

Preparedness Planning... It Affects Us All

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September 11th, Katrina, Irene, Sandy, Sandy Hook, avian flu, climate change—the list goes on and as it does, reminds us of our increased vulnerability to human-induced, natural, and public health disasters. Furthermore, by what we have witnessed in the aftermaths of Hurricane Sandy and the tragic Sandy Hook incident, we are reminded once again that governments at all levels continue to be unprepared or unable to handle the immediate effects of such calamities—despite having responded to similar disasters and terrorist attacks in the past. Although our governments have created numerous large bureaucracies, established countless congressional panels, conducted many state inquiries, and produced ample official reports, they have ultimately done little that has had an impact on the way they deal with the human suffering brought on by these events. This dilemma is perhaps more striking here in New York after experiencing, so close to home and within the span of just over one year's time, the devastation brought about by Irene, Lee and Sandy. The need for deliberative emergency preparedness before and after events has never been more urgent. Fortunately, these recent events have led to one considerable positive result: a renewed attention to preparedness planning and the immediate and long-term responses at the local, state, and federal levels.

At PDP we have been a first-hand witness. As a major training organization for the workforce of New York State—a workforce called upon to serve the increasing numbers of those needing public services such as temporary assistance, emergency assistance, supplemental nutrition assistance (SNAP), temporary housing assistance, and child care—we have experienced the ways in which our own governments in New York and New Jersey have doubled their efforts to deal effectively with the aftermath of such disasters. Much of this has been due to the exceptional leadership demonstrated by Governors Cuomo and Christie. Both were called upon to deal with the wrath

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Learner participating in an asynchronous, web-based training

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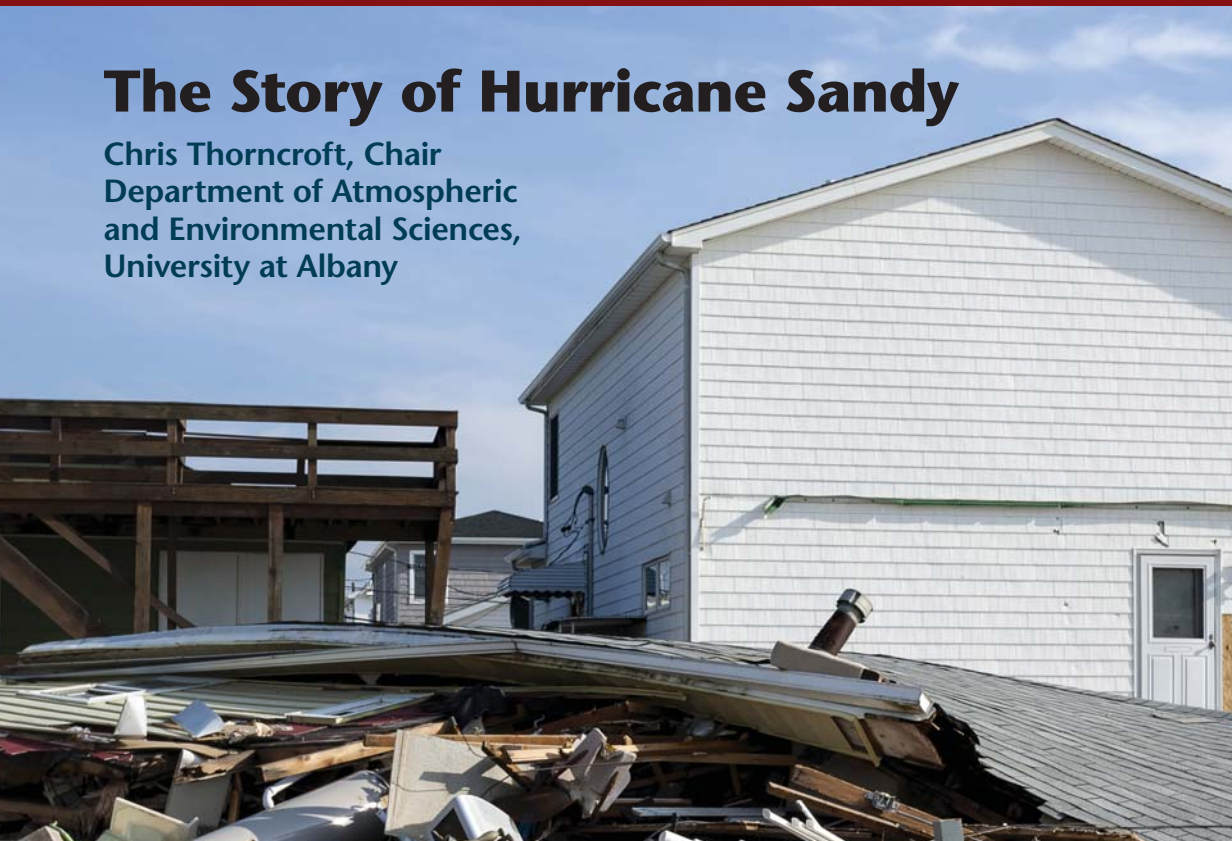
A Newsletter from the
**Professional
Development Program,
Rockefeller College**



**UNIVERSITY
AT ALBANY**
State University of New York

The Story of Hurricane Sandy

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Sandy was one of the most devastating land-falling tropical cyclones to impact the U.S. According to the recent Sandy report created by the National Hurricane Center (NHC)¹, U.S. damage due to Sandy is expected to be around \$50 billion, making it the second costliest tropical cyclone to hit the U.S. since 1900. There were also at least 147 deaths associated with Sandy along its path through the Caribbean and into the U.S., making it one of the most deadly on record as well. The recovery and repercussions of this event are still playing out.



Chris Thorncroft

What Made Sandy So Special?

Sandy's story starts in the deep tropics. As is typical of Atlantic tropical cyclones, the precursor storm that spawned Sandy originated over West Africa. These precursors are referred to as African easterly waves and are important rain-bearing weather systems in their own right over the West African continent. The wave that eventually spawned Sandy left the West African coast on October 11, 2012. The tropical cyclone intensified to become a hurricane on October 24, 2012, the same day it passed over Jamaica. Sandy became a major hurricane (low-level winds exceeding 111 mph) on October 25, 2012, just

before it made landfall in Cuba. The events that followed are what really made Sandy a special system, and ultimately led to the widespread and devastating impact on the northeast. As Sandy moved northward, it interacted with a trough (a region of low pressure) that originated from high latitudes. As Sandy interacted with the trough, two crucial things happened: there was a significant expansion of the area of the strongest winds, and the trough steered Sandy toward land.

Impacts

As is common for land-falling tropical cyclones, much of the damage caused was associated with a phenomenon known as "storm surge." Put simply, storm surge is a "piling up" of water by winds that are blowing toward the land. In this case the winds north of Sandy, blowing from east to west, significantly increased the sea level on its northern side. New York was particularly impacted by the storm surge. According to the NHC¹ the highest storm surge was 12.65 feet above normal tide levels

and occurred on the western end of the Long Island Sound. It is also worth mentioning that the storm surge coincided with the high astronomical tide making for an even greater impact. In addition to the storm surge, Sandy was also responsible for significant rainfall totals in the northeast. Most of the heaviest rainfall (5-7 inches) occurred in eastern Maryland and Delaware, and southern New Jersey. Another interesting impact of Sandy was the significant amounts of snow that fell in the Appalachians, with many regions between western North Carolina and southwestern Pennsylvania receiving at least a foot.

Climate Change

It is interesting and understandable that following the Sandy event there was much media and public interest in how Sandy might fit into discussions about anthropogenic climate change. It is important to remember that Sandy was a single, albeit extreme, weather event and that, when discussing climate and climate change, we must think more about long-term trends. However, in a globally warmer world we do expect to experience an increase in the frequency of extreme weather events, and Sandy certainly contributes to the list of extreme events that have impacted the U.S. in recent years and decades. Indeed, recent studies have provided observational evidence that the northeast U.S. in particular, has seen an increase in the frequency of intense rainfall events²; there is good scientific reason to expect this trend to continue. It is also worth commenting on the fact that another expected facet of global warming is sea-level rise—indeed sea level has risen at a rate of about 1/8 inch per year since 1993³. Since sea-level is expected to continue rising, if a similar event to Sandy occurs in the future, we should reasonably expect the impact from that storm surge to be worse. **PDP**

References

1. Blake, E. S., Kimberlain, T.B., Berg, R.J., Cangialosi, J.P., and Beven II, J.L. (2012), Tropical Cyclone Report, Hurricane Sandy, NHC (available at http://www.nhc.noaa.gov/data/tcr/AL182012_Sandy.pdf)
2. Global Climate Change Impacts in the United States (2009), USGRCP, Cambridge University Press.
3. Nicholls, R. J. and Cazenave, A. (2010), Sea-level rise and its impacts on coastal zones, *Science*, 328, 1517-1520.

Acknowledgement

Much of the observational information regarding Sandy was obtained from the NHC report on Sandy listed above.

Did you know?

PDP has collaborated with the University at Albany School of Public Health Preparedness on the development of 21 online courses on various preparedness topics, including pandemics, emergency response, and special needs populations. To date, over 66,000 participants from all 50 states and 56 countries have registered for the courses. These courses can be found at www.empirestatephtc.org

Training for High Consequence Events

**Rick C. Mathews, Director
National Center for
Security & Preparedness**



Rick C. Mathews

Established in 2007, the National Center for Security & Preparedness (NCSP) is fully engaged in training emergency responders, public officials, and others in being prepared to respond to high consequence events resulting from natural disasters, accidents, and terrorist instigated attacks. The majority of the NCSP's efforts focus on the preparedness

of New York State's responders. The NCSP supports the efforts of the New York State Division of Homeland Security and Emergency Services, especially its State Preparedness Training Center (SPTC). Training developed and delivered by the NCSP in partnership with the SPTC spans the homeland security taxonomy of prevention, protection, response, recovery, and mitigation as it applies to high consequence events.

Training is developed and delivered by a blend of NCSP and SPTC staff, subject matter experts, and trainers/instructors from around the nation. The cornerstone of NCSP developed courses and workshops is functionally integrated, scenario-based training. In this type of training, responders from different disciplines and agencies train together—much as they would operate in a real emergency. This training incorporates a variety of techniques and settings, all driven by comprehensive Course Design Documents which delineate terminal and enabling objectives for the particular program. For many of these courses, the training is further enhanced through the use of professional “role players” (actors), complete with simulated injuries, depicting objective-driven behaviors to support the instruction. In this way, the students (responders) interact within the realistic human element of disasters, including injured casualties, frantic bystanders, witnesses, or terrorist attackers.

One example of high-end, scenario-based training developed by the NCSP is the *Advanced Active Shooters Scenario: Tactics & Operations (A2S2: T&O)* course. The course is designed to prepare law enforcement officers, emergency medical services personnel, and bomb technicians to work together to respond to a potential series of multiple active shooter terrorist attacks against a New York State jurisdiction.

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Responders, made up of representatives from federal, state, and local agencies, are taught integrated techniques to save lives while combatting multiple attackers who are armed with firearms and improvised explosive devices. *A2S2: T&O* is based on lessons learned from the attacks by ten terrorists against Mumbai, India in December 2008, which resulted in hundreds killed and many more injured. Arguably, such an attack is one of the greatest fears of those involved in counter-terrorism efforts.

In this 2½ day course, subject matter expert instructors lead the students through a series of skill development lessons and facilitated discussions to prepare them for the six scenario-based activities they will complete. The scenarios employ aggressor role players portraying terrorists in the force-on-force training while EMS personnel provide care for casualties, based on principles of Tactical Emergency Casualty Care. Law enforcement and EMS students call upon bomb technicians to manage improvised explosive devices (IEDs) they encounter as well. Throughout the training, students must engage in communications procedures with each other, simulated command and control units, hospitals, and dispatchers. Additionally, students are encouraged to look for “clues” and other information that could lead to actionable intelligence needed by commanders, emergency operations centers, and intelligence agencies, such as the New York State Intelligence Center.

The *A2S2: T&O* course is only one example of how the NCSP is working to support the disaster preparedness needs of New York. **PDP**

PDP Assists in Post-Disaster Training Efforts

The need for emergency preparedness before and after tragic events has never been more urgent. In late fall 2012, PDP’s *Early Childhood Education and Training Program* planned what turned out to be a very timely videoconference program to help childcare providers better prepare for emergency situations. Originally scheduled to air in November, the program date was changed to late December due to Hurricane Sandy. By the time participating childcare providers attended the conference, many had suffered the effects of the storm themselves, and were eager for information to address their



Expert panelists discuss emergency preparedness

recovery needs and advice on how to better plan for and deal with future emergency situations. In recognition of the tragedy in Sandy Hook, the panelists also shared information about preparing for lock-down situations in childcare centers and ways to help children feel safe. Panelists discussed how to communicate emergency plans with the families in their care—before and during a crisis—and stressed the need for creating and testing a communication network before an emergency situation occurs.

Expert panelists, including Merideth Bastiani, Fire and Safety Program Supervisor for the New York State Office for People with Developmental Disabilities and Kristin Murphy, from the University at Albany’s Center for Public Health Preparedness, shared information about preparing for evacuations, shelter-in-place situations, and reviewed the types

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wrought by Sandy and Irene; more recently Governor Cuomo made a speedy response to strengthen gun control. In addition, we have witnessed the public sector workforce itself stepping up efforts.

However, the painful and slow federal response to aiding those affected by Hurricane Sandy has illustrated the need to make greater fundamental change at that higher level in the form of a response system that is better equipped to handle disasters of all types, both at the macro and micro levels. Some of these changes can be quickly accomplished by dealing with poor leadership or poor individual decisions caused by inexperience. Other changes require infrastructure shifts that take much longer to accomplish and require substantial monetary resources and training initiatives to accomplish. Along with building a better system for preparedness, comes training the public sector workforce to be better prepared to implement the new system.

As a training organization, PDP has always been aware of how challenging it is to prepare workers for major institutional change. In the aftermath of Irene, Lee, and Sandy, PDP came to an even greater realization of the ongoing critical role we can and do play in supporting the public sector response system. The disasters brought to light how disrupted daily existence is for everyone before, during, and after an event—either directly or indirectly. And although Hurricane Sandy had a direct impact on how PDP was able to conduct its own daily business during the event, the critical nature of our mission was never more evident. The need to continue to provide

training to those public sector workers who required the latest information and necessary knowledge to assist those in immediate need surfaced quickly in places like the Rockaways, Long Island, and Staten Island.

It is clear that our training programs directed at these target workforce populations are of critical need during emergencies, especially when the demand for emergency assistance from social services agencies significantly increases while resources shrink. Despite the fact that over 40 training programs were affected by Sandy and were canceled, PDP was able to respond on several fronts and reschedule quickly at times and in places where the workforce could be reached. In retrospect, we, along with the state agencies that we serve, learned from the storm experiences that further expansion of our asynchronous and online training resources needs to be made available in ready-to-deploy training formats that our partners and customers can access at times of great immediate need.

History has taught us that the next disaster will strike without warning. Our experience with recent disasters has taught us the importance of having solid disaster preparedness training programs ready to implement on a moment's notice. Through its work, PDP plays a significant role in supporting New York State's ability to respond before, during, and after disaster events. **PDP**



Eugene J. Monaco

MARK SCHMIDT

PDP Assists Post-Disaster Training Efforts

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of plans that providers should have in place. Panelist Todd Crawford, Research Scientist at the New York State Department of Health, outlined the steps providers should take to repair their childcare environment after Superstorm Sandy and shared some advice about mold cleanup in storm-stricken areas. Feedback from participants was very positive, expressing appreciation for guidance on how to best respond to weather events like Sandy and how to be better prepared for incidents such as the Sandy Hook tragedy. Many childcare providers indicated they would be making immediate changes in their programs to be better equipped to handle future emergency situations.

PDP is currently working on plans to train on a variety of high-demand post-disaster topics, including the *Disaster Supplemental Nutrition Assistance Program*, *Home Energy Assistance Program*, *Emergency Aid to Families and Adults*, and *Temporary Assistance Eligibility and Case Processing/Management*. PDP's experienced staff continues to work with local agencies and preparedness experts to create and deliver this vital training. **PDP**

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PDP *Communiqué* is produced by the Professional Development Program, Nelson A. Rockefeller College of Public Affairs and Policy, University at Albany, State University of New York

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