Interoperability in Public Safety Communications Equipment

Statement of

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Good morning, Chairman Wu, Ranking Member Smith, and distinguished members of this subcommittee. I am Jeff Johnson, president and chairman of the board of the International Association of Fire Chiefs (IAFC) and chief of the Tualatin Valley Fire and Rescue Department located in Beaverton, Oregon.

I would like to begin my testimony with a working definition of interoperability: the ability of public safety service and support providers – law enforcement, firefighters, EMS, emergency management, public utilities, transportation, and others – to communicate with staff from other responding agencies, and to exchange voice and/or data communications on demand, when authorized and in real time. And while interoperability is very important, mission-critical operability is of greater importance. Without operability, there is no interoperability.

Significant federal, state and local resources continue to be expended to develop greater interoperability between and among first responder agencies as well as jurisdictions. It is a daunting task but progress is being made. There are five separate lanes on the Department of Homeland Security Interoperability Continuum to achieve that goal: Governance, Standard Operating Procedures, Training and Exercises, Usage, and Technology. Radio equipment falls into the Technology lane.

The majority of America's 30,000+ fire departments operate with analog radios. Digital radios, available now for two decades, are being used by a growing number of jurisdictions today. When these radios began entering the public safety market, a standard known as P25 began development and is still in process. P25 ensures a common standard of performance features and a common air interface to allow interoperability between the radios produced by different manufacturers.

This P25 standard is key to mission-critical operability and interoperability and has long been fully supported by the IAFC. The P25 digital standard is actually a complex suite of standards which define the interface for radios, consoles, base stations and other system components. However, we in the fire service are not so much interested about how radios and systems work, but THAT they work.

To ensure THAT they work is part of the mission of both the Public Safety Communications Research (PSCR) program, located at the NIST

laboratories in Boulder, CO, and the Department of Homeland Security's Office for Interoperability and Compatibility (OIC). The OIC and NIST have established a testing capability to ensure that digital radios used by the fire service and other public safety entities will actually perform as designed. It is called the P25 Compliance Assessment Program (CAP). The CAP is composed of three testing elements which are:

- Performance – the specifications are correct,
- Conformance – to validate the various P25 protocols used in the system, and
- Interoperability – to prove that one or more manufacturer's radios will operate on another manufacturer's system.

These three tests conducted in P25 CAP-recognized testing sites give fire chiefs assurance that the P25 radios they buy will work not only on their system but with radios from other manufacturers on other systems. All this is key to give assurance to fire departments that do not have the capability to test the radios and systems they buy.

We are pleased that manufacturers are working with NIST and DHS, and that four of the major manufacturers now meet the CAP requirements. It has taken a very long time to get to this point. I am pleased we are here, but we need to complete the P25 standard in the interest of assuring public safety that the digital radios they buy will, indeed, work interoperably.

I would like to end my presentation this morning with a glimpse of the future – which is all about interoperability and standards. The International Association of Fire Chiefs is working diligently with other public safety leadership organizations to build out a nationwide, public safety, interoperable, wireless, broadband network. This is the future for public safety communications and vitally necessary.

One of the major difficulties today in achieving interoperability is trying to connect, at great expense, the thin slices of disparate spectrum which have been allocated by the Federal Communications Commission (FCC) over the years to public safety as each new band became available. In effect, we are building sideways connector roads to the main communications lanes. What is needed is a nationwide architecture allowing all public safety to have the ability to communicate on one, major superhighway. So, while we need to

maintain operability and interoperability of the current mission-critical Land Mobile Radio (LMR) systems, our future is in broadband technology.

The envisioned broadband system needs to be mission-critical at the outset. At first it will support data and video communications. In time, the goal of the IAFC and its allies is to use this network for mission-critical voice communications. To achieve this goal, the D Block of spectrum is vital to developing a robust network. Only then can we hasten the transition from current LMR communications to mission-critical Voice over Internet Protocol. Our quest for the D Block is a one-time opportunity to make sure that the inadequate spectrum allocations to public safety in the past are not repeated for this new technology.

Public safety, from a spectrum allocation determined by Congress in 1997, is currently licensed for 10 MHz of nationwide broadband spectrum in the 700 MHz band. The license is held by the Public Safety Spectrum Trust (PSST), a 501(c)(3) corporation composed of 15 public safety organizations. The original plan was to combine public safety's 10 MHz with 10 MHz from the adjoining D Block of spectrum to be sold at auction to build out a 20 MHz nationwide broadband network that would be built to public safety mission-critical standards. But, the submitted bid did not meet the reserve price set by the FCC.

Recently, the FCC announced in its National Broadband Plan that it will auction the D Block to commercial interests without the needed public safety requirements. Thus public safety seeks passage of legislation to allocate the D Block directly to the PSST. H.R. 5081, introduced by Rep. Peter King, is currently before the House Energy & Commerce Committee. The bipartisan legislation has the strong support of both public safety leadership and the major national organizations representing state, county and local government. Our collective message is clear: the D Block is vitally needed by public safety to ensure an efficient broadband system which will attract commercial interests and reduce the need for government funding.

Thank you, Mr. Chairman for the opportunity to appear before you on this very important subject. I would be pleased to respond to any questions.