

**Before the  
Federal Communications Commission  
Washington, D.C. 205554**

In the Matter of )  
 )  
Implementation of Section 309(j) and )  
337 of the Communications Act of 1934 )  
As Amended )  
 )  
Promotion of Spectrum Efficient ) WT Docket No. 99-87  
Technologies on Certain Part 90 )  
Frequencies )  
 )  
Establishment of Public Service Radio )  
Pool in the Private Mobile Frequencies )  
Below 800 MHz )

To: The Commission

**COMMENTS OF APCO**

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 00-403, released November 20, 2000, ¶¶ 137-142 (hereinafter “*Further Notice*”), regarding proposals to require new spectrum efficient technologies in private land mobile radio frequency bands.

APCO is the nation’s oldest and largest public safety communications organization. Most of its over 15,000 individual members are state or local government employees involved in the management, design, and operation of police, fire, emergency medical, local government, highway maintenance, forestry conservation, disaster relief, and other public safety communications systems. APCO is a certified frequency coordinator for Public Safety Pool channels in the VHF, UHF, 700 MHz, and 800 MHz bands.

The Commission is seeking comments regarding the pace of migration to more spectrally efficient technology in land mobile frequency bands, and whether it should adopt additional rules to speed such migration. The Commission's inquiry is in response to a Petition for Rulemaking submitted by the American Mobile Telecommunications Association, Inc. ("AMTA"), which proposes that non-public safety licensees be required to convert to narrowband technology by a date certain. However, the Commission's discussion of the AMTA Petition and alternative approaches does not appear to be limited to non-public safety licensees. Therefore, APCO offers the following comments.

Public safety agencies need additional channel capacity to provide basic life-saving communications, to improve interoperability, and to facilitate the use of new telecommunications technologies. APCO has long supported the use of spectrum efficient narrowband equipment channels to the extent feasible, recognizing however that the migration to narrowband operation alone will not solve public safety's spectrum requirements. Additional spectrum allocations are also necessary, as recommended by the Public Safety Wireless Advisory Committee.<sup>1</sup> APCO has also been at the forefront of efforts to ensure that the migration to narrowband equipment in a digital environment does not sacrifice essential interoperability. Finally, in the "spectrum refarming" proceeding (PR Docket 92-235), and in the 700 MHz proceeding (WT Docket 96-86), APCO has made specific proposals that would lead public safety licensees down a migration path to efficient spectrum utilization.<sup>2</sup>

---

<sup>1</sup> *Final Report*, Public Safety Wireless Advisory Committee (September 1996). While the Commission has allocated additional public safety spectrum in the 700 MHz band, significant portions of the nation are limited in their ability to use that spectrum due to continued broadcast television operations. Moreover, the 24 MHz of spectrum allocated in the 700 MHz band is only the first step in meeting the PSWAC recommendations.

<sup>2</sup> *See, e.g.*, Comments of APCO in Response to Fourth Notice of Proposed Rulemaking in WT Docket 96-86, filed September 25, 2000.

APCO believes that the best approach to achieve narrowband efficiencies is through a combination of (a) equipment-related rules (*e.g.*, through the FCC's equipment authorization process or restrictions on equipment manufacturing/importation); and (b) reasonable deadlines for users to convert to more efficient equipment, at least in metropolitan areas. Up to now, the Commission has utilized only the former approach (with regard to frequencies below 512 MHz), fearful that licensees would strongly oppose requirements that they must replace existing equipment by a specific date, however distant. Yet, as the Commission notes in the *Further Notice*, use of equipment authorization rules alone has not led to a significant migration to narrowband operation. Some new 12.5 kHz capable equipment has been sold and implemented, but the vast majority of operations on channels below 512 MHz remain at wider bandwidths (25 or 30 kHz depending upon the frequency band in question). Moreover, the use of "offset" or "interstitial" channels in the new "refarmed" channel plans means that the benefits of narrowband operation are often postponed until all users in a particular geographic area make the switch. One or two lone holdouts can delay the entire process.

APCO understands the Commission reluctance to require users to convert to more efficient equipment by a date certain. State and local government agencies in particular are sensitive to the costs of such requirements. However, some balance is necessary, and if the conversion dates are far enough in the future, the vast majority of users will have already made the conversion as part of their normal equipment replacement cycles. APCO's proposals in this regard have thus suggested that the first mandatory conversion date not occur until at least ten years following the effective date of the relevant Commission order, and then only in major metropolitan areas. Under this approach, even licensees that purchase equipment on the eve of the Commission's action will enjoy a reasonable life span from their new equipment. Most

users, however, will have already converted by the end of the ten period, or will have equipment that is much older than ten years and in need of replacement in any event.

APCO has also proposed that the conversion date for “rural” areas (generally defined as areas outside the top 50 metropolitan areas) be later than that for urban areas, at least by an additional five years. Moreover, rural users (and urban users who fail to meet the deadline) should be allowed to operate indefinitely on existing bandwidths, albeit on a secondary basis. There is no need to require rural public safety agencies to spend valuable resources to buy more efficient radio equipment if there is no shortage of radio spectrum in their area of operation.

On the equipment regulation side of the equation, there needs to be rules to ensure that manufacturers will produce and market spectrum-efficient equipment in a timely matter. The current spectrum refarming rules rely on equipment authorization rules to achieve this goal. However, the impact of that approach may be limited to the extent that vendors are permitted to continue to sell previously authorized equipment. Thus, the Commission seeks comments in the *Further Notice* regarding alternatives such as limits on equipment manufacture and importation. APCO takes no position at this time regarding this issue.

However, regardless of which equipment-related mechanism is used, the Commission’s rules must take into consideration the need for public safety systems to migrate over time to more efficient technology. Flash cut transitions are unacceptable. For example, if a Commission rule requires equipment to have 6.25 kHz capability by a specific date (whether for equipment authorization or manufacture/importation), there must be a transition period which permits such equipment to also have “dual” 12.5 kHz capability (as is the case with the FCC’s current equipment authorization rules). Otherwise, public safety agencies could very quickly find themselves operating with obsolete and over-taxed radio systems. Once a public safety radio

system is installed, there must be the ability to expand capacity (*e.g.*, to accommodate new hires or groups of users) and maintain elements of the system with compatible equipment without having to replace the entire radio system, at least until a future date when it may be required to migrate to more efficient operations.

## CONCLUSION

For the reasons discussed above, the Commission should adopt reasonable deadlines for licensees to convert to narrowband operation, at least in metropolitan areas, and should ensure that equipment rules allow flexibility in meeting public safety system requirements.

Respectfully submitted,

ASSOCIATION OF PUBLIC-SAFETY  
COMMUNICATIONS OFFICIALS-  
INTERNATIONAL, INC.

By:

Robert M. Gurss  
SHOOK, HARDY & BACON, L.L.P.  
600 14<sup>TH</sup> Street, NW  
Washington, DC 20005  
(202) 662-4856

March 5, 2001