun. We believe that agreement has finally been reached because of the forceful demands of Chairman Powell and Media Bureau Chief Ferree, and we commend them for their actions. Likewise, we applaud Chairmen Tauzin and Upton and Congressman Markey for their leadership in bringing the parties to agreement.

But NAB and MSTV were surprised and disappointed that the industry standard developed by set manufacturers (along with broadcasters and other industry participants) defining the parameters of a “cable-ready” DTV receiver, EIA/CEA-818,⁴ was not the

CSC Holdings, Inc., Insight Communications Company, L.P., Cable One, Inc., Advance/Newhouse Communications, Hitachi America, Ltd., JVC Americas Corp., Mitsubishi Digital Electronics America, Inc., Matsushita Electric Corp. of America (Panasonic), Philips Consumer Electronics North America, Pioneer North America, Inc., Runco International, Inc., Samsung Electronics Corporation, Sharp Electronics Corporation, Sony Electronics, Inc., Thomson, Toshiba America Consumer Electronics, Inc., Yamaha Electronics Corporation. USA, and Zenith Electronics Corporation).

⁴ “Cable Compatibility Requirements,” EIA/CEA-818-D (Feb. 2002) (originally adopted as EIA/CEA-818, Jan. 2000.)

one included in the CEA-NCTA Agreement, to the tremendous detriment of cable consumers and the DTV transition. Inclusion of that industry standard would all but assure over-the-air reception capability in “cable-ready” digital receivers, and would thus meet the expectations of consumers that “televisions,” including “cable-ready” televisions, would include the capability for over-the-air reception. It would also meet the expectations of the DTV technical community that “cable ready” receivers would build on the foundation of the digital broadcast standard. We also comment on other matters that are incomplete or lacking in the Agreement, most particularly issues involving inclusion of critical standards-based navigational data provided by broadcasters.

I. The Long and Winding Road to Cable/DTV Inter-operability.

NAB and MSTV have urged resolution of cable/DTV inter-operability issues for more than ten years.⁵ We have pressed for FCC action to bring the consumer electronics

⁵ See, e.g., Joint Broadcaster Comments, *In re Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, MM Docket 87-268, at 18-20 (Nov. 30, 1988); Joint Broadcaster Comments, MM Docket 87-268, at 38-39 (Nov. 20, 1995); Joint Broadcaster Comments, MM Docket No. 87-268, at 19-21 (Jan. 22, 1996); Joint Broadcaster Comments, MM Docket No. 87-268, at 26-27 (July 11, 1996); Comments of MSTV, *Notice of Proposed Rulemaking, In re Carriage of the Transmissions of Digital Television Broadcast Stations, Amendment of Part 76 of the Commission's Rules*, CS Docket No. 98-120 (Oct. 13, 1998); Comments of NAB in CS Docket No. 98-120 (Oct. 13, 1998); Reply Comments of MSTV in CS Docket No. 98-120 (Dec. 22, 1998); Reply Comments of NAB in CS Docket No. 98-120 (Dec. 22, 1998); Comments of MSTV in Partial Support of the Petition for Reconsideration of the Consumer Electronics Manufacturers Association and in Partial Opposition to the Petitions for Reconsideration of Time Warner Entertainment Company and the National Cable Television Association Inc., CS Docket No. 97-80 (Sept. 23, 1998); *Ex Parte* Notice of MSTV in CS Docket No. 97-80 (May 21, 1998); *Ex Parte* Notice of MSTV and NAB in CS Docket No. 97-80 (May 28, 1998); Letter From Victor Tawil, MSTV and Henry L. Baumann, NAB, to William E. Kennard, Chairman, FCC in CS Docket No. 98-120 (June 4, 1998); Letter from Victor Tawil, MSTV, to William E. Kennard, Chairman, FCC in CS Docket No. 98-120 (Sept. 16, 1998) (urging completion of 1394

industry and the cable industry to agreement on these matters. The important inter-operability objective now agreed on here is the development of “cable-ready” digital televisions, enabling consumers to access DTV without the cumbersome addition of a set-top box. We have pressed for cable/DTV inter-operability because we believed, and believe today, that consumer ease and confidence in receiving DTV would be critical to consumers’ willingness, en masse, to purchase DTV sets and thereby move forward the DTV transition to its mandated conclusion.

specifications by the November deadline and reminding the Commission that 1394 is just one of many specifications that need to be resolved); Letter from Margita E. White, MSTV, and Edward O. Fritts, NAB, to William E. Kennard, Chairman, FCC in CS Docket No. 98-120 (November 10, 1998) (urging FCC oversight over the completion of standards-setting and the implementation of STV-receiver inter-operability); Letter from Margita E. White, MSTV, and Edward O. Fritts, National Association of Broadcasters, to Chairman Kennard *In re Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket No. 97-80 (Nov. 10, 1998); Statement of Victor Tawil, MSTV, May 20 FCC Roundtable on DTV Compatibility with Cable and Other Video Distribution Services (May 20, 1999); Statement of Lynn Claudy, NAB, May 20 FCC Roundtable on DTV Compatibility with Cable and Other Video Distribution Services (May 20, 1999); Letter from Margita E. White, MSTV, to William E. Kennard, Chairman FCC in CS Docket No 98-120 (July 22, 1999) (noting that the promises to the FCC in the wake of the Compatibility Roundtable fell far short of the FCC’s expectations); MSTV Report on DTV Implementation, CS Docket No. 98-120 (Oct. 8, 1999) (cataloging the inter-operability problems); Letter from Margita E. White to the Hon. W.J. Tauzin, Chairman, House Subcommittee on Telecommunications, Trade and Consumer Protection (Dec. 2, 1999); Letter from Edward O. Fritts, NAB, and Margita E. White, MSTV to Commissioner Ness (Dec. 20, 1999) (commenting on Dec. 10 inter-operability meeting and the unending inter-operability deliberations); Letter from Margita E. White to William E. Kennard, Chairman FCC (March 6, 2000) (expressing disappointment with the NCTA-CEA agreement). Comments of NAB and MSTV PP Docket No. 00-67 (May 24, 2000); *Ex Parte* Notice of NAB and MSTV in PP Docket No. 00-67 (Sept. 6, 2000); Reply Comments of NAB and MSTV, PP Docket No. 00-67 (June 8, 2000); Letter from NAB Television Board Chair Ben Tucker and NAB Television Board Vice Chair Paul Karpowicz to William E. Kennard, Chairman FCC (June 19, 2000); Letter from NAB and NCTA to William E. Kennard (June 29, 1999). NAB and MSTV even took advantage of a Senate hearing on the transition to DTV to demand resolution. *See also the Transition to High Definition Television: Hearings Before the Senate Comm. On Commerce, Science and Transp.*, 105 Cong. 2d Sess. (July 8, 1998) (statement of Gregory M. Schmidt, Vice President, LIN Television Corporation).

Nonetheless, waiting for cable/DTV inter-operability has been seemingly interminable. But, at long last, this Commission has forced an agreement on digital cable-ready receivers and the FCC should mandate the cable transmission standard contained therein. Unfortunately, without changes⁶ by the Commission, cable-ready sets produced pursuant to this Agreement will not meet consumers' reasonable expectations, nor will they actively spur progress in the DTV transition, for lack of over-the-air digital reception capability.

II. Over-the-Air DTV Reception Should Be Included in Cable-Ready Sets.

The lack of 8-VSB tuning capability in "cable-ready" receivers would be contrary to the public interest, contrary to the assumptions of the DTV technical community and others,⁷ frustrate expectations of consumers and leave them with less capable devices, undermine the DTV Tuner mandate and slow the DTV transition.

It has been the reasonable and long-held assumption of the DTV technical community that, as with analog "cable-ready" sets, digital "cable-ready" sets would include off-air tuning capability, as well as that needed to receive digital signals over cable. The industry standard developed in the consumer electronics forum defining the technical requirements for digital "cable-ready" receivers, EIA/CEA-818, *supra*, included

⁶ Unfortunately, the instant Agreement does not require cable-ready DTVs to have a 1394 connector, for eventual use with digital VCRs, so, unless the FCC acts to require one, consumers buying sets produced to these specifications will be frustrated in the future in attempting to connect digital VCRs and other digital devices. The sets must have either a DVI or HDMI connector and the set-top boxes must have a 1394 connection (on a "by request" and a phased in basis). We urge the FCC to mandate IEEE 1394 digital connectors on all digital devices.

⁷ "Consumers reasonably expect that in the future their TVs will receive broadcast signals just as they do today. The FCC decided to ensure this with its DTV Tuner Order in August." *Regarding the Transition to Digital Television: Hearings Before the Subcomm. On Telecommunications and the Internet*, 107th Cong. (Sept. 25, 2002) (prepared statement of The Hon. Billy Tauzin).

the capability for 8-VSB, the digital broadcast transmission standard, to be carried on the cable wire and tuned in “cable-ready” DTV receivers. Given that provision, inclusion of over-the-air digital reception capability in “cable-ready” receivers would be all but assured, because to do so would be an economically and technically trivial adaptation for receiver manufacturers.⁸ After hundreds of man-hours were devoted to developing EIA/CEA 818, it was assumed that this standard would form the basis of a cable-ready agreement with the cable industry.

As NAB and MSTV have commented before,⁹ and as the FCC has itself acknowledged,¹⁰ consumers will continue to expect that digital televisions, including “cable-ready” DTVs, will be able to receive over-the-air signals, just as in the analog world all televisions, including cable-ready sets, include over-the-air reception capability. Consumers should be able to rely on this expectation, so that the high-tech “cable-ready” DTV set they buy will continue to work off-air if they stop cable service, when the cable goes down temporarily, particularly in emergency situations, and when they buy a newer (often larger) DTV and move the original DTV set into a non-cabled room.¹¹

⁸ As CEA Vice President, Technology Policy Michael Petricone said, “The urgency of the issue [DTV/cable compatibility] was heightened by the digital tuner order issued by the Federal Communications Commission (FCC) in August. The circuitry required to add digital reception capability in a TV overlaps significantly with what is needed to add cable reception. If the outstanding cable compatibility issues are resolved immediately, the integration of both capabilities could be done simultaneously resulting in a vastly more attractive product for consumers and significant economies of scale.” CEA Press Release, Sept. 25, 2002

⁹ See, e.g., MSTV/NAB/ALTV Comments, MM Docket No. 00-39, (April 6, 2001).

¹⁰ *Report and Order*, PP Docket No. 00-67 (Sept. 14, 2000) at 27; *Report and Order and Further Notice of Proposed Rulemaking*, MM Docket No. 00-39 (Jan. 18, 2001) at 111; *Second Report and Order and Second Memorandum Opinion and Order*, MM Docket No. 00-39 (Aug. 8, 2002) at 57.

¹¹ Some 20.4% of cable homes have at least one broadcast-only set. Knowledge Networks/SRI's Spring 2002 *Home Technology Monitor Ownership Report*; U.S.

The FCC's conclusions in adopting the DTV tuner mandate last August,¹² as to consumer expectations of this basic "television" capability and as to spurring the DTV transition, apply with equal force to the "cable-ready" situation. As Chairman Powell said when the DTV Tuner Order was adopted:

"[C]onsumers will expect their television sets to go on working in the digital world just as they do today. This includes the ability to receive broadcast signals. Indeed, the expectation that TV sets receive broadcast signals is so ingrained that consumers simply assume this functionality is incorporated into their television set."¹³

And, without inclusion of over-the-air capability in "cable-ready" sets, DTV homes with those sets will not automatically be counted towards reaching the 85% standard for ending the transition. With over-the-air capability, homes with new "cable ready" sets will be counted, irrespective of cable carriage of all local broadcast DTV signals. The tremendous progress in the transition presaged by the DTV tuner mandate will be undermined by sales of "cable-only/cable-ready" DTVs, rather than enhanced.

Even the very great strides the Chairman Powell has taken to move the transition out of its sluggish pace, including the DTV tuner mandate and the Powell Plan, will have less effect, and the conclusion of the transition will be farther away, with every broadcast-incapable cable-ready set sold. And the net effect of more consumer confusion

television household estimates from Nielsen Media Research (Sept. 2002). Broadcast-only sets (i.e. those unconnected to cable) in cable homes total 19,318,395. (Computed using data from the above sources).

¹² *Second Report and Order and Second Memorandum Opinion and Order*, MM Docket No. 00-39 (rel. Aug. 9, 2002) ("DTV Tuner Order") at ¶¶ 33, 35-36, 43-44.

¹³ *Id.* at Separate Statement of Chairman Michael K. Powell.

at retail stores, the natural result of unmet expectations and uncertainty, will be to further slow the transition.¹⁴

To reverse this unfortunate element of the Agreement, NAB and MSTV ask the FCC, in adopting the proposed rules of the Agreement, to so amend them to require over-the-air reception capability, as consumers will expect.¹⁵

III. Getting the Rules Right is Key to Accelerating the Transition

The Agreement suggests a set of rule changes to cover the detailed technical characteristics of the signal delivered over the cable feed. If carefully revised, these rules can reflect the overall needs of the transition, including protection of broadcast signal integrity and ensuring consumers' use of digital television sets when they turn them on, whether or not they plug them into a cable system. If so reworded, these technical rules and the "cable ready" televisions they define can become a strong accelerator of the DTV transition. If not so revised, the "cable-ready" rules as proposed, and the resulting DTV sets, would sow further consumer confusion about the transition and not invigorate its pace.

¹⁴ See GAO Report No. GAO-03-7 Telecommunications: Additional Federal Efforts Could Help Advance Digital Television Transition (Nov. 8, 2002) at 15, 18-19 for a description of the mixed accuracy of the information about DTV provided by sales staff at some retail outlets and for the acknowledgement by executives at corporate offices of major retailers that "there is a lot of confusion among consumers about DTV equipment due to the complexities involved." *Id.* at 19.

¹⁵ Any rules for receivers must specifically require that all "cable ready" digital televisions be capable of adequately receiving all ATSC A/53B channels that are transmitted at the frequencies defined in EIA/CEA-818-D on cable and particularly those allotted by the FCC for terrestrial broadcast television channels independent of whether delivered via cable or via an antenna.

PSIP Matters

The Advanced Television Systems Committee's Standard "Program and System Information Protocol Terrestrial Broadcast and Cable" ("PSIP") has two major functional parts -- the structural inter-connections among the parts of the digital stream and the informative data about the programs. This standard contains an important set of data structures that enables selection of the providers' digital programming, including basic virtual channel selections. The second important part enables the creation of an open, standards-based Electronic Program Guide ("EPG") for the consumers' choice of channel, which is linked to the first part to enable the receiver to immediately display that choice. Over cable, these two functions can be done either via a proprietary EPG or via a standards-based means using PSIP-like structures. The Agreement and the proposed rules require use of some standards-based (and PSIP-based) means, but fail to adequately protect the integrity of the broadcasters' content carried in these structures, as discussed below. They also fall short of enabling consistent navigational choices under the control of the consumer. The rules should enable consumers to choose how they access channels (whether by EPGs proprietary to the cable system or by EPGs created by the television using PSIP). The rules also should not pre-determine the policy matter of broadcast channel labeling.¹⁶

PSIP for the out-of-band channel

The bilateral Agreement's proposed requirement to provide out-of-band system information (SCTE 65 2002) only mentioned profiles 1, 2 and 3 of that Standard. These profiles do not include any PSIP data. In the February 2000 PSIP agreement it is clear

¹⁶ NAB/MSTV Comments, MM Docket No. 00-39 (May 17, 2000) App. B at 3-4.

that profile 4 or higher (which contain the PSIP information from the broadcaster) must be used. NAB and MSTV urge the rules be amended to require Profile 4 or higher¹⁷ in compliance with the Feb 2000 PSIP agreement.

One proposed rule in the Agreement only *recommended* that the out-of-band system information data match the channel number in the in-band PSIP. For the sake of the consumer, who would justifiably be confused if the numbers vary, the two-part channel numbers for a program service must to be the same whether in-band or out-of-band. If they are, then a digital receiver with no POD module installed can label a service the same as it would be with a POD module present.

PSIP for the in-band channel

NAB and MSTV have previously objected to deletion of broadcasters' PSIP content and here re-affirm that cable operators must include the in-band information provided in the form of ATSC A/65B (PSIP) data.¹⁸ The Agreement's proposed bandwidth limit for in-band PSIP data on cable lacked any protection against such deletion. NAB and MSTV request that the proposed rules be amended to eliminate any bandwidth limit for in-band PSIP information.

¹⁷ NAB and MSTV prefer the Commission require use of Profile 5 or higher for navigation to any service that provides the PSIP data to the cable system head-end as part of the delivered transport stream. Perhaps for a transition period use of Profile 4 will encourage and enable use of Profile 5 and perhaps even lead to Profile 6 in the longer term, an objective consistent with those in the Navigational Device proceedings.

¹⁸ NAB/MSTV Comments, PP docket No. 00-67 (May 24, 2000) at fn.27.

Miscellaneous Matters

The Agreement and the proposed rules provide for review of these technical specifications every two years. NAB and MSTV believe that unless a specific petition is filed asking for a review of these rules that they should not be reviewed so often, in order to allow a sure technical foundation upon which designers can rely and thereby provide the economies of scale and stability in the marketplace for the benefit of the consumer.

IV. Conclusion

NAB and MSTV have long and strenuously advocated for transparent interoperability of cable and DTV. We have done so in order for cable consumers to have sure and easy access to DTV broadcasts, thereby removing any consumer hesitancy about the utility of DTV sets they may purchase. We therefore are heartened that there is agreement between the consumer electronics and cable industries as to the technical specifications for “cable-ready” DTVs, eliminating the necessity for a set-top box to receive today’s television programming. But, as discussed herein, we believe that this agreement should not exclude the basic function consumers expect in a television – over-the-air reception capability. To do so would be to give with one hand and take with the other. To short-change consumers at the advent of the new era of television would be short-sighted and not in the public interest. So too must the new cable-ready sets enable consumers to access and use the critical program and tuning information provided by the PSIP industry-standard carried in the broadcast digital stream. NAB and MSTV urge the Commission to ensure that consumers have what works and what they expect from new digital televisions, rather than allowing them to suffer confusion and frustration that can slow rather than energize the transition. We therefore urge the Commission to add to and

amend the proposed rules of the Agreement as detailed herein, thereby achieving one the critical pieces of this transition of television to a new digital era.

Respectfully submitted,

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