FEMA critics say the feds should streamline, act as more of a standard bearer and set the tone for locals.
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—Tom Grace, Director, Disaster Preparedness & Health Services, DVHC
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—Judson Freed, Director, Ramsey County EMHS

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FEATURES

28 ON THE COVER

Is ‘Pretty Good’ Enough?
Stafford Act, FEMA and ICS get the job done, but could use some changes.

16 Are We Ready for Biological and Chemical Attacks?
Some cite progress but others say the nation is dangerously unprepared.

22 School Safety: A Shared Responsibility
There’s no silver bullet when it comes to protecting schools. Keeping students safe is the responsibility of the entire community.
Responding to emergencies is your agency’s first priority. Keeping your network secure is ours.

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To learn more, download the CIO Security Guide at att.com/govsecurity
DEPARTMENTS

34 ShakeAlert Funded — for Now
A California earthquake warning system is at last for the time being, but a long-term solution has yet to materialize.

PUBLIC SAFETY AND SECURITY

36 Making Visual Evidence Manageable
LEDRM sets police by collecting and storing public photo and video evidence.

PUBLIC-PRIvATE PARTNERHIPS

42 Focus on Business
Maryland’s Private Sector Integration Program helps keep businesses on track.

RESILIENCE

44 Value Proposition of Resilience
Investing in resilience is a national imperative and increasingly considered a basic business practice.

REST OF THE BOOK

8 Letters/Calendar
10 Point of View
12 In the News
14 Bulletin
38 Major Player
Darrell Ruby, regional coordinator for Washington State Homeland Security
46 Disaster Zone
Conspiracy Theories
48 Product Spotlight
50 Last Word
Ebola: Doing Too Little
Thinking about implementing a body-worn camera program?

Join the one-third of public safety agencies nationwide that are actively planning or have already implemented an initiative. Many are already starting to see positive results:

- In a year-long experiment, the Rialto, Calif. Police Department saw a 60 percent drop in use-of-force incidents, and complaints about officer conduct declined by nearly 90 percent.
- In Phoenix, information from officers suggested a number of citizen complaints were not pursued because the incident was recorded on video.

Before you begin, your agency needs to carefully consider the policy, technology infrastructure and operational decisions necessary for an effective program. A new Emergency Management and Government Technology handbook, underwritten by Insight Public Sector, focuses on the interplay of body camera policies with technology and operational strategies to help agencies future-proof their body-worn camera initiatives.

Read the handbook to:
- Discover key planning questions agencies should consider
- Learn insights from agencies initiating their own programs
- Find checklists and resources to help further an agency’s exploration in each planning area

Download the handbook now at:
www.emergency_mgmt.com/body-camera-handbook
This would be a great focus for the economy and assist in getting people back to work in the country.

Just finished reading the article on the Window of Opportunity. I am a graduate of the Naval Postgraduate School in Monterey, and this was a subject we talked about at length. I think this is a national security subject as well as an economic issue for this country. This would be a great focus to help the economy and assist us in getting people back to work in the country. So many opportunities for rebuilding the infrastructure.

Rodney Andreasen, Jackson County, Fla., Emergency Management director — in response to A Window of Opportunity in the Summer issue

Adding diversity to our professional field develops a higher level of integrity within us as professionals, as we expand the walk of life that lead individuals into our EOCs, exercise and drill locations, conference rooms and workshops. As well, when we are locally representative of our larger community and region, it provides a direct connection to “ground-truth” from these areas and living social networks that take years and decades to develop. Being able to tease out a few or even several looming points of failure in planning, operations, logistics, administration and even communications/ information based upon uncovered blind spots is enlightening in both a figurative and literal sense.

Thomas Jenkins — in response to Changing of the Guard in the Summer issue

I fail to understand why emergency management needs to be segregated by race unless this is to keep in step with the practices of our current administration policies. If every race decides they need to segregate themselves in emergency management (or any other sector) then is this forum (Emergency Management) considered white? Is there an Asian Emergency Managers Association? Native American Managers Association? Icelandic? Scot Soper — in response to Changing of the Guard in the Summer issue

An idea: The National Flood Insurance Program is phased out over 12 years. Policyholders arrange with private insurers to pick up the one-twelfth increments year by year e.g., in the seventh year, half the insurance is provided by NFIP and the other half privately. At the end of the 12-year period, NFIP ceases to exist and all flood insurance is privately provided. Mortgagees continue to insist that flood insurance is written for the properties they finance. The “weaning” has been gradual with ample time for alternative financial arrangements to be made. Another consideration, grandfathered fixed premiums for those on fixed income? That would require some continuation of federal subsidy, but at a fraction of what is spent today, and would be phased out as those grandfathered no longer live in the insured property.

Gene Laughlin — in response to What is Community Resilience? in the Summer issue

Risk Must Be Personalized is a great article that makes a point that I have been trying to communicate for some time. As I read Emergency Management magazine, I see great articles on first responders and communications. What I don’t see are articles directed to the individuals that need to plan for community resilience and business continuity. It seems to me that very little of a recovery effort will be accomplished without the services of procurement and other supply chain professionals. Yet I have never seen an article directed to those folks and the steps they could take now to improve recovery efforts. If those folks were personally involved in their business planning, they are very likely to take a closer look at their home situation and that of their neighbors.

Ben Milam — in response to Risk Must Be Personalized in the Summer issue

We appreciate your feedback, and we invite you to join the conversation at www.emergencymgmt.com or on our Facebook page at www.facebook.com/emergencymgmt
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Point of View

10 Years and Better Preparedness

This September marked the 10-year anniversary of Hurricane Katrina, which was one of the driving factors surrounding the launch of this magazine. Katrina was a watershed moment in emergency management. More than 1,800 people died from the resulting fallout, which also caused an estimated $108 billion in property damage. Everyone remembers the chaos surrounding the event, the unbelievable sights of death floating down the streets and people begging for help atop flooded homes.

The emergency management profession has grown tremendously since Katrina, yet the ceiling remains high for improvement. For instance, take a look at the improvements made by FEMA alone. The agency was vilified after Katrina for its inept reaction to the hurricane and its aftermath. Not only was FEMA battered by critics for a slow response, it was also accused of deliberately taking its time in order to be more “coordinated.” But supplies weren’t moving and help was hamstrung, not able to respond when the need was clearly there. Contrast that with the response to Hurricane Sandy and the improvement of the agency, led by Administrator Craig Fugate. FEMA went from being totally caught off-guard and responding tepidly after Katrina to being proactive, moving in supplies of water, food, cots and blankets ahead of Sandy and receiving glowing praise from people like New Jersey Gov. Chris Christie.

FEMA isn’t perfect, as you’ll read in our cover story, Is ‘Pretty Good’ Enough? But the agency is a far cry from the one that responded to Katrina. Much of that credit belongs to Fugate, who has led the emergency management community to a higher degree of competence. Still, he urges a whole-community approach and that it is the community that is best able to respond, not the federal government.

A lot more has changed in the last 10 years, including the capabilities of local governments that have benefited, if you will, from the many lessons learned over the decade. There have been upgrades in the use of communications technology — although the interoperability challenges remain — and improvements in flood mapping, as well as the advent of earthquake warning and mass notifications systems. The acknowledgment that environmental changes are leading to drought, more intense storms and — perhaps in the future — public health crises is contributing to the movement toward resilient communities and an understanding that doing things the way they were done before is not going to work going forward.

Although the emergency landscape has changed and continues to evolve since Katrina, there’s no doubt that emergency managers and first responders are much better prepared and equipped to respond than they were 10 years ago.

By Jim McKay
In today's complex, fast-paced world of emergency operations, you need an Incident management system that can help your team work as efficiently as possible. Designed to meet all FEMA regulations and offer 100% interoperability, DisasterLAN (DLAN) from Buffalo Computer Graphics is a fully integrated solution advanced enough to handle all emergency situations, yet simple enough to perform day-to-day tasks and non-emergency event management. Plus, the DLAN platform can be customized to meet the needs and budgets of states, counties, and municipalities.

Don’t risk another moment — update your system today. Visit DisasterLAN.com or call (716) 822-8668 to request a free demonstration.
Two initial explosions at a chemical warehouse in Tianjin, China, and secondary explosions from the fire that burned for days killed more than 150 in August and sparked public fear due to high levels of sodium cyanide. In one location, the sodium cyanide level was 356 times higher than what is considered safe. Chinese officials said that the cyanide pollution was severe inside the “warning zone,” but the range was normal outside the zone. But huge numbers of dead fish in the city’s Haihe River were a cause of fear among citizens. A news agency reported that no toxic levels of cyanide were found in a water sample from the river. The explosions happened at a warehouse that contained more than 700 tons of toxic substances. A United Nations expert criticized the way China handled the aftermath of the explosions, saying the lack of information greatly hampered the response, and a better flow of information could possibly have prevented the explosion in the first place. He also found the restrictions on the press and public access to health and safety information “deeply disturbing.”
As the Internet evolves, so do the threats lurking within it. But this ongoing evolution raises a larger question: Who is really responsible for bolstering private and public defenses? Is the Wild West approach to the Web going to cut it in the long run, or will someone have to take the lead when it comes to a national cybersecurity game plan?

As it stands, it could be argued that cybersecurity in the United States boils down to an “every man for himself” approach. For the most part, companies operate independently of one another and the government, and the same is true in reverse. But has this approach been effective? Recent large-scale data breaches of the Office of Personnel Management and the IRS have prompted renewed consideration of the topic.

Robert McConville, president of the Firemen’s Association, said there are 92,000 volunteer firefighters statewide. “Presumptive cancer coverage for volunteer firefighters is not only the necessary thing to do, but the right thing to do,” he said.

Susan Shaw, a professor in the University at Albany’s school of public health, said many volunteer fire departments are so strapped for cash they operate on shoestring budgets. Some rural volunteers, she added, show up to fires in their street clothes.

“I find this just heartbreaking,” said Shaw, who is in the school’s department of environmental sciences. She is conducting studies on the “toxic soup” to which firefighters—paid and unpaid—are exposed.

— ERYGON EIDAM

Firefighters Much More Likely to Get Cancer

Firefighters are more likely to develop cancer than the general population—and those who do the job as volunteers often lack appropriate gear, are exposed to numerous cancer-causing agents in the line of duty and don’t have health coverage associated with their work, experts said in mid-September.

Mindful of an evolving health crisis among volunteers, the Firemen’s Association of the State of New York is calling for a “presumptive law” that would provide volunteers with many of the health benefits afforded their career counterparts.

NEW YORK ECOS ON COMMON PLATFORM

Through a program called NY Responds, announced by Gov. Andrew Cuomo in August, all 62 New York state counties will get free access to Buffalo Computer Graphics’ Crisis Information Management software by the end of the year.

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“Through NY Responds, every county in this state will have access to first-class emergency management technology, which will help both local and state officials stay as informed and coordinated as possible when responding to difficult situations,” Cuomo said at a press conference. “This is part of how we are building this state to be stronger and smarter than ever before.”

— JAMES CARELESS

CRISIS INFORMATION MANAGEMENT SOFTWARE:

EMERGENCY MANAGEMENT

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— JAMES CARELESS
Q&A: MISSION POSSIBLE
Best-in-Class Incident Management Tool Provides More Effective Emergency Response

MICHAEL BERTHELOT, President and CEO, Mission Manager, Inc.

Q: What are the primary ways Mission Manager assists field and operational emergency personnel?

Michael Berthelot: The key principles of Mission Manager are preparation, readiness and execution. Before an event, Mission Manager provides a single, Web-based site where emergency management teams can track people and their qualifications; post plans, including the location of incident command posts; and ensure equipment is organized, maintained and ready to go. A multi-channel communications platform can send notices out to a team, schedule training exercises and run scenarios. During live missions, leaders can speak directly to large or selective groups and geolocate people in different places. It truly offers 360-degree situational awareness. After the event, most of the paperwork is pre-filled in automated, editable reports, and a microsecond-by-microsecond event log gives a rundown of everything that happened.

Q: You’re about to release a new app that integrates with Mission Manager. How will it provide a common operating picture to mission operators and those in the field?

Michael Berthelot: There has been a lot of demand from users for a way to track people in the field in real time without buying an expensive beacon tracking device and satellite service. To meet this demand, we created a smartphone app — called the Mission Manager Tracking Application, or MMTApp — that will perform real-time tracking with an easy check-in function. For instance, if someone is out in the field, he or she can hit the “track now” button — even with a gloved finger — and people at the command center or anyone watching the Mission Manager screen can see where that person is and where that person has been since the button was pressed. It improves safety and chain of evidence.

The app will also have a two-way photo transmission so people can send and receive images. We built a totally new API interface that opens the door to other devices and input from the “Internet of Everything.” The next iteration of the tracking app will have bi-directional video to accommodate video coming in from drones for search and rescue, fire and law enforcement.

Q: What challenges does Mission Manager help emergency departments overcome?

Michael Berthelot: The biggest one is enabling a unified command. During a natural disaster, for instance, you not only have police, fire and EMS involved, but you may also have the roads and parks teams. They’re in different places, they use different radio frequencies and they may not have trained together — but with Mission Manager, all you need is an email address and you can access everything you need to know about the event.

Another challenge is response time. Mission Manager helps speed response times by allowing emergency managers to access evacuation plans, contact lists, etc., all in one place — even if the headquarters gets knocked out. Quicker response times mean greater public safety, as well as cost savings from increased efficiency.

And finally, security is at the top of the list for emergency departments. As a cloud-based tool, Mission Manager is running in a highly secure environment at Amazon Web Services. This ensures data security and high availability with an uptime guarantee of 99.9 percent. Because it’s Web-based, you don’t need your own servers, hardware, maintenance and support to operate Mission Manager — just use it when you need it, with the touch of a button. Finally, Mission Manager is easily scalable — something that is critical when thousands of first responders and volunteers arrive at the scene of an unexpected disaster. Not every emergency team has an earthquake, active shooter or landslide every year, but they have to be ready — and Mission Manager helps them do just that.

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Mission Manager provides cloud-based software designed to help save lives and property by enabling first responders to operate more efficiently and effectively. Mission Manager’s team member and asset management capabilities, combined with its calendar and communication functions, allow users to enhance team readiness through optimized training and seamlessly integrate mission-specific operations during real-time events.

Since 2011, Mission Manager has supported more than 6,000 actual missions ranging from single-person rescues to large public events and full-scale natural disaster responses. Mission Manager is currently used in all 50 US states and on every continent except Antarctica. Truly a global tool, Mission Manager is available in 80 languages.

To learn more, visit www.missionmanager.com.
Some cite progress, but others say the nation is dangerously unprepared.

BY MARGARET STEEN
ARE WE READY?

The United States dangerously complacent about possible biological and chemical weapon attacks. Leaving open the possibility of mass deaths or a huge disruption in the economy or both? Or has the country in fact come a long way in its preparations to protect itself against this type of attack? The answer may be both.

Tom Ridge, former Homeland Security secretary, and Joe Lieberman, former senator, are co-chairing a Blue Ribbon Study Panel on Biodefense hosted by Hudson Institute and the Inter University Center for Terrorism Studies. They wrote in Roll Call that "our nation is dangerously unprepared to prevent or respond to" attacks with biological and chemical weapons, citing recent cuts in funding for readiness efforts.

They discussed the recent Ebola outbreak, which "spread because we and the rest of the world did not manage the disease properly" – and ask what would happen if an infectious agent were deliberately released.

"Taking a longer view, however, experts say the United States has indeed made progress. "I think we've come a huge way," said Rocco Casagrande, managing director of Gryphon Scientific in Takoma Park, Md. The group provides analysis of prevention and response to chemical, biological and nuclear attacks. "Prior to 1997 there was almost no effort put into this at the state and local level. Not many jurisdictions were taking it seriously."

The terrorist attacks of 9/11, followed by traveling with a contagious illness — and experts worry about most "is populated by bacteria and viruses that have found their way into state weapons programs," said Rocco Casagrande, managing director of Gryphon Scientific in Takoma Park, Md. These are agents that could be disseminated to thousands of people – for example, with an aerosol attack or through the food supply. Here's a summary of some of the agents that cause the most concern:

ANTHRAX: This causes a bacterial infection and is cause for concern because it has been successfully intentionally released. It doesn't spread from person to person, but the spores are hardy and can be dispersed over a wide area.

SMALLPOX: This virus was declared eradicated in 1980 and currently exists in two labs, one in the United States and one in Russia. Because people are no longer routinely vaccinated for it, an outbreak — whether caused intentionally or accidentally — could be devastating. The United States stockpiles smallpox vaccine for use in an emergency.

PLAGUE: This bacterial infection was the cause of the Black Death in the 14th century.
century and has been used in warfare. It is also endemic in the Southwest United States — two visitors to Yosemite National Park in California are suspected to have contracted it this year, for example. It can be treated with antibiotics, reducing the death rate.

**Tularemia:** Also called rabbit fever, this bacterial infection is acquired from rabbits or ticks. There are about 100 cases per year in the U.S. There is no vaccine for it, but antibiotics can treat it.

**Viral Hemorrhagic Fevers:** This category includes Ebola. The recent Ebola outbreak, even though it did not involve terrorism, illustrated the level of alarm and social disruption that could come from an outbreak. However, these illnesses are difficult to weaponize.

**Botulism:** Botulism exists in improperly preserved foods and can be treated with an antitoxin.

Firefighters with Clackamas Fire District #1 evacuate victims of a simulated bioterrorism attack from the Armed Forces Reserve Center during the Portland Area Capabilities Exercise Setter at Camp Withycombe in Clackamas, Ore., May 22.
matter whether it's intentional or accidental or natural — we need to be equally prepared.”

Many of the roles played by federal, state and local emergency management agencies would be similar in any kind of attack or disaster, whether it's a chemical or biological weapon, a bomb or a hurricane. But there are a few government roles that are specific to public health disasters.

One of the main roles is mass prophylaxis, Casagrande said. If there is a biological attack using a bacterial agent, for example, “getting antibiotics out into the population can make or break your response because you can prevent the illness in a large number of people. Otherwise you could end up treating thousands of the critically ill.”

The federal government keeps stockpiles of drugs such as antibiotics and vaccines that would be needed to respond to various biological or chemical attacks. State and local governments are in charge of distributing them in case of an emergency. The goal is to be able to distribute antibiotics, for example, to everyone who needs them within 48 hours — an extremely challenging goal, Casagrande said.

Actually distributing the drugs to a panicked population could prove extremely difficult, said Casagrande. Among the questions that must be addressed:

If a local government has identified specific places for distribution but the agent involved could cause contamination, should officials wait to see where the contamination is before setting up the distribution sites?

“Either way there’s a downside,” Casagrande said. Testing first risks over burdening a smaller number of sites and not getting the drugs to everyone in time. But going ahead with the distribution could expose more people as they come to contaminated areas to receive the drugs.

If the plan calls for distributing drugs over multiple days, does everyone wait in line? If so, how will they be sheltered and fed? If not, is there a lottery system for determining the order of distribution? What is the most effective use of security personnel?

In an emergency, law enforcement will have many competing priorities, like keeping order at hospitals and, in the case of an attack, tracking down the perpetrators, in addition to helping secure distribution centers.

State and local governments have their own strategies for handling these issues, said Casagrande, “but some strategies are better than others.”

Biological or chemical weapons can be very sophisticated or extremely simple. Some attacks may cause economic harm by targeting livestock or crops (even if the illness is not transmitted to people this way).

For terrorists, Karesh said, “it’s not about the outcome — it’s about the psychological disruption.”

The most sophisticated attacks would come from groups, such as governments, with a lot of money: “You could design and build a very sophisticated device to spread the organism of your choice in some effective way,” said Karesh. “If you don’t have any money, you could just walk into a cow field where there’s foot-and-mouth disease and then come to the United States and walk around with your same muddy boots and introduce foot-and-mouth disease. All you need is a pair of shoes and an airline ticket.” A foot-and-mouth disease outbreak, he noted, would devastate U.S. cattle ranchers.

How can government at all levels be more prepared to respond to an outbreak caused by chemical or biological agents? Karesh offers a number of areas for focus and change:

Create stable policies and funding. “We see this roller coaster of investments in the most recent crisis, and three years later there’s no more support or funding,” Karesh said. “Essential programs shouldn’t just come and go. We deserve stable, long-term approaches.”
Centralize leadership. Karesh sees a need for “strategic thinking at the highest levels of government,” with one person ultimately in charge rather than spreading responsibility over many departments.

Strengthen communications between human health experts and those focused on animal health and the environment. When someone shows up in an emergency room with anthrax, “the traditional approach is that we need to notify everybody, thinking this may be a terrorist attack,” Karesh said. If the human and animal health experts talk to one another, though, health officials may discover that anthrax has been found in sheep and cattle in the area, leading doctors to ask the patient about exposure to those animals. On the other hand, if the agricultural specialists say they haven’t seen any anthrax locally in years, that could send the investigation in a different direction. “It’s about preparedness, having your network of people you can trust,” Karesh said. “This means less time wasted when an emergency occurs. ‘You don’t want to be meeting each other and exchanging business cards during a crisis.’

Focus on patterns. Since authorities can’t monitor everything all the time, it makes sense to use data to narrow the focus. For example, some areas of the world have a higher risk of producing diseases than others, and travel patterns make it possible to predict which areas of the United States are most likely to receive people from those areas.

Act on lists of pathogens of highest concern. Now that the government and other researchers have identified agents to be most concerned about, emergency management and public health officials at all levels should make sure they understand their role. “Does everybody understand how they appear?” Karesh said. “Do we have medical countermeasures prepared, and do we have the supply chain to make sure those are available fast enough?”

WANT TO LEARN MORE?
Several organizations have websites with a wealth of information on bioterrorism:

- Centers for Disease Control and Prevention: Emergency Preparedness and Response
  http://emergency.cdc.gov/bioterrorism/
- UPMC Center for Health Security
  www.upmchealthsecurity.org
- University of Minnesota Center for Infectious Disease Research and Policy
  www.cidrap.umn.edu
- Infectious Diseases Society of America
  www.idsociety.org

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ARE WE READY?
As classes resumed at schools across the country this fall, the issue of school safety is once again at the forefront of the national debate. How best to address school safety, both at the K-12 and higher education levels, is a weighty issue with no easy answers.

Simply trying to assess the level of school and university preparedness is challenging. “As a country, we don’t have a good handle on where schools stand today because there is no good evidence of how safe schools really are,” said Amanda Klinger, director of operations for the Educator’s School Safety Network, a nonprofit that works with K-12 schools and institutions of higher education. “Save the Children did...
a report on what states require of schools, but we don’t know how many schools are meeting those requirements. From the research we do here, we generally find that schools are sorely underprepared, but we can’t say that in a quantified way.”

“Overall, we find that both K-12 and colleges are lacking in planning and preparedness,” said Daniel Pascale, senior director of security and emergency management services at Margolis Healy, a professional services firm based in Burlington, Vt., that specializes in campus safety, security and regulatory compliance for higher education and K-12. “And there is no one-size-fits-all solution. School safety initiatives are often put into a box that’s tied to state or federal funding and requires them to produce some sort of document or program that fits a certain criteria. But schools vary greatly and they all have unique needs, threats and resources.”

TECHNOLOGY CAVEATS

Given the pervasiveness of a wide range of low-cost, low-impact technologies today, some school safety advocates are pushing for tech-based approaches to school safety. In July, the Burlington Community School District in Iowa generated media attention when it announced it was equipping its principals and assistant principals with body-worn cameras. The move was the result of a complaint against one principal that was later disproved, according to a story in The Des Moines Register.

The district’s superintendent said he felt the cameras provide “personal accountability.” But Ken Trump, president of National School Safety and Security Services, a Cleveland-based national school safety consulting firm, believes equipping educators with body cams is “more like swatting flies with a sledgehammer than providing accountability.”

Technology, Trump and other school safety experts say, is a great tool, but he cautioned schools against leaning on it as the primary answer to school safety: “There are gadgets and services that can meet every security wish list but a school could develop.” Trump said: “The questions are whether schools have the budgets to purchase such technology and, more importantly, does the available technology have realistic applicability to a pre-K-12 school setting that meshes with school climate, culture and community-relations aspects of how schools operate? In most cases, the answer is no to both questions.”

Pascale, who recently contributed a chapter to this year’s Emerging Issues in K-12 Campus Security: Leading Lawyers and School Security Experts on Creating an Emergency Response Plan, Training Staff and Observing Warning Signs, agrees that technologies such as security cameras can be effective in school safety investigations, or even as a deterrent to criminal behavior. But like Trump, Pascale believes schools
Schools should consider all the angles before investing limited budgets in technology. "Schools should be cautious not to add devices just for 'security theater' — creating an illusion of security to make people feel safer," he said. "That may be appropriate at times, but with limited resources available, schools need to make sure they are getting the best value for the community."

Technology solutions also don't always consider the long term. "We are seeing far too many school districts throw thousands of dollars in security equipment such as cameras based upon one-time grants or other budget allocations, only to have no budgets for maintenance and replacement in the months and years ahead," Trump said.

"WHAT DOESN'T WORK?"

To address safety, schools tend to take one of two approaches — they either rely on their own staff or hire professional school safety consultants to help.

"Professional school safety consultants who understand school climate, culture and community relations recognize the unique nature of schools and provide recommendations that are balanced and realistic for an educational setting," Trump said. "An experienced school security consultant will provide schools with a report that tells them what they're doing well and recommendations that can be used as a strategic plan for school safety for three to five years forward."

Klinger said there are pros and cons to both internal and external approaches, but she believes that relying on the type of "train-the-trainer" approach schools often use for supervision techniques that many school leaders mistakenly take for granted that their teachers and support staff already know.

"The train-the-trainer model doesn't work for safety, and frankly I think it's a dangerous approach," she said. "We believe in empowering all the educators, and some of that comes out of the sad reality that the principal at Sandy Hook was killed in the first few minutes of that event. In that case, the principal was the person that had the most training, the most resources and had been empowered the most. We're doing a real disservice to educators to put them in the classroom every day and not prepare them firsthand to deal with all kinds of safety situations."

Supervisors, principals and school boards must invest as much, if not more, in their people and in dedicating time to safety and preparedness planning as they do in physical security enhancements, agreed Trump.

"Two often we see well-intended school leaders who will be quick to drop some dollars for physical security equipment they can point to when talking with parents, but they are much more guarded in releasing time for training school staff, diversifying their lockdown or evacuation drills, and doing meaningful, detailed planning with their first responders," he said.

"THE COLLEGE CONUNDRUM"

Addressing safety on college and university campuses is a different animal than K-12, experts say, and requires different approaches. Although K-12 school safety is very much about access control and protecting those who may not be able to protect themselves, college safety is more about supervising the environment. Most colleges promote an open and inclusive environment, which also means students' personal lives become part of the picture, as do challenges like underage drinking.

"Schools should be cautious not to add technology solutions also don't work for school safety too. And at the college level, students can also play a part.

"Everyone who is part of the campus should help by being the eyes and ears," said Klinger. "And letting them know that safety is their responsibility too encourages them to take ownership. Shifting that orientation can be very powerful for a college. After all, if we don't tell students, faculty and staff what we need, how can we be upset that they are not doing what we asked them to do?"
SCHOOL SAFETY: A SHARED RESPONSIBILITY

GETTING STARTED

School safety experts also stress the importance of schools planning ahead, rather than waiting for a safety issue to arise before jumping on the bandwagon. “There are lots of knee-jerk reactions after major tragedies,” said Klinger. “Schools need to plan instead of just reacting.”

“We like to see school boards and superintendents sustain a level of interest and activities when there is not a crisis in the forefront of everyone’s minds and parents demanding to know what their schools are doing to strengthen safety,” Trump said. “Smart superintendents, principals and school boards recognize that proactive security and preparedness efforts are not only the right thing to do, but also a strong tool for strengthening school-community trust and confidence in their leadership.”

Experts agree that conducting a vulnerability assessment is a valuable, low-cost starting point that can enable a K-12 school or college to better understand its unique situation and challenges, and prioritize needs. For example, a K-12 school in rural Wyoming that’s located an hour away from the nearest hospital may want to focus first on how to handle potential medical issues.

Schools can conduct vulnerability assessments using myriad online, publicly available tools, or enlist a school safety consultant to help.

“Vulnerability studies are a great way to assess a school’s needs, what they should tackle first, and how they can use best practices to fit their needs,” said Klinger. “When we conduct a vulnerability assessment, we look first at physical stuff – what’s locked, what’s not, what’s dangerous, etc. The next thing we look at, which is often overlooked, are discrepancies between policies and procedures and actual processes.”

Teachers can conduct mini vulnerability assessments in their own classrooms too, Klinger suggests. For example, if an angry parent comes into the classroom to talk about a student, has the teacher set up the classroom in a way that he or she can easily exit? “Simple things like that are powerful tools for educators to have in their toolbox,” she said. Simply identifying who will be responsible for what and ensuring everyone knows what role they play is another great way to start. Assigning roles to various staff gets them involved and empowers them to take part in school safety.

Pascale suggests schools first determine what the respective outcomes of a plan are going to be, set goals and objectives, and then conduct exercises and drills to ensure that what they have come up with will actually work.

“Schools can conduct tabletop exercises at little to no cost,” he said. “There are lots of resources online, or they can enlist the help of local emergency managers or consulting firms. You don’t necessarily need dollars. Resolve and commitment can go a long way.”

Trump said when it comes to school safety, he’s heard of some schools considering ridiculous extremes such as bulletproof backpacks for students, bulletproof white boards for classrooms, bulletproof blankets to protect against shooters and tornadoes, barricade devices to attach to classroom doors to keep out potential shooters, and teaching students and school staff to throw things at, and to attack, armed shooters. But many of the security and preparedness measures schools really need to improve security are less flashy and fad-driven, and sometimes more discreet or even invisible, he said.

“Employing CPTED [Crime Prevention Through Environmental Design] concepts in new school construction and renovations can make substantial improvements, ranging from reconfiguring main entrancesways to funnel visitors into the office to enhancing hallway supervision with improved line-of-sight, and reducing bullying by putting restroom sinks in a common area on the outer portion of the bathroom so adults can better supervise kids washing their hands after using the facilities,” he said. “Simply adapting main entrance surveillance from a single, one-person-view buzzer-camera-intercom device at the front doorway to also having a camera or two that show the entire front door area can help monitor for piggybackers who sneak in behind legitimate visitors or persons with ill intentions who are approaching the building.”

Overall, addressing school safety is not easy, but the important thing, say experts, is that schools do something. “It’s tough work to determine the school’s needs, how they can meet those needs, how they can have a plan that’s comprehensive and that’s constantly being updated, and how to train people and empower them to be able to respond appropriately,” said Klinger. “There are a lot of moving parts, and to address it well is not just about buying a plan – it’s about figuring out what works best for your school, owning it and getting buy-in for it.”

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The best value in public safety procurement has a new name.

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THE QUESTION ON THE TABLE TODAY is whether “pretty good” is good enough when it comes to emergency management. Because some things are pretty good, after all. The Stafford Act, FEMA, the Incident Command System (ICS): They get the job done.

But is that sufficient? There is grumbling throughout much of the emergency management community that each of these pillars of the profession can and should be improved upon. They’re poorly structured, top heavy, fiscally irrational, inflexible — pick your poison. Changes must be made.

Despite the flaws, some say, the system runs as well as one might hope, and why tinker with (moderate) success? So what should and can be changed? How can Stafford, FEMA and ICS be made to perform to higher standards?

Stafford Act, FEMA and ICS get the job done, but could use some changes.
ENACTED IN 1988, the Robert T. Stafford Disaster Relief and Emergency Assistance Act lays out the framework for federal disaster assistance. It establishes a process for declaring disasters, determining response levels, and dividing up costs among federal, state and local governments, depending on circumstance.

Some want to see changes in the way Stafford approaches jurisdictional questions. Essentially the law declares disasters based on political, rather than geographic, boundaries. “This is fundamentally flawed,” said John Pennington, director of emergency management for Snohomish County, Wash.

He points for example to the likely scenario of a statewide disaster in Oregon negatively impacting the neighboring county in Washington state. The disaster gets defined in Oregon, by Stafford guidelines, and yet “if you cross that half-mile bridge between Oregon and Washington, Vancouver remains oftentimes isolated,” cut off from appropriate aid.

Some go further, noting that today’s understanding of the law is fundamentally flawed. The act once placed a priority on speeding disaster recovery. Recent changes to the wording emphasized saving the government money, said Gerald Quinn of Gerald J. Quinn and Associates and the California Emergency Services Association.

It doesn’t work that way. By saving the federal government money, all you do is shift the cost to the states. “The costs don’t change just because you deny federal assistance,” Quinn said. Better to put the priority back where it belongs — on recovery — rather than focus on a fictional financial ambition.

Quinn carries forward this theme of financial equity across various aspects of Stafford. Today, for instance, the government gives tax write-offs to businesses buying flood insurance, but not to individuals. Everyone should get those breaks, Quinn said. “It has to be equitable to both property owners and business owners. We’re all U.S. taxpayers.”

Proponents of the Stafford Act say it puts a legitimate burden on states to pull their own weight. If you can make it on your own, you should, with the feds stepping in only when local resources have been overwhelmed. Some call this a sensible arrangement. “The balance right now is relatively effective in that we — state and local jurisdictions — are forced to make a strong effort on our own, which was always the underlying intent of the Stafford Act, that you should be able to do it on your own,” Pennington said.

Then, when a jurisdiction is legitimately overwhelmed, “the federal government will have a more streamlined method for delivering assistance. Otherwise, we rely too heavily on the federal government and often do not develop our own internal capabilities,” he said.

Would others like to see the federal side carry more weight? Likely so.
EVERYBODY LOVES FEMA when the tornado touches down; we stand on our porches waiting for federal rescuers to come and set things right. Everybody hates FEMA after the wind dies down. The agency was too slow; it didn’t help enough.

Emergency managers are typically more for than against. FEMA does make a difference, but they’d like to see some changes.

As president of the Massachusetts Association of Emergency Management Professionals, Carol McMahon sees a lot of good in the agency, but complains that interactions with FEMA can be onerous, far exceeding the capabilities of many local authorities.

Massachusetts has six full-time emergency management directors statewide, hardly enough to oversee the efforts of local authorities trying to write complicated mitigation grants. It would help if FEMA would offer more training, but what’s needed is a drastic overhaul in procedures. “It can change, but it is going to take a systemic change,” she said.

In the meantime, the process remains weightier than some communities can reasonably bear. “With respect to the FEMA mitigation program, there still exists a somewhat onerous process for individual communities to go through, to prepare a mitigation grant that meets the criteria for award,” said McMahon. “If FEMA wants to promote resilience in local communities through mitigation efforts, there needs to be a method for our EMIs [emergency management departments] to get the assistance needed to write a successful grant application.”

At the same time, McMahon would like to see FEMA take a greater leadership role as an advocate for emergency management across all levels of government. “We continue to see that local emergency management is still often relegated to the ‘other duties as assigned’ role of a full-time first responder,” she said. “The message to the local purse holders on the importance of professionalism and leadership in emergency management needs to come down from FEMA.” While local emergency managers understand their own worth, some support for their role coming from Washington, D.C., could help local managers to see emergency managers in a different light.

In the meantime, some say it would be good to see FEMA get its own processes in order. As director of emergency services in Warren County, Ohio, Michael Bunner complains about the FEMA bureaucracy. “Just like any federal agency, they are very top heavy, and so they can lose track of what they are tasked to do. They need to look very often at what their mission statement is,” he said.

Bunner would like to see the agency streamlined. He’d also like to see the agency play a part in the disaster community that goes beyond response. “FEMA needs to be the standard bearer for what emergency management is. They need to set the tone and the pace,” he said. “I would like to see FEMA come out with a core set of ideas and fundamentals for emergency management.”

In Prince William County, Va., Emergency Management Planner Amy Tarte would settle for a bit more clarity. If FEMA sometimes...
stumbles, it happens partly because the agency is following vague congressional instructions. “So much of the guidance is open to interpretation, it creates a lot of confusion, which makes it look inadequate, which leads to distrust in the system as a whole,” she said.

Quinn, meanwhile, has a laundry list. It starts with land use. FEMA or some other high-up authority approves construction on a flood plain. The plain ... floods. FEMA denies the disaster claim, arguing that the locals employed dumb land-use practices. That’s not fair, he said. “In some instances it was FEMA who signed off on the hydrology; it was FEMA who certified the levees,” Quinn said. “The federal government makes decisions, the local government makes decisions relying on those and then the local government is blamed for the outcomes.”

Sometimes the state approves a road, the county builds it, the road goes bad and FEMA again denies the claim. Quinn wants to see FEMA respect the claims of counties that were, after all, given the go-ahead by those higher up.

Just as with the Stafford Act, FEMA generates mixed feelings in terms of the delicate balance between federal and state authorities, often placing a heavy burden on states even as it comes in to help with a situation. “Is it painful at times for states and locals? Yes, certainly,” Pennington said. “But it is forcing us to examine our own capabilities and not simply build into our policies the expectation that FEMA and assets and programs will automatically be engaged.”

Pennington has no great quibble with FEMA asking states to carry a share of the load. But he notes that at the same time, states must be given the autonomy to carry that load as they see fit. The regional model for FEMA “is at its best and strongest when its regions have the capabilities to do their jobs and the authority to act as autonomously as possible,” he said. While states must coordinate with FEMA, they also must have “the ability to work with their respective states, tribes, and yes, even directly with local jurisdictions.”

While Stafford and FEMA draw attention at the national level, the Incident Command System unfolds much closer to the ground as the core operating procedure managers are tasked to put into place in times of crisis. It’s been a helpful tool — no one disputes that. But questions have come up. Is ICS too rigid? Do we depend too much on its structure as being the only way to get things done? Even among those who basically endorse the system, the answers are complicated.

One of the hot-button issues considered in this article, ICS is in some ways the most complicated — not because of all the voices raised against it, but because of the deep ambivalence even among its supporters. Pennington lays it out this way, starting with the practical reality. “When 75 different outside agencies come into a rural EOC, each with a different method of operations, coordination or resource ordering, chaos will almost certainly ensue unless there is that common denominator such as ICS to default to,” he said. As a result of this logical necessity, “ICS is now truly part of the fabric of our response culture.”

The trouble is ICS sets a high bar for how things get organized and managed. “Clearly small communities cannot often fill all or even a few of the ICS boxes. They want to make it work, but they do not have the realistic capability to make it happen,” he said.

Consultant Lucien Canton wrote that ICS has two significant drawbacks. It was created for the activities of hierarchical agencies that have a defined chain of command. But not all organizations are hierarchical. For instance, in the corporate sector, many companies are more consensus driven and use flattened management structures. Attempting to use an incident management structure that is contrary to your corporate culture inevitably leads to failure. This is particularly true, Canton says, when you consider the second ICS drawback, which is the extensive training burden it places on an organization. Unless practiced very day, ICS training is perishable and needs constant refreshing.

Another criticism, which was voiced repeatedly after the Deepwater Horizon oil spill in 2010, is that ICS doesn’t scale to large catastrophes because it wasn’t created for them. And it was reported that many working the oil spill were unfamiliar with ICS. It’s a checkbox, critics say, and not really learned.

Tarte gives the system high marks, but she sees where others can get stuck. ICS is a management-oriented, task-based structure that appeals to responders from, say, public health. Cops and firefighters might see its chain of command as too rigid, especially when they are used to working with greater autonomy. Not a shortcoming, but instead a cultural issue, she said.
IS ‘PRETTY GOOD’ ENOUGH?

make the system deliver to its best potential, such perceptions must be overcome. It is easy for rescuers to get mired in their own biases. “ICS is built on a military model and I dislike that, because civilians don’t say ‘Yes, Sir,’” said Quinn. In fact, he acknowledges, the military vibe only coats the surface. “There is a lot of adaptability as part of the structure. But independent operators don’t get to just make decisions in a vacuum.”

Perhaps most important, those on both sides of the fence acknowledge that when all is said and done, there does need to be some baseline, some playbook with all the basic moves laid out. For today at least, ICS is that playbook. “It truly is the common denominator,” Pennington said. Those who fear the hierarchical nature of ICS need to be taught a different view. Any incident commander is free to make changes on the fly; any responder can make the case for a change in tactic. “There is no impediment to doing that. You can do it. But you can’t do it unilaterally,” Quinn said.

Emergency managers know that for the most part things work most of the time, not just at ground level in times of crisis, but also at the level of policy. Even big-picture federal policies, procedures and agencies very often get the job done. Still, things can always get better. Laws can be changed to respond to current needs, agencies can be fine-tuned and even the processes that govern the fundamentals of emergency management can stand to come under the microscope from time to time. As for these three in particular? It would be great to be able to say that the time is ripe, that the political and financial stars have aligned at the local, state and federal levels, and that important changes are in the wind. But change is incremental when and if it comes at all. For any advances to be made, the emergency management community will need to advocate on its own behalf, to speak up among those who wield the power, ensuring that the issues are understood and the priorities are recognized by those in a position to implement change.

Such problems can be overcome without changing the system, but rather by changing the mindset. Instead of teaching ICS as a set of rules, training should position it as a set of principles. “In every working environment, you have superiors and subordinates, you have common terminology. All ICS does is define those things and give them a framework,” Tarte said. “Within that, you let people explore and do what they need to do, but there is still accountability.”

Bunner rides the same horse. He has no problem with the system — “the pieces are in place, the structure is there” — but he’d like to see smarter training. Even those who understand ICS still muddle the documentation; they think too locally without pondering the global picture; they fail to articulate objectives and strategies.

But that doesn’t mean the system is flawed. “You can massage it to be whatever is applicable to you during that event. It boils down to education,” Bunner said, especially in smaller jurisdictions, which may not be able to tap into the needed resources. Maybe it is all about education, but that’s not a trivial statement. A poorly understood ICS will be a poorly implemented ICS.

“When I go into an EOC, I have no problem with people running that EOC under ICS. But if people don’t understand the objective, if they don’t understand the discipline, that is going to be an issue,” Quinn said. Even when key players have been trained up to speed, cultural issues will keep coming back. Those who have issues with ICS called it “too rigid,” and ultimately it doesn’t matter how true that perception is. To
The system sent a warning roughly 10 seconds in advance of the magnitude 6.0 quake that hit Napa, Calif., in August 2014.
ShakeAlert Funded — for Now

A California earthquake warning system is afloat for the time being, but a long-term solution has yet to materialize. By Eyragon Eidam

As the ground near Piedmont, Calif., began to shake in the morning hours of Aug. 17, sensors and algorithms were busy putting together an advance earthquake alert. It was just another day and another earthquake for the ShakeAlert system. But a California Earthquake Early Warning (EEW) system is far from complete, and successes to date are almost overshadowed by slow-to-trickle-in funding. While the federal government has invested some money in the undertaking, program officials say the state hasn’t made an overt move to run with the fiscal ball just yet, in spite of supportive legislation.

To date, the prototype system, originally put in place in California in 2012, has proved there is value in knowing when the most damaging waves of an earthquake are en route. In 2014, when a magnitude 6.0 quake hit the city of Napa, ShakeAlert distributed a warning to its partners, like Bay Area Rapid Transit (BART), roughly 10 seconds in advance of the most severe shaking.

Doug Given, geophysicist and EEW coordinator with the United States Geological Survey (USGS), said the Piedmont quake was no exception to the many successes cost would be for a full system.”

In September 2013, California Senate Bill 135 seemed to carry the torch of the project, but failed to identify an immediate cash stream. The legislation charged the California Office of Emergency Services with finding a funding source, but made it clear that the money could not come from the state’s general fund.

Jennifer Strauss, external relations officer with the University of California, Berkeley, said finding sufficient funding is the main impediment to the program’s growth as an everyday tool in California’s arsenal. Despite the success and technical progress being made, Strauss and Given agree that unreliable cash streams continue to hinder the project.

By UC Berkeley estimates, a complete system within the state would cost around $80 million. An additional $38 million would be needed to include the entire Pacific Northwest. While this sum of nearly $120 million would get the project up and running, the amount would only cover five years of operational costs, Strauss said.

Berkeley’s role lies mostly in the development of algorithms for “Alarms,” or Earthquake Alarm Systems, and the support of what is called the “decision module tool,” which is responsible for combining data into a singular, definitive warning.

Though stakeholders aren’t using the information to take what Strauss refers to as “actions,” she said accurate, reliable information is going out to program partners regularly.

“The vast majority of Bay Area users at this time are not performing actions, with the exception of Bay Area Rapid Transit … They have an end-to-end system that pulls in triggers to slow and stop trains …” Strauss said. “This is for several reasons, but one of the big ones is … that they don’t want to start budgeting … until the system is out of beta. Until they’re sure this is a long-term thing that is going to be funded, they don’t want to put their capital up, which is completely understandable.”

Strauss said the system is showing positive results, from the initial algorithms to the final alerts, but also said the available funding is only a fraction of what is needed for a fully functioning early warning system.

“If it’s not fully funded, it’s never going to be a statewide public system,” she said. “Five million is great and it keeps things toodling along as it is, but it’s only one-third of what our yearly operations cost would be for a full system.”

While an Aug. 17 quake, a 4.0, was too close to BART’s network of tracks and trains for ShakeAlert to give substantial advance notice, BART spokesperson Taylor Huckaby said the system has been a valuable asset in the past.

During the 2014 quake in Napa, warnings issued by the system allowed enough time for the BART trains to slow to safe speeds before more destructive shaking reached the area. In the case of the Piedmont quake, Huckaby said the trains were stopped by the BART central computer while infrastructure was assessed for safety.

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“If it’s not fully funded, it’s never going to be a statewide public system,” she said. “Five million is great and it keeps things toodling along as it is, but it’s only one-third of what our yearly operations cost would be for a full system.”

While an Aug. 17 quake, a 4.0, was too close to BART’s network of tracks and trains for ShakeAlert to give substantial advance notice, BART spokesperson Taylor Huckaby said the system has been a valuable asset in the past.

During the 2014 quake in Napa, warnings issued by the system allowed enough time for the BART trains to slow to safe speeds before more destructive shaking reached the area. In the case of the Piedmont quake, Huckaby said the trains were stopped by the BART central computer while infrastructure was assessed for safety. 
Making Visual Evidence Manageable

LEEDIR aids police by collecting and storing public photo and video evidence.

By James Careless | Contributing Writer

In the wake of the 2013 Boston Marathon bombing, the Boston Police Department encouraged anyone who had taken smartphone photos or video at the scene to send their footage to investigators. The public response was so strong that the department was soon overwhelmed by the volume of potential evidence it received, requiring the FBI to step in and help sift through it all.

The Vancouver, British Columbia, Police Department was similarly inundated by citizen-recorded photos and video after the city’s 2011 Stanley Cup riot — 5,000 hours of video alone had to be examined during the investigation. This job was too big for the department to handle. Luckily its personnel were aided by a team of experts assembled by the Law Enforcement and Emergency Services Video Association (LEVA).

In both instances, the citizen-supplied evidence was attached to a cloud of extensive IT resources and manpower demands, and all of this potential evidence had to be collected, accessed and stored somewhere. This can make citizen-sourced visual evidence an unmanageable nightmare for most police departments.

Fortunately the Los Angeles County Sheriff’s Department (LASD) — together with CitizenGlobal and Amazon Web Services — has developed a free, cloud-based photo/video collection, management and storage system called LEEDIR. Short for Large Emergency Event Digital Information Repository, LEEDIR provides police departments with an easy-to-activate, third-party managed destination for the public to submit photos and video without tying up departmental staff and IT resources. LEEDIR is free, but certain conditions apply.

The caveat: To qualify for free use of LEEDIR, the incident being investigated must involve at least 5,000 people, include multiple jurisdictions and/or cover an area of five square miles. Qualifying incidents could be a concert, sporting event or protest that got out of hand, resulting in human and/or property damage. (CitizenGlobal also offers...
the service on a subscription basis for single-jurisdiction and similar smaller incidents.)

"With LEEDIR, all a department has to do is sign up to get password-controlled access," said LASD’s Cmdr. Scott Edson, the officer who created the LEEDIR program. "It makes sense to sign up before an incident happens so that you are ready to use the service if you need it. You will also have time to watch a free training and certification webinar to get the most out of the platform."

How LEEDIR Works

When an event occurs that could benefit from citizen-sourced visual evidence, the police department logs onto the LEEDIR website to file a request form for a LEEDIR page. "Riots are a good choice, because the public is as motivated as the police are to get the perpetrators," said Edson. Once activated, this page is an upload point that collects digital photos and videos, plus any text information the public wants to provide.

After the LEEDIR page is active, the police department publicizes the Web page's address and lets citizens upload their evidence independently. The LEEDIR service, managed by CitizenGlobal personnel, handles it all.

"To make public submissions as easy as possible, LEEDIR offers iPhone and Android apps that citizens can download for free to their smartphones," said Edson. "If the person so chooses, they can upload their photos, videos and text anonymously, or leave their name and contact information if they want to." Potential evidence can also be uploaded via Web-enabled tablets and computers.

As soon as the public starts to upload evidence to LEEDIR, the police department's analysts can sign into their account to view, sort and review the content. "(Any alterations to the submitted data are performed on copies; the original data files are always untouched to ensure admissibility in court.) This data can be shared with all investigators across multiple agencies as desired, using the password-protected LEEDIR site as a secure distribution and sharing channel. Additional information and testimony can also be requested from LEEDIR contributors who provided contact information.

During this process, the police department is free to download whatever photos, videos and texts it deems relevant and save them to its own servers. Once this is done and the online investigation is closed, the department can tell LEEDIR to clear the data, or decide to pay a monthly fee to keep it stored on LEEDIR's cloud. It's also possible to set up a LEEDIR page before an event takes place, just in case something goes wrong. The Cincinnati Police Department did so in advance of the July 14, 2015, Major League Baseball All-Star Game. "This Digital Information Sharing Tool is in place should a critical incident occur during the All-Star game festivities," said the posting on LEEDIR’s website. "Citizens will be requested to please upload and send any photos, videos or information to the Cincinnati Police Department using the methods below. We appreciate your assistance in helping keep the events and city safe!"

Results to Date

The LASD spearheaded the push for cloud-based visual evidence collection and storage in a bid to head off the kind of evidence-handling challenges that plagued the Boston Marathon bombing. "We wanted to benefit from citizen-provided visual evidence without investing a lot of manpower and IT resources to manage and maintain it," Edson said. "This led us to the private sector to help develop what became LEEDIR. Fortunately, once they understood what we wanted to do and why, CitizenGlobal agreed to provide the software and operational part of the project, and Amazon Web Services offered cloud storage for free."

The LASD had not yet had occasion to use LEEDIR, save for a recent multi-agency exercise that “went very smoothly,” Edson said. But the Keene, N.H., Police Department has put LEEDIR to the test. On Oct. 18, 2014, the town's annual pumpkin festival turned into a riot, with drunken revelers overturning a car, tearing down streetlamps, and otherwise causing property damage and mayhem outside Keene State College.

In response to the riot, the Keene Police launched a LEEDIR page to gather witnesses’ photos, videos and text about that night’s events. "We received close to 500 pieces of digital evidence from the public," said Keene Police Detective Joel Chidester. "This evidence helped us make 25 post-riot arrests, in addition to the 84 arrests we made at the scene that night." The citizen-provided content showed evidence of criminal acts and helped Keene Police positively identify the perpetrators. "Thanks to the content we got from LEEDIR, every single one of the arrests made on the basis of this evidence resulted in a conviction," Chidester said. "This was a great tool for us, and one that every police department should take advantage of."

However, setting up a LEEDIR page is not a guarantee of nailing criminals. The Santa Barbara County, Calif., Sheriff’s Office turned to LEEDIR while investigating a booze-fueled college party that turned into a riot in Isla Vista in April 2014. "We set up an initial LEEDIR account to assist with this case, but it did not result in lead development," said the department’s Lt. Craig Bonner. Bonner does not discount the potential usefulness of LEEDIR, it was simply unable to generate additional leads in this case. This happens: In some instances, the public may not record incident videos that could be useful to police, or if they do, they may not be willing to submit them to investigators. That said, given that LEEDIR cost the Santa Barbara Sheriff’s Office nothing to use, there was no loss associated with trying it.

It is the fact that LEEDIR is free, combined with the public’s general propensity to record and share photos and videos at incident scenes, and the difficulties police departments have trying to manage such evidence on their own, that makes this service worth testing. At the very least, there is no loss in doing so, as the Santa Barbara Sheriff’s Office found. At most, it can make a real difference in identifying and convicting felons, as the Keene Police did by using LEEDIR after the pumpkin festival riot.

Today, LEEDIR continues to evolve. It can now search social media sites for posted video and pictures in proximity to an incident, and process and store that information automatically. Even 3D cards from cameras and hard drives from local businesses’ surveillance cameras can be uploaded to a LEEDIR event Web page.

"We need all the tools we can get to do our jobs effectively and protect the public as best as we can," said Edson. "LEEDIR is one such tool. It can make a difference in collecting, managing and storing citizen-sourced visual evidence.”

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Describe the geopolitical makeup, geography and character of the counties you serve. The 10 counties and three tribes that make up Region 9 are located in the eastern part of the state. The region stretches from the Canadian border south to Oregon, and shares its eastern border with Idaho. It covers an area of approximately 16,455 square miles, or nearly 25 percent of the state. As a reference, Region 9 is larger size-wise than eight states.

The northern Rocky Mountains are found in the northeast corner of the region. The Blue Mountains are found in the southeast corner where Washington borders Oregon and Idaho. The Columbia/Central Basin lies in the center. The region contains parts of the Snake and Columbia rivers, along with numerous tributaries. Eastern Washington experiences a diverse climate due to its location east of the Cascade mountain range and between the northern Rockies and the Blue Mountains.

With more than 628,000 residents, Region 9 makes up approximately 9.4 percent of the state's population. Population density in Region 9 is sparse. Densities range from a low of just 3.2 people per square mile (Garfield County) to a high of 266.7 (Spokane County). The rural nature of Region 9 can present challenges to emergency management activities and expose vulnerabilities within the community. Limited resources and long distances between available critical response assets can make it more challenging for the region to respond to a crisis. In addition, low populations can make it difficult for jurisdictions to purchase equipment, supplies and training due to a relatively low tax base, or when competing against more populous jurisdictions for limited federal, state and local funds.

What type of leadership style do you think works in regional endeavors? As I reflect on my region and other regional leaders I have worked with and admire, I see myriad leadership styles. The most important trait is to be authentic. I believe the most effective leaders are those who listen first, earn the trust of regional partners, and adapt their leadership to increase regional capacity and established outcomes while staying true to themselves. Key leadership attributes are the four C’s: coordination, cooperation, communication and collaboration. Using all four of these tools is essential for an effective regional approach to emergency management.

Everyone seems to agree that effective relationships are key to the successful execution of emergency management programs. How have you seen that play out in your own experiences? I often tell people that the people and our relationships are the strength (and weakness due to limited numbers) of our region. I have seen so many times where outcomes were influenced in very positive ways simply because of a relationship that helped overcome or solve a problem. I have seen small, rural communities aided by relationships

Darrell Ruby discusses collaboration in Region 9.

Darrell Ruby is the regional coordinator for Washington State Homeland Security (HLS) Region 9 for Greater Spokane Emergency Management (GSEM). (This is not a Washington State Emergency Management Division position). Region 9 is composed of the 10 counties and three tribes of eastern Washington. His role is to support regional collaboration, coordination and an interagency approach to all-hazard emergency preparedness. For more than 10 years, he has served GSEM in all phases of emergency management, supporting planning, training, exercises, HLS grants and grant-related projects. Ruby is a certified emergency manager and Incident Command System (ICS) trainer, with an undergraduate degree in construction science from Texas A&M University and a master’s degree in business. He also remains active in the Navy Reserve as an explosive ordnance disposal officer. He responded to a series of questions about what makes a successful regional approach to rural emergency management.
with neighboring jurisdictions, and regional and statewide partners during disasters impacting their communities. Similarly, I have seen smaller problems, obstacles and plans created or improved when requests were made to get help. I have personally benefited numerous times from the assistance of regional partners and through collaboration with regional colleagues across the state.

- Besides the counties that you help coordinate, you also have all your jurisdictions facing the state of Idaho. What opportunities or challenges has that presented?

Unfortunately the transparent state border between Idaho and Washington causes some challenges. Too often, agencies, and disciplines in particular, get hung up when issues cross the “transparent” state line. Challenges are fairly straightforward: The statutes and priorities in Idaho are different from Washington’s, and organizational structures are different. The advantage and strength that comes from that is we get the opportunity to work with additional agencies, departments and jurisdictions with tremendous and diverse experience. Our relationship by agency and discipline is outstanding. I have probably learned and observed the best demonstration of how negligible the state border can be in planning, training and exercise support to our health-care system.

- You have a very large region of nine counties, with only one major urban area, while the rest is much more rural. How has that played out in bringing people together to work on common solutions?

The success of regional collaboration relies upon the leadership, support and communication by each county and tribal emergency management director/deputy director. They must have the authority and support to represent their jurisdiction. That authority, together with the same authority to represent their respective disciplines — law enforcement, fire service, public works and the health-care coalition — align as a focused regional multiagency coordination group to implement all-hazard emergency preparedness.

The agencies, departments and jurisdictions in Spokane provide significant resources and capability for Region 9. Spokane makes up more than 70 percent of our regional population. However, the remaining nine counties and three tribes make up more than 70 percent of our region geographically. Whenever I travel outside Spokane — and I hate to admit, sometimes that is not frequent enough — I am reminded of the
importance of coordination, cooperation, collaboration and communication with all regional partners. A significant number of our regional first responders are volunteers. Their tireless dedication, sacrifice and commitment is staggering.

What's the best way to get an "all of government" and whole-community approach executed on a regional basis? Or are these types of efforts best left to individual communities?

I believe the whole-community approach has to start at the local or tribal level. We should leverage the trusted organizations at those levels to help with public education and preparedness messaging. Public safety partners unfortunately do not always have the trust and credibility within a community. Nongovernmental organizations do, and that should be leveraged.

Homeland security grants and funding provided an opportunity to bring many different disciplines together. What types of regional projects were you able to accomplish with these funds?

Initially our region came together primarily to administer and coordinate homeland security grants. Through the years, the region has accomplished so much more, including creating and strengthening capabilities at the agency and jurisdiction levels, as well as regionally, and being better able to help our state and interstate partners. Following a large regional threat and risk assessment and strategic planning process in 2011, Region 9 entered into a cooperative agreement. That agreement was established to support regional collaboration/coordination and an interagency/interjurisdictional approach to implement all-hazard emergency preparedness across Washington State Homeland Security Region 9. The Region 9 Coordinating Group was established to implement recommendations and strategies in the region's All-Hazard Emergency Preparedness Strategic Plan. It is intended to utilize an interagency hierarchy that maintains the self-sufficiency of local government agencies while providing a mechanism across Region 9 to plan, organize, equip, train and exercise to enhance, build and maintain appropriate regional capabilities. We will not duplicate or replace existing organizational structures that are already in place, but fill coordination/collaboration gaps where they exist. Some of the local and regional projects and capabilities we created or enhanced are:

- Strengthened and solidified relationships
- Support to local, regional, inter- and intrastate planning, training and exercises
- Enhanced local and regional hazmat capability with equipment, training and exercises
- Created and supported the development of a Type II Urban Search and Rescue (USAR)
- Enhanced and supported the local/regional explosive ordnance disposal (EOD) team (Spokane Police/ Spokane Sheriff combined team)
- Enhanced local and regional interoperable communication infrastructure and equipment requirements
- Purchased mobile command vehicles, trailers, caches of equipment and ancillary support
- Enhanced operational coordination and emergency operations center/emergency communications center (ECC)/incident command system/interagency management team (ICS/IMT) interface challenges
- Sponsored All Hazard Incident Management Team Type 3 training and position-specific training
- Provided support to Eastern Region Emergency Medical System, Region 9 Healthcare Coalition, and Public Health Emergency Preparedness Region 9 for planning, training and exercises
- Provided support to local and tribal agencies during response

Homeland security funding is waning. Does that impact the ability to coalesce people and agencies for regional endeavors?

We saw a dramatic reduction in homeland security funding a few years ago. The last few years, it has remained relatively stable. As a region, our partners have prioritized keeping people over simply purchasing "stuff" or additional equipment. In addition, we have prioritized the sustainment of capabilities over trying to create additional capabilities. The limited funds have made it difficult for smaller jurisdictions in particular to continue to support planning, training and exercises. We strive to leverage technologies (webinars, teleconferences) whenever possible; however, nothing replaces the advantage of meeting face to face.

What role do you see elected officials playing in regional emergency management work?

Elected officials play an essential role in emergency management. We need our leaders to be trained in ICS and to be all-hazard aware, and to be involved in all elements of our capability-based approach planning, training, organizing and equipping. We also need their support, input and direction across all phases of emergency management and the identified mission areas (prevention, protection, response, recovery, mitigation). We need their support pre- and post-incident. As constituents, it is important for us to see and hear our elected leaders, especially during response and recovery, to provide calm leadership and credibility across our organizations.

Is there anything else you’d like to share about the opportunities and challenges of regional emergency management work?

I love my job as regional coordinator. I get to work with some amazingly talented, dedicated and experienced public safety professionals, volunteers and elected leaders. In Region 9, that is both an opportunity and a challenge. I truly believe the strength of our region is our people, citing the attributes I mentioned above. That said, because our region is relatively rural, the numbers and depth of our greatest resource, the people, can be exhausted very quickly. I believe in a regional approach to emergency management. It can be efficient, but it must be implemented cautiously and with collaboration with all of our customers (first responders, senior and elected leaders, and our citizens). I will add that because the term "regional" can be used in such myriad situations, the word itself really needs to be explained in nearly every context.

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Public-Private Partnerships

Focus on Business

Maryland’s Private Sector Integration Program helps keep businesses on track.

By Emily Montandon | Contributing Writer

When protesters filled Baltimore streets during the civil unrest this spring after Freddie Gray died in police custody, downtown businesses had many questions and decisions to make, including: Was their business in the path of the demonstration? Should they send their employees home early? What were other area companies doing? When the businesses began calling the Maryland Emergency Management Agency (MEMA) for information, the agency answered with its virtual business operations center (VBOC), part of the Private Sector Integration Program (PSIP) that Maryland developed to help businesses respond to and prepare for emergencies.

The VBOC is an online collaboration portal MEMA uses to let private-sector members sign in, interact with one another and view information — such as images, documents and live streams — posted by emergency managers and other businesses. MEMA used the VBOC to provide information on the demonstration sched- ules, but many businesses used it to get more information from nearby businesses about protest locations, whether other companies were closing early and so on, said Christina Fabac, private-sector liaison for MEMA.

The VBOC looks completely different during other events, such as adverse weather. Fabac said. Rather than posting flyers and documents with protest information, MEMA may stream Doppler radar or live traffic cameras, along with alerts from weather experts. “They can ask questions of me. They can ask questions of each other,” Fabac said.

The PSIP was originally established in 2012 in response to renewed focus from the federal government on private-sector involvement in emergency management efforts. The idea behind the PSIP was to integrate the private sector into emergency management efforts in the state, said Chas Eby, external outreach branch manager for MEMA, which includes emergency managers from MEMA and other state and local government agencies, and also nonprofits, faith-based organizations and others. “Even if they don’t consider themselves in emergency management, they’re doing functions that help emergency management,” he said.

In addition to the VBOC, PSIP offers businesses a dedicated phone line and email to access the state’s business operations center (BOC) within the state emergency operations center (SEOC) during an incident.

When Fabac became MEMA’s private-sector liaison in 2014, the program began to focus on helping businesses prepare for and recover from a disaster by providing information to the private sector.

“We really made it focused on how can we help these businesses be prepared and help these businesses make sure that during response and recovery they have the information needed to make the best decisions they can,” she said.

While the PSIP is aimed at helping businesses, the goals of the public and private sectors are fairly well aligned. Typically private-sector business continuity managers and risk managers have two main focuses: business continuity and employee safety. Eby said, “We feel that these marry well with a lot of our goals in emergency management.”

Linking People with Resources

MEMA also lets certain businesses post their status during a large-scale incident on a mapping application called OSPREY. When activated, the OSPREY Business app is available for viewing by the public and lets companies tell the public whether they are open, closed or under limited operation. The default status for all businesses is “unknown,” unless the business changes it. When companies update their status, they can leave comments for the public. A business could, for example, direct customers to an alternate entrance if the main entrance is blocked by debris, said Fabac, or tell shoppers about limitations on goods available.

While the PSIP is open to all Maryland businesses, companies that sign up to appear on the OSPREY map are currently limited to nine business categories that MEMA deems essential to the public during a disaster, like grocery and home improvement stores. However, Fabac said, MEMA will add other categories if it sees the need. So far, Maryland has not needed to activate OSPREY Business, but MEMA has tested the
application with businesses to ensure that it works and businesses are familiar with it. Both citizens and businesses can also use the OSPREY application to track power outages, traffic issues, weather and other information.

Working on Preparedness
When PSIP isn’t activated, the program focuses on helping businesses prepare. The PSIP provides training and webinars, and sends out a quarterly newsletter on emergency planning and business continuity. These activities also help raise awareness about the program.

Fabac said she and others from external outreach frequent meetings with various business continuity groups statewide to spread the word about PSIP: “I go out and meet every person I possibly can,” she said, adding that she regularly attends the meetings even if she is not presenting. Eby said now that the program is established, with a little more than 200 members, many businesses come to the program through word of mouth.

MEMA recently held a tabletop exercise for private-sector members. It walked approximately 100 businesses that participated through a scenario that began with a weather forecast of an anticipated derecho, and included the storm impact and related events, such as road closures and a train derailment.

“Emergency managers were there, but it was really a focus on the private sector, and how do we make sure that they’re prepared and they have these plans, and making sure that their plans were going to serve them,” she said.

In addition to helping businesses build and test their plans, the exercise was aimed at helping the public and private sectors understand what the other does in an emergency, so government emergency managers can work more effectively with businesses during a real disaster. During the exercise, participants filled out worksheets, answering questions about their planning, which MEMA will use to provide better information and assistance.

Blaise D’Ambrosio, global business continuity manager with T. Rowe Price, was among the tabletop attendees. He said one important aspect of the exercise was having the opportunity to meet emergency managers and other businesses.

“You can meet people face to face, and that assists in building relationships so that when you are communicating using all of our digital communication, there is a little bit of a real-people element to it,” he said. Building relationships is essential to working together effectively to achieve community resilience, he said.

D’Ambrosio said that during an incident, one of the biggest benefits of being part of a program like PSIP is knowing what the public sector is doing so he and his company can plan accordingly.

“It’s also reciprocal,” he said. “If we’ve already decided to act, it’s important that the authorities know.” For example, he said, if T. Rowe Price decides to send its Baltimore employees home in the middle of the day, the authorities may want to know that more than a thousand people will be heading out at noon, rather than five or six in the evening, as usual. He said the ability to communicate with other businesses through the VBOC saves him time because he doesn’t have to reach out individually to colleagues in other companies for information. “That is really a great value when you are trying to make decisions.”

PSIP members range from multinational companies to small mom-and-pop stores. And each has a role to play in recovery. For a large business, like T. Rowe Price, getting employees back to work means a large portion of the community can return to normal.

“Our employees are members of the community,” D’Ambrosio said. “So it’s important for us to work with the government authorities to make sure we can keep our business going with minimal interruption because we are the community.”

It also means that smaller businesses that rely on T. Rowe Price can return to normal too. For instance, a large business may work with any number of small businesses, such as caterers and housekeeping agencies, in its daily operations.

Interconnected Economy
Many of those smaller businesses are the ones that have the most difficulty recovering in a disaster. Shuttering down even for a short period can be a big financial hit for a small business, said Tom Phelan, principal consultant with Dr. Tom Phelan Consulting. Because they tend to have less equity to fall back on. It qualifies, a company may turn to the Small Business Administration for a disaster loan to make repairs or buy new equipment, but those that do will have to carry the extra burden of paying off the loan.

“Our biggest problem is that businesses don’t prepare themselves,” said Phelan, who is not involved in Maryland’s project. “Only a small percentage of businesses, even large businesses, have a real good emergency preparedness plan,” he said. Disaster recovery plans that deal with IT are common, he said, but many businesses large and small have nothing in place to address evacuations, pandemic planning and other scenarios. “Most small businesses don’t have any kind of emergency plan at all.”

Lack of preparedness for small companies is unsettling because about 50 percent of the workforce works for a small business, and in some cases, large businesses rely on those small businesses to keep operations humming as well. Because of this, large businesses have an interest in helping the community, including smaller businesses, prepare for and respond to a disaster. In the past, Phelan said, the private sector has been underutilized in disaster response, but that’s changing. Beyond good PR, companies stand to benefit from getting communities they operate in back to normal and restoring infrastructure, he said, because that helps them move their products and get employees to work.

“Businesses need to have all of that stuff working,” Phelan said, “so anything they do to help the community recover actually helps their business.”

In addition, it’s important to include the private sector in planning and response because a lot of the information businesses need in a disaster will likely come not from government, but from other private-sector entities because most of the infrastructure businesses rely on is controlled by the private sector. And emergency managers at all levels need to help businesses prepare by sharing what they know, said Phelan.

“If you’re not reaching out, then reach out,” he said. “Go visit a business, a business organization, a business school — like a college or university that teaches business. See that organization, a business school — like a college or university that teaches business. Look there.”

When businesses don’t have an emergency plan, they don’t have any kind of emergency plan at all.”

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Resilience

Value Proposition of Resilience

Investing in resilience is a national imperative and increasingly considered a basic business practice.

By Dane Egli and Jared McKinney | Contributing Writers

The degree of interdependence across critical infrastructure sectors has been amplified by globalization, advanced technologies and supply chain pressures. Our team at Johns Hopkins University Applied Physics Laboratory is studying – through modeling, analyses and empirical research in places like the Port of Baltimore and Austin, Texas – the measurable impact of disruptive events, governance and societal demands upon resilience ecosystems in bounded geographic areas.

Governments, communities and individuals are not helpless in the face of natural disasters like Typhoon Haiyan, the Category 5 super typhoon that struck the Philippines in November 2013, killing thousands of people and displacing hundreds of thousands. There are practical safeguards that can be designed within the multidisciplinary worlds of engineering, cyberphysical, and the social, behavioral and economic sciences if we systematically identify the independent variables that contribute to critical infrastructure interdependencies, conduct analyses that support a generalizable model, and test these methods under simulated and real-world conditions. Drawing from the principles of collective action theory and computational analytics, our studies seek to quantify the cost accounting and value proposition behind resilience by integrating economic factors into the research.

By creating a more connected world, globalization and technology have increased transparency and business efficiencies while making systems more vulnerable. Businesses have more complex supply chains than ever, allowing for greater speed and specialization. Further, outsourcing lets businesses benefit from the competitive advantage of diverse countries and companies. Purchasing from a single source reduces costs. And just-in-time delivery reduces inventory and excess capacity. But these advances have also resulted in cascading impacts due to a global system with little room for error, in which a local disruption adversely impacts the entire supply chain in distant locations. This connectedness amplifies the consequences of small, local disruptive events as well as high-impact but low-probability “Black Swan” events. And the associated costs are high.

A 2006 study by Kevin Hendricks and Vinod Singhal analyzed the effects of 827 disruption events. The study found that over the course of three years, the average disruption reduced stock returns by up to 40 percent. The result was a negative regardless of a disaster’s cause. A follow-up study showed that disruptions increase share price volatility by 13.5 percent, reduce operating income by 107 percent, decrease sales growth by 7 percent and increase costs by 11 percent. Infrequent and unlikely disruptions thus could — in an instant — destroy value created over a long period. As the study asserts, “There is a direct relationship between efficiency and risk.”

Supply chain disruptions — of varying degrees of severity — are common. Seventy-three percent of respondents of the Business Continuity Institute’s 2012 Annual Supply Chain Resilience Survey experienced at least one supply chain disruption. Of these, nearly 40 percent were below the immediate tier-one supplier, showing the interconnectedness and complexity of modern business practices. Interestingly, IT and telecommunications outages were the top disruption sources, with severe weather a close second. The primary consequences of these disruptions are lost productivity, increased work costs, lost revenue and increased customer complaints.

Therefore globalization and supply chain efficiencies, while among the great modern advances, are only part of the value equation. Just as important is supply-chain resilience: the ability to withstand a crisis, absorb damage, recover quickly and adapt to disruptive events. Resilience requires long-term planning and investment in redundancy, interoperability and agility. Disruptions often can’t be predicted or controlled, but their negative impacts are...
incontrovertible. As Hendricks and Singhal conclude, “Investments in increasing reliability and responsiveness of supply chains could be viewed as buying insurance against the economic loss from disruptions.” This is part of the adaptive learning process that resilience offers in response to the lessons of 9/11, active shooters, hurricanes Katrina and Sandy, and the Ebola outbreak.

In addition to mitigating the risks and hazards of supply-chain disruptions, resilience helps prepare businesses for future market slumps. According to Morgan Swink of the Neeley School of Business, “A firm’s ability to weather economic downturns, deal with volatility and manage costs under shrinking demands depends in large part on the resiliency of its supply chains.” According to research he conducted with Nancy Nix, companies with supply-chain flexibility and adaptability can better reduce expenses during a downturn, allowing them to outperform competitors and receive a substantially higher return on assets and equity. Our team at Johns Hopkins is working at operationalizing resilience in various locations — including our nation’s key maritime ports and economic mega-regions — in order to establish a better interdisciplinary understanding of interconnected critical infrastructures in terms of physical, informational and social phenomena.

Resilience is “disaster agnostic,” meaning it will favorably mitigate damage, to varying degrees, caused by earthquakes, terrorists, pandemics or economic downturns. And though it may be difficult to quantify, after every disaster, businesses that prepare ahead of time come out on top. For example, an earthquake three years before the 2011 Japanese tsunami helped prepare a semiconductor manufacturer to recover before its competitors because it had established a strategy to shift production to unaffected manufacturing plants. Maintaining critical operations during disruptive events confers a measurable competitive advantage in the marketplace.

We know from the emerging national policies and governance that investing in resilience is a national imperative and increasingly considered a basic business practice. In addition to mitigating disaster-related damage by introducing new flexibility, it increases productivity, revenue, reputation and shareholder value. Investing in resilience before disaster strikes is the smart choice for individuals, companies and governments alike. What is the value proposition or return on investment? For individuals, it is an investment in adaptive safety and security. For the government, it saves lives and property. For businesses, it protects the bottom line and sharpens their competitive advantage.

Dane Egli is a senior advisor at Johns Hopkins University. Jared McKinney is a dual-degree graduate student in International Affairs at Peking University and London School of Economics.
Conspiracy Theories

As emergency managers, we are engaged in planning for what the average citizen thinks is unlikely, improbable and in some cases deadly. When we consider catastrophic events and what might happen with cascading infrastructure failures for an unprepared populace and society, it can be very sobering indeed.

Yet there is another brand of people who live and die by their conspiracy theories. To them the world is awash with potentially dangerous events over which they have little control, except for their own ability to plan for the inevitable final battle of good versus evil.

The information sources we have today can put the old word-of-mouth rumor mills to shame. Two primary means for the spreading of rumors and “facts” as defined by writers are the Internet and social media. Both sources serve as megaphones for whatever is being transmitted. There can also be a chain letter aspect of information being passed from one set of email addresses to the next for embellishment of the original message.

Here is a short list of those that have come to my direct attention. Generally they have something to do with the need to be prepared to defend your home, your state, the Constitution, etc. And you need guns, lots of guns, and enough ammunition to make your gun barrels glow ruby red and the rifling in your barrels to be worn out.

- Invasion from a foreign country. More specifically, I was once told, from Colombia.
- Invasion from within. The active duty military forces of the United States were told to invade and “occupy” one of our 50 states.
- That senior military officers had been called in, and during closed door meetings they were asked if they would be willing to order their troops to fire on American civilians. If not willing, they had been relieved of their commands.
- The Department of Homeland Security has been stockpiling ammunition to be used for armed conflict with citizens of the United States. Of course, there is a plan to seize the guns of law-abiding citizens when given the chance to do so.
- One rumor relayed to me recently was this: President Obama has been giving nuclear weapons to other countries. To elaborate when asked which ones, the answer was “Iraq.” I figure if we’ve given nukes to Iraq, we must have already given them to Afghanistan too.

Let us not forget FEMA’s role in all of the above. Besides having black helicopters that can swoop in and secure portions of states with what I presume are special operations troops, they also have plans to set up detention camps for U.S. citizens.

I raise all of the above for several reasons. One is so you know that this type of thinking exists and that all your catastrophic planning might be interpreted differently from what you intend – helping people.

Trust in government and our democratic institutions, including our military, is at an all-time low. This lack of trust breeds rumors like nothing else.

What can you do as emergency managers, business continuity professionals and citizens? Fight rumor with truth and facts. Among your family, acquaintances and citizens, you do have some influence because of your position and experience planning for different contingencies. Use your role to speak up and speak out when you encounter the types of rumors I’ve described above and others like them.

And as far as Colombia invading the United States: It is impossible because of one thing and one thing only — logistics.
The Centers for Disease Control and Prevention’s Radiation Emergencies website includes information for both professionals and the public on what to do before, during, and after a radiation emergency.

- Get Inside, Stay Inside, Stay Tuned! Instructions, infographics and tips on how to keep people and pets safe in a radiation emergency
- Radiation Emergencies and Your Health Information on possible health effects from radiation exposure, available medical treatments, and health-related guidance
- Resource Library for Professionals Radiation-related training, guidance documents, research reports, and more
- Types of Radiation Emergencies Information on how to prepare and plan for different emergencies
- Social Media Tools Badges, buttons, and other tools for connecting with the public
- Frequently Asked Questions Answers from experts to common questions about radiation and radiation-related emergencies

http://emergency.cdc.gov/radiation

Comments? Questions? Contact the CDC Radiation Studies Branch: (770) 488-3800 or rsbinfo@cdc.gov.
**Safety LED Beacon**

Invented by a firefighter, the EMERGI-SAFE LED beacon combines three functions into one user-friendly device: a high-powered warning beacon, flashlight and lantern. This beacon is an alternative to incendiary strike flares and a more effective warning than reflective triangles alone.

The module features 16 high-powered, wide-angle, dual-color LEDs to provide 360 degrees of high-intensity warning and white lantern light, as well as a 250 Lumen LED for the flashlight function. Features include a push-button on/off function, multiple flash patterns, field replaceable lens, field replaceable LED module, multiple integral body loops to attach an optional shoulder strap, two integral body clips, easy grip base plate and a universal fit traffic cone ring. Three D batteries provide up to 145 hours of operation. www.dnsafety.com

**Solar Charger**

Power systems company Southwest Electronic Energy has expanded its POW-R TOTE line to include a variety of Solar Charger options. In addition to the AC plug-in DC Charger, POW-R TOTE can be outfitted with a 5W-124W Solar Charger, enabling the unit to be fully remote for indefinite periods of time. In addition, POW-R TOTE is now available in both 99Ah and 117Ah capacities, allowing the user two options based on their power requirements. POW-R TOTE, originally employed by U.S. marshals for quiet and efficient electrical energy, is available to military, emergency managers, marine, law enforcement agencies, fire/rescue operations and more field applications. About the size of a lunchbox, and weighing just 23 pounds, POW-R TOTE uses lithium-ion battery technology to deliver two times longer run time and two times more power at half the weight when compared to a typical 12V lead acid battery commonly used in similar applications. www.swe.com

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Noelle Knell, Managing Editor
Ebola: Doing too Little

As Americans, are we too worried about Ebola — or not enough? Reports may be conflicting, but what we should focus on is clear: 1) how to stop the ongoing spread of Ebola; and 2) how to prevent massive disease outbreaks in the future.

Ebola killed more than 5,400 people in 2014. It’s time to address it with a process that takes into consideration all systems — doctors, nurses, patients, medical devices, waste disposal, etc. — and how they interact together and as a whole.

This is “systems engineering”: a meticulous, effective and robust methodology for addressing the totality of a problem, evaluating all risks to make sure nothing is forgotten, omitted or misinterpreted. Every risk must be addressed and fully mitigated if we are to successfully handle Ebola and other disease outbreaks.

In May, the president’s Council of Advisors on Science and Technology advocated for a systems approach to health care in a report to President Obama that outlined strategies for improvement. The report, Better Health Care and Lower Costs: Accelerating Improvement through Systems Engineering, included recommendations to better gather health data, give health-care providers the tools they need for systems approaches and share best practices.

As an example of systems engineering, the report cites the statewide Vermont Blueprint for Health, an initiative that provides medical practices with health information technology and multidisciplinary community health teams. The teams include social work, nursing and behavioral health professionals working together to coordinate patient care and health needs. In 2012, the initiative helped lower health-care expenditures by 20 percent for children and 10 percent for adults younger than age 65. Patients were also more likely to receive proven preventive services and less likely to be hospitalized.

This will involve the collaborative work of multiple parties — systems engineers, doctors, nurses, patients, emergency medical response teams, waste disposal teams, language translators, police, TSA, safety experts, the CDC and FDA — all “sitting around the same table.” Key components include:

- **Safe Patient Contact:** Investigate all people who may have come into contact with the patient, alerting them as soon as possible by safe means. Develop policies for when and how to refuse admission to public transportation. Have police and TSA professionals on standby to handle potential lack of cooperation from any individual. Keep an inventory of quality protective clothing (including shoes, inner and outer wear, head and eye protection, breathing masks and double gloves) to be used on a moment’s notice by all individuals who may handle a patient.

- **Safe and Effective Waste Disposal:** Implementing safe, effective waste streams and disposals of the large amount of contaminated waste from each patient, including protective clothing, bed linens, bathroom tissues, cleaning and disinfecting agents, and anything that might have come into contact with bodily fluids, is vital.

- **Preparation for Potential Massive Outbreaks:** Maintain access to knowledgeable experts for what to do if a major accident occurs (e.g., a person with Ebola enters a public place with a large number of people in attendance, such as a sporting event). Beyond handling individuals and those with whom they’ve come into contact, develop backup plans for managing crowds.

- **Training and More Training:** Most importantly, all individuals engaged or preparing to engage in the above activities must receive comprehensive and effective training on safe procedures, proper protective clothing and equipment for decontamination.
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