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Subcommittee on Oversight and Management Efficiency
Hearing “Emergency Preparedness: Are We Ready For A 21st Century Hugo?”

Good afternoon Chairman Duncan, Members of the Committee, and Colleagues. On behalf of the South Carolina Emergency Management Division, thank you for this opportunity to discuss where we are in preparing for the next Hurricane Hugo.

The Hugo Legacy

Hurricane Hugo slammed into The Palmetto State north of Charleston just before midnight on September 21, 1989. By early the next morning, it had changed the lives of 1.8 million people, in one way or another, and in its wake had left damages that marked it as South Carolina’s “Storm of the 20th Century.”

The human suffering associated with Hugo is compelling:

- 35 deaths (13 directly related, 22 indirectly related) and hundreds of injuries;
- \$6.5 billion in damages (not adjusted for inflation);
- 264,000 evacuated from their homes in eight counties;
- 270,000 unemployed;
- 60,000 homeless;
- 54,000 sought disaster assistance;
- Almost 90,000 people took refuge in 191 Red Cross shelters at the height of the evacuation;
- For 30 days, the American Red Cross fed people in shelters and on mobile feeding routes;
- \$62 million in food stamps was issued to more than 200,000 households;
- \$3.8 million was spent initially to rebuild dunes;
- 3,000-plus active duty service members were deployed to help;
- 30 assistance centers got applications for loans, grants, housing and other needs;
- More than 6.7 billion board feet in timber valued at \$1.04 billion was lost. The damaged timber, concentrated on 4.5 million acres, represented 36 percent of the state’s woodlands.
- \$55.6 million in damages to primary and secondary schools.
- More than \$2 billion in crop damages.
- Presidential disaster declarations were issued for 24 counties seeking federal disaster assistance.

Preparing For The Next Hurricane Hugo

State Emergency Management has done much in the last 25 years to prepare for the next “Hugo.” We know it will happen; we just don’t know when. We do know that the state’s coastal population has continued to grow rapidly, and according to our own estimates, if a storm of similar intensity on the same path as Hugo were to hit the state today, it would cause more than \$16.6 billion in damages and destroy more than 21,000 homes statewide. So our preparations are ongoing and evolving.

In the past quarter century, emergency management in general has moved light years ahead, and South Carolina has gained significant ground because those advances have been integrated into our facilities, our technology, our staff, and our process of planning, testing plans through exercises, and dealing with real-world events. The process is crucial, we believe, not only for the tangible products but for the relationships and team building that occur as a result of it. We have put to practice many lessons that Hugo taught. Here are a few:

1. Comprehensive Planning. Day-to-day, neither citizens nor government in South Carolina is ready to deal with major disasters. To prepare state government for the inevitability of just such an event, the State Emergency Management Division has coordinated and drawn up a series of elaborate plans to deal with all hazards – including hurricanes -- that might affect the state. The plans have been refined and tested through the years and are better than ever before. Key among them is the South Carolina Emergency Operations Plan, or SCEOP, which assigns missions for agencies and volunteer organizations all working together as the State Emergency Response Team. Further, it establishes which agencies are responsible for what actions following a disaster. The plan is organized according to Emergency Support Functions or ESFs, similar to Federal ones, which emergency managers believe facilitate coordination between state and federal agencies. Additionally, as an appendix to the overall SCEOP, the state has developed and refined a comprehensive hurricane plan. Such a plan did not exist 25 years ago. It evolved and grew through the ensuing years, and now includes storm-affected areas and shelter locations based on scientifically drawn information, matrices for evacuation decision making, and -- as a result of experiences in 1999 with Hurricane Floyd -- extensive and excellent traffic management and lane-reversal provisions developed by the Department of Public Safety. The state also has developed a recovery plan, which sets forth in detail many of the contingencies that had not been provided for when Hugo hit, including methodology for management of donated goods, an issue that was a source of harsh criticism following Hugo. Additionally, the state has put into place a logistics plan and manager, a functional element nonexistent in South Carolina in 1989, but now considered vital to successful disaster response.

2. Full-Time Hurricane Program Management. SCEMD now has a full-time hurricane program manager, a position that did not exist when Hugo hit. The manager works with representatives from local, regional and national levels to address hurricane issues. Meetings coordinated by the manager occur regularly with Hurricane Task Force members to identify and resolve issues.

3. Exercises. Prior to Hugo, few exercises had been conducted at the state level. Today, the state exercise program has never been stronger, and statewide exercises are conducted yearly. In June, EMD conducted an unprecedented four-day statewide exercise in concert with Hurricane Awareness Week. The exercise tested response and recovery plans and operations statewide.

4. Maturity And Experience. Organizationally, key members of the State Emergency Response Team have worked together productively for many years. That, combined with the process of planning, training, and working together, hones skills and builds a solid team in a far more advanced way and far more extensively than ever before. Ultimately, the process results in strong and diverse relationships, which we think are crucial for success when disasters occur.

5. Professionalism. Emergency management is an emerging profession in the nation and in South Carolina. In recognition of its importance within the realm of public service, several universities including Lander, Anderson University, Columbia College, and Clemson, have begun offering emergency management curriculum. Those offerings are improving the quality of emergency management practitioners statewide. Affirmation of the increased professionalism and notable progress in South Carolina emergency management became evident when it attained full, national accreditation by the Emergency Management Accreditation Program (EMAP). The accreditation was first granted in 2008, and re-accreditation was awarded in 2013. The accreditation process rigorously examined the ability of South Carolina state and local government to respond to and prepare for disasters. EMAP sets national standards for all aspects of a qualified emergency management program. SCEMD's abilities to plan for a disaster, to reduce the impacts of a crisis, and to assist in the state's recovery from devastation were all examined to ensure sixty-three national standards were met by the state's Emergency Management Division. S.C.'s emergency management system has demonstrated, through program assessment, documentation and on-site assessment by an independent team, that South Carolina's program meets national standards.

6. Increased National Guard Capabilities. While the SC National Guard made major contributions to the response and recovery effort during Hurricane Hugo, Maj. Gen. Robert Livingston, the state's Adjutant General, recently noted the state's 11,000 Army and Air National Guard are much better equipped now than when Hugo hit. The SC National Guard has more capability in several areas to include aviation, engineering, mobile air traffic control, communications, imagery, and streaming video. Further, repeated Guard deployments to Iraq and Afghanistan have produced a trained cadre of men and women who are familiar with working under difficult conditions.

7. Public Awareness. Annually for the past 15 years the Division has produced and published the official state Hurricane Guide as part of an overall annual campaign to increase public awareness of hurricane dangers. The guide, which is distributed statewide via the internet and along the coast as a newspaper insert, provides information to the public that is critical to life safety before, during and after storms. In addition, the Governor of South Carolina issues annual proclamations for Hurricane Awareness Week and makes coastal media

tours to emphasize the storms' importance. Furthermore, the Division participates in numerous awareness events in all coastal counties. When disasters occur, the Division utilizes contemporary and traditional media to provide timely and accurate information to the public, and interacts extensively through so-called social media. Such public outreach and interaction did not exist when Hugo arrived 25 years ago.

8. State Emergency Operations Center. The current location of the State Emergency Operations Center, which also houses the State Emergency Management Division, did not exist when Hugo came to call. In 1989, the Division was located in a poorly staffed, highly inadequate, technologically insufficient location in downtown Columbia, in the basement of the Rutledge Building. The facility did not have a dedicated and adequate State Emergency Operations Center, and much of the available technology was antiquated and insufficient. In the year 2000, the Division moved into its current location after retrofitting a former National Guard armory to contemporary standards for state emergency operations and management. The facility greatly enhances the Division's ability to function properly. The move would not have been possible without the assistance of Emergency Management Performance Grant funding.

9. Technology. When Hurricane Hugo hit South Carolina, some county emergency management offices did not even possess fax machines. In the Emergency Management Division there were only three computers, but they were not connected by a network and they were rarely used; most business was conducted on paper. The world of technology that exists today is radically different from the technology available then. The new technology includes ubiquitous computers, smart phones, the internet, social media, Geographic Positioning Systems, high-definition video and live interstate traffic cameras. None of the technological advances the Division has made to keep up with new technological demands would have been possible without assistance through Emergency Management Performance Grants. Two recent and important technological improvements are the 800 MHz radio system and a system that provides a common operating picture to responders. The 800 MHz, trunked, two-way radio system is a redundant communication system that allows for communication among state and local government entities statewide. Most of the towers integral to the system have backup generators, and the Civil Air Patrol provides airborne repeaters when ground systems fail. The Emergency Management Common Operating Picture (EMCOP), a situational awareness tool, can be accessed anywhere online, and it provides a common view of the situation, which is vital to a coordinated response.

10. Assistance Requests. The Emergency Management Division was harshly criticized post-Hugo for its inability to effectively manage requests for assistance from counties, organizations and individuals. The Division was not equipped to efficiently handle the vast number of requests. Today, the Division uses computer technology to receive and track requests, and the system is also utilized in counties. It is far superior to paper, handwritten forms and tracking methods used when Hugo happened.

11. Specialized Teams. State or regional Urban Search and Rescue, Incident Management, and Medical Assistance Teams were not available in 1989. South Carolina now has five Urban Search and Rescue Teams, five Incident Management Teams, and four Regional Medical Assistance Teams to backup up local resources.

12. Consistent Evacuation Signage. When Hugo came, evacuation signage on the coast was varied or non-existent. Since then, the EMD worked with the State Department of Transportation to install 500 standardized evacuation signs in 19 South Carolina counties that mark the evacuation routes.

13. County Improvements. All 46 South Counties have a dedicated emergency manger and emergency operations center, which SCEMD supports financially through the Emergency Management Program Grants. The majority of Federal funds SCEMD receives pass directly to local emergency management program, although EMD keeps a portion for basic operating costs.

Conclusion

Much progress has been made in planning for the next Hurricane Hugo and much of that planning has been supported by Emergency Management Performance Grants, Pre-disaster Mitigation Grants and other Homeland Security grants. These resources have been integral to supporting many of the initiatives discussed and their continued support is key to maintaining and sustaining our efforts in preparing for the next Hurricane Hugo in South Carolina.

While many things have changed in emergency management since Hugo, a primary one has not: no force wielded by human beings can equal the catastrophic ferocity of nature, and a major hurricane is still a tremendous challenge. Many changes have been made in response to the demands of Hurricane Hugo, and those changes have universally improved the state's ability to respond to not only hurricanes but to any disaster – natural or man-made – that the state might encounter. Are we ready for the next Hurricane Hugo? The answer is yes, but it is important to note that regardless of how much planning and preparation take place, a Hurricane Hugo today will still leave people without power, away from their homes, and roads impassable for extended periods of time. Power will not be instantly restored, people will not be able to immediately return to their homes, and roads will not instantaneously be cleared. Perhaps a better question is are we better prepared for the next Hurricane Hugo? Yes, we have made much progress but much remains to be done. Our never-ending challenge is to build upon the progress made in the last 25 years and continue to mitigate the overall effects of the next Hurricane Hugo. We will continue to move forward with your continued support.

Thank you for the opportunity to testify and I look forward to any questions you may have.