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National Hazards Coalition Briefs Congress on Hurricane Mitigation

By Mark Fitzgerald

The National Weather Service predicts that, by November, as many as nine hurricanes could strike the United States. For those charged with mitigating the damage done by storms, the four hurricanes (Charley, Frances, Ivan, and Jeanne) that overwhelmed Florida in swift succession last year and caused billions of dollars' worth of damage serve as worrisome points of reference. With the tropical storm season well under way, federal agencies, professional societies and organizations, and experts in the private sector are particularly busy assessing storm risks and warning system capabilities and devising mitigation strategies.

On July 11 members of the National Hazards Coalition—a network of organizations (including ASCE, the American Geological Institute, the American Geophysical Union, and the American Red Cross) and companies concerned with reducing the risks and costs of natural and man-made disasters—gathered on Capitol Hill to brief Senate and House staff members on recent improvements in hurricane prediction and tracking, on the effect of storms on coastal zones and infrastructure, and on emergency response capabilities on the federal, state, and local levels. Speakers called attention to ways to protect people and property from hurricanes, determine which coastal regions have a high erosion potential, and make buildings more durable and secure.

"We've been trying to get hazards and mitigation back up on the radar screen," said Timothy A. Reinhold, P.E., M.ASCE, whose presentation highlighted ways that modern building codes can help to protect infrastructure from hurricanes. "The storms last year brought us some clear evidence that building codes make a huge difference. If

we can get better codes in place, then we can reduce the amount of post-disaster assistance that the government is going to have to provide."

Reinhold, the vice president of engineering for the Institute for Business and Home Safety (an association based in Tampa, Florida, concerned with reducing the consequences of natural disasters), went on to emphasize the importance of encouraging construction of a more robust nature in coastal regions. "The difference between Charley's impact on the southern region and Ivan's impact on the northern panhandle was revealing," he observed. "Even though Ivan's wind speeds were lower than Charley's, there was more damage up north because there was a lot more wood-frame construction, and many of the attached aluminum structures just ripped apart and failed. We need to build more strongly throughout the U.S., and to do that we need a more uniform level of code. If we can get good codes adopted and raise the level of construction, then we've got a much better chance of communities rebounding and reviving more quickly after these kinds of storms."

Before Reinhold made his presentation, John Haines from the U.S. Geological Survey explained how lidar imaging is used to assess the vulnerability of the coastline to hurricane-induced erosion. Representing the National Oceanic and Atmospheric Administration, Scott Kiser and Scott Carter then outlined the National Weather Service's capabilities, and Jan Lane and Joe Becker from the American Red Cross discussed various ways to meeting the immediate needs of those affected by hurricanes.

By coincidence, Hurricane Dennis had torn through Pensacola, Florida, and southern Alabama the day before the briefing, providing the speakers with an actual phenomenon on which to base predictions and observations. "I think every time we have an event like a hurricane there's an opportunity to collect data on how people are building and how well things are holding up," Reinhold adds. "A lot of what doesn't hold up may be what we expected would fail, but we still learn something new each time."