This is a preliminary transcript of a Committee Hearing. It has not yet been subject to a review process to ensure that the statements within are appropriately attributed to the witness or member of Congress who made them, to determine whether there are any inconsistencies between the statements within and what was actually said at the proceeding, or to make any other corrections to ensure the accuracy of the record.

{York Stenographic Services,

HIF267.160

HEARING ON A NATIONAL INTEROPERABLE BROADBAND NETWORK FOR PUBLIC SAFETY: RECENT DEVELOPMENTS

THURSDAY, SEPTEMBER 24, 2009

House of Representatives,

Subcommittee on Communications, Technology, and the Internet

Committee on Energy and Commerce

Washington, D.C.

The subcommittee met, pursuant to call, at 10:15 a.m., in Room 2123 of the Rayburn House Office Building, Hon. Rick Boucher [Chairman of the Subcommittee] presiding.

Members present: Representatives Boucher, Eshoo, Stupak, Inslee, Weiner, Castor, Murphy, McNerney, Welch, Waxman (ex officio), Harman, Stearns, Upton, Shimkus, Walden, Terry, Blackburn and Barton (ex officio).

Staff present: Roger Sherman, Chief Counsel; Pat Delgado, Chief of Staff; Amy Levine, Counsel; Tim Powderly,

Counsel; Shawn Chang, Counsel; Greg Guice, Counsel; Sarah Fisher, Special Assistant; Alan DeLevie, Intern; Neil Fried, Minority Counsel; and Garrett Golding, Minority Legislative Analyst.

Mr. {Boucher.} The subcommittee will come to order.

Today we consider steps that the Congress can take to facilitate the creation of a nationwide interoperable broadband network for the first responder community. As the terrorist attacks of 9/11 and natural disasters like Hurricane Katrina starkly revealed, there are serious obstacles that prevent fire police and rescue personnel from one locality communicating with first responders from other localities when they converge on the scene of a disaster. In some instances, fire police and rescue personnel in a single locality may lack a means of interoperable communication each with the other. For almost a decade, there has been a widely expressed need to create a national fully interoperable communications network for first responders but as of today, that network remains a goal. It is not a reality.

This morning we will examine various proposals advanced by the first responder community and by commercial wireless carriers for realization of the national interoperable network. In advance of the 700 megahertz auction in 2008, the FCC crafted a plan to auction the 10 megahertz D block of the 700 megahertz spectrum to a commercial carrier, who under the terms of the proposal would then build out the D block with the requisite telecommunications equipment. Under the

terms of the auction, the winning commercial bidder would share the 10 megahertz with public safety and public safety would have priority access to that network. Those terms proved to be unattractive to the commercial carriers and in the auction the D block did not receive the auction reserve price and was not sold. It remains unsold at the present time.

A variety of proposals have been advanced since the failed D block auction about how the D block could be used to create a much needed nationwide first responder network. We will examine today the proposals and ask if any of them could result in a true nationwide network built out with the necessary wireless telecommunications equipment. The build-out of the wireless infrastructure would appear to be the largest single challenge, how to finance that, and we will focus our inquiry today on how that build-out could be financed through the various proposals that have been placed before us.

One proposal is to give the D block to public safety, and then it would be combined with the 10 megahertz of spectrum already held by the public safety broadband licensee, the Public Safety Spectrum Trust. While this option would clearly give public safety sufficient spectrum for a nationwide broadband network, it would not provide any

funding for the build-out with the necessary equipment. While some contend that localities could then lease the 10 megahertz that D block received for free under the proposal to commercial entities and then apply the revenue from that lease to equipment build-out. I question whether sufficient revenue from the lease could be realized, particularly in rural areas, to finance the needed equipment purchase and installation.

Another proposal is to auction the 10 megahertz block unencumbered for purely commercial use. The proceeds of that auction would then be used to help fund the build-out of a broadband network in the 10 megahertz of spectrum currently held by the Public Safety Spectrum Trust. This proposal likewise raises questions, given that no one believes the auction would raise sufficient funds to build out a nationwide network, perhaps only realizing a fraction of the total amount that is necessary. Where could public safety find the rest of the money that is needed? Could this proposal also leave smaller and more rural areas that lack financial resources behind?

A third option is for the FCC to re-auction the D block for purchase by a commercial carrier to use in a public-private partnership with the public safety broadband licensee. However, to ensure a successful auction, that new

auction would have to be restructured to address the concerns of commercial providers that resulted in the failure of a similarly structured auction in 2008. Whichever option is pursued, the most important goal is achieving a true nationwide public safety interoperability function. That means a plan that will ensure universal build-out and will not favor those areas with more resources to invest in a network over others with more limited means. The most critical question for many when determining how best to address the matter is how it will ensure that rural areas and other financially disadvantaged regions are not left behind.

We have an historic opportunity to make our nation more secure and to give our first responders a crucial tool they urgently need, and I hope that all member will keep this fundamental goal in mind as we consider how best to proceed, and I expect that this morning we will receive outstanding advice on these matters from our panel of witnesses, and I thank them for their attendance here today.

[The prepared statement of Mr. Boucher follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} That concludes my statement, and at this time I am pleased to recognize the ranking Republican on our subcommittee, the gentleman from Florida, Mr. Stearns.

Mr. {Stearns.} Thank you, Mr. Chairman, and I agree with you that we will receive outstanding testimony on what to do, and I appreciate you having this hearing on the recent developments on a national interoperable public safety broadband network.

The Digital Television Transition and Public Safety Act of 2005 cleared 84 megahertz of spectrum formerly occupied by the broadcasters in the 700 megahertz band. Now, of that spectrum, 24 megahertz was meant for first responders to use for interoperable emergency communications. The remaining 60 megahertz was supposed to be auctioned for commercial services. In mid-2007, then-FCC Chairman Kevin Martin, endorsed a proposal to require the winning commercial bidder for 10 megahertz of the spectrum, referred to as the D block, to negotiate a sharing agreement with public safety. In response, on June 29, 2007, Mr. Barton and myself along with 14 other members sent the FCC a bipartisan letter predicting that this approach would likely fail. The letter explained that commercial entities would be reluctant to bid on the D block for fear that they would fail to reach an agreement

that would meet both their needs and those of public safety while still enabling them to recover their costs. So as a result, the letter concluded both the original 24 megahertz earmarked for public safety and the 10 megahertz D block would lay empty. The auction would raise less money for taxpayers and time would be wasted. The FCC ignored the advice in our letter and the auction failed as a result.

The riskiest option going forward would be for the FCC to try another conditioned auction. Notwithstanding the failure of the D block auction, the FCC issued additional notices in May and September of 2008 proposing a re-auction of the D block with public safety conditions although it sought comment on how it might revise those conditions to improve the likelihood of success this time. The FCC did not take action on the proposal before Chairman Martin left. So I am concerned that few commercial providers would want to bid even with revisions since all the winner obtains is the right to negotiate with public safety.

Most of the public safety community appears to agree that the conditioned auction approach is not worth pursuing. Instead, some argue that Congress pass a law to give the D block directly to the public safety community for free. The public safety community would then use the spectrum for construction of the nationwide public safety network in

combination with the original 24 megahertz that the DTV legislation cleared for first responders. It could do so on its own or partner with commercial entities to do so. This would do little good, however, absent funding to construct the network.

Now, another option is to use revenue from a straight commercial auction of the D block to fund a network on the 24 megahertz first responders already have. Ten megahertz of the original 24 megahertz the DTV legislation cleared for first responders could be enough for the public safety network. Many public safety officials have filed waivers with the FCC to start building networks on the spectrum they already have access to. And even if it were not enough, proponents of this approach argue that public safety could switch from narrowband voice to voice over Internet protocol and use all of the 24 megahertz for the broadband network. Cities such as New York are already indicating they are considering to do so. This approach would make more spectrum available for commercial broadband service at a time when demand is increasing but the supply of available spectrum is actually running low. This would also address the money issue, but some don't think wireless companies would be interested in building or serving the network.

So, my colleagues, no matter which option we choose to

pursue, it is clear that past auction conditions do not work. We do not want to delay any further. I am glad we are having a hearing, we need to get it correct, and I look forward to hearing from our witnesses. Thank you, Mr. Chairman.

[The prepared statement of Mr. Stearns follows:]

********** INSERT 1 **********

|

Mr. {Boucher.} Thank you very much, Mr. Stearns.

The gentlelady from California, Ms. Eshoo, is recognized for 2 minutes.

Ms. {Eshoo.} Thank you, Mr. Chairman, and good morning, everyone.

The public safety communications has really been a longstanding concern of mine and that is why I joined with my colleague, Mr. Shimkus, to form the E-911 caucus almost 10 years ago. It is hard to believe that it was that long ago. And during that time we worked on numerous projects to keep Americans safe and secure and to advance most importantly first responder communications at the ground level. Public safety concerns have evolved, especially since 9/11, when we were reminded in very, very stark terms that interoperability is the glue that holds together the call centers, the first responders and other emergency personnel. Interoperability is interdependent on an often scarce and valuable public resource, which is spectrum. The spectrum can provide better safety resources and employ the most advanced technological tools but the spectrum has not faced the prospect of seeing people die or being injured instead of surviving during a crisis.

The issue before us, I think, is a matter of trust,

whether we trust the new commission to resolve the long-suffering D block issue through the rulemaking process, can they make the so-called restructured public-private partnership auction work. Those of us who lived through the D block false start auction do not want to go through another incarnation of that process. Twelve cities are biting at the bit trying to get at the 10 megahertz and 700 megahertz public safety broadband spectrum currently licensed to the Public Safety Spectrum Trust including the San Francisco Bay Regional Interoperable Communications System. They are shovel ready, and I think there is no reason to wait. I am not sure about the other proposals and I wonder who ultimately benefits. On the one hand, the major cities' chiefs asked for the spectrum without an auction but a number of regions might not need that much spectrum. Then we have carriers who are willing to pay big, no doubt, to get the same spectrum at auction. They claim to be willing to use funds siphoned off the top of the auction's proceeds to construct an interoperable broadband network for public safety.

So we are here today to hear from everyone. I want to know if we can move ahead now not only in my district but also what the best use is for this essential public trust. So I welcome all the witnesses and thank you, Mr. Chairman,

for having the hearing and I yield back.

[The prepared statement of Ms. Eshoo follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Ms. Eshoo.

The gentleman from Illinois, Mr. Shimkus, is recognized for 2 minutes.

Mr. {Shimkus.} I thank you, Mr. Chairman, and I am honored to be followed by my colleague and friend, Anna Eshoo, who we have done great work along with the community and we look forward to continuing that effort. You have done, Mr. Chairman, a good job outlining the options we have. That is why you all are here to answer questions and testify so we can kind of help correct, how do we address this problem. So I won't reiterate that.

What I will say is that unfortunately this is an example of the--although we are interested and we are here and you are here, the intensity of the public interest in this obviously has fallen off, and with the FBI investigation going on now on an unspecified list of supposed terrorists and an unspecified target list, this room should be flooded with people because we have said numerous times, and I know Anna has, we can't sustain another failure of communication in a major catastrophe, and unless we get this D block right, that is what we are going to have. And so we have to get to it. So the chairman has outlined the options. We are going to look forward to hearing your testimony. I just like using

the bully pulpit to mention to the chairman I would like to see us move on H.R. 3348, which would extend the grants program. There are some bills out there that would do that. I think that is important, something we could do now and it is well agreed to and probably could do on a suspension calendar if we could do that.

And one thing that hasn't been talked about which has been raised is the issue of a regional approach on auction issues. I know people have addressed rural concerns, and that should be part of the debate and that is what I will be looking for that also.

So with that, Mr. Chairman, thank you and I yield back.

[The prepared statement of Mr. Shimkus follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Mr. Shimkus.

The chairman of the full Energy and Commerce Committee, the gentleman from California, Mr. Waxman, is recognized for 5 minutes.

The {Chairman.} Thank you, Mr. Chairman. I want to thank you for holding this hearing and thank all of our witnesses for agreeing to come and share their knowledge and ideas on how to achieve nationwide public safety interoperability.

This is certainly the unfinished business from 9/11 and Katrina and it is an urgent matter. As the FCC commissioners recognized at our hearing last week, resolution of this issue needs immediate attention, and while the FCC will certainly play a leading role, a number of the proposals if pursued would require additional legislative action by the Congress.

During the last Congress, I was supportive of the concept of a public-private partnership and I continue to believe that some form of a public-private partnership would likely offer the clearest path to constructing a nationwide interoperable broadband network. Of course, the details of such an arrangement matter, and in light of the failure of the D block auction, we need to revisit these details. I am encouraged by the efforts of both the public safety community

and the private sector to think creatively about building this network and I am pleased to see that they have come up with a full range of ideas which we will learn more about today. I would like to thank particularly Chief Bratton of the LAPD for being with us. Thank you for being here.

As we listen to these proposals, I want you to know that there are three basic principles that I have in mind for any plan to address. First, the network or networks must be built quickly. Secondly, there must be a clear plan to ensure that deployment reaches all areas of the country including hard-to-reach rural areas and underfunded municipalities. Third, the plan should try to avoid distorting or disrupting the commercial wireless marketplace by giving an unfair advantage to certain carriers over others.

This is an important hearing, Chairman Boucher. I appreciate your holding it and it gives us an opportunity to learn more about this very important matter. To our witnesses, thank you for your participation and your testimony and look forward to the conclusion of the hearing and looking over the transcript and getting some ideas from this hearing today. I yield back my time.

[The prepared statement of Mr. Waxman follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Chairman Waxman.

The ranking Republican member of the Energy and Commerce Committee, the gentleman from Texas, Mr. Barton is recognized for 5 minutes.

Mr. {Barton.} Thank you, Mr. Chairman, and thank you for holding this hearing along with Ranking Member Stearns, and I am certainly glad that our full committee chairman, Mr. Waxman is also in attendance.

Mr. Chairman, if the FCC has listened to me, Mr. Stearns, Mr. Upton and several others several years ago, we wouldn't be having this hearing. We along with 13 other of our colleagues from both sides of the aisle, I might point out, wrote to the FCC in June of 2007 warning that placing public safety conditions on commercial use of the D block would almost certainly fail from both a public safety and a commercial perspective. Not listening, the FCC went forward anyway and botched the auction. Both the 24 megahertz cleared for public safety by the 2005 DTV legislation and the 10 megahertz D block originally intended for commercial use have been sidelined. Potential auction proceeds have been lost and 2 years have been wasted, so here we are again.

Some are proposing we simply try to the condition auction approach again. I strongly urge the FCC, and if we

need to, as a subcommittee and full committee, to inform the FCC not to do that. I don't think that will work. It didn't work the first time. There is no reason to expect it will work a second time.

Passing legislation giving the D block directly to public safety for free would give them control over the spectrum, and my guess is that some of our witnesses are going to advocate that today, but that is not going to help if we don't have the money to build it out. An unconditioned commercial auction of the D block could help raise money to build a public safety network on the 24 megahertz that the 2005 DTV legislation has already cleared for first responders. That is also a non-regulatory way to promote wireless competition and advance our broadband deployment. Some are skeptical that the commercial providers would help instruct the network and provide the service under this scenario. There are some that would also argue from an engineering perspective that 24 megahertz is not enough to create the public safety network. I hope that we have some expert testimony on that issue here today.

Here is an idea: Why don't we start by answering the engineering question first, Mr. Chairman? I am an engineer. I still have my engineering license. I am not an electrical engineer, however, so I would be worthless if they delegated

that job to be but I do know how to solve a problem from an engineering perspective. Once we know what is technologically possible, then we can debate the public policy and then we can look at the politics of the public policy. All too often, whether it is here or in the network neutrality debate, we send policy wonks and bureaucrats to do what us engineers could do without the policy wonks and without the politicians. Let us get to work, Mr. Chairman. I yield back.

[The prepared statement of Mr. Barton follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Mr. Barton.

The gentleman from Michigan, Mr. Stupak, is recognized for 2 minutes.

Mr. {Stupak.} Thank you, Mr. Chairman, for holding today's hearing on how we can achieve a national interoperable broadband network for public safety.

Last year when the D block auction failed, we convened a hearing to discuss with the Federal Communications Commission on how to move forward. Our witnesses today present us with a few options that warrant review at the FCC and I would like to know how their proposals addressed the largest hurdles to the original auction, those hurdles being the unique needs of public safety network, the high-cost areas of our country to serve like rural northern Michigan and the need for this network to reach nearly 99 percent coverage to be truly national.

A public safety network cannot operate like a commercial network. You can have a dropped call on a commercial service but a dropped call for public safety can be the difference between life and death. When disaster strikes such as a hurricane, consumers do not expect their cell service to be 100 percent intact but public safety does not have that luxury. I have made it clear that a robust, national

interoperable public safety network will need federal funding to become a reality. My colleagues were split 50/50 when I offered an amendment at the DTV markup years ago to use the revenue from the 700 megahertz auction to build the network. We missed our opportunity to make progress on this critical issue then, and today we are still at first base. This year I offered an amendment that was accepted by this committee during a markup of the American Recovery and Reinvestment Act, the stimulus package, to ensure that interoperable communications needs in high-cost areas were eligible for grant funding. However, even the full amount of money in the stimulus for broadband funding would not meet the estimated costs of a national interoperable public safety network which ranges anywhere from $10 billion to $20 billion.

So Mr. Chairman, I am looking forward to hearing from our witnesses. Thanks for holding today's hearing. I look forward to discussing this with our witnesses on how we can overcome these hurdles encountered by last year's auction. But I must remind the committee and everyone else, we have been talking about interoperability since 1978 with the Air Florida crash and I am sure we will be talking about interoperability in 2048 with the next disaster. I don't think we are going to make much progress but I look forward to hearing from the witnesses.

[The prepared statement of Mr. Stupak follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Mr. Stupak. Hopefully we will make some progress with all of our shared efforts.

The gentleman from Nebraska, Mr. Terry, is recognized for 2 minutes.

Mr. {Terry.} Thank you, Mr. Chairman, for holding this important hearing and thank you all, gentlemen, for being here to share your thoughts on how to solve this problem. Here we are 8 years after September 11 and we have no interoperable plan. We thought we did, but embarrassingly, the FCC failed to recognize that when you place obligations and restrictions on an asset, that you have reduced the value and therefore reduced the value to zero, so we are still in the same place we were the day after September 11.

It is extremely important that we set up an interoperable system that allows all of our first responders, our police, law enforcement agencies, fire and rescue and other agencies to all work together in a time of disaster. This includes not only the ability to talk to each other and coordinate but in today's world that also means video, which means broadband. So maybe it is a good thing that the FCC screwed it up and we made sure that we have enough spectrum to be able to do a proper job on interoperability. But let

us learn from the embarrassing experience the FCC caused a couple of years ago at the D block auction. Let us move forward and let us get the right plan. We are here today to hear your ideas of how to move forward on this, and I thank you for taking your time. I yield back.

[The prepared statement of Mr. Terry follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Mr. Terry.

The gentleman from California, Mr. McNerney, is recognized for 2 minutes.

Mr. {McNerney.} Thank you, Chairman Boucher, for convening today's hearing. I want to thank the witnesses for coming here today to talk to us. In particular, I am glad to welcome Mr. Fontes for coming. He has roots in Manteca, California, which is in my district.

Now, there is wide agreement about the potential benefits of a national interoperable public safety network. My district not only is home for Mr. Fontes but also for some of the most active earthquake faults in North America. So I understand the urgency of the problem. I know there has been some problems in the past but I think given the several different proposals that we have seen and heard of, these all merit our consideration and respect. I am confident with members of the committee, the FCC and all the stakeholders that we can find a solution that makes sense. We don't need to repeat the embarrassing mistakes of the past.

So this hearing is a positive step in the right direction. I look forward to your testimony and I yield back the balance of my time.

[The prepared statement of Mr. McNerney follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Mr. McNerney.

The gentlelady from Tennessee, Ms. Blackburn, is recognized for 2 minutes.

Mrs. {Blackburn.} Thank you, Mr. Chairman, and I welcome our witnesses also. We are very pleased that you are here, and as you are hearing from everyone up here, we realize that things need to be done differently this time around and so we appreciate that you are helping us revisit what happened with the D block. We realize that there should be some lessons learned and we have had some successes in the past and we have had some not-so-successful outcomes. As we look at this and as we hear from you today, we want to keep in mind the consumer needs that are there, the public safety, consumer choice, the ever-changing technologies that are also being developed and innovated and then the need for competition within the broadband industry.

I am really concerned, and I will be interested to hear from you all on what you think the amount of spectrum we really need to fulfill the public safety needs. Is the 24 megahertz enough? Do we need to look at more of this? What was the problem with the additional 10 megahertz that we felt like could be the dual use there? So I think that those questions are best answered by you all and by engineers, as

Ranking Member Barton said, you know, that you are the engineers looking at it, you know how to solve this problem, what the expansion of and the use of that spectrum can be. We all support a broadband, a good solid broadband policy, and want to see us make the most of this, and hearing from you today is important. I hope we learn our lessons well. Welcome to the committee, and I yield my time back.

[The prepared statement of Mrs. Blackburn follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Ms. Blackburn.

The gentleman from Vermont, Mr. Welch, is recognized for 2 minutes.

Mr. {Welch.} Thank you, Mr. Chairman. This issue for first responders is very important in Vermont just as much as it is in L.A. and every one of your communities. In Vermont, the police are doing a survey, and what they found was that 77 percent said that coverage was the biggest problem in our region. Twenty-seven percent of the respondents--these are law enforcement folks and first responder communities--stated that the current radio channels are at capacity and often congested and interoperability continues to be a huge problem.

What I am going to hope for in your testimony from a Vermont perspective but I think this will apply in general is consideration of the following: one, cost allocation for a build-out of the national system utilizing the D block spectrum; two, specific challenges for border communities--Vermont has experienced real difficulties relating to a 1962 treaty which limits use of certain spectrum 100 kilometers from the border; and three, how topography affects the efficacy of the 700 megahertz system. Overall, there are three basically three things that have to be considered going

forward. It is how do we build the system, how do we make it interoperable and how do we allow for competition so that the competition itself is going to be an incentive and a promoter of getting the job done. I yield back the balance of my time.

[The prepared statement of Mr. Welch follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Mr. Welch.

The gentleman from Washington State, Mr. Inslee, is recognized for 2 minutes.

Mr. {Inslee.} Thank you. Listening to these comments, I am sort of thinking a real discussion is, how do we free spectrum from cell block D. That sort of reminds me of the Escape from Alcatraz movie in that we are trying to free the spectrum. Most of our interest has been discussed. I just hope that the panel will discuss how we do this in a way that actually allows the financing of the construction of these networks in fact for public safety. It is important to finance it to actually get it done, and I look forward to the testimony. Thank you.

[The prepared statement of Mr. Inslee follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Mr. Inslee.

The gentleman from Connecticut, Mr. Murphy, is recognized for 2 minutes.

Mr. {Murphy.} Thank you very much, Mr. Chairman, and thank you to the witnesses for being here today.

As Mr. Welch mentioned, although a lot of the attention in our public safety communications infrastructure has been focused on Louisiana, New York City, Connecticut, Vermont and across the Nation, we have daily communication gaps, and it has caused the rise of companies like one in my district, Mutual Link, which has developed web-based software that allows for very divergent technologies of communications systems to talk to each other, and I hope that one of the things that we talk about today in addition to a lot of the very important topics raised by my colleagues is the ability of companion software and companion technology to try to help solve some of the existing gaps that are in existence today, that even if we solve this problem of the spectrum going forward we are going to need to solve in the short term but also that we focus not only the issue of money and how we make sure that we have the capacity to build this system not only on the questions Mr. Barton raised relative to technology but timing as well. What is in any of these

scenarios the realistic timing and what are our strategies in the interim to try to remedy those gaps as companies like the one I mentioned are trying to do.

I thank the witnesses for being here today. I thank the chairman for the hearing. I yield back.

[The prepared statement of Mr. Murphy follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you, Mr. Murphy.

The gentlelady from Florida, Ms. Castor, is recognized for 2 minutes.

Ms. {Castor.} Thank you, Chairman Boucher, very much for calling this important hearing on broadband across the country, particularly relating to our first responders. You know, coming from Florida here in late September, we are always mindful of the threat of hurricanes, and while we are fortunate we have had a fairly mild season, the 2004 season is still very fresh, and what I hear from first responders back home is that they have all the will in the world but we need your expert advice to show us the way to accomplish this and get it done.

So I will be intently interested in your testimony today and thank you very much for being here. I yield back my time.

[The prepared statement of Ms. Castor follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} Thank you very much, Ms. Castor, and thanks to all the members who have made opening comments this morning.

We want to welcome now our panel of witnesses, and I will simply say a brief word of introduction about each and then call on each in turn for their testimony. Mr. William Bratton is the chief of the Los Angeles Police Department and is testifying this morning on behalf of the Major Cities Chiefs Association. Dr. Brian Fontes is CEO of the National Emergency Number Association. Chief Harlin McEwen is chairman of the Public Safety Spectrum Trust Corporation and chairman of the communications and technology committee of the International Association of Chiefs of Police. Mr. Jason Barbour is the 911 director for Johnston County, North Carolina. Mr. Stacey Black is assistant vice president for market development and mobility product management at AT&T. Mr. Joseph Hanley is vice president for technical planning and services for telephone and Data Systems Inc., the parent company of United States Cellular Corporation, and Dr. Kostas Liopiros is the founder of the Sun Fire Group.

We welcome each of our witnesses. Without objection, your prepared written statements will be made a part of our record and we would welcome your oral summary of

approximately 5 minutes each.

Chief Bratton, we will be happy to begin with you.

|

^STATEMENTS OF CHIEF WILLIAM BRATTON, CHIEF OF POLICE, LOS ANGELES POLICE DEPARTMENT; BRIAN FONTES, CEO, NATIONAL EMERGENCY NUMBER ASSOCIATION; CHIEF HARLIN R. MCEWEN, CHAIRMAN, PUBLIC SAFETY SPECTRUM TRUST; JASON BARBOUR, 911 DIRECTOR, JOHNSTON COUNTY, NORTH CAROLINA; STACEY BLACK, ASSISTANT VICE PRESIDENT, MARKET DEVELOPMENT, AT&T; JOSEPH HANLEY, VICE PRESIDENT, TECHNOLOGY, PLANNING AND SERVICES, TELEPHONE AND DATA SYSTEMS, INC.,; AND KOSTAS LIOPIROS, PRINCIPAL AND FOUNDER, THE SUN FIRE GROUP LLC

|

^STATEMENT OF WILLIAM BRATTON

} Chief {Bratton.} Good morning, Chairman Boucher and members of the committee. My name is William Bratton and I currently serve as chief of the Los Angeles Police Department. I would like to thank you for this opportunity to appear before you today to discuss this critical issue.

I am here today speaking on behalf of the Major Cities Chiefs Association, which is comprised of the police chiefs of the 63 largest police departments in the United States and Canada. The 56 U.S. cities represented America's centers of industry, transportation, education and commerce. Their police departments provide public safety services to roughly

40 percent of America's population.

As you are well aware, the Federal Communications Commission auctioned portions of the 700 megahertz spectrum in May 2008, and although total auction proceeds significantly exceeded expectations, one block of spectrum, the D block, failed to attract a successful bidder. This was, in part, because of a requirement that the winning bidder had to construct a broadband wireless network built to public safety standards using the combined D block and adjacent public safety 700 megahertz spectrum.

Under current law, the FCC is required to auction the D block. We believe this course of action is not in the public interest, since it would likely generate little revenue for the federal government and allocate to commercial use scarce spectrum resources urgently needed by public safety. The Major Cities Chiefs urge the Committee and Congress to consider an alternative: enact legislation to reassign the D block from the auction pool and reallocate it to public safety. This action would result a strong foundation for a sustainable nationwide public safety wireless broadband network.

In my 40-year law enforcement career, I have been both a witness to and part of the evolution in policing technology. When I began as a police officer in Boston, the walkie-

talkies that were available to us were so big and bulky that no one even wanted to carry them. While I was commissioner at the NYPD, we developed the COMPSTAT model that utilized timely information, gained through technology, and we were able to drastically reduce crime in that city. Today, many agencies have established real-time crime centers that are leveraging new technology to do an even more effective job of fighting crime. Very soon, we will be moving to a predictive policing model where, by studying real-time crime patterns, we can anticipate where a crime is likely to occur. Without question, this evolution has been driven by the improvements and need for information technology.

Of course, in order to be useful, information needs to be relevant, accurate and timely, but just as important, it must be accessible. New technologies such as automated license plate readers, biometrics, medical telemetry, automated vehicle location and streaming video only scratch the surface of the capabilities that will be carried by broadband networks. The D block is critical for the accessibility of information to first responders across our Nation. Although some have questioned how to offset the potential loss of revenue resulting from the D block being taken off the auction block, we see this scenario in fundamentally different terms. We view the reallocation of

the D block as a critically needed investment in public safety rather than as a loss of revenue. This investment of spectrum into public safety will reap large dividends far into the future with reduced crime and victims.

Let me offer an example. In Los Angeles, a recent Rand Corporation study showed that the negative economic impact of a single homicide in my city is $4 million. Now, mind you, this $4 million figure is actually a conservative number. Utilizing technology, we have been able to reduce the number of homicides in Los Angeles by over 300 over the last several years. This has resulted in a net positive economic impact of $1.2 billion to my city. Coincidentally, my budget is $1.2 billion. Thus, because of our crime reduction efforts, we have actually become revenue neutral.

Investing the D block spectrum for use by public safety will benefit both urban areas as well as rural areas. In urban areas, the full amount of spectrum will be necessary to support the myriad of current and emerging broadband applications that are transforming public safety operations nationwide. In rural areas, the added spectrum can be used as collateral to form public-private partnerships, thereby reducing or eliminating a financial burden that such jurisdictions would otherwise have to assume to either build their own network or become a subscriber on a less reliable

commercial broadband network.

After the failure of the D block auction last year, there was significant confusion in the public safety community about how best to proceed with this critical issue. I am pleased to report today that in the last 5 months the eight major public safety organizations have come together in an unprecedented effort to forge a consensus on how to make a wireless public safety broadband network a reality.

At this time, I would like to briefly address the issue of the pending waiver requests. Under current FCC rules, the existing 10 megahertz of spectrum assigned to public safety licensee PSBL cannot be utilized and remains fallow. Currently, 13 jurisdictions including many represented by you have filed waiver requests with the FCC seeking to build local or regional broadband wireless networks utilizing this spectrum prior to the construction of a nationwide network. It is apparent that the communities large and small, urban and rural have come to the realization that a public safety broadband wireless network is a critical and urgent need. They have also come to the conclusion that they can construct local networks either alone or through a public-private partnership arrangement. We urge the FCC to expeditiously review the pending waiver requests and grant all requests that meet their requirements. Granting waivers to

jurisdictions with qualified proposals will permit early build-out of local and regional broadband networks.

In closing, we urge that you take the legislative action necessary to invest this spectrum in public safety nationwide. The benefits gained from such an investment in first responder communications will dramatically transform how we serve the public we have all sworn to protect. Thank you for this opportunity to address these important issues.

[The prepared statement of Chief Bratton follows:]

********** INSERT 2 **********

|

Mr. {Boucher.} Thank you very much, Chief Bratton.

We now have two recorded votes pending on the Floor of the House. I think we have time to hear from Dr. Fontes and then the committee will take a brief recess while members respond to the call of the House. Dr. Fontes, we will be pleased to hear from you.

|

^STATEMENT OF BRIAN FONTES

} Mr. {Fontes.} Thank you. I appreciate it very much, Mr. Chairman.

I would like to thank you, Mr. Stearns and other members of this subcommittee. My name is Brian Fontes and I represent the National Emergency Number Association. NENA is a representation organization of over 7,000 dedicated 911 and emergency communication professionals who receive and manage nearly 250 million 911 calls annually. In reality, these public safety individuals are the first link in the emergency response chain that so many Americans rely on. Before I continue, there are two members of this committee who are not here and I understand their demands for their role in the E-911 caucus as co-chairs on the House side, and that is Representatives Eshoo and Shimkus. I also want to extend my appreciation to other members of this committee for their commitment to the caucus and also for their commitment to the advancement of 911.

Wireless broadband is obviously very important, and in a day and age when many sectors of the economy rely on broadband services, public safety should have that same opportunity to do so. It is obvious that dealing with voice,

video and data is in fact critical. What is quite interesting as I reviewed many of the filings and certainly in the testimonies presented here, there is so much agreement that exists among the public safety organizations and frankly by some of the comments you have made today in your opening statements. We all agree that broadband both wired and wireless provides significant public safety benefits. A network for public safety must be available nationwide, rural as well as urban centers. We all agree that there must be funding to build this network, to operate it, to maintain it, to buy the equipment and the applications necessary. Public safety needs to be able to take advantage of the significant research and development that has been poured into the commercial sector and to be able to utilize that investment. We all agree that the network must meet the significant and reasonable needs of public safety.

Agreement on these issues and the lack of, let me repeat that, and the lack of federal funding for a nationwide public safety broadband network is in large part why the FCC initiated the D block public-private partnership that started this whole debate. However, recognizing that this proposal was not necessarily designed correctly, the auction was not successful. We do believe and I believe that with some modifications and some corrections and particularly to the

815 point that you had made, Mr. Chairman, about the uncertainty
816 associated with the auction once you won the bid that the
817 auction could in fact move forward. But NENA also recognizes
818 that there may in fact be another failure if the commission
819 were to move in that direction. And so we propose yet
820 another alternative, and that proposal we believe presents
821 significant benefits to public safety while also like other
822 proposals would require Congressional action. We believe
823 that the 10 megahertz that is available in the public safety
824 band be married to the D block and auctioned as a 20
825 megahertz block. Most parties in the technical world realize
826 that a 20 megahertz block provides the efficiencies needed
827 for broadband for public safety as well as commercial use.
828 We believe that this marriage provides substantial benefits
829 to public safety. We would propose that half the auction
830 revenues generated from a 20 megahertz auction be put into a
831 broadband trust as an initial start for access to that
832 network. We believe that the licensee should have imposed
833 upon it aggressive but achievable nationwide build-out
834 requirements, that public safety has access to all 20
835 megahertz and when needed priority access. We believe that
836 is a benefit. Public safety access to the network at a known
837 discounted rate should also be established before the
838 auction, and with the established reoccurring revenue source

to continue to provide funds, in essence the funding issue that we all raised today. This proposal provides yet another option to be considered.

To be sure, different options have been proposed by other public safety organizations and some wireless carriers. While we share many of the same goals, what really is the crux of the issue here is what will assure a nationwide broadband network with a funding mechanism that will encourage and provide for build-out nationwide, and that is it.

With that said, NENA asks the following two overarching factors, that they be nationwide and that there will be funding made available. I strongly encourage you, actually all of us, to look at unconventional and perhaps, yes, initially unpopular ideas that may result in a known and reoccurring source of funding, again a primary concern here, for public safety's broadband network. For example, at last week's FCC oversight hearing, Chairman Genachowski referred to the E-rate as one of the great successes of the 1996 Telecom Act, ensuring access to the Internet for our Nation's schools and libraries. If access to broadband for public safety is as important as we all know it is, then surely we can come up with an innovating funding proposal as we did for the schools and libraries over a decade. This is a

monumental effort. There is no doubt about it. NENA stands ready to work with all of you and certainly all of public safety to make this nationwide broadband network, the funding available for it, to become a reality. Thank you.

[The prepared statement of Mr. Fontes follows:]

********** INSERT 3 **********

|

Mr. {Boucher.} Thank you very much, Dr. Fontes.

I am also to ask unanimous consent to put three statements in today's record: a letter from the Association of Public Safety Communications Officials International, a letter from T Mobile USA, and a statement from the chief of the Newport, Vermont, Police. Without objection, so ordered.

[The information follows:]

********** COMMITTEE INSERT **********

|

Mr. {Boucher.} We are going to stand in recess until the conclusion of these two votes. It should not be very long, a half-hour at most, I think, probably less. So please be patient and we will return shortly.

[Recess.]

Ms. {Eshoo.} [Presiding] I don't want to break up the festivities, but I think that we can get back to our witnesses. I think that Chief McEwen is next.

Chief McEwen, you are on. I understand the challenge. It is hard for us to get into our seats too.

|

^STATEMENT OF HARLIN MCEWEN

} Chief {McEwen.} Thank you, Acting Chairman, and thank you, Chairman Boucher and Ranking Member Stearns and distinguished members of the committee for the opportunity to appear before you today. We applaud the efforts of the subcommittee members and other Members of Congress for your continuing interest and support in our efforts to create a nationwide public safety wireless broadband network.

My name is Harlin McEwen and I am the retired police chief for the city of Ithaca, New York, and I am also retired as a deputy assistant director of the FBI in Washington. I serve as the chairman of the communications and technology committee of the International Association of Chiefs of Police, a position I have held for more than 30 years. I also serve as the elected chairman of the Public Safety Spectrum Trust, a nonprofit corporation that consists of representatives of 15 national public safety organizations. The principal purpose of the PSST is to serve as the licensee and manager for the 700 megahertz nationwide public safety broadband license commonly referred to as the PSBL. The PSBL was granted to the PSST on November 19, 2007, and includes the 10 megahertz of broadband spectrum that is intended to be

one-half of the spectrum that will be used to develop a shared commercial public safety network. The other half of the spectrum will come from the so-called D block.

This is not the first time I have appeared before you on this topic but I want to once again stress why it is so important for the United States to have a nationwide public safety broadband network. Any review of major crises such as 9/11 or Katrina shows how much the personal efforts and effectiveness of our Nation's first responders, police, firefighters, emergency medical personnel and others, are diminished or undermined when the communications infrastructure that supports our efforts fails or is insufficient for the needs of public safety professionals. Our vision is to embrace the capabilities of broadband technology but at the same time not forget that public safety needs a network that is hardened to withstand catastrophes and has extended backup power, satellite backup and other important features so that it will be available and reliable in a crisis. Establishing and building out the wireless broadband network will be a significant challenge but it is one that very much needs to be done to meet our national security and public safety needs for the years to come.

As you aware, the 700 megahertz spectrum auction conducted by the FCC in early 2008 did not attract a winning

bid for the D block. Since then the FCC has sought several rounds of comment on various new proposals and options but has taken no further action. During the past 16 or so months, the PSST and the public safety community have worked diligently to examine options that will enable us to be successful and also preserve requirements that will result in a network designed to deliver up-to-date, affordable and interoperable broadband communications capabilities to our country's first responders. The PSST has been working with the FCC as it also examines various options.

In the total absence of conventional funding alternatives, the PSST supports the public-private partnership concept where the private partners which will be using some of the shared spectrum for their own commercial purposes and profit will be the principal source of financial support to the PSST. For example, the second report and order envisions that the use of public safety spectrum by the private partners will be under a lease agreement with the PSST. Since I last appeared before you, we have worked hard to achieve consensus within the public safety community to move this process forward. All of the major national public safety organizations with the exception of the National Emergency Number Association have reached consensus on the preferred approach for success. The consensus position is

for Congress to adopt legislation that will direct the FCC to remove auction requirements from the D block and to instead allocate it to the national public safety broadband license. This would then give public safety 20 megahertz of broadband spectrum that would enable us to proceed with public-private partnerships through a request for proposal process that would identify the best private partners to build out the network. This will also give us the ability to develop strong public-private partnerships locally and nationally that will provide the private funding necessary through network leasing and sharing agreements without requiring dependence on federal, State and local funding or auction revenue.

We look forward to working with you in this committee to make the public safety broadband network a reality in the near future. We urge you to support the proposed legislation and consensus position that I have described. Our efforts to get a nationwide public safety wireless broadband network have been going on for a very long time and we now call upon you to help us achieve this most important public safety goal. Thank you.

[The prepared statement of Chief McEwen follows:]

********** INSERT 4 **********

Ms. {Eshoo.} Thank you, Chief.

Mr. Barbour.

|

^STATEMENT OF JASON BARBOUR

} Mr. {Barbour.} Thank you, Acting Chairman. Chairman Boucher, Ranking Member Stearns and members of the subcommittee, thank you for providing me the opportunity to appear before you here today. My name is Jason Barbour. I am serving as the 911 director for Johnston County located in North Carolina. I am also an active captain with the town of Clayton Fire Department as well as a deputy sheriff for Johnston County. I am the past president for the National Emergency Number Association, commonly referred to as NENA. I currently serve as NENA's representative on the Public Safety Spectrum Trust, commonly referred to as the PSST. I am also a member of the Association of Public-Safety Communication Officials International, commonly referred to as APCO. While I am actively involved in all of these organizations, I am here today only on the behalf of Johnston County, a rural yet fast-growing county in eastern North Carolina. In my testimony today, I would like to make three points. First, broadband technologies provide significant benefits for emergency communications. Ensuring that public safety agencies and emergency responders are connected to broadband, wireline and wireless, must be a national

priority. Second, any actions taken by Congress or the FCC must ensure that a sustainable funding source is in place to pay for public safety's access to and use of broadband. Third, any proposal for the establishment of a wireless public safety broadband network must take into consideration the needs of rural America and ensure access to the network in all areas of the country.

How do we get there in rural America? No one doubts the potential of broadband for public safety in areas urban and rural. However, in rural America, there are legitimate questions concerning how wireless public safety broadband network can be paid for and built out. No one doubts that public safety agencies would love to have access to their own network and operate their own broadband network but the reality is, in many areas there is simply no way to fund the build-out and continued use of such networks. Whether public safety has access to 10, 20 or 50 megahertz of spectrum, the spectrum is only as good as the ability to pay for it and build it out. That is why I along with the rest of the national public safety community was particularly interested in the FCC's original D block concept in which public safety would have access to a broadband network, but would not have to pay for the cost of building the network. Whether or not the original D block public partnership can still work is a

legitimate question. A known funding source and a known build-out schedule 2 years ago and, regardless of the specific plan that is adopted, they remain critical issues today, particularly in rural America.

I commend all the organizations involved in this debate for putting the ideas on the table intended to result in positive solutions for public safety. Without commenting on any of the individual proposals, I believe several questions must be answered. First and foremost, is there an identified reoccurring funding source to pay for access to and use of the network for all areas? Would the proposal result in a nationwide wireless broadband network? Is there a high likelihood of success that such a network will be built out nationally on a known schedule? Will the network meet the reasonable and important needs of public safety? Will the plan ensure that the public safety network remains current and benefits from commercial research and development? If the plan calls for public/private partnerships, is there sufficient oversight by the FCC or other appropriate authority to ensure that such agreements are adhered to? If an approach is adopted that does not involve an auction with build-out requirements by commercial entities, is there sufficient evidence to conclude that there is a need for additional spectrum in rural areas and, therefore, an

assurance that non-mandatory partnerships will emerge and result in a nationwide network being built in less populated areas? I am particularly interested in the answers to these questions for rural America.

Whatever the details of any plan may be, it is essential that they are reviewed to ensure that the result is a nationwide network or network of networks sufficient to meet the needs of public safety and that near- and long-term funding is available for public safety to access and use the network.

Thank you for the opportunity to be here today.

[The prepared statement of Mr. Barbour follows:]

********** INSERT 5 **********

|

Ms. {Eshoo.} Thank you for your excellent testimony.

Mr. Black.

|

^STATEMENT OF STACEY BLACK

} Mr. {Black.} Acting Chairman and members of the subcommittee, thank you for the opportunity to appear before you today to discuss AT&T's support of public safety's proposals for the implementation of interoperable wireless broadband. As AT&T has been a leading provider of wireless data services to the public safety community for over a decade, we have a unique perspective that drives our rationale for this support. AT&T's support of public safety's desire to build out regional networks is based on our experience that agencies want the ability to tailor a network to meet their unique local needs.

First, agencies need the flexibility to choose a network management model that meets their financial as well as their communications requirements. Secondly, local agencies have a better understanding of the terrain and population centers that will or will not require coverage. Lastly, local deployments can be constructed using existing grants and procurement programs that have been traditionally used for land mobile radio and other communications at a much lower cost than what a nationwide network would entail. One of the concerns that has been expressed about this regional approach

is that it may not include small and rural communities. AT&T supports a unique proposal that could dramatically reduce the cost of a typical broadband deployment, thus making it affordable to provide coverage for smaller communities. This approach has been referred to as the leveraged network model as it provides a dedicated private network experience that leverages the core infrastructure of a commercial operator. This model has the potential to jump-start deployment of regional networks since most of the core build-out has already been completed. This model addresses two primary concerns of public safety: It gives them exclusive access to spectrum, eliminating the concern of sharing with commercial users, and it reduces the overall cost by leveraging the commercial operators' existing core network and provisioning support in billing systems.

AT&T also supports and applauds public safety's recommendation of LTE as the common technology standard. Known as long-term evolution, LTE is an internationally recognized wireless standard that is for next-generation. The LTE standard will benefit public safety in many ways. First, it will ensure that each network, even those that are built independent of each other, will allow seamless roaming for visiting public safety users. It will encourage early deployment and will build momentum among public safety

agencies and as more regional networks are deployed they will form the backbone of a network of networks that will ultimately provide public safety with interoperable broadband across the country. Second, it will allow public safety to leverage the massive economies of scale of the commercial operators who are also deploying LTE at 700 megahertz. Third, it will allow a region to confidently design and deploy a network knowing that it will be interoperable with later deployed networks. Lastly, AT&T envisions that public safety users will be able to roam from networks onto commercial networks as seamlessly as cellular phones roam today.

Finally, AT&T supports public safety's request to reallocate the D block as public safety spectrum to provide a full 20 megahertz of broadband capacity. Over the last 5 years as AT&T has introduced next-generation wireless data capabilities, public safety applications have become more bandwidth intensive and average data usage has doubled each year from 11 bits per user in 2005 to almost 200 megabits per user per month in 2009. Our experience tells us that as public safety deploys LTE, the vendor community will begin to develop new applications that require even more bandwidth. By providing the full 20 megahertz now, public safety will be able to deploy a single-bay station radio and devices that

utilize the contiguous spectrum instead of being forced to add non-contiguous spectrum at a later time which will require new equipment and additional taxpayer expense.

Another thing to consider is that public safety is unique in that during an incident or an emergency, network demand is typically concentrated in a small geographic area. While commercial carriers can deploy additional capacity at preplanned events, public safety does not have the luxury of planning the next disaster or incident that will likely involve multiple jurisdictions in a defined geographic area. Therefore, having the full 20 megahertz throughout a broadband deployment will provide public safety the additional capacity when needed most, during emergencies.

Reallocating the D block to public safety while using the leverage network model will benefit the smaller and rural communities that may not have all the funding needed to deploy a dedicated broadband network. Not only will the build-out cost be reduced but it also provides these communities the spectrum needed to incent a commercial operator to enter into a public-private partnership that will result not only in broadband for public safety but for the community as well.

In closing, we encourage you to engage the public safety community on these proposals directly as they are the true

beneficiaries of them. However, AT&T feels strongly that this is the last and best opportunity to provide public safety with the broadband capability that it needs in pursuit of its mission. It is simply the right thing to do.

Thank you, and I am prepared to answer any questions.

[The prepared statement of Mr. Black follows:]

********** INSERT 6 **********

|

Ms. {Eshoo.} Thank you, Mr. Black.

Mr. Hanley.

|

^STATEMENT OF JOSEPH HANLEY

} Mr. {Hanley.} Thank you, Chairman Eshoo Ranking Member Stearns and members of the subcommittee. Thank you for the opportunity to be here today. My name is Joe Hanley and I am a vice president at TDS, the parent company of U.S. Cellular. U.S. Cellular serves over 6.2 million customers and has received eight consecutive J.D. Power awards for highest call quality in the north central region.

In addition to commercial users, our networks serve hundreds of public safety agencies. Like other wireless carriers, we need more spectrum to support fourth-generation services. U.S. Cellular is prepared to play a significant role in the shared network I will discuss.

Two goals are essential to the public interest. First, we must provide nationwide interoperable broadband services for public safety. These services must be available throughout the Nation, not just for a few select communities. They should be provided at the lowest possible cost to taxpayers and public safety agencies. The second goal is to expand competitive broadband services for consumers. Broadband is a powerful catalyst for economic growth. However, spectrum, the life blood of broadband service and

wireless competition, has become highly concentrated and more must be made available.

The good news is that these two goals are highly complementary. This is not a choice between helping public safety or providing broadband services to consumers. Shared networks and shared use mean lower costs and better services for all users, and the combined user base may be essential to getting cost-effective equipment for this band.

There are two potential paths. First, a group of public safety organizations is asking Congress to reallocate the D block, creating a combined 20 megahertz block licensed to the PSST. This proposal can provide a basis for moving forward but it needs to be enhanced to ensure a full partnership between commercial operators and public safety with a fair opportunity for non-national carriers. We are encouraged by statements suggesting that many needed elements are already on the table: Shared commercial public safety use, commercial construction and operation of the network, participation of regional and smaller carriers, and competitive bidding for partners.

Legislation must make these concepts explicit, and we recommend the following improvements. First, the legislation should require that the FCC adopt rules for a fair selection process including non-national carriers. Second, it should

provide for commercial use of a reasonable portion of the overall 20 megahertz of capacity. Third, it should promote long-term stability and operator continuity similar to what the operator would have as a licensee. Fourth, it should require reasonably sized geographic areas for regional partnerships. States or the 55 regional planning areas would work.

Let us turn to the second option, which is available now to the FCC under existing law. Since the auction, there has been recognition that all-or-nothing national license contributed to the auction's failure. Consensus has developed on improvements including regional licensing and public safety has made progress on standards including a technology choice, LTE. After granting waivers for a few early builds, we propose a two-stage auction. Stage 1 would include commercial bidders and would generate revenues for the Treasury. In stage 2, for any license left unsold, the PSST could submit a bit with no monetary payment but a best-efforts commitment to build the network. Thus, after providing an opportunity for interested commercial operators to proactively bid, any remaining markets would fall back to competitive selection process run by the PSST. Thus, every market in the country would be assigned a licensee. The imperative is to get the process moving. The FCC should not

wait for legislation but should develop rules now for a successful auction of D block licenses. If reallocation legislation is adopted, this work will still have moved the ball forward on standards and the FCC can readily adapt its rules.

So to summarize, shared network and shared use meets both goals: public safety and competitive broadband deployment. Either path can work, properly legislation or a two-stage auction provide it includes opportunities for full commercial partnership and non-national operator participation. We believe an auction can be successful and would generate revenues for the Treasury. The key is to move forward, and the FCC should do so now under its existing authority.

Thank you very much for the opportunity to provide this testimony.

[The prepared statement of Mr. Hanley follows:]

********** INSERT 7 **********

|

Ms. {Eshoo.} Thank you, and I apologize for mispronouncing your name. It is because they have misspelled your name on your card. They have an E on it. So you are Hanley, not Haneley. Thank you very much for your testimony.

Doctor, let us see if I pronounce your name correctly, Liopiros. Welcome.

|

^STATEMENT OF KOSTAS LIOPIROS

} Mr. {Liopiros.} Acting Chairman Eshoo, Ranking Member Stearns and distinguished members of the subcommittee, thank you for inviting me to discuss the issue of a national interoperable broadband network for public safety. My name is Kostas Liopiros and I am the principal of the Sun Fire Group, an independent technology management consultancy located in Alexandria, Virginia.

Sound policy dictates that spectrum should be allocated and assigned in a manner that benefits all Americans. The approach that best serves both the public safety community and consumers will be to auction the D block solely for commercial use with the proceeds of the auction used to help fund a nationwide public safety broadband network on the 10 megahertz of 700 megahertz spectrum that has already been allocated for public safety. This approach will provide the funds needed to develop a state-of-the-art interoperable public safety broadband network while providing sorely needed spectrum for the advanced wireless broadband services that consumers now demand.

Public safety communications are critically important for the public welfare and they need to be improved,

especially in support of first responders. In general, public safety communications systems are still not fully interoperable, making it difficult for public safety agencies and first responders to communicate with one another. Further, public safety systems generally do not provide the wireless broadband capabilities increasingly commonplace in the commercial market that are becoming essential to the sharing of data. The federal government has allocated a great deal of spectrum in order to solve these problems. Nearly 100 megahertz of spectrum, 99.7 megahertz to be precise, has been allocated for public safety use. Of this nearly 100 megahertz total, less than about 17 megahertz between 150 and 160 megahertz is used currently to support the majority of public safety communications systems. The remaining spectrum which has been allocated to public safety since 1996 is still not widely used. This includes the 24 megahertz of prime spectrum and 700 megahertz band of which 10 megahertz has been designated for public safety broadband services.

At this point, lack of spectrum is not the key impediment to improving public safety communications. Congress has granted public safety spectrum for free but as you have heard many times today, funds to use the spectrum to construct a nationwide broadband network are still lacking.

Public safety agencies need funding to build and maintain a public safety broadband network in the 700 megahertz band. With the current economic crisis and severe resource constraints that confront most local and state governments, obtaining these funds is even more challenging than ever. Without financial support, a nationwide interoperable broadband public safety network will not be possible.

Congress needs to address the funding needs, especially as public safety moves to adopt broadband communications. As a first step, I recommend that Congress should strongly consider legislation to enable the FCC to auction the 700 megahertz D block for purely commercial use and direct the proceeds of that auction to the public safety community for the construction and maintenance of a public safety broadband network. Although the proceeds from the auction may not be sufficient to fully fund a nationwide public safety broadband network, they will provide a very substantial and valuable down payment on the network, kick-starting construction and making the remaining funding challenges much more manageable than before.

Now, the existing 10 megahertz of 700 megahertz spectrum that has already been allocated to public safety is, I believe, sufficient to support an interoperable broadband network, especially given the new efficient wireless

broadband technologies now becoming available. More than 10 cities and/or states have already sought FCC approval to begin construction of broadband networks on the existing 10 megahertz of public safety spectrum in the 700 megahertz band using long-term evolution technology, which is the recommended follow along to the GSM standard.

A number of public safety organization agencies have also endorsed the use of long-term evolution technology for constructing public safety broadband networks. LTE has multiple and scalable channel bandwidths and by design can accommodate the allocations in the 10 megahertz public safety broadband plan. By adopting LTE technology, public safety can leverage the ongoing commercial developments and infrastructure and equipment to reduce network deployment and operation costs.

Unlike public safety, however, the commercial wireless industry does face a spectrum crunch. Growing demands for new advanced broadband services including wireless broadband can be met only if sufficient spectrum is available for wireless carriers to provide these services. Wireless carriers in the United States have estimated the wireless industry will need access to at least an additional 200 megahertz of commercial spectrum within 5 years in order to meet growing consumer demand. That is a 5-year forecast.

The International Telecommunications Union in studies preparatory to the 2007 World Radio Conference, WRC-07, has estimated that by the year 2010 about 1 gigahertz of additional spectrum will be needed globally. Auctioning the 700 megahertz D block for commercial purposes would enhance the opportunities for the provision of competitive broadband services by existing carriers as well as new entrants. Of course, 10 megahertz of spectrum will not in itself alleviate the projected commercial spectrum shortage. Clearly, more needs to be done in terms of identifying the allocated spectrum for future commercial use but is a good first step and represents the best alternative use of the spectrum I have discussed.

In ideal circumstances, unrestricted amounts of spectrum would be available to meet the demands of all commercial carriers and public safety agencies. However, that is not the case. Spectrum is a rare and important national resource. Congress must balance the needs of public safety with that of consumers and focus on the best solution that considers existing conditions and future opportunities. Auctioning the D block for commercial use would provide a much-needed infusion of funds to jump-start the construction of a national interoperable broadband network for public safety while facilitating competition in the wireless

marketplace.

Mr. Chairman, thank you again for the invitation to testify today. I welcome any questions the committee may have.

[The prepared statement of Mr. Liopiros follows:]

********** INSERT 8 **********

|

Mr. {Boucher.} Thank you very much, Dr. Liopiros, and thanks to all of our witnesses for their testimony here this morning.

I have several questions, and the first one I think can be answered with simple yes or no answers, and so let me go down the row. I am going to start with Chief Bratton. Dr. Liopiros has just talked about the adequacy of the 10 megahertz of spectrum currently in the hands of the public Safety Spectrum Trust for utilization of the broadband services that we hope to see built out on a nationwide basis. If I understood his comments correctly, he is suggesting that the latest generation of wireless technology, LTE, should be satisfy to enable that 10 megahertz to serve your needs. Is there general agreement that the 10 megahertz is enough and that we can then look for alternative ways of disposing of the 10 megahertz D block? Chief Bratton?

Chief {Bratton.} No.

Mr. {Boucher.} Dr. Fontes?

Mr. {Fontes.} It is a difficult yes or no answer.

Mr. {Boucher.} I am sorry?

Mr. {Fontes.} Difficult yes or no.

Mr. {Boucher.} Be brief, please.

Mr. {Fontes.} Pardon?

Mr. {Boucher.} Be brief, please.

Mr. {Fontes.} Probably not.

Mr. {Boucher.} Okay. That is two no's. Chief McEwen?

Chief {McEwen.} No.

Mr. {Boucher.} Three. Mr. Barbour?

Mr. {Barbour.} With my limited knowledge, no.

Mr. {Boucher.} That is four.

Mr. {Black.} No.

Mr. {Boucher.} You said no. That is five. Mr. Hanley?

Mr. {Hanley.} No.

Mr. {Boucher.} Okay. Well, Dr. Liopiros, you seem to be outvoted.

Mr. {Liopiros.} It is a question of requirements, sir, and I haven't really seen any good studies or analysis that said it is sufficient or not sufficient. A lot of the evidence I hear is anecdotal. Of course, 20 megahertz is better than 10 megahertz, using more capacity. Thirty megahertz, 40 megahertz is better than 10 megahertz.

Mr. {Boucher.} But you are suggesting that 10 megahertz with appropriate technology would be good for the--

Mr. {Liopiros.} I am suggesting that it would be good at least for a start. The agencies that applied for--

Mr. {Boucher.} I am going to move on because I have got some other questions, but thank you. I am not trying to cut

you off. I just have limited time.

The problem of course is if we take not only the 10 megahertz currently in the hands of the trust but add to that the D block and provide that to the public safety community, then we don't have the D block available to help us in any way with the financing costs for building out in what would then be 20 megahertz of spectrum with the requisite technology. The debate up until now has focused on possible creative ways to use the D block to obtain financing for build-out of equipment in the 10 megahertz that the public safety community already has, and we are going to continue to focus on that while considering your comments that it would be nice to have an additional allocation of spectrum beyond the 10 megahertz. We are going to look for creative ideas that will go beyond what I now have counted as four different proposals for utilization of the D block. Those four proposals are an auction that involves a public-private partnership, somewhat along the lines of the failed auction in 2008; just a straight sale of D block to a commercial provider who prevails at auction; a gift of that D block to the public safety community; and then I think Dr. Fontes put a fourth possible approach on the table today by suggesting that there be an auction to a public-private partnership of all 20 megahertz, the 10 megahertz now in the hands of public

safety plus the D block. That is a proposal I think made this morning for the first time. So I am going to ask for some brief comments from each of you and my time is almost expired, so again, be as brief as you can. Of these proposals before us, do any of these appeal to you? Do you think that there is some way that if we pursued any of these approaches we would derive the financing necessary to assure that the equipment is supplied in the spectrum to have a nationwide network? I am told that the price of that might be anywhere between $10 billion and $20 billion, and just a pure auction of the D block I am also told might derive no more than $3 billion, so that is about 10 percent of what the total cost would be. This is the conundrum we face, how do we go about doing this. So just a quick answer, your recommendations against the four proposals currently here, and if you don't like any of those, let me have your own idea of what you think would work. Chief Bratton, do you want to begin?

Chief {Bratton.} Thank you, sir. Reinforcing my testimony that we believe it should just be given over to public safety and that would allow immediate movement of the waiver city requests where they already have the capability to start moving forward. That would allow also by implementation of those some 13, I think the number of

waivers, to get up and running. We could start evaluating the efficacy of the systems that they are putting into place. And as I have testified, we believe that would be an investment and not a cost in the sense of giving it over to us. We really do believe that there is an ability to meet both major city needs but also the rural needs, as Harlin McEwen has talked about in his testimony.

Mr. {Boucher.} I assume that if it were given to you, if you subleased it or otherwise disposed of it, that would produce some amount of revenue that you could use to build out. Do you think that would produce sufficient revenue for you to build out or would you have to look to the local government in Los Angeles for the balance?

Chief {Bratton.} I would be, I think, with what we are proposing, there would be no uniform way of moving forward. It really would be dependent on local, regional initiatives and--

Mr. {Boucher.} So you are saying local resources would have to supplement whatever revenue you derived?

Chief {Bratton.} That is a possibility, or local resources that come in through other funding sources. It does allow for a variety of ways to fund this as far as moving forward.

Mr. {Boucher.} Thank you. Let me move on, given the

limitation of time.

Dr. Fontes, just very briefly, and address, if you would, the problem in rural areas where the local resources might not be adequate to supplement whatever is derived from disposing of the D block were it given to the locality.

Mr. {Fontes.} And that essentially is what NENA's concern has been all along. In a report that many of my colleagues in public safety have endorsed, in that report itself it says that for many years to come, and it would take many years under this private partner relationship and then allowing public safety to negotiate agreements, it would take many years to build a near-ubiquitous service, and in the interim public safety in many parts of the country including rural America will have to rely on commercial services.

Mr. {Boucher.} Dr. Fontes, thank you. I am going to move on to Chief McEwen.

Chief {McEwen.} Well, as the chairman of the Public Safety Spectrum Trust, I have been involved in discussions, ongoing discussions with all of the possible commercials. The large two players in the 700 megahertz arena are AT&T and Verizon. I have been talking with U.S. Cellular, who is seated here today. I have had discussions with rural carriers in several States and with the National Rural Telecommunications Cooperative. There are a number of people

who tell me, I am not a businessman, I am a public safety person, that this is a possible outcome, a good outcome if we had that spectrum that we could partner with people in rural areas and in the major urban areas to make this happen--

Mr. {Boucher.} To make the build-out happen?

Chief {McEwen.} That is right, to make a build-out using in some cases existing commercial infrastructure and in other cases possibly building out in rural areas where it needs to be built out. So I believe it is possible-=-

Mr. {Boucher.} Okay. Thank you, Chief McEwen.

Mr. Barbour, very briefly, please.

Mr. {Barbour.} The two plans I think that only speak to funding for rural America is the continued public-private partnership auction or auctioning it all off with the proceeds going to public safety.

Mr. {Boucher.} Thank you.

Mr. Black?

Mr. {Black.} Thank you. Well, we continue to believe a bottoms-up approach, taking this at the regional level and for individual region to take into consideration the surrounding rural communities. They have existing funding mechanisms that they have available to them now. They have also grants available to them. And then of course, the lease of spectrum that they can do by having the additional 10

megahertz would provide an additional revenue source, and then finally using the leverage network model would greatly reduce the amount of capital required to build the area.

Mr. {Boucher.} Thank you.

Mr. Hanley?

Mr. {Hanley.} So shared network model using 20 megahertz of spectrum and leveraging operator assets, it will be the lowest cost and that reduces the funding requirement. Shared use allowing commercial capacity to be deployed on the network will contribute value, which will allow the cost to public safety of the network to be reduced. There are several ways to get there but the key is that we have to get to a shared model with a full partnership between public safety and commercial--

Mr. {Boucher.} Dr. Liopiros, very briefly, please.

Mr. {Liopiros.} The two options that will reduce the funding requirements but not eliminate them are the auctioning the spectrum for commercial use or the option that NENA proposed in terms of combining the spectrum auction and giving some of the proceeds to public safety. Why half instead of all the proceeds, I am not sure, but that would certainly contribute.

Mr. {Boucher.} Well, thank you all very much, and I have taken a large amount of time here. The chair intends to

be very generous with other members in terms of their questioning time.

Let me just comment that I appreciate the thoughtfulness you have applied to this. I am not sure that any of these proposals if implemented derive the revenues that we have to have in order to build out this spectrum, particularly in rural areas where local resources are quite limited and could not supplement whatever revenue comes from whatever utilization is made of the D block, and so my thought is that at the end of the day we are going to find ourselves looking for some kind of general fund revenues in order to finance this. So I honestly don't know another avenue that we have open that can provide the assurance we have to have that we are going to get where we need to be.

My time is expired, and at this point I am pleased to recognize the gentleman from Florida, Mr. Stearns.

I guess I am not going to be recognizing Mr. Stearns. My, how you have changed. The gentleman from Illinois, Mr. Shimkus, is recognized for 5 minutes.

Mr. {Shimkus.} Thank you, Mr. Chairman, and I have two, maybe a third one if I have time, but it is going to go to the whole panel, and it is based upon the opening statement that I made.

First of all, if the commission were to re-auction the D

block or if Congress decided to intervene, how should the licenses be divided, or should they? Should there be a national license or should there be a subdivision and what would that subdivision be if there were to be one? There is a lot of us who believe that a national license obviously was part of the problem. It didn't do the trick.

So let me start with Chief Bratton first and just go from your right to left, my left to right, and if you would answer that, I would appreciate it.

Chief {Bratton.} Our perspective is that either one would work.

Mr. {Shimkus.} A national or any subdivision?

Chief {Bratton.} That is correct.

Mr. {Fontes.} I think in encouraging more competitors, I think regional licenses whether it is a collection of States or breaking down the State level would probably attract more participants to the auction and enable more rural participation.

Chief {McEwen.} The Public Safety Spectrum Trust can support either option. The regional approach is probably the more practical one now, having the failed first auction.

Mr. {Shimkus.} And let me chime in because part of the question was, regions as defined how. Do we have a better way of defining regions? I mean, if you don't, that is fine,

but because of your expertise if you know of one, if you share that?

Chief {McEwen.} In the third further notice which is on the record that was put out last year, it did suggest a regional approach for 50-some regions. In other words, it was based on the 700 megahertz regions now plus a couple of offshore regions so there is a regional makeup that we basically supported in those comments.

Mr. {Shimkus.} Thank you.

Mr. {Barbour.} I think the wish list would be a national licensee but I think in reality it is going to be a regional approach.

Mr. {Black.} If it is a re-auction, we would support a regional approach.

Mr. {Hanley.} U.S. Cellular would support a regional approach, and we agree with the 55 regional planning areas or States as a model for doing that.

Mr. {Liopiros.} I too would support a regional approach. I think it would get more commercial carriers involved in the implementation of the system.

Mr. {Shimkus.} Thank you. That is better than I would have expected as far as a consistent response, so I think that does show some movement, Mr. Chairman.

The other issue would be, and I talked it before, is two

things. One is, I have always been concerned that we don't have standardization of equipment out there and so the question--I mean, I am talking about nationally now. There may be some within departments and areas. But also I raised the issue of the expiration or the statutory deadline and the funding authority of September 30, 2010, and I raise that. There is one bill, H.R. 3348, which would grant extensions to allow us to roll out. Would you be supportive of us moving rapidly to extending that ability? And Chief, if you would start and then go back down?

Chief {Bratton.} Very supportive.

Mr. {Fontes.} Definitely I would support the standard equipment and I think all of public safety agrees that LTE is the de facto standard, and then with respect to the funding authority, I would support it.

Mr. {Shimkus.} Let me follow--the fact that the have agreed, does it mean that it is?

Mr. {Fontes.} No.

Mr. {Shimkus.} And so something--there probably should be some certitude based upon law or rulemaking of a standard.

Chief {McEwen.} I assume you are talking about the extension of the PSIC grant? Is that what you are talking about? Okay. Well, first of all, I think we are in support, public safety, of extending those grants but those grants as

currently written are not intended to fund this type of an operation. They are--

Mr. {Shimkus.} I understand that, but still, as Anna knows, we work on emergency response, 911 issues and so this is our chance to continue to raise other aspects.

Chief {McEwen.} Well, we would support that but I just want to make sure everybody understands that money wouldn't really bring anything to this issue.

Mr. {Shimkus.} In our opportunity to ask questions that are important to us, we take every opportunity to do that.

Chief {McEwen.} Right.

Mr. {Barbour.} I definitely support it.

Mr. {Shimkus.} Thank you.

Mr. {Black.} We would defer to our public safety partners.

Mr. {Hanley.} U.S. Cellular would support the extension.

Mr. {Liopiros.} I too would support that.

Mr. {Shimkus.} Thank you very much. And Mr. Chairman, with that, my time is expired.

Mr. {Boucher.} Thank you very much, Mr. Shimkus.

The gentlelady from California, Ms. Eshoo, is recognized.

Ms. {Eshoo.} Thank you, Mr. Chairman.

Just an observation. We were talking about spectrum and how it can be used. I can't help but think of the spectrum here from an Angelian with I think a Boston Irish accent to the other end of the spectrum, a wonderful, great and Deep South accent from North Carolina. Only in America. So we have got our own spectrum here.

I want to ask some questions about the money because that is what is going to fuel this. I know that choices need to be made and I think the chairman did an excellent job of outlining basically four ways to go, what we have in front of us. You know, I mean, there is the subleasing. In terms of money, it can come from subleasing the spectrum or the money that is taken off the top of an auction or the partnerships. Now, Chief McEwen, you mentioned that you met with all commercial players. What is the price tag on this to have a ubiquitous system? See, what I am afraid of or I am fearful of in some of these ideas is, I am worried about inner cities and rural areas. They don't really have any leverage. I don't think they have leverage, anyway. That is my own take on it. So in talking to the commercial interests, what is the total sum of money that is needed nationally where we have a ubiquitous system? You know, any time we get into the weeds on this stuff, I take myself back to 9/11, to that fateful day where there was no interoperability between

police and fire. God only knows who would have survived if we had the kind of system that almost a decade later we are trying to build out. So this is very real. So what do you think, or anyone else, the price tag is for this?

Chief {McEwen.} First of all, nobody, I think, knows.

Ms. {Eshoo.} Nobody knows?

Chief {McEwen.} And so I would tell you that there have been numbers as low as $20 billion and as high as $40 billion, but what we have done is to basically ignore all of that, and the reason is that if we leverage as has been suggested by Mr. Black some of the existing infrastructure in the large companies, the small companies and the rural companies and then use public-private partnership to pay for the rest of the rural area, we believe that you can save a lot of money. In other words, this basically becomes achievable through that kind of a structure, and that $20 billion or whatever it is really means nothing at the end of the day because if you use the existing infrastructure of the carriers, U.S. Cellular--there are rural carriers that have infrastructure. The National Rural Telecommunications Cooperative has tremendous infrastructure, tower sites, all kinds of things that we could leverage upon to save money to make this an affordable project.

Ms. {Eshoo.} Does anyone else want to comment on it?

Mr. {Hanley.} I would say just briefly the cost depends obviously on specifications of the network, which--

Ms. {Eshoo.} I am sorry. I didn't hear the first part.

Mr. {Hanley.} The ultimate, the total cost depends on what the specifications are for the network so there is indeed a range. I think the key from a funding perspective is to make that network as efficient as possible using the efficiencies that LTE provides in a larger 20 megahertz band, leveraging as much of the operator's existing infrastructure as possible, and allowing commercial operators to get value out of it.

Ms. {Eshoo.} I understand that. The part that I don't want to come to, the scenario that I don't want to see in this hearing room is, we have gone off, we have designed this, we have made our choices and now we are coming back to you because there is a tremendous shortfall and therefore we don't have a ubiquitous system. We need to drill down to see how this thing is going to--what is needed to build this system. I think we have the building blocks for it. I think we are smart enough and we have the technologies to know what we want it to deliver but, you know what? Around here, price tags really do matter, and if there is going to be a shortfall for half of the $40 billion, then we need to take that into consideration in terms of what we do. I don't want

to short-circuit what we want to build because we come up short on the money, and I can't believe that we don't know that there is a range here between $20 and $40 billion. It is not fault or blame, I am just saying that we really need to plan this better. I don't have any time left.

Thank you, Mr. Chairman. Instructive hearing. Thank you, all of you, for being here today and to our West Coast chief, thank you for the job that you do in the City of Angels.

Mr. {Boucher.} Thank you very much, Ms. Eshoo.

The gentleman from Florida, Mr. Stearns, is recognized.

Mr. {Stearns.} Thank you, Mr. Chairman. I think that is one of the key questions, how much this is going to cost. Now, I think my staff and I thought it was $10 to $15 billion, so when someone mentioned $40 billion, that is quite larger than we expect.

Mr. Hanley, do you think it would cost as much as $40 billion? I mean, the range I heard was $10 to $15 billion. Just quickly.

Mr. {Hanley.} If it is purpose built, dedicated with no leverage of existing infrastructure and it is built to very, very, very high standard, it could be at the high end of that range.

Mr. {Stearns.} Dr. Liopiros, do you think it could by

with $10 to $15 billion?

Mr. {Liopiros.} It is my point that some of the developments in terms of the municipalities that want to build out networks now, they are doing it with their own funds. If you project that with cost to cover the Nation, I think you come up with a lower figure than people are quoting. But it really boils down to, as Mr. Hanley mentioned before, what are the requirements for the system? What do you want it to do? And I would suggest that maybe people aren't really quite sure what they want it to do and maybe they are just kind of saying well, let us get as much spectrum as possible to cover any future growth.

Mr. {Stearns.} But auctioning off the D block might not only--well, it won't even approach getting this money, maybe get $2 billion or $3 billion, so the real question comes down to, the fundamental question is, where are we going to get the money to do this. Now, I think after listening to you, many of us are starting to think that perhaps the government through general revenue should provide this. I think the chairman talked about this. And so I think what we have here is, it is so important, in fact the public safety community on September 11, 1996, indicated that we need to have a broadband network for public safety so it is sort of ironic that on September 11th when they issued their report in 1996,

they talked about it. So the need is out there. We have got to get moving. So if we can't agree on anything, we should agree that we have got to get the revenue from somewhere and perhaps general revenue is an area that we could look at.

So the next question is, if we get the general revenue, should we use the D block in combination with the 24 megahertz or can we put it all in the 24 megahertz? And I guess, Dr. Liopiros, why couldn't we use just the 24 megahertz spectrum, take the D block, auction it off to the broadband private sector, get the money from that? That would increase the broadband capabilities so all of us in our wireless would be enhanced and then use the 24 megahertz as the network for public safety? Is that doable?

Mr. {Liopiros.} I think that is doable over time.

Mr. {Stearns.} Okay. Now, within that, there is some question of whether 10 of it should be for broadband and 14 of it should be voice. Is it possible that we could use VoIP, voice over Internet, and we could use the whole 24 for broadband with voice over Internet so that the entire 24 megahertz is available? So is that technically possible? Is there a sense that that would be reliable?

Mr. {Liopiros.} Technically it is possible. VoIP will be provided by LTE and also the developments in LTE that allow them to also support the traditional circuit-switched

voice applications as well. Currently, public safety is oriented towards two separate approaches, the traditional narrowband voice and over that is going to be overlaid a wideband capability, but I think over time you can actually bet on what is going to happen is, that combining the two blocks and having a one wider broadband capability to support narrowband voice applications as well as broadband capability.

Mr. {Stearns.} Okay. Is--

Mr. {Liopiros.} And that makes more efficient use of the total spectrum.

Mr. {Stearns.} Yes. Is public safety already talking about VoIP in some way?

Mr. {Liopiros.} I know some have talked about using it. I don't know what the official position is.

Mr. {Stearns.} Chief?

Chief {McEwen.} Well, I mean, I think you are asking the wrong person here. I mean, we are the public safety people and he is a commercial guy. Here is the issue--

Mr. {Stearns.} Well, I am looking for somebody who is an engineer.

Chief {McEwen.} I know. Well, but here is the issue. Right now--

Mr. {Stearns.} Didn't you work for the Department of

Defense at one time?

Mr. {Liopiros.} Yes, I did.

Mr. {Stearns.} Okay. So I don't know if you want to discredit him because I think--

Chief {McEwen.} I won't discredit him, but the answer is very simple. At the moment today as we sit here, there is no broadband technology on the drawing board or planned to replace mission-critical voice as public safety knows it today. That is a dangerous thing, a leap of faith for people to assume that you could just build a broadband network to take the place of mission-critical voice systems.

Mr. {Stearns.} Okay. I accept that. I mean, that is true. But how about this? If you take and give 14 megahertz for voice and 10 megahertz for broadband and use the 24 megahertz as a network for public safety, Chief, would that be satisfactory to you?

Chief {McEwen.} See, the problem is that the 24 megahertz, the reason it was split into half being narrowband voice for mission-critical land mobile systems is because that is critical to us today. We can't abandon that because there is no alternative. VoIP broadband is not acceptable for mission-critical systems and the technology--

Mr. {Stearns.} But do you think--

Chief {McEwen.} It just isn't.

Mr. {Stearns.} Okay. All right. Well, I will just conclude, Mr. Chairman, just by saying this. Is it possible, Dr. Hanley, that with the 24 megahertz between voice 14 and broadband 10 would be satisfactory? Just yes or no, either one of you.

Mr. {Fontes.} Yes.

Mr. {Stearns.} Mr. Hanley?

Mr. {Hanley.} Yes.

Mr. {Stupak.} [Presiding] We are going to stand in recess. We have about 3 minutes left to vote. Congresswoman Harman is going to come right back and she should have voted. She should be back here any second. We will keep this hearing going. Members are going to vote and run right back, so we will just ask you to hold tight. We will be in recess until Congresswoman Harman or someone on this side can take the chair.

[Recess.]

Ms. {Harman.} [Presiding] Reconvene. I would like the supreme irony that I, a former member of this subcommittee, came back today because I feel so strongly about this subject and now I am chairing the subcommittee. Go figure. At any rate, thank you all for coming and I want to reiterate the message that you have already heard and that you agree with, which is we need to get on with this. Does anyone disagree

with that? No. Yesterday, at the request of Chairman Waxman, I introduced H.R. 3633, which is to extend the PSIC grant program for 1 year and then after that to extend it on a case-by-case basis. That is because as all of you know, there were some delays in DHS's action and we think that that unfairly burdens you, those of you who are in the law enforcement business, at a time when State and local budgets are flat to negative. So hopefully it will pass the Senate. Senators Rockefeller and Hutchinson have introduced it there. That would be good news since they are the chairman and ranking member of the Senate Commerce Committee and with Congressman Waxman's support I would think we would be in good shape here too. So relief is coming.

Having said that, however, as some of you commented, that is not the same as this. Having grants for equipment at the local level is not the same thing as building out a national interoperable network, and I want to ask you a couple of questions about that, but first I do want to say to my own chief that we will miss you. Your record is extraordinary. The one thing you didn't get done was this project, which I assigned you some years ago, and you failed me, but aside from that, Los Angeles residents including me are very, very grateful for your service and we wish you well, and as my good friend, you and I know will stay in

touch.

So my question about this is the following. I heard the discussion about regional build-out. I also heard the discussion about do we use public money since the auction has not succeeded as of yet or not. I don't know what the best answer is there but my bottom line is, let us just do it the best way we can as quickly as we can. But my question is this. I have been concerned that we might be pedaling backwards, and I want to explain that, that we might be, at least some parts of the country, might be building out local interoperable networks but those networks are not interoperable with other networks. So in other words, sort of the way I see it, we are going operable around the country but we are making it harder to go interoperable because those networks don't converge in the way they would need to, and I see Chief McEwen nodding so I am going to ask him first but then ask for some other comments.

Chief {McEwen.} Well, it is a legitimate concern, and we have been addressing that concern. The National Public Safety Telecommunications Council formed a broadband taskforce to address that issue and they have just released their report to us. We are in the process of reviewing that. And that is an attempt to make sure that these early build-outs in San Francisco, New York City, Boston, wherever are

going to be fully interoperable with any of the rest of the network as it is built out. We are absolutely convinced that we have the ability to do that and that we have the necessary tools to move that forward and not have that a problem.

Ms. {Harman.} Is that a promise?

Chief {McEwen.} That is a promise, because if it doesn't--I represent both the small guys in the police world and the big guys, and if I don't perform for both, I am basically out of a job.

Ms. {Harman.} And you represent the rural guys and the urban guys?

Chief {McEwen.} I do.

Ms. {Harman.} Because that matters to me too. I mean, as all of you know, I have spent a lot of years focused on what could happen here and it could happen in our smallest communities as well as our largest, and since the attacks in the future will be asymmetric, I mean, that is the trade craft of our enemy, it very easily could happen in small areas that at the moment aren't adequately networked.

Do others of you have comments? Chief Bratton, do you want to defend yourself against my comments?

Chief {Bratton.} That is my understanding, that this will be addressed. If I may, as a follow-on to a question that was going on just before the break about the cost of

this and the wide variety of estimates, to give a bit of perspective on it, the system that we have been designing over the last 4 years in Los Angeles involving Los Angeles County, 45 cities, we estimate the system for that 10-million-person area would be about a $700 million project just for that area to get interoperability the way we are designing it.

Ms. {Harman.} Yes, sir?

Mr. {Fontes.} I do believe that interoperability is critically important and I certainly support that. I am thinking of broadband context interoperability and particularly the work that has been done by the council. It has been very helpful in working on roaming and interoperability. I too would like to add one additional point to the funding issue, and that is simply to get a one-time shot of money does very little to enable public safety to plan and build for the future and so there is essentially a need, and Chairman Boucher summarized that there is a need for in this case perhaps general Treasury monies in some way, shape or form to provide that capability of planning so that you will know from one year to the next what you need and what you have to spend. It is basically how we run our households, and we know public safety is essentially the same.

Ms. {Harman.} If I could just insert there, and we do have a little more time because we don't have any other members here, so as the new chair of this subcommittee, I am planning to take a little more time. The stability of funding and the amount of funding are clearly relevant, and as Chief Bratton well knows, $700 million is not chump change. That is a lot of money. I think as important as the funding and sustainability questions there are, are the questions, and they may have been asked in my absence, about whether our build-out will be state of the art and future-proof, and so let me just ask our private sector partners to put that back in the table too in the context of sustainable funding and amount of funding. I mean, what are your thoughts about this?

Mr. {Black.} Well, from AT&T's perspective, you know, the choice of LTE is an excellent choice because it is the state of the art and it is also evolving. That is why they call it long-term evolution. The fact that public safety has chosen it means that they are going to be able to ride the coattails of an industry that already has proved to be very, very strong in terms of technological advancement, and to that end, AT&T participated in the same broadband taskforce that Chief McEwen mentioned, and to your point about a sense of urgency, we have actually been very bullish about this and

once there was consensus among the public safety community about going to LTE, we have become proactive in working with our device vendors of adding the public safety spectrum to the commercial spectrum to try to drive down the cost and we think that is the kind of partnership that needs to happen.

Ms. {Harman.} Any other comments?

Mr. {Hanley.} Yeah, I would just echo the comment about LTE. I think that is very important to achieving sustainability, but we have to recognize that the network will evolve. I think that folks that build networks will have to take on the responsibility for remaining interoperable, even if that requires investments in the future. I think also the sustainability of the overall ecosystem of devices will be enhanced by having commercial users be part of that process. That is another reason for shared use.

Ms. {Harman.} I strongly agree with that. I represent a part of the country that makes most of our intelligence satellites, and over the years we have been able to evolve better and better capability because a lot of those satellite makers also make commercial satellites and the dual-use nature of those buses and even some of the stuff that is put on them has enabled it to evolve better. So I am strongly in favor of a public-private partnership and of an evolving

architecture that will help law enforcement see the future and grandparents in Congress see the future in ways that we might not otherwise. So that makes a lot of sense.

Let me just finally ask you as a very impatient person who has only spent about 8 years pushing on this, when do you really think we will get there from here?

Chief {McEwen.} Well, we are never going to get there until you help us get there. I can guarantee you that. So it is a matter of making decisions. The decision we are asking you to make right now is to pass legislation to take the D block off the auction block. Either that has to happen or there has to be an auction, and the problem is that at the moment we don't know when either of those may happen. So, I mean, it isn't going to go forward until one of those happens.

Ms. {Harman.} Yes?

Mr. {Fontes.} I would reverse the priority. I would think that the most important thing if I were in your shoes as chairman, I think the most important thing is to ensure that there is funding available on a recurring basis. With that funding available, whether it is all owned and controlled by public safety environment or even if it is a shared partnership with the private world, that funding is essential to--you made a reference to the buses and how they

can plan on the buses on these satellites. That is exactly what is going to happen in the broadband world. You have to be able to pay for and plan, plan and pay for the applications that will benefit all of us in public safety. So funding on a recurring basis is essential.

Ms. {Harman.} Well, thank you very much. Let me just conclude my hearing with the observation that you are all right and that progress in individual counties and cities, especially huge ones like L.A. County and City, is critical. Sustained funding is critical. Congress acting is critical. The FCC acting is critical. And industry staying at the cutting edge is critical so I think this is our most urgent project. Nine eleven happened to us, or 9/11 exposed two big fissures in our capability. One was, we had a lot of stovepipe intelligence agencies that couldn't talk to each other or even talk to themselves in the case of one agency, and the other was that we had a completely inadequate interoperable communications system, and the combination of those two things resulted in catastrophic damage and loss of life in America and it is something we will never forget. So we have done substantial work to fix the lack of information sharing in our government. We have done intelligence reform. We have done all kinds of things that I think have put us in a much better place with respect to that. But we have far

too little to build out a truly national interoperable communications network, and you folks are all bright and you know what is needed and I think most of the folks on this committee on a bipartisan basis are committed to make it happen. Now we just have to do it. And I thank you for staying during the voting period, and I want to express my gratitude to all on this committee for naming me the new chair of the subcommittee.

The subcommittee hearing is adjourned.

[Whereupon, at 10:15 a.m., the subcommittee was adjourned.]