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Exercise Because of Want, Not Because of Need By Nitin Natarajan

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> **Rethinking Disaster Evacuation** By Daniel M. Gerstein & Andrew Lauland





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Active Shooter Incidents: The **Rescue Task Force Concept** By Robert Mueck

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So Much More Than Having a Kit & Making a Plan

By Catherine L. Feinman

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National Preparedness Month: A Year-Round Endeavor

By Catherine L. Feinman



hroughout National Preparedness Month, many communities' preparedness plans have been tested. Hurricanes, earthquakes, wildfires, floods, and drought are just some of the threats faced this month. Although preparedness is highlighted during the month of September, recent events reinforce the need for preparedness to be a year-round effort – especially during months when daily operations are not being overshadowed

by catastrophe, and agencies and organizations are not being tested in full public view.

As the threat environment continues to evolve, preparedness professionals limit their ability to respond to new and emerging threats when they strive to meet (rather than exceed) minimum requirements. Exercising plans should not be a dreaded requirement, but rather an unusual approach to logical thinking and a way to build a culture of preparedness. Exercises with broad buy in would help communities be ready to face whatever natural, human-caused, or technological disaster may arise. Plans should be exercised and tested during daily operations. For example, special events provide many opportunities to <u>enhance protection</u> and security of critical infrastructure that, if affected, could have catastrophic consequences.

Community leaders have many decisions to make everyday, but it is important to not gloss over the toughest decisions until it is time to make them. Trying to tackle new decisions during a crisis could put responders and survivors at greater risk, so advance research and knowledge sharing are critical. Factors related to disasters that may spur the need to make difficult decisions for the first time include, but are not limited to: whether to evacuate or shelter in place, how to manage animals and their human companions, and which actions to take related to school tragedies. Research on these topics must be conducted before critical decisions need to be made.

In some cases, new concepts and plans may exist that should be considered moving forward. One such concept to consider is the <u>Rescue Task Force</u>, which could offer faster medical intervention – using current resources and command structure – to survivors during active shooter events. In any situation, the more prepared individuals and families are, the more prepared the community is as a whole. Therefore, preparedness efforts should include examining the reasons people may not plan and <u>finding solutions to reach those who remain unprepared</u> for future threats. Despite the best efforts, it would merely be dreaming to assume that everyone could someday be fully prepared for future disaster. However, greater individual and family preparedness leads to better allocation of resources during a disaster and more resilient communities every month of the year.

Exercise Because of Want, Not Because of Need

By Nitin Natarajan

For decades, governments have conducted emergency preparedness exercises as a method to evaluate the ability to prepare for, respond to, and recover from natural and manmade disasters. There is no doubt the tens of thousands of exercises conducted across the nation have improved the nation's preparedness but, in order to tackle new and emerging threats, more must be done.



Exercises were originally designed out of a desire to assess and improve existing policies or operational plans. As exercises became a more prominent requirement in regulatory programs and grants, the necessity to complete exercises often overtook the fundamental reason for those exercises – increasing preparedness. Essentially the exercise has become the end, not the means to an outcome.

There are many contributors to this shift. With an abundance of requirements, limited existing budgets, and reductions in future funding, agencies have a strong reason not to push themselves to their limits in exercises. They are forced into a "check the box" mindset that would not stress the system and instead conduct exercises only to meet regulatory or grant requirements. Even if system failures or challenges are identified, there

To prepare the nation against cyber and physical attacks, there is a need to return to the basics and utilize exercises for true operational improvements. is a reluctance to report them in a way that can yield meaningful changes. In fact, some public information staff or elected officials are so concerned about "failing" the exercise, they refuse to take the system to its breaking point to avoid what they perceive to be negative optics.

However, to prepare the nation against cyber and physical attacks, there is a need to return to the basics and utilize exercises for true operational improvements:

- Get back to exercising existing plans;
- Question the assumptions in the plans;
- Utilize existing hazard and vulnerabilities analyses or the Federal Emergency Management Agency (FEMA) Threat and Hazard Identification and Risk Assessment (THIRA) efforts to identify potential plausible scenarios;
- Develop scenarios for unplanned events or a combination of events, but keep the scenarios realistic;

- Develop scenarios that motivate participants to solve hard problems do not develop unwinnable scenarios that would cause participants to get frustrated and immediately admit defeat;
- Design a rigorous evaluation up front and be willing to accept defensible evaluation results, even if they point to negative outcomes;
- Commit to making the necessary changes to plans and operations based on the outcomes of the exercise and then to starting the cycle over again; and
- Be fearless about failing residents should feel more comfortable with a jurisdiction that identifies weaknesses and continually improves its systems than one that claims perfection year to year.

No matter what the exercise or scenario, playing it safe is not the answer. Whether the conduct includes discussion-based exercises (seminars, workshops, tabletop exercises, and games) operations-based or exercises (drills, functional, and full-scale exercises), people deserve to have systems pushed to the limits. A realistic future, not the past, needs to be tested. In this instance, failure is success! Failure can encourage improvements necessary to



make systems more robust, efficient, and safer. This attitude shift coupled with the overall maturity of the exercising community is the way forward. Exercises have transitioned from those conducted by staff as collateral duty utilizing a wide variety of formats to trained and certified experts conducting exercises of all shapes and sizes using nationally recognized processes. Acting on these recommendations incorporates the right people, processes, and focus to better protect the nation.

Nitin Natarajan is a principal at Cadmus and directs Cadmus' support for public health and healthcare projects in the homeland security sector, helping organizations at all levels of government, nongovernmental organizations, nonprofits, and private sector organizations improve health security and preparedness in the face of complex and evolving challenges. He has more than 20 years of experience leading homeland security, emergency response, public health, healthcare, and environmental initiatives at the local, state, and federal levels. His professional career includes service as: deputy assistant administrator for the U.S. Environmental Protection Agency's (EPA's) Office of Land and Emergency Management; director of critical infrastructure policy on the National Security Council; and leader of the U.S. Department of Health and Human Services' Critical Infrastructure Protection, Continuity of Operations, and Response Logistics Programs. He began his career as a first responder for 13 years, including service as a flight paramedic. He holds a bachelor's degree from the State University of New York and a master's degree from the United States Naval Postgraduate School, and he graduated from the Executive Education Program at Harvard University's National Preparedness Leadership Initiative.

Enhancing Infrastructure Protection Through Special Events

By Erin Mohres

In an atmosphere of limited resources, critical infrastructure (CI) protection can be difficult to prioritize with crime-fighting and disaster response. Understanding realworld lessons learned from local agencies is one way to make progress. Leveraging the urgency demanded by special events can be a particularly productive path forward. This article offers suggestions from practitioners to develop CI protection programs through special events management, at varying levels of capability and scale.



In 2014, the City of Houston, Texas, hosted the National Basketball Association (NBA) All-Star Game. Police, fire, emergency management, and public services followed their standard procedures, and it was as successful as expected. Interestingly, however, it was the Galleria Mall that was unexpectedly closed down that Saturday night during regular business hours and even caused a special police unit to be deployed. Social media fueled excitement about possible celebrity sightings at the upscale shopping center, attracting huge crowds of people that ultimately made ingress and

egress nearly impossible. Since then, the Galleria has become a fixture on the special-eventrelated critical infrastructure (CI) scene, hosting protests after the Ferguson, Missouri, and Chicago, Illinois, shootings, and continuing to attract huge crowds during sports events.

The lesson from Houston's experience is one that is becoming more evident to many state and local organizations: to increase CI protection and special-event readiness, and expand the traditional and obvious definition of CI. Both Houston's Regional Infrastructure Protection Coordinator Jack Hanagriff and the Florida International University's Director of Emergency Management Amy B. Aiken agree.

The Case of Florida International University

Florida International University (FIU) is a public university with 55,000 students and a 342-acre main campus in South Florida. Its ideal location, committed leadership, and sophisticated public safety capabilities make it attractive to a variety of high-profile special events. In addition to sporting events, homecomings, and commencements, it regularly hosts U.S. presidents, vice presidents, cabinet members, and foreign leaders. In 2015, it even hosted the Miss Universe Pageant. President Barack Obama, presidential nominee and former Secretary of State Hillary Clinton, Vice President Mike Pence, Secretary of State Rex Tillerson, former Homeland Security Secretary and current Chief of Staff John Kelly, and Treasury Secretary Steven Mnuchin have all been visitors to FIU in the past few years.

FIU's special events take place at the 20,000-seat Riccardo Silva Stadium, 5,000-seat FIU Arena, student center ballrooms, and its outdoor open spaces. The FIU Police Department (FIUPD), with its 64 sworn officers, is the lead agency on preparing for and responding to these events. It has a dedicated special events coordinator who works closely with local, county, and federal law enforcement on all large-scale events. FIUPD has contributed to long-term CI protection through preparing for these events – it conducts security and

threat assessments for its critical sites, updated the arena's fire alarm system, and enhanced camera surveillance systems. It also conducts rapid deployment training, critical incident response team training, and active shooter training. It employs specialized tactics on the day of the event, such as using bomb-detection dogs and event sweeps, crowdprotection measures with movable



concrete barricades and vehicles, and multiple police and unified command posts, all of which also enhances its steady-state readiness and ability to respond to no-notice events at campus CI. These measures are typically funded through FIU's annual budget, especially facilities and police. Security decisions are the purview of the FIU police chief, who makes recommendations to the FIU president.

FIUPD also coordinates with the university's Emergency Management Department, which sees ample opportunities to enhance CI protection through high-profile events. In August 2017, Emergency Management Director Amy B. Aiken reported the following:

Our police take solid action toward preparing and protecting critical infrastructure that host and support our special events; next, we must increase our focus and consider a larger set of assets crucial to the mission of universities, such as research labs, data centers, and even chiller plants. Police proactively engage in tactical training and exercises that prepare them to respond to events at critical infrastructure, and our next step should be determining how to include other key partners. Facilities staff are key players in infrastructure protection before, during, and following an event – they manage shut-off valves, understand electrical feeds into the buildings, and are familiar with building vulnerabilities. Emergency management staff can expand planning activities and coordinate communications with comprehensive sets of stakeholders.

Aiken outlined four steps that universities and other jurisdictions should work toward when building their programs:

- 1. Clarify who is in charge of and responsible for a comprehensive infrastructure *protection program.* Make sure the answer is understood all the way to the top of the chain of command and applies to all hazards.
- 2. Identify all types of CI that support the mission of the university (or the *jurisdiction*). Identify these ahead of time, not immediately prior to an event, when the characteristics of the event will undoubtedly bias the CI identified.
- *3. Develop an integrated approach to grants management.* Grant opportunities for CI protection are out there, but a practical process is required to pursue them effectively. Emergency management can identify opportunities, law

enforcement has the expertise to guide project development, and research programs have experience in grant writing. Still, in the current environment, no one has staff with extra time on their hands for new tasking: to develop the approach and then staff it.

4. Expand pre-event planning to include a wide variety of stakeholders. The CI protection manager, grants managers, emergency management coordinators, and facilities staff may all be able to offer new pieces of data and expertise that turn sound, reliable special events management into even more sophisticated programs. Establish clear delineations of authority to coordinate a larger initiative.

The Case of Houston

Houston is the fourth most populous city in the United States, with over 2.3 million people. It has a \$4 billion budget, a police department with more than 5,000 officers, and a fire department with nearly 4,000 personnel. The city hosts some of the most high-profile events in the world, including Super Bowl LI in 2017, the National Collegiate Athletic Association (NCAA) Men's Final Four in 2011 and 2016, and the NBA All-Star Game in 2013. It is also home to some of the country's most important CI, such as the 72,000-seat NRG Stadium (formerly Reliant Stadium), the 25-mile Port of Houston (with the largest petrochemical complex in

The locals' lesson is to increase critical infrastructure (CI) protection and specialevent readiness, and expand the traditional and obvious definition of CI. the country), and the headquarters of numerous Fortune 500 companies, including Phillips 66, ConocoPhillips, and Sysco Corp.

With this profile, it should be no surprise that Houston is experienced, well resourced, and understands how to work with partners at all levels of government. Still, to maintain its

reputation, the city must be a thought leader in the field of CI protection and special events management, and Houston delivers. In August 2017, Houston Police Officer Jack Hanagriff, assigned as regional infrastructure protection coordinator, offered specific recommendations from his experience innovating with partners across the city and the region:

- 1. Be ready as the current world changes fast. As Hanagriff points out, "It's not about a traditional definition of critical infrastructure, but knowing what will become a focus of increased threat or activity on any given day." Houston has a comprehensive infrastructure catalog and sound practices in place to prioritize and make decisions around that catalog. They know, however, that is not enough. "When a sports event is coming up, for example, Houston Police will conduct threat assessments on shopping malls, even shoe stores," says Hanagriff. "Decision makers have to think about the nature of the event, where celebrities might wind up, and what unexpected places the crowds might go. We're reinventing the old model."
- *2. Stop pigeonholing the use of cameras.* Houston thinks beyond both the traditional sources and traditional uses of cameras. Emergency management, transportation departments, private security staff, and fire and rescue all have

needs for, and sometimes own, cameras. "Our philosophy is: the more eyes on a camera, the better. We opened up our cameras to multiple agencies. Of course there are privacy concerns and security concerns, so some cameras can't be shared, and we work that out ahead of time," adds Hanagriff. "Public services and event operations may use cameras fixed on trash cans so they know when they're full. They monitor common spaces and concourses to increase situational awareness. We have to work with what's available and come up with the best ways to take advantage of that. And if the camera owners know they will get some additional camera access if they share their own, they are more inclined to do so."

3. Work with the private sector. Create coalitions that offer clear, concrete benefits to everyone. Houston is creating a Smart City Ecosystem – a coalition of public and private stakeholders that grew out of a very successful, quick-turn initiative to launch new technology during Super Bowl LI earlier this year. The Ecosystem works on designing and deploying cutting-edge technologies and services that support CI resilience and special-events management. One such technology is a new type of camera system that detects anomalies in typical sights and sounds. It does not record, just monitors. This is a critical support mechanism because most incidents are reported when someone sees or hears something out of the ordinary. Industry partners including Axis Communications, VidSys, Verizon, and Siklu radios develop these technologies and services for the city at no cost. As a result, they get direct access to public safety expertise and to local businesses who may be interested in their products, and they get to market their work. Local businesses and CI owners and operators provide access to existing cameras, their networks, and physical space. They receive expanded camera coverage and learn about emergent technologies. A particularly important benefit to the local owners and operators is greater situational awareness. When an incident has cascading consequences – perhaps a bottleneck in traffic preventing people and cars from getting in and out - they can see outside their own perimeter and directly into the problem. The city gets free technology, equipment, services, and access, and provides the forum for these privatesector partners to collaborate and to try out their innovations.

"With everything we do, we have an S-rule: We think about sustainability, scalability, support, and skill development," concluded Hanagriff. "What are the ongoing costs? How many agencies or users are supported for that cost? Will we need contractors to support it or can my own IT staff do it? Can our personnel operate the technology?' This informs what we move forward with."

The author would like to thank Wili Alvarez and Benjamin Guerrero from FIU for their contributions to this article.

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Rethinking Disaster Evacuation

By Daniel M. Gerstein & Andrew Lauland

No two disasters are the same. Yet it is not unusual for officials to be confronted with a common critical public safety decision: whether to evacuate the public or advise them to shelter in place. This crucial decision, which is normally time sensitive, can set the tone for the remainder of the response and recovery phases.

E vacuation is controversial in emergency management circles, with many local government leaders and emergency managers deeming it impractical – if not impossible – in cities as large as Houston, Texas, or over large land masses such as the 22 states affected by <u>Superstorm Sandy</u> in 2012. Evacuation is also not without risk. People can be injured – or even die – during evacuations, as happened during the <u>evacuation of Houston in advance of Hurricane Rita in 2005</u>.

However, a false dichotomy may exist where choices are seen as binary, either to evacuate completely or to shelter in place only. Other, more targeted choices – such as sheltering in safer locations within a city or targeting specific local evacuations – could be available if an analytic basis for making such judgments is fully developed and properly communicated to those in a hurricane's path.

Information Assessment & Risk Models

Improving the quality of the information considered before storms hit could help authorities reach better conclusions on the big question of whether to order evacuations or not. This also could expose other potential options short of full-scale evacuations. Taking a close look at the current tools and metrics for assessing storm risk and communication with populations would be a worthy step.

The often-cited <u>Saffir-Simpson scale</u>, which relies primarily on wind speed to characterize these complex storms, has become obsolete. Despite its shortfalls, it remains the single most



descriptive metric the National Weather Service, government officials, and media employ in potential communicating the impact of a hurricane. Although wind speed is an important input measure, it does not adequately describe the full range of potential effects of weather events. Size of the storm, anticipated storm surge, area of the country and its physical characteristics, size of the population likely to be affected, special situations, and likely duration are all necessary descriptors of a storm's potential.

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<u>Hurricane Katrina</u> reinforced that size and storm surge were at least as important metrics for describing the hurricane. In Katrina, the Category 3 delineation based on wind speed alone failed to indicate the likelihood of a storm surge that would overtop the New Orleans, Louisiana, levees with catastrophic and deadly consequences.

While <u>Hurricane Harvey's consequences are still unfolding</u> and the full effects will not be understood for weeks or months, it made clear that storm duration should be an important consideration in assessing a storm's potential impact. Harvey's extended stay in the south Texas region, with its unprecedented amounts of rain, magnified the impact of the storm dramatically.

Assessment of special physical attributes and situations could also be an important component of future risk models. Katrina striking New Orleans, which lies below sea level and is only protected through a complex series of levees, dikes, surge protectors, and pumps, demonstrated that physical

The decision to evacuate cannot be made lightly, as public reaction can be swift and severe when officials call for mandatory evacuation and "get it wrong."

characteristics should be factored into the evacuation calculus. For Superstorm Sandy, the most severe effects were felt in the most densely populated part of the United States, where the heart of the nation's financial sector is located. And looking to Harvey, the large percentage of the <u>nation's petrochemical capacity</u> would clearly count as a special circumstance.

Appropriate Decisions & Public Communication

Communications must continue to be improved regarding evacuation decisions. Coded terms such as a "100-year storm" should be avoided. The language is imprecise and not understood, even by those who use such terminology. In fact, it is possible, but not necessarily likely, to have <u>multiple 100-year storms in a single person's lifetime</u>.

The decision to evacuate cannot be made lightly, as public reaction can be swift and severe when officials call for mandatory evacuation and "get it wrong." Several key factors must guide the evacuation decision:

- How severe and certain is the forecast?
- How much time is available before the event?
- How many people would need to be evacuated?
- What shelter-in-place and public shelter capabilities does the city have?
- Can the roads and infrastructure support the evacuation?

In answering these questions, authorities could improve their chances of making appropriate decisions by seeking the broadest range of data available, and not relying exclusively on yesterday's tools like the Saffir-Simpson scale and imprecise terminology like "100-year storm." Taking lessons from storms like Harvey, Sandy, and Katrina could also help.

Leading up to Hurricane Irma striking southwest Florida, <u>13 Florida counties had ordered</u> voluntary or mandatory evacuations in advance of the powerful Category 5 storm. Still, <u>over</u> six million people live in Florida's three most populous counties (Miami-Dade, Broward, and Palm Beach), indicating the immense challenge associated with a full evacuation. The large-scale event coupled with people that either could not or choose not to evacuate mean a large population likely rode out the storm. The actual degree to which these warnings were followed and what this means for those who did not evacuate will unfold over the coming days and weeks.

The 2017 hurricane season is approximately halfway completed, yet the National Oceanographic and Atmospheric Administration is calling for the <u>remainder of the season</u> to remain "active." As such, it is likely other government officials will be confronted with the evacuation question soon. Their decisions, as those of their predecessors, could have life-altering consequences, which means these decisions should be based on the best information possible.

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Andrew Lauland is a senior researcher at RAND Corporation. He was the state homeland security advisor for the state of Maryland from 2007 to 2015, and homeland security director for the City of Baltimore from 2002 to 2007. In 2006, Lauland and 150 Baltimore City firefighters, police officers, and public works personnel deployed to Gretna and St. Bernard Parish in Louisiana in response to Hurricane Katrina.



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Animals in Distress: A Community Preparedness Checklist

By Lacie Davis & Richard Green

Recent studies have shown that pets have the ability to relieve stress, provide purpose, and give unconditional love and support to those who need them. This profound connection is referred to as the "human-animal bond." During an emergency or disaster, this bond is exhibited with the great lengths people go to both remain with and save their pets, including putting themselves and others at risk. A new tool addresses this gap.



B ased on experiences during disaster responses, members of the American Society for the Prevention of Cruelty to Animals (ASPCA) have observed a high likelihood of people not evacuating without their pets. For this reason, it is essential to consider pets in state and county disaster plans, and include these members of the family in <u>disaster response efforts</u>. An integral part of helping people in disasters is helping their pets. A new tool is designed to help jurisdictions assess animal response capabilities and identify ways to address any gaps.

Human-Animal Bond

The American Veterinary Medical Association (AVMA) notes that, due to a lack of more traditional support systems in modern society, for many people, companion animals are the sole <u>source of emotional and social support</u>. Companion animals provide significant psychological and physical health benefits, especially to children, the elderly, the disabled, the mentally and physically ill, and the incarcerated. Given this bond, AVMA believes that, "when disasters strike, saving animals means saving people."

Without question, human-animal bond dynamics influence people's responses in disaster situations – causing them to behave in ways that put themselves, responders, and others at risk. In his November 2000 paper, "<u>A Study of Pet Rescue in Two Disasters</u>," Sebastian E. Heath of the Department of Veterinary Clinical Science at Purdue University found that up to an 80% reduction in premature reentry into evacuated areas could be achieved if pets were evacuated with their owners. He noted that, of those who rescued their pets, 65% felt it was worth risking their lives to do so, and that having children or having more than one pet greatly increased the likelihood of rescue. Based on his findings, he strongly recommends the full integration of animal welfare groups and responses to mitigate these risks. Providing care for animals during an emergency may facilitate the personal safety and care of a large segment of the human population.

First Responders Save Lives

In the ASPCA's disaster response work, most animal emergencies occur within the first 24-48 hours of disaster onset, which means that local responders often perform the initial search, rescue, and sheltering activities. It typically takes state and national responders 24-48 hours to arrive and assist with search and rescue activities. Enhancing animal

response capabilities through an established, skilled, and actively engaged Community/ County Animal Response Team (CART) that is recognized by emergency management and supports animal control efforts saves lives. These responders provide an invaluable service to emergency management and to their communities. Their unique resources and expertise in managing animal populations are critically important to governmental and nongovernmental agencies charged with responding to and managing human and animal populations in a disaster.

Animal response teams should recognize that rescuing humans is always the first priority, with animal search and rescue occurring only when it is safe and does not interfere with human rescue activities. However, it is not always possible to clearly separate human rescue and animal rescue operations, especially when communities do not include animals in their evacuation and sheltering plans. With appropriate planning and training, animal rescue organizations can safely assume animal rescue responsibilities, while other first responders are focused on rescue activities for humans. Often, they may work in tandem.

Animal Emergency Preparedness Checklist

In 2016, the ASPCA developed a three-pronged approach to build animal response capabilities nationwide. The first step was to conduct a national survey, the <u>National</u>

Capabilities for Animal Response in Emergencies, to determine strengths and weaknesses at the county and state levels. The survey concentrated on state and local animal response teams and their capabilities, as well as the availability and access to the equipment and supplies needed to respond to animals in disasters. The second step was to develop a preparedness checklist that would assist agencies in identifying best practices for developing response capabilities in the community. The final step is to provide assistance through grants, training,



Source: Field Investigations and Response team (October 2016).

and subject matter expertise to requesting agencies located in strategic areas throughout the country that are seeking to enhance animal response capabilities. The Animal Emergency Preparedness Checklist was developed after watching so many communities struggle to handle animal issues following a disaster.

Experiences during disaster responses showed that jurisdictions simply did not have a structure in place to address rescue and sheltering challenges. The concern was validated with the survey and with agencies having primary jurisdictional responsibilities for animals in emergencies requesting subject matter expertise assistance with planning for and responding to emergencies (specific to animals) in their communities. Based on conversations with emergency managers about what their needs were and areas where they felt they fell short, the checklist was developed.

To ensure that important areas of focus were not overlooked, the checklist was reviewed with subject matter experts and strategic partners throughout the country. It was then tested in a number of small and large communities across the country. The checklist can be used as an analysis tool, as a blueprint for improvements, or as a road map to building animal response plans. The checklist helps identify where a community is well resourced and where additional support may be needed in six key areas:

- Essential Infrastructure
- Organization & Leadership
- Written Plan Elements
- Equipment & Systems
- Rescue, Sheltering & Reunification
- Personnel, Volunteers & Training

Agencies that are in the initial stages of planning for animals in emergencies can utilize the designated high-priority items as areas to begin.

An initial strategic area to concentrate on is identifying and including planning partners that play roles in disasters, including but not limited to: fire, law enforcement, animal control, agriculture, animal welfare groups, and organizations charged with sheltering such as the Red Cross. By including these organizations in initial discussions, the planning process and final outcome become a collaborative effort and provide better awareness and buy-in from the related emergency response agencies. The written plan guides all of the elements of preparedness and response: mutual aid agreements, search and rescue,

An integral part of helping people in disasters is helping their pets. A new tool helps jurisdictions assess animal response capabilities and gaps. sheltering, equipment, supplies, and personnel. Collaboration with partners in this process ensures these areas are addressed.

Equally important to the written plan is establishing co-located shelter locations and equipment caches. The checklist suggests a cache of equipment and supplies to support

sheltering for a minimum of 50 small animals and 50 large animals. The equipment necessary for small and large animals is vastly different, thus planning partners with experience in small and large animal sheltering can provide valuable input.

Ensuring adequate animal response capabilities means recruiting, training, and equipping volunteers in the community to support the operation. Having an already identified agency or group to provide sheltering support is central to rapidly standing up sheltering operations once evacuations begin and search-and-rescue operations are underway. The goal is to have the capabilities and resources to provide shelter and care for 50 animals for 72 hours. This is where agreements with other counties, rescue groups, and national nongovernmental agencies are so valuable.

18 September 2017, DomPrep Journal

Conclusion

For many households, animals are recognized as members of the family. Consequently, when disasters strike, emergency management must manage both human and animal issues. The Animal Emergency Preparedness Checklist was developed to provide communities with a method for identifying animal response strengths and weaknesses and to provide a roadmap for ultimately enhancing response capabilities. It would be most effective when the whole community is engaged in the process. The ultimate goal of the checklist is to build community resources and capabilities that enable communities to effectively and safely manage animals in disasters, thus building stronger, more disaster resilient communities.

To learn more about the NCARE Survey and the Animal Emergency Preparedness Checklist, please visit <u>http://aspcapro.org/about-ncare-survey</u>

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Helping School Districts Move Forward After Tragedy

By Guy Grace

In fall 2013, the Littleton Public Schools District (Colorado), with great support from the community, passed an \$80 million bond election for capital improvements within the school district. Immediately following the bond election, the Littleton Public Schools Security Department personnel began planning to implement their portion of the bond funds, which was about \$7.5 million. Its security team's journey toward security technology and infrastructure is a good example for other school systems.



n 13 December 2013, Littleton Public Schools suffered a fatal shooting at Arapahoe High School. The attack lasted only 80 seconds, but left one student fatally injured and the assailant dead from a self-inflicted gunshot. Although many of the events that happened that day proved that the security systems and procedures in place at Arapahoe High School helped minimize loss of life and injuries, there were also lessons learned that would motivate the district to seek solutions moving forward.

Determining Security Needs

In the months following the Arapahoe incident, it was critical for Littleton Public Schools to analyze its district's security posture, not only to meet the challenges of an active shooter incident but also to meet the challenges of all hazards that the school district potentially faces on any given day. During the ISC West show in April 2014, Scott Lord, the director of innovation and national accounts for All Systems and a member of a group called PASS (Partner Alliance Safer Schools), introduced Littleton Public Schools to PASS and shared his knowledge about the challenges faced when implementing security systems in K-12 schools.

In summer 2014, security installations began on a few schools. Not only was the staff at Littleton Public Schools still reeling from the aftermath of the school shooting but, after the first



Source: Littleton Public Schools (2016).

projects were completed, the results did not quite meet the expectations of the security team. The earlier discussion with Scott Lord about PASS then spurred research on the PASS recommendations. Using the PASS recommendations, the team's response, oversight, and expectations for the ongoing installations were organized to begin in summer 2015. The recommendations that the PASS standards brought to the process were helpful, with a stark difference between 2014 and 2015.

The PASS recommendations not only helped to justify the funding and deployments that were being done, but also inspired thoughts on how to deploy the technology for multiple uses such as utilizing mass notification and integrating PASS into a security system. As a result, the installations in 2016 and 2017 not only met and exceeded all expectations but were also on budget and on time. The PASS recommendations also helped the Littleton Public School District win an <u>Industry Security Innovation Award in 2016</u>.

Installing New Security Measures

A school's budget is one of the most important items for a school district, and the security team was very careful when installing the new security infrastructure. The district was able to install Power over Ethernet (PoE) cabling for current and future installations, as well as many district-wide solutions: new access control system; new video management system; video/voice intercom system for access control; asset protection system; and intercom and mass notification system. The district also provided tablets for mobile response and a new security command center to oversee and monitor the new technology. By using the PASS recommendations, the Littleton Public School Security team was able to install all of the technology and infrastructure. Keeping in mind that all the buildings in the district are 40 to 80 years old, by utilizing the PASS recommendations, the pricing (i.e., equipment and installation cost) per school is shown in Table 1.

Schools	Labor	Material	Rounded
Elementary	\$76,500.00	\$93,500.00	\$170,000.00
Middle	\$108,000.00	\$162,000.00	\$270,000.00
High	\$166,500.00	\$283,500.00	\$450,000.00

 Table 1. Pass Tier Recommendations Pricing

One of the biggest benefits Littleton Public Schools have experienced by following the PASS standards is that its security systems can evolve to meet the all hazards needs of the school district now and in the future. By utilizing the PoE infrastructure, the district is never stagnant and can deploy new technologies to address its security needs. PoE cabling is often the most costly part of today's security systems. In regard to PoE cabling for schools, it may be feasible to explore the universal service <u>Schools and Libraries Program</u>, commonly known as "E-rate," as a way to introduce the security of the PoE infrastructure to the nation's schools, where physical security and learning can (and should) coexist. E-rate provides discounts of up to 90 percent to help eligible schools and libraries in the United States obtain affordable telecommunications and internet access. The program ensures that schools and libraries have access to affordable telecommunications and information services.

The Littleton Public School District has found that the PASS recommendations are very valuable to empowering the school community to be ready for day-to-day needs as well as emergencies when they arise. The district on any school day has over 200 employees who are using the security system's various integrated systems to keep the students and staff safe.

People are the most important asset in the school system, so it is important that they have the best tools available.

The Partner Alliance for Safer Schools (PASS) was established by security industry leaders dedicated to providing a guideline for the proper implementation of security technology in K-12 schools. A joint effort between the Security Industry Association and National Systems Contractors Association created a committee of security manufacture, design, and integration experts to design a guideline that could be used by any school district in planning the implementation of security technology per the threats and processes of the district. Chaired by Brett St. Pierre of HID Corp and led by Jim Crumbley, owner of Risk Solutions, the committee formed PASS and created the first edition of the PASS K-12 Guidelines in spring 2014.

Guy M. Grace Jr. serves as the director of security and emergency planning for Littleton Public Schools, a suburb of Denver. He began providing district security services to Littleton Public Schools (LPS) on 1990 after serving in the military and attending college. He worked his way through the ranks in the security team when, in 1999, he was appointed to head the LPS Security Department. He is a recipient of many national and security industry awards and recognitions. He is a regular speaker at school safety trade conferences and a regular security media commentator for various trade magazines and media. He has created and assisted with developing many security related projects, protocols, and practices that are utilized today in school safety. He also serves as a director on the <u>Partner Alliance for Safer Schools</u>. He also is the safety advisor for the "Safety Squadron" that is a part of the nonprofit Project Peace Program, which develops classroom safety curriculum for educators and students in K-12 schools.

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Active Shooter Incidents: The Rescue Task Force Concept

By Robert Mueck

The concept of the Rescue Task Force (RTF) came from the Arlington County (Virginia) Fire Department. Looking at active shooter events around the country, these fire department leaders created a model that enables emergency medical services (EMS) to provide emergency medical intervention faster and within the Incident Command System (ICS) construct.



K nown as "warm zone integration," the RTF concept uses the phrase "Task Force," which is an ICS term for a unit consisting of mixed resources assembled to meet a specific tactical need. Regardless of the name, the RTF should be able to integrate easily into public safety agencies anywhere. The RTF consists of EMS and law enforcement personnel who work together to provide immediate basic medical care to victims. This differs from Tactical EMS, which usually focuses on medical care for the responders.

The Current EMS System

Civilian EMS personnel are not combat medics, so they do not go into the line of fire like their counterparts may in the military. In a traditional response to an incident involving gun violence, EMS personnel set up in a staging area and await word from law enforcement that the building is declared clear and secure. However, when people are bleeding out and dying in mass casualty incidents, the urgency of medical care is being pushed to new limits.

As part of the RTF concept, three zones must be understood:

- *The Hot Zone* The area where there is a known hazard or threat to life that is potentially direct and immediate. This includes any uncontrolled area where the active shooter could directly engage people.
- *The Warm Zone* The areas where law enforcement has either cleared or isolated the threat, and the risk is minimal or has been mitigated. This area may be considered clear but not secure.
- *The Cold Zone* The area where there is little or no threat. It may include the outside of the building or an area law enforcement has secured. It is safe to operate in this zone.

In its initial stages, an active shooter incident in a building makes the entire building the hot zone. Law enforcement personnel immediately move toward the shooter to stop the attack and prevent more injuries or deaths. As law enforcement personnel move inside and begin to secure parts of the building, these areas become warm zones because there is some certainty that the shooter is not in the immediate vicinity. This is where EMS personnel could have an opportunity to join law enforcement and make entry to locate and treat victims, even as other officers search for and neutralize the suspect. Keep in mind that incidents with multiple shooters make this more difficult for first responders.

What the RTF Concept Offers

The RTF concept focuses on the needs and care of victims, not responders. EMS members of the RTF work with patrol officers to deliver immediate medical intervention for readily treatable injuries, like severe bleeding and airway compromise. The team then stabilizes victims for evacuation to definitive care.

The RTF provides "point of wound" care to victims where there is an ongoing threat. These teams (there may be more than one) treat, stabilize, and remove the injured in a speedy fashion under the protection of armed law enforcement. Although the RTFs operate in the warm zone, they do not engage in triage. Injured persons encountered by RTF teams are treated as they are reached. People who



RTF making entry under escort by Maryland State Police (*Source:* Robert Mueck, 18 May 2016).

can walk without assistance are directed to self-evacuate down a cleared corridor under law enforcement direction (within the warm zones).

This process requires coordination between law enforcement and EMS personnel. Incident command needs to direct the RTF to locations where they are needed. That means the RTF would probably be under law enforcement command, but the RTF is essentially a unified command asset.

Initially, those first on the scene – both bystanders and victims – may provide aide to one another before responders arrive. First responders may direct them to provide aide to each other until the RTF reaches them. Injured victims may eventually be placed in a casualty collection point (CCP) before being moved to a cold zone, where they can be transported to definitive care. Where survivors are placed is determined by initial responders and should be communicated to the RTF teams through unified command.

Challenges for Implementation of This Model

The RTF model presents some challenges. Members should be equipped with the proper tools – including Kevlar helmets and body armor – to operate in dangerous environments. This may prove to be an issue for EMS, as EMS organizations often include volunteers. Issues of purchasing the equipment, sizing protective gear to fit EMS staff, and storing additional tools and equipment in ambulances can prove difficult.

As local jurisdictions adopt the RTF concept, it is important everyone involved understand how teams will operate. There is no "one way" to develop an RTF. The important issue is that law enforcement and EMS know how to integrate and understand their own written policies to work as an RTF. Policies and training dictate how they interface during a response. Although there may be some differences from one area to the next, the basics remain the same: identify those wounded, determine the need for emergency medical care, and extract those injured to a CCP. Patients eventually are evacuated to an external CCP well outside the building to a secure location where traditional EMS care is initiated.



Rescue Task Force in action – Annapolis City EMS, escorted by Maryland Capitol Police, render aid to a victim in a full-scale exercise at St. John's College in Annapolis (*Source:* Robert Mueck, 18 May 2016).

As with any emergency incident, it is important to achieve mutual communications to coordinate the RTF during an incident. This requires training together and conducting drills so the coordination of the RTF becomes second nature. Failing to train together can reveal challenges that were not considered in the planning phase. For example, RTF officers provide security for EMS personnel as they move into the building and down corridors secured by initial contact teams. These escort officers cannot wander off once they get EMS on site. They need to understand their role and remain in place to provide security for the medics while they treat victims.

When public safety staff members are unarmed, it is known upfront that these members would not be part of the initial entry. However, if members are trained to assist in rendering emergency first aid, they can be proactive and perform a critical task.

EMS resources may be limited, so having personnel assist could go a long way in saving lives. However, the RTF concept only works if personnel have what they need to participate.

Providing Additional Medical Assistance

If staff cannot participate in an RTF, they could still render assistance to responders. They may assist in establishing an internal CCP near a secure entry point, where casualties can be grouped to allow for faster and more efficient evacuation by non-RTF EMS personnel. Having body movers available for staff may allow them to assist in moving victims from a warm zone to a cold zone. Having them trained and equipped in the use of tourniquets and hemostatic gauze, for example, may make staff invaluable for saving lives.

Beyond traditional first responders, it is important to remember the *first* "first responders," which are the people on the scene when the incident happens. For example, stocking up on bleeding control kits and training staff in using tourniquets as part of the "Stop the Bleed" campaign may save lives. For all facilities or institutions, though, understanding the RTF is critical to understanding what to do to save lives. Being an armed or unarmed agency does not prevent personnel from rendering aid. The training and background of these agencies may make their staff good candidates for the RTF.

Robert Mueck is an adjunct associate professor of public safety administration and homeland security at University of Maryland, University College; and director of public safety at St. John's College in Annapolis, Maryland. He currently serves as: an active member of the Governors Workgroup on Active Assailant Response in Maryland; an adjunct faculty member for the Texas A&M Engineering Extension Service (TEEX); and a sector chair for the Maryland Chapter of Infragard. He formerly was the training coordinator at the George Washington University in Washington, D.C., for the University Police and the Consortium of Universities of the Washington Metropolitan Area. He retired after a 29-year career at the University of Maryland Police Department (UMPD), having served in a variety of capacities in operations, administration, and command positions.

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So Much More Than Having a Kit & Making a Plan

By Catherine L. Feinman

For years, emergency preparedness professionals have been preaching the message, "Have a Kit, Make a Plan." As a result, everyone is now ready for the next disaster ... of course not. In its latest survey, DomPrep explored levels of preparedness, reasons why people do not plan, as well as possible solutions to reach those who have not yet bought in to the traditional messaging efforts.



Keep in mind that the "Personal & Family Preparedness" survey conducted in August 2017 was taken by DomPrep's readers, who are primarily comprised of middle and upper management professionals in fields related to emergency preparedness and response: public health, law enforcement, fire, emergency medical services, emergency management, military, private sector, academia, all levels of government, and so on. Although these professionals prepare for

emergencies on a regular basis, they are not always personally prepared. However, they should be for two key reasons:

- By being personally prepared, emergency personnel are more likely to rapidly respond when needed.
- By ensuring that others are personally prepared, emergency personnel can focus their knowledge, skills, abilities, and resources where they are most needed during a crisis.

Key Survey Findings

Comparing DomPrep readers' responses to the August 2017 with responses to the same questions in a 2011 survey, the survey revealed two key findings:

- The concern among respondents has decreased significantly in every disaster event category (see Figure 1).
- The number of respondents taking steps to be more prepared has increased only marginally in all categories (see Figure 2).

Despite years of campaigns promoting personal and family preparedness and the need for a "go kit," 25% of survey respondent still do not heed that advice. As for the sharp decline in percentages of disaster events that raise great concern, it is worth asking the following questions: Have these threats actually decreased? Are communities simply more prepared for these threats? Have the perceptions about threats and risks changed? Or have emergency preparedness professionals become more complacent? Although this survey cannot answer these questions, it does provide a wealth of information on why some people still do not take steps to prepare for emergencies and informed recommendations for how to build personal preparedness.

Which of the following disaster events are of the greatest concern to you?



Figure 1. Disasters of greatest concern (Source: DomPrep, 2017).

Of the 755 people who responded to the August 2017 survey, 67 (almost 9%) reported that they have not yet begun to take steps to be personally more resilient. One respondent from an academic institution stated, "These are good reminders that I need to get my butt to work on this list!" Others reported being very prepared. "I have an extensive background in emergency management and have used this knowledge to help prepare family and friends for emergency situations and will continue to do so," said one retired respondent. And others are somewhere in the middle. "My preparations ebb and flow. Just last week, my wife and I promised to freshen our emergency kit. We still haven't done it. There are some very stale granola bars in there," said a respondent from a privately owned company.

Reasons for Not Preparing & Suggested Recommendations

Survey respondents provided various reasons that people still do not engage in personal and family preparedness efforts: apathy, conflicting priorities, financial burdens, mobility concerns, educational gaps, locational knowledge, and communication gaps. For each of these preparedness hurdles, survey respondents shared ideas for how emergency preparedness

What steps have you personally taken to be more resilient?



Figure 2. Resilience actions (Source: DomPrep, 2017).

professionals can help community members overcome the challenges preventing them from developing personal and family preparedness plans and kits.

Apathy

- Emphasize the fact that the government and first responders may not be available immediately following a disaster.
- Explain that emergency preparedness includes a broad range of scenarios, including but not limited to: earthquakes, riots, hurricanes, wildfires, severe storms, hail, tornadoes, virtual threats, critical infrastructure threats, public health threats, bioterror attacks, chemical spills, pandemics, power outages, electromagnetic pulses.
- Share personal testimonies of people who were not prepared for previous disasters (particularly disasters that were not expected or unprecedented).
- Inform communities about changes in government funding that may increase the need for them to be self-sufficient for longer amounts of time post-disaster.
- Bring preparedness to the community by creating door-to-door teams for outreach operations.
- Partner with social, cognitive, and organizational psychology professionals to increase individual and organizational willingness to develop robust emergency plans.

• Teach the kids and the parents may follow. This may also reduce fear in children during emergencies.

Conflicting priorities

- Provide a preparedness calendar with recommendations for specific items that can be done weekly or monthly to avoid overwhelming individuals and their families.
- Emphasize the need to continually update plans as circumstances change (e.g., addition of new family members, changes in medical conditions, seasonal changes).
- Offer preparedness classes to address planning strategies.
- Conduct personal and family preparedness training sessions at workplaces to increase the chance of them responding to work when needed.
- Share preparedness guidelines with suggested packing lists (e.g., food, water, radio, batteries, <u>first aid</u> kit).
- Remind families that there is no set preparedness plan or packing lists. Each plan must be tailored to fit the needs of each family.
- Link organizational training and awareness activities with employee emergency preparedness.

Financial burdens

- Start with small preparedness tips (e.g., adding "ICE" [In Case of Emergency] on cellphones).
- Provide a free template to develop a personal/family emergency plan.
- Discover low-cost, no-cost alternatives to enhance preparedness (e.g., optimize common household items for emergency use).
- Assess insurance needs (e.g., earthquake, flood) and compare to calculated cost of disaster when insurance is not purchased.
- Encourage setting realistic goals that can be integrated into daily routines.
- Offer free or low-cost benefits (e.g., planning seminars, storage facilities) to employees to enhance personal preparedness.
- Encourage social community events during which neighbors can meet, thus being more likely to help each other during a disaster.

Mobility concerns

• Locate and map locations where people may require additional resources during a disaster (e.g., functional needs, limited access to transportation).

- Encourage home drills to find and close preparedness gaps (e.g., gather items, load the vehicle, test and know how to use generators).
- Provide suggested packing lists beyond basic items (e.g., medical equipment, two-week supply of medications).
- Discuss plans for evacuation and sheltering in place for all family members (e.g., children, elderly, pets).
- Team up with animal shelters to promote pet preparedness and reduce petrelated noncompliance when evacuation orders are in place.

Educational gaps

- Research and promote checklists for items that have helped actual victims during real events.
- Provide community workshops to help families develop their own disaster plans and back up plans.
- Suggest where and how to secure valuables, documents, and irreplaceable items.
- Offer hands-on training programs to community members.
- Involve children in the emergency planning process.
- Join and/or support preparedness efforts through local organizations, such as Community Emergency Response Teams (CERT), Medical Reserve Corps, Amateur Radio Emergency Service (ARES), faith-based organizations, and community associations.
- Develop ways to make emergency preparedness "fun."
- Promote campaigns for citizen action (e.g., <u>Ready.gov</u>, <u>Stop the Bleed</u>, <u>You Are</u> <u>the Help Until Help Arrives</u>, first aid training).
- Teach methods for maintaining courage and control during critical incidents.
- Share preparedness information through avenues that reach most households (e.g., utility bills, sporting events).

Locational knowledge

- Inform communities about local risks and threats (e.g., natural hazards, hazardous substances, critical infrastructure, virtual threats, public health concerns, civil disturbances).
- Discuss risks to homes and structures as well as how to fortify such buildings to withstand various threats.
- Provide effective oversight to protect people from known hazardous substances.
- Develop free mobile applications for location-specific emergency management information (e.g., <u>Tulsa Ready</u> app).

- Remind people to reassess their plans when they move to other geographical locations.
- Make local and school emergency operations plans easily accessible to the public.

Communication gaps

- Create sign-up lists for emergency text and email alerts, for both resident and business locations.
- Send monthly reminders to check personal emergency preparedness plans and supplies.
- Post contact lists for community members to reach local emergency preparedness and response agencies with pertinent questions.
- Host preparedness fairs to share information.
- Remind families that daily communication methods (e.g., cellphones) may not be accessible during a disaster or power outage, so it is critical to have a family reunification plan in place.
- Share the benefits of and information related to becoming an amateur radio operator.
- Do not assume that information shared is information received and implemented. Repetition is key.

Conclusion

Focusing events like Hurricanes Harvey, Irma, and Maria may provide the opportunity to convey critical messaging about personal and family preparedness. Although there is no single solution for building personal and family preparedness, emergency preparedness professionals can play a critical role in furthering such preparedness efforts. It may still take experiencing the adverse effects of an actual event before some people recognize a threat and the value of having a pre-disaster plan, but emergency preparedness professionals must keep promoting the message. "All my friends think I am crazy for always talking about the what ifs. I just hope they take some of what I say to heart and put a bug out bag together for each person/pets in the house," said one emergency management respondent. A little "crazy" may be what it takes to implement fundamental change.

Catherine L. Feinman, M.A., joined Team DomPrep in January 2010. She has 30 years of publishing experience and currently serves as editor-in-chief of the DomPrep Journal, www.DomesticPreparedness.com, and the DPJ Weekly Brief, and works with writers and other contributors to build and create new content that is relevant to the emergency preparedness, response, and resilience communities. She also volunteers as an emergency medical technician, firefighter, and member of the Media Advisory Panel of EMP SIG (InfraGard National Members Alliance's Electro-Magnetic Pulse Special Interest Group). She received a bachelor's degree in international business from University of Maryland, College Park, and a master's degree in emergency and disaster management from American Military University.



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