

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

In the Matter of)
)
Amendment of Section 90.20 and 90.175 of the) WT Docket 02-285
Commission's Rules for Frequency Coordination) RM-10077
Of Public Safety Frequencies in the Private Land)
Mobile Radio Below 470 MHz Band)

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 *Notice of Proposed Rulemaking* ("NPRM"), FCC 02-255 (released September 19, 2002), 67 Fed. Reg. 67348 (November 5, 2002), in the above-captioned proceeding, in which the Commission granted APCO's Petition for Rulemaking, RM-10077 (filed February 21, 2001).

Background and Summary

APCO, a non-profit professional association founded in 1935, is the nation's oldest and largest public safety communications organization. APCO has over 16,000 members, most of whom are state or local government employees involved in the management and operation of public safety communications systems serving police, fire, emergency medical, highway maintenance, forestry conservation, disaster relief, emergency management and other critical agencies that protect the safety of life, health, and property.

APCO is a certified frequency coordinator for Part 90 Public Safety Pool channels. Along with three competing certified public safety coordinators,¹ APCO coordinates Public Safety Pool channels in the 800 MHz, 700 MHz, and 470-512 MHz bands, as well as Public Safety Pool channels in the former “Local Government Radio Service” below 470 MHz.

APCO is also the exclusive frequency coordinator for Public Safety Pool channels previously in the “Police Radio Service,” pursuant to Section 90.20(c) of the Commission’s rules. Section 90.20(c) also restricts coordination of Public Safety Pool channels previously in the “Fire Radio Service” and “Emergency Medical Radio Service” to IAFC/IMSA, coordination of Public Safety Pool channels previously in the “Highway Maintenance Radio Service” to AASHTO, and coordination of Public Safety Pool channels previously in the “Forestry Conservation Radio Service” to FCCA. Since 1997, eligibility for those channels has been open to any public safety entity, and thus no longer reflects the prior discipline-specific categories that continue to separate coordination responsibility.² As discussed below and in its Petition for Rulemaking, APCO urges the Commission to eliminate these exclusive frequency coordination assignments, and permit each of the four certified frequency coordinators to coordinate any of these Public Safety Pool channels.

The exclusive frequency coordination assignments are no longer necessary and restrict the ability of public safety applicants to choose the coordinator they feel will provide the most accurate, comprehensive, reliable, efficient, and cost-effective frequency coordination. The Commission has stated in several contexts that “encouraging competition among coordinators ...

¹ International Association of Fire Chiefs/International Municipal Signal Association (“IAFC/IMSA”), American Association of State Highway and Transportation Officials (“AASHTO”), and the Forestry Conservation Communications Association (“FCCA”).

² *Second Report and Order in PR Docket 92-235*, 12 FCC Rcd 14307 (1997).

will promote cost-based pricing of coordination services and provide incentives for enhancing service quality.”³ The current rules also add unnecessary layers of coordination, slowing the application process and creating additional costs for applicants and coordinators.⁴

For example, state and local government entities often file applications with APCO for multiple (sometimes unspecified) channels. Increasingly, such applications are for interoperable, multi-disciplinary radio systems. APCO will then conduct a thorough, complex frequency search of all Public Safety Pool channels using all available engineering tools to find the most appropriate channels for the applicant, or to confirm availability of the applicant’s specifically requested channels.⁵ In many cases, some of the channels identified by APCO will be subject to the exclusive coordination of one or more of the other public safety coordinators.⁶ APCO must then obtain the concurrence of the designated coordinators, even though APCO has already conducted a detailed frequency coordination to verify that no interference will occur. This adds considerable delay, duplicates coordination efforts, and requires that the public safety

³ AASHTO, *et al.*, *Order*, 16 FCC Rcd 14530, ¶ 7 (“800 MHz Order”), *citing* Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements through the Year 2010, Establishment of Rules and Requirements for Priority Access Service, *First Report and Order and Third Notice of Proposed Rulemaking*, WT Docket 96-86, 14 FCC Rcd 152, 200 ¶98 (1998) (“700 MHz Order”).

⁴ These and similar concerns were raised in the comments previously filed in this proceeding by the following parties supporting the APCO Petition for Rulemaking: Minnesota Department of Transportation, Shreveport (LA) Fire Communications, Kentucky Fire Commission, City of Chicago, Metropolitan Radio Board (Minn-St. Paul), Minnesota State Patrol, County of Orange (CA), City of Ft. Worth, City of Berkeley, Suffolk County (NY) Police Department, City of Sun Prairie (WI), St. Croix County (WI), Caddo Parish (LA), Dupage (IL) Public Safety Communications, and the Missouri State Patrol.

⁵ APCO’s database, and that of the other public safety coordinators, includes all Public Safety Pool channels, not merely those for which it is the certified coordinator.

⁶ Since January 1, 2000, more than 25% of applications coordinated by APCO for channels below 512 MHz required approval from at least one other public safety coordinator.

applicant pay fees to each of the involved coordinators.⁷ Eliminating exclusive coordination responsibility would streamline the process and reduce costs for applicants. Competition has worked well in other frequency bands (where some applicants are even able use competitive bids to select coordinators), and it will work on the channels below 512 MHz that continue to be burdened by out-dated coordination requirements.

A. The Four Coordinators Represent the Broad Use of Public Safety Pool Channels.

The Commission correctly recognizes in the *NPRM* that coordinators of land mobile radio frequencies must be representative of the users of those channels. This is particularly important within the Public Safety Pool, where coordinators must have as their primary goal the avoidance of interference to critical governmental emergency communications systems. That requirement for “representation” will be maintained and enhanced if all four public safety coordinators are permitted to coordinate all Public Safety Pool channels.⁸

Prior to 1997, when the Commission’s rules divided channels among specific types of public safety entities (*i.e.*, police, fire, EMS, highway maintenance, forestry conservation), it was appropriate to restrict applicants’ to frequency coordinators reflecting those specific public safety

⁷ APCO charges a greatly reduced fee in those situations, but the combination of fees is still higher than if there was a single, competitive coordination fee for each channel.

⁸ APCO opposes allowing PCIA to coordinate Public Safety Pool channels other than the former Special Emergency Radio Service channels (many of which are licensed to non-governmental entities). PCIA is not representative of governmental public safety users (its members are primarily Industrial/Business Pool licensees and other for-profit enterprises). APCO also notes that its Petition was limited to the former Police, Fire, Highway Maintenance, Forestry-Conservation, and Emergency Medical Radio Service channels.

disciplines.⁹ However, in 1997 the Commission changed its eligibility rules, and combined the Police Radio Service, Fire Radio Service, Emergency Medical Radio Service, Highway Maintenance Radio Service, Forestry Conservation Radio Service, and Local Government Radio Service into a new Public Safety Pool (along with the Special Emergency Radio Service, which includes certain specified government and non-government safety related services).¹⁰ Thereafter, any public safety agency became eligible for any of the Public Safety Pool channels, allowing for more efficient use of spectrum. The 1997 revisions also reflected the growing trend toward multi-agency public safety radio systems that cross functional lines and provide enhanced interoperability.¹¹

Today, most Public Safety Pool channels, including those in the previously discipline-specific channels, contain a wide range of public safety users. Even prior to 1997, inter-category sharing over time had led to increased diversity on most public safety channels. The creation of the Public Safety Pool, and the elimination of narrow eligibility rules in 1997, allowed for even greater “sharing” of spectrum resources among different types of public safety agencies. As APCO noted in its Petition for Rulemaking, diverse use is particularly common on channels previously in the Highway Maintenance Radio Service and Forestry Conservation Radio Service (*e.g.*, in urban areas). Indeed, APCO suspects that a substantial portion of the applications coordinated by AASHTO and FCCA are not for highway maintenance or forestry conservation operations. As noted above, over 25% of applications submitted to APCO (which processes far

⁹ APCO’s designation as the Police Radio Service evolved from its original focus on law enforcement communications (though APCO long ago broadened its membership to encompass all public safety disciplines). The Commission’s recognition of APCO’s broad public safety representation was reflected in APCO’s prior designation as the sole coordinator for radio frequencies open to all public safety applicants: the Local Government Radio Service and the 800 MHz Public Safety Pool channels.

¹⁰ *Second Report and Order in PR Docket 92-235*, 12 FCC Rcd 14307 (1997).

¹¹ *Id.* at ¶ 23.

more applications than any other coordinator) require at least once concurrence from another coordinator.

The growing trend towards multi-agency radio systems and the increasing need for improved interoperability among various agencies have led to more efficient frequency use that further blurs the once bright lines between police radio systems, fire radio systems, etc. For these reasons, the face of Public Safety Pool channel use is now far more diverse than in the past, allowing for a broader scope of representative frequency coordination. Today, APCO and presumably all of the four certified frequency coordinators are sufficiently representative to coordinate any of the Public Safety Pool channels and adequately equipped to do proper coordination and basic spectrum management using available engineering programs.

APCO, in any event, has long been representative of all types of public safety users, including those previously restricted to discipline-specific public safety channels.¹² APCO members come from fire departments, police departments, emergency medical service providers, highway maintenance departments, forestry conservation departments and other discipline-specific government agencies. Many, if not most, APCO members actually have broader responsibilities that transcend numerous public safety disciplines, as cities, counties, and states are increasingly combining the management and operation of their public safety radio systems under one roof. Combined public safety operations improve efficiency and promote interoperability by eliminating artificial barriers between agencies. Just as public safety is

¹² APCO believes that each of the four certified public safety coordinators should be permitted to coordinate any of the Public Safety Pool channels, in the same manner that they currently compete for coordination in the former Local Government Radio Service and 800 MHz band. However, should the Commission conclude that any of the other coordinators have too narrow a scope of representation, that should not restrict the ability of other, more broadly representative, coordinators to offer public safety applicants a choice of coordinators.

breaking down the balkanization of its functions, so too must the FCC break down the anachronistic divisions separating public safety frequency coordinators.

B. Competitive Coordination Has Been Successful in the Public Safety Pool.

Prior to 1997, the Local Government Radio Service (LGRS) channels could only be coordinated by APCO. Thereafter, any of the four public safety coordinators could coordinate those channels. Nearly six years have passed, and competitive coordination is working. The coordinators exchange data electronically and cooperate in the coordination and notification process, while providing applicants choices when selecting which coordinator will provide the most effective, timely, and economical service. APCO firmly believes that the same result will occur if the Commission opens the remaining Public Safety Pool channels to competitive coordination.

The Commission's decision in 1997 to allow multiple coordinators for LGRS channels, but not for other newly consolidated channels, was based on a perception that the LGRS consisted of diverse users who could be equally represented by any of the certified public safety coordinators. *NPRM* at ¶16. As discussed above, many of the other Public Safety Pool channels also now contain a broad array of users, suggesting that the time has come to expand multiple coordination throughout the Public Safety Pool.

Furthermore, the purpose of representation is to ensure that coordinators are responsive to the specific requirements of applicants and licensees, especially the need for strict protections against interference to critical emergency operations. The former LGRS channels have long included both "emergency" and "non-emergency operations."¹³ Significantly, the introduction

¹³ While perhaps intended for less critical governmental operations, the Local Government Radio Service quickly became populated by police, fire, EMS and other "first responder" agencies as channels in other discipline-specific radio services became congested.

of multiple coordinators to former LGRS channels has not reduced the interference protection afforded the “emergency” users of those channels. All of the coordinators have a special obligation to protect public safety operations. That same respect and broad representation of public safety requirements will allow for effective, competitive coordination within other Public Safety Pool channels previously restricted to discipline-specific coordinators.

The Commission’s decision in 2001, to open coordination of the 800 MHz Public Safety Pool channels to all four coordinators (APCO had previously been the sole coordinator for those channels) also supports similar action for Public Safety Pool channels below 470 MHz. The Commission stated that “competition in the 800 MHz public safety spectrum will bring the benefits of lowering prices and improving the quality for frequency coordination, including speeding application processing time.”¹⁴ Similarly, the Commission previously concluded that the new 700 MHz public safety channels should be subject to competitive coordination among the four certified coordinators.¹⁵

In the *NPRM*, the Commission notes certain differences between the public safety frequency bands below 512 MHz and those in the 700 MHz and 800 MHz bands, and inquires whether those differences justify retaining exclusive frequency coordination on the lower frequencies. APCO believes that the distinctions noted by the Commission are either insignificant, or irrelevant. First, as the Commission notes, 800 MHz channels are assigned on an exclusive basis to licensees, while channels below 470 MHz are, at least in theory, assigned on a “shared” basis.¹⁶ The reality, however, is that all Public Safety Pool channels, including

¹⁴ *800 MHz Order* at ¶14.

¹⁵ *See 700 MHz Order* at ¶ 98.

¹⁶ The rules governing the 470-512 MHz band permit exclusive frequency assignments when minimum unit loading is achieved. 47 C.F.R. §90.313.

those below 470 MHz, are coordinated to provide geographic exclusivity to the maximum extent possible. Unlike most Industrial/Business (I/B) Pool users, public safety licensees cannot tolerate interference due to the critical nature of their operations. Thus, all of the public safety coordinators have long used engineering tools and agreed-to criteria to maintain geographic separation between co-channel and adjacent-channel public safety systems on channels below 470 MHz.¹⁷ This includes the former Local Government Radio Service channels, which have been successfully coordinated by all four coordinators for the past six years. Thus, all Public Safety Pool channels, both above and below 800 MHz, are subject to similar exclusivity requirements, and any theoretical distinctions do not provide a basis for restricting the number of coordinators in the lower frequencies.

The Commission also notes that while the 700 MHz and 800 MHz bands are subject to regional plans, “many public safety frequencies below 512 MHz are subject to discrete public safety plans.” However, to the extent such plans for public safety use of frequencies below 512 MHz exist, those plans do not provide any basis for maintaining exclusive frequency coordination assignments.¹⁸

¹⁷ In many cases, an applicant’s request cannot be satisfied because there are no frequencies available for use at the proposed site that would not cause or receive interference. While applicants have the right to insist that the coordinator nevertheless process an application for the “most appropriate” (*i.e.*, “best of the worse”) frequency (in which case the coordinator will process the application but with a negative recommendation), the vast majority of public safety applicants choose not to pursue such applications because of the interference problems that would occur.

¹⁸ The Commission’s prior reference to these plans appears to confuse informal plans used below 470 MHz and the formal, Commission-approved plans for the 800 MHz band. The Commission referred to “specific plans that have been established in the radio services” in its 1997 decision to maintain separate coordination responsibilities. Second Report and Order in PR Docket 92-235, 12 FCC Rcd 14307, 14328 (1997) at n.96. The Commission further noted that its approach toward consolidation “ensures that the fire company will not unwittingly jeopardize public safety by accessing the channel that has been allocated for specific Police uses under a regional plan. *See* 47 C.F.R. §90.16.” However, Section 90.16, cited by the Commission, refers only to the Public Safety National Plans for the 821 MHz band, not to any local plans that would relate to frequency assignments on bands below 470 MHz.

First, the vast majority of Public Safety Pool channels in the VHF High Band (150-170 MHz) and UHF band (450-512 MHz) are not subject to such plans. Indeed, many if not most of these frequency plans are focused primarily on VHF Low Band (30-50 MHz) channels, for which new radio equipment is no longer available, and which are seldom the subject of modern public safety system applications. Second, it is inaccurate for the Commission to suggest that “the public safety frequency coordinators often assist in developing these public safety plans....”¹⁹ While many of APCO’s local frequency advisors have played a major role in creating such plans, the national public safety frequency coordinators have not generally performed that function.²⁰ Rather, the frequency plans that do exist for channels below 512 MHz tend to be products of local, regional, or state efforts.

Third, there is no valid reason why plans for channels below 512 MHz cannot be shared among each of the four public safety coordinators and integrated into their databases. If the plans are entitled to consideration in the Commission’s certified frequency process, then each coordinator can be required to verify and confirm that processed applications are consistent with such plans. Fourth, many of APCO’s local frequency advisors are already well versed in, and in some cases wrote, these state and local frequency plans. They already follow plans where they exist, and will continue to do so.

Finally, the notification process will provide a final check to protect those plans entitled to consideration. As proposed in the *NPRM*, at ¶25, rules should be established to require a

¹⁹ *NPRM* at ¶18.

²⁰ In contrast, APCO did play a major role in helping the 800 MHz regional planning committees to develop their plans, a fact which did not deter the Commission from opening the 800 MHz band to multiple coordinators. APCO also continues to devote far more time and financial resources than other coordinators to efforts to improve spectrum management of the 800 MHz band (*e.g.*, through its leadership in documenting and developing solutions to 800 MHz band interference problems).

processing coordinator to notify each of the other relevant coordinators of proposed channel assignments, giving each coordinator an opportunity to update its database and to question the assignment if, for example, it would be contrary to an existing frequency plan. Notification now serves a similar purpose in the former LGRS channels. For example, APCO monitors all notifications and, with the assistance of its local frequency advisors, will spot potential interference problems and inform the processing coordinator of the problem. If necessary, the processing coordinator will then withdraw the application and make appropriate modifications before resubmitting it to the Commission.

Some of the other coordinators have also raised concerns earlier in this proceeding about the ability of multiple coordinators to protect the relatively small number of channels designated, at least informally, for state-wide use. For example, in some cases channels are licensed to a state agency at particular sites, but used on a state-wide basis as needed (*e.g.*, forestry conservation channels used for wildfire suppression). APCO agrees with the need to protect such use, but sees no reason why that cannot be included in the joint coordination procedures that each of the four coordinators already follow. There is a long history of the coordinators developing common procedures, whether through the Land Mobile Communications Council (all four coordinators are members) or the Public Safety Coordination Council (PSCC), both before and after 1997. State plans for specific types of public safety operations can continue to be observed, even with multiple coordinators for all channels. If a channel is designated for state-wide use, just as one coordinator may protect its use today, all four coordinators can protect its use once the coordination process is opened. Also, as noted above, the notification process proposed by the Commission will provide an additional, final check, for coordinators to question another coordinator's recommendation of a "state" channel.

C. Exclusive Coordination Creates a Potential for Service-Specific “Warehousing.”

The Commission seeks comments regarding the potential for frequency warehousing under the current rules. The creation of the Public Safety Pool was intended to improve spectrum efficiency by allowing any public safety user to obtain a license for any of the Public Safety Pool channels. Thus, for example, fire departments became eligible for channels previously set aside for police departments, and *vice versa*. The Commission has indicated that public safety coordinators are not to discriminate among applicants based upon the nature of the operations, and that they must provide a technical interference-related basis for opposing a proposed frequency assignment.²¹ Nevertheless, the retention of exclusive, discipline-specific, frequency coordination does create the potential for coordinators to give preference to applicants from their own public safety discipline. The most effective way for the Commission to eliminate such potential is to give each coordinator the ability coordinate each of the Public Safety Pool channels, as recommended in APCO’s Petition.

D. The Contour Overlap Analysis Alternative Would Not Provide Significant Benefits.

The Commission seeks comment on a variation on APCO’s proposal that would allow for competitive coordination of Public Safety Pool channels, but require use of a contour overlap analysis similar to that which applies to I/B Pool channels in the former Power, Petroleum, and Railroad Radio Services. *NPRM* at ¶¶21-23. Under that approach, if a coordinator determines that the service contour of an applicant would overlap with that of a licensee on a channel in the former Power, Petroleum or Railroad services, it must seek the concurrence of the relevant service-specific coordinator (*i.e.*, UTC, API, or AAR). As applied to the Public Safety Pool, an

²¹ See, e.g., Hauppauge Fire District, DA-99-2830 (released Dec. 21, 1999), *recon. denied*, 15 FCC Rcd 12581 (2000).

example would be APCO receiving an application for a channel previously in the Fire Radio Service, which it could process and coordinate, but would need IMSA/IAFC to concur if APCO determined that the service contour of the proposed assignment overlaps with the service contour of a licensee on the relevant channel (whether or not that licensee is a fire department). APCO does not believe that this approach can be applied to the Public Safety Pool in an effective manner, and that it would do little to promote more efficient, competitive coordination.²²

As discussed above, there is no compelling reason to limit applicants to a single frequency coordinator for specific Public Safety Pool channels. The contour overlap approach would largely perpetuate this unnecessary frequency coordination exclusivity, for no apparent reason other than a desire to find “middle ground.” To the extent that the Commission is seeking a method to protect local frequency plans, a contour overlap approach would not serve that goal, as only licensed facilities would trigger the concurrence requirement. Ironically, concurrence would be necessary even if neither the incumbent licensee nor the applicant are from the narrow public safety discipline for which the concurring coordinator has primary responsibility.

Furthermore, the contour overlap approach would actually increase delay and duplication of service, as it would require an analysis to be done in every case, even where mileage separation or other factors indicate that there is no potential for interference. On the other hand, in most densely populated areas, a contour overlap analysis alone (without further studies) would identify overlaps and require concurrence in almost every case. That would erase the benefits of

²² As APCO previously noted, the need to protect safety-related business services within the very broad I/B Pool is quite different than the much narrower differences among governmental services within the Public Safety Pool. Safety-related business services such as railroads, petroleum pipelines and utilities are understandably concerned that other I/B coordinators with little or no experience or representation of safety-related services will not be able to protect their operations from interference (in many cases, railroad and pipeline operations also involve “ribbon systems” that pose unique frequency coordination challenges), thus, the need for separate treatment of these specific services. In contrast, the various governmental public safety services are far more similar than distinct. All four coordinators represent governmental entities charged with the protection of life, health and property.

competitive coordination, even where a much more sophisticated analysis used by the processing coordinator might demonstrate that interference would not occur.

Service contour analysis alone is imprecise, and often overstates or understates the actual potential for interference. APCO's frequency coordination process uses a far more complex interference matrix analysis that includes detailed terrain data. In some situations, this analysis permits co-channel and adjacent-channel assignments significantly closer than would be permitted by a less precise contour overlap analysis and *vice versa*. Sometimes the more complex analysis demonstrates a need for greater levels of protection than a simple contour overlap would suggest.

Therefore, APCO does not believe that a contour overlap approach is a reasonable alternative to competitive coordination that requires notification to other coordinators, but not concurrence.

E. The Proposed Notification Rules Are Reasonable.

The Commission proposes use of coordinator notification rules similar to those now in use for the former Local Government Radio Service channels. *NPRM* at ¶¶24-26. Those procedures have worked well in that context, and APCO supports the Commission's proposal to expand those procedures to other Public Safety Pool channels.

As noted by the Commission, the other three coordinators utilize third-party database providers for their coordination process. APCO has established procedures for exchanging application data with these providers, and expects to continue efforts to develop common databases for frequency coordination and other purposes.

CONCLUSION

For the reasons set forth above, the Commission should amend its rules to permit each of the four public safety frequency coordinators to coordinate any of the Public Safety Pool channels.

Respectfully submitted,

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