APCO International

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September 23, 2009

The Honorable Rick Boucher
Chairman
Subcommittee on Communications, Technology, and the Internet
House Energy and Commerce Committee
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Boucher:

On behalf of the 16,000 members of the Association of Public-Safety Communications Officials (APCO) International, I applaud you and Ranking Member Stearns for holding this hearing on "**A National Interoperable Public Safety Broadband Network: Recent Developments.**" Please include this letter and the following written statement as part of the record. As you know, APCO, the only member led organization that focuses on the design and deployment of such networks, has worked very closely with our partners on the Public Safety Spectrum Trust (PSST). But you must also appreciate that our members provide a unique perspective that cuts across all of public safety and all levels of government.

For more than ten years, APCO International has worked closely with Congress and the Federal Communications Commission (FCC) to make available critical radio spectrum for public safety agencies' use, which would vastly improve our collective and individual abilities to protect and serve our nation's citizens and communities.

The policy framework set forth in the next few months will have a tremendous impact on the way our public safety professionals and first responders are able to communicate for decades to come. Today, we are just beginning to see new systems come online and new technologies developed that hold the promise of significantly improving the communications capabilities of our country's emergency personnel across all levels of government. Still, it is only a promise at this point.

Therefore, we must proceed cautiously and expeditiously to resolve the many outstanding issues concerning development of a national mobile public safety network. APCO International's written testimony discusses some of the financial and operational issues that must be addressed if we are to successfully deploy a national interoperable public safety broadband network that meets the needs of our first responders.

We look forward to continuing to work with the committee to address these concerns, and toward aggressively ushering in a new era in emergency communications.

Sincerely,

Richard Mirgon
President

Written Statement of the

ASSOCIATION OF PUBLIC-SAFETY COMMUNICATIONS OFFICIALS (APCO) INTERNATIONAL

Before the

UNITED STATES HOUSE COMMITTEE ON ENERGY AND COMMERCE SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY, AND THE INTERNET

Hearing on

"A NATIONAL INTEROPERABLE BROADBAND NETWORK FOR PUBLIC SAFETY: RECENT DEVELOPMENTS"

September 24, 2009

APCO International was established in 1935 and today is the nation's largest public safety communications organization, representing approximately 16,000 members worldwide who build, supply, manage and operate communications systems and facilities for police, fire, emergency medical services and other state and local government public safety agencies. APCO International also serves the needs of more than 100,000 professionals in the public safety communications industry by providing training, frequency coordination, engineering, licensing, advocacy, and networking opportunities. APCO International's membership is comprised of public safety communications professionals from remote, rural, suburban and urban communications centers, in addition to state and federal agencies.

As an American National Standards Institute (ANSI)-Accredited Standards Developer (ASD), APCO International is dedicated to ensuring public safety communications leads the development of standards that affect our industry. APCO International's standards development activities have a broad scope, ranging from actual development of standards to representation of public safety communications in other standards development efforts.

In 2002, APCO International also established the Public Safety Foundation of America (PSFA), a 501(c)(3) charitable organization to engender cooperation among public and private groups to provide financial and technical support to the public safety communications community. Under the PSFA's original mission, five rounds of grants were completed, which included the delivery of more than $13 million to over 200 agencies in 40 states. Most recently, the PSFA granted more than $500,000 to support the Public Safety Broadband Licensee (PSBL) to continue its operations.

For more than 75 years, APCO International has been the leading consensus organization that brings together all local and state law enforcement, fire, emergency medical and emergency management agencies and associations to develop policies that will best improve our nation's emergency communications systems. APCO is also the trusted voice that state and local governments and their associations look to to provide insight and expertise on public safety technology issues.

In May of this year, APCO International hosted a meeting among the International Association of Chiefs of Police (IACP), International Association of Fire Chiefs (IAFC), Major Cities Chiefs Association (MCC), Major County Sheriffs' Association (MCSA), Metro Fire Chiefs (MFC), National Emergency Management Association (NEMA) and the National Sheriffs Association (NSA) to further address matters related to the development of a nationwide interoperable public safety broadband network. This group continues its joint deliberations on a consensus-based approach to license and manage spectrum, and to create a nationwide public safety broadband wireless network that addresses the needs of rural, suburban and urban areas.

On August 19, as a part of the APCO International 75th Anniversary Conference and Exposition which brought together over 5,000 public safety communications practitioners, APCO hosted a Town Hall Meeting on the Federal Communications Commission (FCC) Public Safety and Homeland Security Bureau (PSHSB) Notice Seeking Comment on Petitions for Waivers to Deploy 700-MHz Public Safety Broadband Networks. Representatives of all the petitioners filing waivers were in attendance at the conference and were invited to participate in this discussion. This Town Hall meeting had over 100 participants representing not only those who had filed waivers but also representatives of many of the public safety associations.

APCO International's leadership has called on all its members, colleagues and the industry to fully engage with APCO International, Congress, the FCC and others to aggressively develop standards and build consensus to ensure the long-term success of our nation's effort to realize a national public safety broadband network within the 700-MHz spectrum.

The Promise of a New Era in Emergency Communications

For APCO International's members, building out a public safety broadband network represents the most important technological and operational change in emergency communications for more than three quarters of a century. Nearly a century ago, police officers had to use call boxes to communicate with their police departments. Over 75 years ago, mobile radio communications drastically changed the way police officers communicated and APCO International's members were at the forefront of this change. With the invention of the mobile radio, a police officer on the street could communicate directly with a police department without the need to go to a call box. It revolutionized the way we protect the public, serve to community and drastically improved public safety.

Today, mobile broadband communications holds the promise to generate a similar leap forward, but we need to make some very hard decisions. Decisions that could either thwart this new era of communications or foster a new technological shift that improves public safety communications well into the next century. We have a momentous opportunity to shape the future of public safety, but if we make a mistake, if the FCC or Congress make a mistake, then ultimately our communities, our citizens and our children will pay for it.

To fully appreciate public safety's broadband needs, we must answer three overarching questions:

1. Do first responders and emergency communications personnel really need access to high-speed mobile broadband networks? If so, why?
2. How long will it take to deploy such networks across the country, especially in remote, rural and suburban areas?
3. How much will it cost and who will pay for it?

We must also clearly define public safety broadband.

Defining Public Safety Broadband

As the FCC continues to develop the National Broadband Plan, APCO urges that it must draw a clear distinction between what is meant by broadband for public safety, and what is meant by broadband for consumer-based services. APCO International is very concerned that public safety broadband is not generically categorized within the same definition as consumer based broadband services. We are challenged daily on how to define public safety broadband. Is public safety broadband connecting public safety agencies, such as police and fire departments, to fiber and copper networks? Is public safety broadband meant to connect incident commanders to wireless mesh networks at the site of a large-scale incident? Is public safety broadband meant to connect first responders and emergency personnel to mobile high-speed voice, data and video networks where ever and whenever?

The simple answer is *all of the above*. But, unfortunately, it is more complicated than that.

Many public safety agencies around the country have access-dedicated high-speed broadband copper and fiber networks to communicate data. Much of this infrastructure has been built by local governments, at tax-payer expense, because local telephony carriers could not provide it. These networks are a critical part of emergency communications today, but we don't believe this is an area of most urgent need for public safety broadband communications.

Public safety agencies are also deploying high-speed broadband networks in the 4-GHz spectrum band. These systems are critical for incident management using WiFi and mesh networks. They provide incident commanders with the ability to easily set up high-speed broadband networks and communicate with emergency communications centers. There is a lot more that has to be done to increase the number of deployments all across the country and we are making great strides, but at most these systems will likely be used as situational hot spots.

To truly understand the broadband need of public safety we need to emphasize the key word *mobile*, not *hot spot*, not *fiber* and not *cable*. So, what do we mean by *mobile*?

Mobile means that while traveling at 55 mph on the highway you are able to continuously access a broadband network to upload and download data. It means that if you are pursuing a suspect at 80 mph and have an in-car video camera you can upload the live video to the emergency communications center. It means that while you are responding to a fire you can download the blueprints to the burning building before you get to the scene. It means transmitting medical data to emergency medical personnel that are transporting a trauma patient and receiving a patient's vital statistics at the hospital before the ambulance ever arrives. Mobile broadband communications has so much more to offer than copper, fiber, and hot spots and that is why it is critical that any definition for public safety broadband must emphasize mobility.

The State and Local Economic Challenge

The build out of any national public safety broadband network will require a considerable paradigm shift in how our nation's local, state and federal governments pay for and manage emergency communications networks. The current funding paradigm, which has existed for more than 80 years, has resulted in purchasing proprietary technologies that foster stand-alone networks and communications systems that lack interoperability. During the last 80 years, local, state and the federal governments have combined to invest billions of dollars to build out the current public safety land mobile network. A recent GAO report stated that

"FEMA alone, awarded over $3.85 billion in federal funding to improve interoperable emergency communications to state and local agencies from 2004 to 2007."[1] It is important that Congress understands that federal funding represents only a small portion of the actual cost incurred by state and local governments working to upgrade their current land mobile radio communications systems. While we have been able to overcome many of the technological challenges in meeting the interoperability mandate, there is still much more work that needs to be done on the operational, governance and policy levels.

The recent GAO report dated June 2009 said, "continuity of communications, capacity, and interoperability are primary areas of vulnerability in first responder emergency communications in communities across the country." While thousands of emergency communications personnel are working to remedy this, we need the support of Congress to ensure that appropriate federal resources such as spectrum and funding are not squandered needlessly.

Today, local and state governments are continuing to spend billions of dollars to upgrade their systems, train staff and establish new governance models that promote interoperability. Public safety agencies are also burdened with purchasing new radio equipment to meet the FCC's impending narrowbanding mandate by 2013. In the current environment, Congress no doubt understands that most local and state governments lack the financial resources necessary to deploy new broadband technologies.

As Congress is well aware, local and state governments are struggling to come up with the money needed to maintain current emergency communications operations, let alone upgrade or purchase new systems. APCO International's members are working tirelessly to justify every expenditure and every new program they are looking to implement in a given budget year. Training budgets are being slashed and we are continuing to struggle with meeting staffing shortages. Our budget proposals are looked over relentlessly and decisions are made based on the priorities established by state and local governments. While public safety remains the highest priority for our local governments, our city managers, councilmen, mayors, state legislatures and governors have to make very difficult decisions to cut their overall budgets and expenditures. It is an unfortunate fact that many of the small and mid-size communities around the country will not have the money needed to fund new projects, such as deploying broadband networks.

A recent survey of city finance officers conducted by the National League of Cities stated that "67% of the cities instituted a hiring freeze and/or are laying off staff, 62% are delaying or cancelling capital infrastructure projects, and one in three finance officers reported that their city is making cuts in services other than public safety."

We must be able to leverage one of our nation's most valuable resources - spectrum - to help our local and state governments improve their emergency communications operations. Instead of auctioning the spectrum to the highest bidder, Congress should consider unique and alternative ways to promote a partnership between public safety and the private enterprise.

Allocating Additional Spectrum to Public Safety

APCO International urges Congress to pass legislation that will reallocate the D Block of the 700-MHz band spectrum for public safety broadband communications and require that such spectrum be assigned to the

[1] United States Government Accountability Office. (June 2009). *EMERGENCY COMMUNICATIONS: Vulnerabilities Remain and Limited Collaboration and Monitoring Hamper Federal Efforts.*

national public safety broadband licensee and combined with the current public safety broadband spectrum in the band.

If Congress does not allocate the D Block to public safety, our nation's local and state governments will not be able to fully leverage the value of the spectrum to negotiate with commercial providers to build out robust, reliable and secure broadband networks in the 700-MHz band. If this is the case, then local and state governments will be left with the burden of funding the build out in the 10 MHz of spectrum that is currently allocated to public safety. In short, local and state governments will have to spend billions of public tax dollars to build out the networks. As previously stated, we are already spending billions on improving interoperable communications and meeting the narrowbanding mandate.

Unfortunately we are working with two finite resources - spectrum and money - and both are desperately needed to build out a national network. While large cities and urban areas might have enough money to build out broadband networks, they lack sufficient spectrum to accommodate all public safety users. Whereas, small and rural areas might be able to use less spectrum to build out the network, they lack the money to do so. This is not an *and/or* option. Public safety must be able to leverage the use of the D-Block spectrum to ensure there is adequate private investment. Without the private investment, what might take 5 to 10 years to build will likely take 15 to 20 years, if not more.

Can state and local governments build out mobile public safety broadband networks in 10 MHz of spectrum that is currently available to public safety? Unfortunately, the answer is *we don't know*. Probably most data applications today can be done on the 10 MHz. However, if public safety tries to also use the network for real-time two-way voice and video applications then the answer to the question again becomes more complicated.

We don't know when the next large-scale disaster is going to occur and what resources will be required to address it. The 10 MHz might be enough for some applications today, but it will not be enough for the voice and video applications of tomorrow. We have an opportunity to build a robust system that can accommodate public safety's needs for the next 50 to 80 years.

Commercial Only Networks

Most public safety agencies are not going to depend solely on commercial networks for their mission-critical operations. Any belief that allocating public safety spectrum to commercial-only services, in which public safety is just a customer, is, at the very least, short sighted and misrepresentative of the public safety community at large. While there are some situations in which there are potential economic benefits to commercial systems and there may be cost savings, the cost savings are secondary to ensuring that these systems are completely reliable, redundant and secure. Thus far, commercial providers have been very reluctant to spend the extra money needed to build out a broadband network that meets public safety's needs. Further, in some cases agencies may not have funds to pay reoccurring charges but may have funds for capital projects allowing them to build their own networks, thus avoiding the high per unit monthly payments to commercial carriers.

Accordingly, APCO International strongly opposes the auctioning of the D-block spectrum for commercial purposes only. There have been some suggestions that the auction proceeds could be used to offset the cost of building out a national public safety network. Again, this perspective is very short sighted. Even if the auction were to generate another $1 to $5 billion dollars, it would not be enough to pay for a mobile public

safety broadband network that will easily cost in excess of $20 billion. Who will pay for the additional cost? If local and state governments are going to build the networks, it will most likely be the individual taxpayers.

Auctioning the spectrum for commercial purposes might provide some competition to current broadband providers, but it will not reduce the cost to the consumers for broadband service and, ultimately, the tax payer will be left to subsidize the national mobile public safety broadband network.

It goes without saying that requiring public safety agencies to subscribe to commercial networks for broadband services is very problematic for the thousands of jurisdictions that lack funds. While a monthly per-user subscriber fee might be seen as an insignificant cost to some, when it is multiplied by the hundreds and thousands of potential users, the cost justifications are insurmountable for many small- and medium-size communities. The potential subscriber base for the network can easily exceed 950,000 first responder and public safety users nationwide. For argument's sake, if we assumed the subscription rate for each subscriber was around $46, for an agency that might have 150 subscribers it would cost $6,900 per month and $82,800 annually. When all is said and done, if commercial systems are built to public safety specifications, the actual subscriber cost increases exponentially. Again, many small- and medium-size communities around the country will have a very difficult time in justifying the subscription expense to their local and state governments. Such subscriptions will also be the first expenses to be cut by local and state governments to balance the budget, especially during times of economic downturn, such as the one we are experiencing now.

The viability of a public-private partnership must be premised on making sure the public sector has an equal standing in the negotiations with private commercial providers. If the FCC auctions the D Block for commercial purposes only, it will greatly weaken the negotiating power of the public sector to build out a national broadband network.

Need to Move Forward

APCO International continues to believe that a public-private partnership is critical to deploying mobile wireless broadband networks around the country. However, we recognize that there are some state and local governments around the country that have the resources to build, maintain and manage their own networks. APCO International's members are in support of building out these regional systems, as long as these systems meet established national guidelines and standards.

The FCC should grant waivers - or other relief - to allow local, state and regional broadband systems, where funding is available, to be deployed by public safety entities in the 700-MHz band pursuant to authority from the national public safety broadband licensee. Operators of such systems should also be able to enter into compatible public-private partnerships while retaining interoperability with the national network and its users. A portion of the revenue derived from such partnerships should revert to the national broadband licensee to help support deployment across the nation. APCO International also supports rules and procedures to ensure that all users of the broadband network will be able to roam across local, state and regional systems that are part of the network, subject to appropriate priority access provisions.

Conclusion

Today, broadband systems are seen as secondary data networks to support mission-critical operations. While voice and data communications are at a point of convergence for commercial systems, public safety agencies are years, if not decades, away from relying on a single network that will be able to support mission-critical voice communications, as well as data and video services.

That being said, there are many communities that, if left to their own devices, will begin to deploy their own networks. If it is not done properly, we will once again be facing a stovepipe system that lacks interoperability. We must learn the lessons of history and ensure that we don't repeat past mistakes!

APCO International will continue to take the lead in working with commercial industry, local and state governments and public safety organizations to develop the necessary governing framework to build out a national network that provides an unprecedented partnership between public and private enterprises. We look forward to working with Congress and the FCC to make sure our local and state governments have the resources they need, including spectrum and funding, to speed up the deployment of mobile public safety broadband networks around the country.