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Radio TechCheck

The Weekly NAB Newsletter for Radio Broadcast Engineers



Comments Filed in Incentive Auctions and Part 74 Wireless Microphones Proceedings

On January 25, 2013, comments were due on two important FCC proceedings that will significantly impact the future of broadcasting.

Incentive Auctions. NAB submitted comments in response to the FCC's **Notice of Proposed Rulemaking** on *Expanding the Innovative Opportunities of Spectrum Through Incentive Auctions* in Docket No. 12-268. This proceeding implements the Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act) in which Congress gave the FCC authority to conduct an incentive auction of broadcast television spectrum. The incentive auction has three parts: 1) a "reverse auction" in which broadcast television licensees submit bids to voluntarily relinquish spectrum in exchange for payments; 2) a reorganization or "repacking" of the broadcast spectrum to free up a portion of the UHF band for wireless broadband; and, 3) a "forward auction" in which wireless carriers will purchase spectrum.

NAB comments are intended to ensure that FCC abides by the broadcaster protections contained in the Spectrum Act. A summary of NAB's major points are:

- Implementing a first of its kind incentive auction is a daunting task and rather than creating artificial timetables the FCC should strive to get the auction *right* as opposed to done.
- The Spectrum Act requires international coordination prior to conducting an auction and the FCC should coordinate with Canada and Mexico as soon as possible to permit repacking as well as the introduction of new wireless services.
- FCC should expeditiously release the software it intends to use in any repacking so that it may be tested by all interested parties and to verify its accuracy.
- NAB points out that the FCC's proposed lead proposal with regard to a band plan is fatally flawed technically and overlooks or ignores significant engineering problems such as having high powered broadcast operations in the duplex gap will result in interference to both broadcasting and wireless operations.
- FCC must update its key goals to better reflect Congressional intent and protect viewers. For example, key goals should include protecting the many millions of over-the-air television viewers and minimizing the number of stations that have to change channels in any repacking.
- The repacking process must be simple, transparent and robust. The FCC must discuss in detail and release any repacking model and software.

- Besides making any software available, the Spectrum Act requires that the any repacking must ensure that broadcasters are not harmed and that stations retain the *same coverage* and *same population* without any reduction. In this regard, NAB supports adopting the FCC's Option 2 proposal provided the amount of new interference to any station is capped at 1% and every effort is made to not add any new interference to stations that are currently experiencing 10% or more interference within their service areas.
- Construction permits and station modifications necessitated by the DTV transition should be fully protected.
- NAB noted that the FCC's lead proposal for a band plan that placed high power television stations in the duplex gap between wireless up and downlinks was fatally flawed and would result in interference to both broadcasting and broadband operations; and that the variable aspect of the band plan (having different spectrum amounts in different locations) is unworkable. NAB notes the variable approach would result in interference and would require large protection zones to prevent interference making the plan spectrally inefficient.
- NAB stated that a band plan with nationwide contiguous spectrum blocks for both wireless and broadcasting is the simplest, most flexible and most beneficial approach for broadcasters, wireless providers and, most importantly, American consumers.
- FCC must maintain two dedicated channels for wireless microphones and allow licensed Part 74 operations to operate on any new unlicensed spectrum with protection from White Space devices.
- Finally, the FCC must ensure that broadcasters are reimbursed for *all* reasonable costs in a timely, uniform and equitable manner.

A copy of NAB's comments can be found at <http://apps.fcc.gov/ecfs/document/view?id=7022111954>. Reply comments in this proceeding are due March 12, 2013.

Wireless Microphones. The second item concerns the use of wireless microphones and other Part 74 operations and affects both TV and radio broadcasters.

NAB submitted these comments in response to an FCC Public Notice in which the Commission's Wireless Telecommunications Bureau and Office of Engineering and Technology seek to update and refresh the record in the "Wireless Microphone Proceeding." See **Public Notice**, WT Docket Nos. 08-166 and 08-167 and ET Docket No. 10-24, DA 12-1570 (Oct. 5, 2012).

In the Public Notice, the Commission asked about expanding the eligibility for licensing wireless microphone users under Part 74; whether it should eliminate the two "safe harbor" channels established in the TV White Space rule making; and whether to require a transition to digital wireless microphones.

Eligibility. In its comments, NAB noted and gave examples of the important functions Part 74 equipment plays in the production of broadcast programming and electronic news gathering (ENG). NAB supported a limited expansion of Part 74 licensed wireless microphone eligibility for four limited categories of users: theaters, live music producers, government bodies, and houses of worship; subject to restricting unlicensed wireless microphones in the television band. NAB noted that these four categories were proposed in its earlier filing.

Safe Harbor Channels. NAB supported maintaining the two safe harbor channels. It noted that these channels were established to ensure an interference-free home (from TV White Space devices) so that unscheduled wireless microphone operations such as those used in ENG can be accommodated. NAB

noted that with the proposed repacking and reduction of available TV spectrum as a result of Incentive Auctions these two channels will become even more important. If the safe harbor channels are reduced, NAB states that the TVWS protections must be improved to protect ENG and other unscheduled events.

Digital Microphones. NAB stated that a decision to transition to digital microphones is premature and there is not enough real world experience with these devices. NAB noted that besides the number of microphones that can operate in a TV channel, other factors such as communication range, audio quality, robustness to interference, latency and signal degradation need to be taken into account. NAB also noted that many broadcasters recently undertook major investments in new equipment due to the involuntary transition of vacating channels 52-69. NAB agreed that it is important to explore this issue but that a transition is premature.

A copy of NAB's comments can be found at <http://apps.fcc.gov/ecfs/document/view?id=7022112095> . Reply comments are due March 12, 2013.

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