

**Prepared Remarks of Jamie Barnett, Chief of the Public Safety & Homeland Security Bureau of the Federal Communications Commission to the Police Executive Research Forum
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Good morning and thank you for the opportunity to meet and talk to you about public safety communications and public safety broadband.

These are critical issues to the departments that you represent, and they are our primary focus at the FCC as well. I feel particularly privileged to talk to you about the work we have been engaged in to establish a nationwide interoperable public safety wireless broadband network.

First, just a little information about me and then about the Public Safety and Homeland Security Bureau. My first job was serving as a Communications Officer aboard a U.S. Navy destroyer during the Cold War, serving in Sixth Fleet in the Mediterranean and in the Persian Gulf. I learned as a young man in uniform what the importance of mission critical voice and data communications means: it means life or death, it means success or failure. I served on the ground, embedded with the Army and Marine Corps, in Saudi Arabia and Kuwait during OPERATION DESERT SHIELD/DESERT STORM, where the criticality of communications was again emphasized. My last active duty assignment was serving as Deputy

Commander, Navy Expeditionary Combat Command, which has responsibility for about 30,000 specially trained Sailors who wear camouflage uniforms, carry weapons, radios and conduct such missions as riverine patrols in Iraq and Afghanistan. And in another life, I was a municipal attorney, advising cities and counties and defending in court law enforcement officers and police and sheriff departments who got sued.

I am very proud of the dedicated experts and public servants that we have in the Public Safety and Homeland Security Bureau. The Bureau consists of over 100 professionals, and it was created in 2006 in large part as a result of the Commission's experience dealing with communications issues after Hurricane Katrina. Based on that experience, the Commission decided to create be a single Bureau within the FCC that could focus on public safety issues in the post-Katrina, post 9/11 world.

The Bureau's core responsibility is to ensure that the nation's communications networks and technologies serve the American public and our nation's first responders before, during, and after emergencies. To accomplish this mission, we work closely with all segments of the first responder community, including police, fire and

emergency medical departments, emergency operations centers, public safety answering points, hospitals, state, tribal, and local governments, and other Federal agencies.

Through our spectrum licensing function, we interact on a daily basis with public safety personnel that operate state, local, and tribal police, fire, and emergency medical radio systems. We also have responsibilities in related areas such as 9-1-1 communications, emergency alerting, network reliability, and cyber security.

We also play a role in emergency preparedness and response:

Partnering with FEMA, we deploy FCC staff in advance of or following disasters to assist with communications assessments and recovery.

When Hurricanes Ike and Gustav hit a few years back, we had personnel on the ground before the storms reached shore. Just this week, a team of FCC personnel are deploying to the Upper Midwest to help FEMA and local emergency managers with communications issues as they prepare for anticipated major floods in the region

When I joined the Bureau last July, I was immediately impressed by the dedicated staff in the Bureau, who have vast experience working with the public safety community. And I appreciated the emphasis

that FCC Chairman Genachowski and the other commissioners place on public safety and making sure our first responders have access to the most up-to-date and innovative technology to help them do their jobs.

Now I'd like to turn specifically to the 700 MHz public safety broadband proceeding. Long before I arrived at the Bureau, the FCC had already spent a number of years seeking to establish a nationwide, interoperable, public safety broadband network. The first step was recovering and reclaiming some spectrum. Part of that spectrum was dedicated, without cost, for public safety. An adjacent block, known as the D Block, was slated by Congress for commercial sale through an auction. The initial approach would have created a mandatory public/private partnership between the auction winner of the commercial "D Block" and the national public safety licensee of the adjacent public safety broadband spectrum. In other words, the winner of the D Block would be obligated to build a shared network for both commercial and public safety use over the D Block and adjacent public safety spectrum. As we all know, that effort did not succeed. There was too much uncertainty concerning the requirements that would be placed on the potential D Block licensee,

which called into question whether such a venture would be commercially viable; so nobody bid the required minimum on the D Block. The D Block remains as Congress designated it, for commercial use, and the FCC is mandated by law to auction it for commercial use. And while the FCC followed up twice with requests for public comment, the whole D Block scheme for building a public safety broadband network remained intractable and, frankly, a failure.

We are determined to succeed this time, and the first thing we are doing is learning the lessons from that recent past.

When I arrived at the FCC last summer, I charged our public safety broadband team to start from scratch, review all available options for creating a nationwide public safety broadband network, tabulate all pros and cons. The investigation had to be fact-based, data-driven, no emotion, no preconceived notions. Recommendations had to be based on reasons, logic, facts, data or models.

The process was very open. We had workshops, forums, field hearings, and scores of meetings and conferences with public safety officials, including several of you in this room, to ensure that we had

public safety's input and requirements. A tremendous record of information was built, except in one area that I will discuss.

From the outset, I have emphasized that, whatever option we choose, must meet certain basic requirements to serve the needs of public safety. Specifically, the Nation needs a wireless broadband network:

- (1) that is truly nationwide;
- (2) that has true nationwide interoperability;
- (2) that meets public safety's unique needs for coverage and mission-critical reliability in emergency situations;
- (3) that is technically viable (it has to work) and also commercially viable, so that it will not be cost-prohibitive to public safety agencies with limited resources;
- (4) that leapfrogs public safety to advanced, 4G, broadband technologies, and keeps pace with evolving technological developments;
- (5) that captures economies of scale in equipment and service costs; and
- (6) that catches the "wave" of commercial broadband deployments in order to save significant money.

We also know, from our own experience but also from hearing from public safety, that we need to design this network so that it is secure – meaning that it has proper authentication and access restrictions, that it can survive physical forces such as storms or earthquakes, and that the communications are properly encrypted.

In working on the question of viability, we had an important boundary. We had to work with what Congress had previously designated for public safety, the public safety spectrum currently held by the Public Safety Spectrum Trust (PSST), next door to the D Block. So that is what we did.

I want to acknowledge, and I have heard from many of you, that our recommendation is that the D Block be auctioned. I have not shied away from this discussion, nor have I discouraged anyone in public safety from vying for the D Block. In fact, you should continue any plans to make your arguments to Congress. And I think that we all agree that public safety will some day need more spectrum. But the record of information filed by public safety on the need for more spectrum now was sparse to begin with and was insufficient from an engineering standpoint. It did not meet the fact-based, data-driven requirement.

I am convinced that we have come up with a plan that not only meets all of these objectives, but that provides the best and most achievable path for doing so, one that does not require the D Block, actually provides more resiliency, redundancy and access to capacity than the D Block alone. As you undoubtedly know, we have presented this plan as part of the Commission's larger National Broadband Plan, released earlier this week.

So now let me describe our overall plan. Our plan establishes a three-pronged approach for creating the network that includes:

- 1) First, an **administrative system** that enables public safety users to effectively use the public safety broadband spectrum but also provides access to additional capacity on a day-to-day and emergency basis;
- 2) Second, an **Emergency Response Interoperability Center (ERIC)** established to ensure nationwide interoperability and operability of the network; and
- 3) Third, a **program for public funding** to provide needed funding for deployment and ongoing costs for the network.

The first – administrative -- prong of the plan includes the following elements:

- Public safety users can enter **flexible incentive-based partnerships** with commercial operators or systems integrators of your choice— including, but not limited to, the D Block licensee or licensees—to reduce costs and benefit from economies of scale.
- Public safety users will have the ability to **roam** on commercial networks in 700 MHz and potentially other bands at a reasonable cost. The reason you would ever need to roam is if you go out of your jurisdiction or if you need more capacity. Now the 10MHz of public safety spectrum is a lot of capacity. Commercial networks have hundreds of millions of users and have approximately 1 hertz of spectrum for each. Public safety will have only about a million users at given time and will have 10 times that amount of spectrum for each user. But we know that there will be bad days, intense usage in a small area. Roaming can add capacity if the public safety dedicated network fills up. It could provide 20, 30 megahertz, and maybe up to 70 additional megahertz in additional capacity. This also adds resiliency and redundancy that the utilizing a single network cannot provide. If the Public Safety Network fails, then

you have other networks you will still be able to use. And we have also included in our thinking funding for deployable equipment where network failure is catastrophic or where networks do not exist.

- Public safety users will have **priority access** on commercial networks in 700 MHz and potentially other bands at a reasonable cost when the public safety network is at capacity or unavailable, and public safety has an immediate need for priority communications. The LTE technology will provide for this in a way that has not been available before. The FCC will require it and you will be paying a reasonable rate for it, so the carriers will be obligated to provide it.
- The D Block will be auctioned, but with the requirement to use the same air interface as the public safety network
- D Block licensees and possibly others will be required to develop consumer-priced devices capable of operating on the public safety broadband spectrum.

Let me stop here for a moment and address something that I have heard from some in the public safety community since the plan was released – that public safety can't rely on roaming and priority access

on commercial networks. I don't agree. But I do agree that we need to work together with public safety to make sure that roaming and priority access work effectively. These discussions are already starting, and we will continue them to make sure we get this right. We have had three technical forums in the last two weeks that addressed the reasons why this concept will work from a technical and engineering standpoint and how the FCC plans to work with public safety to get this right. It is not perfect, but as the APCO expert, Robert LeGrande, said on Wednesday it is workable and the network should be funded.

Turning next to ERIC, we propose to create ERIC immediately under the umbrella of PSHSB.

- ERIC will be staffed with our best engineers, who understand broadband technology but also understand public safety communications needs.
- Working with both public safety and industry, ERIC will establish **common standards** for interoperability and **operating procedures** to be used by the public safety entities on the public safety network, and will build upon the work that public safety has already done on these issues.

- ERIC will work closely with DHS's Office of Emergency Communications and with the National Institute of Standards and Technology in carrying out its mission.
- A public safety advisory committee will provide practitioner-level input from the public safety community on ERIC's proposed actions. The members of this committee could encompass all of the current member organizations of the PSST plus some others that should be added.

Third, let's talk about funding.

We have spent a lot of time and effort on our recommendations in this area, because of one simple fact: without adequate funding, there will not be a nationwide interoperable public safety network. We have completed a detailed cost model on how this can work. The D Block alone will not produce a nationwide and perhaps not an interoperable network, and no one has produced or come forward with a real cost model and business plan that shows that it would.

Much of our plan assumes that public safety can and should leverage commercial networks and commercial technologies. Not only will this lower costs, but it will ensure that public safety can affordably keep

up with new technology rather than using out-of-date equipment for which you often can only find spare parts on E-Bay.

But we know that reliance on commercial networks alone will not meet public safety's specific needs for network reliability, resiliency, and coverage in remote areas where commercial providers are unlikely to build. Therefore, we propose specific public funding to ensure that these requirements are met. Our plan includes:

- Approximately **\$6.5 billion** for capital expenditures over ten years, to be funded through direct federal grants to public safety.

\$6-10 billion over ten years for operating costs, which ramp up as the network expands to a peak of \$1.3 billion per year.

Of course, this element of our plan requires action by Congress. And this is where we need your voices to be heard. I don't need to tell you that this is a difficult time to ask Congress for funding. But right now we have a unique opportunity to catch a technological wave that actually reduces the public cost of this network over the long run. If we miss the wave, the cost will be much higher.

In conclusion, our view is that our overall plan is the best path forward for public safety. We are committed to working with you and others in

the public safety community on the vast majority of the plan where we share a common vision and need to speak with a unified voice to make the vision happen. If we do that, this network will be a success.

Thank you again for inviting me here today.