



Public Safety Communications:
Are the Needs of our First Responders Being Met?

Testimony of
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Good morning Chairman King, Ranking Minority Member Thompson, and members of the committee. I am Jack Parow, recently retired chief of the Chelmsford (MA) Fire Rescue Department and president and chairman of the board of the International Association of Fire Chiefs (IAFC) on whose behalf I appear. My organization represents the leadership of over 1.2 million firefighters and emergency responders. IAFC members are the world's leading experts in firefighting, emergency medical services, terrorism response, hazardous materials spills, natural disasters, search and rescue, and public safety policy. As far back as 1873, the IAFC has provided a forum for members to exchange ideas and find the latest products and services available to first responders.

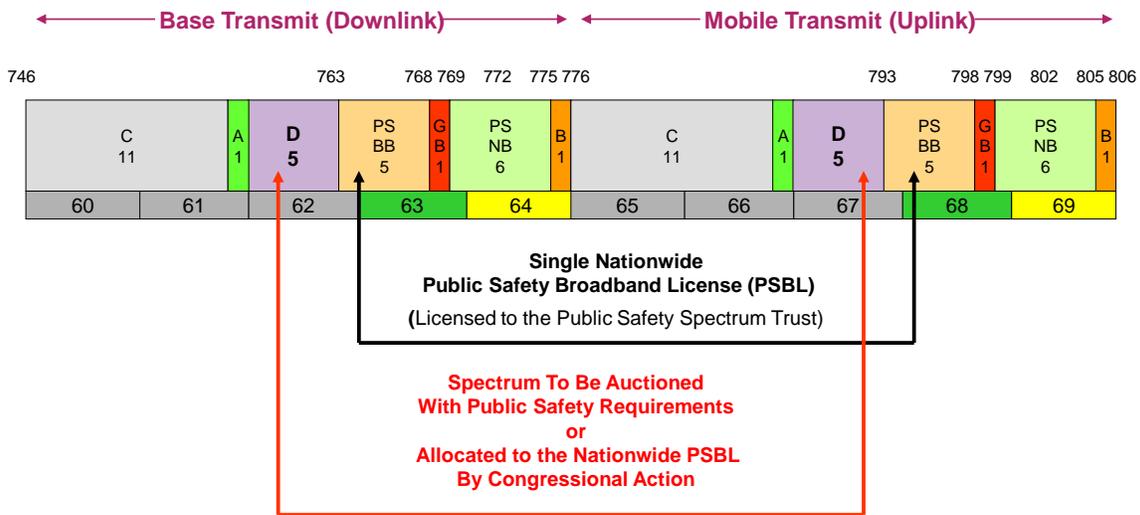
I testify today in support of H.R. 607 (Broadband for First Responders Act of 2011). Currently, this legislation has eleven cosponsors and is bipartisan. Obviously, this is not part of a political agenda. It is legislation to benefit public safety agencies and the citizens whom they serve and protect. We are grateful for the efforts of this committee to keep this issue foremost in congressional consideration. Public safety is an integral part of this nation's homeland security. Local fire, emergency medical services (EMS) and law enforcement constitute the first response to incidents both small and large--natural, accidental and illicit. This legislation is needed to enable fire, EMS and law enforcement to reach our highest goal – construction of a nationwide public safety wireless interoperable broadband network.

For too long we have had an urgent need to improve public safety communications. Our business is incident management and the fundamentals here are command and control. These elements are not possible without sufficient communications capability. This was acknowledged in both the 9-11 Commission and Katrina reports which summarized the deficiencies of response to those catastrophic events.

Today, public safety communications is served by Land Mobile Radio (LMR) of which there are some 55,000 separate agencies licensed to broadcast. These LMR radio systems are licensed over six or more bands of radio frequencies. Each public safety licensee can operate only in its own geographic area so as not to interfere with a licensee in another jurisdiction on the same frequency. Over the past 50 years, the Federal Communications Commission (FCC) has provided thin slices of spectrum for public safety as each frequency band became available. This arrangement has led to a patchwork of radio systems across the country that are mostly not interoperable which makes it difficult and expensive for agencies in the same or nearby jurisdictions to have interoperability. To solve this problem and promote nationwide interoperability, a national architecture for public safety communications is required to bring public safety communications into the 21st Century. To achieve a nationwide public safety wireless broadband network, key elements need to be in place.

First, the network must have **sufficient capacity**. To achieve a nationwide public safety broadband network – connectivity coast to coast, border to border – 10 MHz of D Block spectrum, currently slated for FCC auction, must be added to our 10 MHz of spectrum already licensed to public safety. That would give us a 20 MHz network. Public safety, under FCC regulation, is required to use Long Term Evolution as its broadband technology. To maximize the potential of this technology, a configuration of 20 MHz is needed. As you can see on the spectrum chart below, the currently licensed public safety spectrum abuts the D Block and is perfect for public safety.

New Upper 700 MHz Band Plan - Adopted by FCC on July 31, 2007



With this configuration only, not with any other, can public safety be assured that it will have the ability to build the network it needs now and into the future. H. R. 607 can do this for us. Here we have a one-time opportunity, one chance to get it right.

Secondly, **the network must be under public safety control.** Local control of the network by public safety agencies is critical. A single licensee utilizing a single technology with sufficient spectral capacity will ensure nationwide interoperability and allow us to effectively manage day to day operations, along with major incidents. We cannot have commercial providers deciding what is or is not an emergency or what is the priority. Public safety transmissions must go through without delay. The lives of our firefighters and medics depend on this necessity. A “no service” signal is not accepted in emergency operations.

Public safety expects to enter into public-private partnerships. We will work with state, county and local governmental agencies, federal partners, electric and gas utilities and others who respond to emergencies such as highway and water agencies. However, public safety must have control over the operation of the network in real time. Network control will give public safety certainty that it will have full, immediate, preemptive priority over its spectrum on a when-needed basis. This is a public safety imperative.

Third, **the network must be mission critical at the outset.** In the beginning, this system will handle only data and video. At some future time – years from now – we believe there will be a transition to mission critical voice. We all need to take a long term view which means starting with sufficient spectrum so that we will have the ability to migrate to mission critical voice in the future. This will occur when the technology becomes available, when public safety has confidence in it, and when its cost is affordable. Here are the key elements of “mission critical:”

- The network must be hardened to public safety requirements. This means towers must be able to withstand elements that might disable them. Towers in hurricane-prone areas and tornado alleys must be designed accordingly. Back up electrical power must be available 24/7. Redundancy is necessary.
- The public safety mission critical voice network must have the ability to broadcast and receive “one-to-one” and “one-to-many.” It must also have the ability to broadcast and receive without the network infrastructure being operative. This is called the “talk around” mode – also known as simplex. This is a command and control absolute. You know very well that we operate under extremely hazardous conditions. If for any reason the network cannot provide connectivity, then we need the capability to communicate without the network. This means communicating in the simplex mode. Herein lies the very essence of public safety communications.
- The network must have back up capabilities in the event of network loss. We envision satellite capability when a tower is disabled or other crippling malfunction occurs in the network. Satellites also can cover remote areas that do not have terrestrial broadcast facilities. Our mission is geography-oriented whereas commercial carriers are population-oriented.

And, fourth, **funding is important for the construction of a public safety broadband network.** State and local government budgets are challenged. The broadband network needed by public safety cannot be built without federal funding support. H. R. 607 recognizes this fact and offers a solution. According to the proposed legislation, both a Public Safety Interoperable Broadband Network Construction Fund and a Public Safety Interoperable Broadband Network Maintenance and Operation Fund would be established in the Treasury of the United States. The Secretary of Homeland Security would be required to establish a Construction Grant Program and to administer a Maintenance and Operation Reimbursement Program. All of this is welcome and necessary.

We cannot underestimate how this public safety broadband network will revolutionize the fire and emergency medical services. For example, the network could provide live video to provide instantaneous situational awareness for mass casualty incidents, major hazardous materials spills, and real time situational awareness for incident command as well as elected officials and other decision makers. In the area of emergency medical services, we expect digital imaging, portable EKGs, portable ultrasounds, and field blood work with a direct link to the hospital’s emergency department. This would put a virtual physician in the back of the ambulance with the

Emergency Medical Technician to expedite the proper life saving treatment enroute to the hospital. These types of applications for fire and EMS are only possible with broadband capability.

One area of the bill which will need attention as the legislation moves forward is Section 207, which mandates migration of public safety entities in the 420 to 512 MHz band to 700/ 800 MHz frequencies. We understand the intent of this provision is to achieve long term interoperability by consolidating band use by public safety. The IAFC supports planned migration to 700/800 MHz frequencies but is concerned with inclusion of mandatory time frames in which to achieve it.

Mr. Chairman, the IAFC wholeheartedly supports H.R. 607. This bill provides public safety with the spectrum and funding to begin the hard work of constructing a nationwide public safety broadband network. H.R. 607 is our vehicle for finally securing this critical resource, and we want to work with you and your colleagues in the House of Representatives to further refine this legislation in order to enact the best possible bill into law. The 10th anniversary of the tragic events of September 11, 2001 is little more than 5 months away. Thus, we urgently need to continue to move forward on a plan to make the vision of a public safety broadband network a reality. Thank you for your personal commitment and leadership on this critical issue. I am available to respond to questions.