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Hearing Title: Cyber Preparedness and Response at the Local Level

Chairman Ratcliffe, and other distinguished Members of the Subcommittee, it is an honor to appear before you today on behalf of the Texas A&M Engineering Extension Service (TEEX) to discuss cyber preparedness and response at the local level.

History of TEEX emergency management training program:

TEEX, a State of Texas agency and member of the Texas A&M University System (TAMUS), began training state and local responders in 1930, and today trains over 170,000 annually from across the world. In 1998, TEEX became a founding member of the National Domestic Preparedness Consortium (NDPC). The NDPC is a partnership of 7 universities and organizations that are the primary means through which the Department of Homeland Security/Federal Emergency Management Agency's (DHS/FEMA) National Training and Education Division (NTED) provides training to state, local, tribal and territorial responders and communities in support of *PPD-8 – National Preparedness*. The NDPC is Congressionally authorized and annually appropriated funding through the Homeland Security National Training Program to develop and deliver training for the Nation's emergency first responders within the context of all hazards; including chemical, biological, radiological, and explosive Weapons of Mass Destruction (WMD) hazards. To date the NDPC has trained over 2.4 million, more than 540,000 of which were trained by TEEX.

This long-term relationship with state and local level emergency managers, responders and leaders, and infrastructure/industrial partners, along with more than 20 years of experience in workforce and software development, prepared TEEX to provide training on preparedness and response for cyber incidents or attacks. In today's connected world cyber refers to anything that contains, is connected to, or is controlled by computers and computer networks.

Beginning of TEEX cyber training program:

In 2010, at the request of FEMA, TEEX began training state and local communities in cybersecurity awareness, specifically where local communities and responders need to collaborate with their critical infrastructure partners in planning for and responding to a possible cyber-attack or incident. TEEX launched this effort within their existing HSNTF funding (then FY'09 - \$22,344,500) by continuing the delivery and maintenance of cyber courses originally developed under FEMA Continuing Training Grants and awarded to other universities.

At the national level, the need for an increase in cybersecurity awareness and the ability to collaboratively plan with critical infrastructure partners was highlighted through *PPD-21 - Critical Infrastructure Security and Resilience* and *EO-13636 – Executive Order Cybersecurity / Presidential Policy Directive on Critical Infrastructure Security and Resilience*. TEEX responded to the growing need by expanding the cyber training program and leveraging the partnerships with the DHS Office of Infrastructure Protection (IP) and the DHS Office of Cybersecurity and Communications (CS&C). TEEX had previously developed two courses on the protection of critical infrastructure with DHS/IP

and was asked to develop a third, which specifically focused on the challenges of both physical and cyber security on critical infrastructure, with DHS/IP and DHS/CS&C.

Current TEEEX training and assessment programs:

TEEX trains students through the DHS/FEMA HSNTP, offered at no cost to state, local, tribal and territorial communities, and includes:

- 5 instructor-led courses that are delivered across the country and the US territories, allowing communities to train together in the classroom:
 - 4 courses on cyber and incident management
 - Promoting Community Cybersecurity
 - Essentials of Community Cybersecurity
 - Community Preparedness for Cyber Incidents
 - Community Cybersecurity Exercise Planning
 - 1 course specifically addressing both physical and cyber security
 - Physical and Cybersecurity for Critical Infrastructure
- 10 online courses, available at no cost to individuals, designed for 3 levels of student, including:
 - 3 courses for General Users, covering broadly applicable awareness needs
 - 4 course for Information Technology staff and specialists, addressing security, forensics and response techniques for IT systems
 - 3 courses for Business Management staff that include Risk Management and legal parameters critical to small businesses

In addition to training, TEEEX also provides technical assistance, offering community and organizational vulnerability assessments and compliance reviews. Vulnerability assessments include network vulnerability testing, review and validate IT security processes, and review IT system security configurations, while compliance reviews include organizational policy conformance reports and recommendations to make their systems more secure.

Implementation of TEEEX training programs:

Over the last 5 years, TEEEX has provided cybersecurity training for students in 40 states and 5 territories, reaching a total of 32,290 students. These students trained both in the classroom and online.

- Instructor-led training (delivered in local communities):
 - 345 deliveries to 8,413 students in the U. S.
 - 31 deliveries to 815 students in Texas
- Online training:
 - 23,877 students in the U. S.
 - 4,264 students in Texas
 - 50 students in TX District 4

Future of TEEEX training programs:

As we move forward, we will continue to work closely with states and local communities in identifying their needs and supporting their efforts. States have reported through the annual National Preparedness Reports, beginning in 2012, that Cybersecurity is a key national area of improvement,

listing it as a top priority in 2014 and 2015. Some of our recent work in support of the states includes:

- Working with states to provide employee training web portals with direct access to state identified required online cyber training and reporting capabilities for states to monitor employee progress in completing the courses. Student training portals are now active for the states of Arkansas, Louisiana, and Wyoming, as well as Fresno Pacific University in California.
- Most recently, as a member of the National Cybersecurity Preparedness Consortium (NCPC), consisting of 5 partners focused on training for state and local communities, TEEX is developing new training on the integration of cybersecurity into the local Emergency Operations Center (EOC). Through FEMA NTED's Continuing Training Grants, TEEX will develop 2 hands on courses, with simulated scenarios designed to develop managerial and operational level skills sets. The first course, now in development and piloted in Utah and Rhode Island, is designed to help ensure that traditional emergency management personnel and IT personnel recognize the importance of working together to mitigate the effects of a cyber incident. A second, more technical, course will follow and will provide students with the key skills and processes needed to more effectively defend their organizational networks.

In summary, we will continue to focus on how we can further assist and prepare local entities for a cyber incident, as well as enhancing engagement with the public and private sectors in planning and response to a cyber incident.