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First Responder Interoperability: Can You Hear Me Now?

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Good morning Chairman Davis, Representative Waxman, and other members of the committee. My name is Marilyn Ward, and I am chair of the National Public Safety Telecommunications Council, (NPSTC), and Manager of the Public Safety Communications Division for Orange County Florida. As a Past President of the Association of Public Safety Communications Officials, (APCO); a past member of the National Task Force for Interoperability, (NTFI); and a current member of the SAFECOM Executive Committee; and with 32 years of public safety experience, I am here to speak to you today about the public safety community and interoperability challenges we face. My discussion will be regarding the initiatives of these organizations and the perspective of the manager of one of the largest public safety radio systems in the country. Our system in Orange County has over 16,000 user IDs and 13 different jurisdictions communicating on one system.

Let me begin by addressing the National Public Safety Telecommunications Council.

NPSTC was brought together in 1996 by public safety communications users to continue the works of the Federal Communications Commission's Public Safety Wireless Advisory Committee (PSWAC). During PSWAC, local, state, and federal users participated in a year-long discussion about public safety communications needs. We discovered that the future held new challenges and technology that would require our responders to be able to talk back and forth on a public safety devise, when and where they needed to talk. Since PSWAC concluded, NPSTC has continued to work on the issues identified in that process as well as other issues involving public safety communications.

With over 74,000 public safety organizations in the United States, it is critical to have a resource and an advocate for public safety telecommunications. That is the primary role of the National Public Safety Telecommunications Council.

NPSTC is a federation of public safety associations that encourages and facilitates, through a collective voice, the implementation of the Public Safety Wireless Advisory Committee (PSWAC) and 700 MHz Public Safety National

Coordination Committee (NCC) recommendations. NPSTC operates with a consensus process which permits open discussion regarding critical public safety communications issues between the member and liaison organizations.

NPSTC also explores emerging public safety telecommunications issues and technologies, and develops recommendations to appropriate governmental bodies to support the broad goals of promoting public safety telecommunications worldwide.

Finally, NPSTC serves as a standing forum for the exchange of ideas and information regarding public safety telecommunications. NPSTC currently consists of the following thirteen organizations:[1]

American Association of State Highway and Transportation Officials
American Radio Relay League
American Red Cross
Association of Public-Safety Communications Officials-International
Forestry Conservation Communications Association
International Association of Chiefs of Police
International Association of Emergency Managers
International Association of Fire Chiefs
International Association of Fish and Wildlife Agencies
International Municipal Signal Association
National Association of State Emergency Medical Services Directors
National Association of State Telecommunications Directors
National Association of State Foresters

I'd like to begin with a discussion regarding the definition of interoperability. Interoperability is:

> The ability for two or more political jurisdictions' first responders to talk directly, even those using disparate communications systems.

"Studies show that across the nation, public safety officials have trouble communicating in operational situations *one third of the time."* [2] Therefore, our goal must be to ensure that all public safety first responders can talk to each other directly while en route and on the scene of any joint response incident.

[1] A number of Federal agencies are affiliate members of NPSTC and active participants in its ongoing efforts.
[2] Rick Murphy, PSWIN program manager

We have identified the three types of interoperability needed by our public safety responders:

1. Day-to-day – Routine operations like pursuits
2. Mutual aid – Joint and immediate response, and tactical
3. Task force – Communications for events that occur without warning; events that are planned in advance and last an extended period of time

There are several ways to achieve the various interoperability modes. We can for example:

Exchange radios on scene
Use the talk-around mode
Use the national mutual aid channels
Use a gateway to patch systems together
Roam onto systems like our own, if pre-arranged
Use a standards-based system with a variety of vendors supplying equipment

Interoperability has been brought to the forefront by disasters such as the Air Florida plane crash, here in DC, on the 14th Street Bridge. Rescuers were hampered in their rescue efforts because of incompatibility of public safety equipment and operational plans. Since that time, changes have been made and responders can talk, however, that is not the case all over the nation.

After the Air Florida crash, the inability for public safety responders to talk was further brought to light in the Morrow Building bombing, where runners where used to provide communications between command centers. Again, local users banded together to work out the issues so they could talk during future incidents. However, there was not a nationwide effort or mandate.

In 2001, when the World Trade Centers were attacked, lives were lost due to the inability to contact firefighters in the building.

In a more recent occurrence, last week in the San Diego fires, the National Guard, state police, and fire, all had to talk together to move victims to shelters and provide public safety responses. Without a common operational plan and technology solution, this would have been impossible. Fortunately, San Diego has been ahead of the curve in working on their interoperability issues. What about the other 74,000 agencies, of which, in the case of police agencies, 85% have less than 25 sworn police officers? They do not have technical expertise, or funding, to support a long-term study of the issue. This is where the federal government can have a positive impact.

Over the years, several steps have been taken to educate our political leaders about interoperability. Some of those steps include a video produced by NIJ

entitled “Why Can’t We Talk?” that was widely distributed. Several years ago another federal initiative bringing together state and local elected officials, with the public safety leadership, brought awareness on many levels about this problem. The National Task Force for Interoperability began an education process and developed documents to help spread the message.

Over the past several years the major public safety associations, including NPSTC, have participated with the Federal Communications Commission’s National Coordination Committee, to develop plans and regulations for interoperability channels in the 700 MHz band. Our work is complete; however, there are still Broadcast stations in this spectrum. Congress should support moving these stations out of the interoperability spectrum so that we can begin using it to develop systems that will be able to talk to each other.

Another major step in the right direction is the formation of project SAFECOM. SAFECOM was born to begin finding solutions that work across the local, state, and federal agencies, and to support small agencies that have neither the funding nor technical expertise to work on this issue.

NPSTC currently has several initiatives in the works:

- NPSTC has been working on the interference in our existing 800 MHz band for several years. Our member associations have worked to develop materials for users and education regarding the issue. The interference cannot be “fixed” until one of the interfering parties leaves the spectrum. A plan in front of the FCC right now called “The Consensus Plan” is the only permanent solution to the problem.
- We are working to develop some standardization of technologies being used in the 4.9 MHz band. This band will be used for new technologies which we hope will allow public safety to select technology from multiple vendors instead of limiting us to a select few vendors with stovepipe solutions.
- We have representatives working with manufacturers developing software defined radios. These radios will be flexible in the use of available spectrum and new technologies.
- NPSTC is also working with DOD projects to share some of their technology and move together to support development of new equipment that ultimately will support both the military and local public safety. We want to maintain this relationship as new technologies become available.

NPSTC members deal with interoperability issues each day. From a daily mutual aid response between fire districts, to a vehicle pursuit moving from one jurisdiction to another, interoperability really covers public safety’s daily activities. Our members cannot understand why they can use a cell phone brought from

one state to another, yet their public safety radio cannot talk to other responders in the same county or township.

The problems generated by disparate radio spectrum and interoperability are not truly comprehended until a major disaster takes place and people die. Then the message is, "the communications systems didn't work." Sometimes communications failed because people failed to take the right actions during the planning process. Sometimes it is purely a financial decision driving the radio system's engineering to save a few dollars. There are many facets to interoperability and they should be dealt with by our leaders.

Who controls the system should not be a question of politics, as it is today. A way to improve on the planning and politics is for federal grants to require multi-jurisdictional planning of radio systems for all grant dollars provided from the federal government. These systems should all be required to use a single standard called Project 25. Funding for planning should be permitted under federal grants as long as multiple jurisdictions participate, and there should be no exceptions.

We should continue to be reminded that it does not take towers falling to cause a situation where interoperable equipment is required. These disasters brought attention to the problem in New York. However, this is not a NYC problem; it is a problem across the country. We should not wait until the next disaster before we get federal assistance to improve interoperability all over the nation.

So what can Congress do to help improve Public Safety communications? Here are a few suggestions:

- Assist in ensuring that 700 MHz bands are cleared as soon as possible.
- Encourage the FCC to resolve the 800 MHz interference issues.
- Require that federal grant funding ensure that users have to build to a public safety standard.
- Allow grant funding to develop new technology standards.
- Encourage a National Center for Interoperability Source Guide to all the different interoperability funding and research studies for locals to access on the web.
- Develop a standard set of frequencies and standards of use in a disaster area, and provide clear implementation guidelines.
- Allow grant funding for communications technician and operator training. All the plans in the world won't work unless people know how to use the technology.

Thank you for allowing me to appear in front of this body and I welcome the opportunity to address any of your questions.