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DomPrep Journal is electronically delivered by the IMR Group Inc., P.O. Box 810, Severna Park, MD 21146, USA; phone: 410-518-6900; email: subscriber@domprep.com; also available at www.DomPrep.com

Articles are written by professional practitioners in homeland security, domestic preparedness, and related fields. Manuscripts are original work, previously unpublished, and not simultaneously submitted to another publisher. Text is the opinion of the author; publisher holds no liability for their use or interpretation.



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Lest We Forget!

By Martin (Marty) Masiuk

The nation continues to confront questions presented by the [9/11 Commission Report](#). The report's preface states, "September 11, 2001, was a day of unprecedented shock and suffering in the history of the United States. The nation was unprepared. How did this happen, and how can we avoid such a tragedy again?" Lest we forget.



The commission report was about a terrorist attack. However, many subsequent incidents in the past two decades confirm a state of unpreparedness toward a variety of threats, including kinetic, biologic, cyber, and climatic threats. Predicting probable known and unknown threats does not move the nation closer to a state of preparedness, but the National Response Framework ([NRF](#)) does. Stated very clearly in the framework's executive summary, "The National Response Framework (NRF) provides foundational emergency management doctrine for how the nation responds to all types of incidents. The NRF is built on scalable, flexible, and adaptable concepts identified in the National Incident Management System ([NIMS](#)) to align key roles and responsibilities across the nation. The structures, roles, and responsibilities described in this framework can be partially or fully implemented in the context of a threat or hazard, in anticipation of a significant event, or in response to an incident." Lest we forget.

Most will agree, because of the NRF and NIMS, the nation is better prepared today than on September 10, 2001. Professionals who study, drill, and exercise a whole of community perspective by building and sustaining capabilities provided by NIMS will prepare, protect, respond, recover, and mitigate better. This concept is proven and has been embraced by responders, receivers, emergency managers, and those with operational responsibilities. However, it seems that those in the policy ranks, including budgeteers and appropriators, have been excluded from participating and embracing the framework, especially NIMS. The past 18 months of pandemic experiences illustrate these gaps and failures. We must do a better job of incorporating policy makers into the preparedness enterprise. Lest we forget.

Disasters are local, mandating that solutions be offered and driven from the bottom up to the enterprise already created and trained. As we commemorate those who perished on 9/11 at the World Trade Center, at the Pentagon, and in the field of Shanksville, let us continue to remember those who offer their lives every day to help others by practicing what is known to work.

Lest We Forget!

September 11 – Remembrance & Recovery

By Anthony S. Mangeri

It is difficult to imagine that the attacks of 9/11 occurred 20 years ago. Emergency managers build systems to mitigate the potential impacts of disasters on communities. An emergency manager's job is to plan for the worst and prepare communities for that one moment when it is time to lead. The memory of walking into the New Jersey Emergency Operation Center on September 11, 2001 and seeing the devastation as it unfolded is vivid in my mind. Patriot Day is a day that conjures memories of the lives lost as well as the nation's subsequent recovery from that devastating event.



The changes in the emergency management profession over the past few decades have been extensive and largely due to lessons learned and research to ensure evidence-based emergency operations. Many who worked in emergency management on that day have retired or moved on to other positions. However, there are many lessons learned that should not be forgotten. The most important is that it takes a community to effectively plan for, respond to, and recover from a disaster.

The whole nation remembers those that passed and the devastation of the attacks on the United States. However, there is another side to the story. The country shared the experience of being attacked and the experience of recovering. The nation and each community within it effectively recovered from the worst attack on domestic soil.

With days and years of recovery operations and stories of those who were committed to an effective recovery, it is so important to remember and highlight the successful recovery initiatives in New York, New Jersey, and Pennsylvania. Thousands of responders, emergency managers, disaster recovery specialists, and citizens addressed the initial needs of the impacted communities, rebuilt infrastructure, and still remember all who passed. Many remain in operation today to ensure that the nation never forgets.

A Sense of Community

The events of 9/11 modified the understanding of how people react to disasters that impact a community. For the most part, the evacuation and recovery were done with a sense of community engagement that was somewhat unexpected.

For weeks and months following the attacks, the public worked together in ways that were unprecedented. According to the NY Committee for Occupational Safety and Health, over [90,000 personnel](#) worked on the pile in recovery operations. In addition, there were untold numbers of workers in Manhattan and surrounding communities in New York and New Jersey. A [significant number](#) of responders suffered or are suffering from chronic or debilitating illness from their response efforts.

Emergency managers strive to recognize the potential for crisis and prepare for the impact of a disaster to a community. However, it takes the entire community to engage in mitigation and readiness efforts. Communities must share responsibility for sustainability, resilience, and preparedness for emergency operations. Residents, civic leaders, and businesses are instrumental in ensuring sustainability and resilience.

For emergency managers to mitigate and ensure a community's resilience, they must build relationships with both public and private sector leaders. Resilience is dependent on the acceptance of the measures. Public cooperation and compliance diminish if there is a lack of information available and no prior consensus. Emergency managers today must build consensus among the public to build trust that there is an effective plan for emergency operations. Local emergency planning committees are the key to facilitating relationships between all stakeholders and emergency managers.

Data Leads to Efficiency

Another lesson learned that has withstood the test of time is that the collection, analysis, and presentation of information are all essential to the decision-making process, and so is the ability to present such information. In 2001, the use of Geographical Information Systems (GIS) facilitated the collection and analysis of information in a very small timeframe. It also provided the opportunity to share information with leadership who needed to make informed decisions. As response and recovery efforts formed, GIS specialists in the NJ Emergency Operations Center and at the Javits Center began to develop maps to identify the properties that were impacted, areas that were searched, locations of fires, etc. GIS also allowed for a common operating picture. Recovery from the 9/11 attacks is one of the first times that emergency management used GIS in such a way to help tell the story and manage the information flow. This allowed detailed briefings to the governor and policymakers on an ongoing basis.



One World Trade Center (©iStock.com/demerzel21)

Today, evidence-based emergency management requires research into the threat and the potential impact on a community. Emergency managers should develop emergency operations strategies based on appropriate hazard-identification and risk-analysis processes.

The events of 9/11 modified the understanding of how communities react to disasters and their instrumental roles in ensuring sustainability and resilience.

Understanding threats and the ability to present such information to policymakers and the public is critical to successful response and recovery operations. The development of plans, policies, and procedures based on validated capabilities help promote public respect for and trust placed in emergency managers.

Be Creative

In times of large-scale disaster, creativity and ingenuity can lead to success. The response to the 9/11 attacks was not totally unplanned. This was the second attack on the World Trade Center. However, no one until then had expected this level of devastation. The response was outside the standard playbook, yet responders found ways to meet these needs. Bridges were closed and people evacuating Manhattan had to do so on foot or via boat. Hundreds of thousands were evacuated via small and large boats. Without hesitation, ship captains responded to the area to assist.

However, suggesting responders use ingenuity is not suggesting that freelancing is acceptable. Utilizing available resources to meet incident objectives in a creative fashion requires emergency managers to coordinate such efforts. Networking allows emergency authorities to evaluate resources and creatively deploy them to fulfill unmet needs.

Public safety is a culture of symbols and traditions. Symbols are important and helpful. They provide a powerful reminder of a time, a place, a memory, a feeling, and a promise. For emergency managers, the symbols of the attacks on September 11, 2001 must be a reminder and a promise to always be prepared and ready to act without hesitation. Engagement can ensure a resilient community that together can respond to and recover from the impacts of a crisis.

Anthony S. Mangeri, MPA, CPM, CEM, has more than 30 years of experience in emergency operations and public safety. During the terrorist attacks of 9/11, he served as operations chief at the New Jersey Emergency Operations Center, coordinating that state's response to the passenger-aircraft crashes into the World Trade Center. He has served his community as a volunteer firefighter and an emergency medical technician (EMT) for more than 25 years, ultimately earning the rank of assistant chief/safety officer and serving as the fire department's health and safety officer for many years. Currently, he is a consultant focusing on emergency management, planning, training, and exercising. He is also on the faculty of several universities. He serves on several professional committees, including the ASIS Fire and Life Safety Council, and is president of the International Association of Emergency Managers (IAEM) Region 2. He earned a Master of Public Administration from Rutgers University. He is a Certified Public Manager and has received the IAEM's designation of Certified Emergency Manager.

Never Forget: Focusing Events & Opportunity for Change

By Nim Kidd

Devastating events can open windows of opportunity. In emergency management, focusing events like 9/11 create opportunities for change. Tragedies like 9/11 or devastating hurricanes create a flurry of activity in the short period that follows. This activity typically involves conversations about how to make things better or make change. However, windows for these conversations always close.



A few days after the 9/11 attack, I took an eerie flight on one of the only airborne planes around the country due to nationwide ground stops. Our team of firefighters (Texas Task Force 1) flew from Austin, Texas to McGuire Air Force Base in New Jersey. Our bus then rolled into New York City about three o'clock in the morning as I slept. Never being to New York City before, I awoke to billowing columns of smoke in the downtown skyline and distinctly remember looking out and seeing the Statue of Liberty. That moment was chilling.

We did not completely understand what we were going to encounter. However, we were as ready as any fire company would be. The days that followed were grueling. Countless crews spent hour upon hour conducting urban search and rescue missions. With a defined 16-block area to work in, we conducted a massive search operation.

Firefighters know that there are three priorities: save lives, protect property, and protect the environment. It was unlikely we were going to find anyone alive. There was not much property to be saved. Our attention then turned to finding ways to give closure to the surviving families.

Everyone carries baggage from devastating events. A five-gallon bucket is my baggage from 9/11. We sat on those buckets and used them to move pieces of the World Trade Center. Seeing those buckets now typically takes me back to that place.

Remembrance of what happened 20 years ago should be used to reopen that window of preparedness for individuals, families, and communities.

Remembering Events

Wildfires, hurricanes, tornadoes, and other devastating experiences highlight the need to plan for the worst. Since the bad could always be worse, taking planning efforts to the next level is critical for preparedness.

Learning lessons from victories and tragedies is crucial. Following up on after-action reports and listed recommendations from important moments in an emergency's response is a must. It is vital to understand the mistakes made and pass that understanding on



Nim Kidd at World Trade Center response (Source: TEEX (2001)).

to avoid repeating the same mistakes. This is especially true for ensuring those who did not experience 9/11 firsthand still understand its impact on society.

The events of 9/11 helped the nation – particularly first responders and people tasked with protecting communities – realize there are bad people who will do bad things and try to ruin daily life. That awakening helps inform the decision-making process to do a better job of keeping communities safe.

Reopening Preparedness

This remembrance of what happened 20 years ago should be used to reopen that window of preparedness for individuals and for their families. By taking steps to prepare themselves and their families, individuals can help to prevent the cascading effects of the next disaster from becoming even worse. Taking care of individuals and their families makes it easier to take care of communities. With another milestone of this tragedy, there are also reminders of the unity seen across the United States in the aftermath of the 9/11 attack. Hopefully, these acts of unity will continue beyond the annual tributes.

Those that can remember should remember. There are so many people – from kids in school to sophomores in college – who were not even born when the nation was attacked. To ask this younger generation to never forget is difficult. However, the nation needs to find a way to take better care of families and communities, and to do it in memory of the lives lost on that tragic day.

Nim Kidd serves as the chief of the Texas Division of Emergency Management (TDEM). In this capacity, he is responsible for the state's emergency preparedness, response, recovery, and mitigation activities. Prior to serving with TDEM, he was appointed to the San Antonio Fire Department Hazardous Materials Response Team. From 2004 to 2010, he served as city emergency manager for the City of San Antonio. In 1997, he was one of the original members appointed to the Texas Task Force 1 Urban Search and Rescue Team. In 2001, he was the plans section chief that responded to the 9/11 attack on the World Trade Center. He currently serves as chair for the Federal Emergency Management Agency's (FEMA) National Advisory Council (NAC). He also is the vice chancellor for Disaster and Emergency Services for The Texas A&M University System.

Domestic Preparedness – Prepared for What?

By Rob Schnepf

Publisher note: Rob Schnepf was one of DomPrep's first writers and has provided council and guidance to me over the past two decades. I asked him to provide his personal account of the 9/11 attacks as well as the subsequent anthrax attacks. They serve as a reminder of how many felt following those attacks: uncertainty about when and where another threat would emerge, an urgent need to prepare for another terrorist attack, and unity of effort. Today, there is still uncertainty about what potential threats are looming. However, it is time to bring back the urgency to prepare and the unity required to move preparedness efforts forward.



Twenty years ago, I boarded a plane with other members of California Task Force 4, a Federal Emergency Management Agency (FEMA) based team of urban search and rescuers bound for the World Trade Center. The ride was uneventful although a little strange considering very little civilian air traffic was happening. We landed at Fort McGuire, New Jersey and began the journey by bus to New York City. A team of 62 headed toward the most horrific terrorist attack in the nation's history, not having any idea of what to expect. Three friends from the New York City Fire Department (FDNY) were reported missing, and I assumed the worst. It was not until we got closer to the city that the enormity of the event hit me. Seeing the smoke rise on the horizon was disorienting. I had seen big columns of smoke from many wildland fires in California, but not boiling up from the middle of a major metropolitan area. This is New York City. We were not prepared for something like this, if it were even possible to prepare. Did we as a nation not see it coming and, if this could happen, what else is looming out there?

There was not much time to wonder or prepare for something else. However, roughly one week after 9/11, anthrax-laced letters started appearing in the United States. I had only been back at my home agency for a short time when the fire department started responding to white powder calls ... hundreds of them. We were completely unprepared for that sort of scale and making it up as we went along, just like many other public safety agencies. I was on the hazardous materials team then, and the volume of calls was staggering. We did not have well-defined procedures for using biodetection devices and, more importantly, clear guidelines on what to do in the event of a positive result. Although we did have the beginnings of weapons of mass destruction (WMD) training, it was not specifically geared toward this type of situation. Again, much like being at the World Trade Center, I felt a sense of helplessness. How could this be happening right on the heels of 9/11? How could we be so unprepared but in a completely different way than 9/11? Again, if this could happen, what else is on the horizon?

Prioritizing Current Threats

This leads to the question about what exactly the nation should prepare for. Preparedness is a complex proposition because it is an exercise in forecasting and trying to predict the

future and what to do about it. Preparedness is much like prevention in that prevention of anything is difficult to measure, which makes it even more difficult to sell and/or fund,



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especially when it is unclear whether the time and money being spent on preparedness is going toward incidents that should be prepared for. Some portion of any money spent on preparedness is likely to be wasted, but it is difficult to know which portion it is at the time the spending occurs. Basically, preparedness is largely an exercise in identifying the pool of risks and making decisions on what is possible versus what is likely and then dedicating time, money, and resources to carry out the identified mitigation strategies and

tactics. Even more challenging is sticking to preparedness efforts for an incident that has not yet happened.

Compounding the challenges, consider current circumstances in the United States and around the world. So many threats and hazards are on the table of preparedness. According to the “Risk and the Core Capabilities” section of the 2015 [National Preparedness Goal](#), six specific broad examples of threats and hazards pose a significant risk to the United States. Since 2015, each of these types of incidents have happened repeatedly, except for another 9/11 type incident. Hurricanes, floods, wildland fires, heat events, droughts, cyberattacks (an entirely different and important topic), and even the threat of “a virulent strain of pandemic influenza [that] could kill hundreds of thousands of Americans” is called out in the document.

None of these threats are theoretical anymore. Instead, it is a preparedness list for events that have happened and will continue to happen. Between 2002 and 2012, the United States experienced [70 earthquakes](#) greater than 6.0 magnitude, with thousands being reported worldwide since 9/11. Significant earthquakes have occurred not only in California, but also in states such as Virginia, Illinois, Oregon, Oklahoma, Utah, and Colorado. Given all the other potential threats in those states, it is uncertain whether earthquake preparedness will make the short list of funding priorities. In the United States, [more than 33 hurricanes](#) have made landfall since 9/11. The five years recorded as having the [most acreage burned](#) from wildfires since 1960 all occurred since 9/11. In California, wildfires have become an annual event, with new bars being set for acres burned, buildings destroyed, and lives lost. With so many potential events, it is uncertain how each state will rank them on the scale of preparedness needs.

Imagining Future Threats

For many, preparedness was clear and perhaps a little myopic after 9/11. The nation was attacked, and there was strong public and political momentum to find out who did it and punish them. There are many opinions on whether it was handled the right way or for the right reasons, but the nation still responded. Subsequently, public safety professionals trained on building capability for terrorism response, including tools, training, and detection devices. Federal money was flowing, and public safety agencies were eager to receive it.

After 9/11, the nation united to prepare for another terrorist attack. That unity of effort is needed once again to avoid being unprepared for another emerging threat.

In retrospect, 9/11 maintained focus on domestic preparedness in terms of terrorism; being prepared and ready to respond with the appropriate amount of solution (money, training, human resources, equipment, etc.) to the appropriate amount of problem. In addition, though, not enough attention was given to other threats such as climate change, which did not attack out of the blue. The climate is changing in many ways – environmentally, politically, and socially. Division among the nation’s population and its leadership could hinder agreements on what to prepare for, how to dedicate funds, and who will take the lead in preparedness. Perhaps it is only possible to rely on the initial best efforts of those impacted by whatever happens (the general public, first responders, etc.), while state and federal resources plan for and execute consequence management – picking up the pieces afterward in terms of providing financial aid, equipment, housing, food, medical care, etc.).

Seeing the arc of preparedness change since 9/11 is fascinating and a bit disconcerting at the same time. The nation was caught off guard by a determined and prepared nemesis that was focused on causing death and destruction. Since then, death and destruction has continued from an even more powerful nemesis – Mother Nature, and she will continue to deliver more powerful disasters of all kinds – perhaps ones not yet known.

Rob Schnepf is division chief of special operations (ret.) for Alameda County (CA) Fire Department. His incident response career spans 30 years as a special operations fire chief, incident commander, consultant, and published author. He commanded numerous large-scale emergencies for the Alameda County (CA) Fire Department, protecting 500 square miles and two national laboratories in the East Bay of the San Francisco Bay Area. He twice planned and directed Red Command at Urban Shield, the largest Homeland Security exercise in the United States. He served on the curriculum development team and instructed Special Operations Program Management at the U.S. Fire Administration’s National Fire Academy. He is the author of “Hazardous Materials: Awareness and Operations.” He has developed risk assessment, incident management, and incident command training for Fortune 500 companies, foreign governments, and U.S. national laboratories.



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Security Lessons Learned – Part 1, Boston Marathon Bombings

By Daniel Rector

Acts of terrorism continue to affect communities worldwide. As the public tries to retain a semblance of everyday life by attending outdoor events, emergency planners must adapt to new intelligence and learn from past attacks. A review of the 2013 Boston Marathon bombings identifies the event security plans' strengths and shortcomings. Other event planners and public safety officials can use this review and recommendations to plan for large public gatherings within their jurisdictions.



The [Boston Marathon](#) typically takes place each spring on Patriot's Day. The Boston Marathon is unique as the 26.2-mile course is run in a straight line and travels through eight separate cities and towns. The race starts in Hopkinton then moves through Ashland, Framingham, Natick, Wellesley, Newton, and Brookline, before finishing in Boston. In comparison, many other marathons are run entirely in a single town or city. The marathon's route dramatically increases the complexity of safety and security for race organizers and public safety agencies.

The 117th running of the race was on 15 April 2013. There were [27,000 registered runners](#) and approximately [500,000 spectators](#). The race began at 9:00 a.m. with several waves of runners. By the afternoon, all the elite runners had finished, but thousands of spectators were still lining the course cheering on the remaining runners. At 2:49 p.m., the first homemade [bomb exploded](#) near the finish line, followed by a second bomb approximately 13 seconds later. The blasts injured 264 spectators and killed three.

Security Strengths

On the day of the event, the organizers set up and staffed a Multi-Agency Coordination CenThe Boston Marathon planning team does a great job each year coordinating among numerous response agencies to conduct planning for the event. This showed in the immediate response that took place in the aftermath of the bombings. To facilitate this coordination, a [safety committee](#) is set up each winter and begins meeting in January. This committee includes representatives from all agencies involved in the event at the local, state, and federal levels. At these meetings, agency representatives work together to update their marathon day plans and procedures using lessons learned from previous years, after-action reviews, and current guidance from intelligence agencies regarding threat assessments.

In addition to these planning meetings, agency leaders participate in a tabletop exercise to improve and test aspects of the plan. The marathon response agencies also work together throughout the year on other events such as the 4th of July, parades, and full-scale public safety training exercises. This intimate familiarity between officials results in a cohesive and robust working relationship among all parties.

On the day of the event, the organizers set up and staffed a Multi-Agency Coordination Center (MACC), which acted as the hub for health and safety operations along the racecourse. Having a single coordination center was necessary due to how many jurisdictions the race passed through. Representatives from over [80 agencies](#) present at the center provided situational awareness of events along the route and effectively coordinated security, safety, and medical response activities. Agencies that worked together to support the security and safety operations needed for the event included:

- Massachusetts State Police
- Local police from all eight towns along the route
- Massachusetts Bay Transit Authority (MBTA)
- Transit Police
- Boston Regional Intelligence Center
- Boston University Police
- Local fire from all eight towns along the route
- Local ambulance companies providing Emergency Medical Services (EMS) support, including Boston EMS
- Representatives from local hospitals
- The Boston Athletic Association
- The Massachusetts Emergency Management Agency (MEMA)
- The Massachusetts Department of Public Health (MDPH)
- The Massachusetts National Guard (MANG)
- The American Red Cross (ARC)
- The Federal Bureau of Investigation (FBI)
- The Department of Homeland Security (DHS)
- Security Weaknesses & Gaps

The Boston Marathon planners have over 100 years of experience organizing the race. Their experience shows in the detailed and thorough security plans put in place for the event each spring. However, even with all the security expertise and due diligence, there was a security weakness present that the terrorist could identify and target.

The weakness they identified was the large crowds who were present along the race route. These crowds were part of the atmosphere, so organizers could not remove them while maintaining the event's allure. To mitigate this, the planners placed law enforcement officials along the route and among the spectators. However, there was no policy in place regarding bags, packages, and the free flow of pedestrian traffic in and out of the spectating areas.

To further complicate security issues, a Boston Red Sox game is played on Patriot's Day each year, which coincides with the marathon. It is a tradition following the game for spectators to walk down the street to the racecourse and join the cheering crowds. This influx

of people added security concerns for law enforcement officials, especially those intoxicated from the baseball game.

While the Boston Marathon Security policy was comprehensive, several areas needed improvement. For example, there were too many coordination and operations centers activated. Although the event planners set up the MACC as the central communications hub, each agency also used its own operations center to oversee operations. The event had too many coordination and operation centers active without a correctly identified hierarchy in place.

In addition, though many National Guard service members were present to assist during the race, they acted in more of a crowd control function with little show of force and negligible prevention value. Once the bombings happened, there was no plan to arm them, even though officials often paired them with law enforcement personnel. The marathon team neglected to utilize the National Guard to its full capacity, which resulted in specially trained soldiers essentially acting as crossing guards.



The runners' bags also became a security issue as race officials did not screen them before the race. During many large endurance events, organizers place athletes' personal items in secured bags labeled with their race numbers. These bags are then transported to the finish line for the athletes to pick up after completing the race. Two items many put in these bags are a cell phone and identification card. During the incident, these bags were secured by law enforcement then checked for explosives by Explosive Ordinance Disposal (EOD) teams. However, organizers were not able to return the bags to the runners until the next day. The lack of identification, funds of any kind, and communication added stress on the runners and their families, who were undoubtedly awaiting news of their loved ones.

Lastly, organizers did not have the means in place to notify spectators in real time as the attacks occurred to facilitate proper evacuation and ensure no misunderstanding of information. Federal agencies were not correctly and thoroughly sharing intelligence information with local officials. Congress identified this as a problem linked to the Boston Marathon bombings in the [Congressional Report](#) titled *Road to Boston: Counterterrorism Challenges and Lessons from the Marathon Bombings*.

Lessons Learned & Recommended Security Policy for Large Public Gatherings

In the months and years following the events at the 2013 Boston Marathon's finish line, the responding agencies learned many lessons. Although many of the changes recommended

in after-action reviews and official reports focus on medical and law enforcement response, there are a few that pertain to security to prevent an attack. The Massachusetts Emergency Management Agency highlighted that their [focus has shifted](#) to prioritizing prevention and protection. Since 2013, the number of plainclothes law enforcement officers trained

Large gatherings pose challenges for emergency management and law enforcement officials – secure and prevent threats while attendees relax and enjoy the event.

in suspicious behavior detection has dramatically increased. To help facilitate the observation of event attendees, spectators may now be required to pass through “choke” points where these trained professionals can observe them. Supplementing physical security are additional cameras along the race route to monitor the crowds for anything suspicious.

Large public gatherings pose a complicated challenge for emergency management and law enforcement officials. They need to balance security and prevention with the public’s desire to relax and enjoy the event. There have been several gaps in the security plans and policies used for large public gatherings in the past. By analyzing past events, these gaps can be identified, and solutions created.

In addition to the items in the Boston Marathon security policies, it would be prudent to add some additional preparedness and prevention measures to increase event security. Event planners and emergency personnel can apply these security policy recommendations to public gatherings of all types:

- Do not schedule multiple major events on the same day – for example, the Red Sox game and the Boston Marathon – due to the influx of spectators. This results in rowdy crowds and adds unnecessary complications to the incident. Having two large events going on simultaneously in such proximity stresses city and state resources. It would be better to host the events on consecutive days.
- Athletes’ bags and personal belongings need to be considered as part of the security plan. Runners need to be quickly reunited with their identification cards, communication devices, and monetary funds. By acquiring these items, they can secure lodging if required, procure food and clothing items, communicate with loved ones, and leave the area in a timely manner once approved to do by law enforcement officials.
- EOD should screen all runners’ bags as they are loaded into secured buses. Once cleared, the bags need to be kept under guard until they are distributed at the finish line. This practice serves two purposes. First, officials now know these bags are safe and not a threat. Second, if an incident occurs, the bags can be moved under guard to a secondary location until the runners can retrieve

them. Although this method requires increased human resources upfront, it would allow a more streamlined collection process. Additionally, it enables the runners to become self-sufficient and more quickly exit the immediate area, thus reducing the strain on local responders and assistance organizations.

- Limit the bags, such as backpacks and purses, that spectators can carry along the course. Organizers should implement rules such as only allowing clear bags along the route. These measures are already in place at many venues worldwide.
- Public address systems must be part of event plans, and equipment should be placed throughout the course or venue. Preplanned emergency messages should be included in the event planning, and officials need to have the ability to record additional messages as required in real-time.
- National Guard soldiers and Airmen acting as law enforcement should be armed in the same way as their law enforcement counterparts. Although there is a hesitancy to arm the National Guard due to public perception, a lack of doing so limits their ability to impose a security presence.
- Federal law enforcement and intelligence agencies need to continue improving their information sharing among themselves and their state and local counterparts. Local officials need to be aware of any potential threats within their jurisdictions as they can add valuable community input to the case and assist with investigations.
- One of the largest sources of prevention can be the public themselves. An aware populous can identify suspicious behavior and alert law enforcement. At the moment of an attack, alert bystanders could also step in and prevent the violence. Public safety professionals still need to redouble their efforts to prevent attacks before an event and to mitigate threats before the public gains knowledge of them.

The attack on the Boston Marathon highlighted the effectiveness of law enforcement and emergency response organizations within the United States. By studying the event, officials can identify opportunities for improvement in planning and tactics. The goal going forward should be to continually improve processes and educate the public on ways to increase their resilience and awareness. It is the responsibility of professionals in these fields to ensure both citizens and response organizations do not become complacent.

Daniel Rector, MS, CEM, is a military veteran with 15+ years of experience in homeland security and emergency management operations. He served as a damage controlman in the U.S. Coast Guard and as a survey team chief on a National Guard Weapons of Mass Destruction – Civil Support Team. He currently works for Asfalit Advisors as a business resilience advisor. His career is supported by a Master of Science degree in Emergency Management and current coursework toward a Doctorate of Management with a Homeland Security focus. He has completed multiple courses in CBRN response and detection from the Defense Nuclear Weapons School, Idaho National Laboratory, Dugway Proving Grounds, the U.S. Army CBRN School, and the U.S. Army CCDC Chemical Biological Center, among others. He has completed the FEMA Professional Development Series and the Homeland Security Exercise and Evaluation Program (HSEEP) Course. He is a Certified Emergency Manager (CEM), a licensed HAZMAT technician, Confined Space Rescue Technician I/II, and EMT-B. He is a recipient of multiple awards for excellence, including being the only National Guard soldier ever named the Distinguished Honor Graduate while simultaneously being nominated by his peers for the Leadership Award at the CBRN Advanced Leaders Course.

Security Lessons Learned – Part 2, Las Vegas Shootings

By Daniel Rector

Many of the previous stories and after-action reviews conducted for the 2017 Las Vegas shootings have focused on organizers' and public safety officials' responses in the aftermath of the attack. In contrast, this article focuses on the events' security strengths and weaknesses and then offers recommendations for other event planners and public safety officials to improve their plans for future events.



Each year, thousands of tourists travel to Las Vegas to unwind and relax at the city's various attractions. Las Vegas is home to many hotels and casinos, as well as indoor and outdoor entertainment venues. These facilities host several events each year, including NASCAR races, concerts, and a large New Years' Eve celebration. Local law enforcement, firefighters, and emergency medical providers respond to thousands of calls for assistance from visitors to the city each year.

On 1 October 2017, at approximately 10:05 p.m., a gunman opened fire on concertgoers initiating "the deadliest [mass shooting](#) in modern U.S. history." The shooter had reserved a room on the 32nd floor of the Mandalay Bay Hotel specifically because it [overlooked the Village Concert Venue](#), an outdoor event space located in the city where [22,000 people](#) were attending a concert. After more than 10 minutes of gunfire directed at the crowd, 58 people were killed and 546 injured.

Security Strengths

The Las Vegas response agency's security and preparedness policies are in-depth and well-practiced. Regular training exercises and coordination events occur between response agencies throughout the year and focus on various threats and public safety topics. The Las Vegas Metropolitan Police Department (LVMPD) utilized several grants and other forms of federal funding to prepare for various mass casualty events in the years before the attack. The LVMPD has a mass casualty training section dedicated to teaching officers and other responders to effectively deal with a mass casualty event. The training section used experiences and data from previous attacks around the world to create realistic training scenarios. LVMPD also has a policy to send police captains to local hospitals immediately after an attack to augment security and assist them with the hardening their facilities in anticipation of follow-on attacks. Due to this, responders were well prepared for an active shooter scenario.

Event planners and emergency personnel should apply these security policy recommendations to future events that involve public gatherings.

Several organizations assisted with the city's event planning, and many were involved in responding to the attack. With the large number of Las Vegas events each year, countless

officials know each other well and regularly work together during response missions and training exercises. Agencies involved included:

- Mandalay Bay Hotel Security
- Las Vegas Metropolitan Police (LVMPD)
- Henderson Police Department
- Henderson Fire Department
- North Las Vegas Police Department
- Clark County Fire Department
- Live Nation (Event Organizers)
- Contemporary Services Corporation (Event Security)
- Community Ambulance Company
- American Medical Response
- MedicWest Ambulance
- Nevada Highway Patrol
- The North Las Vegas Police & Fire Departments
- Las Vegas Fire & Rescue
- Clark County School District Police Department
- The Boulder City Police Department
- The ATF
- The FBI



Source: Mariordo/CC BY

Information regarding the organizations involved in the event planning and response was obtained from Smith et al. (2018) and the Federal Emergency Management Agency (2018).

Security Weaknesses & Gaps

Although the emergency response and safety officials within the city have significant experience and skill in planning events, there were some security weaknesses that the shooter was able to identify and exploit to carry out his attack. It appears the shooter chose the location due to the large number of people who would be in attendance. Also, the shooter was able to obtain an elevated position from the nearby hotel to increase his effectiveness and limit law enforcement personnel's ability to interfere. His intent was most likely to kill and injure as many spectators as possible. The fact that the venue did not have enough EMS personnel or transport ambulances onsite to handle a mass casualty event increased his attack's effectiveness.

The most considerable weakness in the city's security was the fact that the shooter was able to bring at least [23 rifles](#) and thousands of rounds of ammunition into his hotel room over several days preceding the event. He was also able to drill holes in his room to install security cameras in the hallway and his door's peephole without alerting hotel staff. In the minutes before the attack, he secured shut both his door and the stairway door with [L-brackets](#). Being able to perform these actions without being noticed by security or staff highlights a severe weakness in the hotels' security measures. The hospitality industry is not required to train and equip its staff to act as intelligence gathering sources. Hotel staff interacted with guests and their belongings multiple times a day but did not identify and report suspicious activity.

Although the preparation for a response to an attack was thorough, mitigation efforts and prevention policies were not as detailed. One concern was that police who were working the concert venue did not have access to their tactical equipment during the event. The officers' gear was in their [vehicles](#), which were parked several blocks away. Officers could have been used as a preventative show of force if they had their tactical gear on them.

Another major security weakness is that of the hospitality and concert industries. Many hotel security professionals believed that there is [nothing they could have done](#) to prevent an attack and accepted it as an inevitable possibility. This mindset prevents forward-thinking and preventative actions from being discussed and implemented. Readiness is challenging among the hotel and concert industries due to opinions such as these, which can prevent putting response plans in place or lead to having plans that do not get exercised or are outdated.

The final weakness of the city's security plan is that outdoor venues did not have a way to notify spectators that an emergency was occurring. When the attack began, many people thought it was [fireworks](#). No public service announcement system was in place to broadcast the danger over the venue's network of speakers to advise people to exit.

Lessons Learned & Recommended Security Policy for Large Public Gatherings

Following the events of 1 October 2017, many hotels increased security at elevators, and some even installed X-Ray machines to scan customers' bags as they enter the premises. Many hotels modified "[do not disturb](#)" policies to trigger a staff response after the signs have been in place for a predetermined amount of time. For example, if a do not disturb sign was in place for 12 hours, the staff would be required to contact the guest. This policy would ensure that the hotel was in contact with the guest and hopefully act as a deterrent to guests trying to remain hidden.

Any large public gathering introduce challenges for emergency management and law enforcement officials, who need to secure the event and mitigate threats while not detracting from the participants' enjoyment of the event. The following security policy recommendations provide additional preparedness and prevention measures that event planners and emergency personnel can apply to future events that involve public gatherings:

- Events taking place in the open, such as concerts, need plans that include awareness of the high points around the location. Spotters can and should be placed around the perimeter of events if feasible. They can scan the surrounding areas for threats while also observing the crowds.

- Hospitality centers need requirements for checking rooms once “do not disturb” signs have been in place for a specified amount of time. Such policies are now in place at Wynn, Hilton, and Disney hotels.
- Tactical equipment should be made available for police officers to use when they are on patrol at public events. This equipment should include shields, helmets, and additional medical supplies.
- Hospitality and concert industry security professionals who are hired for events should attend mandatory training on prevention and mitigation techniques that they can use to harden their venues. Staff should also participate in behavioral detection training and certification courses to help identify guests who exhibit signs of destructive behavior or malicious intent. Venue operators and event coordinators should seek companies who adhere to these guidelines versus ones that do not.
- The hotel industry should have plans in place to utilize their indoor public service announcement systems during active shooter events.
- While not part of a security plan, high-rise buildings need to look at their windows’ weaknesses. Another report or study should look at building code requirements for these buildings to increase the strength of windows to prevent them from being used as firing positions. Also, current fire codes should be investigated to determine if they are sufficient for mass casualty events.
- Federal, state, and local statutes, codes, or laws could be enacted to facilitate efforts to change mindsets of security professionals in the hospitality and concert industries to embrace innovation and prevention.

The public has two choices when it comes to large gatherings and events. They can avoid them, effectively hiding and protecting themselves behind “walls,” or they can continue to enjoy life while increasing their own personal resiliency. Public safety officials, event organizers, and citizens need to continue to revise their security posture in response to new and evolving threats. Security plans must be continuously assessed and updated based on after-action reviews and current threat levels. By working together, the entire community, nation, and the world can move toward more secure outdoor venues and safe entertainment activities.

Daniel Rector, MS, CEM, is a military veteran with 12+ years of experience in homeland security and emergency management operations. He served as a damage controlman in the U.S. Coast Guard and as a survey team chief on a National Guard Weapons of Mass Destruction – Civil Support Team. He currently works for Asfalis Advisors as a business resilience advisor. His career is supported by a Master of Science degree in Emergency Management and current coursework toward a Doctorate of Management with a Homeland Security focus. He has completed multiple courses in CBRN response and detection from the Defense Nuclear Weapons School, Idaho National Laboratory, Dugway Proving Grounds, the U.S. Army CBRN School, and the U.S. Army CCDC Chemical Biological Center, among others. He has completed the FEMA Professional Development Series and the Homeland Security Exercise and Evaluation Program (HSEEP) Course. He is a Certified Emergency Manager (CEM), a licensed HAZMAT technician, Confined Space Rescue Technician I/II, and EMT-B. He is a recipient of multiple awards for excellence, including being the only National Guard soldier ever named the Distinguished Honor Graduate while simultaneously being nominated by his peers for the Leadership Award at the CBRN Advanced Leaders Course.

Influence of Aum Shinrikyo on the U.S. Emergency Response

By Bobby Baker Jr.

Reflecting on the 20th anniversary of the 9/11 terrorist attacks, it is essential to not only remember that fateful day, but to highlight the events that precipitated it, examine lessons learned and policies established, and consider programs and policies needed to sustain prevention, preparedness, response, and recovery capabilities in the U.S. and its territories. Although historical analysis and synthesis of past events often lead to relevant details about current incidents, communities often fail to implement or accept the recommended changes. The 9/11 Commission Report cited, "The most important failure was one of imagination." The 1995 Aum Shinrikyo Tokyo subway sarin gas attack has unique characteristics in the history of acquiring, proliferation, and distributing weapons of mass destruction (WMDs) in the chemical and biological domains, with significant influence in WMD policies and consequence management platforms.



At the Kasumigaseki train station on 20 March 1995, the Japanese-based religious cult Aum Shinrikyo disseminated the highly toxic nerve agent isopropyl-methylphosphonofluoridate ([Sarin](#)). The Germans initially [formulated](#) this chemical in 1938 as an insecticide later intended to be used as a WMD. Aum Shinrikyo, led by charismatic leader Shoko Asahara, chose this agent due to its relative ease of production and highly volatile chemical properties.

The road to that morning's attack is not absent of rich history. The deep history of proliferation by Asahara and his disciples raises the question of how many homegrown adversarial organizations are currently trying to plan the next attack. Aum Shinrikyo specifically selected the Kasumigaseki train station as the target location of the attack after emergency response planners identified it in Tokyo. Due to the location being known as a prime shelter-in-place location for other types of emergencies, [Asahara wrote](#) of this selected location just months before the attacks in his monthly writings to his followers, which were presented as evidence at his 1999 trial. Choosing the location during the morning rush hour commute was meant to inflict the maximum number of casualties exponentially due to the large numbers of daily riders and the architectural design. Although the potency of the Sarin disseminated by Aum Shinrikyo was only believed to be around 30%, the [incident](#) left 12 Japanese citizens dead and resulted in over 1,000 casualties.

Aum Shinrikyo officially started in 1984 and, according to the Public Security Examination Commission (an independent administrative board of the Ministry of Justice), the cult had an estimated [40,000 followers worldwide](#) in 1995 with over one billion dollars in assets, including a relatively unknown New York City chapter.

Chosen Leadership & Selective Followers

Asahara carefully orchestrated and engineered selected educational profiles in the sciences and engineering domains to strategically select his disciples in order to carry out

his plan to attack the internal Japanese government with a WMD. After the [political failure in 1990](#), Asahara ordered the production of *Clostridium Botulinum*, with the first attack planned for mid-April 1990. However, they [never successfully disseminated](#) the toxin. The technical difficulty and dynamic expertise that the biological weapons demanded led Asahara to shift focus from biological to chemical WMDs. Although deficient in the scientific proliferation of the chosen agent, they ultimately made up for it in their desire to carry out the attack.

Leadership in the Japanese Response & Lessons Learned

Aum Shinrikyo gave Japanese authorities numerous perceptive incidents that warranted investigation through exigent circumstances and a history of producing WMDs. Nevertheless, the Japanese government failed to stop the cult in its desire to produce and disseminate these WMDs on numerous occasions.

As early as the spring of 1993, Aum Shinrikyo gave authorities the best pre-emptive strike clue. For example, on 27 June 1994, Aum Shinrikyo produced 20 kilograms of Sarin from their chemical plant, which led to the death of [7 citizens targeted](#) for their involvement in a land dispute in the Japanese village of Matsumoto, Japan. In early 1995, Asahara publicly published a newsletter before the Tokyo incident declaring that the Japanese government was intending to use Sarin by government to “[end the world](#)” and attack Kasumigaseki train station, the exact location where Aum Shinrikyo members disseminated the sarin gas inside the train.

In the [2020 Homeland Threat Assessment](#), government security experts specifically mention the growing insider threat and homegrown violent extremist capabilities as one of the single most significant threats to U.S. national security. Asahara and Aum Shinrikyo provide a classic case study in this rapidly expanding threat to national security.

WMD Response Complexity & Lack of Competent Strategic Platform

At the time of the Tokyo subway sarin attack, personal protective equipment had been distributed to sections of the Japanese Self-Defense Force, police, and fire department. However, a strategic platform that included threat assessments and response plans to deal with these types of WMD incidents was lacking. Approximately one hour after the attack, the Tokyo Fire Department issued a notification indicating that the attack agent was [acetonitrile](#). Inadequate training in rapid identification and qualification methodologies led to misidentification. Subsequently, inadequate and absent decontamination measures led to [23% of the hospital staff](#) experiencing secondary exposures at St. Luke’s International Hospital. Inadequate space to treat the mass casualties forced hospital staff to delay decontamination measures, which exacerbated secondary exposures and long-term effects for the victims and medical staff.

Today, [many decontamination methodologies](#) taught and trained on by first responders worldwide originated from the Tokyo incident. For example, trainers know that cutting and [removing clothing](#) in non-ambulatory and ambulatory mass casualty WMD incidents can remove 80-90% of the contaminant. A [decontamination study](#) funded by BARDA and National Institutes of Health (NIH) and presented in 2019 by Dr. Robert Chilcott of the University of Hertfordshire has resulted in the release of the now supported [PRISM](#) decontamination methodology, which presents dry decontamination measures as the initial and best practice in chemical mass casualty decontamination.

The data from the PRISM study resulted in a better outcome-based treatment methodology of casualties and less cross-contamination to responders. Although accepted by NIH as a best practice, the dry PRISM decontamination method associated with chemical warfare agents has yet to be widely trained and practiced. Today, research is currently needed to apply the PRISM decontamination methods in radiological and biological particulate mass casualty decontamination.

The commonly accepted practice of utilizing large-caliber master streams to decontaminate mass casualties could have tragic results depending on the agent selected. The late [Dr. Bill Patrick](#), pioneer WMD trainer and former head of the *United States Biological Weapons Program at Fort Detrick, Maryland*, frequently informed hazardous materials teams of the complications that wet mass casualty decontamination efforts presented due to the natural hydrophobic properties of specific agents. As the ability to rapidly identify the threat agents continues with advanced in-field detection, the need for advanced offensive decontamination as a medical countermeasure is needed to save lives in the future.

Protecting the Future & Matching Technological Complexity

Strategic platforms that include adequate and recent threat assessments are needed to combine rehearsed, and known response plans to defeat low-frequency WMD incidents. Complexity and ambiguity are leading metrics in cascading events such as the Tokyo sarin attack. Only through strategic platforms combined with supportive leadership can response organizations and emergency managers attempt to overcome the catastrophic effects of these incidents. Japanese culture prevented establishing the strategic platform needed to prevent, respond to, mitigate, and isolate the Tokyo incident. The current politicized culture in the U.S. is a serious hindrance in the creation of a strategic platform that could prevent the next attack.

A defining metric of WMD incidents is that terrorist groups target and manipulate any weakness in the targeted area's law or emergency response modality.

War II; one defining metric of incidents such as the Tokyo sarin subway attack is that terrorist groups target and manipulate any weakness in the law or emergency response modality in the designated targeted area.

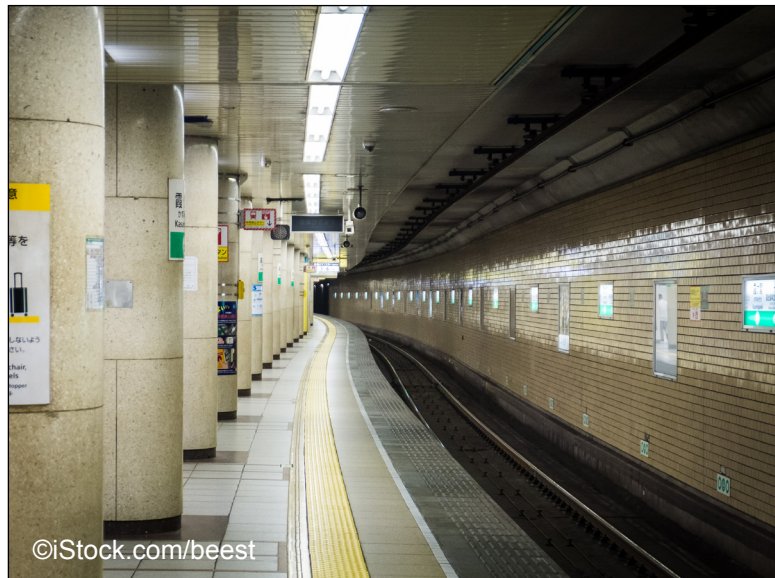
Strategic platforms that include robust intelligence analysts trained in WMD and chemical, biological, radiological, nuclear, and high-yield explosive (CBRNE) proliferation, as well as mitigation, are increasingly warranted. There is a dire need for cross-pollinated emergency response and law enforcement teams at the local level in major cities to receive the sustainment and competency training to respond to low-frequency, high-volume events. These teams need to be formulated and implemented based on competency and psychological team dynamics, with members of all emergency response domains. Toxicological medics – including tactically trained members that can eliminate the human

kinetic threat, mitigate the asymmetric threat, and treat and reverse the toxic effects of CBRNE agents in the hot zone – will be a significant move forward in the response arena. Allowing technically trained rapid response teams to reverse the intended adverse physiological effects on the human body in the hot zone involving a CBRNE agent is rapidly becoming the next emergency management platform implemented at the local level meant to save lives.

Aum Shinrikyo Crisis Communications Plan: Crisis Exacerbated

One of the critical aspects of dealing with low-frequency, high-impact events such as WMD mass casualty incidents is emergency management organizations' ability to establish a crisis communications plan early in the incident. The ability to stabilize and re-establish authority in the incident away from the adversary is a crucial metric in the overall success of mitigating WMD incidents.

In Tokyo, information initially disseminated by media and television agencies on the scene led to more confusion and panic across the city, causing dispatch to send identical units to multiple areas and delay response to those in critical need. The lack of a designated WMD crisis communication plan and a codified WMD-CBRNE emergency response plan led the Tokyo Fire Department and Police Department units to respond to multiple locations involving simultaneous incidents. These



actions ultimately increased the casualty rate of the incident. Since the purity of the Sarin disseminated by Aum Shinrikyo was only around 30%, the casualty and fatality rate would likely have been much higher with a more pure and potent substance.

History shows that, when presented with complex low-frequency high-volume events, the success of the incident is predicated on the lack of planning and preparation of the response community more than it is on the efficacy of the chosen agents or the chosen method of dissemination by the adversary.

Competent WMD crisis communications and response operations plans in major U.S. cities need to be formulated for the local level, starting with a more thorough collaboration of planning and training involving NORTHCOM and Title 32 assets such as the Civil Support Teams. [The 2021 UASI city allocations](#) report showed an estimated \$615,000,000 in congressionally allocated funds to protect major urban areas in the United States. Certain

cities, such as Las Vegas, were only awarded \$5,250,000. Considering that, from 2014 to 2019 (before the COVID-19 pandemic), Las Vegas greeted over [40 million visitors each year](#) combined with more than 51 million deplaned visitors at McCarran International Airport in 2019, these allocated funds fall considerably short to support the mission that responders in Las Vegas are sworn to implement.

Due to the potential of mass casualty incidents involving CBRNE agents, it is even more critical for strategic platforms to be constructed, trained on, and sustained based on the below objectives in order to match the complexity needed to mitigate the incident rapidly:

- Rapidly characterize and presumptively identify the causal agent by providing the technical equipment and financial sustainment. Sustainment and support of this critical node in the CBRNE response matrix should be supported by a nationally codified certification for first responders in the United States. NFPA 472 and 473 WMD competency-based training standards for first responders is the current platform that federal certification standards should be predicated and naturally aligned with to further support the successful prevention and mitigation of future CBRNE attacks on United States soil.
- Immediately isolate the initial impacted area of operation from initial arriving units and provide rapid hot zone medical countermeasures to save lives, much like the rapid advanced cardiac life support methods taught around the country. In 2018, one major city left unnamed for operations security purposes had taken the DuoDote® nerve agent response kits off the advanced life support emergency medical services (EMS) units, leaving the city unable to respond to a nerve agent incident such as Tokyo and Syria. Rapid identification of CBRNE agents has come a long way, but the toxicology medicine areas of the EMS world are still lacking. As a result of the Tokyo incident, millions of dollars were given to cities around the country to stockpile DuoDote® kits in an Aum Shinrikyo type incident. However, due to the lack of sustainment from the local level and no incidents to justify the cost, many cities today have not replaced these countermeasures in the front-line apparatus. Many of today's emergency response dollars are spent on the 90% of incidents that only affect 10% of the population. Cities would be wise to implement plans that mitigate and answer for the 10% of the incidents yet affect 90% of the population.
- Initiate [rapid decontamination](#) as a medical countermeasure to save lives derived from these principles:
 - Decontaminate as soon as possible.
 - Decontaminate by priority.
 - Decontaminate only what is necessary.
 - Decontaminate as far forward as possible.

- Provide coordinated and unified responses to include collaborative crisis communication plans that solidify efforts to further limit damage and exposure by overcoming outside sources' disinformation. This would include synergistic plans with cybersecurity to protect response information and protect the emergency action messages for the public. Disinformation has been a primary factor in the recently seen rise in response to the COVID-19 pandemic. Cybersecurity experts have warned for years that this would only worsen and be a significant issue in future asymmetric terrorist attacks. Synergistic cybersecurity response plans must be combined with the mitigation plans of the incident to be successful in future CBRNE WMD attacks. Information about the 1995 Tokyo sarin attack to the hospitals was initially received by media and television agencies broadcasting live feeds from the scene, which led to more confusion and panic. The lack of a coordinated and timely public information campaign left Tokyo crippled. In contrast, Aum Shinrikyo exhibited a coordinated and robust communications platform that included both print and broadcast mediums to members all over the world before, during, and after the attack.

Future U.S. Asymmetric Homeland Attack Response Plan

Aum Shinrikyo and the 1995 Tokyo sarin gas incident provide a great example of how the adversary's intent must be met with equal or greater response and crisis communication plans to overcome the destructive ability of the organization. A fundamental lesson learned when studying this incident is that, although procuring and disseminating mass destruction agents is very difficult, the pursuit and will of using these weapons is a strong warning of activity that eventually will succeed. Aum Shinrikyo specifically targeted and recruited 40 active-duty members of the Self Defense Force of the Japanese Military, who enlisted in Asahara's army. These members included a first lieutenant in Japan's second [Antitank Helicopter Unit](#), known for distributing classified data to the cult.

WMD incidents exhibit prolific complexities that hide vulnerabilities in emergency management organizations and cultivate new and often more complicated problems due to society's systemic and cascading effects. Strategic platform analysis must be conducted often, with all stakeholders offering the maximum preventative and response mechanism to the country.

Since the 1995 Tokyo attacks, major CBRNE attacks have been conducted around the world. These attacks have a commonality in their dissemination methodologies. They are tactically formulated and strategically disseminated to circumvent the OPCW international laws to avoid attribution and possible prosecution. The binary attacks in Salisbury (England) and the 13 February 2017 [assassination](#) of North Korean political figure Kim Jong Nam at Malaysia's Kuala Lumpur International Airport provide two of the most recent examples. A recent 2019 report from the [Global Public Policy Institute](#) cataloged the chemical attacks in Syria and is a great reminder that the threat of mass casualty CBRNE dissemination is as imminent a threat today as ever.

Honoring the Lives Lost on 9-11-01

The current geopolitical landscape combined with the synergistic intent of the adversary to carry out asymmetric attacks targeting both individuals and critical infrastructure are more reason than ever to be vigilant in the CBRNE consequence management domain. Adversaries continue to strategically select agents that target blocking the physiological actions of acetylcholinesterase, such as Sarin in the body resulting in [cholinergic syndrome](#), with new and complex delivery systems specifically intended to circumvent the OPCW and delay and or deny attribution to any one source. Scientific, technical expertise combined with the internet of things and world connectivity allows those with malicious intent a more robust and complex platform to successfully carry out these attacks more than ever before.

Current advanced technological and engineering capabilities, a vulnerable geopolitical landscape, and a willingness to ignore the rule of law increase the need to learn from groups like Aum Shinrikyo, Syria, Salisbury, and the Malaysia incidents. Recently, as a result of Syria, Salisbury, and [Berlin](#), it is ever more critical that local decision-makers understand that these incidents can happen in any place and at any time. All responders from public safety, law enforcement, and EMS need the training and tools to classify, isolate, and rapidly counter the effects of the intended consequences to save lives in the future.

With reflection on and remembrance of those who gave their lives on 9-11-01 in New York, Washington D.C., and Shanksville, Pennsylvania, one of the most impactful and lasting ways a responsible community can honor and carry their memory is to provide current and future responders the tools and training necessary to rapidly respond and decisively make a difference by saving lives in these types of incidents.

In DomPrep's October edition, Baker will reflect on the October 2001 Amerithrax incident. He will share lessons learned and highlight needed areas to further elucidate areas of concern to strengthen CBRNE response capabilities.

None of the statements presented are representative or reflective of the Counter-Terrorism operations support (CTOS), MSTS, and or the Department of Energy or the United States Government. All information in the presentation is representative of Capt. Baker (Ret) and his affiliation as an editorial board member of Domestic Preparedness.

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