



NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL

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June 30, 2008

The Honorable Kevin Martin  
Chairman  
Federal Communications Commission  
445 12th St., S.W.  
Washington, DC 20554

Re: Wireless Microphone and Audio  
Devices in the 700 MHz Band

Dear Chairman Martin:

The 700 MHz band spectrum is an essential resource for public safety, both to support mission critical narrowband systems and the prospective nationwide interoperable broadband system. On behalf of the National Public Safety Telecommunications Council (NPSTC), this letter urges the Commission to take action to ensure that wireless microphone and other similar audio devices would no longer be certified or marketed in the 700 MHz public safety spectrum. In addition, steps should be taken to start an aggressive and rational transition of any such devices operating in this spectrum to other solutions. Together, these actions should ensure that public safety can fully utilize its 700 MHz spectrum with no risk of interference from wireless microphones and other audio devices. While not NPSTC's primary concern, we also note that such steps should be beneficial for wireless microphone users as well since they would increasingly be at risk of receiving interference from higher powered operations at 700 MHz as public safety deployments increase when analog TV is cleared from the band.

February 17, 2009 marks the end an era for full power analog television and signals the beginning of a new era in TV broadcasting history with the transition to digital television. This date is also significant for public safety. With the clearing of analog TV, public safety will have access to spectrum in the 700 MHz band across the country. Approximately 45 narrowband 700 MHz mission critical public safety systems have already been deployed in areas where TV incumbency is not a problem and the February 2009 date is sure to usher in additional deployments throughout the U.S. In addition, the Commission is also taking steps to enable a public safety interoperable

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American Association of State Highway and Transportation Officials | American Radio Relay League | Association of Fish and Wildlife Agencies | Association of Public Safety Communications Officials | Forestry Conservation Communications Association | International Association of Chiefs of Police | International Association of Emergency Managers | International Association of Fire Chiefs | International Municipal Signal Association | National Association of State Chief Information Officers | National Association of State Emergency Medical Services Officials | National Association of State Foresters | National Association of State Technology Directors | National Emergency Number Association | National Sheriffs' Association

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broadband network at 700 MHz and NPSTC looks forward to broadband deployments at 700 MHz in the near future as well.<sup>1</sup>

While full power analog TV stations are required by law to vacate the 700 MHz band no later than February 17, 2009, there is no wholesale requirement to clear low power TV stations (LPTV), TV translators, and ad hoc auxiliary broadcast operations, including wireless microphones and other similar devices, from the band. Under the Federal Communications Commission (FCC) rules, these uses have secondary status to public safety users. Unfortunately, there is a potential risk of harmful interference to public safety from these secondary users. An entity with secondary status must resolve the interference it causes to primary users or discontinue operation. Public safety communications involve safety of life and therefore licensees cannot afford to wait until interference exists but must eliminate the potential for interference before it occurs.

Early this year, with the support of staff in the Public Safety and Homeland Security and Media Bureaus, NPSTC initiated an awareness campaign regarding LPTV use at 700 MHz. The focus of this campaign is to ensure that public safety regional planning bodies and agencies alert LPTV licensees of the need to move from the 700 MHz band in a given area as systems are planned for deployment. Public Safety agencies in some areas have also had cooperation from the Society of Broadcast engineers in this initiative. At this stage, we believe these steps will result in voluntary action by LPTV licenses to move out of 700 MHz public safety spectrum when requested to do so. However, should public safety encounter any uncooperative LPTV licensees we will bring that to the Commission's attention and request further assistance.

In contrast, NPSTC recommends the Commission engage now to address clearing wireless microphones for the 700 MHz public safety band. Given the nature of the market for wireless microphones and similar audio devices, NPSTC believes Commission action is necessary to ensure such devices do not interfere with public safety 700 MHz operations going forward. Wireless microphone use falls into two categories. Broadcasters are allowed to use spectrum not occupied by TV for broadcast auxiliary operations, including wireless microphone use. These operations, which occur on an ad hoc basis under the provisions of Part 74 of the Commission rules, are coordinated through the Society of Broadcast Engineers (SBE).<sup>2</sup> In addition to broadcast and auxiliary uses licensed "by rule," churches, schools, hotels bands, businesses, and others use wireless microphones on an unlicensed basis. While not authorized under any Commission rule, these devices are nonetheless prevalent in the market.

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<sup>1</sup> In the Matter of the Service Rules for the 698-746, 747-762 and 777-792 MHz Bands and Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, *Second Further Notice of Proposed Rulemaking*, WT Docket 06-150 and PS Docket No. 06-229, FCC 08-128 (released May 14, 2008).

<sup>2</sup> See Subpart H—Low Power Auxiliary Station § 74.801, licensed under the requirements of 47 Code of Federal Regulations (CFR) § 74.832 and adhering to Technical Requirements of 47 CFR § 74.861.

Some reputable wireless microphone and audio device manufacturers have already begun designing new products for the U.S. market that avoid the 700 MHz band, however, we believe the Commission should take specific action to ensure that all manufacturers cease certifying, marketing and importing wireless microphones and similar devices capable of operating in the public safety 700 MHz band spectrum. In addition, there is a significant embedded base of wireless microphones, both licensed and unlicensed, already in the market and some unspecified number operate at 700 MHz. NPSTC recommends the Commission expeditiously initiate an aggressive and rational transition within which users must find other solutions for any microphones operating on the 700 MHz public safety spectrum.

Licensed wireless microphones are authorized under Part 74 of the rules, therefore, NPSTC presumes that restrictions in using these devices in the 700 MHz band is likely to require a rulemaking proceeding. If that is correct, we urge the Commission to initiate such a rulemaking expeditiously. Licensed microphones and audio devices tend to be managed by professional sound engineers who coordinate operations with the SBE. Therefore, we believe as a practical matter, the SBE can be of assistance to the Commission to speed this transition for the imbedded base of any licensed microphones operating in the 700 MHz public safety spectrum, even if a rulemaking is required. To NPSTC's knowledge, nothing prevents the SBE from refusing to coordinate wireless microphone operations at 700 MHz while the rulemaking process takes place. Based on informal conversations with SBE representatives, we believe this has already started to occur.

Unlicensed microphones present a different situation. Legally, unlicensed wireless microphones already have no authority to operate. As the Commission is aware, however, these devices are prevalent in the market, are normally distributed from manufacturers through a multitude of independent dealers, music stores, web sales, etc. and are deployed by many churches, schools and businesses. Since they are not authorized and there are no "rules" to be changed, NPSTC recommends the Commission consider taking action on unlicensed use without the natural delay inherent in a rulemaking.<sup>3</sup> For example, the Commission could issue a Public Notice advising the public of the transition in use of the 700 MHz spectrum to public safety and noting that to ensure interference does not occur to these critical services, operations in the 700 MHz public safety spectrum must cease. Also, the Public Notice could indicate that Notices of Apparent Liability for Forfeiture will be issued to users for any wireless microphones found operating on the public safety 700 MHz channels after February 17, 2009, or immediately to any user found interfering with public safety 700 MHz operations even before the February 17, 2009 deadline. The Commission's existing procedures applicable to unlicensed operations could guide issuance of any citations. NPSTC believes this is a rational approach which will protect public safety, yet provide time for microphone manufacturers, dealers and users to make the transition to other channels.

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<sup>3</sup> It is not unusual for the rulemaking process to span 18 months or more from initiation to final decision.

In summary, NPSTC recommends the Commission take the following action:

- Initiate a rulemaking proceeding to prohibit certification, marketing, import and licensed use of wireless microphones, in-ear monitoring systems and other such low power wireless audio devices capable of operating in the public safety 700 MHz band, i.e., 763-775/793-805 MHz.<sup>4</sup>
- Expeditiously issue a Public Notice targeted toward wireless microphone manufacturers and dealers advising of the transition in use of the 763-775/793-805 MHz spectrum and need to cease unlicensed operations in those band segments. The Public Notice could address that to ensure interference does not occur to these critical services, the Commission plans to issue Notices of Apparent Liability for Forfeiture to unlicensed users for any wireless microphones, in-ear monitoring systems and other such low power wireless audio devices found operating within the public safety 763-775/793-805 MHz spectrum after February 17, 2009, or immediately to any unlicensed user confirmed to be interfering with public safety 700 MHz operations even before the February 17, 2009 deadline.

The Commission's commitment to public safety communications has led to tangible improvements. The National Public Safety Telecommunications Council urges the Commission to continue these efforts by ensuring Public Safety has full use of the band without risk of interference from licensed or unlicensed wireless microphones and similar devices.

Respectfully,



Ralph Haller, Chair  
NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL  
8191 Southpark Lane, #205  
Littleton, Colorado 80120-4641  
866-807-4755

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<sup>4</sup> While not the key issue for NPSTC, such a rulemaking could also consider whether or not prohibitions on certifying, marketing, importing or using wireless microphones should extend to the entire 700 MHz band, i.e., 698-806 MHz. We note that auction winners recently spent almost \$20 billion to obtain the commercial segments of this band.

Copy provided to:

The Honorable Michael J. Copps  
The Honorable Jonathan S. Adelstein  
The Honorable Deborah Taylor Tate  
The Honorable Robert M. McDowell  
Chief Derek Poarch, Public Safety and Homeland Security Bureau  
Ms. Monica Desai, Chief, Media Bureau  
Mr. Julius Knapp, Chief, Office of Engineering and Technology  
Mr. James Schlichting, Acting Chief, Wireless Telecommunications Bureau  
Ms. Erika Olsen, Deputy Chief, Public Safety and Homeland Security Bureau  
Mr. Joel Taubenblatt, Deputy Chief, Wireless Telecommunications Bureau  
Mr. Jeff Cohen, Senior Legal Counsel, Public Safety and Homeland Security Bureau