

**Association of Public-Safety Communications Officials (APCO)
CTIA—The Wireless Association®
National Emergency Number Association (NENA)
National Public Safety Telecommunications Council (NPSTC)
Rural Cellular Association (RCA)**

November 25, 2008

Via Electronic Filing

Chairman Kevin J. Martin
Commissioner Michael J. Copps
Commissioner Jonathan S. Adelstein
Commissioner Deborah Taylor Tate
Commissioner Robert M. McDowell
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Revisions to Rules Authorizing the Operation of Low Power Auxiliary Stations in the 698-806 MHz Band, et al., WT Docket Nos. 08-166 & 08-167*

Dear Chairman Martin and Commissioners:

The *700 MHz Wireless Microphone* proceeding¹ raises a matter of immediate and considerable public concern: wireless microphones and other low power auxiliary station (“LPAS”) devices that operate on the 700 MHz frequencies expose first responders, the public they protect, and commercial wireless subscribers to a significant risk of disrupted communications. The undersigned associations, on behalf of public safety and commercial wireless 700 MHz licensees, support the Commission’s tentative conclusion that this spectrum must be cleared of all LPAS devices. While developing and implementing a comprehensive plan for clearing the spectrum may take additional time, we ask the Commission to issue an order *by year’s end* to reduce further risk of harmful interference. Specifically, the Commission should immediately take the following steps:

- Prohibit the manufacture, import, sale, offer for sale, or shipment of LPAS devices that operate in the 700 MHz band, including wireless microphones, effective thirty (30) days after publication in the Federal Register. Expressly require retailers to remove from inventory and store shelves wireless microphones and other LPAS devices that are capable of operating on the 700 MHz frequencies (“700 MHz-capable LPAS devices”).

¹ *Revisions to Rules Authorizing the Operation of Low Power Auxiliary Stations in the 698-806 MHz Band, et al., WT Docket Nos. 08-166 & 08-167, Notice of Proposed Rulemaking and Order* (rel. Aug 21, 2008) (“*700 MHz Wireless Microphone NPRM*” or “*Notice*”).

- Confirm that existing rules governing authorized Part 74, Subpart H wireless microphones and other LPAS devices only permit operations on a secondary basis, and that these devices are prohibited from causing harmful interference to new commercial wireless and public safety licensed operations in the 700 MHz band.² Confirm that in the event of such interference, wireless microphones must immediately cease operations. Further, announce that the Commission will take action to ensure that any LPAS devices interfering with 700 MHz operations are shut down.
- Issue a public notice and consumer advisory to alert manufacturers, wholesalers, retailers and consumers that the manufacture and sale of 700 MHz-capable wireless microphones or other LPAS devices is prohibited.

Even with these actions, there remains a significant base of authorized *and* unauthorized wireless microphones in the 700 MHz band, posing a serious interference risk to new public safety and commercial wireless operations in the band. The Commission must devise an enforceable plan to ensure that these users migrate out of the band, but should adopt the intermediate steps described above immediately to stop the introduction of additional 700 MHz-capable LPAS devices and reaffirm that interference from existing LPAS operations will not be permitted.

Wireless Microphones and Other LPAS Devices in the 700 MHz Band Will Disrupt Public Safety and Commercial Wireless Operations. The *Notice* properly expressed the Commission’s “concern[] about the potential for harmful interference from low power auxiliary devices to 700 MHz Band public safety and commercial wireless operations.”³ The record in this proceeding demonstrates the magnitude of interference problems wireless microphones will cause to public safety and commercial operations. As APCO explained on behalf of public safety, “there is a very real danger of interference from the low auxiliary devices to public safety land mobile radio systems.”⁴ APCO also noted that public safety use of the 700 MHz band has begun in several areas, and public safety use is likely to increase significantly shortly after February 17.⁵ Indeed, the Society of Broadcast Engineers, a provider of frequency coordination for broadcast auxiliary services (“BAS”), stated that it “could not comfortably coordinate Part 74 licensed BAS operation of [LPAS] devices in the 700 MHz band once public safety operations begin in that band in earnest.”⁶ **Wireless engineering firm V-COMM analyzed the interference risk and found the following:**

² LPAS devices operating without a Part 74 license operate without authorization and are not even entitled to secondary status. The risk of interference from these devices, however, is equally troubling. As noted elsewhere, the Commission should address the disposition of these devices, but in any event interference from such devices cannot be permitted.

³ *700 MHz Wireless Microphone NPRM* at ¶ 14.

⁴ Comments of APCO at 2.

⁵ See *id.* at 2 n.1.

⁶ Comments of Society of Broadcast Engineers at 3.

[A] co-channel LPAS device would propagate at levels that could cause loss of service on CMRS or Public Safety (PS) mobiles within 220 meters (700 ft). In cases of stadiums, open space, or outdoor venues a line of site model is more appropriate.... [T]he range of interference is increased to 400 meters (1300 ft). This interference range is enough to completely wipe out CMRS mobile and PS portable communications at an entire concert or professional sporting event and cause loss of service to tens of thousands of customers.⁷

The Commission must take action to minimize the risk of such interference.

The Commission Must Prohibit Manufacture and Sale of 700 MHz-Capable Wireless Microphones and Other LPAS Devices. The Commission should adopt its tentative conclusion to prohibit the manufacture, import, sale, offer for sale, or shipment of devices that operate as low power auxiliary stations in the 700 MHz band.⁸ Under Section 302 of the Communications Act, the Commission has authority to make reasonable regulations governing the interference potential of devices that in their operation are capable of emitting radio frequency radiation in sufficient degree to cause harmful interference to radio communications, and to require devices marketed and sold to comply with these regulations.⁹ The most sensible approach to minimizing the spread of additional LPAS devices operating in the 700 MHz band and exacerbating the interference problem is to prohibit 700 MHz-capable LPAS devices from entering the marketplace. The Commission should therefore prohibit the manufacture, import, sale, offer for sale, or shipment of any LPAS devices, including wireless microphones that are capable of operating on the 700 MHz frequencies. Because of the significant risk of harmful interference to public safety and commercial wireless systems in the 700 MHz band, the Commission should make the prohibition effective thirty (30) days after publication of the revised rules in the Federal Register. To accomplish its objective, the Commission also must expressly direct retailers to remove all 700 MHz-capable LPAS devices from store shelves and inventory.

The Commission Should Confirm that Wireless Microphones and Other LPAS Devices Operate on a Secondary Basis to 700 MHz Public Safety and Commercial Wireless Services and Will Be Shut Down in the Event of Interference. As the Notice explains, Subpart H of Part 74 governs LPAS operations, and rule provisions establish that the public safety and commercial wireless services are primary to wireless

⁷ Comments of V-COMM L.L.C. at 6.

⁸ 700 MHz Wireless Microphone NPRM at ¶ 17.

⁹ Section 302(a) of the Communications Act states that, “The Commission may, consistent with the public interest, convenience and necessity, make reasonable regulations...governing the interference potential of devices which in their operation are capable of emitting radio frequency energy...in sufficient degree to cause harmful interference to radio communications.” 47 U.S.C. § 302(a). Section 302(b) of the Communications Act states that, “No person shall manufacture, import, sell, offer for sale, or ship devices...which fail to comply with the regulations promulgated pursuant to this section.” See 47 U.S.C. § 302(b).

microphones and other LPAS operations in the 700 MHz band.¹⁰ Section 74.803(b), for example, states that “low power auxiliary station usage is secondary to TV broadcasting and land mobile stations operating in the UHF-TV spectrum and must not cause harmful interference.”¹¹ Further, Section 74.861(g) provides that LPAS devices operate “so that no harmful interference is caused to any other class of station operating in accordance with [the] Commission’s rules and regulations and with the Table of Frequency Allocations in part 2 thereof.”¹² Both commercial and public safety in the 700 MHz band will, of course, operate “land mobile stations”¹³ and will operate “in accordance with” the Part 27 and Part 90 rules, respectively, and the table of allocations in 47 C.F.R. § 2.106. Thus, under the Commission’s existing rules, wireless microphones are expressly forbidden from causing harmful interference to 700 MHz commercial wireless and public safety licensees.

The Commission should also emphasize that interference to public safety or commercial wireless operations will not be permitted, and FCC staff will force offending operations to shut down. Specifically, Section 74.803(b) states that “[i]f such interference occurs, low power auxiliary station operation must immediately cease and may not be resumed until the interference problem has been resolved.”¹⁴ The Commission should make clear that, in the event that a new 700 MHz licensee experiences interference, FCC staff will investigate interference sources and immediately take steps to end such operations. It is important to note, however, that after-the-fact remedies for interference, standing alone, are inadequate to address the LPAS interference problems that exist in the 700 MHz band. In the context of public safety communications, for example, just one instance of interference could endanger the safety of life and property. Pro-active steps are therefore necessary to *prevent* interference from occurring.

The Commission Should Issue a Public Notice and a Consumer Advisory to Publicize the Ban on the Manufacture and Sale (and Purchase) of 700 MHz-capable Wireless Microphones and Other LPAS Devices. Given the interference risks at issue here, it is not enough to adopt an order that puts parties on legal notice of new rules. Rather, the Commission should increase awareness that there is no more future for 700 MHz-capable wireless microphones and other LPAS devices. The Commission can accomplish this by issuing a public notice and consumer advisory to inform manufacturers, wholesalers, and retailers that new rules ban the manufacture and sale of

¹⁰ 700 MHz Wireless Microphone NPRM at ¶ 5.

¹¹ 47 C.F.R. § 74.803(b).

¹² 47 C.F.R. § 74.861(g).

¹³ The portable and mobile handsets and terminals that will be used in connection with 700 MHz services constitute “land mobile stations.” See 47 C.F.R. § 2.1 (definitions of “land mobile station,” “land mobile service,” “mobile station,” and “station”).

¹⁴ 47 C.F.R. § 74.803(b).

such devices, and potential customers should be alerted against acquiring new devices designed to operate in the 700 MHz bands.

Respectfully Submitted,

/s/ Robert M. Gurss

Director, Legal & Government Affairs

Association of Public-Safety Communications Officials (APCO)

/s/ Christopher Guttman-McCabe

Vice President, Regulatory Affairs

CTIA – The Wireless Association®

/s/ Dr. Brian Fontes

Executive Director

National Emergency Number Association

/s/ Ralph A. Haller

Chair

National Public Safety Telecommunications Council

/s/ Todd B. Lantor

Regulatory Counsel

Rural Cellular Association