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TV TechCheck

NAB NATIONAL ASSOCIATION OF BROADCASTERS

The Weekly NAB Newsletter for Television Broadcast Engineers

Broadcasters and Others File Comments in the FCC's Innovation in the Broadcast Television Bands Proceeding

On March 18, 2011, fifty-eight parties including NAB, MSTV and a number of broadcasters filled comments in the FCC's Notice of Proposed Rule Making (NPRM) which sought information on certain aspects of the proposal to reclaim 120 MHz of UHF broadcast spectrum and reallocate it to the wireless broadband industry (see December 6, 2010 issue of *TV TechCheck*).

In the joint comments of NAB and MSTV, while we commended the Commission for seeking public comment on the three issues raised in the NPRM – allocations, channel sharing and improvements to VHF – we noted however that this NPRM addresses only three discrete matters when, in reality, the issues surrounding the reallocation of broadcast spectrum are far broader. The three proposals discussed in the NPRM are integrally related to an array of other issues that are not formally within the scope of this NPRM. NAB and MSTV pledged to work with policymakers to fashion a comprehensive plan for promoting the best possible broadcast and broadband systems for all Americans.

NAB and MSTV told the Commission that its goal should be a robust American communications ecosystem that facilitates growth and innovation in both wireless broadband and broadcasting. A corollary to this fundamental theme is that the Commission should evaluate and resolve holistically the numerous complex and interrelated issues implicated by calls for significant spectrum reallocations, not just the three proposals on which this NPRM invites comment. We suggested a roadmap that takes into account the more complex relationships among this broader range of issues telling the Commission that they should:

- assess the capability of technological breakthroughs to enhance the wireless industry's ability to use its existing spectrum resources more efficiently, and evaluate other ways to alleviate the capacity crunch the wireless industry may be facing;
- complete and seek comment, as urged in pending legislation, on the results and implications of its survey of utilization of spectrum under its jurisdiction and the spectrum surveys undertaken by other government agencies, per the President's memorandum of June 28, 2010;
- assess the trade-offs associated with shifting significant amounts of spectrum dedicated to broadcasting to wireless broadband services, and weigh the potential consumer and competitive harms of reallocating spectrum from the public's free broadcasting services to subscription wireless operations;
- explore other means of expanding broadband access; and
- make public, and solicit and consider comment on, closely related issues before it acts on the three issues targeted for discussion by this NPRM.

In Section II of our comments, NAB and MSTV addressed the three proposals identified in the NPRM. The Commission's proposal concerning co-primary spectrum allocations in the broadcast band raises a number of questions that illustrate why the Commission should not act on that one issue alone without addressing interrelated issues such as repacking and auctions. With respect to channel-sharing, we agreed with the Commission's proposal that any channel-sharing construct must be voluntary and that private parties that agree to enter into channel-sharing arrangements generally will be the best-positioned and most appropriate parties to sort out the complex issues raised by channel-sharing.

Finally, while we commend the Commission for seeking comment on ways to improve reception in the VHF band, the proposals put forth in the NPRM will offer only limited benefits. We stated that, although power increases may in some

cases yield meaningful improvements in reception for high VHF stations, such increases may also produce interference and are less likely to yield improvements in reception for low VHF stations. With respect to the proposed required antenna performance standards, NAB and MSTV suggested that the Commission explore mandatory labeling of antennas and a standardized measurement procedure and metrics for antenna performance in the different television frequency bands. These measures would help ensure that consumers can obtain effective and appropriate reception capability when purchasing antennas.

A number of broadcast entities also told the FCC that their proposed improvements for VHF reception would likely yield only marginal results. Some commenters stated that without directly addressing ways to minimize the noise generated by consumer products, the power increase and antenna performance requirements proposed by the Commission would not be sufficient to improve indoor VHF reception. Many broadcasters also cited data presented at the FCC's Broadcast Engineering Forum which cast substantial doubt on the ability to make meaningful improvements in VHF reception. An excellent assessment of the FCC's proposed improvements to VHF reception is contained in an Engineering Statement attached to the comments of Ion Media Networks Inc.

The filed comments are available on FCC Web page in the Electronic Comment Filing System ECFS. On the search page put 10-235 in the "Proceeding Number" cell and set the "Received Date" to "from" 3/18/ 2011. Information on the Broadcast Engineering Forum is available online.

CEA's Brian Markwalter to Keynote NAB Broadcast Engineering Conference

Come hear Brian Markwalter's keynote address at the Broadcast Engineering Conference on Sunday, April 10 at 9:00 a.m. titled, *Change as Big as the Internet.*

In Brian's words, "In the beginning there was AM radio. Then came FM, doubling the number of channels on a radio receiver. Many years later came satellite radio, doubling the number of channels again. Now radio receivers are being connected to the Internet and the number of channels isn't just doubling, it's increasing exponentially.

Television receivers have evolved similarly. They started with VHF, then expanded into UHF. Then cable and satellite TV spread across the land, dramatically increasing the number of channels on a typical receiver. But now, as TV receivers plug into the Internet, the amount of content available seems almost infinite.

What does this mean for traditional AM, FM and TV receivers? That's what this talk will be about."

Brian Markwalter is Vice President of Research and Standards for the Consumer Electronics Association (CEA) representing the $180 billion U.S. consumer technology industry. Brian is responsible for overseeing CEA's ANSI-accredited standards development operation, market research capability and represents CEA's technical interests in industry and international venues related to digital television, broadband access, spectrum management, standards and intellectual property, smart grid and energy efficiency. He holds BS and MS EE degrees from the Georgia Institute of Technology. For additional information visit the NAB Show Broadcast Engineering Conference Web page.

IEEE Broadcast Technology Society Issues Call for Papers

A Call for Papers has been issued for the 2011 IEEE Broadcast Symposium, to be held October 19-21, 2011, in Alexandria, Va. The Symposium Committee seeks timely and relevant technical papers relating to all aspects of broadcast technology, in particular on the following topics:

- Digital radio and television systems: terrestrial, cable, satellite, Internet, wireless
- Mobile DTV systems (all aspects, both transmission and reception)
- Technical issues associated with the termination of analog television broadcasting
- Transmission, propagation, reception, re-distribution of broadcast signals
- AM, FM, and TV transmitter and antenna systems
- Tests and measurements
- Cable and satellite interconnection with terrestrial broadcasters
- Transport stream issues – ancillary services
- Unlicensed device operation in TV white spaces
- Advanced technologies and systems for emerging broadcasting applications
- DTV and IBOC reception issues and new technologies
- ATSC and other broadcast standards developments
- Broadcast spectrum issues – re-packing, sharing

The submission deadline for abstracts is May 1, 2011. There is additional information on the Symposium on the IEEE Broadcast Technology Society website.