

The Active Shooter Incident: Is the Albuquerque Fire Department Prepared?

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Certification Statement

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

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Abstract

The Albuquerque Fire Department has experienced an influx of active shooter incidents in the City of Albuquerque. The problem was the Albuquerque Fire Department did not have a standard operating guideline for active shooter incident responses. The purpose of this applied research project was to develop an Albuquerque Fire Department active shooter incident standard operating guideline. The action research method was used to answer the following research questions: a) What are Albuquerque's emergency response vulnerabilities to an Active Shooter Incident? b) What preparedness measures has the Albuquerque Fire Department taken for an Active Shooter Incident? c) What are other emergency response organizations doing for Active Shooter Incidents? Procedures used for this Applied Research Project paper included questionnaires, a national survey, written documents, figures, tables, and internet searches on active shooter incidents. The results of this applied research project were similar to the literature review material—active shooter incidents require training, coordination, and response plans. Recommendations included directions for the implementation of an active shooter incident response plan, agency partnerships, education, awareness, and training by the City of Albuquerque and the Albuquerque Fire Department.

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The Active Shooter Incident: Is the Albuquerque Fire Department Prepared?

As the largest fire department in the State of New Mexico (NM), the Albuquerque Fire Department (AFD) responds to 911 customers with a two-tiered fire-based emergency medical service (EMS) system. The AFD is the *all-hazard* primary response agency for all emergency 911 (E-911) calls in the City of Albuquerque (COA).

Over the last 10 years, the AFD has experienced a remarkable increase in E-911 calls. The increase in calls for service have come in many forms and directly impacts how AFD prepares and responds to E-911 calls. In fact, today's E-911 calls have become less predictable and more dangerous for all public safety responders. One E-911 call, in particular, has begun to encompass and evolve in Albuquerque and the US as a whole—the Active Shooter Incident (ASI). “An active shooter is an individual [or individuals] actively engaged in killing or attempting to kill people in a confined [or unconfined] populated area, typically [but not always] through the use of firearms [can include knives, fire, etc.]” (U. S. Department of Homeland Security {US DHS} [Pocket card information], 2008, p. 1).

The fire service, in general, uses a *high-risk/low-frequency* risk management approach to fire responses and their ensuing extinguishment; however, the fire service, again—in general, does not always use the same risk management approach for EMS responses; and one of the most dangerous (high-risk), least predictable and transpiring (low-frequency) *new* E-911 call negatively affecting the COA is the ASI.

The problem is the Albuquerque Fire Department does not have a standard operating guideline for active shooter incident responses. The purpose of this applied research project is to develop an Albuquerque Fire Department active shooter incident standard operating guideline. The action research method will be used for this applied research project (ARP). The research

questions are: a) What are Albuquerque's emergency response vulnerabilities to an Active Shooter Incident? b) What preparedness measures has the Albuquerque Fire Department taken for an Active Shooter Incident? c) What are other emergency response organizations doing for Active Shooter Incidents?

Background and Significance

The COA, located within Bernalillo County, NM, is the State's largest city. The city is 188.8 sq. miles, elevated 5,326 ft. above sea level, and is governed by a mayor and city council (City of Albuquerque [quick facts], n.d.). Founded in 1706, the COA is currently the 32nd largest city in the US with 556,495 people (U. S. Census Bureau, 2013); and it includes both urban and rural communities. The mission of the AFD is to *serve the community by providing all hazards planning, prevention, and responses that promote public safety and trust while ensuring the safety and wellbeing of its firefighters* (Albuquerque Fire Department [Mission], 2014, p. 1).

The AFD responds to emergency 911 calls with 22 engine companies, 20 rescue (paramedic fire ambulances) companies, seven ladder trucks, six brush trucks, four battalion commander (BC) units, two hazardous materials (HM) squads, one heavy technical rescue (HTR) squad, and one quality assurance (QA) unit—all strategically located throughout the COA. Dispatches to E-911 calls include BLS (20 engines, ladders, squads, brush, and BCs) and ALS (two engines, rescues, and QA) units.

Staffing includes 688 full-time professional uniformed firefighters/emergency medical technicians (EMT)—469 at the basic and intermediate levels and 219 at the paramedic level. Work schedules include a 48 hour on and 96 hour off field shift; and a 40 hour work week for all

administrative and support divisions. Currently, the AFD participates in fire and EMS *mutual* and *automatic aid* agreements throughout NM, including tribal lands.

In 2014, AFD responded to 84,834 emergency 911 calls; more importantly, 88% (74,553) of those calls were for EMS—a 36% increase in EMS call volume since 2004 (54,718) (Albuquerque Fire Department [2014 Year End], 2015, p. 25; Albuquerque Fire Department [2004 Year End], 2005). With EMS calls continuing to increase, the AFD must be proactive in their response configurations. Since 2010, one of the most dangerous and increasing E-911 calls in the COA has been the ASI.

“On the morning of Oct. 26, 2013, Christopher Chase, 35, dressed in body armor and camouflage and wielding an assault rifle, told witnesses in Southeast Albuquerque to call police . . . he was waiting for them” (Lohmann, 2014, para. 2). Before he was killed by police, Chase shot three Albuquerque Police Officers (minor injuries) and one Bernalillo County Sheriff's Deputy, who underwent a lengthy recovery for a shattered femur (Lohmann, 2014, para. 3).

On April 28, 2013, Lawrence Capener, 24, stabbed four members of the St. Jude Thaddeus Catholic Church in what appeared to be a random attack by a lone assailant during the 11 a.m. Mass (Tassy, 2013, p. A1). The incident was initially referred to as a *mass casualty incident* (now an ASI) with firefighters and paramedics quickly responding, triaging, treating, and transporting patients to local hospitals; authorities said members of the congregation, including an off-duty Albuquerque firefighter, were able to subdue Capener until police arrived (Tassy, 2013, p. A1).

On January 19, 2013, Nehemiah Griego, 15, shot and killed five family members before he was captured by police. Griego used two rifles to kill his mother, three siblings, and his

father, and loaded his van with guns and ammunition he planned to use to shoot up a Walmart later that day before he was captured by police (Curry & James, 2013, para. 2).

On July 12, 2010, Robert Reza, 37, left three dead (including himself by suicide) and four wounded at the Emcore Corporation in Albuquerque (Martinez, 2010, para. 2). The first five Albuquerque Police Department (APD) Officers on the scene formed an active-shooter response team focused on isolating the gunman, allowing the second wave of officers and firefighters to remove victims from the scene (Martinez, 2010, para. 9).

Historically, the first ASI in the COA was actually on August 18, 2005, “Ten years ago, Albuquerque was rocked when John Hyde went on a killing spree, shooting five people, including two veteran APD Officers” (Shepard, 2015, p. A1). Since that horrible and tragic August day, many ASI response plans, for several different agencies, have been put into place; however, an ASI standard operating guideline for the AFD has not.

The Executive Analysis of Fire Service Operations in Emergency Management (EAFSOEM) class, the third course in the Executive Fire Officer Program (EFOP), identified several major areas that directly impact the effectiveness of fire and EMS department operations as it relates to the ASI, specifically: risk assessment, incident documentation, media/political considerations, standards, legal mandates, capability assessment, damage assessment, emergency operations, Integrated Emergency Management System, Emergency Operations Center, and emergency information systems (US DHS [EFOP Handbook], 2015, p. 15).

Another link between the EAFSOEM course and this ARP’s problem was discovered using the Federal Emergency Management Agency’s (FEMA) Community Hazards Emergency Response Capability Assurance Process (CHER-CAP). The CHER-CAP is an all-hazards community-based methodology for any major event and it involves police, fire, and EMS as well

as all community stakeholders (Federal Emergency Management Agency [EAFSOEM Student Manual], 2014, p. SM 2-3). A productive relationship with all COA community stakeholders, using the CHER-CAP process, is paramount towards the success of implementing a response plan for a major event like an ASI. According to the 2014 EAFSOEM Student Manual, there are three general categories of hazards that planners are most concerned with (natural threats, human-caused, terrorism) and two of them (human-caused and terrorism) are directly involved with ASIs (p. SM 2-3).

The research from this ARP also correlates with the first three (of five) US Fire Administration (USFA) goals: Goal 1: *Reduce Fire and Life Safety Risk Through Preparedness, Prevention and Mitigation*; Goal 2: *Promote Response, Local Planning and Preparedness for All Hazards*; and Goal 3: *Enhance the Fire and Emergency Services' Capability for Response to and Recovery From All Hazards* (U. S. Fire Administration [USFA Strategic Plan], 2014). The use of an ASI vulnerability assessment in the COA will lead to an ASI response plan. An ASI response plan will reduce the risks to life safety through preparedness, planning, prevention, response and mitigation; thereby enhancing the fire and emergency services' capabilities in the COA; fulfilling the first three goals of the USFA.

Literature Review

The purpose of this literature review was to provide the foundation, background, and evolution of ASIs through the examination of valid published manuscripts. The collected and investigated literary information was used to summarize the factors involved with ASIs.

For clarification sake, ASIs are not the same as Public Mass Shootings (PMS); more importantly, not all ASIs are defined as PMS'; however, they can certainly be included if they meet the definition of a PMS. A PMS is defined as a "public shooting involving at least four

deaths, not including the shooter” (Bjelopera, Bagalman, Caldwell, Finklea, & McCallion, 2013, p. 2); ironically, all PMS’ are ASIs. Though incidents involving guns have been ongoing for centuries, ASIs, in its entirety, is still a fairly new response type for today’s fire departments. In reality, the term *Active Shooter* has only been used since 1999—after the Columbine (CO) shootings:

The tragic and violent attack at Columbine High school in 1999 significantly changed the law enforcement response to *active shooter* situations. This single event created a paradigm shift in the way law enforcement trains and responds to these violent, in-progress crimes. Prior to Columbine, an *active shooter* incident would have been considered an operation to be handled by a SWAT or tactical unit. Lessons learned from this tragedy included the need for all police officers to be properly trained, equipped and empowered to immediately intervene in an *active shooter* situation to stop the ongoing violence regardless of their assignment. (Healthcare and Public Health Sector Coordinating Council, 2015, p. 26)

New terms, like the ASI, require new responses and responsibilities—and bring new discoveries. To be clear, discoveries are enlightening, but not always good. For instance, today’s fire departments—in general—are unprepared for ASI responses. In fact, two of the most recent EFOP ARP ASI surveys reported that between 41% and 58.7% of today’s fire departments have no ASI response plans, policies, standard operating procedures (SOP), or standard operating guidelines (SOG) in place, respectively (Gray, 2014, p. 23; Wallace, 2014, p. 26). Simply put, firefighters are not trained in police type incident responses or tactics; more importantly, fire department personnel are not expendable.

To be clear, this does not mean firefighters cannot use common sense or refer to some type of training or current shooting (non-ASI) SOG (like a standby mode or staging and waiting) that involves their own personal life safety when it comes to an ASI. However, in the grand scheme of things, the fire service *playbook* has not been keeping up with individuals who continue to adapt their violent tactics in today's environment (Atwater, 2013, para. 4). The fire service needs change in order to stay ahead of the *curve*—and the *road* can look pretty straight when an organization gets too far behind. “Change is usually a response to something that’s happening in your environment . . . [and] sometimes to survive change you need to innovate . . . change is imperative” (Salka, 2004, p. 172).

Currently, today's fire departments have a game-plan for *high risk/low frequency* events. It's called a risk assessment. In layman's terms, fire departments *risk a lot to save a lot, risk little to save little, and risk nothing for what's already lost* (Albuquerque Fire Department [Risk], n.d.). Of note, fire department risk assessments did not initially account for the dynamic human factor or terrorist event (ASI); instead, they were intended and used for the static fire and hazardous materials type incidents. For example, no fire death event stands out more than the World Trade Center (WTC) terrorist attacks in New York City on September 11, 2001. The Fire Department of New York (FDNY) lost 343 personnel (340 firefighters, two paramedics, and one chaplain) in the WTC attack (Paddock, 2015, para. 5). In fact, even after experiencing the February 26, 1993 WTC bombing, the FDNY was not prepared for such an event—no one was; however, they responded bravely and saved thousands of lives (Cable News Network [CNN], 2015, para. 6). More importantly, would FDNY's response to the WTC terrorist attack have been different if they were prepared for such an event? Ultimately, the tragedy proved to be a catalyst for positive changes within the FDNY and the fire service as a whole:

In 2004, Joseph Pfeifer founded the FDNY's Center for Terrorism and Disaster Preparedness, based at Fort Totten in Queens. Each week the center puts out a one-page briefing to 50,000 first responders nationwide highlighting new terror threats — and strategies for responding. “After 9/11 the department had to face other threats,” Pfeifer explained. “Before 9/11 we weren't really connected to the intelligence community at the classified level. We're very connected now.” The center runs drills for responding to everything from sniper fire to chemical, biological and radioactive attacks. “Firefighters have had to widen their aperture and look beyond just fighting fires,” he said. “We train them to be aware.” (Paddock, 2015, para. 6-9)

Over the last 15 years (2000 – 2015) ASIs have increased—some reports state they have increased dramatically, others state the growth has been small. For example, in the 2013 *Public Mass Shootings in the United States: Selected Implications for Federal Public Health and Safety Policy* report, it states (from 1983 – 2012) there have only been 78 PMS' (still ASIs) which claimed 547 lives and caused 476 injuries (Bjelopera et al., 2013, p. 2). The Federal Bureau of Investigations (FBI) report, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, revealed that 160 ASIs, involving 486 deaths and 557 injuries, occurred over a 14 year period—16 years shorter than the *PMS in the US* report (Blair & Schweit, 2014, p. 6). While ASIs accounted for less than one percent of all shootings in the US from 1980 – 2008 (Cohn et al., 2013, p. 4), as a whole, “they [ASIs] are increasing with regularity” (Schaitberger, 2013).

The favorable outcome of an ASI revolves around fire department readiness and response. With ASIs usually over in 10 to 15 minutes, and emergency unit responses to these scenes within minutes, a response plan must be in place for the best outcome (US DHS [How to

respond], 2008, p. 3). More importantly, according to one study, *Defeating the Active Shooter: Applying Facility Upgrades In Order To Mitigate The Effects Of Active Shooters In High Occupancy Facilities*, “the average duration of Active Shooter incidents . . . within the United States is 12.5 minutes; in contrast, the average response time of . . . local law enforcement to these incidents is 18 minutes (Ergenbright & Hubbard, 2012, p. v). Akin to the Ergenbright and Hubbard study, the FBI report, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, found that ASIs ended 67% of the time before law enforcement arrived on scene and 69% ended in five minutes or less (Blair & Schweit, 2014, pp. 8, 9). Under duress, rational decisions and choices are impossible because information and time for making decisions are limited; human cognitive capacity is too limited to process all information and consider all the alternatives (Rainey, 2009, p. 38). Simply put: “We do not rise to the level of our expectations; we fall to the level of our training” (Archilochus, 650 BC, as cited in Stepaniak & Lane, 2014, p. 40).

While there are several ASI *guidelines* for the public, as well as law enforcement, there is very little written for fire departments. For example, the US DHS has authored three instructional guidelines for the public: *Active Shooter: How to Respond* and *Active Shooter: Pocket Card Information* in 2008, and the *IS-907 – Active Shooter: What You Can Do* in 2012—all teaching the *Run, Hide, Fight* response technique. Meanwhile law enforcement has *The Police Response to Active Shooter Incidents* (by the Police Executive Research Forum) in 2014, and the *Active Shooter: Recommendations and Analysis for Risk Mitigation* (by the New York Police Department) in 2012 for their ASI responses. Fire department guidelines generally come from two sources: firstly, committees like the National Fallen Firefighters Foundation (NFFF), International Association of Fire Fighters (IAFF) and International Association of Fire Chiefs

(IAFC), and secondly, training institutions like the National Fire Academy [NFA] (EFO papers, retired FF authors, and other fire departments) and the Center for Domestic Preparedness (CDP).

When an E-911 call comes in through dispatch, regardless of call type, public safety personnel must respond; however, sometimes there are dispatches that differ from the *norm*, providing opportunities for innovative change. In 2004, the NFFF assembled in Tampa, Florida for the first National Firefighter Life Safety Summit. The *16 Firefighter Life Safety Initiatives* were born from that summit meeting as well as the *Everyone Goes Home Program*. Of the 16 Firefighter Life Safety Initiatives, one stood out in reference to ASIs: *No. 12 – Violent Incident Response*.

In 2012, a group of fire departments convened to update *Life Safety Initiative No. 12*. The update included 14 recommendations for violent incident responses. The new initiatives that directly affected fire department ASI responses are (by number): (3) Use of Unified Command and the Incident Management System; (4) No Self-Dispatch; (7) Adoption of Response Protocols and Policies; (8) Use of Training Programs with other Agencies; (10) Conduct Planning Sessions with other Agencies; and (12) Work with Law Enforcement and Develop Procedures and Guidelines for ASIs (National Fallen Firefighters Foundation, 2013, p. 16).

With ASIs actively on the US *radar*, the US Government has also stepped in to provide some direction for needed emergency response change. On January 16, 2013, President Barack Obama unveiled his *Now is the Time: The President's plan to protect our children and our communities by reducing gun violence* report. The report includes 23 executive actions to reduce gun violence while increasing life saving measures by law enforcement and first responders. It also includes a new *Active Shooter Preparedness* page on the US DHS website. President Obama also stated in his report that: "We won't be able to stop every violent act, but if there is

even one thing that we can do to prevent any of these events, we have a deep obligation, all of us, to try” (as cited in The White House, 2013, p. 2). The report stated the importance of ASI training by all public safety agencies:

Provide effective training for active shooter situations for 14,000 law enforcement officers, first responders, and school officials: One of the best ways to minimize the loss of life in a mass shooting is to make sure law enforcement, first responders, school officials, and others are prepared to respond to an active shooter. The Administration will immediately expand access to federal training, and federal agencies will ensure that protocols for responding to active shooter situations are consistent. And Congress should provide an additional \$14 million to help train 14,000 more police officers and other public and private personnel to respond to active shooter situations. (The White House, 2013, p. 8)

Following the direction of President Obama, ASI preparedness measures must begin with the commonality and coordination of public safety entities. “It is imperative that local fire and law enforcement agencies have common tactics, common communication capabilities and a common lexicon for seamless, effective operations” (International Association of Fire Chiefs [IAFC], 2013, para. 4). For example, the Arlington County (VA) Police and Fire Departments coordinate all their ASI responses in order to save the most lives.

Like many public safety agencies, the Arlington County Police and Fire Departments began studying active shooter events a number of years ago. In August 2007, both departments conducted a joint exercise using a local university campus as the setting. The exercise was realistic, and it highlighted numerous deficiencies. The main weakness was the staging of Fire/EMS assets for more than an hour while waiting for the “all clear”

from police. It was clear that while law enforcement had made significant changes to their tactics in the wake of Columbine, Fire/EMS had not similarly adapted. Immediately after the exercise, the departments resolved to come up with a better way. That way is called Rescue Task Force (RTF), and the main objective is to get medical care to victims within minutes of being wounded. (Scott & Schwartz, 2014, p. 22)

Fire departments must coordinate with law enforcement for successful ASI responses. As stated previously, most fire department response policies to shootings (non-ASI) follow the *hurry up and wait* routine, from a safe position, as law enforcement clears the scene. Today, fire departments and law enforcement can coordinate successful tactical response operations at ASIs. Tactical ASI responses include three options: (1) Tactical EMS (TEMS), (2) Tactical Combat Casualty Care (TCCC), and (3) Rescue Task Force (RTF) using the Tactical Emergency Casualty Care (TECC) guidelines. The TEMS response requires a medical (usually a paramedic) provider assigned to a SWAT or similar tactical law enforcement team.

The functions of a tactical paramedic should include the following: Provide field medical treatment to team members injured or taken ill while engaged in mission activity; Ensure injured members are transferred in a timely manner to an appropriate level of care; Provide humanitarian medical assistance to non-law enforcement personnel injured or taken ill during an operation until appropriate transfer to the EMS system can be safely facilitated. (International Association of Fire Fighters [IAFF], 2013, para. 3)

The TCCC course provides a military life-saving technique with strategies for trauma care on the battlefield; specifically, TCCC is built around three definitive phases of casualty care:

- 1. Care Under Fire:**

Care rendered at the scene of the injury while both the medic and the casualty are under

hostile fire. Available medical equipment is limited to that carried by each operator and the medic.

2. Tactical Field Care:

Rendered once the casualty is no longer under hostile fire. Medical equipment is still limited to that carried into the field by mission personnel. Time prior to evacuation may range from a few minutes to many hours.

3. Tactical Evacuation Care (TACEVAC):

Rendered while the casualty is evacuated to a higher echelon of care. Any additional personnel and medical equipment pre-staged in these assets will be available during this phase. (North American Rescue, n.d.)

The RTF response with TECC training is a field responder (usually a firefighter/EMT or firefighter/paramedic) that performs life saving measures while teamed up with law enforcement.

A Rescue Task Force (RTF) is a set of teams deployed to provide point of wound care to victims where there is an on-going ballistic or explosive threat. These teams treat, stabilize, and remove the injured in a rapid manner, while wearing Ballistic Protective Equipment (BPE) and under the protection of Police Department (PD) officers. An RTF team should include at least one ALS provider. Rescue Task Force Teams of two firefighter/EMTs or paramedics should only be deployed with two personnel from PD acting as security. When teams make entry, they should treat the injured using Tactical Emergency Casualty Care (TECC) guidelines. (Urban Fire Forum, n.d., pp. 2, 3)

Tactical Emergency Casualty Care (TECC) guidelines are recommendations for civilian casualty management during tactical, rescue, ASI operations.

Based upon the principles of TCCC, TECC accounts for the differences in the civilian environment, resources, patient population, and scope of practice from the military combat environment of TCCC. Taking into account that wounding patterns and mechanisms of injury may be similar in civilian incidents involving ballistic and explosive wounding, TECC recommends treatment modalities based on the situation and available assets. (Pacific Emergency Medical Training, n.d.)

One specific change needed for an ASI includes the need for an Active Shooter Response Policy. Active shooter incidents are fundamentally different from other critical incidents and thus require their own response policy and training (Police Executive Research Forum [Police], 2014, pp. 13, 15). Other changes needed for ASIs cover three areas: hemorrhage control, protective equipment, and response and incident management (US DHS [First Responder], 2015, p. 7). Specifically:

Hemorrhage Control

1. First responders should incorporate tourniquets and hemostatic agents as part of treatment for severe bleeding (if allowed by protocol). Tourniquets and hemostatic agents have been demonstrated to be quick and effective methods for preventing exsanguination from extremity wounds (tourniquets) and other severe external bleeding (hemostatic agents).

2. First responders should develop and adopt evidence-based standardized training that addresses the basic, civilianized tenets of Tactical Combat Casualty Care (TCCC).

Training should be conducted in conjunction with fire, emergency medical services (EMS), and medical community personnel to improve interoperability during IED and/or active shooter incidents.

Protective Equipment

1. First responders should develop inter-domain (EMS, fire, and law enforcement)

Tactics, Techniques, and Procedures (TTPs)—including use of ballistic vests, better situational awareness, and application of concealment and cover concepts—and train first responders on them.

2. As technology improves, first responders should adopt proven protective measures (e.g., body armor) that have been demonstrated to reliably shield personnel from IED fragments and shock waves.

3. First responders, when dealing with either IED or active shooter incidents, must remain vigilant and aware of the potential risk posed by secondary IEDs or additional shooters.

Response and Incident Management

1. Local and state law enforcement and emergency services should institutionalize National Incident Management System (NIMS)-based command and control language through plans and exercises and during ongoing education and training.

2. Local and state emergency management, EMS, fire, and law enforcement personnel and receiving medical facilities should have interoperable radio and communications equipment.

3. Local, state and federal partners should consider expansion of Public Safety Answering/Access Point (PSAP) intake procedures to include information gathering vital to the initial response.

4. Training to improve first responder triaging precision is essential for dealing with IED and/or active shooter incidents.

5. There should be greater coordination among EMS, fire services, and law enforcement

to work more effectively during IED and/or active shooter incidents. The dialogue should focus on potential improvements or changes to the TTPs which have historically been used during law enforcement situations that involve a medical emergency (e.g., EMS waits until law enforcement secures the scene before they enter to render emergency care). (US DHS [First Responder], 2015, pp. 6, 7)

Procedures

The obtained information and data, from a wide variety of sources, was used for the purpose of developing an ASI SOG (located in Appendix A), answering the research questions, and for the development of recommendations. Additional information gathered to address the research questions came from the internet, fire service journals, EMS journals, and technical reports.

Procedures used to collect and support information for this ARP began at the Learning Resource Center (LRC) located at the USFA's National Emergency Training Center (NETC) in April of 2015. More information searches took place at the University of New Mexico (UNM) Zimmerman Library and the AFD Training Academy Library. The internet also provided additional areas and locations to gather more research information for this ARP. The literature review was used to gather as much information on ASIs as possible. Original research and data, for this ARP, came from questionnaires, a national survey, and internet searches on ASIs.

The questionnaires were conducted to gather more specific information on the research questions from leaders in their professional fields. While ASIs have been around the US for some time, the COA has limited experience on these response types and therefore, for this ARP, additional insight, opinion, and information were needed. The questions selected for the respondents were dependent on each of the participants' professional field of work. The sample

size, four, was determined and selected based on the need for information from each applicable service: fire, ambulance, and law enforcement.

The first questionnaire participant was King County (WA) Medic One Assistant Chief Aaron Tyerman. The purpose of this questionnaire was to learn about the role of an ambulance service during an ASI. The questions were sent via email and several communications occurred between June 3 and July 11, 2015. See Appendix B for a list of all questions and answers.

The second questionnaire participant was AFD Special Operations Captain Jackie White. The purpose of this questionnaire was to learn about the role of the AFD during an ASI. The questions were sent via email and several communications occurred between June 3 and July 11, 2015. See Appendix C for a list of all questions and answers.

The third questionnaire participant was Lane Fire Authority (OR) Assistant Chief Chris Heppel. The purpose of this questionnaire was to learn about the role of a fire department during an ASI. The questions were sent via email and several communications occurred between June 3 and July 11, 2015. See Appendix D for a list of all questions and answers.

The fourth questionnaire responder was APD Officer Ray DeFrates. The purpose of this questionnaire was to learn about the role of a police department during an ASI. The questions were sent via email and several communications occurred between June 3 and July 11, 2015. See Appendix E for a list of all questions and answers.

A nationwide survey, *The Active Shooter Incident: A Vulnerability Assessment Survey (ASI Survey)* was developed and distributed by this researcher using *Survey Monkey* and the International Association of Fire Chiefs (IAFC) Executive Fire Officers (EFO) Section email distribution system for EFO surveys: *EFO Program Surveys Need Your Attention*.

The Survey Monkey was constructed using the *Create Survey* option, which allowed this researcher to customize the questions, format, privacy, and access time for the end user. The purpose of the survey was to determine the organization type, staffing, response capabilities, response policies, preparedness, and vulnerabilities to ASIs. The Sandia National Laboratories Paramedic Response Team, a government agency, was used to review the ASI Survey questions for *Content validity* and *Alternate-Form reliability*—the questions were found to be both valid and reliable.

During the literature review, this researcher was unable to find a specific ASI survey to gain specific information for this ARP and so the ASI Survey was developed. The sample size chosen by this researcher was initially 230 fire, ambulance, and law enforcement organizations throughout the US; however, after using the IAFC EFO Section survey email distribution system, the number of organizations is estimated in the thousands and worldwide. The fire, ambulance, and law enforcement organizations that received the ASI Survey included paid, volunteer, and combination organizations and ranged in sizes from small to large. This researcher wanted to receive a large enough response from survey participants in order to gain beneficial information on the research questions. The survey was distributed by email via Survey Monkey on May 25, 2015 and remained open until midnight, July 25, 2015.

The survey samples were selected from three sources and included *Stratified Sampling*, *Convenience Sampling*, and *Judgment Sampling*. The Stratified Samples came from fire, EMS, and law enforcement agency email addresses provided by former NFA classmates. The Convenience Samples came from this researcher's prior collected email addresses from past NFA, fire, law enforcement, and EMS courses; as well as the IAFC's EFO Section email list. The Judgment Samples came from internet searches by this researcher.

Procedures used for the ASI Survey follow-up included two reminder emails from Survey Monkey, bi-weekly, to those participants that had not answered the survey. Noted survey limitations included: blocked email addresses, random participants, anonymous participation, truthfulness, and question comprehension. In all, 135 fire, ambulance, and law enforcement organizations completed at least a portion of the ASI Survey (only 130 provided their actual organization's name). A copy of the ASI Survey email, questions, and answers, is located in Appendix F; a list of ASI Survey participants is located in Appendix G.

Results

The results for the first research question, *What are Albuquerque's emergency response vulnerabilities to an Active Shooter Incident?*, came from questionnaires, written sources, vulnerability assessments, and the ASI Survey.



Figure F1. The THIRA Process (US DHS, 2013, p. 2)

The first step in a well-designed and comprehensive all-hazards emergency response plan is a vulnerability risk assessment (NM Department of Health [Public Health], 2015, p. 1). In order to provide the best response (of any nature) a provider must know their vulnerabilities. The NM Department of Health's (DOH) *Threat and Hazard Identification and Risk Assessment (THIRA)* process includes hazard identification, hazard profiles, and vulnerability assessments; and it follow the US DHS' four step model (see Figure F1). Emergency responders have an

obligation to arrive at an E-911 scene with the correct response and resources needed to do the job; and that comes from determining the organization's vulnerabilities through risk assessments.

Emergency measures to protect life and health depend upon local and regional resources.

Hazard analysis [and assessment] is the basis for both emergency operations planning and mitigation planning. For emergency operations planning purposes the process identifies which hazards merit special attention, what actions must be planned for, and what resources are likely to be needed. (NM Department of Health [All-Hazard], 2014, pp. 14, 16)

To be clear, the use of Hazard Analysis Assessments does not mean organizations will never discover new susceptible areas of emergency response as they continue in life saving services—they will—but they will be better prepared and more apt to use the assessment in order to implement needed change(s).

1	Capability	Responder Safety and Health								
2	Definition	The responder safety and health capability describes the ability to protect public health agency staff responding to an incident and the ability to support the health and safety needs of hospital and medical facility personnel, if requested. Additionally to assist in the identification of the medical and mental/behavioral health risks (routine and incident-specific) to responders and communicate this information prior to, during, and after an incident.								
Results reported below are based on a probability scale of not applicable, low, moderate and high.						Results reported below are based on participant responses/total number of participants surveyed.				
3	Hazard	Probability of Hazard	Hazard Impact on Humans	Hazard Impact on Property	Hazard Impact on Businesses	Full Ability or Capacity for Capability	Significant Ability or Capacity for Capability	Some Ability or Capacity for Capability	Limited Ability or Capacity for Capability	No Ability or Capacity for Capability
	Conventional Terrorism	Low	Moderate	Low	Low	3/15	2/15	7/15	3/15	0
	Pandemic Influenza	Moderate	Moderate	Low	High	4/15	3/15	7/15	0	1/15
	Severe Winter Storm	High	Low	Moderate	Moderate	5/15	2/15	7/15	1/15	0
	Tornado	Low	Low	Low	Low	4/15	2/15	6/15	1/15	2/15
	Wild Fire	High	Low	Moderate	Moderate	5/15	1/15	8/15	1/15	0
	Local Biological Disease Outbreak	Moderate	Moderate	Low	Moderate	3/15	2/15	8/15	1/15	1/15

Figure F2. NM DOH Responder Safety and Health Vulnerability Assessment (NM Department of Health [Public Health], 2015, p. 18)

According to the NM DOH paper, *2014 Public Health Risk Assessment Analysis*, NM responders are currently vulnerable to *Conventional Terrorism* (includes ASIs); with *Low* as the

probability of an event occurring, and *Moderate* as the impact affects humans (see Figure F2).

As for the COA, AFD participated in the Kaiser Permanente *Hazard and Vulnerability Assessment* in 2015. Figure F3, from the *Human Related Events* portion of the *Kaiser Permanente Hazard and Vulnerability Assessment*, reveals that AFD responders have a 27% chance of a relative human related event (includes ASIs) occurring in the COA. Of note, the COA received a *High* score for response capabilities to human related events and a *Low/Moderate* score for the probability and severity of such an event actually occurring in the City (see Figure F3).

HAZARD AND VULNERABILITY ASSESSMENT TOOL – HUMAN RELATED EVENTS								
EVENT	PROBABILITY Likelihood this will occur	SEVERITY = (MAGNITUDE - MITIGATION)			PREPARED- NESS Preplanning	INTERNAL RESPONSE Time, effectiveness, resources	EXTERNAL RESPONSE Community/ Mutual Aid staff and supplies	RISK Relative threat*
		HUMAN IMPACT Possibility of death or injury	PROPERTY IMPACT Physical losses and damages	BUSINESS IMPACT Interruption of services				
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Mass Casualty Incident (trauma)	3	2	1	2	1	1	1	44%
Mass Casualty Incident (medical/infectious)	2	2	1	2	1	1	1	30%
Terrorism, Biological	1	2	2	2	2	2	2	22%
VIP Situation	1	1	1	1	1	1	1	11%
Infant Abduction	1	1	1	1	1	1	1	11%
Hostage Situation	3	2	1	2	1	1	1	44%
Civil Disturbance	3	2	2	2	1	1	1	50%
Labor Action	2	1	1	1	1	1	1	22%
Forensic Admission	1	1	1	1	1	1	1	11%
Bomb Threat	2	2	2	2	1	1	1	33%
AVERAGE	1.90	1.60	1.30	1.60	1.10	1.10	1.10	27%

*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY		
0.27	0.63	0.43

Figure F3. AFD Hazard and Vulnerability Assessment – Human Related Events (Kaiser Permanente, 2015)

Additional information on ASI response vulnerabilities comes from the ASI Survey. The data from the ASI Survey revealed that only 40% of participants have performed an ASI vulnerability assessment (see Table G1); more importantly, the four most vulnerable areas reported were: Personnel Protective Equipment (PPE for a Shooter event) at 47.4%, ICS - Unified Command (with police, EMS, Fire, etc.) at 43%, Deployment of personnel at 40%, and Response Capabilities at 37% (see Table G2).

Table G1

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 6

Has your organization performed an Active Shooter Incident Vulnerability Assessment?		
Answer Options	Response Percent	Response Count
Yes	40.0%	54
No	41.5%	56
Currently in the process	18.5%	25
answered question		135
skipped question		0

Note. (S.M., 2015)

While the NM DOH 2014 *Public Health Risk Assessment Analysis* and the COA 2015 Kaiser Permanente *Hazard and Vulnerability Assessment* have both provided some information on first responder response vulnerabilities, the answer to the first research question includes information attained from AFD Captain Jackie White and APD Officer Ray DeFrates. Captain White lists Albuquerque’s ASI response vulnerabilities as:

1. The COA has a limited definitive health care system [one Level 1 trauma hospital].
2. Communication is an issue
 - a. Multiple agencies on different radio frequencies and channels
 - b. The use of 10 – codes by law enforcement
3. Limited transport capable units to transport patients to definitive care
4. Lack of National Incident Management System (NIMS) [Incident Command System (ICS) and Unified Command use (UC)] by law enforcement
 - a. Law enforcement, fire, and EMS do not work together very often on joint responses
5. Private sector needs to be trained in “Run, Hide, and Fight.”
6. Private sector (especially teachers) needs to be trained in basic first aid

(J. White, Personal Communication, July 1, 2015)

Table G2

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 7

What are your organization's most vulnerable areas of an Active Shooter Incident?		
Answer Options	Response Percent	Response Count
Response capabilities	37.0%	50
Deployment of personnel	40.0%	54
Personnel Protective Equipment (PPE for a Shooter event)	47.4%	64
ICS - Unified Command (with police, EMS, Fire, etc.)	43.0%	58
No vulnerabilities	5.2%	7
Other (please specify)	9.6%	13
answered question		135
skipped question		0

Note. (S.M., 2015)

Officer Ray DeFrates states that the COA has no policy in place for an ASI, but that all officers have been trained in ASI response utilizing direct threat tactics; and that the COA's vulnerabilities to an ASI includes any location where people gather in a geographically defined location, like: schools, malls, concerts, sporting events, office buildings, etc. (R. DeFrates, Personal Communication, July 11, 2015). Officer DeFrates believes that there are additional ASI response vulnerabilities in the COA, such as:

1. Lack of joint exercises, both table top at command level, and scenario based at the first responder level.
2. Lack of standard issued police equipment: handgun, light source, Level IIIA body armor, radio, patrol rifle, shotgun, etc.
3. Lack of a unified response from all neighboring law enforcement and EMS agencies.
4. Lack of civilian support groups such as Red Cross.
5. Lack of logistic support from area government agencies and local businesses'

(R. DeFrates, Personal Communication, July 11, 2015)

The results for the second research question, *What preparedness measures has the Albuquerque Fire Department taken for an Active Shooter Incident?*, came from a questionnaire,

written sources, an AFD training plan, and the ASI Survey. While firefighters have become the *jack-of-all-trades* in emergency prevention, preparedness, and response (Soto, 2014, p. 10), the ASI is a game-changer; requiring the most up-to-date prevention, preparedness, and response measures for today's fire departments. In fact, "the traditional linear 'stovepiped' single-agency [ASI] response is not only ineffective, it may even be dangerous in these unpredictable, chaotic, and fluid events" (Interagency Board, 2015, p. 1). Determining preparedness measures for an ASI is not easy. Each community has their own needs, capabilities, financial situations, and problems—all factors in determining a successful ASI response.

The strategy and tactics that the metropolitan department employs may not be a feasible or a wise direction for the smaller volunteer department . . . fire departments and agencies must evaluate any area/facility/event that employs, houses, or is patronized by significant numbers of people as a potential target for an active shooter . . . and establish a preplan for each location, and practice the plan with other agencies. (Hamilton, 2014, para. 1)

Table G3

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 4

What is the population size of your community?		
Answer Options	Response Percent	Response Count
Less than 50,000	40.7%	55
50,001 – 100,000	23.0%	31
100,001 – 200,000	14.1%	19
200,001 – 300,000	4.4%	6
300,001 – 400,000	1.5%	2
400,001 – 500,000	2.2%	3
More than 500,000	14.1%	19
answered question		135
skipped question		0

Note. (Survey Monkey [S.M.], 2015)

Important ASI preparedness measures include training (in the classroom, in the field, and with other public safety agencies), notifications, situational awareness, and planning. Of these preparedness measures, situational awareness is the most versatile—as it can be used anywhere

and at any time. Maintaining situational awareness at the scene of every incident is important to safeguarding all personnel from violent attacks (Emergency Management and Response-Information Sharing and Analysis Center, 2015, p. 1); and it is essential that all response personnel increase their situational awareness through simple human intelligence and intuitiveness (Parker, 2012, p. 38).

Table G4

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 5

Has your community experienced an Active Shooter Incident?		
Answer Options	Response Percent	Response Count
Yes	24.4%	33
No	69.6%	94
Other (please comment)	5.9%	8
answered question		135
skipped question		0

Note. (S.M., 2015)

Not all communities have the financial resources or fire department personnel and resources to develop an ASI preplan. Of surveyed fire departments [ASI Survey], most (40.7%) serve communities smaller than 50,000 people (see Table G3), and only 24.4% have experienced an actual ASI (see Table G4). While only 54 out of 135 participating ASI Survey participants have performed an ASI vulnerability assessment (see Table G1), almost all participating organizations (128) are preparing in some way: Training 77%; Developing SOG/SOP/Policies 72.6%; Developing Partnerships 79.3%; Better awareness 60%; and Better equipment 34.1% (see Table G5).

Albuquerque Fire Department Special Operations Captain Jackie White stated that AFD is currently not prepared for an ASI; however, AFD is much better prepared than in years past (J. White, Personal Communication, July 1, 2015). Captain White stated that it is going to take time, planning, and training to get everyone proficient in ASIs before AFD is fully prepared (J.

White, Personal Communication, July 1, 2015). Furthermore, Captain White states that the AFD must work with all emergency response agencies to improve their ASI response:

Our plan is to train quarterly with LE [law enforcement] with a full scale exercise yearly. Understanding the operational and tactical goals of each agency is critical; [including] understanding and using a unified command system. Basic training [must include] full scale exercises with all agencies. As [AFD] gets proficient at [ASI] type of incidents, [AFD] needs to then train on the multi-threat incident such as: Mumbai style attack, fire used as a weapon, multiple shooters, and IED's [improvised explosive devices]. (J. White, Personal Communication, July 1, 2015)

Table G5

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 9

What is your organization doing to prepare for an Active Shooter Incident?		
Answer Options	Response Percent	Response Count
Training	77.0%	104
Developing SOG/SOP/Policies	72.6%	98
Developing Partnerships (Schools, EMS, Fire, Police,	79.3%	107
Better awareness	60.0%	81
Better equipment	34.1%	46
Nothing	5.2%	7
Other (please specify)	5.2%	7
answered question		135
skipped question		0

Note. (S.M., 2015)

Currently, the AFD is in Phase 3 of 5 in their ASI Training Schedule (see Figure F4). The ultimate goal is to provide the COA with a prepared, competent, coordinated, and safe ASI response (J. White, Personal Communication, July 1, 2015). An ASI response will require an SOG—which has been created (see Appendix A). Therefore, in answering the second research question, the preparedness measures that the Albuquerque Fire Department has taken for an ASI are: planning, training, and the development of a response SOG.

AFD Overall Active Shooter Training Plan	
<u>Completed Phase 1 (2013)</u>	Overview introduction of the plan to move forward with Active Shooter response. Case study review of these types of calls across the country.
<u>Completed Phase 2 (2013)</u>	Work with LEO to test Unified Command and ways to place Firefighters within LEO for more efficient medical response to victims.
<u>Current Phase 3 (2015)</u>	Teach All AFD firefighters what is expected of them at an Active Shooter scene. (Unified command, moving within security detail, triage, move patients to CCP or triage.
<u>Phase 4 (2016)</u>	Teach all APD field personnel the importance of Unified Command, what to expect from AFD at an Active Shooter scene, and how best to interact.
<u>Phase 5(2016)</u>	Run Full-scale exercises with AFD, APD, possibly sister agencies annually.

Figure F4. AFD Overall Active Shooter Training Plan (White, 2015)

The results for the third research question, *What are other emergency response organizations doing for Active Shooter Incidents?*, came from questionnaires, written sources, and the ASI Survey. “Fire and EMS tactics are changing. Fire and EMS would traditionally stage some distance away . . . until the scene has been secured by law enforcement. Now, police, fire/EMS are training together to respond to active-shooter incidents” (Ludwig, 2013, para. 7). However, training is just one component of a successful change in tactics. Written or

Table G6

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 13

Does your organization currently have an Active Shooter Incident Response Plan/Protocol in place?		
Answer Options	Response Percent	Response Count
Yes	41.5%	56
No	24.4%	33
Currently in the process of developing a Plan/Protocol	34.1%	46
answered question		135
skipped question		0

Note. (S.M., 2015)

verbal, an Incident Action Plan (IAP) requires the responders to use learned tactics through *procedural guidance*. Procedural guidance, in this case, represents an ASI SOG, SOP or policy; and it needs to include all emergency responders (Law Enforcement, Fire, EMS, etc.). “Strategic

plans . . . must be in place, interoperable language and procedures must exist, and cross-disciplinary training must be completed prior to an [ASI] event” (Interagency Board, 2015, p. 1).

The days of unaccountable actions—responding without a response plan—must end. The fire service must be a responsible organization for all aspects of emergency response; this includes teamwork with other agencies for any event type. According to the ASI Survey, only 41.4% of participating organizations have an ASI response plan or policy in place (see Table G6); more importantly, participants have police (83%), fire (85.9%), and EMS (78.5%) involved in their current and future ASI plans and policies (see Table G7).

Table G7

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 14

What organizations are involved in your Active Shooter Incident Response Plan/Protocol?		
Answer Options	Response Percent	Response Count
Police	83.0%	112
Fire	85.9%	116
EMS	78.5%	106
None	9.6%	13
Other (please specify)	23.0%	31
answered question		135
skipped question		0

Note. (S.M., 2015)

King County Medic One Assistant Chief Aaron Tyerman believes his organization is as prepared as they’ll ever be after experiencing several ASIs over the last 10 years (A. Tyerman, Personal Communication, June 5, 2015).

Our organization is tied to a county wide response. We have a “Scenes of Violence” policy that covers all in progress scenes of violence. We also have a “Rescue Task Force” policy that is used [with TECC]. We have used their templates to develop most of our policies and procedures if we encounter an active shooter event where law enforcement cannot make the scene immediately secure. We could handle a single event; however, a well-coordinated attack on multiple sites would cripple our infrastructure. To

date we have trained all 3,000 paramedics, firefighters, and police officers in Rescue Task Force operations. (A. Tyerman, Personal Communication, June 5, 2015)

Chief Tyerman also states that King County Medic One works very well with their emergency partners and that they train multiple times a year with fire, EMS, law enforcement, and federal agencies (A. Tyerman, Personal Communication, June 5, 2015).

Table G8

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 10

Does your organization currently train for Active Shooter Incidents?		
Answer Options	Response Percent	Response Count
Yes, in house only	5.2%	7
Yes, with outside agencies (police, fire, EMS)	60.7%	82
No	16.3%	22
Currently in the development stage of training	17.8%	24
answered question		135
skipped question		0

Note. (S.M., 2015)

Lane Fire Authority Assistant Chief Chris Heppel believes that his organization is not ready for an ASI; however, he states that his organization is improving by training with other agencies with their *High Threat Tactics, Techniques and Treatments for Emergency Responders (HT4)* course (C. Heppel, Personal Communication, June 19, 2015).

We completed an active shooter exercise in 2012 call “Falcon Defender”. Locally we learned a lot about our capabilities and short falls [we experienced the Thurston High School shooting 1998]. Lessons learned included unified command (Law Enforcement [LE] recognizing the benefits of unified command and how fire/EMS can be a force multiplier in hostile incidents), terminology between fire and LE, scene management, CCP [casualty collection point] location, triage and alternative modes of transport. [We can improve] Inter-agency cooperation and currently we are training fire/EMS agencies

within the state using the HT4 class. The goal is to establish cooperation between the fire and LE agencies to prepare for these events. (C. Heppel, Personal Communication, June 19, 2015)

Chief Heppel also stated that Lane Fire Authority has begun awareness training with the RTF Model and will be using it in conjunction with the TECC course; however, a specific ASI SOG has not been fully developed (C. Heppel, Personal Communication, June 19, 2015). The development of an ASI SOG has been slowed by the level of coordination with multiple jurisdictions and disciplines responding to ASI incidents; and it has been an effort to get the law enforcement agencies to develop a single plan in which to respond (C. Heppel, Personal Communication, June 19, 2015).

Table G9

The Active Shooter Incident: A Vulnerability Assessment Survey – Question 15

How does/will your organization respond to an Active Shooter Incident?		
Answer Options	Response Percent	Response Count
First Responders only (No Police - grab patients and go)	1.5%	2
Police/SWAT Response Team (No EMS - PD will bring patients out after the scene is secured)	24.4%	33
Rescue Task Force Team (your personnel attached to a Police entry unit - joint partnership)	56.3%	76
No Active Shooter response	5.9%	8
Other (please specify)	11.9%	16
answered question		135
skipped question		0

Note. (S.M., 2015)

Like King County Medic One and Lane Fire Authority, ASI Survey participants (113) are currently training for an ASI—in some form or another (see Table G8). As for ASI responses, surveyed organizations revealed that 56.3% of all participants will be responding to ASIs with the RTF Model; of note, 24.4% will have a police unit bring out the patient(s); 11.9% are working on a plan, and 5.9% will provide no response at all (see Table G9). Finally, in the June

2015 issue of *Homeland Security Affairs* the authors, within their *New Model for Responding to Active Shooter Incidents*, stated:

To clarify, as with the law enforcement response, this must be the first arriving Fire/EMS assets on scene, not special operations or tactical medical teams. The law enforcement patrol officers must provide security for the Fire/EMS personnel during operations. The latter must have appropriate medical supplies and equipment and must be trained in some basic law enforcement movement/tactics. These Fire/EMS responders must base their treatments on the medical principles of civilian *Tactical Emergency Casualty Care*, not military *Tactical Combat Casualty Care*, to meet the standard of care for medicine in civilian high threat scenarios. (Atwater, Delaney, Marino, & Smith, 2015, p. 8)

Therefore, in answering the third research question, emergency response organizations are currently preparing, training, building policies, and cooperating/partnering with law enforcement agencies for Active Shooter Incident responses.

Discussion

The purpose of this ARP was to develop an AFD SOG for ASI responses. The answers to the research questions were provided by new research and are supported by the literature review and have provided many factors towards presenting a new guideline. While additional aspects of ASIs must be considered, certainly the results of this research paper will contribute to the future of emergency response in the COA. Furthermore, the COA must consider implementing ASI policies, guidelines, or procedures throughout all city properties using the results of this research paper. The interpretation of research provided in this paper is clear—the Albuquerque Fire Department must implement an Active Shooter Incident Standard Operation Guideline.

The evidence produced by the first research question concedes that COA has emergency response vulnerabilities to ASIs. Acknowledging Albuquerque's vulnerabilities is the first step towards implementing future successful changes in emergency response. The evolution of emergency response needs a proactive approach.

Currently, Albuquerque's ASI response vulnerabilities are: lacking a call specific response SOG; limited in definitive health care systems; having communication concerns; limited in EMS transport units; and lacking NIMS (ICS and UC) familiarity with law enforcement.

Not surprisingly, Albuquerque's vulnerabilities to ASIs parallel the same deficiencies found within the literature review and the country as a whole. To be clear, today's organizations will continue to identify vulnerabilities when performing *high-risk/low-frequency* events; however, response organizations must anticipate and overcome deficiencies with teamwork.

Albuquerque's preparedness measures to ASIs match those within the *Public mass shootings in the United States* study, where all emergency response agencies must provide continuous preparedness, flexible communications, standardized responses through resource management, and incident management and coordination with all NIMS concepts and principles; more importantly, public safety needs to be more proactive in their vulnerability assessments, not reactive (Bjelopera et al., 2013, pp. 13-14).

In President Barack Obama's 2013 *Now is the Time: The President's plan to protect our children and our communities by reducing gun violence* report, the US Government deemed it immediately necessary to expand access to training and ensure that protocols for responding to active shooter situations are consistent between law enforcement and first responders at all levels (The White House, 2013, p. 8). Also in 2013, the IAFC, a huge proponent of firefighter response

and safety, declared: “It is imperative that local fire and law enforcement agencies have common tactics, common communication capabilities and a common lexicon for seamless, effective operations” (para. 4).

Perhaps the most compelling indication for performing an ASI response vulnerability assessment is that it will save lives by mitigating first responder risk and improving the emergent and immediate medical management of casualties encountered during ASIs (US DHS [First Responder], 2015, p. 7).

The data provided by the second research question reveals that the AFD has begun implementing significant preparedness measures for an ASI through their Training Division. The ASI training began in 2013 with Phase 1 and will continue through 2016 with the conclusion of Phase 5; with the goal of a continuous all-agency full participation annual ASI training event after 2016. The current lengthy training regimen is due to personnel (size in general, new hires, and retirements), continuing education in other operational disciplines, and the importance of learning and implementing a new life-saving response configuration.

The ASI preparedness measures by the AFD are in line with the *First Responder Guide for Improving Survivability in Improvised Explosive Device and/or Active Shooter Incidents* report; which explains the importance of ASI response preparedness measures: “To prepare for and reduce death following an active shooter event . . . [it] is imperative that more widespread dissemination and adoption of lessons learned from these incidents . . . occur with . . . first responders” (US DHS [First Responder], 2015, p. 25). In fact, Albuquerque’s preparedness measures to ASIs match those within the Ergenbright and Hubbard study as well, where local law enforcement and emergency response agencies must train together in ASI response (including an annual exercise); be able to provide a tactical ASI response; and use an ASI

response SOP that is integrated within all local emergency response agencies (Ergenbright & Hubbard, 2012, p. 143).

Within the AFD's ASI training regimen, right now, firefighters are learning how to respond with the RTF Model, using the TECC guidelines, and coordinating their response efforts with members of APD. Albuquerque Fire Department and APD personnel are also actively working together, providing ASI training and using Unified Command in all response decision-making processes. "Regardless of complexity, the greater the preparedness and familiarity with . . . personnel and plan, the more effective and efficient a . . . response will be to an active shooter incident" (Healthcare and Public Health Sector Coordinating Council, 2015, p. 26). Part of the AFD's actual response will include specific ASI equipment, such as:

1. Ballistic vests and ballistic helmets
2. Filters for SCBA masks in the event of a Chemical, Biological, Radiological and Nuclear (CBRN) incident
3. Specialized EMS equipment (TCCC & TECC)
 - a. Hemostatic agents
 - b. Tourniquets
 - c. Pressure dressings
 - d. Re-warming blankets
 - e. Fox trot litters for patient extrication

(J. White, Personal Communication, July 1, 2015)

In line with the 2012 NFFF's 14 new recommendations for Life Safety Initiative No. 12 (from the 16 Firefighter Life Safety Initiatives), the AFD has recognized and began addressing ASI preparedness concerns found in their vulnerability assessment. Specifically, the AFD is

working on new life safety initiatives for No. 12 – Violent Incident Response (by number): (3) Use of Unified Command and the Incident Management System; (4) No Self-Dispatch; (7) Adoption of Response Protocols and Policies; (8) Use of Training Programs with other Agencies; (10) Conduct Planning Sessions with other Agencies; and (12) Work with Law Enforcement and Develop Procedures and Guidelines for ASIs (National Fallen Firefighters Foundation, 2013, p. 16). Additionally, the AFD’s new ASI response equipment meets the same recommendations as specified by the US DHS’ *Protective ASI Equipment*:

1. First responders should develop inter-domain (EMS, fire, and law enforcement) Tactics, Techniques, and Procedures (TTPs)—including use of ballistic vests, better situational awareness, and application of concealment and cover concepts—and train first responders on them.
2. As technology improves, first responders should adopt proven protective measures (e.g., body armor) that have been demonstrated to reliably shield personnel from IED fragments and shock waves.
3. First responders, when dealing with either IED or active shooter incidents, must remain vigilant and aware of the potential risk posed by secondary IEDs or additional shooters.

(US DHS [First Responder], 2015, p. 6)

The information collected from the third research question uncovered what other emergency response organizations are doing for ASIs and corresponds with the information gathered in the literature review. King County Medic One Assistant Chief Aaron Tyerman revealed that his organization’s ASI response involves training and coordination with their emergency partners. Chief Tyerman stated that they train multiple times a year with all of their partners for ASIs, including fire, EMS, law enforcement, and federal agencies (A. Tyerman,

Personal Communication, June 5, 2015). King County Medic One has also developed several of their own ASI policies and procedures and will be using the RTF Model with the TECC course for future ASIs (A. Tyerman, Personal Communication, June 5, 2015).

Lane Fire Authority completed an active shooter exercise in 2012 call *Falcon Defender*. Lane Fire Authority Assistant Chief Chris Heppel stated that his organization learned a lot about their ASI capabilities and short falls; specifically, lessons learned included the immediate need for interagency corporation (C. Heppel, Personal Communication, June 19, 2015). Lane Fire Authority now trains with other fire, EMS and law enforcement agencies within the state using the *High-Threat Tactics, Techniques and Treatments for Emergency Responders (HT4)* ASI class. Chief Heppel stated that Lane Fire Authority is completing their ASI SOG and will be responding with the RTF Model using the TECC guidelines (C. Heppel, Personal Communication, June 19, 2015).

In 2007, the Arlington County (VA) police and fire departments recognized that they had deficiencies with ASI responses and began proactive training with one another. They discovered that the *hurry up and wait* routine was not the best way of responding to these call types and that led to the RTF Model (Scott & Schwartz, 2014, p. 22). In truth, the ASI response that most fire departments are using right now falls in line with the RTF Model (using the TECC guideline). Of the three Tactical ASI responses (TEMS, TCCC, RTF using TECC), only the RTF model, using the TECC guideline, provides today's emergency response organizations the best ASI response results. In fact, not a single person has ever been saved from an ASI using a TEMS response; and fire department personnel—in the streets—are not armed, and thus cannot use the specific military style TCCC response (C. Heppel, Personal Communication, June 19, 2015; A. Tyerman, Personal Communication, June 5, 2015).

In addition, the 2015 US DHS *First Responder Guide for Improving Survivability in Improvised Explosive Device and/or Active Shooter Incidents* report is in line with today's fire department ASI preparedness measures, training, and responses—including the AFD.

Specifically, the US DHS report states: *Response and Incident Management*:

1. Local and state law enforcement and emergency services should institutionalize NIMS-based command and control language through plans and exercises and during ongoing education and training.
2. Local and state emergency management, EMS, fire, and law enforcement personnel and receiving medical facilities should have interoperable radio and communications equipment.
3. Local, state and federal partners should consider expansion of PSAP intake procedures to include information gathering vital to the initial response.
4. Training to improve first responder triaging precision is essential for dealing with IED and/or active shooter incidents.
5. There should be greater coordination among EMS, fire services, and law enforcement to work more effectively during IED and/or active shooter incidents.

The dialogue should focus on potential improvements or changes to the TTPs which have historically been used during law enforcement situations that involve a medical emergency. (US DHS [First Responder], 2015, pp. 6, 7)

Active shooter incidents have not just recently appeared in the US; in fact, they have been occurring for some time and quite often. An average of 6.4 ASIs in the US occurred annually from 2000 – 2006, and an average of 16.4 occurred annually from 2007 – 2013 (Blair & Schweit,

2014, p. 6). Today's fire departments must be better prepared and practiced to respond to ASIs—which falls right in line with the literature review:

Historically, police, fire, and EMS personnel have viewed their first responder roles as independent. In many jurisdictions, interagency rivalry and 'turf battles'—some collegial and healthy, but many not—have developed as various public safety entities compete for budget, community recognition, and a long legacy of pride. Targeted high-threat attacks do not allow for operational lines to be 'drawn in the sand.' Instead, success is predicated on a combined fire-EMS-law enforcement response; one coordinated team to neutralize threats and save lives. (Interagency Board, 2015, p. 2)

Recommendations

The ensuing recommendations support the vision and mission of the Albuquerque Fire Department and are based on the information provided by this ARP.

- Present this ARP's findings to the COA Mayor, City Councilors, Fire and Police Chiefs.
- Direct the COA to hire a firm to further investigate the City's preparedness for an ASI.
- Direct the COA to create an ASI partnership with Federal, State, County, and City Agencies; as well as local businesses and schools.
- Direct the COA to help integrate private sector "Run, Hide, and Fight" and basic first aid initiatives.
- Direct the COA to coordinate all E-911 communications for ASI response agencies through one radio channel/frequency; and eliminate 10 codes.
- Direct the COA to establish an Ad Hoc Committee on addressing and providing a more robust definitive health care system in the City; specifically: adding an additional level 1 trauma center and more E-911 transport capable units.

- Direct the COA to fully implement the National Incident Management System (NIMS) with all public safety agencies.
- Direct the COA to oversee an all-public safety agency annual ASI exercise.
- Direct the COA to find permanent funding for ASI education, training, and equipment.
- Direct the AFD to implement the ASI Response SOG (Appendix A).
- Direct the AFD to create a Tactical Worksheet for ASI events.

The implementation of these recommendations can lead to a successful active shooter incident response by the Albuquerque Fire Department. The COA will provide its citizens a better quality of life by being better prepared and trained for active shooter incidents.

Active shooter incidents are relevant to every emergency response organization in the world, and while these specific recommendations may not be applicable to all agencies, they can still add value to the fire service, as a whole, by providing guidance for future researchers investigating active shooter incidents.

References

- Albuquerque Fire Department. (n.d.). *Risk assessment*. Albuquerque, NM: Author.
- Albuquerque Fire Department. (2005). *2004 year-end report*. Albuquerque, NM: Author.
- Albuquerque Fire Department. (2014). *Vision, values, mission and strategic goals* (No. 118). Albuquerque, NM: Author.
- Albuquerque Fire Department. (2015). *Chief's reports - 2014 year end*. Albuquerque, NM: Author.
- Atwater, P. A. (2013). The fire service's role in active-shooter situations. Retrieved from <http://www.firefighternation.com/article/strategy-and-tactics/fire-service-s-role-active-shooter-situations>
- Atwater, P. A., Delaney, J., Marino, M., & Smith, R. (2015, June). To save lives and property: High threat response. *Homeland Security Affairs*, 11, 1-18.
- Bjelopera, J. P., Bagalman, E., Caldwell, S. W., Finklea, K. M., & McCallion, G. (2013). *Public mass shootings in the United States: Selected implications for federal public health and safety policy* (CRS 7-5700). Retrieved from Congressional Research Service website: http://journalistsresource.org/wp-content/uploads/2013/03/MassShootings_CongResServ.pdf
- Blair, P. J., & Schweit, K. W. (2014). *A study of active shooter incidents in the United States between 200 and 2013*. Washington D.C.: U.S. Department of Justice.
- Cable News Network. (2015). 1993 World trade center bombing fast facts. Retrieved from <http://www.cnn.com/2013/11/05/us/1993-world-trade-center-bombing-fast-facts/>
- City of Albuquerque. (n.d.). *Albuquerque quick facts/demographics*. Retrieved from <https://www.cabq.gov/economicdevelopment/why-albuquerque/albuquerque-quick-facts>

- Cohn, D., Taylor, P., Lopez, M. H., Gallagher, C. A., Parker, K., & Maass, K. T. (2013). *Gun homicide rate down 49% since 1993 peak: Public unaware*. Washington, D.C.: Pew Research Center.
- Curry, C., & James, M.S. (2013). *Alleged teen killer Nehemiah Griego's girlfriend cleared in family murders*. Retrieved from ABC News website: <http://abcnews.go.com/US/alleged-mexico-family-killer-nehemiah-griegos-girlfriend-tells/story?id=18290148>
- Emergency Management and Response-Information Sharing and Analysis Center. (2015, July 9). Firefighters shot, stabbed on routine calls. *The Infogram*, 15(28), 1.
- Ergenbright, C. E., & Hubbard, S. K. (2012). *Defeating the active shooter: Applying facility upgrades in order to mitigate the effects of active shooters in high occupancy facilities*. Monterey, CA: Navy Postgraduate School.
- Federal Emergency Management Agency. (2014). *Executive analysis of fire service operations in emergency management* (3rd ed.). Emmitsburg, MD: FEMA.
- Gray, Sr., F. M. (2014). *An analysis of risks associated with active shooter incidents within the city of Dallas* (EFO No. 3652). Emmitsburg, MD: National Fire Academy.
- Hamilton, S. C. (2014). Active-shooter incidents: Planning your response-full. *Fire Engineering*. Retrieved from <http://www.fireengineering.com/articles/1/volume-167/issue-9/active-shooter-incidents/active-shooter-incidents-planning-your-response-full.html>
- Healthcare and Public Health Sector Coordinating Council. (2015). *Active shooter planning and response in a healthcare setting*. Retrieved from <https://www.fbi.gov/about-us/office-of-partner-engagement/active-shooter-incidents/active-shooter-planning-and-response-in-a-healthcare-setting>

Interagency Board. (2015). *Integrating law enforcement, fire, and emergency medical services during active shooter/ hybrid targeted violence incidents* [White paper]. Arlington, VA:

Author.

International Association of Fire Chiefs. (2013). Active shooter and mass casualty terrorist events. Retrieved from

http://www.iafc.org/files/1ASSOC/IAFCPosition_ActiveShooterEvents.pdf

International Association of Fire Fighters. (2013). *Tactical EMS*. Retrieved from

http://www.chinookmed.com/SWAT_Medic_Position_Statement.pdf

Kaiser Permanente (Cartographer). (2015). Hazard and vulnerability assessment tool.

Albuquerque, NM: Author.

Lohmann, P. (2014, February 5). Car chase suspect was shot 8 times. *Albuquerque Journal*.

Retrieved from <http://www.abqjournal.com/348096/news/man-in-car-chase-shot-8-times.html>

Ludwig, G. (2013). EMS: The active shooter: Coming to a community near you? *Firehouse*.

Retrieved from <http://www.firehouse.com/article/11233142/fire-service-ems-and-active-shooters>

Martinez, E. (2010, July 13). *Emcores shooter Robert Reza kills two, self, say police* [Press

release]. Retrieved from CBS News: <http://www.cbsnews.com/news/emcore-shooter-robert-reza-kills-two-self-say-police/>

National Fallen Firefighters Foundation. (2013). *Firefighter life safety initiative 12*. Retrieved

from Every One Goes Home website: http://www.everyonegoeshome.com/wp-content/uploads/2014/04/FLSI12_FinalReport.pdf

New Mexico Department of Health. (2015). *2014 Public health risk assessment analysis*. Santa Fe, NM: Author.

New Mexico Department of Health. (2014). *All-hazard emergency operations plan*. Santa Fe, NM: Author.

North American Rescue. (n.d.). *Tactical combat casualty care (TCCC)*. Retrieved from https://www.narescue.com/Tactical_Combat_Casualty_Care.htm

Pacific Emergency Medical Training. (n.d.). *Tactical emergency casualty care*. Retrieved from http://www.pacificemergencymedicaltraining.com/?page_id=84

Paddock, B. (2015). How the unthinkable losses on 9/11 reshaped the FDNY. Retrieved from <http://www.nydailynews.com/new-york/unthinkable-losses-9-11-reshaped-fdny-article-1.2198740>

Parker, B. (2012). Active shooter events survey. *The Tactical Edge*, 38-39.

Police Executive Research Forum. (2014). *The police response to active shooter incidents* (ISBN 978-1-934485-23-1). Washington, D.C.: Author.

Rainey, H. G. (2009). *Understanding and managing public organizations* (4th ed.). San Francisco, CA: Jossey-Bass.

Salka, J. (2004). *First in, last out: Leadership lessons from the New York fire department*. New York, NY: Penguin Group.

Schaitberger, H. (2013). *IAFF members among responders to the Washington Navy yard shooting* [Audio file]. Available from <http://www.iaff.org>.

Scott, M. D., & Schwartz, J. (2014). *Police and fire departments in Arlington County, VA create rescue task forces to speed medical care*. Retrieved from Police Forum:

- http://www.policeforum.org/assets/docs/Critical_Issues_Series/the%20police%20response%20to%20active%20shooter%20incidents%202014.pdf
- Shepard, M. (2015, August 17). 10 Years later: The John Hyde case. *Albuquerque Journal*, p. A1.
- Soto, Jr., F. W. (2014). *Fire-based community paramedicine: Is it a cost effective program for the city of Albuquerque?* (EFO No. 48756). Emmitsburg, MD: National Fire Academy.
- Stepaniak, P. C., & Lane, H. W. (Eds.). (2014). *Loss of signal: Aeromedical lessons learned from the STS-107 Columbia space shuttle mishap* (SP-2014-616). Washington, D.C.: National Aeronautics and Space Administration.
- Survey Monkey. (Cartographer). (2015). The active shooter incident: A vulnerability assessment survey [survey chart]. Retrieved from https://www.surveymonkey.com/analyze/qi9jFgGsnQ9E1bnsceKJ2Qcsu1o7Y_2B6eWHMrVGk7DzI_3D
- Tassy, E. (2013, April 29). Updated: Church stabbing suspect feared Masonic “conspiracy”. *Albuquerque Journal*, p. A1. Retrieved from <http://www.abqjournal.com/193863/news/4-stabbed-during-church-services.html>
- The White House. (2013). *Now is the time: The President’s plan to protect our children and our communities by reducing gun violence*. Retrieved from https://www.whitehouse.gov/sites/default/files/docs/wh_now_is_the_time_full.pdf
- U. S. Census Bureau. (2013). *Albuquerque quick facts*. Retrieved from <http://quickfacts.census.gov/qfd/states/35/3502000.html>
- U. S. Department of Homeland Security. (2008). *Active shooter: How to respond*. Retrieved from https://www.dhs.gov/xlibrary/assets/active_shooter_booklet.pdf

U. S. Department of Homeland Security. (2008). *Active shooter: Pocket card information*.

Retrieved from

http://www.dhs.gov/sites/default/files/publications/active_shooter_pocket_card_508.pdf

U. S. Department of Homeland Security. (2013). *Comprehensive preparedness guide 201:*

Threat and hazard identification and risk assessment guide (2nd ed.). Retrieved from

[http://www.fema.gov/media-library-](http://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf)

[data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf](http://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf)

U. S. Department of Homeland Security. (2015). *Executive fire officer program handbook*.

Retrieved from http://www.usfa.fema.gov/downloads/pdf/efop_guidelines.pdf

U. S. Department of Homeland Security. (2015). *First responder guide for improving*

survivability in improvised explosive device and/or active shooter incidents. Washington,

D.C.: Author.

U. S. Fire Administration. (2014). *America's fire and emergency services leader: Strategic plan*

fiscal years 2014 - 2018. Retrieved from Retrieved from

https://www.usfa.fema.gov/downloads/pdf/publications/strategic_plan_2014-2018.pdf

Urban Fire Forum. (n.d.). UFF position statement: Tactical emergency casualty care (TECC).

Retrieved from [http://www.nfpa.org/~media/files/member-access/member-](http://www.nfpa.org/~media/files/member-access/member-sections/metro-chiefs/uffactiveshooterpositionstatement.pdf?la=en)

[sections/metro-chiefs/uffactiveshooterpositionstatement.pdf?la=en](http://www.nfpa.org/~media/files/member-access/member-sections/metro-chiefs/uffactiveshooterpositionstatement.pdf?la=en).

Wallace, G. (2014). *An analysis of Howard County emergency services responses to active*

shooter incidents (EFO No. 48531). Emmitsburg, MD: National Fire Academy.

White, J. (Cartographer). (2015). AFD overall active shooter training plan. Albuquerque, NM:

Jackie White.

Appendix A

AFD Standard Operating Guideline (SOG) for an Active Shooter Incident (ASI)

ALBUQUERQUE FIRE DEPARTMENT STANDARD OPERATING GUIDELINES Active Shooter Incident Response			
SOG 5-8-08		Page 51 of 5	
SOG Committee Action	Implemented 00-0-0000	Revision 00-0-0000	Implemented 00-0-0000

Purpose

The Implementation of Albuquerque Fire Department (AFD) involvement with Law Enforcement (LE) while responding to Active Shooter Incidents in order to provide rapid and lifesaving aid to the victims of these incidents as quickly and safely as possible

Scope

Applies to All Personnel

Guideline

This guideline describes how AFD will respond to Active Shooter Incidents (ASI) in the Albuquerque Metro Area as well as when assisting County, State, and Federal agencies.

Operational Guidance

A coordinated effort with LE will better prepare the response and mitigation of evolving ASIs, resulting in more saved lives, and ensuring better safety for all responders.

- Risk Management Plan for an ASI:
 - o *We will risk a lot to protect savable lives.*
 - o *We will risk nothing to save that which is already lost.*
- Objectives:
 - o Establish Unified Command (LE, Fire, EMS)
 - o Form Rescue Task Force Team(s) (RTF) with LE
 - o Hemorrhage control
 - o Rapid patient care and extrication
 - o Transport to appropriate definitive care facility

**ALBUQUERQUE FIRE DEPARTMENT
STANDARD OPERATING GUIDELINES****Active Shooter Incident Response****SOG 5-8-08****Page 2 of 5**

SOG Committee Action	Implemented 00-0-0000	Revision 00-0-0000	Implemented 00-0-0000
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- Zones:
 - o Hot Zone
 - The definition of the Hot Zone is “Immediate area within line of sight or line of fire related to the incident, i.e. KILL ZONE”. At NO TIME will the RTF respond/operate within the Hot Zone.
 - o Warm Zone
 - The Warm Zone requires special protective clothing and/or where firefighting personnel are at risk of becoming lost, trapped, or injured by the environment or structure. Functions performed within the Warm Zone will include the following:
 - RTF Operations
 - Hemorrhage control
 - Rapid Patient Care and Extrication to exit or Casualty Collection Point
 - Located within the Warm Zone will be the following:
 - RTF fire apparatus working the incident (i.e.; engines, rescues, squads)
 - Casualty Collection Point (CCP) if needed
 - Specialized equipment/resource
 - o Cold Zone
 - The Cold Zone is outside the Warm Zone where no apparent risk from the incident exists. The following will be within the Cold Zone:
 - Preparation and donning of RTF PPE
 - Formation of subsequent RTF teams
 - Unified Command Post
 - CCP/Triage/Treatment/ Transport
 - Level II staging
 - Support and Staff personnel
 - Rehab
 - PIO
 - Media

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STANDARD OPERATING GUIDELINES**

Active Shooter Incident Response

SOG 5-8-08

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SOG Committee Action	Implemented 00-0-0000	Revision 00-0-0000	Implemented 00-0-0000
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If at any time firefighters within the Warm or Cold Zone become threatened, then the Warm or Cold Zone becomes a Hot Zone and all RTF and Fire personnel will be sheltered in place, or escorted out of the Hot Zone by LE as soon as possible.

- Active Shooter Procedures
 - LE maintains operational command during any incident involving a Direct Threat, Active Shooter. Fire Department will coordinate with LE Command on scene and establish Unified Command.
- Initial Dispatch
 - Automatic activation of First Alarm Medical Dispatch and EMS Tactical Channel assigned.
 - 2 – AFD Rescues
 - 2 – AFD Engines
 - Unit 78
 - Squad 2
 - AFD Battalion Commander
 - Transport Company Transport Units
 - Transport Company supervisor/QA officer
 - Declare Tier II
- Enroute to Scene:
 - Request LE radio channel (Area Command)
 - Request AFD Staging Location.
 - Request Incident Command Post (CP) Location.
- Initial Response Units to Scene:
 - First Arriving Unit
 - Assume Initial Command
 - Make contact with LE
 - Size up (location, staging area, information received by LE, etc.)

**ALBUQUERQUE FIRE DEPARTMENT
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Active Shooter Incident Response

SOG 5-8-08

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SOG Committee Action	Implemented 00-0-0000	Revision 00-0-0000	Implemented 00-0-0000
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- o Battalion Commander
 - Assumes Command (Transfer of Command)
 - Establishes Unified Command with LE Incident Commander at the CP
 - Forms and briefs RTF
 - Upon hearing *AFD RTF Ready*
 - Assigns RTF at his/her discretion to LE security detail
 - ❖ Designation *RTF 1*
 - ❖ Designate additional RTF 2, 3, 4...etc., as needed
- o Unit 78
 - Assist RTF in preparation to enter with LE
 - Assumes role of EMS Branch Director
- o First front line AFD unit
 - Retrieve RTF Kit (Vest, Helmet, IFAK, SCBA Mask) from BC or 78
 - Firefighters will don PPE for RTF and prepare to join LE Security Detail
 - When ready to join LE, RTF Officer will advise Fire Command;
 - *RTF 1 Ready*
- Initial Entry by LE
 - o Identify and designate a CCP
- CCP
 - o Could be in Warm or Cold Zone
 - o Triage and treatment of extricated patients
 - o Sorted into Red, Yellow, Green
 - o LE Orange
 - o Prepare for Transport (Priority)
- Benchmarks
 - o Declaration of Mass Casualty Incident (MCI) – Low, High, Disaster
 - o Designation of UNIFIED COMMAND
 - o *RTF Ready*
 - o *RTF making entry* (note time)
 - o Designation of CPP
 - o Progressive CAN (including # of Red, Yellow, Green, Black) while searching

**ALBUQUERQUE FIRE DEPARTMENT
STANDARD OPERATING GUIDELINES**

Active Shooter Incident Response

SOG 5-8-08

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SOG Committee Action	Implemented 00-0-0000	Revision 00-0-0000	Implemented 00-0-0000
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- o All savable victims to CCP
- o All savable victims to Triage
- o All Immediate(s) Transported
- o *RTF exiting and PAR* (note time)
- o *RTF Standing Down*

Definitions and Terms

RTF – Rescue Task Force (consisting of firefighter [AFD] in proper PPE to enter with LE in order to render medical care, extricate, and move patients to an area for transport to definitive care.

CCP – Casualty Collection Point

LE – Law Enforcement (APD, BCSO, Corrales PD, UNM PD, VA PD, APS PD, RRPD)

CP – Command Post

MCI – Mass Casualty Incident

CAN Report – Conditions Actions Needs

IFAK – Individual first aid kit

HOT ZONE or KILL ZONE – Immediate area within line of sight or line of fire related to the incident

LZ – Landing zone for helicopters

CLEAR – An area deemed *Safe* by LE. An area in a building that LE has taken control of and there is no immediate threat to First Responders.

BEARCAT – Armored vehicle utilized by local SWAT Teams. (APD, BCSO, NMSP) There are three in the City of Albuquerque.

SAFETY CORRIDOR – A Safety Corridor must be established by LE and Fire to safely remove people from the scene. This is a passageway out of the Hot Zone.

COVER – An area where personnel are out the of immediate danger of gunfire

LAND SLIDE – This is a term commonly used by tactical teams when there is severe danger detected and leaving the area immediately is the best chance of survival for all involved.

IED – Improvised Explosive Device

Appendix B

Questionnaire Questions for King County Medic One Assistant Chief Aaron Tyerman

June 5, 2015

1. Do you understand what the phrase *Active Shooter Incident* is?

I do.

2. Has your community experienced an Active Shooter Incident?

We have experienced several over the last 10 years.

3. Does your organization have a specific standard operating procedure/guideline/policy for an active shooter Incident? If so, what is your organization doing for Active Shooter Incidents?

Our organization is tied to a county wide response. We have a “Scenes of Violence” policy that covers all in progress scenes of violence. We also have a “Rescue Task Force” policy that is used if we encounter an active shooter event where law enforcement cannot make the scene immediately secure. To date we have trained all 3,000 paramedics, fire fighters, and police officers in Rescue Task Force operations.

4. What are your community’s vulnerabilities to an Active Shooter Incident?

Seattle Tacoma International Airport. Three one million plus square foot malls. High rise, federal and governmental facilities, and an international border three hours north of us. Seahawk Stadium (Century Link), and Mariner Stadium (Safeco Field)

5. Is your organization prepared for an Active Shooter Incident?

We are. As well prepared as one can be.

6. What measures are needed to better prepare your organization for an Active Shooter Incident?

Multi coordinated attacks. We could handle a single event, however, a well-coordinated attack on multiple sites would cripple our infrastructure.

7. What can improve interagency responses to an Active Shooter Incident in your community?

This is probably where we are strongest. We traditionally work very well with our emergency partners. Our biggest obstacle is communications. We have four major dispatch centers, and communications can be troublesome in big events.

8. What equipment does your organization use (or will use) for Active Shooter Incidents?

Each individual has a ballistic vest, and an each piece of apparatus has a trauma go bag for RTF scenarios.

9. What resources will be needed during an Active Shooter Incident in your community?

Depending on size and scope of the incident, we would require mutual aid from outside agencies, other counties, and potentially state, military, and federal assets should the situation warrant.

10. How often is your organization training for an Active Shooter Incident; and with whom?

Multiple times a year, with all of our partners to include Fire, EMS, LE, and federal. (ATF, DEA, FAM, etc.)

11. What kind/type of Active Shooter Incident Training does your organization use?

- a. Are you familiar (and what are your thoughts) with the *Rescue Task Force (RTF)* Model for Active Shooter Incidents?

We are, and have fully implemented it.

- b. Are you familiar (and what are your thoughts) with *Tactical Emergency Casualty Care (TECC)* Guidelines for Active Shooter Incidents?

Very familiar, and support C-TECC. We have used their templates to develop most of our policies and procedures.

- c. Are you familiar (and what are your thoughts) with the *Tactical Combat Casualty Care (TCCC)* Course for Active Shooter Incidents?

Good content, however, we are not in the military. When you are trying to sell TCCC the first reaction that TCCC calls for is "Superior Fire Power". If you take TCCC there is a slide in the slide deck that states that TCCC should not appropriate for civilian deployment. We do not carry guns, we are not soldiers, and although there is excellent content there, it should not be brought across for policy creation in civilian Fire/EMS.

- d. Are you familiar (and what are your thoughts) with *Tactical EMS (TEMS)* for Active Shooter Incidents?

Since the invention of Tactical EMS, a tactical paramedic has never been first on scene. It is the same reason why law enforcement went away from “surround and wait for SWAT” after Columbine. Response to AS events is going to be done by the men and women who are first on scene. We cover 520 square miles, there is no way that we have the time to wait for our tactical medics to muster and come to the scene. SWAT and our Tac Med team have a defined purpose, it is not on AS events.

12. Do you believe fire/EMS personnel should enter the hot/kill zone with Law Enforcement during an Active Shooter Incident in order to extract victims? Why or why not?

Never. We are not gun fighters, we are fire fighters and paramedics. We do not have the capabilities to defend ourselves in a hot zone. I would never hand a cop a 2 ½ and ask him or her to go fight fire without proper training and equipment. AS events are going to be very high stress, people need to stay in their lanes professionally. This is one area that I am absolutely inflexible on (and I’m a very easy going guy)

13. Any additional comments:

Frank, thanks for taking this topic on and giving it some more momentum. It was a long road for us with a lot of hand wringing. I never wanted to be the Chief on the news the following day answering the question as to why we were unwilling to go in and help people in their time of need. Best of luck.

Appendix C

Questionnaire Questions for Albuquerque Fire Department Special Ops Captain Jackie White

July 1, 2015

1. Do you understand what the phrase *Active Shooter Incident* is?

Yes

2. Has your community experienced an Active Shooter Incident?

Yes

3. Does your organization have a specific standard operating procedure/guideline/policy for an active shooter Incident? If so, what is your organization doing for Active Shooter Incidents?

No, but we are currently building a guideline for active shooter incidents.

4. What are your community's vulnerabilities to an Active Shooter Incident?

We have a very limited definitive care system.

We have multiple agencies in the metro area and many different radio frequencies and channels

The use of 10- codes by LE

Limited transport capable units to transport patients to definitive care

Law enforcement, fire, and EMS do not work together very often on joint responses.

I believe that communications will be very challenging

Lack of practiced Unified Command

LE lack of NIMS and ICS

Private sector needs to be trained in "Run, Hide, and Fight."

Private sector (especially teachers) needs to be trained in basic first aid:

**Hemorrhage control
Tourniquets
Pressure dressings**

Airway
Recovery position
Hypothermia prevention

5. Is your organization prepared for an Active Shooter Incident?

Not currently

We have more work to do before we are “prepared.” We are much better than in years past, however; it is going to take time, planning, and training to get everyone proficient.

6. What measures are needed to better prepare your organization for an Active Shooter Incident?

Planning- working with all agencies to be on the same page:

Understanding the operational and tactical goals of each agency is critical

Understanding and using a unified command system

Basic Training- We is currently in phase 3 of a 5 phase plan;

Full scale exercises with all agencies

We will need to address training through attrition in both fire and law enforcement cadet programs.

Advance Training-The basic active shooter incident is a good start to being prepared. As we get proficient at that type of incident, we need to then train on the multi-threat incident such as:

Mumbai style attack
Fire used as a weapon
Multiple shooters
IED's

Private sector outreach:

Training on Run, hide, fight
First aid training

7. What can improve interagency responses to an Active Shooter Incident in your community?

Collectively working as a team

Ensure all stakeholders are involved

Ensure common radio channels (completed in 2013)

8. What equipment does your organization use (or will use) for Active Shooter Incidents?

Ballistic vests and ballistic helmets

Filters for SCBA masks in the event of a CBRN incident

Specialized EMS equipment (Recommendations from TCCC & TECC)

Hemostatic agents

Tourniquets

Pressure dressings

Re-warming blankets

Fox trot litters for patient extrication

9. What resources will be needed during an Active Shooter Incident in your community?

A large (organized) police, fire, and EMS response

Alternative radio communications if repeaters go down

Transport capable units

Mental health professions (IE Chaplain services)

Red Cross

Public Information officers

Reunifying locations

Busses to move large groups of people

Media cooperation

10. How often is your organization training for an Active Shooter Incident; and with whom?

Our plan is to train quarterly with LE with a full scale exercise yearly.

Currently, weekly.

11. What kind/type of Active Shooter Incident Training does your organization use?

- a. Are you familiar (and what are your thoughts) with the *Rescue Task Force (RTF)* Model for Active Shooter Incidents?

We are utilizing the RTF model and feel it is the best model currently.

- b. Are you familiar (and what are your thoughts) with *Tactical Emergency Casualty Care (TECC)* Guidelines for Active Shooter Incidents?

I am familiar with the TECC guidelines. I think that anything evidence based such as TECC and TCCC are best practice models.

- c. Are you familiar (and what are your thoughts) with the *Tactical Combat Casualty Care (TCCC)* Course for Active Shooter Incidents?

Same as above. We have sent 6 instructors in our department through the TCCC train-the-trainer course in order to instruct our department on this type of training. We have trained the last 3 paramedic classes the TCCC course as part of their curriculum.

- d. Are you familiar (and what are your thoughts) with *Tactical EMS (TEMS)* for Active Shooter Incidents?

TEMS is a great program but I feel it is not appropriate for an active shooter incident. Much like the SWAT teams, TEMS are delayed in their response to an active shooter incident.

12. Do you believe fire/EMS personnel should enter the hot/kill zone with Law Enforcement during an Active Shooter Incident in order to extract victims? Why or why not?

It is my preference to not send EMS/Fire personnel into the hot/kill zone. Having said that, every active shooter incident is different and very fluid.

13. Any additional comments:

I would like to see if there is any discussion on fire service caring weapons. I realize this is very slippery slope but one that deserves some thought. As the fire service has become an all-hazards response service, it makes me wonder how far away we are from adding weapons training to our plate. I have included our training schedule.

AFD Overall Active Shooter Training Plan
<u>Completed Phase 1 (2013)</u> - Overview introduction of the plan to move forward with Active Shooter response. Case study review of these types of calls across the country.
<u>Completed Phase 2 (2013)</u> - Work with LEO to test Unified Command and ways to place Firefighters within LEO for more efficient medical response to victims.
<u>Current Phase 3 (2015)</u> - Teach All AFD firefighters what is expected of them at an Active Shooter scene. (Unified command, moving within security detail, triage, move patients to CCP or triage.
<u>Phase 4 (2016)</u> - Teach all APD field personnel the importance of Unified Command, what to expect from AFD at an Active Shooter scene, and how best to interact.
<u>Phase 5(2016)</u> - Run Full-scale exercises with AFD, APD, possibly sister agencies annually.

Appendix D

Questionnaire Questions Lane Fire Authority Assistant Chief Chris Heppel

June 19, 2015

1. Do you understand what the phrase *Active Shooter Incident* is?

Yes, specifically the national definition is “an individual actively engaged in killing or attempting to kill people in a confined and populated area” (criminal actions involve the use of firearms). The word “confined” was removed from the definition after the Navy Yard Active Shooter incident.

2. Has your community experienced an Active Shooter Incident?

Yes, Thurston High School shooting 1998.

3. Does your organization have a specific standard operating procedure/guideline/policy for an active shooter Incident? If so, what is your organization doing for Active Shooter Incidents?

Our specific SOG is currently under development. Development has been slowed by the level of coordination with multiple jurisdictions and disciplines responding to these incidents. It has been an effort to get the LE agencies to develop a single plan in which to respond. For example, will LE bring the injured to the CCP? Will the rescue taskforce concept be implemented? Will a safety corridor be used versus a CCP?

4. What are your community’s vulnerabilities to an Active Shooter Incident?

Geography and lack of law enforcement. Our district is beyond the city limits so first LE response is limited to a single patrol deputy who is only available 16 hours daily then mutual aid. The response time for mutual aid LE would be between 10-15 minutes. In addition the Sherriff’s dispatch center is not co-located with central dispatch center. In addition after a recent CAD update the two dispatch centers CAD systems are not long connected. Information must be transferred over the phone.

5. Is your organization prepared for an Active Shooter Incident?

Absolutely not. We completed an active shooter exercise in 2012 call “Falcon Defender”. Locally we learned a lot about our capabilities and short falls. Lessons learned included unified command, terminology between fire and LE, scene management, CCP location, triage and alternative modes of transport.

6. What measures are needed to better prepare your organization for an Active Shooter Incident?

A common operating picture between LE and Fire/EMS, unified command, all agencies understand their role at an active shooter incident and aware of the capabilities and limitations of responding agencies.

7. What can improve interagency responses to an Active Shooter Incident in your community?

Inter-agency cooperation. Law enforcement recognizing the benefits of unified command and how fire/EMS can be a force multiplier in hostile incidents.

8. What equipment does your organization use (or will use) for Active Shooter Incidents?

We don't use specialized equipment. The tools needed to treat patients generated by an active shooter incident we carry every day. With the exception of a small go bag with tourniquets, chest seals, needles and body mover tarps.

9. What resources will be needed during an Active Shooter Incident in your community?

Certainly LE, Fire and EMS however school districts play a large role and have a lot of resources in terms of facilities, PIO, reunification services etc.

10. How often is your organization training for an Active Shooter Incident; and with whom?

Currently we are training fire/EMS agencies within the state using the HT4 class. The goal is establish interest within the fire service to seek cooperation with their local LE to prepare for these events.

11. What kind/type of Active Shooter Incident Training does your organization use?

- a. Are you familiar (and what are your thoughts) with the *Rescue Task Force (RTF)* Model for Active Shooter Incidents?

Yes and provide awareness level training for RTF to include a scenario

- b. Are you familiar (and what are your thoughts) with *Tactical Emergency Casualty Care (TECC)* Guidelines for Active Shooter Incidents?

Yes, we use their guidelines in our HT4 class.

- c. Are you familiar (and what are your thoughts) with the *Tactical Combat Casualty Care (TCCC)* Course for Active Shooter Incidents?

Yes, however the NAEMT program is too military centric. They are working

on a TECC (civilian) version which is supposed to be released in June 2015. We are also a NAEMT TCCC approved training site.

- d. Are you familiar (and what are your thoughts) with *Tactical EMS (TEMS)* for Active Shooter Incidents?

TEMS is a concept not a program. Having a tactical EMS person at an active shooter scene is great however there hasn't been one at an active shooter incident yet. And if they were how did they make a difference?

12. Do you believe fire/EMS personnel should enter the hot/kill zone with Law Enforcement during an Active Shooter Incident in order to extract victims? Why or why not?

No, they should be limited to the warm zone or imbedded within an RTF using a 2X2 or a 4X4 configuration. Hot zone operations should be limited to specially trained EMS personal or as I call them the ninja medics. Line personnel don't have the time or budget to complete the training too effectively and safety operate in the hot zone.

13. Any additional comments:

We are currently teaching a self-developed course called; High-Threat Tactics, Techniques and Treatments for Emergency Responders (HT4). Course Description: Nationally EMS services are increasingly being exposed to "High Threat" scenarios such as violent crime, active shooter, bombings and disaster response. Traditionally the assumption has been specially trained EMS or Law Enforcement personnel would deploy to treat and manage these incidents. However a review of high threat incidents over the last ten years indicates the responder on shift or volunteer is treating the majority of patients generated by these incidents. This class one day class provides an awareness level education for the responder who answers the call daily. This course will address active shooter facts/myths, scene awareness, how to implement LCES, CCP selection, hot/warm/cold zones and self-care. In addition this course centers on the right interventions at the right time during the three phases of care: direct, indirect and evacuation. The class will conclude with hands-on scenarios and an introduction to the Rescue Task Force concept. As of the end of June 2016 the class has been 10 deliveries of this course. Funding for this course is through a grant from the Oregon Department of Public Safety Standards Training (DPSST). I expect DPSST will approve another grant for the next fiscal year 2015-2016.

Appendix E

Questionnaire Questions for Albuquerque Police Department Officer Ray DeFrates

July 11, 2015

1. Do you understand what the phrase *Active Shooter Incident* is?

Yes I do.

2. Has your community experienced an Active Shooter Incident?

Yes it has.

3. Does your organization have a specific standard operating procedure/guideline/policy for an active shooter Incident? If so, what is your organization doing for Active Shooter Incidents?

No policy, but all officers have been trained in active shooter response utilizing direct threat tactics.

4. What are your community's vulnerabilities to an Active Shooter Incident?

Any location where people gather in a geographically defined location. Schools, malls, concerts, sporting events, office buildings, etc.

5. Is your organization prepared for an Active Shooter Incident?

As well or better than other Agencies I have had discussions with.

6. What measures are needed to better prepare your organization for an Active Shooter Incident?

In-service training utilizing reality based training (force on force scenario training)

7. What can improve interagency responses to an Active Shooter Incident in your community?

Joint exercises both table top at command level and scenario based at the first responder level.

8. What equipment does your organization use (or will use) for Active Shooter Incidents?

Standard issue police equipment: Handgun, light source, level III-a body armor, radio, patrol rifle, shotgun, etc.

9. What resources will be needed during an Active Shooter Incident in your community?

Unified response from all neighboring law enforcement and EMS agencies. Civilian support groups such as Red Cross. Logistic support from area government agencies and local business's.

10. How often is your organization training for an Active Shooter Incident; and with whom?

At basic cadet training and then when voluntarily available.

11. What kind/type of Active Shooter Incident Training does your organization use?

Immediate action team can self-deploy.

- a. Are you familiar (and what are your thoughts) with the *Rescue Task Force (RTF)* Model for Active Shooter Incidents?

I am very familiar with this concept and I am strongly in favor of it for first responders.

- b. Are you familiar (and what are your thoughts) with *Tactical Emergency Casualty Care (TECC)* Guidelines for Active Shooter Incidents?

I am least familiar with this concept and how it differs from TEMS.

- c. Are you familiar (and what are your thoughts) with the *Tactical Combat Casualty Care (TCCC)* Course for Active Shooter Incidents?

Familiar. I believe it to be the best course for military/combat zones.

- d. Are you familiar (and what are your thoughts) with *Tactical EMS (TEMS)* for Active Shooter Incidents?

Very familiar. With the proper support a great concept for specialized units.

12. Do you believe fire/EMS personnel should enter the hot/kill zone with Law Enforcement during an Active Shooter Incident in order to extract victims? Why or why not?

I believe the EMS personnel should not enter the kill zone knowingly or intentionally due to their lack of training and equipment to deal with a deadly threat. I do not believe in the concept of armed EMS personnel in a kill zone. With the availability of EMS I am not in favor of law enforcement personnel providing medical care, other than what is legally expected of the untrained.

13. Any additional comments: **None**

Appendix F

Figures F1 – F4

Figure F1 – The THIRA Process



Figure F2 – NM DOH Responder Safety and Health Vulnerability Assessment

1	Capability		Responder Safety and Health							
2	Definition		The responder safety and health capability describes the ability to protect public health agency staff responding to an incident and the ability to support the health and safety needs of hospital and medical facility personnel, if requested. Additionally to assist in the identification of the medical and mental/behavioral health risks (routine and incident-specific) to responders and communicate this information prior to, during, and after an incident.							
Results reported below are based on a probability scale of not applicable, low, moderate and high.			Results reported below are based on participant responses/total number of participants surveyed.							
3	Hazard	Probability of Hazard	Hazard Impact on Humans	Hazard Impact on Property	Hazard Impact on Businesses	Full Ability or Capacity for Capability	Significant Ability or Capacity for Capability	Some Ability or Capacity for Capability	Limited Ability or Capacity for Capability	No Ability or Capacity for Capability
	Conventional Terrorism	Low	Moderate	Low	Low	3/15	2/15	7/15	3/15	0
	Pandemic Influenza	Moderate	Moderate	Low	High	4/15	3/15	7/15	0	1/15
	Severe Winter Storm	High	Low	Moderate	Moderate	5/15	2/15	7/15	1/15	0
	Tornado	Low	Low	Low	Low	4/15	2/15	6/15	1/15	2/15
	Wild Fire	High	Low	Moderate	Moderate	5/15	1/15	8/15	1/15	0
	Local Biological Disease Outbreak	Moderate	Moderate	Low	Moderate	3/15	2/15	8/15	1/15	1/15

Figure F3 – AFD Hazard and Vulnerability Assessment – Human Related Events

HAZARD AND VULNERABILITY ASSESSMENT TOOL – HUMAN RELATED EVENTS								
EVENT	PROBABILITY	SEVERITY = (MAGNITUDE - MITIGATION)						RISK
		HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	
	Likelihood this will occur	Possibility of death or injury	Physical losses and damages	Interruption of services	Preplanning	Time, effectiveness, resources	Community/ Mutual Aid staff and supplies	Relative threat*
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Mass Casualty Incident (trauma)	3	2	1	2	1	1	1	44%
Mass Casualty Incident (medical/infectious)	2	2	1	2	1	1	1	30%
Terrorism, Biological	1	2	2	2	2	2	2	22%
VIP Situation	1	1	1	1	1	1	1	11%
Infant Abduction	1	1	1	1	1	1	1	11%
Hostage Situation	3	2	1	2	1	1	1	44%
Civil Disturbance	3	2	2	2	1	1	1	50%
Labor Action	2	1	1	1	1	1	1	22%
Forensic Admission	1	1	1	1	1	1	1	11%
Bomb Threat	2	2	2	2	1	1	1	33%
AVERAGE	1.90	1.60	1.30	1.60	1.10	1.10	1.10	27%

*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY
0.27 0.63 0.43

Figure F4 – AFD Overall Active Shooter Training Plan

AFD Overall Active Shooter Training Plan
<u>Completed Phase 1 (2013)</u> - Overview introduction of the plan to move forward with Active Shooter response. Case study review of these types of calls across the country.
<u>Completed Phase 2 (2013)</u> - Work with LEO to test Unified Command and ways to place Firefighters within LEO for more efficient medical response to victims.
<u>Current Phase 3 (2015)</u> - Teach All AFD firefighters what is expected of them at an Active Shooter scene. (Unified command, moving within security detail, triage, move patients to CCP or triage.
<u>Phase 4 (2016)</u> - Teach all APD field personnel the importance of Unified Command, what to expect from AFD at an Active Shooter scene, and how best to interact.
<u>Phase 5(2016)</u> - Run Full-scale exercises with AFD, APD, possibly sister agencies annually.

Appendix G

ASI Survey Email, Questions, and Answers (Tables)



Albuquerque Fire Department EMS Division

David Downey, Fire Chief

May 25, 2015

Dear Participant:

My name is Frank Soto Jr. and I am the Albuquerque Fire Department EMS Division Commander. I am currently writing my third-year Applied Research Project (ARP) as a student in the Executive Fire Officer Program at the National Fire Academy. I have selected your organization to participate in a survey: *The Active Shooter Incident: A Vulnerability Assessment Survey (ASI Survey)*.

If I have sent this survey to the wrong person within your city/village/town/county, then please forward it to the correct person.

The data from this survey will be used in my ARP: *The Active Shooter Incident: Is the Albuquerque Fire Department Prepared?* Your reported data will be in my report as well as your organization's name; however, no data linking them together will be revealed.

There are 15 check box style questions in this survey. I appreciate and thank you for taking a few minutes of your time to complete the following survey.

Your information will greatly assist me in this research project. All responses will need to be completed by June 25, 2015. Once again, thank you for your assistance!

Sincerely,

Frank Soto Jr.

Frank Soto Jr., **MPA, CFO, CEMSO, MIFireE, NRP**
EMS Division Commander
Albuquerque Fire Department

The Active Shooter Incident: A Vulnerability Assessment Survey (ASI Survey)

1. What is the name of you organization?

Answer Options	Response Percent	Response Count
Company	100.0%	135
<i>answered question</i>		135
<i>skipped question</i>		0

2. What type of organization do you work for?

Answer Options	Response Percent	Response Count
Public/Municipal FD	83.0%	112
Private FD	0.0%	0
Volunteer FD	3.7%	5
Private Ambulance Company	1.5%	2
Hospital-Based Ambulance	0.7%	1
Third Party Ambulance (city owned and operated)	4.4%	6
Other (please specify)	6.7%	9
<i>answered question</i>		135
<i>skipped question</i>		0

3. How is your organization staffed?

Answer Options	Response Percent	Response Count
All Career	60.7%	82
Combination (career and volunteer)	31.9%	43
Volunteers	5.9%	8
Other (please specify)	1.5%	2
<i>answered question</i>		135
<i>skipped question</i>		0

4. What is the population size of your community?

Answer Options	Response Percent	Response Count
Less than 50,000	40.7%	55
50,001 - 100,000	23.0%	31
100,001 - 200,000	14.1%	19
200,001 - 300,000	4.4%	6
300,001 - 400,000	1.5%	2
400,001 - 500,000	2.2%	3
More than 500,000	14.1%	19
<i>answered question</i>		135
<i>skipped question</i>		0

5. Has your community experienced an Active Shooter Incident?		
Answer Options	Response Percent	Response Count
Yes	24.4%	33
No	69.6%	94
Other (please comment)	5.9%	8
<i>answered question</i>		135
<i>skipped question</i>		0

6. Has your organization performed an Active Shooter Incident Vulnerability Assessment?		
Answer Options	Response Percent	Response Count
Yes	40.0%	54
No	41.5%	56
Currently in the process	18.5%	25
<i>answered question</i>		135
<i>skipped question</i>		0

7. What are your organization's most vulnerable areas of an Active Shooter Incident?		
Answer Options	Response Percent	Response Count
Response capabilities	37.0%	50
Deployment of personnel	40.0%	54
Personnel Protective Equipment (PPE for a Shooter event)	47.4%	64
ICS - Unified Command (with police, EMS, Fire, etc.)	43.0%	58
No vulnerabilities	5.2%	7
Other (please specify)	9.6%	13
<i>answered question</i>		135
<i>skipped question</i>		0

8. What Active Shooter Incident obstacles does your organization face?		
Answer Options	Response Percent	Response Count
Lack of Level 1 Trauma Centers	28.1%	38
Communications (Police/Fire/EMS/Hospital - Radio/Banners/Dispatch)	39.3%	53
Funding	45.2%	61
Multi Casualty/Mass Casualty Incident (MCI)	34.1%	46
None	11.1%	15
Other (please specify)	14.1%	19
<i>answered question</i>		135
<i>skipped question</i>		0

9. What is your organization doing to prepare for an Active Shooter Incident?

Answer Options	Response Percent	Response Count
Training	77.0%	104
Developing SOG/SOP/Policies	72.6%	98
Developing Partnerships (Schools, EMS, Fire, Police, Hospitals, Local Leaders, Politicians)	79.3%	107
Better awareness	60.0%	81
Better equipment	34.1%	46
Nothing	5.2%	7
Other (please specify)	5.2%	7
answered question		135
skipped question		0

10. Does your organization currently train for Active Shooter Incidents?

Answer Options	Response Percent	Response Count
Yes, in house only	5.2%	7
Yes, with outside agencies (police, fire, EMS)	60.7%	82
No	16.3%	22
Currently in the development stage of training	17.8%	24
answered question		135
skipped question		0

11. How often does your organization train for Active Shooter Incidents?

Answer Options	Response Percent	Response Count
Weekly	0.0%	0
Monthly	2.2%	3
Quarterly	7.4%	10
Annually	44.4%	60
No Training	23.0%	31
Other (please specify)	23.0%	31
answered question		135
skipped question		0

12. How does your organization train for Active Shooter Incidents?

Answer Options	Response Percent	Response Count
Drills (Physical)	65.2%	88
Table-top exercises	37.8%	51
Classroom (Lecture)	45.2%	61
Virtual/SIM Room	0.7%	1
No training	14.8%	20
Currently in the process of developing a training program	20.7%	28
Other (please specify)	5.2%	7
answered question		135
skipped question		0

13. Does your organization currently have an Active Shooter Incident Response Plan/Protocol in place?		
Answer Options	Response Percent	Response Count
Yes	41.5%	56
No	24.4%	33
Currently in the process of developing a Plan/Protocol	34.1%	46
<i>answered question</i>		135
<i>skipped question</i>		0

14. What organizations are involved in your Active Shooter Incident Response Plan/Protocol?		
Answer Options	Response Percent	Response Count
Police	83.0%	112
Fire	85.9%	116
EMS	78.5%	106
None	9.6%	13
Other (please specify)	23.0%	31
<i>answered question</i>		135
<i>skipped question</i>		0

15. How does/will your organization respond to an Active Shooter Incident?		
Answer Options	Response Percent	Response Count
First Responders only (No Police - grab patients and go)	1.5%	2
Police/SWAT Response Team (No EMS - PD will bring patients out after the scene is secured)	24.4%	33
Rescue Task Force Team (your personnel attached to a Police entry unit - joint partnership)	56.3%	76
No Active Shooter response	5.9%	8
Other (please specify)	11.9%	16
<i>answered question</i>		135
<i>skipped question</i>		0

Appendix H

Participating Organizations in the ASI Survey

Adams County Fire	East Fork Fire Dept.
Albuquerque Ambulance Service	East Fork Fire Protection District
Albuquerque Fire Department	East Pierce Fire and Rescue
Andover Fire Rescue	Edmond Fire Department
Ann Arbor Township Fire Department	El Paso Fire Department
Anne Arundel County Fire Department	Elgin Fire Dept.
Antigo Fire Department	Enfield Fire Department
Artesia Fire Dept.	Farmington Fire Department
Austin-Travis County EMS	Federal Fire Department
Baltimore City Fire Department	Fort Lauderdale Fire Rescue
Bellevue Fire Department	Garland Fire Department
Bernalillo County FD	Glassy Mountain Fire Department
Bloomington (MN) Fire Department	Golden Fire Dept.
Boston EMS	Greeley Fire Department
Brentwood Fire Rescue	Greensboro Fire Department
Brooksville Fire Rescue	Guam Fire Department
Burnsville MN Fire Department	Guntersville Fire/Rescue
Carmel Fire Department	Gwinnett County Fire and Emergency Services
Catron County/Reserve Ambulance Service	Heartland Fire & Rescue
Causey Fire & EMS	Hiawatha, IA Fire Department
Cedar Hill Fire Department	Howard County Fire Dept.
Cedar Park FD	Howell Area Fire Department
Charlton County Fire Rescue	Isleta EMS
Cibola County Office of Emergency Management	Johns Creek Fire Department
City of Moriarty Fire Department	Kauai Fire Department
City of Richmond Fire & Emergency Services	King County Medic One
City of Westminster, CO	Kootenai County Fire & Rescue
Cochiti Fire Department	La Clinica Del Pueblo EMS
Colerain Township FD	Lane Fire Authority
Columbus Division of Fire	Larkspur Fire Dept.
C-O-MM Fire-Rescue	Las Cruces Fire Department
Concord FD	Louisville Fire Dept.
Copley Fire Department	Luna Fire and Ambulance
Copper Mountain Fire Department	Lynchburg VA Fire Department
Corpus Christi Fire Department	Marina Fire Department
Dallas Fire-Rescue Department	Maui Fire Dept.
Datil volunteer EMS	Medford Fire-Rescue
DeKalb Fire Dept.	Memphis Fire Department
DeSoto Fire Rescue	Miami Beach Fire Department
Durham Fire Department	Mineral Fire Department
	Missoula Rural Fire District

Mountainair Vol. Fire Dept.
Oak Park Fire Department
Old Mystic Fire Department
Omaha Fire Department
Orange County Emergency Services
Orange County Fire Authority
Orlando Fire Dept.
Overland Park Fire Department
Peoria IL. Fire & Rescue Dept.
Pine Hill EMS
Pleasant Hill Fire Rescue
Portland (OR) Fire & Rescue
Poudre Fire Authority
Powhatan County Fire and Rescue, VA
Pullman Fire Department
Red River Fire Department
Rogers Fire Department
Rowan County Emergency Services
Rutland MA fire Department
Salt River Fire Department
San Diego Fire Rescue
San Francisco Fire Department
Sandoval County Fire Department
Santa Fe County FD
Seattle Fire Department
Seville-Guilford Fire & EMS

Shawnee FD
Sheboygan Fire Department
Sierra Vista Hospital Ambulance
Smithfield Fire Department
Solon Fire Rescue
South Elgin Fire District
Springdale Fire Dept.
Springfield Fire Department
St. Tammany Parish Fire Protection District
#4
Strathcona County Emergency Services
(Canada)
Texico Vol. Fire Dept.
Thurston County Fire Protection District #3
Tooele Army Depot Fire Department
Town of Brookfield Fire Department
University Fire Department (AK)
Ventura City (CA) Fire Department
Virginia Beach Fire Department
West Hamblen County VFD
West Manatee Fire & Rescue District
Westerville Division of Fire
Westminster Fire Department
Winterville fire-rescue-ems
York Area United Fire and Rescue