Written Testimony

of

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Thank you, Chairman Donovan, Ranking Member Payne, and esteemed members of the Subcommittee. It is a pleasure to be here once again to discuss the Department of Homeland Security's (DHS) efforts in enhancing the Nation's interoperable emergency communications. Before my last appearance in front of this Subcommittee, the Department had just released the 2014 National Emergency Communications Plan, which identified the unprecedented change public safety communications will be going through with the deployment of the First Responder Network Authority (FirstNet) Nationwide Public Safety Broadband Network (NPSBN), Next Generation 911 (NG911), and cellular alerts and warnings systems. The Office of Emergency Communications (OEC) is working with public safety to implement the goals and objectives in the 2014 Plan to ensure these disparate systems work together seamlessly.

Since our formation a decade ago, OEC has partnered with public safety to develop standards and best practices to achieve interoperable communications. In 2008, Land Mobile Radio (LMR) was the main system used by public safety. But soon, just as the average citizen relies on cellular broadband, public safety officials will be able to receive multimedia data with FirstNet capabilities. As a result, OEC has expanded our programs to achieve interoperability in a Land Mobile Radio and cellular broadband environment. OEC continues to strategize how best to ensure that plans and investments keep pace with this ever-changing telecommunications environment. Recent events have shown that the Nation must continue to improve these capabilities, making sure that first responders are ready to get the information that they need to help citizens during a disaster. With citizen-to-citizen communications drastically changing from voice only to texting and other multimedia means, these communications capabilities will revolutionize how citizens engage with public safety and how first responders communicate with one another. However, as I said when I was last before you, emergency communications is largely a people issue. Technology will continue to evolve over time and so our job is to support the effective use of this technology through governance, standard operating procedures, and joint exercises and training. This is the critical work that will ensure interoperability when it is needed most – at the next incident or event.

Update on the Office of Emergency Communications

OEC was established in 2007 as part of the Congressional response to the communications challenges experienced during Hurricane Katrina in 2005 and, before that, the terrorist attacks of September 11, 2001. Our mandate directs OEC to carry out a range of activities to support policy officials and first responders at all levels of government – Federal, state, local, territorial, and tribal – as they work to achieve, maintain, and enhance operable and interoperable emergency communications capabilities.

Working at the National Level

OEC is the primary driver of strategic planning and coordination to improve emergency communications interoperability nationwide. Through a stakeholder-driven process, OEC authors the National Emergency Communications Plan (NECP), which provides strategic guidance for the public safety community and Federal agencies to improve emergency communications capabilities. Since the release of the 2014 Plan, OEC has partnered with public safety officials across the Nation, and at all levels of government, to increase capabilities and address communications interoperability gaps. We put people at the center of all of our work because interoperability can only be achieved when those responsible for emergency and incident communications engage in proper planning, governance, training, and usage initiatives.

OEC is the executive agent of SAFECOM, a public safety advisory board which aims to improve multi-jurisdictional and intergovernmental communications interoperability. The group works with DHS and

key emergency response stakeholders across all levels of government and all public safety disciplines to address the need to improve existing communications systems and coordination while developing future tools. SAFECOM is comprised of representatives from associations, such as the International Chiefs of Police, the International Association of Fire Chiefs, the National Association of State 911 Administrators, the International Association of Emergency Managers, the National Association of State Chief Information Officers, and the Major County Sheriffs' Association, to name a few. SAFECOM develops numerous best practices and guidance documents every year to support its members' goals and provides input into OEC's programs, products, and services.

OEC also manages the Communications Unit (COMU) program, which outlines the functions, positions, training, and certification required to support interoperable incident communications. The current COMU program only addresses LMR interoperability. In 2017, and continuing through 2018, SAFECOM, in partnership with the National Council of Statewide Interoperability Coordinators, created a working group to update the COMU program to include broadband and data into incident communications. The working group, comprised of communications experts from across the Nation, is identifying the COMU functions required to support data and broadband use, developing COMU positions required to address those functions, creating training curriculum for the new positions, and supporting states and territories in establishing COMU certification programs.

OEC continues to support state and local public safety in their planning efforts, working with SAFECOM to develop two documents related to governance planning and implementation. The first is the *SAFECOM Guidance on Emergency Communications Grants*. This annual document provides recommendations to grantees seeking funding for interoperable emergency communications projects, including allowable costs, items to consider when funding projects, grants management best practices, and information on standards that ensure greater interoperability.

The second document developed with SAFECOM is the *Emergency Communications Governance Guide for State, Local, Tribal and Territorial Officials*, released in 2015. This tool lays out governance challenges, best practices, and recommendations on how to establish and maintain effective Statewide Interoperability Governing Bodies (SIGBs) that represent all emergency communications capabilities. This nationally developed resource includes a range of broad approaches, allowing officials to select and apply recommendations at the state, local, tribal, or territorial level that are most appropriate for their specific situation or challenge.

Additionally, OEC is leading the development of the Next Generation Network Priority Services, which will enable National Security and Emergency Preparedness (NS/EP) users to have priority voice, data, and video communications in commercial networks.

Working at the State and Territorial Level

Many have heard me talk about the importance of governance, and we continue to see this as an area that we all must pay particular attention to as we move into the future of emergency communications. Anyone that has worked in public safety will tell you that having the greatest technology available cannot, on its own, provide interoperable emergency communications. People and processes must be a major consideration to fully achieve interoperability. OEC has recognized a steady decrease in full-time Statewide Interoperability Coordinators (SWICs) – from years ago, when many states and territories had a full-time SWIC; to now, where there are just 12. We have also seen a decline in the activeness of SIGBs, which serve as the primary steering groups for statewide interoperability. Many SIGBs are

meeting less frequently or, in some cases, have disbanded all together making interoperability more difficult to achieve. We have heard from many of our partners that this is due to a lack of funding available to emergency communications. This is something that we all must pay more attention to and work together to find ways to help states increase their emergency communications governance capabilities. To address these gaps, OEC works with all 56 states and territories to establish and improve their SIGB, support their SWIC, and update their Statewide Communication Interoperability Plan (SCIP) through direct technical assistance.

Additionally, in 2016, OEC partnered with the National Governors Association (NGA) Center for Best Practices to launch a policy academy to identify challenges and potential solutions towards further enhancing governance structures, planning for new technologies and securing sustainable funding. Five states participated in the policy academy - Alaska, Hawaii, Illinois, Utah, and West Virginia. Findings from the NGA Policy Academy are critical to our efforts to help states look at their emergency communications systems together to pass information seamlessly. Right now, funding and staffing for a new system is sometimes done without considering the systems related to the proposed new tool. States must approach these systems' funding and staffing in an integrated way to better allocate resources.

One result that has come out of this project is OEC's development of the Enhanced SCIP Pilot, which launched earlier this year. The new plans that are being developed during this project will provide a more intensive review of governance, technology and funding sustainment. OEC is currently working with nine states to deliver the Enhanced SCIP Pilot and will evaluate the results to inform strategic planning support in FY 2018.

Working at the Local Level

In addition to engaging our partners through stakeholder groups, we also work directly with public safety officials to further the Nation's interoperable emergency communications. Through technical assistance offerings, provided at no cost, we assist public safety with the planning, governance, operational, and technical aspects of developing and implementing interoperable communications initiatives. To date, OEC has provided more than 1,500 technical assistance visits. In response to changing technology and stakeholder feedback, OEC has expanded technical assistance offerings to cover broadband and cybersecurity initiatives.

OEC also works with public safety to identify capability gaps at the local level. One such example is the Interoperable Communications Capabilities Analysis Program (ICCAP). ICCAP is designed to help state, local, and federal agencies enhance their overall capacity to communicate with one another, using both voice and data, focusing on interoperability across the public safety communications ecosystem and preparing for the unexpected emergency or incident during a planned event. OEC has conducted 16 ICCAP events over the past year. For each event, OEC has developed After-Action Reports for the organizing agencies to understand strengths and areas of improvement. OEC is currently analyzing the capability data across all observations to identify the changes in incident communications which will inform future technical assistance offerings and products.

Also at the local level, OEC provides priority telecommunications and restoration services to ensure that the NS/EP community can communicate under all circumstances. The priority services portfolio includes Government Emergency Telecommunications Service (GETS) to connect calls during landline congestion, Wireless Priority Service (WPS) to connect calls during wireless network congestion, and

Telecommunications Service Priority (TSP) providing priority treatment for vital voice and data circuits or other telecommunications services.

Working at the Federal Level

On the federal side, OEC manages the Emergency Communications Preparedness Center (ECPC), a group of 14 federal agencies with a significant role in emergency communications. Its members represent the federal government's broad role in emergency communications, including regulation, policy, operations, grants, and technical assistance. Together, SAFECOM and the ECPC coordinate activities, such as grant funding guidance, 911 initiatives, and emergency communications strategic planning. The ECPC Grant Focus Group Chair is a FirstNet staff member, ensuring that the annual grant guidance supports efforts to integrate LMR and broadband.

We are seeing remarkable coordination between federal and state public safety as they begin to allow each other to operate on existing communications systems. OEC currently supports efforts to develop Memorandums of Understanding between the federal government and states to allow non-federal agencies to access the Federal Enforcement and Incident Response Interoperability Channels. We are also supporting similar coordination where federal agencies are granted access to statewide systems. This cooperation leads to improved coordination between federal and state officials and an enhanced ability to manage incidents.

OEC Coordinators

OEC employs subject matter experts located across the country to engage state, local, tribal, and territorial officials as they address the complex issues facing the emergency communications ecosystem. These OEC Coordinators have extensive experience in public safety, many previously serving as first responders. Leveraging their real-world experiences, they are able to build trusted relationships, enhance collaboration, stimulate comprehensive planning, and encourage the sharing of best practices and information between public safety organizations, appointed and elected officials, critical infrastructure owners and operators, and key non-government organizations. Coordinators provide event support and coordination, conduct training and technical assistance, coordinate and participate in capability assessments, advise on and support statewide governance activities, and provide a link to additional federal resources.

OEC Response to Hurricanes Harvey, Irma, & Maria

When I last appeared before this Subcommittee, I explained about OEC's assistance to Boston to assess and improve its emergency communications capabilities and how that enabled the city's response when two improvised explosive devices detonated near the Boston Marathon's finish line in 2013. Recent events have shown the continued importance of emergency communications to support public safety as they prepare for and respond to a major event. During Hurricanes Harvey and Irma, we saw wireless communications degraded in the affected areas due to damaged infrastructure. And while few public safety answering points (PSAP) went down, some had to be rerouted for various reasons. OEC supported public safety at all levels as they responded to these storms, providing on-the-ground support, as well as assistance from the National Capital Region. During an event, the National Coordinating Center for Communications (NCC), part of the National Cybersecurity and Communications Integration Center, leads emergency communications response and recovery efforts under Emergency Support Function #2 of the National Response Framework. As part of DHS' response to Hurricanes Harvey,

Irma, and Maria, fourteen members of the OEC team supplemented the efforts of the NCC, providing emergency communications assistance, including emergency operations center staffing, priority communications support, and regional communications knowledge at the federal, state, and local levels.

The extensive damage from Hurricane Maria shows the importance of rapid restoration of communications to enable information collection, dissemination, and coordination in response to the incident. The rebuilding of the communications infrastructure is taking a coordinated effort between the government and commercial carriers.

OEC's Priority Services programs remained fully functional throughout the storms where communications infrastructure was still working. GETS and WPS provide essential personnel priority access and prioritized processing, greatly increasing the probability of call completion. GETS focuses on the local and long distance segments of the landline networks, while WPS targets all nationwide cellular networks. OEC also manages TSP, which provides service vendors a Federal Communications Commission (FCC) mandate to prioritize requests by identifying those services critical to national security and emergency preparedness. A TSP assignment ensures that it will receive priority attention by the service vendor before any non-TSP service. These services processed thousands of calls from first responders and government officials as they worked to respond to the aftermath of the recent storms.

Supporting Interoperable Emergency Communications into the Future

Not long ago, the emergency communications ecosystem consisted of a citizen calling a PSAP for help, a call operator radioing the information to fire or police, and public safety officials and responders speaking to each other on LMR. However, new technologies are drastically changing the emergency communications ecosystem, not only transforming how citizens talk to each other, but also how public safety works together and engages with citizens. We cannot ignore the transition to these new communications technologies and the advantages they bring. However, we must ensure we continue to support our partners through training, technical assistance, and best practices as long as LMR remains a communications tool for public safety.

Integrating LMR and Broadband Communications

Although LMR remains essential in emergency communications, the benefits and opportunities broadband offers to public safety are undeniable. Citizens will be able to send a picture of a suspicious package or videos of an event as it is happening to PSAPs that can then share those files with first responders. This capability provides critical information in determining how to respond and what resources will be needed. It is hard to speak of these advancements without also mentioning the progress toward implementing the newest tool in the emergency communications toolbox – the NPSBN. FirstNet, an independent authority within the Department of Commerce's National Telecommunications and Information Administration, recently awarded its contract to build the broadband network and we at the DHS Office of Emergency Communications applaud them in doing so. Until broadband can support mission critical voice to public safety, LMR will continue to be the primary method of communication for the near future. However, this is clearly a major step towards full implementation of a capability that will greatly improve interoperable communications across the country.

From the early days of envisioning this new network, OEC has supported both the FirstNet team and state and local public safety as they prepare for full implementation of the system. OEC provided support in developing the FirstNet Request for Proposal, as well as assistance with identity,

credentialing and access management responsibilities. The ECPC was designated by FirstNet to coordinate the needs for Federal users of the network, collecting network requirements and security standards from all departments and agencies. In response to feedback from our state and local partners, we have recently added technical assistance offerings specifically focused on assisting with preparation and planning for deployment of broadband, including FirstNet. These offerings focus on broadband education, governance, planning, engineering, and data collection. OEC also worked with FirstNet to develop *Roadmap to 2020*, which outlines key considerations and resources impacting the emergency communications grants community and enables coordination across federal agencies to understand how grant programs can support the deployment of broadband systems. In September, I assumed the DHS FirstNet board member duties and look forward to continuing to support the implementation of the NPSBN in this new capacity.

Cybersecurity

As communications move toward broadband networks like FirstNet, there are new issues and risks that must be considered – not least of them, cybersecurity. Many of the concerns that the Full Committee has studied in hearings and briefings related to cybersecurity are the same issues that must be considered during this transition. Emergency communications networks are only as secure as its weakest connection; vulnerabilities at any point have the potential to affect the entire network. In addition to our technical assistance offerings related to cybersecurity, OEC assists our stakeholders through various programs and activities. Through the Cyber and Physical Threat and Risk Analysis to Improve Networks (CAPTAIN) program, DHS collaborates with public and private emergency communications stakeholders to increase understanding and awareness about critical cyber and physical risks that could threaten the mission of first responders and public safety agencies. And last year, OEC, in coordination with the Department of Transportation's 911 Office, developed the NG911 Cybersecurity Primer, which helps PSAP operators improve the cybersecurity posture of relevant systems nationwide and provides an overview of the cyber risks that will be faced by NG911 systems. The Primer serves as an informational tool for system administrators to better understand the full scope and range of potential risks, as well as recommend mitigations to these risks. Finally, OEC supported the FCC's Task Force on Optimal Public Safety Answering Point Architecture, a comprehensive study of the future of PSAPs, the integration of NG911, the cybersecurity risks and proposed solutions to address the risks.

Grants

The Department has provided multiple grants to public safety to enhance their emergency communications capabilities. Starting in Fiscal Year (FY) 2007, the Department provided two emergency communications-related grants to states and territories, the first of which was the Public Safety Interoperable Communications (PSIC) Grant Program. PSIC was a one-time grant program of the Department of Commerce's National Telecommunications and Information Administration (NTIA), which provided a total of $1 billion, with each state and territory receiving funds to support the development of statewide, regional, and local systems. FEMA administered the grant program on behalf of NTIA. About 90% of the funds were spent on equipment. Also, from FY2008 – FY2010, FEMA and OEC partnered to administer the Interoperable Emergency Communications Grant Program (IECGP). Over these three years, IECGP provided more than $145 million to public safety to improve their governance, planning, training, exercise, and equipment. This included updating a state's SCIP and funding their SWIC and SIGB. These programs helped states lay a great foundation for their emergency communication capabilities. Emergency communication equipment costs are allowable expenses under FEMA's Homeland Security Grant Program.

The OEC-administered Border Interoperability Demonstration Project (BIDP) just recently released its closeout report. BIDP was a $25.5 million one-time, competitive program to provide funding and technical assistance to U.S. communities along the Canadian and Mexican borders. OEC recently published its closeout report and is in the process of developing tools, templates, and studies based off of the best practices, lessons learned, and processes successfully demonstrated by BIDP award recipients. Additionally, last year, OEC established the Rural Emergency Medical Communications Demonstration Project (REMCDP), a one-time $2 million project to work with a public and state controlled institution of higher education to examine communications barriers and identify solutions that enhance existing emergency communications infrastructure. Through a competitive process, OEC awarded the funds to the University of Mississippi Medical Center to support the First Hands Project, which will test an innovative approach to communications governance, planning, coordination, training and exercises. We are in the middle of the period of performance and are already seeing significant accomplishments in meeting the program's objectives. We look forward to briefing you on what we learn at the end of the REMCDP.

SAFECOM Nationwide Survey

The SAFECOM Nationwide Survey (SNS) will be a nationwide data collection effort to obtain actionable and critical data that drives our Nation's emergency communication policies, programs, and funding. OEC and SAFECOM will distribute the survey to federal, state, local, territorial, and tribal emergency response provider organizations with a) a public safety-related mission and b) users of public safety communications technology. Questions will be organized by the five critical success elements of the SAFECOM Interoperability Continuum – Governance, Standard Operating Procedures, Technology, Training & Exercises, and Usage – with the addition of a Security element, which will touch on cybersecurity. Results of the survey will help government officials and emergency responders better understand emergency communications needs so that they can make data-driven funding, policy, and programmatic decisions to strengthen capabilities. We look forward to receiving and analyzing SNS survey results, which will be published in the upcoming Nationwide Communications Baseline Assessment.

The Next National Emergency Communication Plan

OEC is in the early planning phase for the next update of the National Emergency Communications Plan. Later this year, we will begin working with our public safety partners to solicit their critical feedback and participation in Plan development. The most important inputs to this document, as was true with the 2014 NECP, will be from the public safety practitioners in the field who are charged with protecting and saving lives. The next NECP will further expand on the communications ecosystem concept developed in 2014 and will be informed by more current efforts including the previously mentioned NGA Policy Academy, the ICCAP analysis, and results from the SNS.

Conclusion

Thank you, Chairman Donovan, Ranking Member Payne, and the Members of this Subcommittee. Ten years ago, Congress set up the Office of Emergency Communications to support our stakeholders as they coordinate activities and share information to improve their interoperable emergency communications capabilities. We have seen tremendous changes since then, and, as emergency communications evolves, we stand ready to continue our strong coordination efforts with public safety

ensuring they are well prepared for the future, leveraging the various tools available – NG911, broadband, *and* LMR. I look forward to our discussion this morning, and I am pleased to answer any questions that you may have.