ENSURING COORDINATION AND COOPERATION: A REVIEW OF THE EMERGENCY COMMUNICATIONS OFFICES WITHIN THE DEPARTMENT OF HOMELAND SECURITY

HEARING

BEFORE THE

SUBCOMMITTEE ON EMERGENCY PREPAREDNESS, RESPONSE, AND COMMUNICATIONS

OF THE

COMMITTEE ON HOMELAND SECURITY HOUSE OF REPRESENTATIVES

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ENSURING COORDINATION AND COOPERATION: A REVIEW OF THE EMERGENCY COMMUNICATIONS OFFICES WITHIN THE DEPARTMENT OF HOMELAND SECURITY

Thursday, November 17, 2011

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON EMERGENCY PREPAREDNESS,
RESPONSE, AND COMMUNICATIONS,
COMMITTEE ON HOMELAND SECURITY,
Washington, DC.

The subcommittee met, pursuant to call, at 2:05 p.m., in Room 311, Cannon House Office Building, Hon. Gus M. Bilirakis [Chairman of the subcommittee] presiding.

Present: Representatives Bilirakis, Marino, Turner, Richardson, Clarke, and Thompson (ex officio).

Mr. BILIRAKIS. The Subcommittee on Emergency Preparedness, Response, and Communications will come to order. The subcommittee is meeting today to receive testimony on the functions of the various offices within the Department of Homeland Security with responsibility for emergency communications.

First off, I would like to welcome Mr. Turner from the great State of New York onto the committee. So would you like to say a couple words?

Mr. TURNER. It is just very nice to be here. I know we are pressed for time.

Mr. BILIRAKIS. It is great to have you, sir. I appreciate it.

I now recognize myself for an opening statement. I am pleased that our witnesses are here today to discuss efforts to coordinate emergency communications within the Department of Homeland Security. There are at least 10 offices within the DHS with responsibility over these functions. We will hear from representatives of some of those offices this afternoon. In this difficult budgetary climate, we must ensure that offices and programs are coordinating and working as efficiently as possible. There is no room for duplication of efforts.

In 2009, the Secretary of Homeland Security designated the Office of Emergency Communications as the leader for departmental communication efforts. As such, the OEC is responsible for policy development and leads the One DHS Communications Committee, which is tasked with maximizing the effectiveness and efficiency of the Department's emergency communications activities. I hope that our witnesses will address how this structure works in practice and

how the committee works to ensure that policies, operations, and technology procurement are consistent across the Department.

In addition to hearing how the various offices work with one another, I would also like to hear about the coordination of engagement with State and local partners. For instance, OEC has assisted States with the development of State-wide communications interoperability plans, while FEMA's Disaster Emergency Communications Division, DEC, works with States to develop operational communication plans. What is being done to prevent confusion among States as to which office to provide information? It is so important.

As these plans require updating, how are OEC and DEC working together to ensure that there is no further confusion, and reporting requirements are not duplicative? Are there ways to streamline different communications planning requirements for States? A robust alert and warning system is a vital part of emergency communications. This hearing is particularly timely in light of the first-ever National test of the Emergency Alert System that was conducted last week.

I am pleased to have Administrator Penn back before the subcommittee. I look forward to hearing about any successes and gaps identified by last week's test, and any steps that are necessary to further enhance the system going forward, and address any identified weaknesses.

I am also interested in the progress of the implementation of the Personal Localized Alerting Network, the PLAN, the new public safety system to enable text alert messages during emergency situations. Is PLAN on track for deployment in New York City and Washington, DC by the end of this year? Then Nation-wide, is it on track to be implemented by April next year? As you work with other Federal entities, States, and localities, and the private sector to deploy the technology, are you continuing to educate the public on how this system works and taking steps to ensure that privacy is protected? So important.

We also share the goal of enhancing emergency communications capabilities. I look forward to hearing from our witnesses about how they work with one another and other DHS component offices, other Federal agencies and departments, and State and local partners.

The Chairman will now recognize, and I know we don't have a lot of time, so we will probably have to break after our Minority Member gives her statement, but I recognize Ms. Richardson for as long as she would like for an opening statement.

Ms. RICHARDSON. Thank you, Mr. Chairman. Good afternoon to all of you, and thank you for convening this hearing focusing on ensuring coordination amongst DHS' several emergency communication offices. I would also like to thank our witnesses that are with us for serving our country, as all of you have done, and for your continued willingness to support this committee as well.

Emergency communications broadly encompasses interoperable communications, alerts, and warnings, and building resilient networks. The Nation has faced several disasters this year and in the past that requires us to reaffirm our commitment to improving emergency communications. Hurricanes, earthquakes, wildfires, and tornadoes have ravaged communities across this country. We

even saw some disasters as late as last night. Throughout all of these disasters, first responders needed reliable and resilient emergency communications to conduct their lifesaving missions.

Additionally, citizens need to be alerted as soon as possible in order to evacuate, put shelter in place, and take other actions recommended by our emergency officials that are determined through communications. Simply put, resilient and interoperable communications is required to save lives and to initiate recovery.

Unfortunately, gaps still do exist despite our progress over the last decade. I hope to learn what steps can we continue to take to move forward to resolve these gaps in anticipation of future emergencies. Unfortunately, the Office of Emergency Communication's role with the Department appears to be sometimes muted and based upon working groups lacking the ultimate authority to get the job done. Eliminating silos, maximizing assets, and streamlining policies requires strong authority, as intended by Congress.

The introduction of broadband provides an advanced and innovative tool for first responders. Building a Nation-wide interoperable emergency communications network is critical to our ability to successfully conduct a multi-jurisdictional response operation. I would say that last week in the district, I had an opportunity to visit the Beverly Hills Police Department that has the ICIS system, and to talk to some of the members of RICS as well. As an original cosponsor of the Broadband for First Responders Act of 2011, I am proud to support this bipartisan legislation that addresses this long overdue need.

I am interested in hearing what role DHS will play in support of President Obama's commitment to develop and deploy a Nationwide interoperable wireless network for public safety. I am interested also in learning more about the results of the test that we recently had, and what interim steps FEMA will take to enhance that system.

Finally, as Congress continues to discuss the Nation's fiscal future, we should recognize the importance of building and sustaining preparedness capabilities. Draconian cuts authorized in the fiscal year 2012 DHS appropriations bill puts emergency communication capabilities gained over the last decade in jeopardy.

I would say, for those of you who weren't here earlier for the Cybersecurity Subcommittee, we heard that very fact by Under Secretary O'Toole. I hope that you would just be as frank with us as she was. We need to learn what capabilities have been supported by these grant programs and the effects on the first responders' response operations if they are to be eliminated.

Again, I thank you all for being here today, and we look forward to your testimony as we probably return.

Mr. BILIRAKIS. I thank the Ranking Member.

[The statement of Ms. Richardson follows:]

PREPARED STATEMENT OF RANKING MEMBER LAURA RICHARDSON

NOVEMBER 17, 2011

Good Morning. I would like to thank Chairman Bilirakis for convening this hearing focusing on ensuring coordination amongst DHS's several emergency communications offices.

I would also like to thank the witnesses for their service to the country and participation in today's hearing.

Emergency communications broadly encompasses: Interoperable communications, alerts, and warnings, and building resilient networks.

The Nation has faced several disasters this year that requires for us to reaffirm our commitment to improving emergency communications.

Hurricanes, earthquakes, wildfires, and tornadoes have ravaged communities across the country.

Throughout all of these disasters, first responders needed reliable and resilient emergency communications to conduct their life-saving missions.

Additionally, citizens need to be alerted as soon as possible in order to evacuate, shelter in place, or take other actions recommended by emergency officials.

Simply put, resilient and interoperable communications is required to save lives and initiate recovery.

Unfortunately, gaps still exists despite progress over the last decade. I hope to learn what steps we can take moving forward to resolve these gaps in anticipation of future emergencies.

As a result of the failed Hurricane Katrina response, Congress established the Office of Emergency Communications to take a critical leadership role working to improve State and local interoperability and efforts within the Department.

Unfortunately, the Office of Emergency Communication's role with the Department appears to be muted and based on working groups lacking any ultimate authority.

Eliminating silos, maximizing assets, and streamlining policies requires strong authority, as intended by Congress.

The introduction of broadband provides an advanced and innovative tool for first responders.

Building a Nation-wide Interoperable Emergency Communications Network is critical to our ability to successfully conduct a multi-jurisdictional response operation.

I am a proud supporter of bipartisan legislation to addresses this long-overdue need.

I am interested in hearing what role DHS will play in support of President Obama's commitment to develop and deploy a Nation-wide, interoperable wireless network for public safety.

This committee has had particular interest in the importance of emergency alerts and warning. FEMA and the FCC conducted a comprehensive outreach campaign to announce last week's inaugural Emergency Alert System test.

Unfortunately, the initial lessons learned indicate that the current Emergency Alert System is unable to successfully provide a Nation-wide alert.

This gap in our alert and warning capabilities must be resolved in order to ensure that we are ready to provide citizens in every corner of the Nation with timely information, if a catastrophic event occurs.

I am interested in learning more about the results of the test and what interim steps FEMA will take to enhance the System.

Finally, as Congress continues to discuss the Nation's fiscal future we should recognize the importance of building and sustaining preparedness capabilities.

Draconian cuts authorized in the fiscal year 2012 DHS Appropriations bill puts emergency communication capabilities gained over the last decade in jeopardy.

We need to learn what capabilities have been supported by these grant programs and the effects on first responder response operations if they are eliminated.

Again, I thank you all for being here today and I look forward to your testimony.

Mr. BILIRAKIS. What we will do is we will break for—we have three votes, and we will be back in approximately a half hour. Thank you for your patience.

[Recess.]

Mr. BILIRAKIS. Thank you very much for your patience. I really appreciate it. I think we can get this hearing in, hopefully. I know we have other votes expected roughly 3:45, 4 o'clock. So we will do the best we can.

Other Members of the subcommittee are reminded that opening statements may be submitted for the record.

[The statement of Ranking Member Thompson follows:]

PREPARED STATEMENT OF RANKING MEMBER BENNIE G. THOMPSON

NOVEMBER 17, 2011

Mr. Chairman, thank you for holding today's hearing on coordination of emergency communications within the Department of Homeland Security.

According to the Congressional Research Service, over the last 10 years, Congress has appropriated over $13 billion dollars to States and local communities to improve emergency communications.

Despite this funding, interoperability remains a concern for State and local homeland security directors, public safety officials, and first responders.

As a former volunteer firefighter, I know that interoperable communications can save lives.

While it appears that much progress has been made, anecdotal evidence indicates that many first responders still are unable to communicate with each other.

Communications problems continue between fire and police departments within the same county; between police departments in neighboring counties; and between fire departments in adjacent towns.

These communication problems are not new.

The events of September 11 exposed huge gaps in the interoperability of emergency communications equipment within the first responder community.

Four years later, Hurricane Katrina reminded the Nation that the gaps exposed by 9/11 remained.

Congress responded with legislation. We passed the Post-Katrina Emergency Management Reform Act (PKEMRA).

In addition to providing grant funding, PKEMRA created the Office of Emergency Communication (OEC) within the Department of Homeland Security.

OEC was given the responsibility of assuring that interoperability challenges would be addressed.

A DHS policy memorandum signed by Secretary Napolitano in 2009 underscored OEC's responsibility in leading "DHS efforts to advance interoperable emergency communications".

Yet I am told that despite this memo, OEC's ability to coordinate other DHS agencies is hampered by reorganization within NPPD.

Mr. Chairman, I hope this hearing can help us determine whether this office has the authority it needs to address this Nation's continuing interoperability challenge.

I look forward to hearing about the staffing and support of this office and how it is administered under the new NPPD organizational structure.

But while I have concerns about the authority of OEC and its ability to reach our interoperability goals, I must also mention that the budget cuts to grant funding approved by this House will make it virtually impossible for this office or any office to address this Nation's continuing interoperability challenge.

Let me be clear. For fiscal year 2012, the proposed $1 billion dollars in funding for first responders is less than half of the fiscal year 2010 appropriation.

In addition to this overall reduction, the bill defunded the Interoperable Emergency Communications Grant program (IECGP), which is specifically designated to address these problems.

In essence, this budget will likely spell the end of our interoperability efforts.

Having lived through 9/11 and Katrina, we know what happens when fire fighters, police officers, and EMTs cannot talk to each other.

Congressional hearings and Presidential Commissions confirmed the lives lost due to the lack of interoperable radios.

Despite this evidence and our own memories, my colleagues on the other side of the aisle created a budget that asks each of us to ignore and forget. We have to forget the first responders of 9/11 and Katrina. We have to ignore the likelihood of natural disasters. But mostly, we have to forget that interoperable radios save lives.

Mr. Chairman, I cannot forget and I cannot resolve to do nothing. My only hope is that my colleagues on the other side of the aisle reconsider.

I yield back.

Mr. BILIRAKIS. Now I would like to welcome our witnesses. Our first witness is Mr. Chris Essid. I hope I pronounced that right. Mr. Essid is the director of the Office of Emergency Communications, a position he assumed in December 2007. In this capacity, he is responsible for leading efforts to obtain operable and interoperable emergency communications among public safety agencies across Federal, State, local, and Tribal governments. Prior to joining the

Department, Mr. Essid served as the first interoperable coordinator for the Commonwealth of Virginia. Mr. Essid served as a member of the United States Military Police from 2003 to 2008. He holds a master's of public administration from the University of Oklahoma, and a bachelor's degree in history from the University of Kentucky.

Following Mr. Essid, we will hear from Mr. John O'Connor. Mr. O'Connor is the acting director of the National Communications and Cybersecurity Integration Center, and the manager of the National Coordinating Center for Telecommunications. Mr. O'Connor has been with the National Communications System for 20 years, and served previous roles involving emergency operations and information technology. Mr. O'Connor served as the National Communications System representative to FEMA's National Response Coordination Center during September 11, during the attacks, and also played a response role during Hurricanes Katrina and Rita.

Our next witness is Mr. Damon Penn. Mr. Penn is the assistant administrator of the National Continuity Programs Directorate with FEMA. He is currently overseeing the development of FEMA's Integrated Public Alert and Warning System, known as IPAWS. Mr. Penn joined FEMA in 2004 as a defense coordinating officer in Florida. He also served as the DCO the following year in support of Mississippi's efforts during Hurricane Katrina. Prior to joining FEMA, Mr. Penn served more than 30 years with the U.S. Army, holding numerous leadership positions. Mr. Penn studied at the U.S. Naval War College, earning a master's of arts in national security and strategy studies. He also earned a master's of science in administration from Central Michigan University in 1993, and a bachelor's of science degree in criminal justice from UNC-Charlotte.

Following Mr. Penn, we will receive testimony from Mr. Eric Edwards. Mr. Edwards is FEMA's Executive Director for Disaster Emergency Communications and the Multiple Emergency Response Support Program Manager in the Response Directorate. In this position, he is responsible for coordinating the development and execution of emergency communications doctrine, operational plans, policies, and procedures for disaster response operations, and leading the MERS detachment during Presidential disasters, emergency declarations, National security special events, and other incidents of National significance. Prior to joining FEMA in August 2004, Mr. Edwards served as an officer in the U.S. Army Signal Corps for 2,000 years—I mean for 23 years. He also has a bachelor's of science degree in journalism and communication from my alma mater, the University of Florida—go Gators—and a master's degree in financial management from Johns Hopkins University. His military education includes Air Command and Staff College, U.S. Army Command, and General Staff College, Army Management Staff College, and Signal Officer basic and advanced courses.

Finally, we will hear from Ms. Linda Moore. Ms. Moore is a specialist in telecommunications and spectrum policy at the Congressional Research Service. Ms. Moore joined Congressional Research Service in July 2001. At CRS, her current areas of expertise include radio frequency spectrum policy, commercial wireless communications, and emergency communications, including 9–1–1 of course, the Emergency Alert System, and radio communications for

first responders. Prior to joining CRS, Ms. Moore spent more than 20 years in the banking industry, where she specialized in new technology and networks for electronic banking. Ms. Moore has a B.A. in economics from Columbia University and an M.B.A. from Columbia University's graduate school of business, where she also pursued postgraduate studies in economic theory and public policy.

Welcome to all the witnesses. Your entire written testimony will appear in the record. I ask that you each summarize your testimony for 5 minutes.

We will begin with Mr. Essid. Mr. Essid, you are now recognized. Thank you, sir.

STATEMENT OF CHRIS ESSID, DIRECTOR, OFFICE OF EMERGENCY COMMUNICATIONS, U.S. DEPARTMENT OF HOMELAND SECURITY

Mr. ESSID. Thank you, Chairman Bilirakis, Ranking Member Richardson, and distinguished Members of the committee. It is a pleasure to be here to discuss the Department's collaborative efforts to improve communications.

Public safety must have reliable communications at all times to effectively coordinate response and recovery operations. The Department recognizes the importance of communications is not solely a technology problem to be solved with just the right equipment or right technology. Successful interoperable solutions also include governance, standard operating procedures, training, and exercises, and daily use of whatever equipment they are using.

For example, I have been in neighboring jurisdictions where they use the same coded language in one jurisdiction for officer needs immediate assistance, and right next door it is officer is just taking a break. You can imagine the confusion this causes when these two jurisdictions work together. This has nothing do with technology. It is clearly a problem that can't be solved by purchasing the same radios.

We have solved hundreds of situations like this by working together and increasing the coordination with public safety. Each of the DHS witnesses at the table today has unique but essential roles in the National effort to ensure emergency communications both day-to-day and during an emergency.

I will discuss how the Office of Emergency Communications, or OEC, works to ensure that public safety officials at all levels of government can communicate effectively through this increased coordination. OEC was established in the wake of Hurricane Katrina as part of the Congressional response to the communications challenges faced both during that disaster and on September 11, 2001. This subcommittee and the full House Homeland Security Committee felt it essential to have an office to coordinate the numerous programs and efforts across all levels of government.

Since being created, OEC has worked to improve interoperable emergency communications, and we have seen significant progress in several key areas. A critical part of this has been the development and the on-going implementation of the National Emergency Communications Plan. Since 2008, OEC has been driving implementation of the National plan, and we are seeing measurable im-

provements in building capabilities and closing gaps identified in the plan for governance, training, and operational procedures.

A few examples include the creation of State-wide plans, State-wide coordinators, and State-wide governance. This has improved coordination at the State level, and resulted in public safety working together as a community. Through our technical assistance program we have provided over 750 on-site visits to States and localities to make improvements. OEC has trained more than 3,500 police, firefighters, EMS officials throughout the Nation to set up communications in a standardized way so they do it the same way in California as they do it in Florida. The progress made at the State and local level has been tremendous.

Through the implementation of the National plan, we have been working to measure the capabilities of public safety across the Nation. Last year we achieved Goal 1. The 60 largest urban areas showed that they could achieve interoperability during a large-scale event. Last week, we released a report on the findings from Goal 1. Our office is more than happy to provide additional information to Members of the committee on the results.

Currently, OEC is working with States and territories to measure Goal 2. This includes collecting data on capabilities and performance for more than 3,000 counties Nation-wide. We are going to be leveraging the results to better target our limited resources. In these challenging budget times, it is more important than ever that we align these resources to provide the greatest possible impact.

We are also collaborating efforts to increase coordination between the DHS offices and other Federal agencies. For example, OEC administers the Emergency Communications Preparedness Center to coordinate policy and planning across the 14 Federal departments and agencies. One of the biggest accomplishments is the development of recommendations for common grant guidance to standardize priorities across more than 40 separate grant programs. As a former State-wide coordinator, I can tell you it is very confusing and frustrating when you get a lot of Federal grants and they all have different guidance. Common guidance is going to make it clear and easier for States to submit grants and understand the priorities up front. So we have made significant progress so public safety can communicate when needed. Again, it is not simply a technology problem. Technologies are going to come and go. But by working together to ensure public safety is trained on how to use these new technologies, ensure that they have standard operating procedures, and ensure that governance is in place so that they can coordinate in the community, we have increased the ability for public safety to communicate.

We appreciate the committee's support, and thank you again for this opportunity to testify. I would be pleased to answer your questions.

Mr. BILIRAKIS. Thank you very much. I appreciate it.

[The joint prepared statement of Mr. Essid and Mr. O'Connor follows:]

JOINT PREPARED STATEMENT OF CHRIS ESSID AND JOHN O'CONNOR

NOVEMBER 17, 2011

INTRODUCTION

Thank you Chairman Bilirakis, Ranking Member Richardson, and distinguished Members of the committee. It is a pleasure to discuss the Department of Homeland Security's (DHS) collaborative efforts to improve communications for emergency response providers and Government officials. Ten years after the attacks of September 11, 2001, there is no shortage of reminders of the need for an effective and efficient emergency response framework to manage incidents and restore essential services in the aftermath of a disaster.

A top priority for DHS is improving the communications capabilities of those who are often the first to arrive at the scene of a disaster site—the Nation's emergency responders. Public safety personnel must have access to reliable and instantaneous communications at all times to effectively coordinate response and recovery operations. The Department recognizes that establishing emergency communications is not solely a technology problem that can be solved with just the "right" equipment or the "right" communications system. All of the critical factors for a successful interoperability solution—governance, standard operating procedures, training and exercises, and integration of systems into daily operations as well as technology—must and are being addressed through the collective work of our programs.

Further, DHS believes that effective emergency communications requires continued partnering with the millions of emergency responders that are the first to arrive on the scene of an incident, as well as the communications industry, non-Governmental organizations, the general public, and citizens of affected communities. We look forward to discussing our respective efforts and key accomplishments to make the Nation more prepared in an all-hazards environment.

EMERGENCY COMMUNICATIONS RESPONSIBILITIES

Within the National Protection and Programs Directorate's (NPPD) Office of Cybersecurity and Communications (CS&C) are two organizations that focus on different but converging areas of telecommunications in support of emergency operations: The Office of Emergency Communications (OEC) and the National Communications System (NCS). OEC and NCS are critical to shaping National policy and both work with other DHS Components, Federal departments and agencies, multiple levels of government, and the private communications sector to improve capabilities and achieve mission requirements.

OEC was established as part of the Congressional response to the communications challenges faced during the September 11, 2001, terrorist attacks and Hurricane Katrina in 2005. OEC coordinates policy and assists in the development and implementation of operable and interoperable emergency communications capabilities for emergency responders at all levels of government, including Federal, State, local, Tribal, and territorial. OEC also led the development of the first National Emergency Communications Plan (NECP).

The NCS, transferred from the Department of Defense to DHS in 2003, was created by Executive Order under President Kennedy to support the telecommunications functions of the Executive Office of the President and all Federal departments and agencies for Continuity of Government, Enduring Constitutional Government, and Continuity of Operations. Today, the NCS is an interagency system comprised of the telecommunications assets of 24 Federal departments and agencies, each with significant operational, policy, regulatory, and enforcement responsibilities. The NCS coordinates telecommunications preparedness, response, and restoration activities across its 24 member agencies through the NCS Committee of Principals, which consists of senior Government officials from each of the 24 member agencies, ensuring a diverse representation across the NCS that includes the full range of Federal telecommunications assets. The NCS also coordinates responses with stakeholders through the National Security Telecommunications Advisory Committee (NSTAC) and the National Coordination Center.

OFFICE OF EMERGENCY COMMUNICATIONS

The creation of OEC was an important step toward improving the communication capabilities of those who are often the first to arrive at the scene of an incident—the Nation's emergency responders. Inadequate emergency communications have been a critical gap in our Nation's preparedness, and previous efforts to address this issue were hampered by the lack of a strong partnership between the Federal Government and the public safety community. In addition, the Nation lacked an over-

arching strategy to guide emergency communications planning and build capabilities at all levels of government.

In the last 4 years, OEC has worked to fill many of these and other gaps, and we are seeing progress in several key areas that enable emergency responders to interoperate in an all-hazards environment. As part of its mission, OEC led a comprehensive Nation-wide planning effort with more than 150 stakeholders from the emergency response community to develop the NECP. This included significant feedback and coordination with the SAFECOM Executive Committee, the SAFECOM Emergency Response Council, and the National Public Safety Telecommunications Council. The SAFECOM Executive Committee and Emergency Response Council are comprised of National public safety association members, State and local emergency responders, and representatives within Federal agencies. These stakeholder groups represent the interests of millions of emergency responders, as well as the State and local governments that public safety communications serves. Involving these groups from the beginning ensured that the plan took stakeholders' input into account and would be widely accepted in the public safety community.

In the 3 years since it was released, the NECP has been instrumental in defining communication priorities for public safety personnel at all levels of government. OEC has been driving implementation of the NECP in coordination with its Federal, State, and local partners, and we are seeing measurable improvements with building capabilities and closing gaps identified in the plan for governance, training, operating procedures, and others, including:

- *Enhanced State-wide Coordination*.—The creation of State-wide Communication Interoperability Plans (SCIPs), State-wide Interoperability Coordinators (SWICs) and State-wide Interoperability Governing Bodies (SIGBs) has improved coordination of emergency communications activities and investments throughout all 56 States and territories. Through the SCIP development and updating process, the SWICs, in collaboration with their SIGBs, have been effective in helping States define their communications needs and future investments and ensuring that Federal funding is directed where it is needed most. In addition, OEC has conducted over 135 workshops during the past 3 years to assist States as they implement and update their SCIPs.
- *Common Plans, Protocols, and Procedures*.—The use of standardized plans and procedures is driving improved command, control, and communications among emergency responder agencies in the field. To facilitate this, OEC and the Federal Emergency Management Agency (FEMA) have worked with more than 140 jurisdictions, including Urban Area Security Initiative (UASI) regions, to develop Tactical Interoperable Communications Plans that document formalized interoperability governance groups, standardized policies and procedures, and emergency communications equipment inventories. States continue to develop these communications plans to cover additional regions.
- *Targeted Technical Assistance*.—OEC has implemented a technical assistance strategy to ensure that all States and territories can request and receive its targeted, on-site emergency communications assistance, while also focusing support on the States and urban areas most in need. These offerings are tailored to support the priorities in each State's or territory's SCIP and the objectives of the NECP. Since 2008, the 56 States and territories have combined to request more than 750 individual technical assistance services from OEC for support with the development of governance structures, tactical and strategic planning, and a variety of engineering services.
- *Increased Training Opportunities*.—OEC has developed Communications Unit Leader (COML) and Communications Technician (COMT) courses to improve emergency responders' proficiency with communications equipment and to assist them with coordinating roles and responsibilities during an incident or event. The COML program has been embraced by emergency responders Nation-wide, and OEC has trained more than 3,500 responders, technicians, and planners to lead communications at incidents across the Nation, including local floods, blizzards, and wildfires. Trained COMLs have also contributed to recovery efforts throughout the United States, including the recent outbreak of tornados and massive flooding in the Midwest and Southeast.
- *Enhanced Border Communications and Coordination*.—OEC has been actively working with our international partners at the Northern and Southern Borders to improve cross-border interoperable communications planning, policy development, and operations communications. DHS recently awarded $25 million in grant funding to States and local communities under the Border Interoperability Demonstration Project—a one-time competitive grant program focused on developing innovative solutions to strengthen interoperable emergency communications along the U.S. borders with our partners in Canada and Mexico.

- *Improved Governance and Coordination*.—OEC is working with Federal, regional, State, and local agencies to increase coordination, information sharing, and oversight of interoperability through formal governance structures and partnerships. For example:
  - SIGBs have been created in every State and territory and include representatives from all levels of government to coordinate and support State-wide interoperability. The State of Indiana, for example, has implemented an effective governance process for emergency communications through the State-wide Interoperability Executive Committee, which also serves as an advisory group to the State's Integrated Public Safety Commission. Many States have also implemented Regional Interoperability Committees to provide insight into the State-wide strategy from an operational perspective.
  - OEC continues to receive insightful feedback and input from responders, associations, and emergency communications professionals through the SAFECOM Executive Committee, SAFECOM Emergency Response Council, and the newly-chartered National Council of State-wide Interoperability Coordinators.
  - OEC recently instituted a Regional Coordination Program to strengthen collaboration and knowledge sharing with our stakeholders. OEC has established a Regional Coordinator in each of the 10 FEMA Regions, and they regularly participate in the SIGBs, the UASI interoperability meetings and their respective FEMA Regional Emergency Communications Coordination Working Groups.

By focusing on these core capabilities—planning, governance, training, interagency coordination, and technology support—emergency response agencies are becoming more equipped to establish and maintain interoperable communications during response and recovery activities.

COLLABORATION WITH FEDERAL PARTNERS

In addition to the extensive progress made to improve emergency communications at the State, local, and Tribal level, the Department, through OEC, is coordinating efforts to improve emergency communications among DHS Component offices and other Federal agencies.

OEC operates the Emergency Communications Preparedness Center (ECPC) to coordinate policy, planning, and administration of emergency communications across 14 Federal departments and agencies. The ECPC provides an inter-departmental mechanism to coordinate common solutions, streamline development of policy and plans, and jointly engage State, local, and Tribal partners. The ECPC has achieved early successes through defining a strategic agenda that reflects shared member priorities and establishes issue-specific focus groups to drive immediate action. Key accomplishments include: (1) Coordinated inputs on National policy, such as Federal agency comments on the Federal Communications Commission's (FCC) National Broadband Plan; (2) developed and published recommendations for common Federal grant guidance to synchronize emergency communications spending across more than 40 grant programs; (3) initiated efforts to drive capability and resource sharing through mapping and analyzing existing Federal communications resources; and (4) implemented a clearinghouse capability and data repository to yield improved information sharing and coordination.

OEC also administers the One DHS Emergency Communications Committee, which aims to improve internal coordination of policy and planning across DHS Components with emergency communications missions. This committee provides a vital mechanism for maximizing the efficiency and effectiveness of the Department's emergency communications investments and activities. The One DHS Committee reached its most significant milestone in June 2011 with the creation of the unified One DHS Emergency Communications Strategy. The Strategy establishes a common vision "to ensure access to and exchange of mission-critical information across the Homeland Security Enterprise anywhere, anytime, through unified capabilities." It also sets goals for coordinating and improving emergency communications architecture, investment, governance, and operations.

OEC has worked closely with FEMA through the Disaster Emergency Communications Division to ensure State and local agencies have the capability to communicate during disaster response. OEC has supported the Regional Emergency Communications Coordination Working Groups (RECCWGs) for the past 4 years. OEC's Regional Coordinators participate on the RECCWGs and bring together Federal, State, and local governments in their region.

OEC also collaborates with FEMA GPD to ensure that grant funding is aligned with applicable National and State strategies.

OEC works closely with NCS on several initiatives such as the Government Emergency Telecommunication System (GETS) and Wireless Priority Services (WPS) and provides support to the National Coordinating Center for Telecommunications (NCC) during emergencies. In addition, OEC provides support during a Federally-declared disaster when Emergency Support Function (ESF) No. 2 is activated. ESF No. 2 is the support function to restore commercial telecommunications and provide tactical communications support during incidents. OEC Regional Coordinators are deployed either to the FEMA Regional Response Coordination Center or to an Incident Management Action Team (IMAT) in the affected area.

Recently, OEC partnered with both NCS and FEMA to support the response to Hurricane Irene. Four of OEC's Regional Coordinators were deployed to support ESF No. 2. The Regional Coordinators supported many tasks throughout the Hurricane response, but the most valuable role they served was using their strong intergovernmental relationships and a localized knowledge base of the Regions in which they work. Because the Regional Coordinators work with stakeholders every day, they have an in-depth understanding of the needs of different communities across their Regions. Counterparts at FEMA noted the importance of these relationships during the response and recommended the Regional Coordinators work directly with the States as a government liaison across multiple levels of government. Collaboration with stakeholder partners at all level of government is essential to carrying out OEC's mission and the impact of this collaboration was demonstrated during the Hurricane Irene response. OEC will continue to support NCS and FEMA in future ESF No. 2 responses.

NECP GOAL ASSESSMENTS

Implementation of the NECP has been a key driver behind much of our progress in improving interoperability. More than 85 percent of the NECP milestones have been achieved to date and progress is evident in all of the NECP priority areas, such as governance, training, and coordination.

To move the Nation closer to allowing all emergency responders to communicate as needed, OEC is engaged in a comprehensive, Nation-wide assessment of emergency communications capabilities as it implements the NECP Goals. When complete, this assessment will provide a detailed view of capabilities at the county or county-equivalent level in all 56 States and territories. This detailed look at emergency communications—the first of its kind—will generate valuable data for both DHS and the States to use to more effectively and efficiently focus future resources and improvement activities.

OEC recently completed the measurement of Goal 1 of the NECP, which focused on emergency communications capabilities in the Nation's largest cities. To measure NECP Goal 1, OEC worked with the UASI regions to assess their ability to demonstrate response-level emergency communications during a real-world event in each region. This approach enabled OEC to evaluate their use of emergency communications in real-world settings and in an economically efficient manner.

The results of this evaluation have been encouraging. Based on the capabilities documented at each Goal 1 event, UASIs were able to demonstrate the ability to establish response-level emergency communications in accordance with NECP Goal 1. This illustrated how the significant organizational and technical investments made by the UASIs have improved their emergency communications capabilities in recent years. In fact, OEC saw measurable improvements over key gaps identified in the previous DHS assessment of these urban areas in 2007, the *Tactical Interoperable Communications Scorecards* report. Some of these areas of progress were the result of DHS programs and funding, including the following:

- *Grants*.—The NECP Goal 1 results showed an increase in the number of UASI regions using Project 25 (P25) digital radio standards-based systems, which are designed to allow interoperability regardless of equipment vendor. The implementation of P25 systems has been a provision in DHS grant guidance for several years, including the SAFECOM grant guidance and the Public Safety Interoperable Communications Grant Program.
- *Training and Technical Assistance*.—As previously discussed, OEC offers a COML training program that has trained more than 3,500 responders, technicians, and planners to lead communications at incidents across the Nation. This program began in part as a response to gaps identified in the 2007 DHS Tactical Interoperable Communications Plans Tactical Interoperable Communications Plan (TICP) Scorecard assessment, specifically the lack of trained COMLs. During the NECP Goal 1 events, OEC found that a large majority of the UASI regions had assigned DHS-trained COMLs to handle planning and implementing multi-system communications for the event.

- *Exercises*.—Almost all UASI regions reported that agencies within their regions are now holding communication-specific exercises, and approximately half of them reported that the agencies are holding these exercises on a regular basis. This represents significant progress over similar findings from the DHS TICP report in 2007, which concluded that "almost no [UASI] region had completed a communications-focused exercise before the TICP validation exercise."

OEC is currently in the process of implementing a Goal 2 measurement, which calls for an assessment of emergency communications performance and capabilities at the county-level (or county-equivalent level, such as parishes in Louisiana). This is a large undertaking, as there are more than 3,000 counties in the United States. OEC is working closely with the States and territories to complete this assessment by the end of this year and will be following up with them on how to use the results to update their SCIPs and more effectively utilize resources. From a DHS perspective, we believe the NECP Goals assessment will generate much-needed capability data to more strategically direct Federal and State emergency communications resources—including grant funds and technical assistance support—to where they are needed most.

PUBLIC SAFETY BROADBAND NETWORK

Over the last decade, our Nation has made critical strides in strengthening overall security and National preparedness. The public safety community also has made significant progress improving emergency communications capabilities through enhanced coordination, planning, training, and equipment.

However, we have been limited by wireless technologies that were introduced decades ago. To fully achieve the vision of the 9/11 Commission, emergency responders must have an advanced, Nation-wide, interoperable, public safety communications network. Recent developments in high-speed, wireless communications technology represent a new opportunity for emergency responders to have significantly greater operability, interoperability, and capability.

These broadband advancements can provide emergency responders with access to information that will improve their ability to safely and efficiently manage their daily activities and respond to all levels of emergency situations. For example, as President Obama stated in his State of the Union Address, these advancements can enable a firefighter to use a handheld device to download the design of a building before arriving at the scene of an emergency. These types of capabilities have the potential to save countless lives. That is why the administration has been coordinating with the public safety community, the private sector, and Congress to promote initiatives for the deployment and development of a Nation-wide Public Safety Broadband Network.

Earlier this year, President Obama outlined his commitment to the development and deployment of such a network for public safety, a key recommendation from the 9/11 Commission Report. The administration's program in support of such a network is a component of its Wireless Innovation and Infrastructure Initiative, which was outlined in its fiscal year 2012 budget. The public safety elements of the Initiative include an accounting for the foregone auction revenues resulting from reallocation of the D Block for use in the public safety broadband network; $7 billion in direct financial support for network deployment; $500 million for development and testing of broadband public safety requirements, standards, and software applications (to be administered through the National Institute of Standards and Technology); and $5 billion for support to rural broadband services, including public safety services.

The administration is fully committed to working with Congress to ensure the passage of legislation that meets the critical National need of establishing a public safety broadband network. We appreciate the bipartisan Congressional leadership on this issue that crosses committees of jurisdiction, including Chairman King and Ranking Member Thompson. We are confident that through continued cooperation with Congress, we can deliver a network that meets the needs of America's first responders whom all Americans rely upon.

OEC has been extremely active in support of the President's Wireless Innovation and Infrastructure Initiative and helping prepare the Nation's responders for the deployment of broadband. OEC has worked closely with its Federal partners at the Departments of Commerce and Justice, as well as the FCC, to help set the broad policy framework for the planned network, and has coordinated with its State and local partners to ensure the public safety community's requirements are fully represented in network broadband planning and implementation efforts. More specific examples include the following OEC broadband-focused programs and activities:

- *Policy and Planning*.—OEC is preparing an addendum to the NECP for release later this year that will identify key broadband challenges and recommend near-term actions to foster the integration of broadband technologies and data capabilities. This addendum also will propose further measures to support current interoperability efforts and to maintain existing Land Mobile Radio communications capabilities until broadband technologies can support mission-critical communications for first responders.
- *Outreach and Coordination*.—OEC is working with all of its stakeholder groups—including the SAFECOM Executive Committee and Emergency Response Council, National Council of State-wide Interoperability Coordinators, ECPC, and the One DHS Committee on Emergency Communications Committee—to ensure the views and requirements of the public safety community are fully represented in broadband planning and implementation efforts.
  - OEC supports outreach efforts related to the development and deployment of a Nation-wide public safety broadband network to include operational requirements, funding, standards, spectrum requirements, and governance. This includes support for an Innovation Roundtable with representatives from Government, associations, public safety, and industry. OEC is also supporting a committee of jurisdictions that received FCC waivers for early deployment of 700 MHz broadband systems as they begin their efforts to build networks. Through these efforts, OEC is continuing to emphasize the need for planning and good governance, since these elements of emergency communications have yielded progress to date.
  - OEC continues to coordinate with the emergency response community, preparing wireless broadband guidance documents for SWICs, urban area and regional interoperability coordinators, public officials and executives, and emergency responders to support current NECP initiatives on interoperability planning. OEC also continues to provide emergency response stakeholders up-to-date and comprehensive information about wireless broadband in the emergency response environment. In addition, OEC is working with States and jurisdictions to incorporate broadband initiatives into the SCIPs.
  - To increase coordination of Federal efforts for broadband implementation, the ECPC is working to identify Federal broadband requirements, preparing a consolidated view of emergency communications assets, addressing associated legal and regulatory barriers, developing Departmental positions on pending broadband regulatory matters and rulemakings, and establishing standardized grant guidance and processes. The ECPC has identified the development of broadband standards and research and development as one of its strategic priorities for the coming year.
  - Concurrently, the One DHS Emergency Communications Committee is providing consolidated Departmental input into Federal interagency efforts, as well as developing strategies for broadband technology migration (i.e., transition from current land mobile radio technology).
  - Under the strategy and policy direction of the One DHS Emergency Communications Committee, DHS has initiated a joint program management office to capture and implement Department-wide broadband requirements to develop a next generation tactical communications mobile platform for voice, data, and video. This approach will align with both commercial broadband technologies and public safety roadmaps to ensure cost efficiency and interoperability with Federal, State, local, and Tribal partners.
- *Grants*.—OEC's current SAFECOM grant guidance, which includes input from State, local, territorial, and Tribal responders, contains a number of key provisions pertaining to broadband deployment. Further, the *ECPC Recommendations for Federal Agencies: Financial Assistance for Emergency Communications,* a document for Federal emergency communications grant programs, includes updated guidance concerning the deployment of the Nation-wide Public Safety Broadband Network.
- *Technical Assistance*.—OEC has developed a wireless broadband technical assistance offering for 2011 to assist State, local, territorial, Tribal, and regional users develop and improve their use of broadband technology in line with the vision of a Nationally interoperable network. The offering is tailored for each jurisdiction and provides informational briefings, governance models and standard operating procedures, project planning, and engineering support.

In addition, NCS provides technical advice to OEC regarding communications standards to ensure the proposed public safety network is interoperable with the commercial communications networks. NCS also ensures that the priority functions for National security emergency preparedness function seamlessly as they operate between the networks.

Since its inception, NCS has developed programs and services to address the unique communications challenges associated with communications divestiture, deregulation, and communication resilience against all hazards.

As the coordinator for Emergency Support Function No. 2 (ESF–2)—Communications, under the National Response Framework, NCS coordinates Government and industry during planning for and response to disasters and major outages. The operational arm for communications activities is the 24/7 National Coordinating Center (NCC) for Communications. It coordinates emergency response and recovery operations supporting the National Response Framework by coordinating with the 26 departments and agencies as members of the NCS and with 56 private communications companies who are members of the NCC. The NCC is, and has been, a consistent coordinating mechanism for coordinating efficient communications restoration and recovery activity for more than 25 years. The NCC also coordinates the communications assets of the NCS members to provide communications assistance during disasters (man-made or natural). During a response, the NCC also provides requirement priorities to industry partners. NCS also manages Government-industry partnerships to assist decision-makers in understanding the risks to the Communications Sector. NCS is the Sector-Specific Agency for the Communications Sector and coordinates Government and industry partners under the Critical Infrastructure Protection Advisory Committee Act to reduce communications sector risk. NCS also manages the President's NSTAC, which currently comprises 27 Chief Executive Officer-level members from communications, information technology, and defense corporations. Most recently, the NSTAC examined four scenarios designed to stress future 2015-level networks, and provided the President with recommendations for technology enhancements and Government investments that would provide the best network resilience and recovery.

NCS capabilities include the following:

- *Operational Activities*.—NCS develops and maintains National security and emergency preparedness (NS/EP) communications priority services programs, such as GETS and WPS, which provide users with priority on commercial networks. The GETS program is a White House-directed emergency telecommunications service managed by NCS. GETS supports over 274,000 Federal, State, local, and Tribal government, industry, and non-governmental organization personnel in performing their NS/EP communications missions by providing a robust mechanism to complete calls during network congestion from anywhere in the United States. Specifically, GETS provides 90 percent or more call completion rates when network call volume is up to eight times greater-than-normal capacity. For example, approximately 10,000 GETS calls were made with a 95 percent success rate during the 9/11 attacks, and 1,231 GETS calls were made with a 90 percent or more success rate during the 2003 Blackout.

WPS is a Nation-wide program that provides priority NS/EP telecommunications via selected commercial wireless carriers. This program enhances the ability of 108,000 NS/EP subscribers to complete calls through a degraded public switched telephone network during a crisis or emergency situation. WPS calls receive the next available radio channel during times of wireless congestion and helps to ensure that key NS/EP personnel can complete critical calls by providing priority access for key leaders and supporting first responders. WPS service provides authorized cellular users with the ability to have priority within the public switched telephone network as well as access to priority channels.

The Telecommunications Service Priority (TSP) Program authorizes and provides priority treatment of NS/EP telecommunications services. The TSP Program provides service providers with an FCC mandate for prioritizing service requests by identifying those services critical to NS/EP. For example, a telecommunications service with a TSP assignment will receive priority by the service vendor before a non-TSP service. The TSP Program has two components: Restoration and provisioning. A restoration priority applies to telecommunications services to ensure restoration before any other services. A provisioning priority is obtained to facilitate priority installation of new telecommunications services in response to an emergency. In addition to daily operations, TSP Program Office personnel are notified of Presidentially-declared disasters; activation of the National Response Framework, ESF–2; and Continuity of Operations and Continuity of Government (COOP/COG) plans. TSP Program Office personnel are on call 24/7. TSP can save days to weeks on the time required to return wireline voice/data services, and there are more than 200,000 active TSP circuit assignments in support of NS/EP communications.

NCS continues to integrate GETS and WPS services across evolving networks. NCS works with industry to enhance and assure these priority programs are compatible with Next Generation Network (NGN) technology.

The Modeling, Analysis, and Technology Assessments team provides expertise in modeling and analyzing current and future protocols, algorithms, network designs, and capabilities that will impact priority service communications in legacy and NGNs. The modeling team also maintains a suite of specialized infrastructure analysis tools to provide critical infrastructure risk assessments for the communications sector in the event of a man-made or natural disaster. The assessments consist of the following:

- Providing technical analysis of current and next generation communications systems, new technologies, physical and logical architectures, and products related to communications network infrastructures.
- Determining new and emerging communications technologies under various congestion and failure conditions to identify vulnerabilities and predict performance of existing and next generation networks.
- Developing products to be used for COOP/COG functions during disaster response related to Federal, State, local, and Tribal governments.
- *Standards Activities*.—The NCS Standards Team is an active leader and contributor to various National and international standards-developing organizations, ensuring industry-wide adoption of non-proprietary solutions for NS/EP preparedness telecommunications requirements.
  The Team provides leadership and representation in standards bodies to recommend standards that, when implemented in Internet Protocol-based networks, will provide capabilities to ensure National, State, and local leaderships' ability to communicate during times of crisis. The Third Generation Partnership Project is focused on the technical aspects associated with provisioning priority services in Long-Term Evolution networks and is being pursued under the enhanced Multimedia Priority Service project. In cooperation with the Alliance for Telecommunications Industry Solutions (ATIS), NCS is developing an End-to-End Next Generation Network GETS Service Call Flow Standard that specifies end-to-end call flows. ATIS is also developing the baseline text for an Emergency Telecommunications Service wireline access requirements standard, which details the network element requirements for access in support of Digital Subscriber Line, Cable, Fiber, and Metro Ethernet.
- *National Response Planning*.—NCS is working with Federal, regional, State, and local agencies to increase communications coordination, information sharing, and oversight of emergency preparedness activities to improve response to man-made and natural disasters. NCS works with these entities to ensure a coordinated response through formal governance structures and partnerships.

CONCLUSION

The Department appreciates the committee's support for our interoperable emergency communications activities. Thank you again for this opportunity to testify. I would be pleased to answer your questions.

Mr. BILIRAKIS. Now we will hear from Mr. O'Connor for 5 minutes. You are recognized, sir.

STATEMENT OF JOHN O'CONNOR, MANAGER, NATIONAL COORDINATING CENTER FOR COMMUNICATIONS, NATIONAL PROTECTION AND PROGRAMS DIRECTORATE, U.S. DEPARTMENT OF HOMELAND SECURITY

Mr. O'CONNOR. Thank you, Chairman Bilirakis, Ranking Member Richardson, and Members of the committee. I am happy to be here today to represent my organization, the National Communication System, and discuss how we work with our colleagues here at the table, those across Government, and industry partners to provide emergency communications.

As Chris mentioned, our respective organizations bring a unique set of capabilities to ensure communications, particularly during time of an emergency. The main functions of the National Communications System are coordination and prioritization. In our coordi-

nation role, we work with Government partners and private-sector owner and operators to determine what may be damaged and how best to fix and recover during a disaster. As you know, this infrastructure is the infrastructure used by the general public to call 9–1–1 and also to dial loved ones. It is also the same infrastructure that is utilized by emergency responders and Government leaders to coordinate response activities.

Regarding our prioritization role, the NCS develops and manages technical enhancements to the public network which allow key leaders to place prioritized phone calls during times of congestion that are often experienced after disasters. As the coordination focal point, the NCS provides 24 by 7 vigilance via our operational arm, the National Coordinating Center, to respond, restore, and reconstitute National emergency and preparedness communications services and facilities.

The NCS is also the focal point for the NCS executing its responsibilities for Emergency Support Function No. 2 under the National response framework when activated by FEMA. Today, 24 Federal departments and agencies and 55 private-sector entities come together at the NCC to coordinate response, minimize the loss of life, and mitigate potential cascading effects across the United States public network.

This Government and industry partnership is the framework the NCS has utilized for over 25 years, and was the same framework that was successfully leveraged by USAID in response to the earthquake in Haiti. During 2010 and 2011, the NCS and its partners have resolved communications congestion, outages, and restoration issues for a number of natural disasters. Specifically, we have been involved with the Japan earthquake and tsunami, flooding in the Mississippi and Red River Valleys, tornadoes across the Midwest and the East, wildfires, and Hurricane Irene.

As a recent success story that demonstrates the collaboration and expertise by my DHS partners here at the table, I would like to go into a little detail about the response that we provided most recently to Connecticut during the winter storm. FEMA, through its Disaster Emergency Communications representative, provided on-scene initial assessment and regional interaction with Connecticut officials. Based on this assessment and interaction, they determined it was necessary to activate the NCS in its ESF–2 role. The NCS in this function reached out to our industry partners to begin to gauge an assessment of what was happening in the public networks, and also activated a representative from Chris' shop to go and stand guard and duty at the State of Connecticut's Emergency Operations Center. From these actions, the Federal team was able to satisfy Connecticut's desire to understand the impact on the wireless networks. Also, we were able to impart to them the lack of fuel as a limiting factor for continuing to maintain the wireless networks. Based on this coordination, a plan was brokered that allowed a private sector entity to use the fuel depots in the State of Connecticut, thereby supporting the Governor's desire to maintain the wireless networks and to host 9–1–1 services for his population.

Some information on our priority programs: In addition to ensuring that a baseline infrastructure exists, the NCS has instituted programs that allow for prioritizing traffic across the infrastruc-

ture. The need for this functionality was demonstrated during the Cuban Missile Crisis, when President Kennedy had difficulty reaching his Cabinet members and other key Government officials. My organization was subsequently created to ensure that future Presidents do not face the same challenge.

Two programs developed and managed by the NCS include the Government Emergency Telecommunications Service, or GETS, which provides priority calling on wireline networks, and the Wireless Priority Service complement, which provides priority calling on wireless networks. Both programs enhance the probability of call completion during times of congestion. The programs are available to Federal, State, local, Tribal, and territorial governments, as well as industry partners and non-Governmental emergency response organizations. GETS currently has in excess of 274,000 users, and the Wireless Priority Service has 100,000-plus users.

In conclusion, while we realize there is always room for improvement. In my 21 years of experience with the NCS, and as evidenced by our response in Connecticut, collaboration across the Government and industry has never been stronger.

Again, I thank you for the opportunity to testify today, and I am happy to answer any of your questions.

Mr. BILIRAKIS. Thank you very much.

I also want to tell the presenters, I appreciate you keeping within the 5-minute rule as well. You have.

Now we will recognize Administrator Penn. You are recognized for 5 minutes, sir.

STATEMENT OF DAMON PENN, ASSISTANT ADMINISTRATOR, NATIONAL CONTINUITY PROGRAMS, FEDERAL EMERGENCY MANAGEMENT AGENCY

Mr. PENN. Thank you, Mr. Chairman. Good afternoon. Ranking Member Richardson, good afternoon to you, ma'am, and Members of the subcommittee.

It is a real honor to be here today before you on behalf of FEMA to discuss our emergency communications capabilities and our collaboration with our partners. FEMA is continuously working with its partners at DHS, private industry, other Federal agencies, our State, local, and tribal governments to improve the capabilities and interoperability of emergency communications. This whole community effort also includes innovations in the way we send and receive information to and from the public before, during, and in the wake of disasters.

In our testimony today, Mr. Edwards will discuss the activities of FEMA's Disaster Emergency Communications Division and its work with our Federal and State partners, and I will provide some recent developments and key updates in the Integrated Public Alert and Warning System, or IPAWS, and our National Emergency Alert System test that we conducted last week. I will also share how we use social media tools and transform the way we communicate with the American public, and how FEMA is dedicated to employing cutting-edge technology and leveraging the whole community to increase our effectiveness and emergency communications.

So at this time I will turn this over to Disaster Emergency Communications with Mr. Edwards.

[The joint prepared statement of Mr. Penn and Mr. Edwards follows:]

JOINT PREPARED STATEMENT OF DAMON PENN AND ERIC EDWARDS

NOVEMBER 17, 2011

INTRODUCTION

Good morning Chairman Bilirakis, Ranking Member Richardson, and distinguished Members of the subcommittee. I am Damon Penn, Assistant Administrator for National Continuity Programs of the Federal Emergency Management Agency (FEMA). With me today is Eric Edwards, Director of FEMA's of the Federal Emergency Management Agency (FEMA) Disaster Emergency Communications Division. It is an honor to appear before you on behalf of FEMA to discuss our emergency communication capabilities and collaboration with Federal partners.

FEMA is continuously working with its partners at DHS, private industry, other Federal agencies, State, local, and Tribal governments to improve the capability and interoperability of emergency communications. This Whole Community effort also includes innovations in the way we send and receive information to the public before, during, and in the wake of disasters.

In our testimony today, Eric will describe the activities of FEMA's Disaster Emergency Communications Division (DECD) and its work with other Federal and State partners. I will provide recent developments and key updates in the Integrated Public Alert and Warning System (IPAWS) program and our National Emergency Alert System (EAS) test. I will also share how our use of social media is transforming the way we communicate with the American public. FEMA is dedicated to employing cutting-edge technology and leveraging the Whole Community to increase the effectiveness of emergency communications.

DISASTER EMERGENCY COMMUNICATIONS DIVISION (DECD)

Since its inception in 2008, FEMA's Disaster Emergency Communications (DEC) Division, part of the Office of Response and Recovery's Response Directorate, has worked to build an effective disaster emergency communications program to improve tactical communications capabilities and interoperability during disaster response. To fortify this effort, the DEC Division works closely with the Department of Homeland Security's (DHS) Office of Emergency Communications (OEC). As outlined by Secretary Napolitano's policy, OEC has the leadership role within the Department for coordinating strategic interoperability efforts. OEC's leadership role is supported by all the DHS components through the "One DHS Communications Committee."

An important part of the DEC Division's mission is to improve the effectiveness and interoperability of Federal response level communications throughout the country. The DEC Division serves this mission by delivering Mobile Emergency Response Support (MERS) capabilities to Federal, regional, State, Tribal, and local agencies in various disaster situations. In this role, the Division works closely with DHS's National Protection and Programs Directorate's (NPPD) National Communications System (NCS)—Primary Coordinator of Emergency Support Function No. 2 (Communications). The Division, through its MERS detachments, assists NCS in evaluating and supporting post-disaster communications restoration needs. These capabilities provide voice, video, and data communications through deployable emergency communications units, often delivered in austere environments. The Division also works with FEMA regions to deliver temporary mission-critical communications for Joint Field Offices (JFO) during a Federal disaster declaration. JFOs support the communications needs of the Federal Coordinating Officer, National response teams, and other emergency responders.

For example, in preparing for and responding to Hurricane Irene, FEMA pre-positioned a number of National response teams along the East Coast of the United States and Puerto Rico, to coordinate with State, Tribal, and local officials. MERS assets were strategically located throughout the disaster-affected areas to support emergency response communications needs. The essential pre-positioning of MERS assets resulted in the rapid delivery of Federal communications services in the wake of Hurricane Irene.

In addition, the DEC Division provides expertise to various agencies regarding communications technologies, especially during mission-critical disaster response. The Division possesses a thorough understanding of current communication capa-

bilities and a roadmap to adapt to future technologies at the National, regional, State, local, and Tribal level which enables it to effectively aid various agencies. In the past decade, new policies and new modes of communications have significantly transformed the tools used by responders during disasters. MERS assets provide effective support to agencies by offering a blend of current and widely used technologies with new and innovative ones. For example, the Federal Communications Commission (FCC) has undertaken a number of efforts to assist public safety by modifying spectrum allocations in order to support the use of other services such as data and video applications that increasingly demand higher capacity channels. These efforts have included narrow-banding of land mobile radio (LMR) systems and allocation of radio frequency spectrum for broadband use by public safety services. In addition, commercial products used by public safety are transitioning toward more Internet Protocol (IP)-based devices that improve interoperability and increase spectrum efficiency.

Beyond incident response support, the DEC Division works across Government and industry to increase emergency communications capabilities, performance, resiliency, and standards. The DEC Division recognizes that constant technology innovations, such as social networking and next-generation wireless broadband communications, rapidly transform and change communications technology. Because of the rapid evolution of technology, the DEC Division must continuously modernize its communications assets to ensure the operational effectiveness of DEC activities and MERS capabilities by updating its communications equipment.

As a result, the DEC Division has developed the DEC Technology Roadmap. This Roadmap identifies how the Division can maintain and enhance current assets, incorporate new and emerging technologies, and assess which technologies FEMA should invest in. Furthermore, the DEC Technology Roadmap makes every effort to comply and align with the DHS Technology Roadmap to ensure operability and interoperability with future DHS joint program office tactical communications initiatives while also supporting FEMA's unique emergency communications support role. A robust disaster emergency communications architecture enhances reliability, resiliency, survivability, redundancy, and security based on a unified IP platform and compatibility with all users in the first responder community. It begins with a snapshot of current capabilities and carefully considers FEMA's future preparedness, mitigation, response, and recovery mission requirements, as well as the agency's current capabilities. The DEC Division is committed to enhancing FEMA's response and recovery capabilities by creating a modernized, interoperable communications infrastructure supporting voice, video, and data.

Additionally, DEC Division works with each FEMA region, supporting the establishment of State-specific emergency communications plans that identify current communication resources and gaps, and enhance communications interoperability by facilitating the coordination of Federal, State, Tribal, and local communications during an incident. To date, the Regions have delivered 39 State and three territory communications plans with DEC Division support; and plans to deliver six additional State plans and two Regional plans by the end of fiscal year 2012.

The DEC Division has supported the establishment of Regional Emergency Communications Coordination Working Groups (RECCWG) in all of FEMA's 10 regions. These RECCWGs are comprised of Federal, State, Tribal, and local organizations and work closely with the DHS—OEC and the FCC to evaluate inter- and intra-State interoperability programs, share best practices, and advise FEMA Regional Administrators on the state of regional emergency communications capabilities. In a short amount of time, the DEC Division has made great strides in improving local, Tribal, State, regional, and National emergency communications capabilities and will continue its efforts into the future.

NEW INNOVATIONS IN COMMUNICATIONS WITH THE PUBLIC

FEMA is committed to improving and updating the means by which we communicate with the public in the wake of disasters. The Integrated Public Alert and Warning System (IPAWS) is a modernization and integration of the Nation's alert and warning infrastructure. The current Emergency Alert System (EAS) is built on technology that is more than 5 decades old. FEMA created IPAWS to modernize the EAS and expand the Primary Entry Point (PEP) station system. The PEP system is a Nation-wide network of broadcast stations and other entities that is used to distribute a message from the President or designated National authorities in the event of a National emergency.

The National EAS Test, which occurred on November 9, 2011, was an essential step toward improving the EAS. This was the first time that an EAS test was coordinated Nation-wide, testing the capability to communicate emergency informa-

tion simultaneously across the United States, and served as an opportunity for us to discover the true limitations of the EAS on a National level. We discovered some shortcomings and were surprised at the extent of success in other areas. The next steps are reviewing the data, analyzing trends, developing action plans and metrics, executing those plans, measuring the outcomes, and reassessing our progress. An important focus is making the EAS fully accessible. We are working closely with the disability community to accomplish this goal.

In addition to modernizing the EAS, IPAWS has:

- Built on the development work done by the cellular industry and the Science and Technology Directorate (S&T) and deployed the Open Platform for Emergency Networks, or IPAWS–OPEN, which can be used at no cost by State, local, territorial, and Tribal public safety partners to share and disseminate emergency alerts.
- Adapted the Common Alerting Protocol (CAP), the CAP Profile, and the C-interface, which improve interoperability by establishing data exchange language standards and will continue to work with industry and S&T to develop new standards and seamlessly integrate current and future technologies into IPAWS;
- Expanded traditional alerting and warning communication pathways; and
- Continued to work with the Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA) to deliver alerts through All Hazards NOAA Weather Radio.

Looking forward to fiscal year 2012, FEMA's goals are to expand IPAWS' interface standards for new social media dissemination and communications networks; add redundancy in the dissemination network, which allows one message to travel disparate paths; and ensure at least 90 percent of U.S. residents are covered by at least one means of communication by the end of the fiscal year.

In addition to modernizing the EAS, FEMA is developing PLAN (Personal Localized Alerting Network), also referred to as the CMAS (Commercial Mobile Alerting System), to allow individuals with an enabled mobile device to receive geographically targeted messages alerting them of imminent threats, AMBER alerts, or emergency messages from the President. CMAS/PLAN leverages extensive work done by the cellular industry and S&T to deliver these messages avoiding the delays commonly found in text-message based systems. This is a critical capability given the recent delays this region saw in disseminating text message alerts after the earthquake this past August.

CMAS/PLAN is scheduled to become operational in New York City and Washington, DC by the end of this year, with Nation-wide roll-out of operational capability beginning in April 2012. FEMA is working with the cellular industry and S&T to conduct test and pilots of this capability over the next several months to ensure its success.

CONCLUSION

The ability to effectively communicate during and immediately following a disaster is essential to fulfilling our mission. For that reason we have completely overhauled the way we communicate with each other and with the public in a disaster environment. We are leveraging cutting-edge technology as well as important social media tools to reach even more U.S. residents. We will continue to work with our Federal partners to ensure that emergency communications are as up-to-date and wide-reaching as possible.

Thank you for the opportunity to meet with you today. Eric and I would be happy to answer any questions you may have.

Mr. BILIRAKIS. You are recognized, sir. Thank you.

STATEMENT OF ERIC EDWARDS, DIRECTOR, DISASTER EMERGENCY COMMUNICATIONS DIVISION, RESPONSE DIRECTORATE, FEDERAL EMERGENCY MANAGEMENT AGENCY

Mr. EDWARDS. Good afternoon, Chairman Bilirakis, Ranking Member Richardson, and distinguished Members of the subcommittee. I am Eric Edwards, the director of FEMA's Disaster Emergency Communications Division. It is an honor to appear before you on behalf of FEMA to discuss our emergency communications capabilities and collaboration with Federal partners.

Since its creation in 2008, FEMA's Disaster Emergency Communications, or DEC Division, has worked to improve tactical communications capabilities and interoperability during disaster response. To fortify this effort, the DEC Division works closely with the Department of Homeland Security's Office of Emergency Communications, or OEC. As outlined by Secretary Napolitano's policy, OEC has the leadership role within the Department for coordinating strategic interoperability efforts. OEC's leadership role is supported by all the DHS components through the One DHS Emergency Communications Committee. The DEC Division supports the interoperability of emergency communications by delivering Mobile Emergency Response Support, or MERS, capabilities to Federal, regional, State, Tribal, and local agencies in various disaster situations. In this role, the division works closely with DHS' National Protection and Programs Directorate's National Communication System, or NCS. The division, through the MERS detachments, assists NCS in evaluating and supporting post-disaster restoration needs.

The division also works with FEMA's regions to deliver temporary mission-critical communications for Joint Field Offices, or JFOs, during a disaster or Federal declaration. JFOs support the communications needs of the Federal Coordinating Officer, National response teams, and other emergency responders.

In preparing for and responding to Hurricane Irene, FEMA prepositioned a number of National response teams along the East Coast of the United States and Puerto Rico to coordinate with State, Tribal, and local officials. MERS assets were strategically located throughout the disaster-affected areas to support emergency response communication needs. The essential prepositioning of MERS assets resulted in rapid delivery of Federal communications services in the wake of Hurricane Irene.

Beyond incident support, the DEC Division works across Government and industry to increase emergency communications capabilities, performance, resiliency, and standards. The Division possesses a thorough understanding of current communications capabilities and ways to adopt future technologies at the National, regional, State, Tribal, and local level, which enables it to effectively aid various agencies.

Because of the rapid evolution of technology, the DEC Division must continuously modernize its communication assets. As a result, we have developed a DEC Technology Roadmap. This roadmap identifies how the division can maintain and enhance current assets, incorporate new and emerging technologies, and assess which technologies FEMA should invest in.

Furthermore, the DEC Technology Roadmap makes every effort to comply and align with the DHS Technology Roadmap to ensure interoperability with future joint wireless program office tactical communications initiatives, while also supporting FEMA's unique communications support role. A robust Disaster Emergency Communications architecture enhances reliability, resiliency, survivability, redundancy, and security based on compatibility with users in the first responder community.

Outside of headquarters, the DEC Division supports the establishment of Regional Emergency Communications Coordination

Working Groups with all of FEMA's 10 regions. These working groups are comprised of Federal, State, Tribal, and local organizations, and work closely with DHS's OEC and the Federal Communications Commission to evaluation inter- and intrastate interoperability programs, share best practices, and advise FEMA Regional Administrators on the state of communications. The DEC Division works with each FEMA region to support the establishment of State-specific emergency communications plans. In a short amount of time, the DEC Division has made great strides in improving National, regional, State, Tribal, and local emergency communications capabilities, and will continue its efforts in the future.

This concludes my statement. I will be happy to answer any questions you may have.

Mr. BILIRAKIS. Thank you very much, sir. I appreciate it.

Now I will recognize Ms. Moore for 5 minutes.

STATEMENT OF LINDA K. MOORE, SPECIALIST IN TELECOMMUNICATIONS AND SPECTRUM POLICY, CONGRESSIONAL RESEARCH SERVICE

Ms. MOORE. Chairman Bilirakis, Ranking Member Richardson, Members of the committee, my name is Linda Moore, and I am honored to be here today to testify before you on behalf of the Congressional Research Service. You have asked me to provide an overview of key provisions in legislation passed since September 11, 2001, that have addressed radio communications interoperability and operability for public safety agencies.

In particular, I have considered how lack of coordination and collaboration may have diluted efforts to meet Congressional mandates for planning and funding. The Homeland Security Act of 2002 included requirements that provided a basis for Federal leadership to address public safety communications needs going forward. These responsibilities were split among newly created directorates. Among the identified needs were planning and interagency cooperation. Planning mechanisms are key to fostering coordination and cooperation.

The Secretary of Homeland Security set up the Office of Interoperability and Compatibility, and gave it the responsibility of preparing a National strategy for communications interoperability, an organizational move that was later ratified by Congress in the Intelligence Reform and Terrorism Prevention Act of 2004. This act included several sections regarding improvements in communications capacity based in part on recommendations made in 2004 by the 9/11 Commission. The Commission's analysis of communications difficulties on September 11 included a recommendation to establish Signal Corps units to ensure communications connectivity. The 9/11 Commission appeared to point the way toward a network solution along the lines of what was in place for military use.

Building on the concept of using the Army Signal Corps as a model, the Intelligence Reform and Terrorism Prevention Act directed the Secretary of Homeland Security to consult with the Secretary of Defense in the development of network protocols, including standards, equipment, and—I meant to say projects, network projects. If such a consultation occurred, it did not apparently result in cooperation or collaboration.

In 2005, the destruction caused by Hurricanes Katrina and Rita once again brought home the need for providing interoperable, interchangeable communications systems for public safety. Testimony at numerous hearings following the hurricanes suggested that DHS had not fully responded to Congressional mandates for action. Congress therefore raised the bar and added more specific requirements for actions that DHS was to take to improve emergency communications.

In the Homeland Security Appropriations Act of 2007, Congress addressed public safety communications in Title 6, subtitle (d), the 21st Century Emergency Communications Act of 2006. This act created the Office of Emergency Communications.

As described in the legislation, the purpose of the OEC was to marshal the efforts of DHS agencies and to work with other agencies and departments in developing effective solutions for emergency communications. The OEC was required to work with the National Communications System in the establishment of a National response capability. The OEC was also to prepare a National Emergency Communications Plan, intended to ensure, accelerate, and attain interoperable emergency communications Nation-wide. The three major laws that established requirements for DHS to address emergency communications encouraged or required planning and collaboration within the Department and with other Federal agencies or departments. Many would argue that shortcomings in the collaboration of programs across agencies and departments have undermined leadership and diluted the effectiveness of some programs.

For example, last year there were over 40 active Federal grant programs for emergency communications administered by nine different departments and multiple agencies within those departments. Based on CRS research, there does not appear to be any planning within the Department of Homeland Security or among the various grant programs for funding specific infrastructure goals that would contribute to the development of an interoperable network connectivity Nation-wide.

Planning for interoperability at the Federal level has been primarily through goal-setting, such as those goals established by the National Emergency Communications Plan, not through direct leadership. This approach would appear to fit with the DHS policy that planning for emergency communications should be from the bottom up, evolving along a development continuum provided by the agency. In April 2011, the President's National Security Telecommunications Advisory Committee published a report on communications resiliency that included recommendations for immediate action and a study of what types of networks would be in place 5 to 10 years in the future.

These trends might be addressed in a future version of the National Emergency Communications Plan, and could have been included in the plan published in 2008, as all the identified trends were already well established by public dialogues about communications technology. Thank you.

[The statement of Ms. Moore follows:]

PREPARED STATEMENT OF LINDA K. MOORE

NOVEMBER 17, 2011

Chairman Bilirakis, Ranking Member Richardson, and Members of the subcommittee, I am honored to be testifying before you today on behalf of the Congressional Research Service. My name is Linda Moore and for the past 10 years my responsibilities at CRS have included providing Congress with information and analysis regarding emergency communications, including 9–1–1, the Emergency Alert System, and radio communications for first responders. My testimony today provides an overview of key provisions in legislation passed since September 11, 2001 that have addressed radio communications interoperability and operability for public safety agencies. This testimony is based on CRS reports and memoranda written during the period 2002 through 2011.

Prior to September 11, 2001, meeting the communications needs of first responders was primarily a local or State responsibility. The Federal Government provided some assistance and support. For example, in 1997, Congress instructed the Federal Communications Commission (FCC) to assign additional radio frequency spectrum capacity for public safety, based on recommendations by the Federally-sponsored Public Safety Wireless Advisory Committee.

THE HOMELAND SECURITY ACT OF 2002

The Homeland Security Act of 2002 (Pub. L. 107–296) included some requirements that provided the basis for Federal leadership to address public safety communications needs. Title I of the Homeland Security Act created the executive Department of Homeland Security (DHS) and the position of Chief Information Officer.[1] The Chief Information Office was responsible for coordinating information sharing Nation-wide and for meeting other communications needs within DHS, throughout the Federal Government, and for State and local first responders. Within DHS, several other initiatives were established to support emergency communications, especially as regards interoperability for first responders.

Title II created the Directorate for Information Analysis and Infrastructure Protection (IAIP), and established an Office of Science and Technology within the directorate. Duties of the Office of Science and Technology included research and development support for law enforcement agencies for "wire and wireless interoperable communications technologies."[2] Among the duties of the IAIP was the "preparation of a comprehensive national plan for securing the key resources and critical infrastructure" including " . . . emergency preparedness communications systems, and the physical and technological assets that support such systems."[3]

The National Communications System (NCS) was made responsible for telecommunications under the IAIP.[4] NCS was originally established at the Department of Defense by Executive Order in 1984 to assist the President, the National Security Council, the Director of the Office of Science and Technology Policy and the Director of the Office of Management and Budget in the exercise of the telecommunications functions and responsibilities, and the coordination of the planning for and provision of National security and emergency preparedness communications. NCS consults with the President's National Security Telecommunications Advisory Committee (NSTAC), among others, on issues related to National security and emergency preparedness for telecommunications. The primary focus of its programs is to assure communications links in times of crisis. Close cooperation with the telecommunications industry is also among NCS's responsibilities.

Responsibilities of the Directorate for Emergency Preparedness and Response (Title V) covered "comprehensive programs for developing interoperative communications technology, and helping to ensure that emergency response providers acquire such technology."[5]

DHS originally assigned primary responsibility for interoperable communications projects to the Wireless Public SAFEty Interoperable COMmunications Program—called Project SAFECOM, which was placed within the Science and Technology Directorate.[6] Project SAFECOM had been authorized by the Office of Management

[1] Pub. L. 107–296, Sec. 103(d)(2).
[2] Pub. L. 107–296, Sec. 232(b)(6)(E).
[3] Pub. L. 107–296, Sec. 201(d)(5).
[4] Pub. L. 107–296, Sec. 201(g)(2).
[5] Pub. L. 107–296, Sec. 502(7).
[6] "Homeland Security Starting Over with SAFECOM," Government Computer News, June 9, 2003.

and Budget (OMB) as one of 24 electronic Government (e-government) initiatives. Responsibility for SAFECOM had been assigned by the OMB to the Wireless Directorate of the Department of the Treasury. At the recommendation of the Chief Information Officers of several Federal agencies, including the Departments of Treasury, Commerce and Justice, Project SAFECOM was transferred to FEMA and followed it to DHS.[7]

The Secretary of Homeland Security assigned the responsibility of preparing a National strategy for communications interoperability to the Office of Interoperability and Compatibility (OIC), which DHS created, an organizational move that was later ratified by Congress in the Intelligence Reform and Terrorism Prevention Act of 2004. SAFECOM operated as an entity within the OIC, which assumed the leadership role.

In 2003, a CRS Report[8] discussed the evolving role of the Department of Homeland Security in providing support for public safety communications. At that time, concerns were expressed by public safety experts regarding the fragmented nature of the public safety information and communications network and the absence of a network overlay that could assure end-to-end communications across the country. Other concerns included the absence of redundancy in public safety networks and the lack of back-up locations for emergency communications.

INTELLIGENCE REFORM AND TERRORISM PREVENTION ACT OF 2004

Acting on recommendations made in 2004 by the 9/11 Commission, Congress included several sections regarding improvements in communications capacity—including clarifications to the Homeland Security Act—in the Intelligence Reform and Terrorism Prevention Act of 2004 (Pub. L. 108–458).

The Commission's analysis of communications difficulties on September 11, 2001, was summarized in the following recommendation.

"Congress should support pending legislation which provides for the expedited and increased assignment of radio spectrum for public safety purposes. Furthermore, high-risk urban areas such as New York City and Washington, DC, should establish signal corps units to ensure communications connectivity between and among civilian authorities, local first responders, and the National Guard. Federal funding of such units should be given high priority by Congress."[9]

Congress addressed both the context and the specifics of the recommendation for signal corps capabilities. The Intelligence Reform and Terrorism Prevention Act of 2004 amended the Homeland Security Act of 2002 to specify that DHS give priority to the rapid establishment of interoperable capacity in urban and other areas determined to be at high risk from terrorist attack. The law provided a statutory definition of interoperable communications as:

"the ability of emergency response providers and relevant Federal, State, and local government agencies to communicate with each other as necessary, through a dedicated public safety network utilizing information technology systems and radio communications systems, and to exchange voice, data, or video with one another on demand, in real time, as necessary."[10]

The Secretary of Homeland Security was required to work with the Federal Communications Commission (FCC), the Secretary of Defense, and the appropriate State and local authorities to provide technical guidance, training, and other assistance as appropriate to achieve the goals established by the act. Minimum capabilities were to be established for "all levels of government agencies," first responders, and others, including the ability to communicate with each other.[11] The act further required the Secretary of Homeland Security to establish at least two trial programs in high-threat areas. The process of development for these programs was to contribute to the creation and implementation of a National model strategic plan.

Congress also raised the bar for performance and accountability, setting program goals for the Department of Homeland Security. Briefly, the goals were to:

- Establish a comprehensive, National approach for achieving interoperability;
- Coordinate with other Federal agencies;

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[7] "FEMA Takes Lead for Broader Public Safety Wireless Program," Communications Daily, June 10, 2002.

[8] CRS Report RL31375, *Emergency Communications: Meeting Public Safety Spectrum Needs,* last updated July 1, 2003.

[9] *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States,* Washington: GPO, 2004, p. 397.

[10] Pub. L. 108–458, Title VII, Subtitle C, Sec. 7303, 118 STAT 3846.

[11] Pub. L. 108–458, Title VII, Subtitle C, Sec. 7303, 118 STAT. 3843 et seq.

- Develop appropriate minimum capabilities for interoperability;
- Accelerate development of voluntary standards;
- Encourage open architecture and commercial products;
- Assist other agencies with research and development;
- Prioritize, within DHS, research, development, testing, and related programs;
- Establish coordinated guidance for Federal grant programs;
- Provide technical assistance; and
- Develop and disseminate best practices.

The act included a requirement that any request for funding from DHS for interoperable communications "for emergency response providers" be accompanied by an Interoperable Communications Plan, approved by the Secretary. Criteria for the plan were also provided in the act.[12]

The act also provided a sense of Congress that the next Congress—the 109th—should pass legislation supporting the Commission's recommendation to expedite the release of spectrum for public safety use. This was addressed in the Deficit Reduction Act of 2005 (Pub. L. 109–171).

The 9/11 Commission appeared to point the way toward a network solution along the lines of what was in place for military use. Its recommendation to use signal corps to assure connectivity in high-risk areas is apparently a reference to the Army Signal Corps. In testimony before Congress, Commissioner John F. Lehman commented on the lack of connectivity for first responders and referred to the "tremendous expertise" of the Department of Defense (DOD) and its capabilities in procurement, technology, and research and development. Referring specifically to the Army Signal Corps, Mr. Lehman suggested that the DOD should have responsibility to provide "that kind of support to the first responders in the high-target, high-risk cities like New York."[13] Building on the concept of using the Army Signal Corps as a model, the law directed the Secretary to consult with the Secretary of Defense in the development of the test projects, including review of standards, equipment, and protocols.[14]

THE HOMELAND SECURITY APPROPRIATIONS ACT, 2007

The destruction caused by Hurricanes Katrina and Rita in August–September 2005 reinforced recognition of the need for providing interoperable, interchangeable communications systems for public safety and also revealed the potential weaknesses in existing systems to withstand or recover from catastrophic events. Testimony at numerous hearings following the hurricanes suggested that DHS was responding minimally to Congressional mandates for action, most notably as expressed in the language of the Intelligence Reform and Terrorism Prevention Act of 2004. Bills subsequently introduced in both the House and the Senate proposed strengthening emergency communications leadership and expanding the scope of the efforts for improvement. Some of these proposals were included in Title VI of the Homeland Security Appropriations Act, 2007 (Pub. L. 109–295). Title VI—the Post-Katrina Emergency Management Reform Act of 2006—which reorganized the Federal Emergency Management Agency (FEMA), gave the agency new powers, and clarified its functions and authorities within DHS.[15]

THE 21ST CENTURY EMERGENCY COMMUNICATIONS ACT OF 2006 AND THE OFFICE OF EMERGENCY COMMUNICATIONS

The Homeland Security Appropriations Act, 2007 also addressed public safety communications in Title VI, Subtitle D—the 21st Century Emergency Communications Act of 2006. This section created an Office of Emergency Communications (OEC) and the position of Director, reporting to the Assistant Secretary for Cybersecurity and Communications. As described in the legislation, the purpose of the OEC was to marshal the efforts of DHS agencies and to work with other agencies and departments in developing effective solutions for emergency communications. The Director was required to take numerous steps to coordinate emergency communications planning, preparedness, and response, particularly at the State and regional level. The Director was also required to work with the National Communications System in the establishment of a "National response capability with initial and on-

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[12] Pub. L. 108–458, Title VII, Subtitle C, Sec. 7303 118 STAT. 3843 et seq.

[13] Testimony of Commissioner John F. Lehrnan, National Commission on Terrorist Attacks Upon the United States, Hearing, House of Representatives, Committee on Government Reform, "Moving from 'Need to Know' to 'Need to Share'," August 3, 2004.

[14] Pub. L. 108–458, Title VII, Subtitle C, Sec. 7304, 118 STAT. 3847–3848.

[15] Information on the FEMA reorganization is provided in CRS Report RL33729, *Federal Emergency Management Policy Changes After Hurricane Katrina: A Summary of Statutory Provisions,* coordinated by Keith Bea.

going planning, implementation, and training for the deployment of communications equipment for relevant State, local, and Tribal governments and emergency response providers in the event of a catastrophic loss of local and regional emergency communications services."[16]

Other responsibilities assigned to the Director included conducting outreach programs, providing technical assistance, coordinating regional working groups, promoting the development of standard operating procedures and best practices, establishing nonproprietary standards for interoperability, developing a National Emergency Communications Plan, working to assure operability and interoperability of communications systems for emergency response, and reviewing grants.

The National Emergency Communications Plan (NECP) was to "(1) support and promote the ability of emergency response providers and relevant government officials to continue to communicate in the event of natural disasters, acts of terrorism, and other man-made disasters; and "(2) ensure, accelerate, and attain interoperable emergency communications nationwide."[17]

Required elements of the plan included establishing requirements for assessments and reports, and an evaluation of the feasibility of developing a mobile communications capability modeled on the Army Signal Corps. The feasibility study was to be done by DHS on its own or in cooperation with the Department of Defense. Congress also required assessments of emergency communications capabilities, including an inventory that identified radio frequencies used by Federal departments and agencies.[18]

Planning efforts were to include coordination with Regional Administrators appointed by the FEMA Administrator to head ten Regional Offices. To assist these efforts, Congress required the creation of Regional Emergency Communications Coordination (RECC) Working Groups.[19] These groups were to provide a platform for coordinating emergency communications plans among States and were intended to include representatives from many sectors with responsibility for public safety and security. The formation of the regional working groups, the RECCs, responded in part to requests from the public safety community to expand interoperable communications planning to include the second tier of emergency workers. Non-Federal members of the RECC were to include first responders, State and local officials and emergency managers, and public safety answering points (9–1–1 call centers). Additionally, RECC working groups were to coordinate with a variety of communications providers (such as wireless carriers and cable operators), hospitals, utilities, emergency evacuation transit services, ambulance services, amateur radio operators, and others as appropriate.

DHS AND OTHER FEDERAL AGENCIES

Federal legislative requirements for actions by the Department of Homeland Security in support of public safety communications has, from the first law that created the Department, assigned similar responsibilities to multiple agencies within DHS. Furthermore, legislation has required that DHS initiatives for public safety be coordinated with other agencies. Many would argue that shortcomings in the coordination of programs across agencies and departments have undermined leadership and diluted the effectiveness of some programs.

Congress has separately and specifically given authority to DHS and to the FCC to act on behalf of public safety. In the case of DHS, authority includes planning and implementing public safety communications solutions and setting requirements to coordinate and support specific goals, such as interoperability and a National communications capability.

By 2006, three Federal agencies were proposing different approaches to provide communications interoperability for public safety.[20] The FCC was moving forward with a proposal for a public-private partnership to build a Nation-wide network,[21] and later included a similar plan for building the network in its *National Broadband Plan.*[22] The National Telecommunications and Information Administra-

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[16] Pub. L. 109–295, Title VI, Sec. 671(b), Title XVIII, Sec. 1801(c)(9), 120 STAT. 1434.
[17] Pub. L. 109–295, Title VI, Sec. 671(b), Title XVIII, Sec. 1802(a)(1) and (2), 120 STAT. 1436.
[18] Pub. L. 109–295, Title VI, Sec. 671(b), Title XVIII, Sec. 1803, 120 STAT. 1437–1438.
[19] Pub. L. 109–295, Title VI, Sec. 671(b), Title XVIII, Sec. 1805, 120 STAT. 1439.
[20] Described in CRS Report RL33838, *Emergency Communications: Policy Options at a Crossroads,* by Linda K. Moore, last updated January 30, 2007.
[21] Congressionally-mandated obligations of the FCC include to "promote safety of life and property through the use of wire and radio communication," (47 U.S.C.§ 151) and requirements regarding the assignment of radio frequencies for public safety use. The FCC created a Public Safety and Homeland Security Bureau in 2006 to consolidate its many programs oriented toward public safety.
[22] FCC, *Connecting America: The National Broadband Plan,* 2010.

tion (NTIA) established a Spectrum Advisory Committee whose objectives included developing spectrum-efficient recommendations for a National network of networks.[23] Within DHS, the focus was on gateways—also known as bridges, or as cross-talk or cross-patch systems, among other terms. The gateway is a "black box" that can accept wireless transmissions on one frequency standard and resend them on other frequency standards. As a result, they are inefficient users of spectrum, since a single message is using two or more frequency assignments. Gateways are the technology centerpiece of efforts by DHS to achieve situational interoperability.[24] Situational interoperability and "response-level emergency communications" remains an important goal for DHS and the OEC, according to recently reported findings and recommendations.[25] For the purposes of the NECP, response-level communications is "the capacity of individuals with primary operational leadership responsibility to manage resources and make timely decisions during an incident." The Office of Emergency Communications has advocated emergency communications planning from the bottom up, encouraging stakeholders to find their own solutions within frameworks established within DHS, evolving along a development continuum provided by the agency.[26] A primary activity of the OEC is to manage State-wide planning and coordination for interoperable communications and administer compliance with the *National Emergency Communications Plan.*

According to testimony in 2008, neither the FCC nor the OEC undertook to incorporate each other's goals in their specific planning processes.[27] In 2009, the Government Accountability Office confirmed the lack of coordination and cooperation between DHS and the FCC.[28] In April, 2010, the FCC established the Emergency Response Interoperability Center (ERIC).[29] ERIC has been tasked with implementing standards for National interoperability and developing technical and operational procedures for the public safety wireless broadband network. DHS is to participate in public safety outreach and technical assistance, as well as best practices development, through its Office of Emergency Communications. It is intended for ERIC to work closely with the Public Safety Communications Research program, jointly managed by the National Institute of Standards and Technology (NIST) and the NTIA, to develop and test the technological solutions needed for public safety broadband communications.[30] ERIC has, in part, become the forum for cooperation among three agencies with different visions of the future and competing claims to provide leadership.

PRESIDENT'S NATIONAL SECURITY TELECOMMUNICATIONS ADVISORY COMMITTEE

In January 2010, the President's National Security Telecommunications Advisory Committee (NSTAC) received an Executive Order requiring a report on communications resiliency, that would include recommendations for immediate action and a study of what types of networks would be in place 5 to 10 years in the future.[31] One of the recommendations was to encourage DHS to file comments with the FCC in support of continuing efforts to work closely with industry "as it builds the Nation-wide interoperable public safety mobile broadband network . . . ".[32] The *Report's* scenario for the "Public Safety Communications in Network 2015" assessed the current status of public safety communications as follows:

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[23] The NTIA manages radio frequency spectrum allocated for Federal use and advises the administration on spectrum issues and new wireless technologies, among other responsibilities.

[24] See, for example Department of Homeland Security Press Conference on Assessment of Interoperable Communications, January 3, 2007 (transcript provided by Federal News Service), and Homeland Security Press release, "Remarks by Homeland Security Secretary Michael Chertoff at the Tactical Interoperable Communications Conference," May 8, 2006.

[25] Department of Homeland Security, *National Emergency Communications Plan: Urban Area Communications Key Findings and Recommendations,* 2011.

[26] The continuum diagram is at *http://www.safecomprogram.gov/?SAFECOM/?Tools/?Continuum/?continuum.htm;* additional descriptions at *http://www.safecomprogram.gov/?SAFECOM/?oecguidancedocuments/?continuum/?default.htm.*

[27] Oral and written testimony before the House Committee on Homeland Security, Subcommittee on Emergency Communications, Preparedness, and Response, "Interoperability in the Next Administration: Assessing the Derailed 700 MHz D Block Public Safety Auction," September 16, 2008.

[28] GAO, *Emergency Communications: Vulnerabilities Remain and Limited Collaboration and Monitoring Hamper Federal Efforts,* GAO–09–604, June 26, 2009.

[29] FCC, *Order,* PS Docket No. 06–229, released April 23, 2010 at *http://fjallfoss.fcc.gov/?edocs_public/?attachmatch/?FCC-10-67A1.pdf.*

[30] NIST, "Demonstration Network Planned for Public Safety 700 MHz Broadband," December 15, 2009.

[31] *NSTAC Report to the President on Communications Resiliency,* April 19, 2011.

[32] *Report,* page ES–2.

"While many state and local agencies have modernized and expanded their mission-critical voice systems through initiatives such as Federal grant programs, or are in the process of doing so, the communications challenges for those operating on the front lines in public safety have not been eliminated."[33]

The key public safety communications trends in 2015 identified by the report are: Public safety system consolidation; interoperability, convergence, and roaming; future broadband wireless network; emerging capabilities; specialized public and private devices; and emergency alerting capabilities. These trends might be addressed in a future version of the National Emergency Communications Plan and could have been included in the plan published in 2008, as all of the identified trends were already well-established by public dialogs about communications technology.

FUNDING INTEROPERABLE COMMUNICATIONS

It was not until after September 11, 2001 that Federal agencies began to give a high priority to programs that improved emergency communications and interoperability, to direct grants specifically for interoperable communications, and to provide totals for grants directed to these types of programs. A number of Federal agencies have roles in guiding and monitoring some decisions of States and localities through grant administration, greatly diffusing Federal oversight and leadership through grant governance. There are currently over 40 active programs, administered by nine different departments and multiple agencies within those departments, providing grants for funding emergency communications.[34] Within DHS, the Office of Emergency Communications, the SAFECOM Program, and the Federal Emergency Management Administration (FEMA) are among the agencies that formulate policies, plan exercises, provide guidelines, and establish requirements.[35]

Because of the proliferation of grant programs and earmarks, and because of varying levels of details in published information regarding Federal grant programs, it seems difficult to prepare an accurate accounting of what has been spent and how, and the Congressional Research Service was unable to locate such an accounting.[36] Based on CRS research, there does not appear to be available information to assess planning within the Department of Homeland Security for funding specific infrastructure goals, such as radio tower construction, that would contribute to the development of interoperable network connectivity Nation-wide. This approach would appear to fit with the DHS policy that planning for emergency communications should be from the bottom up, evolving along a development continuum provided by the agency.[37] Planning for interoperability at the Federal level should be primarily through goal-setting, such as those established in the National Emergency Communications Plan,[38] not through direct leadership.

CONCLUSION

After September 11, 2001, there was a shared sense in Congress and throughout the Nation that the communications capabilities available to first responders were inadequate and needed to be improved. The problems were understood, but not the answers. In 2004, Congress had identified specific actions to be taken by the Department of Homeland Security in support of communications interoperability, which was defined in the Intelligence Reform and Terrorism Prevention Act of 2004 as operating " . . . through a dedicated public safety network utilizing information technology systems and radio communications systems, and to exchange voice, data, or video with one another on demand, in real time, as necessary." Many policy advisers within the public safety community were recommending some form of network to provide an interoperable communications solution. By 2005, the commercial wireless industry and the Department of Defense were planning on how to utilize new network technologies based on the Internet Protocol. In 2006, the FCC proposed a public-private partnership to build a network for public safety that would use new broadband technologies to provide voice, data, and video communications. A con-

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[33] *Report,* page 12.

[34] Based on a summary of Federal programs provided by SAFECOM.

[35] Links to relevant SAFECOM and FEMA grant program documents are available at *http://www.safecomprogram.gov/?SAFECOM/?grant/?default.htm.* Information on OEC grants is at *http://www.dhs.gov/?xopnbiz/?grants/?gc__1288707294166.shtm.*

[36] CRS, Congressional Distribution Memorandum, "Federal Funding of State and Local Emergency Communications Projects," updated June 10, 2011.

[37] The continuum diagram is at *http://www.safecomprogram.gov/?SAFECOM/?Tools/?Continuum/?continuum.htm;* additional descriptions at *http://www.safecomprogram.gov/?SAFECOM/?oecguidancedocuments/?continuum/?default.htm.*

[38] DHS, *National Emergency Communications Plan,* July 2008.

sensus in favor of a network solution had therefore begun to emerge. In recognition of the potential role of new network technologies to provide interoperable, resilient, and effective support for public safety communications, the 21st Century Emergency Communications Act of 2006 created the Office of Emergency Communications. The law required the OEC to develop a National plan that was to "ensure, accelerate, and attain interoperable emergency communications Nation-wide," and provided DHS with new tools to complete the plan. Still, consensus was not universal, and many stakeholders within the public safety community in particular remained uncommitted to the concept of using a Nation-wide network to meet their primarily local needs. The debates about a network solution revealed uncertainty among policymakers and stakeholders regarding the appropriate role of the Federal Government. This debate appears to remain unresolved: Bills that have been introduced in the 112th Congress show a great deal of cohesion about the need for a Nationwide network and what type of support it should provide to public safety agencies, but little agreement about the roles that different Federal agencies would play in the deployment and operation of the network.

Mr. BILIRAKIS. Thank you very much.

I appreciate it, Ms. Moore.

What we are going to do is I am going to start asking the questions. I am going to recognize myself. But I want to make sure everybody gets an opportunity. I know we are expecting votes in the next few minutes. So more than likely I am not going to use my entire 5 minutes.

Mr. Essid, I would like to begin with you. Can you talk to me more about the One DHS Communications Committee and how OEC is playing a leadership role in the development of communications policies for DHS?

Again, it is my understanding that there are at least 10 communications-related offices within DHS. Is that accurate? I want to know that.

Are you receiving sufficient cooperation and participation from these DHS offices? Are the efforts of these offices well-coordinated to ensure that there is no duplication, that there is interoperability within DHS? If you can answer that question, please.

Mr. ESSID. Yes, sir. The Office of Emergency Communications does coordinate the One DHS communications working group, or committee. A lot of the components, most of the components within DHS participate in that. All of the ones that have communications equities do. We use that group to coordinate as a Department versus all the different components doing their own thing.

We have seen considerable progress in the short time that the committee has been working together, about 2 years. We have got good participation. There are a lot of programs that have communications equities on that group. FEMA is on the group, the NCS is on the group, a lot of different—CBP is on the group, we have got the Coast Guard on the group. We are coordinating at a Departmental-level communications investments and strategies. We have developed a strategy, a Departmental-wide strategy for emergency communications moving forward. So we are working together as a Department like never before through this One DHS group. Everyone is participating in the group. We have got a lot of great innovative things that the group is working on. But the largest accomplishment so far is a Departmental-wide strategy that Secretary Napolitano wanted the group to develop.

Mr. BILIRAKIS. Very good. Thank you.

This question is for Mr. Penn. Mr. Penn, last week the Emergency Alert System was tested for the first time. In your testimony,

you stated that FEMA discovered some shortcomings, and I heard from my local district some of the emergency management folks, but obviously there were some shortcomings, and we were surprised at the extent of the success in other areas. Your quote.

Could you please elaborate on some of the shortcomings that you discovered as a result of the test, and could you also describe some of the successes that were enjoyed? Now that the test is complete, describe what is going to happen next.

Mr. PENN. Thank you, Mr. Chairman.

Mr. BILIRAKIS. Thank you.

Mr. PENN. The agency, the Department, FCC, and NOAA, all agreed that the test was a success. The fact that we actually conducted the test in itself was a success because we have got equipment that is as old as 50 years that we never turned on before. So what else do you have that is 50 years old that you never turned on and ensured that it worked properly? So just the conduct of the test went a long way towards our overall applications of where we need to go next.

Some successes that I think we enjoyed from the information that we received so far, and we have got a lot of information yet to acquire and a lot of analysis to do, the broadcasters, for instance, aren't required to turn in their actual reports until 45 days after the test. So more is forthcoming.

But some general observations. Our message propagation worked better than we thought it would. That is the message originating from the White House, going all the way down through individual broadcasters to individual homes. All 63 of our primary entry-point stations received the alert, and 60 were able to rebroadcast the alert. In some States, we had over 90 percent coverage through the broadcasters and out through their stations to their public that they were serving. We also found it as a success that the public was not overly alarmed that we were doing a Nation-wide test. We owe that a lot to the broadcasters and the public service announcements that they put out, and the extra effort they went to to provide a backdrop and other things to make sure public knew we were doing the test.

Then the homework that was done before the test occurred went a long way, with the blogs we had and some workshops we did with individual broadcasters and individual station owners and their technicians to make sure that we put the best foot forward when we started the test.

We found out some technical issues that we didn't know we had, and were able to work through some of those, but have another list that we still need to work on.

Finally, we were able to validate our theoretical coverage models for where we thought the signal would go, and who would be able to hear it and how it was propagated.

A few things that didn't go as well as we thought they might, first of all, audio quality. The audio quality throughout the test was sporadic, and in some cases didn't exist at all. Initial findings show that part of the problem was, and a large part of the problem, was some feedback that we got from one of the primary entry-point stations. Their encoder-decoder had a malfunction, and it actually started rebroadcasting the message back up the line that it re-

ceived the message. So that made all the messages everyone else received down line of that to be garbled. We also had some points where we didn't receive a message at all. We broke the transmission that the station was doing, but there was no audio. So we need to work to find out what the causes of that were and how we work better to put that together.

We also found out that the video—we knew going into the test that the video message was too generic and inconsistent. We got a lot of help from the deaf and hard-of-hearing community to help us work on what the scroll should look like, and how the scroll should work, and how it is best recognized as it goes across the televisions. The scroll will never match the audio. That is because the beauty of EAS is its simplicity, and its biggest drawback is its simplicity. So the scroll is intended to be a general alert that tells you that there is a problem and you need to tune to your local authorities to get information. That needs to be better, and we can do that. But then the audio is where the President actually conveys his message. That will be the text that he prepares.

So the simplicity is that we have to have something that whoever is working the night shift the first day on the job can initiate. That is why the scroll and the audio will not match. But we need to do a much better job of what we use as a scroll. Then mixed reports across from satellite providers, cable providers, and the stations with specific issues that we need to work through.

So our next steps are evaluate all the information that we have, develop a plan with metrics on how we are going to correct those, start our corrective action on the largest groups and the largest problems that we have that are collective, and work our way through. Then at some point when we are ready to test, do another test to make sure that we are on path and we continue to make the system better.

But what I will commit to you, Mr. Chairman, and to the committee, is we will not turn this test analysis into a life's work. We will work through and make sure we know what the problems are and that we are solving the right problems, but we won't let the test results become an entity of their own and never make any progress.

Mr. BILIRAKIS. Very good. Thank you very much.

I am going to go ahead and yield to my Ranking Member. Ms. Richardson, from the great State of California, is recognized for 5 minutes.

Ms. RICHARDSON. Thank you, Mr. Chairman. I believe my first question is for Chris—how do I say your last name?

Mr. ESSID. Essid.

Ms. RICHARDSON. Essid?

Mr. ESSID. Yes, ma'am.

Ms. RICHARDSON. Essid. Okay. In your testimony, you highlighted how important grant funding has been to building emergency communication capabilities for first responders all across the Nation. Unfortunately, however, cuts by Congress could threaten the building and sustainability of these capabilities. Based upon your communications with State and local first responders, what capabilities have already been lost or endangered because of the

cuts in the grant programs dedicated for emergency communications?

Mr. ESSID. Well, traditionally a lot of grant funding goes toward equipment and purchasing systems, and recently we have made a lot of progress as a Nation because we have had specific funds and enough grant funds to support coordination activities like State-wide coordinators, getting State-wide governance structures together where you get fire, police, EMS, State officials, IT professionals, local elected officials together to work the problem as a whole, and you have State-wide plans. So a lot of those coordination activities also include training and exercise.

Those are the types of things that I think with the limited grant funding or reductions and limited funding just in general in these tough economic times that will be in trouble.

One of the things we are doing to try to counter that is using the information that we have collected from the National plan Goal 1 and Goal 2 demonstrations to target our more limited resources to hit the greatest things, the biggest gaps out there throughout the Nation. Right now they really are governance, training, and then really the technologies, trying to come up with new technologies. Public safety right now is migrating from what it has always used, land mobile radio, 50-year-old technology, to these new broadband technologies.

Ms. RICHARDSON. Sir, let me be maybe a little more specific. Would you, if you don't have it with you today, could you please supply to the committee specifically, based upon the cuts that have already been proposed, how do you see them impacting State and local governments?

So, for example, if you have been able to roll out to 20 percent of the country or 30 percent of the country, if you can lay out for us approximately what has and what has not been covered so we can anticipate where the shortfall might be.

Then if you could be specific with us. So instead of, you know, just general, well, training will be impacted. Well, we need a little more meat on the bones. So if you can tell us specifically out of the amount of funds 20 percent goes to training, and you have received requests for $20 million more that you wouldn't be able to fund, those are the kinds of—that is the kind of detail that we need. Because as we make these very difficult decisions, we need to make them as thoughtful as possible.

Building upon that, reflecting on the decreases in available preparedness grant funding for the Interoperable Emergency Communications Grant Program, IECGP, that was defunded in fiscal year 2011. Has FEMA assessed the extent to which the grantees used Homeland Security grant program funds to continue to enhance their interoperability?

Mr. EDWARDS. Ranking Member Richardson, we do not have the information on the grant funding at this point in time. We will be happy to get back to you on that question.

Ms. RICHARDSON. Okay.

Then Mr. Penn, it is good see you again, as always. I think you gave a fair assessment of the National test and what occurred. The only thing I didn't hear you say was how long you thought it would take—well, I had two questions on it—No. 1, how long you thought

it would take us to be able to assess that information. Then No. 2, do you feel that you really got an accurate assessment of how that whole program rolled out across the country? Do you think you got all of it?

Mr. PENN. Yes, ma'am. I think we can provide an initial assessment with a few more data points to you in another week or 2 based on our initial conversations. The broadcasters have 45 days from the test to submit their detailed reports. It should take the FCC and our staff another 60 days or so to put together a more comprehensive report on what we found. From there we can give you an idea of where we need to move forward and what we need to do next. I think the test was comprehensive enough to give us a good start on where we need to go. The issues that I identified are not small issues to correct. So we have plenty to work on.

Two things that we will have to defer to future testing that we did not test during this test is a longer duration message. There is a part of the system that will allow State and locals to generate a message up to 2 minutes. There is not a 2-minute requirement for the Presidential message. So at some point we want to keep the system up for over 2 minutes so we can ensure that the Presidential message does not get cut off by the mechanism in the device.

The other thing we want to do is bring the system up longer so we can ensure that the system will stay stable for an extended period, so upwards of 2 or 3 minutes. We did not test those two parts of the system because going into the test we had some concern over the public mistaking the test as an actual emergency. We didn't want to stress it too far when we started. So those are two things that we need do with future tests that are incomplete with what we did.

Ms. RICHARDSON. Thank you, sir. Mr. Chairman, I have one more question. Can I ask it now?

Mr. BILIRAKIS. Go ahead.

Ms. RICHARDSON. Thank you, sir. This one is to Mr. O'Connor. In 2008, the GAO recommended that the Department of Homeland Security produce a strategic plan for the National Communications System. In a follow-up report published in August 2009, the GAO indicated that the strategic plan for the NCS had yet not been finalized. Is there a strategic plan for the NCS?

Mr. O'CONNOR. Currently, our strategic plan remains a working document. It has been impacted in the development due to some changes in methodologies and communications and responses during disaster. Since the GAO report, however, we have made incremental progress in pressing more programmatic issues with that, and have implemented those into our action plans. So we continue to focus on our future areas at this point in time, and we coordinate disasters and the evolution of communications. Our plan is still under development, and our plan is to take that to the GAO upon completion.

Ms. RICHARDSON. Okay. Sir, for the record for this committee, could you supply in writing what is the delay in finalization and release of your strategic plan? What is the NCS status of implementing the benchmark or goals outlined in the plan? What specifically are your challenges in hindering NCS' ability to implement

the strategic plan? In what ways must NCS coordinate its efforts with other Federal agencies to achieve the objectives of a strategic plan?

Mr. O'CONNOR. Yes, ma'am.

Ms. RICHARDSON. Thank you.

Mr. BILIRAKIS. Thank you. I now recognize Mr. Marino for 5 minutes.

Mr. MARINO. Thank you, Chairman. Good afternoon, folks. In a little over a week this committee is going to be having a hearing in my district in central Pennsylvania, north central and northeastern Pennsylvania. The primary objective is, subsequent to the floods and the hurricanes that occurred there last month, we just simply want to ask what would we have to do to improve the services, the emergency services that we have provided in those hurricanes and floods. It is not a situation where we are pointing fingers.

So would you each take about 30 minutes, if you have not already—I know Mr. Penn did to a certain extent—and let's just set aside expense for now, but tell us what we would do over again, what you would do over, and what we can do to make the whole system more efficient and effective. Mr. Essid, would you please start?

Mr. ESSID. Yes, sir. Well, one of the things we do is we work with State and locals on their day-to-day capabilities, so when those disasters take place they do have redundancy, they have it very clear what you can do. A lot of the States have tactical communications capabilities that they have bought with previous grant funding that they can bring into an area to restore communications. So we have got 10 regional coordinators, one in each of the FEMA regions, and they basically work with all the State and locals to try to bridge any gaps they have got. So we have been working with FEMA and NCS to support their efforts to restore communications when those disasters do take place.

Mr. MARINO. Thank you. Mr. O'Connor, please.

Mr. O'CONNOR. One of the most important things during disasters is having existing relationships. Doing introductions in a time of crisis is the wrong time to have that. So what I encourage is that you take advantage of training events, and also doing an outreach up and down your Governmental chain to make sure that you understand there are partners here at FEMA DEC, those at the NCS, making sure that the relationships are in place. Once you have that, then you take a look at the infrastructure, and are you taking advantage of the prioritization programs. Do you have a GETS card? Do you have WPS on your phone? Do you have a telecommunication service priority, restoration priority on your existing circuits, so if those are damaged they can be repaired first in order on the repair list from the industry partners.

Again, you should also do an outreach to the industry partners. They have made a huge investment in communications. We want to take that infrastructure and leverage it to the best of our capabilities to make sure there is diversity and resilience, redundancy, built in so that communications is not a limiting factor for getting response done.

Mr. MARINO. Thank you. Mr. Penn, please.

Mr. PENN. Yes, Congressman Marino. As you know, the Emergency Alert System is only part of a larger system, the Integrated Public Alert and Warning System. We will start fielding that system, which provides an alerting mechanism through our wireless providers. We will begin fielding that this December, next month, in New York City and Washington, DC. From there, starting in April, we will continue with the world-wide—or Nation-wide distribution with the carriers and their ability to field the systems and field the equipment.

So for Pennsylvania, as with the other States, one of the things that we have to do is a training program for your alert message originators. That will go on-line on the 1st of December. That will provide the tools that they need to be able to initiate an alert and warning that goes through the whole IPAWS system and communicates with that backbone that we have set up, to your citizens, as well as the other equipment and other capabilities that some of your local and State emergency managers have already.

Mr. MARINO. Thank you, sir. Mr. Edwards.

Mr. EDWARDS. Congressman Marino, FEMA has principal responsibility to establish and support regional emergency communications working groups. But the focus and the direction of the working groups are actually by the members and the States. So I would encourage the State telecommunication managers to actively participate within those working groups, identify any of the gaps in the resources or the State planning mechanisms, such as the State-wide communications interoperability plans, or the tactical interoperability plans, or our own Federal annex to the State plan, and with using those documents, which Chris and I's office coordinates on, I would use those to bring up any issues associated with the resourcing of the disaster response.

Mr. MARINO. Thank you, sir. Ms. Moore.

Ms. MOORE. I have addressed some of these issues in my reports for Congressional Research Service, but I deal with policy for the future. So I don't have a response regarding an immediate solution for Pennsylvania or what might have been done.

But as you may have noticed, I am very interested in seeing plans for a network move ahead more rapidly, a more comprehensive network infrastructure to help carry emergency communications for better response and recovery. I think we need a better network to do that.

Mr. MARINO. Thank you. I yield back.

Mr. BILIRAKIS. Thank you, Mr. Marino. I will recognize Mr. Clarke from the great State of Michigan. You are recognized for 5 minutes, sir.

Mr. CLARKE of Michigan. Thank you, Mr. Chairman. My question is more on how the elected Member of Congress can play an effective role in alerting the public about how to best prepare for a likely emergency, whether it is a terrorist attack or some other natural disaster, and also what they should do in the event of such a likely attack, as has already occurred.

Let me give you an example. So I represent metropolitan Detroit. In my opinion, that area is at high risk of an attack because we have some high-profile targets. The Detroit-Canadian border is the busiest international trade crossing in North America. So our

bridge, our international bridge, our international tunnel could be a target. Our drinking water system, since we have a large drinking water system, one of the largest in the country, could be a target, let's say, of some type of bioterrorism attack. We have the world headquarters of General Motors, which is still one of the largest companies in the world. So we have this 70-story structure right on the riverfront. We have an international hub airport which was the target of the Christmas day bomber. He attempted to blow up a plane that was destined for that airport.

So if there is some type of effective, yet proper role, public role, for a Member of Congress to play in their district, especially those of us that are on this committee, we are looked at for leadership in that sense in homeland security, what type of role could we play to effectively alert our people to prepare them better for an attack? Or, for example, if such an attack actually occurred, whether it was fully realized or not, like the attempted bombing of this plane, we may be the ones that are contacted initially by the media. Or we are looked to as the folks that give the public guidance initially. If you have any thoughts on that, I welcome that.

Mr. PENN. Sir, if I could try first, the first thing I would ask you to do was to remind everyone that disasters are local. Everything starts with the family taking care of the family, community taking care of the community, up through the county and the State. What we provide at FEMA at the National level is to assist those emergency managers and first responders in doing their jobs and working to take care of their communities. So if you could remind everybody that they have a part to play in emergency management, because emergency management starts with them, I think that would be a good place to go.

Also if you could refer them to Ready.gov, that has some great information on what you need to put together an individual preparedness kit, and what you need to have for your family and at your workplace and those kinds of things. So if you could help us carry the message that way, I think that would go a long way to helping ensure we have individual preparedness. Everything from there just gets larger and broadens itself out.

Mr. CLARKE of Michigan. Anyone else have any thoughts?

Mr. EDWARDS. Yes, Congressman. My name is Eric Edwards. My focus normally is on response communications. But because of that focus, I have a tendency to look at the continuity of communications systems and other things that you can do to ensure that on a very bad day you are able to communicate with the public.

So the use of the social media and how the public is using the social media and how it connects to the State and local EOCs, I think it is a good time to look at all those connectivities and all those issues so that we understand where the critical points are, who provides the right messaging, the right content. If for some reason one of those events were to occur, we would know how to ask the Federal Government and any other of our partners to come in and restore those communication—broken lines of communication so that we can best enable yourself and others to support your citizens and restore the capabilities as fast as possible.

Mr. CLARKE of Michigan. Thank you, Mr. Edwards.

Mr. ESSID. Congressman, for example, most citizens feel that they can send a text message to 9–1–1. Most 9–1–1 centers aren't set up to accept them. Those are the types of things I think folks need to know as we continue to improve our communications. In a disaster when you need assistance is not the time to find that out.

Mr. CLARKE of Michigan. I want to thank you all for your responses. If I could, I would like to set up a conference call with all of you later on some day to go over these things. Thank you for addressing these issues publicly.

Mr. BILIRAKIS. Does the Member yield back?

Mr. CLARKE of Michigan. Yes.

Mr. BILIRAKIS. Thank you. Okay. I think we have time for one more quick round, if that is okay with the Members. They haven't called votes yet. So I will go ahead and begin. I will recognize myself for 5 minutes. I understand that one of your responsibilities—this question is for Mr. Edwards—one of your responsibilities is to develop plans and lead Mobile Emergency Response Support detachments deployed during National special security events. What is your role in developing emergency communication plans and procedures for the 2012 Democratic and Republican National Conventions? Then I have a follow-up for Mr. Essid after that.

Mr. EDWARDS. Chairman, we look at the planning process between ourselves in FEMA, OEC, and NCS as inextricably linked. We would get with the OEC and review the State's interoperability plans, because those represent where the State believes they have the critical communications capabilities and where their resources are, where their priorities are.

We would then look at the tactical communication interoperability plans to make sure we understand what the local government believes are the most important pieces. We would then take a look at our own Federal annexes to the State plans to make sure that those plans are harmonized and in synchronization with each other. We would use those plans as a basis for identifying the capabilities within our own assets.

Of course, I have to point out that the Federal Government resources are vast, and the National Communications System, through their Emergency Support Function No. 2 capabilities would be able to marshal any and all resources necessary to support an event such as an NSSC. So it is not just FEMA, it is actually the whole community coming together to determine the right resources necessary to resource that event, whether or not it is planned or a natural event.

So we would then identify those capabilities that were necessary, and we would put those assets in place. We would use our plans as a basis of operationalizing the capabilities. We would look to FEMA's interagency planning process to make sure that we had the right plan in place to respond to your requirements.

Mr. BILIRAKIS. Very good. Thank you. Then Mr. Essid, if you want to elaborate on OEC's role in the planning.

Mr. ESSID. Mr. Chairman, one of the things, I think Mr. Edwards hit it right on the head, but I would like to yield to Mr. O'Connor, because he has got a lot of—we work with NCS and FEMA on this,

but they would have the lead on the technical planning for an event like that.

Mr. BILIRAKIS. Certainly.

Mr. O'CONNOR. Thank you, Chairman. In fact, I just have a member of my staff is coming back from Hawaii from the APEC, which is an NSSC conference. He was out there standing watch at the Multi-Agency Communications Center. Part of the efforts that we take in that instance are, once it is identified and declared by the Secretary that it is an NSSC, we begin to reach out to the actual venue that is going to be hosting the event, and we send a representative down there to have a discussion about communications capabilities, walk the facility, talk about the security that you need for it, and then also advise who is providing that communications functionality to them. In turn, we bring that to the industry partners to let them know that this event is going to be happening in their backyard, and that when you have an event like this, not only are you looking at the security and ability to provide communications, but you do set up some physical boundaries. Physical access and entry to the area may impact communications assets that are supporting the event or simply within that perimeter.

So we end up setting up a responsibility with the Secret Service on being the focal point for the communications industry to identify and credential their staff to get into that perimeter, work in those facilities, and be able to ensure that communications are being provided.

In addition, as we do our outreach to the industry, they mobilize assets and bring those into the area so that we would have additional cell coverage, as an example, for those particular facilities. So it is a partnership that we do across Government.

We also reach out to State and local. We do an analysis of the area to identify the key assets. We provide that to local law enforcements and other partners so that additional resources can be put in place to observe and protect in the lead-up to the event and the actual conducting of the event. So across the board, we are working with our partners to advise that we will be in the area, there may be limitations on how the event is conducted. Please prepare for that. Bring in additional resources, and be able to stand vigilant with us as we go through the actual event.

Mr. BILIRAKIS. Very good. Thank you.

One last question for Mr. O'Connor. Maybe Mr. Edwards can weigh in on this as well. Mr. O'Connor, in his testimony, Mr. Edwards states that DEC, through its MERS detachments, assists NCS in evaluating and supporting post-disaster communication restoration needs. Could you please describe how DEC and NCS work together to restore communications?

Mr. O'CONNOR. Yes, sir, my pleasure.

Mr. BILIRAKIS. Thank you.

Mr. O'CONNOR. In the steady state we actually participate and work together both in the planning and the exercise at a National and regional level. So currently at the National level we are in the process of reworking the emergency support function to ConOps plan, if you will.

During an actual event, though, DEC has the advantage of having geographic dispersion, usually being in proximity to the event.

So they do an initial outreach to the State, and start to begin assessments at that point in time. Part of those assessments include working with the State and locals to understand what infrastructure is at risk or what has failed. At this point, we collaboratively come together and make a determination is it best to try and leverage the communications industry to first restore that, or do we need to bring in tactical gear, which is part of the MERS functionality and assets at FEMA, to help the State bring back, for example, a tail circuit that was providing connectivity for their land mobile radio between an antenna and a switch? What is the most effective way to do that?

That is the coordination function that we have between the two entities. We do that during the disaster at a regional level from the DEC person that is on the ground, and also a predefined communications liaison from the NCS.

Mr. BILIRAKIS. Thank you. Mr. Edwards.

Mr. EDWARDS. Yes, sir. The DEC Division integrates the mission-critical communications and provides a backbone during the disaster response. Of course we have the Mobile Emergency Response Support detachments. That is six detachments geographically dispersed across the United States for that reason. In the event that there is a disaster where the Governor of the State has requested support, we would rapidly respond to that Governor's request and put those assets down at the incident site level.

Of course, we are then at that point in time trying to stabilize the event in the first 12 hours, providing command and control, communications, and coordination for those emergency responders. We would be responding to police, fire, EMS, anyone who had the need as defined by our Federal Coordinating Official, in concert with the State's requirements. We would report, provide situational awareness. We would report that as the ESF No. 2 tactical lead on the ground with the eyes and ears, back through the various regional reporting nodes and then up to the National level. We would interface with NCS on potential solutions for temporary near-term restoration, as well as long-term restoration to ensure the continuity of communications and operations going forward.

Mr. BILIRAKIS. Thank you very much.

What I would like to do now is recognize Ms. Richardson for a second round. They just called votes, but I think we can get through this. I appreciate your cooperation. Thank you.

Ms. RICHARDSON. Thank you, Mr. Chairman. I have three questions. First of all to Mr. Essid, regarding coordinating emergency communications within DHS, two questions. What is the process for decision-making within these coordinating bodies of OEC chairs? No. 2, additionally, does OEC have the authority to ensure that other DHS components enforce interagency decisions related to emergency communications?

Mr. ESSID. Ranking Member Richardson, we basically have been set up as a coordination entity. So the One DHS group I talked about within DHS, and even the Emergency Communications Preparedness Center that is 14 Federal departments and agencies, OEC brings them together. They are consensus-based bodies. We don't have any, you know, binding decision-making authority. OEC was really created to increase coordination. That is what we have

been doing. So we have had a lot of success that way, but there is a limit to what we can influence outside of that collaboration and coordination, which I will say has been successful.

Ms. RICHARDSON. So your current coordination has been planning meetings and passing information?

Mr. ESSID. Developing products together within DHS, the different components, developing a DHS-wide strategy. Another good example would be through that Emergency Communications Preparedness Center, Ms. Moore noted 40 Federal grants from different agencies for communications. That ECPC developed common grant language for all of those 40 separate grants, and has now—so those 40 separate grants will be able to leverage common grant guidance for communications for the first time ever.

Ms. RICHARDSON. So if something is pending or hasn't gotten done, how do you go about getting it resolved if you don't have any binding authority? If you could summarize in about 10 seconds, because I have got a couple of questions yet.

Mr. ESSID. We work with the Members as best we can to bring it to resolution, and we try to get it in front of the decision-makers, the Secretaries and folks like that from the different departments or different components within DHS.

Ms. RICHARDSON. Okay. Mr. Edwards, and I think I have expressed an interest in this topic before, so hopefully you are familiar, how do you work with the territories in particular? Is there an emergency plan that you could share with this committee of how we work with—I am sorry, the Tribal areas and the territories?

Mr. EDWARDS. Ranking Member Richardson, I don't have the specifics of how we are actually out there dealing with them, but I believe it is the same as the way we built all 38 of our State emergency communications plans. First we work through our FEMA regions and the regional administrators. They have the personnel and the lead for reaching out through the various States and the various territories and Tribes in their area. We normally have a kick-off meeting where we all sit down and understand the scope of the effort. Then we are invited to go down and understand their architectures, their concerns, their priorities. All that is documented first within either the State, the territory, or the Tribe. It rolls back up. We prepare the reports, and then send them through the regional administrators, who during these RECWG meetings, these Regional Emergency Communications Working Group meetings, are able to share that with the State leadership. Then ultimately they are signed off on and go into force.

Ms. RICHARDSON. Okay. If you could supply to this committee those plans for both the territories and the Tribal areas. I would venture to say they couldn't be exactly the same, because Tribal areas are their own sovereign nations. So they, I assume, are requiring to be addressed as such. So I would be curious to see what plans we have in place with them.

Finally, Ms. Moore, I wanted to make sure you got a good final question as well. If there was one greatest concern that you have regarding communications, what would that be, within DHS? What would be your strongest recommendation to us? I have 1 minute and 1 second.

Ms. MOORE. All right. Congressional Research Service doesn't give recommendations. We give options for Congress to decide. But in my reports I mentioned in my testimony that Congress has repeatedly asked for a plan, a strategic plan to bring together a communications strategy for deploying a network. Here in this 112th Congress we again have multiple bills asking for a plan, asking for a network solution, in this case only for first responders.

The failure to plan, to me, has been the biggest problem for DHS. The 21st Century Communications Act definitely meant for the OEC to work with the regional emergency coordinators to develop a plan, a true plan for deploying communications using technology. That has been neglected. As a technologist, of course, that bothers me. But this has been stated in my CRS reports.

Ms. RICHARDSON. Thank you.

Mr. BILIRAKIS. Thank you. I appreciate it. I am sure we are going to have some additional questions to submit. You will be willing to answer the questions, I assume.

Thank you very much. I want to thank the witnesses for their valuable testimony and the Members for their questions. I would also would like to thank a great staff on both sides of the aisle. The hearing record will be open for 10 days. Without objection, the subcommittee stands adjourned. Thank you again for your patience.

[Whereupon, at 4 p.m. the subcommittee was adjourned.]