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TESTIMONY

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Subcommittee on Technology and Innovation**

Are We Prepared? Assessing Earthquake Risk Reduction in the United States

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Introduction

Thank you Chairman Quayle, Ranking Member Wu, and distinguished members of the Subcommittee for the opportunity to testify today regarding earthquake preparedness and efforts undertaken each and every day by dedicated emergency management professionals to help protect lives and property.

Emergency management is far more complex, however, than discussing specific response and recovery efforts of just one hazard. We often manage multiple events simultaneously while preparing for a wide range of hazards from floods and earthquakes to Category 5 hurricanes and terrorist attacks.

While other witnesses today have highlighted the attributes of the National Earthquake Hazard Reduction Program (NEHRP), I will go over general response and recovery issues, current efforts underway to simulate a massive earthquake in the Mid-Central region of the country, and recommend the best way you can support your state and local emergency managers.

Response & Recovery

A major event involving multiple disciplines is complex and difficult to manage. While firefighters, law enforcement officials, and emergency medical personnel often constitute the traditional first responders, emergency managers provide the all important coordination function. This coordination far exceeds the initial response as emergency managers also maintain responsibility for the transition from the lights and sirens of response into the complex and often long-term efforts of recovery.

Once an event occurs, the response is a three-tiered process of escalation where the level of support is directly related to the need of the impacted jurisdiction. The initial response is at the local level where first responders and local emergency managers provide assistance. Should the incident exceed the capacity of those local responders, the state may offer assistance in myriad ways including personnel, response resources, financial support, and mutual aid. On rare occasions, an event will even overwhelm the state's ability to mount an effective response. This is usually the only time in which the Federal Emergency Management Agency (FEMA) is called upon to offer assistance.

FEMA assistance is triggered by a direct request from the Governor to the President. Should the President deem the event worthy of federal assets, a Presidential Disaster Declaration is declared and FEMA can provide assistance such as assets from the Department of Defense, financial aid, and expertise.

Disaster assistance from FEMA traditionally comes in one of three forms. The first is the Public Assistance (PA) Program which provides supplemental financial assistance to state and local governments as well as certain private non-profit organizations for response and recovery activities required as a result of a disaster. The PA Program provides assistance for debris removal, emergency protective measures, and permanent restoration of infrastructure. Federal share of these expenses are typically not less than 75 percent of eligible costs. The PA Program encourages protection from future damages by providing assistance for Hazard Mitigation Measures pursuant to Section 404 of the Stafford Act during the recovery process.

The next level of assistance is the Individual and Family Grant Program or Individual Assistance (IA) which may provide money and services to eligible individuals in the declared disaster area when losses

are not covered by insurance and property has been damaged or destroyed. Assistance for Individuals and Households may include cash grants for housing assistance and other needs assistance. Homeowners may use these grants for essential repairs to make their residence safe, secure, and livable. IA is designed to help with critical expenses not already covered by other means.

Finally, the federal government can provide assistance to prevent damage from occurring in the future through the Hazard Mitigation Grant Program (HMGP). HMGP provides funding to local communities for projects and plans to reduce damages, losses, and suffering in future disasters. Hazard mitigation is the ongoing effort to lessen the impact disasters have on lives and property. Coupled with HMGP, FEMA sponsors programs including Flood Mitigation Assistance Program (FMA) and Predisaster Mitigation Program (PDM). Such measures could include communities removing homes from flood-prone or landslide-prone areas, elevating houses, tornado safe rooms and community shelters, and other projects that may help reduce the impact from the next inevitable disaster.

While FEMA can provide all these forms of assistance after a disaster, part of the preparedness puzzle is learning how we all work together in forming a seamless response and recovery effort. As emergency managers, we best practice through the use of regular exercises and after-action reviews.

New Madrid National Level Exercise

After a significant event, the question is often asked “Can this happen to us?” In the case of the recent earthquake in Japan, the answer is most certainly “yes.” In fact, one of the most severe earthquakes in history occurred in 1812 along the New Madrid Seismic Zone (NMSZ) in the Mid-Central United States.

This year, FEMA is sponsoring National Level Exercise 2011 (NLE 2011). The purpose of NLE 2011 is to prepare and coordinate a multiple-jurisdictional integrated response to a national catastrophic event - specifically a major earthquake in the central United States region of the NMSZ.

The exercise will involve thousands of government officials at the federal, state, local, and tribal levels, members of the private sector, and the general public. Participants will conduct simultaneous, related exercise activities at Command Posts, Emergency Operation Centers and other locations in the Washington D.C. area and the eight affected central U.S. states including Alabama, Arkansas, Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee. NLE 2011 will offer agencies and jurisdictions a way to validate their plans and skills in a real-time, realistic environment and to gain the in-depth knowledge only available through experience.

NLE 2011 is also an opportunity to continue highlighting to the public their need to be prepared for earthquakes, and specific steps they can take to be ready. Exercises only go so far, however, in establishing a baseline capability for response and exercise efforts. Each year Congress supports one of the most critical programs the federal government has to offer. The Emergency Management Performance Grant (EMPG) Program allows state and local emergency managers the ability to enhance the capability to protect life and property.

Emergency Management Performance Grants

Often referred to as the “*backbone of the nation’s emergency management system*,” EMPG allows state, tribal, and local governments to make key investments in building capacity and enhancing the capability of states and localities to respond to disasters.

EMPG stands as the only source of federal funding directed to state, local, and tribal governments for planning, training, exercises, and key professional expertise for all-hazards emergency preparedness. In addition, EMPG supports emergency operations centers, which are the coordination hubs for all disaster response and to conduct risk and hazard assessments. The program also provides public education and outreach, enhanced interoperable communications capabilities, and the ability to manage statewide alerts and warnings.

Since inception, EMPG has required at least 50 percent non-federal match. This partnership recognizes every level of government as having an interest in building emergency management capacity nationwide. Even during these tough economic times, state and local governments continue to demonstrate a commitment to building capacity by contributing far in excess of the required 50 percent contribution.

EMPG allows states and local jurisdictions to respond to or support emergency incidents involving threats to life or property. Direct support includes activation of emergency operations centers, deployment of personnel, and the mobilization of resources. In order to illustrate the impact of EMPG throughout the emergency management community, it is significant to call attention to the many disasters occurring each year not requiring a presidential disaster declaration.

For example, in 2009, 59 disasters occurred requiring a presidential declaration and federal assistance. At the state level, however, 180 disasters required a gubernatorial declaration but no federal assistance, and another 122 events required state resources but no declaration. According to a recent joint survey we conducted with the International Association of Emergency Managers (IAEM), more than 44,637 actual local and tribal emergency response incidents, including 19,571 state response incidents, were supported utilizing EMPG funds. Without solid capabilities at the state and local level afforded through EMPG, events normally not requiring federal action could realize significant federal expenditures.

National Earthquake Hazard Reduction Program

While other witnesses have discussed NEHRP, I would be remiss if I did not also make mention of the program in this testimony. Since Congress established NEHRP in 1977, the building code standards, technical guidance, education, and research have been critical to reducing risks to life and property resulting from earthquakes. FEMA works in a support role to the National Institute of Standards and Technology (NIST) which is the lead agency under NEHRP. The emergency management community relies heavily on the actionable data provided by the program.

One of the key responsibilities of FEMA is supporting public-private partnerships to help inspire and sustain disaster-resilient communities. By providing estimates of potential losses due to seismic hazards to decision makers on the State and local level, FEMA leverages the work supported by NEHRP allowing communities to develop earthquake resistant design, public outreach and education programs, and construction standards and building codes.

Without adequate authorization and funding of NEHRP, the collaborative work done by NIST, National Science Foundation, FEMA, and the U.S. Geological Society could leave communities without a critical source of research and technical assistance. The information disseminated by NEHRP partner agencies inform public education efforts and this outreach can help communities across the country understand seismic risks and use this understanding to take action by mitigating their homes and businesses.

For example, in my home state of Washington, we utilize NEHRP to conduct seismic needs assessments of public schools with the aim of developing a methodology to assess all public schools for seismic safety

throughout the state. We are also creating a plan for improving our resilience to damaging earthquakes through the Resilient Washington State Initiative. Due to the success of this initiative, Oregon has also recently passed a resolution to complete a similar resiliency project.

We remain thankful of FEMA Administrator Fugate's continued support of the use of hazard and risk data developed by NEHRP and other similar programs used to inform mitigation decisions throughout the emergency management community. He also consistently discusses the need to invest in mitigation on the early and often to alleviate response and recovery efforts and costs after an incident occurs. As we learned following the catastrophic disaster in Japan last month, even the best mitigation efforts cannot prevent damage or loss of life from an earthquake but it unequivocally reduces the risk and helps a community recover sooner as a sustainable and safer place to live and do business.

Conclusion

As you can see, the response and recovery from any hazard, not just earthquakes, is complex and fraught with potential pitfalls. The continued support from Congress can provide emergency managers the assets to continue effectively managing these events in order to protect lives and property. EMPG, NEHRP, and the range of response and recovery programs constitute an invaluable toolbox of options for emergency manager. As you continue to explore these issues, we offer NEMA as a resource.