

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of )  
)  
Promoting Efficient Use of Spectrum ) WT Docket No. 00-230  
Through Elimination of Barriers to the )  
Development of Secondary Markets )

To: The Commission

**COMMENTS OF THE  
ASSOCIATION OF PUBLIC-SAFETY COMMUNICATIONS OFFICIALS-  
INTERNATIONAL, INC.**

The Association of Public-Safety Communications Officials-International, Inc. (“APCO”) hereby submits the following comments in response to the Commission’s *Further Notice of Proposed Rulemaking*, FCC 03-113 (released October 6, 2003) (“*FNPRM*”), in the above-captioned proceeding.<sup>1</sup>

APCO, founded in 1935, is nation’s oldest and largest public safety communications organization.<sup>2</sup> Most of APCO’s over 16,000 individual members are state and local government employees who manage and operate communications systems for police, fire, emergency medical, forestry conservation, highway maintenance, disaster relief, and other public safety agencies. APCO is certified by the Commission as a frequency coordinator for Part 90, Public Safety Pool channels.

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<sup>1</sup> The *FNPRM* is contained in paragraphs 213-324 of the Commission’s *Report and Order and Further Notice of Proposed Rulemaking*, FCC 03-113 (released October 6, 2003).

<sup>2</sup> See [www.apco911.org](http://www.apco911.org)

The Commission seeks comments in the *FNPRM* as to whether public safety licensees should be permitted to lease excess capacity on their radio spectrum.<sup>3</sup> The Commission emphasizes that any such spectrum leasing would be permissive, not mandatory. Nevertheless, as discussed below, we have grave concerns regarding the feasibility and potential harm that could be caused by such leasing arrangements.

To the extent that the Commission's goal is to improve efficient use of public safety spectrum, we note that public safety agencies are already permitted to share channels with other eligible entities. For example, many 800 MHz radio systems are trunked, multi-agency systems that cover a wide-area. New 700 MHz band public safety radio systems are expected to follow a similar model. Such operations are spectrum-efficient, cost-efficient, and inherently interoperable among users of the system. While financial arrangements vary, each user agency is typically responsible for an allocated share of operating expenses and/or providing its own mobile and portable units. Such arrangements are always on a non-profit basis.

The focus of the *FNPRM*, however, is with the concept of permitting public safety licensees to lease spectrum on a *commercial* basis. As an initial matter, there are significant statutory barriers to "commercial" leasing of public safety spectrum, at least in the 700 MHz band.<sup>4</sup> Section 337 of the Communications Act limits eligibility for 700 MHz band public safety spectrum to entities meeting the definition of Section 337(f). Eligibility is restricted to services "the sole or principal purpose of which is to protect the safety of life, health, and property" and "that are not made commercially available to the

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<sup>3</sup> *FNPRM* at ¶¶290-298.

<sup>4</sup> *See FNPRM* at ¶293.

public by the provider.” These restrictions, taken together, would prevent commercial leasing of public safety spectrum in the 700 MHz band, except from one public safety agency to another.<sup>5</sup>

Aside from restrictions in the Communications Act, many state and local governments are subject to additional legal constraints on commercial activities, which may bar spectrum leasing otherwise permitted by Federal law. Moreover, even where state and local governments may have legal authority to lease spectrum, there remain significant technological, economic and operational issues to overcome.

There two potential types of spectrum leasing. The first involves leasing of capacity on a public safety radio system where the public safety agency/licensee has unfettered control over the system and its infrastructure. This would ensure that the agency could reclaim leased capacity “on the fly” when needed for unanticipated emergencies. Some public safety trunked radio systems already have such capabilities, which allow critical emergency radio systems to provide capacity to lower priority government operations for their day-to-day communications. Most importantly, the radio system is controlled by the public safety agency.

The second type of leasing would grant the lessee authority to use the public safety spectrum on its own radio system, using its own radios and infrastructure. As discussed below, such leasing, if permitted at all, would need to be subject to “ruthless pre-emption” using yet-to-be developed cognitive radio technologies that give the public safety agency dynamic control over all user of the relevant channels. The *FNPRM* indicates that the status and feasibility of such technologies will be explored in a separate

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<sup>5</sup> Similar restrictions would appear to apply to non-public safety channels assigned to a public safety agency through a waiver granted pursuant to Section 337(c) of the Communications Act, insofar as it subject to the Section 337(f) eligibility restrictions.

proceeding. APCO intends to participate in that proceeding, urging that such technology must be proven in other services before being permitted in public safety frequency bands. Public safety cannot afford to be the “guinea pig” for a technology that, if it fails, could lead to disastrous results.

We also note serious questions about the economic viability of public safety spectrum leasing through the use of cognitive radio technologies, even if it is technically feasible. Any spectrum lessee would have to accept the potential for “ruthless pre-emption” at any time, and for any duration of time, depending upon the nature and extent of the emergency reclamation of the spectrum. A major emergency could deprive the lessee of spectrum for multiple days, potentially at a time when its own customers have greater, not lesser demand for channels. The economic value of spectrum subject to such pre-emption would be very low, and unlikely to justify the substantial investment in cognitive radio technologies necessary to make it possible.

We are also deeply concerned with the potential impact of leasing on scarce public safety radio spectrum. While most public safety agencies would act responsibly in deciding whether and how to lease channels, some agencies could be pressured by cash-strapped state and local governments to lease more and more capacity, potentially to the detriment of public safety operational requirements.<sup>6</sup> Some state and local governments could even seek authority for more channels than necessary, merely to have additional capacity for leasing. That could deprive other public safety agencies of spectrum needed for essential services.

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<sup>6</sup> Presumably, there would be no legal constraints on how state and local governments use revenue from spectrum leases. The funds received would not necessarily be earmarked for public safety communications systems. Just as likely, the funds would go into general revenue to relieve overall budget shortfalls.

At the present time, there are few if any checks on the amount of spectrum licensed to a particular agency. Frequency coordinators lack the authority to second-guess an applicant's frequency request (other than on technical grounds), and the FCC has never gone beyond imprecise (and difficult to enforce) loading requirements, which do not necessarily reflect actual need. Even the 800 MHz regional planning committees have had difficulty limiting channel allotments based upon an objective evaluation of need. Thus, in a spectrum leasing environment, it would be difficult to prevent public safety entities from applying for and obtaining more channels than necessary.

A related concern is that a small public safety agency could become a "front" for a commercial entity, licensing a system for minimal "public safety" use, with the principal purpose of the spectrum being commercial. Similar problems have occurred in other frequency bands (*e.g.*, ITFS/MMDS), and must not be repeated in scarce public safety spectrum.

Thus, if the Commission permits spectrum leasing of public safety channels, very strict, enforceable rules must be adopted to ensure that the substantial majority of the public safety system is in fact used for public safety.<sup>7</sup> Public safety "use" in that context should be defined both in terms of bandwidth and time. On-demand (or "ruthless") reclamation of the spectrum must also be a required element of spectrum leases. The Commission would also need to establish rules and procedures to provide for strict scrutiny of public safety license eligibility to prevent "sham" licensees from securing scarce public safety spectrum for commercial purposes. This is a particular concern to the extent that the Commission has broadened its definition of public safety, at least in

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<sup>7</sup> Spectrum leasing of public safety channels, if permitted, should also be limited to channels assigned on an "exclusive" basis. As discussed in the *FNPRM*, Shared channels, especially in the public safety pool, are not conducive leasing.

some contexts. The bigger the “public safety” umbrella, the more likely it is to cover entities more interested in profiting from spectrum than in using it to save lives.

Finally, spectrum designated by Commission rule for specific types of public safety communications should not, in any event, be open to spectrum leasing. The Commission delineates some of these channels in the *FNPRM*, such as 700 MHz state-wide channels, and interoperability and mutual aid channels. If the Commission otherwise permits leasing of public safety spectrum, channels with such specific designations should be excluded, absent a waiver.

### **CONCLUSION**

As discussed above, leasing of public safety spectrum raises serious legal, technical, operational, and spectrum management issues. Moving forward, without iron-clad safeguards, could undermine the availability and effectiveness of scarce public safety radio spectrum.

Respectfully submitted,

/s/

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