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MONTEREY, CALIFORNIA

THESIS

**ACTIVE SHOOTER RESPONSE:
CAN A COMPREHENSIVE APPROACH
ADDRESS THE EXISTING GAPS?**

by

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December 2023

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ADDRESS THE EXISTING GAPS?**

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ABSTRACT

The Incident Command System (ICS), initially designed for handling wildfires in the 1970s, presents shortcomings when applied to active shooter events (ASEs). While effective for large-scale disasters like hurricanes or wildfires, the ICS model often leaves first responders unguided during the crucial first minutes of an ASE. This thesis examines the effectiveness of the ICS in ASEs by analyzing its use by law enforcement and fire/emergency medical services, revealing its inadequacies. Research indicates that most deaths in these situations occur in the initial minutes, yet ICS is often established much later. This thesis features a comparative study of peer-reviewed academic research, government agency data, and the policies shaping U.S. response models to assess what practices exist and how they have been implemented by first responders and civilians during ASEs. Despite the urgency required for such events, there is no national standard for first responders to address ASEs, leading to varied and sometimes ineffective responses. The increasing prevalence of ASEs, characterized by military-style tactics and weapons, underscores a pressing need for an integrated response model for both first responders and civilians. This model would not only expedite the response but could also provide effective guidelines for communities.

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LIST OF ACRONYMS AND ABBREVIATIONS

ALERRT	Advanced Law Enforcement Rapid Response Training
APD	Austin Police Department
ASE	active shooter event
ATIRC	Active Threat Integrated Response Course
CISA	Cybersecurity and Infrastructure Security Agency
DHS	Department of Homeland Security
EMS	emergency medical service(s)
FBI	Federal Bureau of Investigation
FFPCA	Federal Fire Prevention and Control Act
HSPD	homeland security presidential directive
IACP	International Association of Chiefs of Police
ICC	isolate, contain, and call
IED	improvised explosive device
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department
LAWAPD	Los Angeles World Airport Police Department
LAX	Los Angeles International Airport
LVMPD	Las Vegas Metropolitan Police Department
MACTAC	Multi-Assault, Counter Terrorism Action Capabilities
NIMS	National Incident Management System
RTF	rescue task force
SWAT	special weapons and tactics
TECC	Tactical Emergency Casualty Care
TSA	Transportation Security Administration
USSS	U.S. Secret Service

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EXECUTIVE SUMMARY

This thesis reviews the Incident Command System (ICS) and its drawbacks when used by first responders during active shooter events (ASEs) and explores whether a national integrated response model would better prepare first responders and the communities they serve. It features a comparative study of peer-reviewed academic research, government agency data, and government policies shaping U.S. response models to assess what practices exist and how they have been implemented by first responders and civilians during ASEs. This thesis does not investigate active shooter motivations or the prevention of attacks. Instead, based on the available research, statistics, and threat assessments, it assumes that ASEs will continue and that first responders and civilian communities will need to prepare for and mitigate them.

This thesis analyzes research on active shooter response models including Multi-Assault, Counter Terrorism Action Capabilities (MACTAC), the Active Threat Integrated Response Course (ATIRC), and Advanced Law Enforcement Rapid Response Training.¹ This exploration involves a broad analysis of ASEs generally rather than specific location types, such as schools or businesses. This analysis highlights literature as close to primary research as possible but considers the input of secondary and tertiary researchers to support the goals of this thesis.

Six historic ASEs—the 1966 University of Texas tower shooting; the 1997 Los Angeles bank heist shooting; the 1999 Columbine High School shooting; the 2012 Aurora, Colorado, movie theater shooting; the 2013 shooting at Los Angeles International Airport; and the 2017 Las Vegas music festival shooting—were chosen and analyzed because of

¹ M. Hunter Martaindale and J. Pete Blair, “The Evolution of Active Shooter Response Training Protocols since Columbine: Lessons from the Advanced Law Enforcement Rapid Response Training Center,” *Journal of Contemporary Criminal Justice* 35, no. 3 (2019): 342–56, <https://doi.org/10.1177/1043986219840237>; “Active Threat Integrated Response Course (PER-340),” NCBRT/Academy of Counter-Terrorist Education, accessed April 19, 2023, <https://www.ncbrt.lsu.edu/courses/dhs/PER-340.php>; National Tactical Officers Association, *Multi-assault, Counter Terrorism Action Capabilities (MACTAC): Course Overview and Instructional Goals* (Colorado Springs: National Tactical Officers Association, 2018).

their historical significance in influencing first-responder training and tactics.² These cases depict how quickly ASEs start, how much devastation occurs in the first few minutes, and how ICS does not address the most crucial minutes of critical incidents. Current research suggests that a prepared community and adequately equipped and trained first responders who immediately address the threat could mitigate the loss of life.³ This case analysis focuses on the phenomenon of over-convergence at individual events whereby first-responder agencies send all available resources to an active shooter event, not keeping any in reserve for secondary or tertiary attacks. This activity trend was examined in light of the complex coordinated attacks in Mumbai, India, and Paris, France, where multiple attacks took place across the respective cities.⁴

This thesis offers best practices in training and equipment for first responders and civilian communities nationwide. However, it does not promote specific tactical response models for first responders. Organizations like the International Association of Chiefs of Police and the International Association of Fire Chiefs could advance the findings of this thesis. Furthermore, by considering the unique histories, cultures, training, and equipment provisions of law enforcement and fire/emergency medical service (EMS) units, this thesis underscores the fundamental differences that hinder a seamless and unified response to ASEs.⁵

² James J. Seebock, “Responding to High-Rise Active Shooters” (master’s thesis, Naval Postgraduate School, 2018), <https://hdl.handle.net/10945/61267>; Martin T. Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone” (master’s thesis, Naval Postgraduate School, 2016), <https://hdl.handle.net/10945/49402>; Joel M. Justice, “Active Shooters: Is Law Enforcement Ready for a Mumbai Style Attack?” (master’s thesis, Naval Postgraduate School, 2013), <https://hdl.handle.net/10945/37645>.

³ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 1–2.

⁴ Theodore J. Moody, “Filling the Gap between NIMS/ICS and the Law Enforcement Initial Response in the Age of the Urban Jihad” (master’s thesis, Naval Postgraduate School, 2010), 38, <https://apps.dtic.mil/sti/citations/ADA531492>.

⁵ Moody, “Filling the Gap,” 56–57; James P. Warwick, “A Comprehensive Study of Police Preparedness and Training for Effectively Responding to and Stopping Active Shooters in the U.S.” (PhD diss., Wilmington University, 2015), 25–28, ProQuest; Federal Fire Prevention and Control Act of 1974, Pub. L. 93–498 § 3, 88 Stat. 1535 (1974); Cynthia Vargas, “Tactical Firefighter Teams: Pivoting toward the Fire Service’s Evolving Homeland Security Mission” (master’s thesis, Naval Postgraduate School, 2016), 9–10, <https://apps.dtic.mil/sti/citations/AD1030108>.

The analysis also underscores the importance of community involvement and preparation in ASEs.⁶ Given the increased threat that ASEs pose to homeland security, compounded by the use of military-grade weapons and tactics, there is a need to reassess and overhaul existing strategies, integrating both first-responder and civilian initiatives to ensure a more effective and coordinated response. A well-coordinated, tactically integrated response can effectively counter the threat, ensure the safety of first responders and civilians, and save lives.⁷

Given the increasing need for immediate ASE response programs, an integrated response from law enforcement and fire/EMS personnel is paramount. Programs like MACTAC, ATIRC, and ALERRT emphasize immediate deployment to incapacitate active threats and ensure civilian safety.⁸ An essential aspect of these programs includes “warm-zone care” whereby law enforcement escorts fire/EMS personnel into semi-secure areas to administer urgent medical care.⁹ Furthermore, joint training exercises are invaluable in fostering mutual understanding and collaboration between law enforcement and fire/EMS units. Such exercises instill a comprehensive understanding of each unit’s roles and responsibilities during a crisis.¹⁰ Leadership within law enforcement and fire/EMS must undergo dedicated training programs to grasp the intricacies of managing these high-stakes incidents.¹¹

The discussion of training first responders to counter ASEs must extend beyond general strategies and tactics to specific weapons and equipment systems. While many

⁶ NCBRT/Academy of Counter-Terrorist Education, “Active Threat Integrated Response”; Department of Homeland Security, *Active Shooter: How to Respond* (Washington, DC: Department of Homeland Security, 2008).

⁷ Moody, “Filling the Gap,” 55.

⁸ M. Hunter Martaindale and J. Pete Blair, “The Evolution of Active Shooter Response Training Protocols since Columbine: Lessons from the Advanced Law Enforcement Rapid Response Training Center,” *Journal of Contemporary Criminal Justice* 35, no. 3 (2019): 343–44, <https://doi.org/10.1177/1043986219840237>; Cynthia Renaud, “The Missing Piece of NIMS: Teaching Incident Commanders How to Function in the Edge of Chaos,” *Homeland Security Affairs* 8, no. 1 (2012): 11.

⁹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 99.

¹⁰ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 350.

¹¹ Renaud, “The Missing Piece of NIMS,” 12.

first-responder agencies possess some of this equipment, not all are trained or equipped to use it.¹² Providing officers with the right equipment—including rifles and firearms, along with proper ammunition, optics, and accessories suitable for countering ASEs—is essential.¹³ Technology like unmanned aerial vehicles can provide bird’s-eye views of buildings and advance warnings of what lies before them inside buildings.¹⁴ Additionally, ballistic body armor, breaching equipment, helmets, gas masks, and less-than-lethal options should be available to ensure the safety of officers and the public.¹⁵

Active shooter response requires a multi-faceted approach: first-responder and community collaboration and equipment. It is imperative to foster a culture of shared understanding and unified response between all first-responder units. Simultaneously, equipping first responders with the right tools and training them adequately are crucial to enhancing their efficiency and safety. As the nature of threats evolves, so must preparedness, thereby ensuring a swift, efficient, and safe response to any crisis.

¹² Justice, “Active Shooters,” 69.

¹³ Seebock, “Responding to High-Rise Active Shooters,” 51.

¹⁴ Seebock, 59–60.

¹⁵ Las Vegas Metropolitan Police Department, *1 October After-Action Review* (Las Vegas: Las Vegas Metropolitan Police Department, 2019), 95–96.

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I. INTRODUCTION

Active shooter events expose the inadequacies of the Incident Command System (ICS), the government-mandated “all-hazards” threat response model. In the 1970s, firefighters developed ICS for wildfire response in California.¹ ICS effectively coordinates multiple response agencies to handle large-scale events like fires and natural disasters. However, it works best when the threat is either over, such as a train derailment or hurricane recovery, or familiar, such as firefighting.² In the ICS model, every event consists of five general phases: initiation, handling, end, debrief, and demobilization. The strength of the National Incident Management System (NIMS)/ICS model develops during the handling phase after the formation of an incident command structure. Before the handling phase, ICS provides almost no guidance for first responders. Initiation, the first phase of an active shooter attack, takes place when the shooting starts and is the first-responder community’s initial response. In an active shooter event, initiation is the most critical phase because most killings occur then.³ However, the incident command arrives after the initial phase, which is often too late because most active shooter events end quickly.⁴ The inadequacies of ICS when used by first responders during active shooter events point to the need for a look at other potential response models.

Responding to active shooter events requires multiple first-responder disciplines working in unison and immediately deploying to the threat area to stop the attack. Yet, first responders, such as firefighters and police officers, train in isolation and deploy to incidents using different methods.⁵ Active shooters often conduct their attacks using military-style

¹ Dick A. Buck, Joseph E. Trainor, and Benigno E. Aguirre, “A Critical Evaluation of the Incident Command System and NIMS,” *Journal of Homeland Security and Emergency Management* 3, no. 3 (2006): 1, <https://doi.org/10.2202/1547-7355.1252>.

² Buck, Trainor, and Aguirre, 2.

³ Cynthia Renaud, “The Missing Piece of NIMS: Teaching Incident Commanders How to Function in the Edge of Chaos,” *Homeland Security Affairs* 8, no. 1 (2012): 3–5.

⁴ Renaud, 3.

⁵ Tracy L. Frazzano and G. Matthew Snyder, “Hybrid Targeted Violence: Challenging Conventional ‘Active Shooter’ Response Strategies,” *Homeland Security Affairs* 10 (February 2014): 4–5.

weapons and tactics to kill their victims, and these attacks are increasing in the United States.⁶ First responders are not sufficiently trained or equipped to handle active shooter attacks and are quickly overwhelmed when entering these environments.⁷ Due to the speed of active shooter attacks, most deaths take place during the first minutes.⁸ Research has revealed that the average length of an active shooter event is 12 minutes, yet establishing the incident command takes tens of minutes or even hours.⁹ With differences in training, equipment, and response, a coordinated multidisciplinary response to active shooters rarely takes place.¹⁰

No national standardized approach for first-responder agencies addresses active shooter attacks. With no guidance from ICS or a standardized response model, independent agencies have created response models to stop the threat quickly and provide care for the injured.¹¹ Additionally, agencies have attempted to educate civilian communities on active shooter preparation. Like the varied rapid shooter response models of first responders, several civilian awareness/preparation models are available to communities.¹² Limited

⁶ Federal Bureau of Investigation, *Active Shooter Incidents: 20-Year Review, 2000–2019* (Washington, DC: Federal Bureau of Investigation, 2021), <https://www.fbi.gov/file-repository/active-shooter-incidents-20-year-review-2000-2019-060121.pdf/view>.

⁷ Frazzano and Snyder, “Hybrid Targeted Violence,” 4–5.

⁸ Renaud, “The Missing Piece of NIMS,” 3.

⁹ Buck, Trainor, and Aguirre, “A Critical Evaluation,” 5; Richard B. Solomon, “Analysis of Emergency Responder Preparedness to Active Shooter Incidents in Santa Barbara, Ventura, Los Angeles, and Riverside Counties” (master’s thesis, California State University, Long Beach, 2017), 39, ProQuest.

¹⁰ Renaud, “The Missing Piece of NIMS,” 5.

¹¹ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 346–47; Federal Bureau of Investigation, *Active Shooter Incidents: 20-Year Review*; Federal Bureau of Investigation, *Active Shooter Incidents in the United States in 2021* (Washington, DC: Federal Bureau of Investigation, 2022), <https://www.fbi.gov/file-repository/active-shooter-incidents-in-the-us-2021-052422.pdf/view>.

¹² Sheldon F. Greenberg, “Active Shooters on College Campuses: Conflicting Advice, Roles of the Individual and First Responder, and the Need to Maintain Perspective,” *Disaster Medicine and Public Health Preparedness* 1, no. S1 (September 2007): S57–61, <https://doi.org/10.1097/DMP.0b013e318149f492>; Lenworth M. Jacobs et al., “Improving Survival from Active Shooter Events: The Hartford Consensus,” *Journal of Trauma and Acute Care Surgery* 74, no. 6 (June 2013): 1399–1400, <https://doi.org/10.1097/TA.0b013e318296b237>; Andrew D. Fisher et al., “National Stop the Bleed Day: The Impact of a Social Media Campaign on the Stop the Bleed Program,” *Journal of Trauma and Acute Care Surgery* 87, no. 1S (July 2019): S40–43, <https://doi.org/10.1097/TA.0000000000002341>; Olivia Johnson et al., “Preparing Civilians to Survive an Active Shooter Event,” *Journal of Law Enforcement* 5, no. 2 (2015): 1–13.

research covers the effectiveness of first-responder or civilian response models. The public research highlights that a slow, undertrained, underequipped response increases the likelihood of more deaths.¹³ Response models vary from agency to agency but provide a framework that could develop into a national initial-phase response standard. Active shooter events are a homeland security issue, as ICS, the system mandated to mitigate all hazards, is insufficient to deal with the most destructive and ever-increasing threat to the United States.¹⁴ An integrated first-responder and civilian preparedness model may provide better community guidelines for responding to an active shooter.

A. RESEARCH QUESTION

What are the drawbacks of using ICS for first responders when responding to active shooter events, and would a national integrated response/preparation model better prepare first responders and the communities they serve?

B. LITERATURE REVIEW

The primary sources of active shooter information in this thesis comprise U.S. government agencies and academic research associated with various universities and the Naval Postgraduate School. The primary government agency sources include the Federal Bureau of Investigation (FBI), the Department of Homeland Security (DHS), the U.S. Secret Service (USSS), and the Cybersecurity and Infrastructure Security Agency (CISA). All the literature identifies active shooter events as a significant national threat to the United States. However, response agencies delineate the literature on active shooter events, thus showing how law enforcement, firefighters, and emergency medical services (EMS) respond differently. Limited research covers the effectiveness of response models and what, if anything, might mitigate this threat nationally. This literature review analyzes multiple perspectives on active shooter response, from first-responder agencies to civilian communities, to assess whether a model or best practice could supplement the existing ICS-based response models.

¹³ Solomon, “Analysis of Emergency Responder Preparedness,” 8–10.

¹⁴ Renaud, “The Missing Piece of NIMS,” 3.

1. U.S. Government Data, Analysis, and Policies

First, U.S. government literature, including homeland security presidential directives (HSPDs) and DHS assessments, procedures, and policies, have identified extremist threats.¹⁵ The FBI has identified lone wolf extremists, such as those who perpetrate active shooter events, and right-wing terrorist groups as significant threats to the nation.¹⁶ Through policy memos related to NIMS/ICS and HSPDs, DHS has provided the background for implementing ICS, the government-mandated all-hazards first-responder response model.¹⁷ In this way, government directives identify the threat and structure the response to it.

Although not first responders, several federal government agencies track crime statistics and provide resource information for law enforcement and civilian communities. As federal agencies, the FBI, DHS, and CISA track statistics and provide first-responder agencies with resource materials on active shooter events. Since 2000, the FBI has been the primary source of statistics on active shooter events. Its statistical analysis, which tracks dates and times, location types, deaths, and injuries, reveals an increase in active shooter events from 2000 to 2021.¹⁸ Notably, the FBI offers no opinion or position on these attacks. In addition to the FBI, DHS, the USSS, and CISA provide web-based resource materials

¹⁵ Department of Homeland Security and Federal Emergency Management Agency, *National Incident Management System* (Washington, DC: Department of Homeland Security, 2008); White House, *National Preparedness*, HSPD-8 (Washington, DC: White House, 2003), <https://irp.fas.org/offdocs/nspd/hspd-8.html>; White House, *Management of Domestic Incidents*, HSPD-5 (Washington, DC: White House, 2003), <https://irp.fas.org/offdocs/nspd/hspd-5.html>; Christopher A. Wray, *Statement before the House Judiciary Committee, United States House of Representatives, at a Hearing Titled "Federal Bureau of Investigation Oversight"* (Washington, DC: Department of Justice, 2023).

¹⁶ Wray, *Statement before the House Judiciary Committee*.

¹⁷ Renaud, "The Missing Piece of NIMS," 3.

¹⁸ Federal Bureau of Investigation, *Active Shooter Incidents: 20-Year Review*; Federal Bureau of Investigation, *Active Shooter Incidents in the United States in 2021*.

for the civilian community to prepare for active shooter events.¹⁹ Although active shooter events account for a tiny portion of national gun violence casualties, they affect the national psyche as the attacks occur randomly, and the victims are often the community's most vulnerable members.²⁰ FBI statistics reflect an exponential increase in active shooter events, underscoring the importance of this research as active shooters threaten national security. These government agencies provide a crucial resource from which first responders can develop response plans and civilian communities can access resources.

2. Weaknesses in the ICS Model

Second, some literature challenges the usefulness of NIMS/ICS for critical incidents including active shooters. ICS is a mandatory protocol for agencies receiving grants for preparedness from the U.S. government.²¹ The first-responder community has questioned the effectiveness of NIMS/ICS given its development for firefighters and law enforcement's awkwardness in implementing it.²² Building on the original ICS research, Buck, Trainor, and Aguirre's work in the first decade of the 21st century addresses the evolution of the ICS model from its inception in the 1970s as a wildfire response plan developed by firefighters through its implementation as a national response plan for all first-responder disciplines. They expound on ICS's evolution from the 1970s to the 1990s, during which a growing pool of researchers criticized ICS.²³ In this way, the mandated response structure has raised many concerns in the first-responder community.

¹⁹ Department of Homeland Security, *Active Shooter: How to Respond* (Washington, DC: Department of Homeland Security, 2008); "Physical Security: Active Shooter Preparedness," Cybersecurity & Infrastructure Security Agency, accessed February 13, 2023, <https://www.cisa.gov/active-shooter-preparedness>; "How We Can Help You: Active Shooter Safety Resources," Federal Bureau of Investigation, accessed March 5, 2023, <https://www.fbi.gov/how-we-can-help-you/safety-resources/active-shooter-safety-resources>; U.S. Secret Service Media Relations, "New Secret Service Research Examines for the First Time Five Years of Mass Violence Data," U.S. Secret Service, January 25, 2023, <https://www.secretservice.gov/newsroom/releases/2023/01/new-secret-service-research-examines-first-time-five-years-mass-violence>.

²⁰ "Number of Homicides by Firearm in the U.S. 2021," Statista, October 19, 2022, <https://www.statista.com/statistics/249803/number-of-homicides-by-firearm-in-the-united-states/>.

²¹ Renaud, "The Missing Piece of NIMS," 3.

²² Buck, Trainor, and Aguirre, "A Critical Evaluation," 1–2; Renaud, "The Missing Piece of NIMS," 3.

²³ Buck, Trainor, and Aguirre, "A Critical Evaluation," 1–3.

Buck, Trainor, and Aguirre, along with other critics, highlight reasons for fire agencies' ICS success. Their research reveals that standardized equipment and a shared understanding of fire and its effects account for the firefighting community's ease in using the ICS framework.²⁴ Notably, firefighters have years of historical experience fighting fires, and fire is an enemy that "does not change tactics or add new weapons" to its arsenal.²⁵ Aligning with the work of Buck and colleagues, Moody reveals that the individuals who developed ICS were experts in their field, worked under similar leadership structures, and collaborated regularly with other agencies.²⁶ For these reasons, firefighting agencies have effectively implemented ICS.

Renaud and Moody, both of whom conducted research in 2010, add to Buck's findings on the limits of NIMS/ICS. Renaud's in-depth look at NIMS/ICS calls into question its use as an effective tool for handling paramilitary-style attacks such as active shooters.²⁷ Renaud's research shows that first responders train to address familiar threats, including criminal activities or fires, yet chaotic events like active shooter scenarios make first responders confront crises that exceed their skills and training.²⁸ In their research, Buck, Trainor, and Aguirre and Renaud question the effectiveness of implementing a response model developed by firefighters for firefighters as an all-inclusive plan for all first responders.²⁹ Similarly, in his research, Moody identifies ICS's limited capacity in managing active shooter events.³⁰ Additionally, Moody and Justice have determined that as paramilitary attacks, active shooter events require military-style counterattacks to the

²⁴ Buck, Trainor, and Aguirre, 4.

²⁵ Buck, Trainor, and Aguirre, 4.

²⁶ Theodore J. Moody, "Filling the Gap between NIMS/ICS and the Law Enforcement Initial Response in the Age of the Urban Jihad" (master's thesis, Naval Postgraduate School, 2010), 7–8, <https://apps.dtic.mil/sti/citations/ADA531492>.

²⁷ Cynthia E. Renaud, "Making Sense in the Edge of Chaos: A Framework for Effective Initial Response Efforts to Large-Scale Incidents" (master's thesis, Naval Postgraduate School, 2010), 22–23, <https://hdl.handle.net/10945/5138>.

²⁸ Renaud, 23.

²⁹ Buck, Trainor, and Aguirre, "A Critical Evaluation"; Renaud, "The Missing Piece of NIMS."

³⁰ Moody, "Filling the Gap," 1.

threat.³¹ Researchers recognize that the chaotic nature of paramilitary attacks like active shooter events makes ICS ill-suited for first responders.

Agreeing with Buck, Trainor, and Aguirre and Moody, Martaindale and Blair differentiate between the training that firefighters, EMS technicians, and law enforcement personnel receive. They explain that law enforcement lacks the characteristics that make the ICS model useful for fire and EMS. Thus, when police officers must implement ICS, they are not well versed in using it.³² This research concludes that the lack of coordinated training and equipping of law enforcement reveals ICS weaknesses in active shooter response.

3. Underprepared First Responders at Active Shooter Events

Third, literature regarding the evolution of law enforcement training and response to critical incidents concludes that the profession has changed its response model to critical incidents only after catastrophes. Martaindale and Blair; Buck, Trainor, and Aguirre; Moody; and Renaud have shown what happens when first responders face crises as fire agencies did in the 1970s. Multiple agencies still respond to active shooters with no multi-agency integration or guidance from ICS to handle the critical first minutes of the attack.³³ Although the authors of the academic research often serve as members of fire/EMS or police departments, some responders have crossover functions. Much of the research, whether articles, theses, or dissertations, covers the history of active shooter attacks and the evolution of first responders' shortcomings to these events. Renaud specifically points out that law enforcement and fire agency response to active shooters has been reactive and that the approach to these events requires change.³⁴ In his research, Warwick pinpoints law enforcement's failure to develop policy or tactical response plans proactively and the

³¹ Joel M. Justice, "Active Shooters: Is Law Enforcement Ready for a Mumbai Style Attack?" (master's thesis, Naval Postgraduate School, 2013), 25, <https://hdl.handle.net/10945/37645>; Moody, "Filling the Gap," 51.

³² Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 350.

³³ Buck, Trainor, and Aguirre, "A Critical Evaluation," 2.

³⁴ Renaud, "The Missing Piece of NIMS," 4–5.

lack of equipment and training to handle active shooter attacks.³⁵ Similarly, Frazzano and Snyder demonstrate the problem with separating law enforcement and fire training because the two disciplines historically silo their efforts.

Only recently have catastrophic events like active shooters forced response agencies to update their response models to create integrated response plans.³⁶ In their 2016 theses, Vargas and Tierney each found that only recently have fire and police agencies created integrated active shooter response models. Limited research covers the effectiveness of these models, but many agencies have used military-based concepts to develop these programs.³⁷ In a 2019 article, Martaindale and Blair contend that integrated police–fire active shooter response models like Advanced Law Enforcement Rapid Response Training (ALERRT), a joint agency response model, could provide a framework for agencies to use.³⁸ These authors feature proactive policy development and implementation of integrated first-responder plans in their research.

Some researchers vigorously debate the definitions that first-responder agencies use. Frazzano and Snyder, Justice, and Moody argue for updating the definition of active shooters.³⁹ Their literature depicts active shooter events as paramilitary attacks and the scenes that first responders are stepping into as war zones.⁴⁰ In his research, Moody’s case studies of active shooter events show that law enforcement is unprepared to handle the threat, depends heavily on special weapons and tactics (SWAT) teams, and is generally undertrained and underequipped.⁴¹ Both Moody and Seebock emphasize a lack of training,

³⁵ James P. Warwick, “A Comprehensive Study of Police Preparedness and Training for Effectively Responding to and Stopping Active Shooters in the U.S.” (PhD diss., Wilmington University, 2015).

³⁶ Frazzano and Snyder, “Hybrid Targeted Violence,” 4–5.

³⁷ Cynthia Vargas, “Tactical Firefighter Teams: Pivoting toward the Fire Service’s Evolving Homeland Security Mission” (master’s thesis, Naval Postgraduate School, 2016), 10, <https://apps.dtic.mil/sti/citations/AD1030108>; Martin T. Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone” (master’s thesis, Naval Postgraduate School, 2016), 91, <https://hdl.handle.net/10945/49402>.

³⁸ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 342–43.

³⁹ Justice, “Active Shooters.”

⁴⁰ Justice, “Active Shooters,” 11–12; Moody, “Filling the Gap,” 25; Frazzano and Snyder, “Hybrid Targeted Violence,” 3.

⁴¹ Moody, “Filling the Gap,” 38–44.

equipment, or preparation within each discipline and a lack of interoperability between agencies when responding to highly complex critical incidents like active shooters.⁴² According to FBI Director Christopher Wray, “The greatest terrorism threat to our Homeland comes from lone actors or small cells who radicalize. . . . Domestic Violent Extremists are located primarily in the United States and typically radicalize and mobilize to violence on their own.”⁴³ Frazzano and Snyder’s research reveals that active shooters use numerous weapons during attacks, including firearms, vehicles, explosives, chemicals, and fires.⁴⁴ They discuss the need for a paradigm shift in how first responders name and respond to active shooter events. Scholars have introduced terms such as “active combatants,” “paramilitary attackers,” or “hybrid targeted violence,” as active shooter attacks often involve more than firearms. Active shooter events require first responders to transition from routine operating procedures in a civilian community to a combat zone, where an individual attacks the community with “firearms, improvised explosive devices, fire as a weapon and military-style barricading and maneuvering techniques.”⁴⁵

Justice’s research supports that of Seebock, Moody, and Frazzano and Snyder. It exposes the first responder’s vulnerability from equipment, firepower, and ballistic protection that are insufficient in countering active shooter attacks, and the ICS model offers no guidance in this area.⁴⁶ With the number of active shooter events increasing yearly, law enforcement’s lag in training and equipment to deal with these paramilitary threats could lead to more deaths.⁴⁷ The authors of this research reveal that there may be a need to change the terminology and definitions of active shooter events.

⁴² James J. Seebock, “Responding to High-Rise Active Shooters” (master’s thesis, Naval Postgraduate School, 2018), <https://hdl.handle.net/10945/61267>; Moody, “Filling the Gap.”

⁴³ Wray, *Statement before the House Judiciary Committee*, 2.

⁴⁴ Frazzano and Snyder, “Hybrid Targeted Violence,” 3.

⁴⁵ Frazzano and Snyder, 3.

⁴⁶ Justice, “Active Shooters,” 69–70.

⁴⁷ Justice, 64–65.

4. Civilian Preparation

Finally, limited research on civilian preparation for an active shooter event exists. DHS, CISA, and the FBI have publicly available preparation resources on their websites.⁴⁸ The research addresses improving the survivability of an active shooter attack and community first-aid and stop-the-bleeding campaigns.⁴⁹ In several recent journal articles, Briggs and Kennedy, Greenberg, and Johnson et al. provide insight into the necessity of the civilian community's preparing for active shooter events.⁵⁰ In his 2020 dissertation, Alghazali further underscores the need for first-responder agencies to include civilian preparation in their integrated active shooter response models because they lack a systematic, national response plan to address active shooter response.⁵¹ In a January 2023 report, the USSS National Threat Assessment Center examines mass shootings in public spaces, focusing on attackers and pre-attack behavior.⁵² It supports the concept that these attacks require a comprehensive response and preparation from all entities involved: law enforcement, fire/EMS, and the civilian community. More research into the area of civilian preparation, along with increasing civilian preparedness campaigns, is essential to saving more lives.

C. RESEARCH DESIGN

This thesis features a comparative study of peer-reviewed academic research, government agency data, and government policies shaping the response models in the United States to assess what practices exist and how they have been implemented by first

⁴⁸ Cybersecurity & Infrastructure Security Agency, "Active Shooter Preparedness"; Federal Bureau of Investigation, "Active Shooter Safety Resources"; Department of Homeland Security, *Active Shooter: How to Respond*.

⁴⁹ Fisher et al., "National Stop the Bleed Day"; Jacobs et al., "Improving Survival from Active Shooter Events"; Johnson et al., "Preparing Civilians to Survive an Active Shooter Event."

⁵⁰ Thomas W. Briggs and William G. Kennedy, "Active Shooter: An Agent-Based Model of Unarmed Resistance," *Journal of Threat Assessment and Management* 6, no. 3–4 (2019): 173–81, <https://doi.org/10.1037/tam0000126>; Greenberg, "Active Shooters on College Campuses"; Johnson et al., "Preparing Civilians to Survive an Active Shooter Event."

⁵¹ Luay Alghazali, "Active Shooter Training Improvements: First Responders Need to Enhance Civilian Preparation during Active Shooter Incidents" (PhD diss., Colorado Technical University, 2020).

⁵² National Threat Assessment Center, *Mass Attacks in Public Spaces: 2016–2020* (Washington, DC: U.S. Secret Service, 2023).

responders and the civilian community when addressing active threat events. No IRB-related research is part of this thesis. This thesis does not investigate active shooter motivations or the prevention of attacks. Instead, based on the available research, statistics, and threat assessments, it assumes that active shooter attacks will continue and that the first-responder and civilian community will need to prepare for and mitigate them.

This thesis analyzes the research on active shooter response models including Multi-Assault, Counter Terrorism Action Capabilities (MACTAC), the Active Threat Integrated Response Course (ATIRC), and ALERRT. It offers a broad analysis of active shooter events generally rather than focusing on any location types such as schools or businesses. The research focused on literature as close to primary sources as possible but integrated input from secondary and tertiary researchers to support the goals of this thesis.

Six historic active shooter events—the 1966 University of Texas tower shooting; the 1997 Los Angeles bank heist shooting; the 1999 Columbine High School shooting; the 2012 Aurora, Colorado, movie theater shooting; the 2013 shooting at Los Angeles International Airport; and the 2017 Las Vegas music festival shooting—were chosen and analyzed because of their historical significance in influencing first-responder training and tactics.⁵³ These cases depict how quickly these events start, how much devastation occurs in the first few minutes, and how insufficiently ICS addresses these first minutes of critical incidents. Current research suggests that a prepared community and adequately equipped and trained first responders who immediately address the threat could mitigate the loss of life.

This thesis offers best practices in training and equipment for first responders and civilian communities nationwide. However, it does not promote specific tactical response models for first responders. Organizations like the International Association of Chiefs of Police and the International Association of Fire Chiefs could advance the findings of this thesis.

⁵³ Seebock, “Responding to High-Rise Active Shooters”; Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone”; Justice, “Active Shooters.”

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II. INCIDENT COMMAND SYSTEM

This chapter examines ICS, from its beginnings as a tool developed by firefighters to its evolution and implementation by local and regional first responders. Given ICS's use as the national standard for all first-responder agencies during all hazards, its structure, multiple phase development, and limitations during active shooter events are discussed as well. Finally, this chapter deliberates on whether ICS should be changed or kept and what other active shooter response models exist. This chapter shows that ICS is an effective tool for addressing the types of hazards it was designed for, yet it exhibits significant drawbacks when dealing with rapidly changing threats like active shooters.

A. ORIGINS

The ICS model evolved from plans designed by firefighters for firefighters to help with multi-agency integration. As mentioned in Chapter I, firefighting agencies developed ICS in response to California wildfires during the 1970s. Prior to ICS, fire agencies' personnel, equipment, and terminology did not match one another. Thus, ICS became a tool that worked well for firefighters, so they trained for and implemented it regularly during fires.⁵⁴ From the 1970s through the 1990s, ICS was further developed to administer disaster response during earthquakes, hurricanes, and forest fires. ICS proved effective when agencies used it for known hazards, such as fires or explosions, or when the critical incident had ended and agencies addressed the rescue and recovery phases.⁵⁵ Responding agencies used ICS effectively in the wake of the Oklahoma City bombing in 1995, the Atlanta Olympics bombing in 1996, and the Columbia space shuttle disaster in 2003.⁵⁶ During those events, ICS was used to organize disparate response agencies—firefighters, EMS, law enforcement, emergency managers, public health, and public works, to name a few—under one command-and-control structure.⁵⁷

⁵⁴ Buck, Trainor, and Aguirre, "A Critical Evaluation," 2.

⁵⁵ Buck, Trainor, and Aguirre, 5.

⁵⁶ Buck, Trainor, and Aguirre, 8–9.

⁵⁷ Buck, Trainor, and Aguirre, 6.

Before the World Trade Center attacks in 2001, early versions of ICS had been implemented by regional and local first-responder agencies, but there was no national standard.⁵⁸ ICS standardized communications and the description of equipment, developed a clear chain of command, and assigned clear responsibilities for various tasks.⁵⁹ It was an attempt to bring order to the chaos of all the responding agencies, not necessarily to handle a chaotic event. Command and control, the very thing that makes ICS an effective tool for incident response in short-lived events, renders it ineffective for responses to ongoing events or multiple hazards.⁶⁰ Nevertheless, following its integration during the 9/11 attacks, ICS became the all-hazards solution for all disasters and critical incidents across the United States and an integral component of the National Response Framework.

B. STRUCTURE

ICS is a mandatory practice for any agency that receives grants for preparedness from the U.S. government, having become the national standard with HSPD-5 and HSPD-8 shortly after 9/11.⁶¹ These HSPDs outline the role of ICS as the required model for handling major incidents and disasters.⁶² ICS defines the role of first responders as the individuals responsible for life safety and property preservation in the initial phase of an event. As a “full-fledged bureaucracy,” ICS brings a set of practices and certifications for first responders to implement.⁶³ HSPD-5 grants the federal government the ability to assist federal, state and local agencies with resources when those entities become overwhelmed by a hazard. HSPD-8 further defines ICS as the structure supporting “preparedness, prevention, and response” in all crises, whether artificial or natural (see Figure 1).⁶⁴

⁵⁸ Buck, Trainor, and Aguirre, 5.

⁵⁹ Buck, Trainor, and Aguirre, 1–2.

⁶⁰ Buck, Trainor, and Aguirre, 5.

⁶¹ Renaud, “The Missing Piece of NIMS,” 3.

⁶² Renaud, 3–4.

⁶³ Buck, Trainor, and Aguirre, “A Critical Evaluation,” 15.

⁶⁴ Renaud, “The Missing Piece of NIMS,” 3.

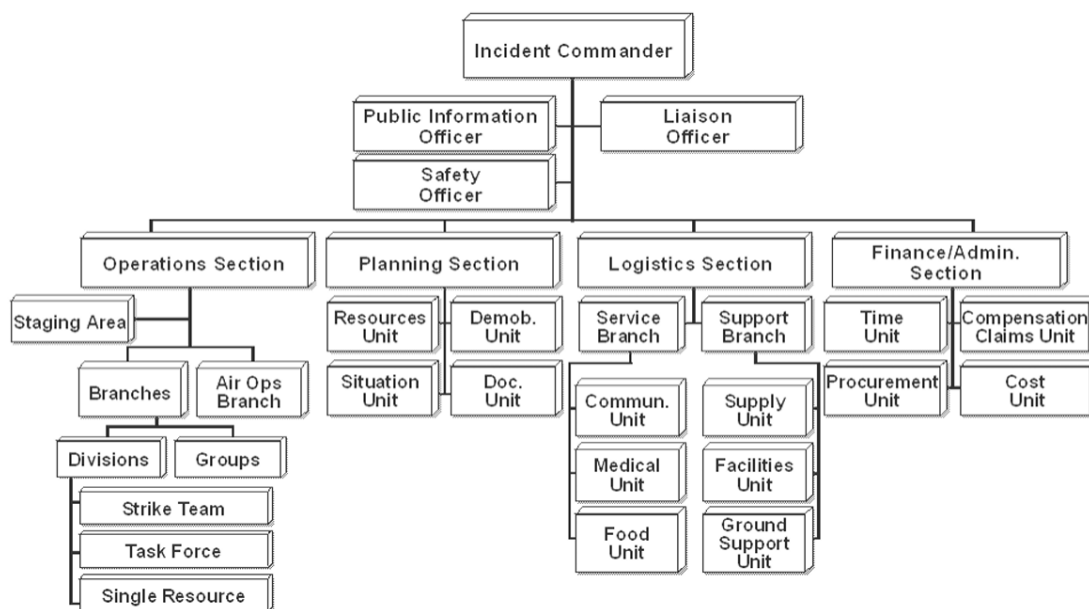


Figure 1. ICS Structure.⁶⁵

The strength of the ICS model develops once an incident command is in place. Figure 1 depicts ICS once it is fully implemented with all its structures.⁶⁶ The considerable time required to establish all the components is a product of the incidents for which ICS was originally developed, including wildland fires. ICS guidelines assist with managing the various organizations arriving on scene at the disaster. It bears mentioning that the model relies heavily on planning and logistics, and first-responder operations are a secondary priority.⁶⁷

With the ICS model, every event consists of five general phases: event initiation, event handling, end, debrief, and demobilization. The first phrase, event initiation, involves the initial response from the first-responder community. Event handling, the second phase,

⁶⁵ Source: Federal Emergency Management Agency, *ICS Review Document* (Washington, DC: Federal Emergency Management Agency, 2018), 12, <https://training.fema.gov/emiweb/is/icsresource/assets/ics%20review%20document.pdf>.

⁶⁶ Gregory A. Bigley and Karlene H. Roberts, "The Incident Command System: High-Reliability Organizing for Complex and Volatile Task Environments," *Academy of Management Journal* 44, no. 6 (2001): 1283, <http://www.jstor.org/stable/3069401>.

⁶⁷ Buck, Trainor, and Aguirre, "A Critical Evaluation," 2.

sees the incident command structure take shape and the responding agencies develop plans to handle the event. The subsequent phases deal with the event once it has concluded. For the fire services and emergency managers, the third through fifth phases are crucial as events like wildland fires are seasonal, and resources must be allocated for future fires and subsequent seasons. While ICS provides responders with a structure from the second through the fifth phase, the first and most critical phase lacks direction for first responders.⁶⁸ Figure 2, created by Long Beach Police Commander Cynthia Renaud, provides a clear depiction of an event's evolution.⁶⁹

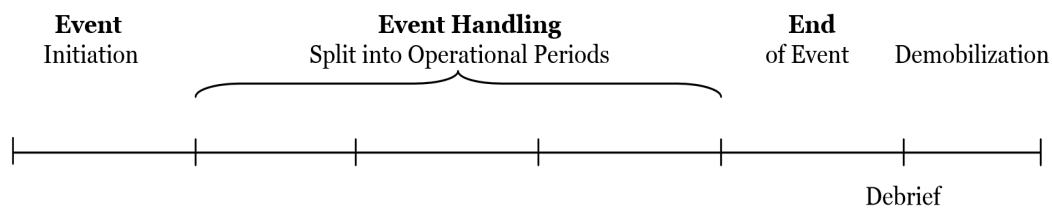


Figure 2. ICS Event Phases.⁷⁰

In an active shooter event, the first phase is crucial because most killings occur during this time, yet the ICS structure is put in place afterward.⁷¹ During an active shooter attack, time is of the essence, so first responders must make operational decisions immediately upon arriving on scene. With no time to wait for command and control, a command must exist before the event, and first responders' actions must emanate from

⁶⁸ Renaud, "The Missing Piece of NIMS," 4.

⁶⁹ Renaud, 4.

⁷⁰ Source: Renaud, 4.

⁷¹ Renaud, 3–5.

prior training.⁷² Significant literature has shown that ICS is ineffective in critical incidents like active shooters.⁷³

C. LIMITATIONS DURING ACTIVE SHOOTER ATTACKS

The first-responder community has challenged the effectiveness of NIMS and ICS in handling active shooter attacks. Numerous theses produced by students of the Center for Homeland Defense and Security and research by other academics and practitioners concur that NIMS/ICS is inadequate for these events. Additionally, the fact that law enforcement and fire agencies have developed their own rapid response and medical integration protocols independent of ICS supports the challenge to the national model.⁷⁴

The strength of ICS is its structure. Before the establishment of an incident command, ICS provides little guidance for first responders during the critical period between their arrival at an incident and the incident command's formation—the most critical period for law enforcement when dealing with an active shooter.⁷⁵ The only guidance from NIMS is for first responders to “size up” the event and then work toward mitigating it as soon as possible.⁷⁶ The emphasis of the ICS model is to develop the command and control afforded by the structure of the system. It does not delineate the actions that first responders should take during the initial response to an event.⁷⁷

⁷² Renaud, 12.

⁷³ Buck, Trainor, and Aguirre, “A Critical Evaluation”; Andrew C. Teeter, “On a Clear Day, You Can See ICS: The Dying Art of Incident Command and the Normal Accident of NIMS—A Policy Analysis” (master’s thesis, Naval Postgraduate School, 2013), <https://calhoun.nps.edu/handle/10945/32908>; John K. Nichols and Magdalena Denham, “Implementation and Effectiveness of the National Incident Management System’s Incident Command System in Law Enforcement since 2003,” *Journal of Emergency Management* 19, no. 4 (2021): 387–417, <https://doi.org/10.5055/jem.0602>; Jeffrey G. Sekavec, “Inquiry of NIMS/ICS Acceptance and Practice by Select Law Enforcement Personnel” (PhD diss., Colorado Technical University, 2016), ProQuest; Frazzano and Snyder, “Hybrid Targeted Violence.”

⁷⁴ Buck, Trainor, and Aguirre, “A Critical Evaluation”; Frazzano and Snyder, “Hybrid Targeted Violence”; Moody, “Filling the Gap”; Sekavec, “Inquiry of NIMS/ICS Acceptance and Practice”; Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols.”

⁷⁵ Renaud, “The Missing Piece of NIMS,” 4.

⁷⁶ Renaud, 4.

⁷⁷ Renaud, 1–4.

Law enforcement lacks the characteristics that make the ICS model beneficial for the fire service. For one, law enforcement members train differently from firefighters and regularly work individually. Police officers who respond to calls for service handle the scene alone and call other officers to assist if the need arises. They make decisions without the command element that firefighters already have at the scene.⁷⁸ Also, police officers rarely implement the ICS model in day-to-day operations, so when they do implement ICS, they are not well versed in using it.⁷⁹ ICS is practical for handling some aspects of the incidents that police face, but it lacks guidance for the immediate response to the “chaotic first phase” of police deployment to a critical incident, such as an active shooter.⁸⁰

Since the Columbine attack in 1999, both fire and law enforcement agencies have seen a need to change their training from siloed efforts to a more integrated approach.⁸¹ Many agencies have implemented rapid response policies that specifically address active shooter attacks.⁸² Several law enforcement agencies have also incorporated medical care or EMS training for their officers.⁸³ Fire agencies have also changed their policies regarding entering threat areas yet to be cleared by law enforcement.⁸⁴ Unfortunately, with more than two decades since Columbine, the habits and training of both services still portray that ICS “is the only necessary solution for an uncertain future,” yet both could use an upgrade to improve their response to active shooters.⁸⁵ It may take a paradigm shift in law enforcement and fire/EMS training for a significant change to take place, a theme explored further in Chapter V.

⁷⁸ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 350.

⁷⁹ Buck, Trainor, and Aguirre, “A Critical Evaluation,” 4–5.

⁸⁰ Moody, “Filling the Gap,” 1–4.

⁸¹ Moody, 17–18.

⁸² Seebock, “Responding to High-Rise Active Shooters,” 34; Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 101.

⁸³ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 342; Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 101–2.

⁸⁴ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 99.

⁸⁵ Moody, “Filling the Gap,” 15.

D. CHANGE IT OR KEEP IT?

This section examines whether first responders should keep ICS as an incident management tool or adopt a different model. Private entities and law enforcement agencies have developed non-ICS first-responder programs to address the need for rapid multi-agency integration and response to active shooters. The subsections that follow detail numerous rapid response programs, medical training, and civilian preparation programs implemented across the United States as potential best practices for first responders.

1. Should ICS Be Changed?

ICS is an effective tool for administering the types of disasters for which it was developed. As such, ICS should be retained as a useful model for first responders in large-scale events, such as wildfires, hurricane relief, or earthquakes, requiring the organization of vast personnel from different states and the federal government. ICS is effective when events overwhelm the capacities of local jurisdictions and require the assistance of outside government agencies. It is also helpful in coordinating the response of non-government entities like railways, transportation, power, water, and sanitation, which are needed in the recovery phase.⁸⁶

2. What Other Models Exist?

If ICS is not the right tool to handle critical incidents like active shooters, the question of what should be used instead remains. The lack of guidance from ICS in handling active shooters has led first-responder agencies, in coordination with universities, private entities, and law enforcement entities, to develop immediate response models to address the initial response phase of an attack.⁸⁷ Additionally, many law enforcement agencies have begun training and equipping their officers to provide basic life support care

⁸⁶ Bigley and Roberts, “The Incident Command System,” 1282.

⁸⁷ Renaud, “The Missing Piece of NIMS,” 3.

during critical incidents.⁸⁸ There has also been increased emphasis on educating and preparing civilian communities for critical incidents like active shooters.⁸⁹

a. Immediate Response Models

The tactics prescribed by immediate response models vary, but all work on the premise that law enforcement must, as quickly as possible, assess whether there is an active shooter and deploy to the location to locate and neutralize the threat.⁹⁰ In law enforcement parlance, neutralizing a threat means containing, arresting, or using the level of force necessary to stop it.⁹¹ Additionally, these models require the rapid integration of law enforcement with EMS, firefighters, and medics to provide medical care to injured people in or near the threat zone. Historically, medical services or firefighters do not enter a threat location until it has been cleared by law enforcement and declared safe.⁹² As shown in active shooter attacks such as Columbine in 1999 and the Washington Navy Yard attack in 2013, many individuals who suffered gunshot wounds did not die from the shooting but bled to death from not receiving basic life support care early on.⁹³

ALERT was developed in 2002 by Texas State University, the San Marcos Police Department, and the Hays County Sheriff's Office.⁹⁴ The ALERT model involves rapid response procedures for law enforcement and the quick integration of medical resources with the police response. Similar to ALERT, ATIRC was designed to train police, fire,

⁸⁸ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 94.

⁸⁹ Johnson et al., "Preparing Civilians to Survive an Active Shooter Event," 2; Alghazali, "Active Shooter Training Improvements," 1.

⁹⁰ Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols"; "Active Threat Integrated Response Course (PER-340)," NCBRT/Academy of Counter-Terrorist Education, accessed April 19, 2023, <https://www.ncbrt.lsu.edu/courses/dhs/PER-340.php>; National Tactical Officers Association, *Multi-assault, Counter Terrorism Action Capabilities (MACTAC): Course Overview and Instructional Goals* (Colorado Springs: National Tactical Officers Association, 2018).

⁹¹ Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 345–46.

⁹² Martaindale and Blair, 348–49.

⁹³ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 57; Metropolitan Police Department of the District of Columbia, *After Action Report: Washington Navy Yard, September 16, 2013* (Washington, DC: Metropolitan Police Department of the District of Columbia, 2014), 49.

⁹⁴ Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 342.

and EMS providers to integrate rapidly when responding to active shooter events.⁹⁵ Both of these training models have a train-the-trainer component, which is designed to train first responders as instructors who then take the training back to their organizations.⁹⁶ This component has a force multiplier effect on first-responder agencies.

After the 2008 Mumbai attack, several agencies, including the Los Angeles Police Department (LAPD) and Las Vegas Metropolitan Police Department (LVMPD), adopted the MACTAC model to mitigate potential multi-site active shooter attacks.⁹⁷ MACTAC trains law enforcement officers in small-unit tactics using equipment, weapons, and methods to handle “multiple, simultaneous paramilitary terrorist attacks.”⁹⁸ Similarly, New York City developed the Hercules program, whereby teams of “heavily armed” law enforcement personnel deploy anywhere in the city within minutes to handle a single- or multiple-site attack.⁹⁹ In addition, NYPD patrol officers and police recruits receive basic instruction on the use of several high-powered weapon platforms.¹⁰⁰ These programs designate a “mobile field force” that deploys throughout the city to address potential attacks.¹⁰¹

Although the United States has not suffered a complex coordinated attack as Mumbai, India, did in 2008, a response model like MACTAC or Hercules could prepare agencies for such a major attack. Like the ALERRT response model, MACTAC and Hercules train officers in tactics suitable for active shooter events and advocate rapid integration of EMS personnel into the threat area under police protection.¹⁰² Based on after-action reports and research by Seebock, Las Vegas is the only city to have trained its

⁹⁵ NCBRT/Academy of Counter-Terrorist Education, “Active Threat Integrated Response.”

⁹⁶ NCBRT/Academy of Counter-Terrorist Education, “Active Threat Integrated Response”; Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols.”

⁹⁷ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 100.

⁹⁸ Moody, “Filling the Gap,” 52.

⁹⁹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 100–3.

¹⁰⁰ Moody, “Filling the Gap,” 51.

¹⁰¹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 101.

¹⁰² Tierney, 101–2.

police using MACTAC and deployed its law enforcement and fire/EMS assets to stop a threat using MACTAC principles.¹⁰³ In the after-action report for the Las Vegas music festival shooting, many of the officers credit their MACTAC training and agency-supplied equipment in stopping the threat quickly.¹⁰⁴

b. Medical Training and Equipping of Law Enforcement

In addition to tactical response programs, numerous agencies have integrated medical care into law enforcement training. These models originated from best practices of the U.S. military in the field.¹⁰⁵ In the 1990s, during the first Gulf War, the U.S. military identified that a leading cause of death among troops was exsanguination from injuries. With some simple medical equipment and training, the military found that soldiers could engage in self-care for themselves and their comrades, and save lives.¹⁰⁶ When all branches of the armed forces received Tactical Combat Casualty Care (TCCC) training, survivability rates increased dramatically.

From TCCC, the Tactical Emergency Medical System (TEMS) was developed for specialized tactical police units.¹⁰⁷ Through TEMS, civilian medics are trained to work with tactical teams and accompany them during missions. Because tactical police units like SWAT face an elevated risk of injury from high-powered rifles or explosives, the advanced medical care provided by hospital-trained medics increased their survivability rate. While such medical care benefits specialized units, it is not available to all first responders handling critical incidents every day.¹⁰⁸ After Columbine and in the wake of mounting active shooter events across the United States, hospital medical directors noted that first responders could provide early casualty care when arriving on the scene of a critical

¹⁰³ Las Vegas Metropolitan Police Department, *1 October After-Action Review* (Las Vegas: Las Vegas Metropolitan Police Department, 2019), 107.

¹⁰⁴ Justice, “Active Shooters,” 56–57.

¹⁰⁵ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 94.

¹⁰⁶ Tierney, 94.

¹⁰⁷ Tierney, 93.

¹⁰⁸ Tierney, 93.

incident. Paralleling the evolution of active shooter response protocols, the Tactical Emergency Casualty Care (TECC) system was developed.¹⁰⁹

Arlington, Virginia, saw the first use of TECC, taught to both firefighters and police officers. TECC challenges traditional response protocols for firefighters and EMS personnel, who do not typically deploy into an active threat scene until law enforcement renders it safe. Even if an active shooter event is over in a few minutes, searching a building for a perpetrator could take several hours. It is during this time that many people with treatable wounds die as the medics are forced to wait outside.¹¹⁰ The aim of TECC is to increase the speed with which injured persons receive care.

With issued medical equipment, TECC-trained police officers can stop hemorrhaging from gunshot wounds or other critical injuries. Many jurisdictions across the country equip law enforcement with first-aid kits, tourniquets, and blood clotting compounds to deal with wounds that police officers or civilians receive during active shooter attacks. Officers are also taught simple triage methods used by medics and hospitals.¹¹¹ The 2011 open-air active shooter attack at the Gabrielle Gifford political rally illustrates TECC's efficacy. The officers who responded to the shooting stopped the gunman and began providing early medical care to the injured, thus increasing their chances of survival. Following their jurisdiction's policies, the medical personnel on the scene had to wait for the location to be secured, but the officers provided initial care in the meantime.¹¹²

c. Integrated Medical Response

While TECC can provide early medical attention on a small scale, medical agencies and doctors noted that a more robust practice was needed to handle larger-scale active shooter events where dozens or more were injured.¹¹³ From 2008 through 2013, several

¹⁰⁹ Tierney, 93.

¹¹⁰ Tierney, 56, 94.

¹¹¹ Tierney, 95–96.

¹¹² Tierney, 94.

¹¹³ Tierney, 98–99.

agencies noted the need to deploy medics into a hot zone to provide medical care to injured people. While most fire and EMS policies prevent responders from entering a high-threat hot zone until it is cleared by law enforcement, thereby becoming a “cold zone,” a workaround called warm-zone care was developed.¹¹⁴ In warm-zone care, law enforcement officers escort firefighters or medics into threat areas that they have cleared.¹¹⁵ With medical personnel deployed in a threat location, injured people may receive medical care under law enforcement protection while police officers search for the shooter.¹¹⁶

The rescue task force (RTF) model was one of the first warm-zone care models developed.¹¹⁷ With RTF during an active shooter event, several law enforcement teams deploy into the hot zone to stop the shooter. Shortly thereafter, an RTF comprising two medics and at least two police officers deploy into the warm zone, form casualty collection points, and start providing basic and advanced medical care to the injured.¹¹⁸ The medics are often suited with ballistic protection equipment like police officers wear, including vests and helmets.¹¹⁹ While research on RTF is limited, the 2017 Las Vegas shooting provides an example of its effectiveness. Along with training its officers in MACTAC, the LVMPD and its partner fire agency had trained in the deployment of RTF. In rapid response to the shooting, 19 RTFs were formed and deployed into the concert venue to triage the injured. In this case, the RTF model was an effective deployment in one of the deadliest shootings in U.S. history.¹²⁰

¹¹⁴ Justice, “Active Shooters,” 65; Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 98–99.

¹¹⁵ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 98–99.

¹¹⁶ Tierney, 99.

¹¹⁷ Tierney, 99.

¹¹⁸ Tierney, 99.

¹¹⁹ Tierney, 100.

¹²⁰ Seebock, “Responding to High-Rise Active Shooters,” 40–41.

d. Civilian Preparation

Distinct from first-responder training protocols, this era of active shooter events has given rise to models for civilian communities. As noted in Chapter I, agencies like CISA, DHS, and the FBI share active shooter preparedness materials with the public on their websites.¹²¹ Local law enforcement and first-responder agencies also use and build on this material as part of community outreach campaigns.¹²² A small body of research conducted by academics, universities, and the medical community examines the need for civilian communities to prepare for and administer first aid to injured people with critical injuries during active shooter events.¹²³

The goal of civilian preparation training is to make community members aware of their role in the event of an active shooter attack.¹²⁴ By providing civilians with active shooter preparation, first responders can reduce the civilian victim mentality associated with an attack, and civilians can feel empowered to protect themselves and others.¹²⁵ It also explains to civilians what they can expect from law enforcement and EMS personnel on the scene of an active shooter.¹²⁶ It does not, however, address the potential for armed bystanders or security guards for increased security. This informative training describes the role of citizens during an active shooter incident—if possible, escaping with others and getting themselves to a safe location.¹²⁷

Unlike most calls for law enforcement service, in which the priority is to ensure the well-being of the civilian community, in an active shooter incident, law enforcement's

¹²¹ Cybersecurity & Infrastructure Security Agency, "Active Shooter Preparedness"; Department of Homeland Security, *Active Shooter: How to Respond*; Federal Bureau of Investigation, "Active Shooter Safety Resources."

¹²² Alghazali, "Active Shooter Training Improvements," Abstract.

¹²³ Alghazali, "Active Shooter Training Improvements"; Fisher et al., "National Stop the Bleed Day"; Greenberg, "Active Shooters on College Campuses"; Jacobs et al., "Improving Survival from Active Shooter Events"; Johnson et al., "Preparing Civilians to Survive an Active Shooter Event."

¹²⁴ Alghazali, "Active Shooter Training Improvements," 8.

¹²⁵ Johnson et al., "Preparing Civilians to Survive an Active Shooter Event," 2.

¹²⁶ Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 344.

¹²⁷ Department of Homeland Security, *Active Shooter: How to Respond*.

obligation is to stop the shooter, bypassing injured people if necessary.¹²⁸ Civilian preparation for an active shooter can reduce the number of people killed and improve the chances of survival for those who are injured. In essence, the first responders on the scene of an active shooter are the community members under attack.¹²⁹ If civilian communities are prepared for a potential attack, they can become an asset for law enforcement and EMS arriving on the scene. An informed and prepared community can provide information about the attacker and render care to those who are injured.¹³⁰

While numerous studies have analyzed active shooter attacks, few have considered the effectiveness of community preparedness for such events. One of the few researched examples was of the civilian response to the 2017 Las Vegas shooting. During this attack, the shooter used an assault rifle to fire at hundreds of people attending an open-air concert.¹³¹ Several of the people attending were off-duty law enforcement, first responders, and prepared civilians. These individuals provided first aid to injured people in the form of hastily made tourniquets and self-transported the injured to hospitals. Hundreds of people received first aid and guidance for getting themselves to safety by this army of “citizen volunteers,” whose willingness to selflessly help others saved lives.¹³²

3. Summary

With no guidance from ICS about how to handle the critical first moments of events like active shooters, it has fallen on local and regional first-responder agencies to do so. By coordinating with other agencies, universities, and private entities, first responders have developed numerous immediate response protocols along with integrated medical care and improved medical training for law enforcement. Several federal agencies also provide informative material for civilian communities, given growing emphasis on including

¹²⁸ Department of Homeland Security.

¹²⁹ Alghazali, “Active Shooter Training Improvements,” 5.

¹³⁰ Cybersecurity & Infrastructure Security Agency, “Active Shooter Preparedness”; Fisher et al., “National Stop the Bleed Day.”

¹³¹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 33.

¹³² Tierney, 41.

citizens in preparation for critical incidents like active shooters.¹³³ Limited research has explored the effectiveness of these response models on civilian preparation.¹³⁴ What research is available indicates that a slow uncoordinated response to active shooter events increases the loss of life and that better prepared first-responder and civilian communities are more likely to stop the attack quickly and save lives.¹³⁵

E. CONCLUSION

This chapter analyzed the effectiveness of ICS as an all-hazards response program for first responders and its limitations in active shooter attacks. A review from its beginnings as a tool developed by firefighters to its evolution and implementation into a model used by local and regional first responders revealed that it is an effective tool for the kinds of hazards it was designed for. Finally, this chapter discussed whether ICS should be changed or kept and what other active shooter response models exist. While various rapid response and multi-agency response models exist across the United States, there is limited research on what program is most effective. Further research will need to be undertaken in this area. In the next chapter, six ASEs are reviewed that have significantly impacted first-responder training and tactics, underscoring the reactive nature of emergency response agencies, the urgency of immediate and coordinated responses by first-responders, and the potential influence of community actions on the outcomes of these tragic events.

¹³³ Alghazali, “Active Shooter Training Improvements,” 1; Johnson et al., “Preparing Civilians to Survive an Active Shooter Event,” 2; Cybersecurity & Infrastructure Security Agency, “Active Shooter Preparedness”; Federal Bureau of Investigation, “Active Shooter Safety Resources”; Department of Homeland Security, *Active Shooter: How to Respond*.

¹³⁴ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 94.

¹³⁵ Solomon, “Analysis of Emergency Responder Preparedness,” 8–10.

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III. ACTIVE SHOOTERS: PARAMILITARY ATTACKS ON U.S. SOIL

This chapter reviews six major active shooter events in chronological order. Although there were unfortunately hundreds of examples to choose from, these active shooter events were selected because of their historical significance in influencing first-responder training and tactics. Of the six active shooter attacks—and all active shooter attacks for that matter—one was arguably the most historically significant in the United States. In 1999, two students entered Columbine High School in Littleton, Colorado, and laid siege to students and teachers with firearms and explosives. After the attack, the law enforcement and medical response was extensively criticized for being slow and uncoordinated, leading to the deaths of more people. Columbine became the lynchpin in a national shift in law enforcement and emergency response to active shooter events.¹³⁶

The six selected active shooter attacks depict how quickly the attacks start and how much devastation occurs in the first few minutes, even if the entire attack is protracted. These events also highlight active shooters' extensive planning; use of military-grade weapons; and paramilitary, guerrilla, and terroristic tactics. These examples show how, before the 1999 Columbine killings, law enforcement tactics of the era were insufficient to handle active shooter attacks. Officers were ill-equipped and ill-trained to handle the paramilitary-style attacks they encountered. Furthermore, even after Columbine forced law enforcement members to change their tactics, significant gaps in response persisted, as there was no standardized law enforcement active shooter response model, training or equipping of officers, and medical aid to help the injured was slowed by fire and EMS safety protocols.¹³⁷

While not every active shooter involves high-powered weapons, and many attackers use edged weapons, vehicles, explosives, or even fire, these six active shooter

¹³⁶ Justice, "Active Shooters," 25.

¹³⁷ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 31; Justice, "Active Shooters," 63–67; Travis Norton, "Primary Law Enforcement Mistakes during Initial Critical Incident Response and Timeline of These Events Anatomy of the First 60" (master's thesis, California State University, Long Beach, 2018), 46–48, ProQuest.

events depict what has become a common mode of attack: a planned paramilitary-style multi-weapon ambush attack.¹³⁸ Although active shooter is still the most common term used, many researchers and first responders have begun to use more expansive terms like targeted violence, active assailant, or active attack, as not all attackers use firearms solely. In this chapter and throughout the thesis, the term active shooter is used for the sake of cohesion. Nevertheless, these attacks had something in common: an ongoing attack that demanded immediate action.¹³⁹

A. TEXAS GUNMAN ATTACK

On August 1, 1966, in Austin, Texas, a University of Texas employee named Charles Whitman drove to the school, unloaded a large container of rifles and ammunition, and carted them up the university tower. Whitman barricaded himself on the observation deck 28 stories above the university campus and used multiple rifles and shotguns to shoot and kill people randomly from an elevated position. Whitman was a “capable adversary” for the Austin Police Department.¹⁴⁰ He was trained as a sniper when he served in the U.S. Marine Corps and had ample weapons and ammunition for this standoff. From his elevated position, he had full access to the campus below and full protection from incoming police bullets.¹⁴¹ Whitman planned and executed a paramilitary ambush assault from an elevated position. Police officers from the Austin Police Department (APD), the Department of Public Safety, and the USSS arrived approximately seven minutes after the call came out.¹⁴² The APD had neither the training nor weaponry to mitigate an attack of this type, which had never occurred on U.S. soil before and caught the Austin first-responder community completely off guard.¹⁴³ The assault lasted more than an hour and a half, but

¹³⁸ Frazzano and Snyder, “Hybrid Targeted Violence,” 1–2.

¹³⁹ Frazzano and Snyder, 2.

¹⁴⁰ Seebock, “Responding to High-Rise Active Shooters,” 14; Gary Lavergne, *Sniper in the Tower: The Charles Whitman Murders* (Denton: University of North Texas Press, 1997), 109–11, ProQuest.

¹⁴¹ Seebock, “Responding to High-Rise Active Shooters,” 14.

¹⁴² Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 40.

¹⁴³ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 40–44.

“most of his killing and maiming occurred during the first twenty minutes of the assault.”¹⁴⁴

From his elevated position, he fired at and killed over a dozen people, and more than 30 others sustained injuries.¹⁴⁵ Whitman’s vantage point, with a 360-degree advantage over anyone below, allowed him to shoot at people 500 yards away.¹⁴⁶ Before his shooting spree, he set up his many weapons on each side of the tower, allowing him to fire at every angle.¹⁴⁷ Other civilians on campus helped evacuate several injured people, saving their lives. The injured civilians survived due to the fast evacuation. From their perimeter, officers exchanged gunfire with Whitman, but they did not have weapons or training to counter him. This type of attack was alien to U.S. law enforcement, and there was little officers could do to respond to it.¹⁴⁸ Fortunately, two APD officers and a civilian who had prior military training devised a plan to confront Whitman. The officers found a local store that sold rifles and armed themselves with handguns, shotguns, and high-powered rifles.¹⁴⁹ The two law enforcement officers and the civilian gained access to the tower, made their way to the 28th floor, and ambushed Whitman, shooting and killing him. This event, along with several other attacks, led to the implementation of SWAT teams across the country to mitigate this kind of threat.¹⁵⁰

B. ARMED TO THE TEETH

On February 27, 1997, Larry Phillips and Emil Mățăsăreanu robbed a bank in North Hollywood, California. LAPD officers happened to be in the area, observed the robbery, and called for additional resources. While in the bank, the robbers fired several shots to

¹⁴⁴ Tierney, 42.

¹⁴⁵ Seebock, “Responding to High-Rise Active Shooters,” 10.

¹⁴⁶ “An Ex-Marine Goes on a Killing Spree at the University of Texas,” History, accessed June 26, 2023, <https://www.history.com/this-day-in-history/an-ex-marine-goes-on-a-killing-spree-at-the-university-of-texas>.

¹⁴⁷ Lavergne, *Sniper in the Tower*, 120–21.

¹⁴⁸ Seebock, “Responding to High-Rise Active Shooters,” 14.

¹⁴⁹ Lavergne, *Sniper in the Tower*, 166–67; Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 42.

¹⁵⁰ Tierney, 43.

deter anyone inside from resisting the robbery. Meanwhile, the officers outside the bank heard the gunshots and made an officer-in-distress call, which mobilized hundreds of officers to the scene.¹⁵¹ Upon exiting the bank, the robbers observed and started shooting at the police, and a massive firefight broke out between police officers who arrived at the robbery scene and the two bank robbers.¹⁵² The gun battle quickly moved into nearby residential neighborhoods, elevating the threat assessment that the responding LAPD officers had to make.¹⁵³

Having engaged in several other bank robberies, the robbers had planned and equipped themselves to make this robbery successful. They armed themselves with numerous high-powered military-style fully automatic rifles, handguns, and thousands of rounds of ammunition, including armor-piercing bullets. Each of the robbers also wore body armor from neck to toe.¹⁵⁴ The robbers' weaponry and ammunition outmatched the LAPD officers' firearms. Both robbers were committed to escaping and engaged in a full-on assault-style gun battle that covered many blocks.¹⁵⁵

Even with the overwhelming response by the LAPD, Mătășăreanu and Phillips outmatched the hundreds of responding officers. With their firearms and body armor, they sustained direct incoming handgun shots while returning fire and trying to escape.¹⁵⁶ The robbers engaged in military-style maneuvers, including attacking the opposing force, moving and shooting, and taking cover to reload their weapons. Their military tactics, weapons, and protective equipment allowed the two robbers to fend off over 300 police officers for almost an hour.¹⁵⁷

¹⁵¹ Tracy L. Frazzano, "Local Jurisdictions and Active Shooters: Building Networks, Building Capacities" (master's thesis, Naval Postgraduate School, 2010), 27, <https://hdl.handle.net/10945/4997>.

¹⁵² Justice, "Active Shooters," 20.

¹⁵³ Bill Coffin, "Warzone: The North Hollywood Shootout, 10 Years Later," *Risk Management* 54, no. 3 (March 2007): 4.

¹⁵⁴ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 52; Justice, "Active Shooters," 20–21.

¹⁵⁵ Frazzano, "Local Jurisdictions and Active Shooters," 28.

¹⁵⁶ Coffin, "Warzone," 4.

¹⁵⁷ Justice, "Active Shooters," 20–22.

With their handguns, shotguns, and limited ammunition, LAPD officers were severely outgunned by the robbers. For the most part, the handgun ammunition was ineffective against the body armor.¹⁵⁸ The handgun and shotgun ammunition had a limited effective range whereas the robbers' assault rifles had a long-range body armor penetrating capacity. During the gunfight, officers noted their shots at the robbers with shotgun and handgun ammunition had almost no effect, yet the robbers' armor-piercing ammunition tore through vehicles and other covered areas.¹⁵⁹ During the gunfight, the robbers expended over 1,000 rounds of ammunition.¹⁶⁰

At the time of this attack, LAPD officers had no training on immediate response tactics to active shooters. The only unit of the LAPD with the weapons and training to handle an attack like this was the SWAT team. Although there was a massive response by LAPD officers and supervisors, the chaos of the scene meant they did not know how many shooters there were.¹⁶¹ Even though the SWAT team arrived in 19 minutes, which was fast for a specialized unit like that to deploy, it was still late in this firefight.¹⁶² In the preceding minutes, LAPD patrol officers had depleted much of their ammunition and, like the APD 31 years earlier, had to resort to finding a local gun store and asking for assistance in replenishing ammunition and obtaining high-powered rifles.¹⁶³

Once the SWAT team arrived, its rifle systems were powerful enough to defeat the robbers' body armor. SWAT team members shot Mătășăreanu almost 30 times, and Phillips was shot 11 times before he shot himself. Over 300 police officers fired more than 750 rounds of ammunition at the robbers.¹⁶⁴ During the firefight, 17 people were injured,

¹⁵⁸ Justice, "Active Shooters," 21; M. J. Miller and G. W. Boyd, "Ballistic Protective Devices for Law Enforcement—An Historical and Contemporary View," *Police Chief* 44, no. 10 (October 1977), <https://www.ojp.gov/ncjrs/virtual-library/abstracts/ballistic-protective-devices-law-enforcement-historical-and>.

¹⁵⁹ Coffin, "Warzone," 4.

¹⁶⁰ Justice, "Active Shooters," 21.

¹⁶¹ Moody, "Filling the Gap," 39.

¹⁶² Justice, "Active Shooters," 21.

¹⁶³ Justice, 21.

¹⁶⁴ Justice, 21.

including 11 police officers. There was no evacuation of injured people as the shootout area had been massive, and no perimeter had been set.¹⁶⁵ In less than an hour, two heavily armed and committed bank robbers turned a Los Angeles neighborhood into a “war zone.”¹⁶⁶ Although a SWAT team existed, the delayed response time of these specially trained and equipped tactical officers led to an ongoing gunbattle that could have been mitigated by adequately trained and equipped first-responding officers.¹⁶⁷ In this case, the two attackers were prepared to rob and get away. While they mostly shot at police to aid their getaway attempts, had they intended to engage in an active shooter attack, the outcome would have been much worse.

C. PARADIGM-SHIFTING SCHOOL SHOOTERS

On April 20, 1999, classmates Eric Harris and Dylan Klebold entered Columbine High School in Littleton, Colorado, armed with assault weapons, shotguns, explosives, and incendiary devices.¹⁶⁸ They had initially planned to detonate “two 20-pound propane bombs” in the school, surmising that those who survived the blast would likely run out of the school while Harris and Klebold waited outside and shot them as they fled.¹⁶⁹ As a diversionary tactic, they set off an incendiary device several miles away to draw fire and law enforcement resources from the school.¹⁷⁰ These two students engaged in paramilitary-style planning and ambush tactics.

The two attackers set their explosives in the school and waited, but the devices did not detonate. Without delay, the attackers entered the school and started shooting their victims instead. They had with them several additional improvised explosive devices (IEDs) they planned to detonate in the school to kill more victims. At the entrance of the

¹⁶⁵ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 52–53; Justice, “Active Shooters,” 21.

¹⁶⁶ Coffin, “Warzone,” 4.

¹⁶⁷ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 53.

¹⁶⁸ Justice, “Active Shooters,” 23–24.

¹⁶⁹ Justice, 23.

¹⁷⁰ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 54; Justice, “Active Shooters,” 23–24.

school, the two began shooting at students and teachers. A police officer who was near the school heard the shooting and engaged one of the shooters. The officer called for assistance, and additional officers arrived in minutes.¹⁷¹ After a brief gunfight between the officer and the shooters, the shooters retreated into the school. The shooters placed their IEDs in the school and detonated them, causing the fire alarm to go off. As they shot at classmates inside the school, they also shot at police officers who were outside. Some students self-evacuated and received medical care outside the school. Over the course of the attack, approximately 1,000 police officers, medics, and firefighters arrived on scene.¹⁷²

The patrol officers who responded to the school followed their response protocols, which involved surrounding the location and waiting for the SWAT team, even though they had engaged the shooters in a gunfight. Notably, the officers on scene had no rifles or weapons capable of outgunning the shooters. The lack of rapid response tactics allowed the shooters to walk the school hallways with impunity. Similarly, firefighters and medics waited outside for hours until the building was rendered safe before entering to deliver medical care.¹⁷³ Once the SWAT team arrived, concerns of additional IEDs and an unknown number of shooters delayed its entrance into the school, which marked nearly two hours after the attack began. Because of this delay in law enforcement's entry, along with medical support's being kept outside the building, several of those injured inside the school bled to death.¹⁷⁴

Forty-seven minutes after starting their attacks, the two shooters committed suicide. In their attacks, they killed 13 and injured more than 20 others. The SWAT team eventually

¹⁷¹ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 40; Columbine Review Commission, *The Report of Governor Bill Owens' Columbine Review Commission* (Denver: Columbine Review Commission, 2001), ii–iii.

¹⁷² Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 55–56.

¹⁷³ Justice, "Active Shooters," 24–25; Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 54.

¹⁷⁴ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 57; Columbine Review Commission, *Report of the Columbine Review Commission*, iii.

entered the building and rendered it safe five hours after the shooting started.¹⁷⁵ As with the Los Angeles shooting, the first responding police had neither the training nor equipment to stop the threat. There was a SWAT team, but the delay in its response slowed police entry and prolonged the shooters' free rein of the school.¹⁷⁶

The attack on Columbine High School marked a paradigm shift in law enforcement and medical response to active shooter attacks. Law enforcement agencies came to realize that the protocol of surrounding a building and calling the SWAT team during an active armed assault would not suffice. Immediate intervention protocols were seen as necessary to address these threats.¹⁷⁷ After Columbine, law enforcement officers began to receive training on immediate entry protocols and be equipped with rifles and higher-rated ballistic protective equipment.¹⁷⁸

D. MOVIE THEATER TARGETED WHILE POLICE HESITATE

On July 20, 2012, in Aurora, Colorado, James Holmes methodically prepared and implemented an ambush attack at a local movie theater. He prepared himself with high-powered weapons, protective body armor, and tear gas to increase the chaos. Before leaving his house, he booby-trapped it with explosives and fuel.¹⁷⁹ It appears that he intended to cause as many deaths as possible both at the movie theater and then in the subsequent investigation that would lead police to his house. Holmes drove to the theater complex, parked his vehicle outside, and entered the complex unarmed. Once inside, he purchased a ticket to a movie and entered the theater. He was in the theater for about 20 minutes and then walked out of an emergency exit, propping it open.¹⁸⁰

¹⁷⁵ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 56.

¹⁷⁶ Tierney, 57.

¹⁷⁷ Justice, "Active Shooters," 25.

¹⁷⁸ Justice, 25.

¹⁷⁹ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 65.

¹⁸⁰ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 31; Justice, "Active Shooters," 63–67; Norton, "Primary Law Enforcement Mistakes," 46–48.

He went to his vehicle and put on body armor, ballistic leggings, groin protection, a helmet, and a gas mask. He armed himself with an AR-15 military-style rifle, handguns, a shotgun, and tear gas. Holmes re-entered the movie theater through the door he had propped open, discharged the tear gas, and started shooting victims.¹⁸¹ Holmes first attacked moviegoers with his shotgun. Initially, moviegoers thought the shooting was a stunt as part of the movie. Once the cries of pain were heard and the tear gas took effect, it became real, and they began fleeing and evacuating.¹⁸²

After his shotgun was empty, Holmes started shooting with his assault rifle, which malfunctioned after 60 rounds of ammunition. The rifle bullets went through the walls into adjacent theaters. The shooter discarded the rifle and began to fire rounds with his handgun.¹⁸³ Once he was done shooting, Holmes exited the movie theater and went back to his car. Responding police officers arriving on the scene of the shooting observed Holmes and apprehended him with no resistance.¹⁸⁴ Holmes killed 12 individuals and injured 70 in about seven minutes.¹⁸⁵

Shortly after the shooting began, moviegoers began to call 9-1-1. Police officers arrived at the movie theater in less than two minutes and entered in three minutes. Outside the movie theater, other officers observed Holmes and stopped him. However, suspecting additional shooters, law enforcement did not declare the scene safe for medics to enter for 20 minutes.¹⁸⁶ Many of the shooting victims went to local hospitals in police cars. First-responder vehicles blocked many of the access points and could not be moved as the vehicle operators were inside the theater. In his thesis on medical response to active shooters, Tierney describes the Aurora incident command's establishment as "later than

¹⁸¹ Justice, "Active Shooters," 31.

¹⁸² Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 31; Justice, "Active Shooters," 63–67; Norton, "Primary Law Enforcement Mistakes," 46–48.

¹⁸³ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 31; Justice, "Active Shooters," 63–67; Norton, "Primary Law Enforcement Mistakes," 46–48.

¹⁸⁴ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 31; Justice, "Active Shooters," 63–67; Norton, "Primary Law Enforcement Mistakes," 46–48.

¹⁸⁵ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 31; Justice, "Active Shooters," 63–67; Norton, "Primary Law Enforcement Mistakes," 46–48.

¹⁸⁶ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 63–64.

sooner,” as the attack had been over for an hour before the fire department and police commanders formed a unified command post.¹⁸⁷

Holmes ostensibly prepared to engage in a gun battle with responding police officers as he was wearing body armor, but in the end, he surrendered. It is unclear whether he intended to survive the attack as he had booby-trapped his house to kill responding police and firefighters who he figured would respond there once his first attack ended. Other active shooters have employed booby traps, diversionary devices, and entryway barricades in various forms.¹⁸⁸

In the years and months before the attack, the Aurora police and fire departments conducted joint tabletop and full-scale exercises in active shooters and hostage situations. Aurora police officers were trained to respond rapidly to active shooters without relying on specialized teams or equipment.¹⁸⁹ The officers who arrived on the scene of the attack credit their ability to deploy rapidly into the theater to the immediate response training they received. They did not wait for an incident commander to show up and establish command. Notably, only a limited number of patrol rifles were available for the responding officers, so most of the officers entered with only their soft body armor and handguns.¹⁹⁰ Additionally, part of the delay in entering the building was attributed to accounts of an unknown gas released in the theater. Officers delayed entering briefly as they looked for gas masks to don before entering.¹⁹¹ None of the officers had medical gear with them, and only one officer had prior military experience using a self-contained breathing apparatus that the fire department had available on the scene.¹⁹²

¹⁸⁷ Tierney, 65.

¹⁸⁸ Justice, “Active Shooters,” 31–32.

¹⁸⁹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

¹⁹⁰ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

¹⁹¹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 31, 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

¹⁹² Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

Although the Aurora police and fire departments had conducted prior joint exercises, none of the exercises involved an integrated law enforcement and medical services response into the threat area.¹⁹³ Police officers on the scene of the theater evacuated several injured civilians but did not render first-aid care.¹⁹⁴ A SWAT team paramedic entered the theater early during the police and fire/EMS response and triaged wounded people. The fire and EMS personnel waited outside the theater as they still worked under the protocol that the scene had to be fully secured by law enforcement before they could enter and render first aid. Fire and EMS also relied on the information that a law enforcement medic was inside triaging patients.¹⁹⁵ In the aftermath of the theater attack in Aurora, first responders assessed their response protocols and began developing a joint police/fire/EMS response policy.¹⁹⁶

While the police officers attributed their rapid deployment into the threat area to their immediate response training, they acknowledged that a lack of medical training and equipment limited their ability to provide care for wounded people inside the theater. Similarly, the EMS providers acknowledged their need to engage in warm-zone care and receive additional training.¹⁹⁷

E. AIRPORT ATTACK IN LOS ANGELES

On November 1, 2013, at approximately 9:18 a.m., a gunman armed with a semiautomatic weapon and five 30-round magazines entered Terminal 3 of the Los Angeles International Airport (LAX). At 9:20, the gunman approached a Transportation Security Administration (TSA) agent and shot him multiple times at point-blank range,

¹⁹³ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

¹⁹⁴ Justice, “Active Shooters,” 31.

¹⁹⁵ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

¹⁹⁶ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

¹⁹⁷ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

killing the agent.¹⁹⁸ As the shooter moved through the terminal, people fled the area and concealed themselves where they could. The suspect then walked toward a screening checkpoint. The suspect fired indiscriminately at people, who fled from his attack, wounding several of them.¹⁹⁹ Almost immediately, the LAX call center was inundated with calls about the shooting. The Los Angeles World Airport Police Department (LAWAPD) and the LAPD were sent to the terminal.²⁰⁰ LAWAPD, LAPD, and Customs and Border Protection officers arrived at the terminal and began looking for the suspect. By 9:25, they located the suspect and placed him under arrest.²⁰¹ In total, the gunman killed one person and wounded three others.²⁰²

In the years before the 2013 shooting, the LAWAPD invested significantly in equipment and active shooter training for its officers. The officers were trained using the MACTAC response method.²⁰³ The after-action report identifies the role of MACTAC training in the officers' quickly moving toward the target and taking him into custody. This rapid response preempted deaths and injuries that might have occurred had the shooter been allowed to continue his shooting rampage.²⁰⁴ The shooter had hundreds of rounds of ammunition and could have continued firing unabated had it not been for the officers' rapid response.²⁰⁵

Although the MACTAC model does incorporate an integrated medical response into its protocols, during this attack, the Los Angeles Fire Department (LAFD) did not enter the unified command with the LAPD and LAWAPD due to concerns about the

¹⁹⁸ Los Angeles World Airport, *Active Shooter Incident and Resulting Airport Disruption: A Review of Response Operations* (Los Angeles: Los Angeles World Airport, 2014), 8.

¹⁹⁹ Norton, "Primary Law Enforcement Mistakes," 58.

²⁰⁰ Los Angeles World Airport, *Active Shooter Incident*, 8.

²⁰¹ Los Angeles World Airport, 9.

²⁰² Los Angeles World Airport, 1.

²⁰³ Los Angeles World Airport, 14.

²⁰⁴ Los Angeles World Airport, 14.

²⁰⁵ Los Angeles World Airport, 8, 14.

command post location.²⁰⁶ The after-action report notes that the LAWAPD and LAPD provided care for the wounded and evacuated them. Meanwhile, the LAFD staged at the airport and eventually provided care for the wounded who were evacuated.²⁰⁷ The LAX attack illustrates how highly trained and equipped first responders can rapidly stop an active shooter attack. The only significant shortcoming mentioned in the after-action report involves community preparedness. According to the report, civilian LAX personnel will receive training and prepare for active shooter attacks as a force multiplier to first responders.²⁰⁸

F. SHOOTER RAINS DOWN DEATH

On October 1, 2017, in Las Vegas, Nevada, Stephen Paddock unleashed a large-scale attack on an outdoor concert from an elevated position in a hotel. He had a room on the 32nd floor of a high-rise hotel overseeing the concert.²⁰⁹ Paddock also researched other potential target locations before selecting the concert venue.²¹⁰ Paddock had amassed over 50 firearms and high-capacity semiautomatic rifles that had been modified to fire like automatic weapons. He had over 6,000 rounds of ammunition. A post-shooting investigation revealed that Paddock had purchased the rifles over the course of several years. In addition to amassing his weapon cache, he researched what kind of weapons SWAT teams use.²¹¹

During the shooting, Paddock fired into the crowd and at aviation fuel reservoirs at the airport across from the concert venue. The reservoirs did not detonate or catch fire. It is unclear whether Paddock had been attempting to detonate the fuel tanks, use fire as a weapon, or draw resources away from his shooting.²¹² It appears that his research and

²⁰⁶ Norton, “Primary Law Enforcement Mistakes,” 58.

²⁰⁷ Los Angeles World Airport, *Active Shooter Incident*, 8–9.

²⁰⁸ Los Angeles World Airport, 17.

²⁰⁹ Las Vegas Metropolitan Police Department, *1 October After-Action Review*, 4.

²¹⁰ Seebock, “Responding to High-Rise Active Shooters,” 34.

²¹¹ Seebock, 34.

²¹² Los Angeles World Airport, *Active Shooter Incident*, 19.

target selection afforded him the greatest number of potential victims while maintaining his tactical advantage.

Before shooting, Paddock barricaded access doors to his floor with metal brackets and placed cameras outside his hotel room for counter-surveillance. Paddock broke out the exterior windows of his hotel room to give himself a wide field of view. The outdoor concert had about 22,000 people in attendance. Paddock fired into the crowd for over 10 minutes from his elevated vantage point before shooting himself. In that time, Paddock killed 58 people and injured more than 850.²¹³ It is unclear why he took his own life as he had thousands of rounds remaining. Some have theorized Paddock took his own life upon recognizing that law enforcement had spotted him and was quickly moving toward his room to stop him.²¹⁴

There were approximately 50 LVMPD police officers assigned to work security at the festival. When the shooting started, they were confused about the source of the bullets. Initially, the officers thought the active shooter was in the concert venue. An officer on the scene with binoculars quickly assessed the source of the shooting and started directing resources to the 32nd floor.²¹⁵ Most officers who were working the venue had parked their vehicles at a distance from the concert, so they could not access all their ballistic equipment and rifles. Luckily, one of the first responding officers who went up to the 32nd floor was a SWAT team member with breaching tools and explosives.²¹⁶

The SWAT officer along with other patrol officers defeated Paddock's brackets and moved to his room. Upon observing the exterior cameras and wires, the officers delayed entry to the room, concerned that an IED was attached. The team set an explosive charge on Paddock's hotel door to breach the barrier and make entry. Paddock was found dead in the room with a self-inflicted wound. On the ground, many of the very first first-responders comprised civilians who provided first aid to those injured. Civilian volunteers, many of

²¹³ Seebock, "Responding to High-Rise Active Shooters," 33–34.

²¹⁴ Seebock, 40–41.

²¹⁵ Seebock, 37–38.

²¹⁶ Las Vegas Metropolitan Police Department, *1 October After-Action Review*, 23; Seebock, "Responding to High-Rise Active Shooters," 40–41.

whom were off-duty police and firefighters, rendered first aid to hundreds of people.²¹⁷ The LVMPD had trained its officers in MACTAC response, and its members were issued rifles and ballistic equipment. In this case, the rapid response to the elevated threat might have forestalled a prolonged attack.²¹⁸

Paddock's attack at the concert is notable as his level of planning and preparation were thorough and methodical. He had spent years amassing weapons and ammunition and had researched other open-air venues in Las Vegas and other cities. When Paddock booked his room, he specifically requested a room that would face the concert.²¹⁹ Paddock, like other active shooters, planned his attack using military-style ambush tactics to cause as many fatalities as possible. In addition, Paddock used the tactical advantage of the high-rise building, like Whitman did at the University of Texas tower 40 years earlier, and barricaded himself to hinder law enforcement response. He used counter-surveillance to give himself an advantage and obstruct the police response to his room. Finally, although not effective, he attempted to detonate the fuel reservoirs at a nearby airfield, either to distract responders or to use fire as a weapon. The detonation of a fuel reservoir would have been massive and would have caused unknown fatalities and destruction.²²⁰

G. CONCLUSION

This chapter reviewed six active shooter attacks as examples of armed assaults that influenced first-responder training and tactics. These attacks highlight the reactive nature of first-responder agencies, whose responses to events change only after a crisis occurs. The selected attacks show the speed with which active shooter events develop and how most of the violence occurs in the first few minutes. This pattern underscores the need for an immediate response by law enforcement, fire, and EMS members. Additionally, the community attacked can influence the outcome of the assault by recognizing threats and engaging in resilient activities like self-evacuation and first aid.

²¹⁷ Las Vegas Metropolitan Police Department, *1 October After-Action Review*, 26.

²¹⁸ Seebock, "Responding to High-Rise Active Shooters," 34–37.

²¹⁹ Seebock, 42.

²²⁰ Seebock, 42.

Furthermore, the six attacks reveal that active shooters engage in significant pre-planning and equip themselves before their attacks. Many assailants use military-grade weapons and paramilitary, ambush-style tactics. They also research their targets and law enforcement's equipment. The shooters are committed to their attack and equip themselves with enough weapons and protective gear to withstand a police counterattack.

These trends point to a need for first-responder agencies and the communities they serve to adapt to changing threats. Active shooter attacks cannot be handled with outmoded first-responder protocols. While many agencies across the United States have adopted active shooter response programs, such as MACTAC, ALERRT, and ATIRC, subsequent attacks call for another paradigm shift—in how first-responder agencies train and prepare for threats and how they prepare the communities they serve. The next chapter explores the history and evolution of law enforcement and firefighter training and equipment and the barriers faced when these first responders try to integrate themselves during active shooter events.

First-responder agencies need to reassess their training and equipment and prepare their personnel for a more militarized approach to active shooter attacks.²²¹ Civilian preparation and awareness of potential attacks form an additional component in first-responder preparation. Additionally, many attackers are fully committed to their actions and do not intend to survive beyond the attack.²²² This knowledge should inform future first-responder training and preparation; that is, first responders must be prepared to deal with individuals whose mindset is not like that of ordinary citizens. Trends documented in after-action reports from across the country suggest agencies that adequately equip and train their first responders to immediately address a threat save lives.²²³ Additionally, this research reveals that when first responders train and prepare for such paramilitary attacks, they are better prepared to deal with these events.²²⁴ Finally, jurisdictions that promote a

²²¹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31.

²²² Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 10; Justice, “Active Shooters,” 24; Federal Bureau of Investigation, *Active Shooter Incidents: 20-Year Review*, 4.

²²³ Frazzano and Snyder, “Hybrid Targeted Violence,” 6–7.

²²⁴ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 25.

rapid response to active shooters and an integrated law enforcement/fire/EMS response plan tend to stop the shooting and render care to the injured faster than jurisdictions that do not.²²⁵

²²⁵ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 31; Justice, “Active Shooters,” 63–67; Norton, “Primary Law Enforcement Mistakes,” 46–48.

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IV. COMPARATIVE ANALYSIS OF PREPAREDNESS AMONG FIRST-RESPONDER AGENCIES

This chapter compares the history and evolution of the training, equipment, and preparation of law enforcement and fire/EMS agencies. It looks at the barriers to interoperability between the two entities and the crises that spurred policy or tactics changes. The analysis acknowledges a disconnect between the training, equipment, and response protocols of fire/EMS and those of law enforcement in responding to active shooter attacks. This disparity exacerbates the issues that arise when implementing ICS for an event that challenges its design. This chapter also discusses how the phenomenon of over-convergence—the massive response of all available police and fire/EMS resources to a single event—detracts from first-responder effectiveness on the scene of an active shooter attack.²²⁶

This chapter ends with an analysis of the complex coordinated active shooter attacks in Mumbai, India, in 2008 and Paris, France, in 2015, which devastated cities and affected entire countries.²²⁷ While some U.S. first-responder agencies have taken the initiative to prepare for complex coordinated attacks by creating programs like MACTAC, there is no national preparedness effort.²²⁸ The United States has not suffered a complex coordinated attack at the scale of Mumbai or Paris, and unfortunately, the reactive nature of most first-responder agencies might mean the country does not prepare for one until after it happens.

A. TRADITIONAL LAW ENFORCEMENT ROLES

Law enforcement training has evolved since the beginning of American policing in the 1800s. Since its inception, law enforcement has been a “reactive endeavor,” requiring

²²⁶ Moody, “Filling the Gap,” 39.

²²⁷ Moody, “Filling the Gap,” 29–30; QuinnWilliams, LLC, *The Attacks on Paris: Lessons Learned* (Washington, DC: Homeland Security Safety Council, 2016), 15–16.

²²⁸ Justice, “Active Shooters,” 44.

crises before the police change how they train.²²⁹ During the 1960s, the International Association of Chiefs of Police (IACP) conducted studies on police training and noted significant discrepancies between agencies.²³⁰ The community policing model was the predominant format used by American law enforcement agencies and was developed to help build bonds between police and the community.²³¹ Community policing involves crime prevention, criminal investigative training, and community building tactics like foot beats, victim assistance, and community events, so civilians can interact with law enforcement and develop positive interactions.²³² These skills are effective for most calls for service that police encounter but less so for violent paramilitary attacks like active shooter events.²³³

Most officers attend a police academy and are trained in community building and crime fighting. However, police agencies focus on fighting crime and often do not provide officers with the tools to perform their work, namely “skills to handle physical and armed confrontations.”²³⁴ In their law enforcement academies, officers are taught legal requirements and crime-fighting tactics. Officers learn to handle assignments as individuals or with one other officer. Should they need assistance, they call for other officers or a supervisor to come assist them at their scene.²³⁵ Police officers receive limited training in implementing ICS and working and integrating with other agencies. Additionally, little police training covers the tactics and weapons needed to mitigate an active shooter attack or the integrated response from law enforcement and fire/EMS that is needed to save the injured.²³⁶

²²⁹ Warwick, “A Comprehensive Study of Police Preparedness,” 24–29.

²³⁰ Warwick, 25.

²³¹ Warwick, 28.

²³² Warwick, 27–28.

²³³ Warwick, 31–32.

²³⁴ Warwick, 26.

²³⁵ Moody, “Filling the Gap,” 41.

²³⁶ Moody, 50–51.

In the critical and demanding environment of law enforcement, particularly in response to active shooter attacks, the importance of integrated training and understanding between police and other emergency services cannot be overstated, yet a pronounced disconnect between culture and practice persists. Individual competence is prized in law enforcement, and coordinated large-scale teamwork is rare.²³⁷ Officers do not practice the ICS tenets regularly and rarely use them.²³⁸ Additionally, police officers educate other police officers on law enforcement culture, language, equipment, and training. Police academies rarely conduct integrated training with fire/EMS personnel, so police officers are unfamiliar with fire/EMS culture, language, equipment, and training.²³⁹ This disconnect creates a significant barrier to integration at the scene of an active shooter attack.²⁴⁰ Critics point out that the training officers receive dictates how they respond to crises.²⁴¹ Also, IACP research has shown that because there are no national standards for police certifications, every jurisdiction, city, or county develops its own.²⁴² Although this research was conducted in the 1960s, law enforcement still lacks national police standards, training, and tactics.²⁴³ The persistence of such fragmentation between law enforcement and other emergency services, despite being a known issue for decades, highlights an urgent need for a cohesive national strategy, thereby fostering integration and standardization that could enhance efficiency and effectiveness during crises.

1. History and Training

In the 1960s, several events took place that influenced significant changes in law enforcement training and response, highlighting the need for specialized tactics. For example, in 1966, Charles Whitman climbed the University of Texas tower and began a shooting spree that lasted over 90 minutes. Armed with a variety of weapons, Whitman

²³⁷ Moody, 40.

²³⁸ Buck, Trainor, and Aguirre, “A Critical Evaluation,” 4–5.

²³⁹ Moody, “Filling the Gap,” 55.

²⁴⁰ Moody, 56.

²⁴¹ Warwick, “A Comprehensive Study of Police Preparedness,” 28.

²⁴² Warwick, 25.

²⁴³ Warwick, 57.

killed over a dozen people and wounded more than 30.²⁴⁴ The responding law enforcement officers at the time were ill-equipped and lacked the necessary training to handle the assault efficiently.²⁴⁵ They faced great difficulty in reaching the shooter's position, and it took them, along with deputized civilians, hours to end the shooting. This tragic event exposed glaring inadequacies in traditional law enforcement tactics and equipment when police face highly violent situations.

In response to extreme events like the Texas tower shooting, the LAPD developed the first SWAT unit in 1967.²⁴⁶ This unit was specially trained and equipped to combat extremely violent situations, employing a combination of specialized weaponry, equipment, and tactics. The formation of the SWAT unit marked a turning point in law enforcement, and most police agencies across the country founded these units. They became the go-to response for the most dangerous situations that law enforcement faced, symbolizing a significant evolution in the approach to handling extreme violence.²⁴⁷

Before the 1999 Columbine High School attack, law enforcement followed the isolate, contain, and call (ICC) SWAT tactic when faced with a critical incident like a hostage situation or a barricaded subject. When using ICC, officers isolated the threat to ensure it did not spread, established a protective police perimeter to contain the situation, and called SWAT to handle the situation given its specialized training and equipment.²⁴⁸ The rationale behind this tactic was that SWAT teams, being specialized units, were well equipped and trained to handle high-risk situations. This approach allowed time for first responders to establish ICS.²⁴⁹

The ICC model resulted in an overreliance on SWAT teams to handle critical incidents. While first on the scene of “paramilitary attackers operating in the U.S.,” the

²⁴⁴ Seebock, “Responding to High-Rise Active Shooters,” 9.

²⁴⁵ Seebock, 10–11.

²⁴⁶ Warwick, “A Comprehensive Study of Police Preparedness,” 30.

²⁴⁷ Warwick, 30–31.

²⁴⁸ Warwick, 32–33.

²⁴⁹ Warwick, 32, 44.

responding officers had no training or equipment to handle them.²⁵⁰ The ICC policing model was used until 1999, when Columbine changed law enforcement's approach to active shooter events. Although there had been many school shootings in the United States before Columbine, this one hastened widespread first-responder protocol changes.²⁵¹ The changes were possibly the result of Columbine's prominent U.S. media coverage, second only to then-President Bill Clinton's impeachment.²⁵² Intense media scrutiny along with significant delays in resolving the event likely led law enforcement and fire/EMS leaders to realize a change was needed.²⁵³ Columbine marked the beginning of a paradigm shift in law enforcement response to these events.²⁵⁴

After Columbine, law enforcement agencies recognized that police officers could not wait on the periphery of the shooting but needed to move to stop the shooter. The ICC law enforcement response model was unacceptable when people were injured and dying a short distance from law enforcement and lifesaving resources.²⁵⁵ Training changed from the first responding officers' waiting for specialized teams to aggressively pushing to stop the shooter. The National Tactical Officer Association supported this "rapid response" model.²⁵⁶ Research determined that time was an essential component of response models. A 2003 study that analyzed 44 active shooter incidents revealed that the Columbine shooting lasted 13 minutes, longer than any of the other events examined.²⁵⁷ A separate study in 2012, which reviewed nearly 300 active shooter events at schools, found that these

²⁵⁰ Moody, "Filling the Gap," 45; Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 345.

²⁵¹ Justice, "Active Shooters," 36–37; "Home Page," K–12 School Shooting Database, accessed August 9, 2023, <https://k12ssdb.org/>.

²⁵² Iris Chyi Hsiang and Maxwell McCombs, "Media Salience and the Process of Framing: Coverage of the Columbine School Shootings," *Journalism and Mass Communication Quarterly* 81, no. 1 (Spring 2004): 26.

²⁵³ Warwick, "A Comprehensive Study of Police Preparedness," 36–37.

²⁵⁴ Justice, "Active Shooters," 25.

²⁵⁵ Moody, "Filling the Gap," 44–45.

²⁵⁶ Warwick, "A Comprehensive Study of Police Preparedness," 38.

²⁵⁷ Warwick, 38.

events on average last around 12 minutes, yet responding law enforcement agencies take 18 minutes to arrive.²⁵⁸

As discussed in Chapter II, ICS is the process prescribed for all first responders when responding to crises. Firefighters developed ICS to guide their training and response to fires. Firefighters use ICS on every call for service and “leave the fire station as a set package with command already in place.”²⁵⁹ Unlike fire/EMS personnel, law enforcement officers neither train nor use ICS daily; instead, they “build incident command from the ground up when responding to a large-scale event such as an active shooter.”²⁶⁰ Law enforcement and fire/EMS personnel respond to crises every day, but they handle these crises based on their training and experiences, which are distinct and do not lend themselves to interoperability.²⁶¹ In most instances, first responders’ training and protocols are sufficient for daily operations. Unfortunately, major catastrophic events and the loss of life make changes in agency policies necessary.²⁶²

The ICS response model contains no structure (or support) to guide first responders before the incident command is established. This lack of guidance from ICS has stimulated the development of numerous response models across the country. These response models vary as each agency adopts its own active shooter training, equipment, and response protocols.²⁶³ First-responder agencies are facing a similar crisis to the one faced by fire agencies in the 1970s: multiple agencies respond to active shooters with no multi-agency integration or guidance from ICS to handle the critical first minutes of the attack.²⁶⁴

²⁵⁸ Warwick, 39.

²⁵⁹ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 350.

²⁶⁰ Martaindale and Blair, 350.

²⁶¹ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 350; Solomon, “Analysis of Emergency Responder Preparedness,” 13.

²⁶² Warwick, “A Comprehensive Study of Police Preparedness,” 14.

²⁶³ Warwick, 32–40.

²⁶⁴ Buck, Trainor, and Aguirre, “A Critical Evaluation,” 2.

2. Equipment and Preparedness

Modern police agencies have begun to fit their patrol officers with a wide assortment of defensive and offensive equipment including handguns, rifles, ballistic shields, bulletproof vests with or without rifle plates, helmets, radios, gas masks, shotguns, extra ammunition, first-aid kits, and tourniquets.²⁶⁵ But not all officers receive such equipment. The equipment issued to law enforcement officers varies from one agency to another, often based on an agency's experience with violence or perceived needs of officers in the community. As discussed earlier, most law enforcement agencies are historically reactive and equip their personnel only after an event has taken place and the shortcomings of the existing equipment are made impossible to ignore.²⁶⁶ Agencies often rely disproportionately on SWAT teams to handle critical incidents. As such, agencies invest financially in equipment and training for SWAT teams but less so for frontline patrol members.²⁶⁷

Before attacks on the public in the 1960s, including the Texas tower shooting, most law enforcement officers had limited equipment issued to them. Most officers were issued a revolver with limited ammunition, and ballistic protection was only in the form of flak jackets provided by the military and not worn regularly on duty.²⁶⁸ Additionally, personal communication devices like walkie-talkies had been developed only recently, so they were not used often. In Texas, the APD had only 12 of them.²⁶⁹

By the late 1960s, many police departments developed and equipped specialized teams with advanced weaponry and protective equipment. SWAT teams benefited from the latest available civilian and military equipment including rifles, ballistic body armor, shields, armored vehicles, communications systems, long-range optics, breaching

²⁶⁵ Seebock, "Responding to High-Rise Active Shooters," 36.

²⁶⁶ Seebock, 11–13.

²⁶⁷ Warwick, "A Comprehensive Study of Police Preparedness," 32, 57.

²⁶⁸ Seebock, "Responding to High-Rise Active Shooters," 12; Miller and Boyd, "Ballistic Protective Devices for Law Enforcement."

²⁶⁹ Seebock, "Responding to High-Rise Active Shooters," 12.

equipment, chemical munitions, and rappel equipment.²⁷⁰ Unfortunately, until the 1990s, SWAT members were the only law enforcement members with access, training, and authorization to use this equipment. For the most part, frontline patrol members, although benefiting from upgrades in ballistic protection, communications, and semiautomatic handguns, had no advanced equipment or even rifle training.²⁷¹

In the post-Columbine era, most law enforcement agencies have increased the amount of equipment issued to their officers. Along with active shooter training, jurisdictions have also implemented patrol rifle programs, which train frontline patrol members on the proper use and deployment of rifles with ballistic capacities beyond their handguns and large ammunition capacities. These members are permitted to carry the rifles with them during their tour.²⁷² They are also issued equipment like plate carriers, body armor designed to withstand rifle bullets.²⁷³ Notably, the regular body armor that patrol officers are issued is rated only to withstand handgun bullets, not rifle bullets.²⁷⁴

As more active shooter events have taken place in the United States, there has been a marked emphasis on equipping frontline law enforcement officers with the tools and training necessary to respond to grave threats swiftly and effectively. With the introduction of patrol rifle programs and the issuance of advanced equipment like plate carriers, law enforcement agencies are not only prioritizing the safety of the public but also ensuring their officers have the protective gear and firepower needed to confront and neutralize heightened threats. This shift showcases a proactive approach toward threat mitigation,

²⁷⁰ “Special Weapons & Tactics: SWAT,” American Special Ops, accessed May 16, 2023, <https://www.americanspecialops.com/special-weapons-and-tactics/>.

²⁷¹ Seebock, “Responding to High-Rise Active Shooters,” 12.

²⁷² Seebock, 36.

²⁷³ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 343; “NIJ Body Armor Ratings Explained (Protection Levels & Performance Standards),” Shield Technology Inc., accessed May 19, 2023, <https://shieldtechnologyinc.com/nij-body-armor-ratings-explained-protection-levels-performance-standards/>.

²⁷⁴ Shield Technology Inc.

underscoring a commitment to adapting and learning from past events to safeguard future generations.²⁷⁵

B. TRADITIONAL FIRE/EMS ROLES

American firefighters have developed their training and equipment based on their needs to fight fires. The traditional firefighter's role is to save lives and put out fires. While law enforcement and fire agencies regularly interact with each other, they rarely engage in joint training and only interoperate during real-world incidents or occasional full-scale exercises. In the past several decades, the role of firefighters has expanded to provide medical care as well. Indeed, many jurisdictions across the United States have incorporated fire and EMS into one entity.²⁷⁶ Similar to law enforcement agencies, fire agencies react to incidents and develop policies and tactics after critical incidents take place. As the past half century has seen significant growth in industry and dense urban areas, fire agencies have had to create specialized units to handle tasks such as hazardous materials mitigation and technical rescues.²⁷⁷

As noted in the previous section, Columbine created a paradigm shift in law enforcement's approach with active shooters. It did not have the same effect on the fire/EMS community. For many years after Columbine, active shooters were seen only as a law enforcement problem.²⁷⁸ While law enforcement agencies changed their tactics from contain and call SWAT to immediate deployment into the danger area and stop the threat, fire/EMS agencies maintained the policy of keeping their distance from the threat until law enforcement completely cleared the scene. The development of rapid response programs like MACTAC and ALERRT has pushed for the rapid integration of fire/EMS with law enforcement to enter a target location even before police render it fully safe.²⁷⁹ The

²⁷⁵ Seebock, "Responding to High-Rise Active Shooters," 36; Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 343.

²⁷⁶ Vargas, "Tactical Firefighter Teams," 7.

²⁷⁷ Vargas, 7–8.

²⁷⁸ Vargas, 9.

²⁷⁹ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 98, 100.

increasing number of active shooter attacks across the United States, along with an increasing body of research that supports the need for an integrated medical response to an active shooter, has pushed fire/EMS agencies to change their response models.²⁸⁰

1. History and Training

For most of American history, the fire service has been a local endeavor. Local jurisdictions oversee the staffing, training, and equipping of their firefighters. Unlike law enforcement agencies, which have a state-based police department and local jurisdiction police agencies, fire agencies are mostly city- or county-based.²⁸¹ Like their law enforcement counterparts, firefighters and medics attend a formal training academy. In their academies, fire and EMS personnel learn fire suppression and medical response tactics. They learn to be part of a team that works from a firehouse and responds to calls for service as a unit, whether on a fire truck or ambulance.²⁸² ICS works well for firefighters, first, because it was developed by firefighters, and second, because firefighters use ICS for every call, whether a medical rescue or a building fire. Fire crews have a chain of command integrated into their fire trucks, and each member knows one's roles and responsibilities.²⁸³

Like their law enforcement counterparts, firefighters train other firefighters in fire service culture, language, equipment, and training. Fire academies rarely conduct integrated training with law enforcement personnel. Firefighters, like their police counterparts who lack knowledge of fire culture, are unfamiliar with police culture, language, equipment, and training.²⁸⁴ Additionally, fire organizations like the International Association of Fire Chiefs and the International Association of Fire Fighters have expressed strident opposition to integrated training. These entities see more

²⁸⁰ Vargas, "Tactical Firefighter Teams," 9–10.

²⁸¹ Federal Fire Prevention and Control Act of 1974, Pub. L. 93–498 § 3, 88 Stat. 1535 (1974).

²⁸² Moody, "Filling the Gap," 40; Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 350.

²⁸³ Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 350–51.

²⁸⁴ Moody, "Filling the Gap," 55.

drawbacks than benefits to formal integrated training, thus creating a significant barrier to integration during an active shooter attack.²⁸⁵

From the late 1800s into the 1900s, fires were one of the leading causes of death and property damage in the United States. Research conducted in the 1970s revealed that fires killed 12,000 Americans a year and injured another 300,000, and the annual cost of fire loss was estimated at over \$11 billion.²⁸⁶ The research revealed that lacking national building standards, research into fire prevention, and integration between fire agencies were significant contributors to the massive fire loss.²⁸⁷ Although the United States led the world in fire-related deaths and property loss, nothing was done by the federal government until the 1970s.

Congress decided that a coordinated response to fire safety was needed to reduce the massive loss of life and property. The Federal Fire Prevention and Control Act (FFPCA) of 1974 was signed into law and its administration assigned to the Federal Emergency Management Agency.²⁸⁸ This act established the U.S. Fire Administration and later the National Academy for Fire Prevention and Control, which helped standardize training and equipment across the country. The FFPCA forced the establishment of national standards for fire equipment, suppression, and prevention tactics.²⁸⁹

Around this time, wildland firefighters began developing ICS, which also supported the need for standardization in fire equipment and tactics.²⁹⁰ The FFPCA also authorized the appropriation of millions of dollars annually toward fire research, including urban, rural, wildland, and arson investigations; the development of more hospital burn units; and the standardization of training and equipment.²⁹¹ The act also gave rise to national

²⁸⁵ Moody, 56.

²⁸⁶ Federal Fire Prevention and Control Act, § 2.

²⁸⁷ Federal Fire Prevention and Control Act, § 3.

²⁸⁸ Federal Fire Prevention and Control Act, § 4.

²⁸⁹ Federal Fire Prevention and Control Act, §§ 5, 7.

²⁹⁰ Federal Fire Prevention and Control Act, § 7; Buck, Trainor, and Aguirre, “A Critical Evaluation,” 1–3.

²⁹¹ Federal Fire Prevention and Control Act, §§ 16–18.

standards for fire prevention devices like smoke alarms, sprinkler systems, fire-retardant building materials, and consumer products.²⁹²

2. Equipment and Preparedness

Most modern fire agencies outfit their fire and EMS members with the necessary equipment to complete their jobs. Firefighters are issued protective equipment called turnout gear to protect them while handling structural fires, and medics are issued the medical equipment needed to render pre-hospital care to injured or sick individuals.²⁹³ The National Fire Protection Agency establishes minimum standards for the protective equipment that firefighters are issued. Items like gloves, jackets, pants, helmets, and boots all must meet a designated rating to protect firefighters in the fire environment.²⁹⁴ Additionally, firefighters wear self-contained breathing apparatus, so they can breathe in the toxic environment of a building fire.²⁹⁵ Fire/EMS agencies that support cross-functional integration with law enforcement also equip specially trained firefighters and medics with ballistic helmets and body armor.²⁹⁶

The historical progression and organizational framework of American fire service contrast starkly with those of law enforcement. Traditionally, the fire service has roots at the local level while law enforcement enjoys both state-based and local agencies. Both firefighters and law enforcement officers undergo formal training, steeped in their respective profession's culture, language, and procedures. However, the divide in training is glaring: firefighters are trained predominantly by other firefighters without much overlap with or understanding of police culture, and vice versa for police officers.²⁹⁷

²⁹² Federal Fire Prevention and Control Act, §§ 22, 29.

²⁹³ Vargas, "Tactical Firefighter Teams," 10, 31.

²⁹⁴ "Codes and Standards," National Fire Protection Association, accessed June 17, 2023, <https://www.nfpa.org/Codes-and-Standards>; Vargas, "Tactical Firefighter Teams," 40.

²⁹⁵ Vargas, "Tactical Firefighter Teams," 42.

²⁹⁶ Vargas, 45.

²⁹⁷ Moody, "Filling the Gap," 55; Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols," 350–51.

In conclusion, the distinct histories, cultures, and training protocols of the fire service and law enforcement have inadvertently created silos. These differences are further magnified during integrated response scenarios, such as active shooter situations. While firefighters are rooted in a culture of teamwork, a response to specific emergency types, and standardized equipment, law enforcement's varied levels and distinct training focus might lead to uncoordinated responses when the two services intersect. The disparity between the two services' training, histories, and cultures is particularly evident in active shooter scenarios, where swift, coordinated action is paramount.²⁹⁸

C. OVER-CONVERGENCE OF FIRST-RESPONDER RESOURCES

A review of many active shooter events, including the six reviewed in this thesis, reveals that active shooters draw a massive amount of first-responder personnel. The current U.S. policing and fire/EMS principle “automatically generates a maximum response to extreme events.”²⁹⁹ That is, when an active shooter event takes place, agencies dispatch every available first responder to the scene. Due to the chaotic nature of active shooter events, not much is known about the attack in the first few minutes. The number of attackers is unknown, and so is the number of victims.³⁰⁰ With so many unknown factors, law enforcement and fire/EMS agencies send as many resources as they have available.³⁰¹

The result is an over-convergence of police and fire/EMS personnel, equipment, and vehicles at the scene. As observed with the six active shooter attacks reviewed in Chapter III, hundreds of law enforcement and fire/EMS members converge on attacks. Over-convergence becomes a significant issue for law enforcement and fire/EMS agencies for several reasons. First, with no effective command and control, the attempt by law enforcement to move toward and stop the threat can be hampered. While rapid deployment into the threat area is necessary for a fast resolution of the assault, having too many officers

²⁹⁸ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 350–51.

²⁹⁹ Moody, “Filling the Gap,” 41.

³⁰⁰ Moody, 38–39.

³⁰¹ Moody, 39.

can bog down efforts. Large numbers of officers on the scene of the event do not necessarily bolster the ability to find and stop the shooter.³⁰²

When hundreds of officers and firefighters arrive on the scene of a shooting, if there is no control over where they park their vehicles, hundreds of unattended police and fire vehicles block other responders from arriving at the scene.³⁰³ The unintended log jam of vehicles blocking critical entrance and exit routes then becomes a hindrance for victim extraction.³⁰⁴ Additionally, when numerous first-responder agencies use multiple radio frequencies on the scene of an attack, they limit interagency communication as cell phone and radio systems crash and become useless to the responders.³⁰⁵ If these systems crash from the volume of communication, agencies can share no effective intelligence, and coordination efforts fail.³⁰⁶

So far, the United States has not experienced a complex coordinated attack involving attacks at multiple sites. Both India and France have suffered a multiple-shooter attack that resulted in the deaths of hundreds of people.³⁰⁷ Active shooter attacks in the United States have involved one or two armed individuals in one general location. In the case of a complex coordinated attack, over-convergence would severely restrict a first-responder agency's ability to handle multiple events. With all personnel and equipment dedicated to one event, response agencies would be incapable of responding quickly to another concurrent attack.³⁰⁸

1. The 2008 Mumbai, India, Attack

On November 26, 2008, in Mumbai, India, 10 well-armed, well-trained paramilitaries split into five two-man teams and made their way through the city to several

³⁰² Justice, "Active Shooters," 61.

³⁰³ Moody, "Filling the Gap," 39.

³⁰⁴ Moody, 39.

³⁰⁵ Moody, 40.

³⁰⁶ Moody, 39–40.

³⁰⁷ Justice, "Active Shooters," 32, 37.

³⁰⁸ Justice, 42.

pre-selected targets.³⁰⁹ The collective team had trained in small-unit tactics in Pakistan for a year before the assault. All 10 men were armed with high-powered automatic rifles, IEDs, hand grenades, and handguns.³¹⁰

The first team went to Mumbai's main train terminal, set off explosives, and began shooting at civilians indiscriminately. In the first volley of the attack, the two men killed over 50 people and injured hundreds. They stayed there for over an hour before being forced out by law enforcement.³¹¹ From the train terminal, they went to a local hospital and continued their attack by shooting innocent victims. The second team went to a commercial facility, and the third and fourth teams each went to a separate hotel and attacked it. The teams had schematic layouts of the hotels and knew the access points and back hallways.³¹² At each location, the attackers shot and killed dozens of victims and set off IEDs, killing and injuring most of their victims within minutes of the attack. As with most active shooter attacks in the United States, most of the killings and injuries were sustained very early in the attacks.³¹³ In total, the attackers killed 172 and wounded over 500 victims. They laid siege for over 60 hours at the hotels before being killed by Indian special forces. Only one of the attackers survived and was captured alive.³¹⁴

A post-attack investigation revealed that one reason the attackers could kill so many people was that the Mumbai police were severely understaffed, undertrained, and underequipped. Most Mumbai police did not carry firearms but used batons, and the weapons they were issued were old or in poor repair.³¹⁵ The terrorists moved throughout the city with impunity because they encountered very limited police opposition. The Mumbai police force had not been trained to respond to armed individuals, let alone skilled

³⁰⁹ Moody, "Filling the Gap," 29–30.

³¹⁰ Seebock, "Responding to High-Rise Active Shooters," 21.

³¹¹ Moody, "Filling the Gap," 30.

³¹² Justice, "Active Shooters," 37–38.

³¹³ Moody, "Filling the Gap," 34.

³¹⁴ Seebock, "Responding to High-Rise Active Shooters," 24.

³¹⁵ Justice, "Active Shooters," 40.

gunmen. Even the special forces teams deployed from hundreds of miles away had limited equipment.³¹⁶

2. The 2015 Paris Attacks

On November 13, 2015, nine armed men engaged in an all-out assault on the city of Paris, France, for several hours. They targeted six locations and attacked with explosives and firearms. At least two of the men had received training at a terrorist camp in Syria.³¹⁷ Just after 9:00 p.m., a man with a suicide vest detonated his IED outside a soccer stadium where the French president was in attendance. The blast killed the attacker.³¹⁸ Shortly after the first explosion, a second man detonated his vest outside the stadium. A few minutes after the second detonation, a third man detonated his vest about a quarter mile from the stadium. The blasts injured dozens of people and killed the attackers and one civilian.³¹⁹

Meanwhile, three gunmen began a shooting spree at local bars and restaurants. The gunmen first shot at patrons outside a bar and restaurant, killing 15 civilians. They entered a rental car, drove to another location, and fired at patrons, killing five more. Then, they drove to one more location and shot at and killed 19 more victims. At a separate location, one of the attackers entered a restaurant and detonated a suicide vest, killing himself and seriously injuring several civilians.³²⁰

Finally, three men armed with assault rifles and suicide vests raided a local concert hall, the Bataclan, and shot at the concertgoers. The attackers fired into the crowd for almost 10 minutes, killing nearly 90 people instantly and injuring hundreds of others. Two French police officers who were in the area heard the shooting and entered the concert venue. One of the officers shot one of the shooters, who was wearing a suicide vest. The bomb detonated, killing the attacker. The other two shooters stopped shooting and

³¹⁶ Justice, 40.

³¹⁷ QuinnWilliams, *The Attacks on Paris*, 18.

³¹⁸ QuinnWilliams, 15.

³¹⁹ QuinnWilliams, *The Attacks on Paris*, 15; “2015 Paris Terror Attacks Fast Facts,” CNN, December 8, 2015, <https://www.cnn.com/2015/12/08/europe/2015-paris-terror-attacks-fast-facts/index.html>.

³²⁰ QuinnWilliams, *The Attacks on Paris*, 15.

retreated, taking over 20 hostages. The officers' rapid response and actions stopped the killings.³²¹ At 12:20 a.m., French police laid siege on the concert hall, killing the remaining attackers. In total, the nine attackers targeted six locations, killed over 120 civilians, and wounded almost 500 others. The attackers who did not die by detonation or police action fled that night but were captured or killed later.³²²

While there were hundreds injured and killed, the French law enforcement response to the event likely saved hundreds of other lives. French law enforcement is well trained and equipped and has undergone several terror attacks from which it has improved its tactics.³²³ When the first suicide bomber detonated his vest at the soccer stadium, law enforcement, suspecting that the attackers wanted to draw large crowds of evacuees as targets, did not evacuate the stadium. The president was evacuated from the stadium, and the soccer match was allowed to proceed as the stadium was locked down. The attendees inside the stadium knew nothing of the outside attack and remained calm.³²⁴ French law enforcement learned from prior terrorist attacks that the first bomb is often a distraction to draw resources. The police decided to send only a small team to handle the bomb attacks, thus avoiding an over-convergence of resources. Police officials expected subsequent attacks and maintained additional resources in reserve to address them.³²⁵

Despite this well-informed decision, the police force still faced deployment challenges. As expected, there was a massive deployment of first-responder resources throughout the city, and information sharing was limited as a command post was set up at each of the attack sites. Many law enforcement officers self-deployed to the attack locations, causing a gridlock of vehicles at several of the attack sites.³²⁶ At the time of these attacks, French law enforcement's protocol was to set up a perimeter and wait for the specialized teams to address the threat. Luckily, at the concert venue, the police officers

³²¹ Joseph W. Pfeifer, "International Anti-Terrorism Preparedness," *WNYF Magazine*, April 2016, 24.

³²² QuinnWilliams, *The Attacks on Paris*, 15; CNN, "2015 Paris Terror Attacks Fast Facts."

³²³ QuinnWilliams, 23.

³²⁴ QuinnWilliams, 23.

³²⁵ QuinnWilliams, 23.

³²⁶ QuinnWilliams, 23.

who heard the shooting violated protocol by entering the building and shot one of the attackers, which kept the other attackers from shooting anyone else.³²⁷

3. Analysis

Both attacks show how a well-organized and equipped group of individuals can inflict a massive loss of life and destruction of property sufficient to cripple an entire city. Like the Paris and Mumbai attackers, most U.S. active shooters plan their attacks. They also equip themselves with weapons and protective equipment to ensure they can cause as much death as possible yet stay in the attack if shot at by police.³²⁸ Except for the 1966 Texas tower attacker, none of the other attackers discussed in this thesis had formal military or paramilitary training.³²⁹ The most significant differences between U.S. and international attacks involve formal training and the number of attackers. Even without training, U.S. shooters can kill dozens and injure hundreds of people during their attacks.³³⁰ If the number of shooters and target locations were like Paris or Mumbai, fatalities could be in the hundreds and the wounded in the thousands. First responders need to be better prepared to deal with a complex coordinated attack if it happens in the United States, which this author deems is a real possibility.

Complex coordinated attacks, as illustrated by the devastating events in Mumbai and the Bataclan in Paris, require a robust and dynamic approach from first responders. Training paradigms such as those for small military units in an urban setting offer invaluable skills for navigating densely populated areas swiftly and engaging threats with precision. MACTAC emphasizes the importance of coordination across multiple units, especially when facing simultaneous assaults in disparate locations. ATIRC and ALERRT further hone the ability of officers to aggressively confront and neutralize active threats.³³¹

³²⁷ QuinnWilliams, 23.

³²⁸ Justice, “Active Shooters,” 20, 23, 31.

³²⁹ Seebock, “Responding to High-Rise Active Shooters,” 14.

³³⁰ Seebock, 34.

³³¹ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 344–45; QuinnWilliams, *The Attacks on Paris*, 14–15; Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 100.

Equipment-wise, high-caliber weapons suitable for both long-range and close combat engagements are essential. Advanced ballistic protection, such as body armor and helmets capable of withstanding rifle rounds, ensures the safety of the first responders.³³² Medically, the presence of specialized trauma kits equipped with tourniquets and blood clotting agents can mean the difference between life and death in the time following the injury.³³³ Drawing inspiration from countries that have undergone numerous terrorist attacks, such as France and Israel, there is also a critical need for a lean, rapid response mechanism while maintaining a strategic reserve of personnel and resources.³³⁴ Such a strategy facilitates an immediate counter to any additional, concurrent attacks and helps combat the natural tendency toward resource convergence at a single point, ensuring an effective broad-spectrum response.

D. CONCLUSION

This chapter has underscored the importance of understanding the history and evolution of law enforcement and fire/EMS agencies, along with the existing barriers to their successful integration. The analysis reveals significant disconnects in culture, training, equipment, and response protocols between these entities. These differences highlight the gaps in ICS as a tool for these two response entities in the first crucial minutes of an attack. The problem of over-convergence becomes evident during massive responses to single events, where the combined resources of police and fire/EMS agencies may hinder the effective mitigation of an active shooter event.

The devastating terror attacks in Mumbai, India (2008), and Paris, France (2015), serve as poignant reminders that U.S. first-responder agencies must be prepared for attacks larger than what has historically occurred in this country. Some agencies have taken proactive steps by implementing programs like MACTAC to prepare for complex

³³² Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 346.

³³³ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 26–27.

³³⁴ QuinnWilliams, *The Attacks on Paris*, 14–15; David Weisburd, Tal Jonathan, and Simon Perry, “The Israeli Model for Policing Terrorism: Goals, Strategies, and Open Questions,” *Criminal Justice and Behavior* 36, no. 12 (2009): 1265, <https://doi.org/10.1177/0093854809345597>.

coordinated attacks.³³⁵ MACTAC equips first-responder agencies with specialized training, tools, and strategies to effectively counter complex coordinated attacks like those witnessed in Mumbai and Paris. Emphasizing interagency coordination, dynamic adaptability, and optimal resource allocation, the program also prioritizes civilian protection and post-incident management. However, varying preparedness levels across agencies highlight the need for nationwide implementation to ensure a cohesive response to such threats.³³⁶

The absence of a complex coordinated attack in the United States at the scale of Mumbai or Paris might have contributed to the reactive approach of American first-responder agencies. This chapter emphasized the urgency of proactive preparation, suggesting that national readiness may only materialize after experiencing an attack of similar magnitude. By acknowledging and addressing the disconnects between law enforcement and fire/EMS agencies and fostering a more integrated and collaborative approach, the United States can better equip itself to handle potential threats effectively.

The next chapter presents the findings of this thesis and offers recommendations for both law enforcement and fire/EMS agencies to prioritize unified strategies and training sessions that bridge existing gaps. To ensure the security and safety of the nation, first-responder agencies must move from reactive measures to proactive ones, integrated solutions that are predicated on collaboration and preparedness before any large-scale incident occurs. The next steps involve a commitment to continuous communication, joint training exercises, and the sharing of resources and intelligence among all first-responder agencies. Only through such concerted efforts can we truly safeguard our nation from emerging threats.

³³⁵ Las Vegas Metropolitan Police Department, *1 October After-Action Review*, 107.

³³⁶ Las Vegas Metropolitan Police Department, *1 October After-Action Review*, 107; National Tactical Officers Association, *MACTAC Course Overview and Instructional Goals*, 1–2.

V. CONCLUSION

In examining ICS's effectiveness in the context of active shooter events, this thesis analyzed its implementation by both law enforcement and fire/EMS units. By reviewing the literature on active shooter incidents and the associated data, this research provided comprehensive insight into the inherent inadequacies of ICS for such scenarios.³³⁷ In short, this thesis found that inadequately trained and equipped first responders in conjunction with an unprepared community lead to a higher death rate when active shooters attack.³³⁸ This thesis reviewed six historic active shooter events—the 1966 University of Texas tower shooting; the 1997 Los Angeles bank heist shooting; the 1999 Columbine High School shooting; the 2012 Aurora, Colorado, movie theater shooting; the 2013 shooting at LAX; and the 2017 Las Vegas music festival shooting—as they had a significant effect on the evolution of response protocols for first responders during these attacks.³³⁹ Furthermore, by considering the unique histories, cultures, training, and equipment provisions of law enforcement and fire/EMS units, this thesis underscored the fundamental differences that hinder a seamless and unified response to such threats.³⁴⁰

A particular focus was placed on the over-convergence of first-responder resources, especially in light of the 2008 Mumbai, India, and 2015 Paris, France, complex coordinated attacks.³⁴¹ The Paris and Mumbai attacks emphasized the urgent need for a more refined and coordinated response, especially given the current preparedness levels of U.S. first responders. It is evident that ICS, primarily developed for wildfires in California during

³³⁷ Buck, Trainor, and Aguirre, "A Critical Evaluation," 2; Renaud, "The Missing Piece of NIMS," 3; Martaindale and Blair, "The Evolution of Active Shooter Response Training Protocols."

³³⁸ Renaud, "The Missing Piece of NIMS," 3; Solomon, "Analysis of Emergency Responder Preparedness," 39.

³³⁹ Seebock, "Responding to High-Rise Active Shooters," 14, 34–37; Coffin, "Warzone," 18; Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 54; Justice, "Active Shooters," 23–24; Norton, "Primary Law Enforcement Mistakes," 46–48; Los Angeles World Airport, *Active Shooter Incident*.

³⁴⁰ Moody, "Filling the Gap," 56–57; Warwick, "A Comprehensive Study of Police Preparedness," 25–28; Federal Fire Prevention and Control Act, § 3; Vargas, "Tactical Firefighter Teams," 9–10.

³⁴¹ Moody, "Filling the Gap," 29; Joseph W. Pfeifer, "International Anti-Terrorism Preparedness."

the 1970s, falls short when addressing the swift and often unpredictable nature of active shooter events.³⁴² These incidents often culminate before a structured ICS can be effectively established, underlining the need for an alternative, more agile response model.

Moreover, there is a critical gap between the required rapid response and the existing training paradigms and deployment strategies of U.S. law enforcement and fire/EMS first responders. The increasing frequency and intensity of active shooter events, compounded by the usage of military-grade weapons and tactics, have highlighted the urgent need for a standardized approach to address these threats at both the national and local levels. Immediate response models like MACTAC, ATIRC, and ALERRT provide the framework on which a standardized national response model could be based.³⁴³

The analysis has also underscored the importance of community involvement and preparation in active shooter situations. While varied models exist to guide both first responders and civilians—including DHS’s “Run Hide Fight” and ATIRC’s “Avoid Deny Defend”—the absence of a single effective approach amplifies the potential risks during such events.³⁴⁴ Given the increased threat active shooter attacks pose to homeland security, there is an imperative to reassess and overhaul existing strategies, potentially integrating both first-responder and civilian initiatives to ensure a more effective and coordinated response.

A. RECOMMENDATIONS

The following are recommendations for the first-responder and civilian communities to better prepare for future active shooter attacks. The recommendations include updated policy implementation, updated equipment, and training for first responders and the civilian communities they serve.

³⁴² Buck, Trainor, and Aguirre, “A Critical Evaluation,” 2; Renaud, “The Missing Piece of NIMS,” 3.

³⁴³ NCBRT/Academy of Counter-Terrorist Education, “Active Threat Integrated Response”; National Tactical Officers Association, *MACTAC Course Overview and Instructional Goals*.

³⁴⁴ NCBRT/Academy of Counter-Terrorist Education, “Active Threat Integrated Response”; Department of Homeland Security, *Active Shooter: How to Respond*.

1. National Cross-Disciplinary First Responder–Civilian Response Policy

Active assailant scenarios present unique challenges, which necessitate a strategic approach that integrates all available resources and expertise. A national cross-disciplinary first responder–civilian response policy has the potential to address these challenges more effectively. A major advantage of this integrated approach is the pooling of resources, knowledge, and expertise. When police, fire, and EMS services collaborate closely, they create synergies that would be impossible when working in silos.³⁴⁵ As discussed in Chapter II of this thesis, the concept of the RTF and warm-zone care, which focuses on providing immediate medical care even in potentially dangerous situations, is a testament to the effectiveness of such integrated response efforts.³⁴⁶

Civilian preparation for active shooter events is pivotal in enhancing community readiness and fostering trust with first responders. When prepared, civilians can make informed decisions, potentially reducing casualties, guiding others, and decreasing panic during crises. Their training bolsters mutual respect for first responders, enables more effective information sharing about ongoing threats, promotes shared community responsibility for safety, and establishes a feedback mechanism for continual improvement in strategies. In essence, prepared civilians not only augment response efficiency but also fortify the bond between the community and its first responders, creating a united front for safety.³⁴⁷

2. Tactical-Level Integration

Active assailant scenarios are complex and dynamic, often requiring immediate and coordinated actions from different agencies. Tactical-level integration, wherein all units work under a common strategy and with a unified understanding of objectives, is pivotal. A fragmented response can lead to chaos and miscommunication and, in some cases, can even exacerbate the situation. On the other hand, a well-coordinated, tactically integrated

³⁴⁵ Moody, “Filling the Gap,” 55.

³⁴⁶ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 99.

³⁴⁷ Alghazali, “Active Shooter Training Improvements,” 4–5.

response can effectively counter the threat, ensure the safety of first responders and civilians, and save lives.³⁴⁸

3. Integrated Training for Law Enforcement and Fire/EMS

Considering the needs for immediate response programs and for immediate first-responder deployment into a threat area even before the establishment of a unified command post or ICS, as well as the importance of warm-zone care and an RTF, an integrated training regimen between law enforcement and fire/EMS should emphasize the following.³⁴⁹

a. Immediate Response Protocols

Prioritize systems like MACTAC, ATIRC, and ALERRT models. These emphasize immediate and effective responses to neutralize active shooters and safeguard civilians. Reinforce the importance of these immediate response protocols during all training sessions, making them second nature to the responding units.³⁵⁰

b. Warm-Zone Care/Rescue Task Force

Incorporate training to establish and operate in warm zones, areas that may not be entirely cleared of threats. It is crucial for fire/EMS to begin care even if the scene is not entirely secure. Law enforcement should be trained in escorting and protecting EMS personnel in these warm zones to ensure medical care can be provided as soon as possible.³⁵¹

³⁴⁸ Moody, “Filling the Gap,” 55.

³⁴⁹ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 343.

³⁵⁰ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 344; Renaud, “The Missing Piece of NIMS,” 11.

³⁵¹ Tierney, “Facilitating the Medical Response into an Active Shooter Hot Zone,” 99.

c. *Unified Command System*

While immediate response is underway, training should emphasize the transition to a more structured response as soon as feasible, moving toward establishing a unified command system that brings together law enforcement, fire, and EMS leadership.³⁵²

d. *Integrated Drills*

Joint training exercises should incorporate live drills where both law enforcement and fire/EMS respond together to a simulated active shooter situation, ensuring that protocols for MACTAC, ATIRC, and ALERRT are thoroughly exercised. Training should ensure all first responders are familiar with the roles and duties of other units, particularly under the guidance of the previous protocols.³⁵³

e. *Leadership Training*

Beyond the rank and file, leadership within law enforcement, fire, and EMS should undergo command-level training during the integrated drills to understand the complexities and nuances of these incidents.³⁵⁴ There is a significant need to uniformly train frontline officers and command-level fire personnel who will eventually arrive at the scene of an active shooter and need training to manage the chaos. Such training ensures effective command and control.³⁵⁵ Additionally, when assessing the best response program to develop, first-responder leadership must consider the phenomenon of over-convergence. Countries that have suffered complex coordinated attacks, including France and Israel, have developed response programs to prevent over-convergence and ensure sufficient first-responder assets are available should a secondary or tertiary threat arise.³⁵⁶ Including policy and training that mitigate over-convergence at active shooter events is a necessity for command-level first responders.

³⁵² Renaud, “The Missing Piece of NIMS,” 14.

³⁵³ Martaindale and Blair, “The Evolution of Active Shooter Response Training Protocols,” 350.

³⁵⁴ Renaud, “The Missing Piece of NIMS,” 12.

³⁵⁵ Renaud, 12.

³⁵⁶ QuinnWilliams, *The Attacks on Paris*, 23; Weisburd, Jonathan, and Perry, “The Israeli Model for Policing Terrorism,” 1265.

4. Equipment

The discussion of equipping law enforcement agencies to counter active shooter threats extends beyond general strategies and tactics. The effectiveness of a response depends heavily on the specific equipment platforms utilized. While many law enforcement agencies have some of this equipment, not all officers are trained for or equipped with it. All officers should be trained and equipped with these necessary tools to save civilian lives.³⁵⁷ Providing officers with the right equipment—including firearms suitable for countering active shooter threats, along with proper ammunition, optics, and accessories—is essential.³⁵⁸ Technology like unmanned aerial vehicles can provide a bird’s-eye view of structures and an advance perspective of what lies before officers inside a building.³⁵⁹ Additionally, ballistic body armor, breaching equipment, helmets, gas masks, and less-lethal options should be available to ensure officer and civilian safety.³⁶⁰ The following subsections introduce key equipment platforms for modern first responders.

a. Rifles

Law enforcement patrol rifles offer great accuracy at long ranges, superior stopping power, and the ability to penetrate barriers, making them vital in active shooter situations where precision, firepower, and adaptability are paramount. Their enhanced ammunition capacity, versatility, and deterrence factor and the extensive training officers receive with them further emphasize their critical role in rapid and effective responses. The AR-15/M4 platform is a versatile, lightweight rifle that can be quickly deployed and is effective at varied distances. Law enforcement agencies commonly use this platform as their patrol rifle. It can be accessorized with lights and infrared lasers for low-light situations and chambered for 5.56mm or 7.62mm ammunition, depending on the need of the mission.³⁶¹

³⁵⁷ Justice, “Active Shooters,” 69.

³⁵⁸ Seebock, “Responding to High-Rise Active Shooters,” 51.

³⁵⁹ Seebock, 59–60.

³⁶⁰ Las Vegas Metropolitan Police Department, *1 October After-Action Review*, 95–96.

³⁶¹ “NTOA Member Tested and Recommended Products,” National Tactical Officers Association, accessed September 6, 2023, <https://public.ntoa.org/default.asp?action=mtp>.

Higher-powered rifles are also essential in certain situations that require longer distances or material penetration. The Lapua .338 and the Barrett M107 are at the pinnacle of long-range and high-penetration rifle platforms. While they serve different primary purposes, the .338 primarily for long-range sniping and the M107 for anti-matériel roles, their combined attributes of power, accuracy, and adaptability make them preferred choices in their respective domains.³⁶²

b. Ballistic and Other Personal Protective Equipment

During active shooter attacks, it is vital that all first responders have the appropriate ballistic equipment to ensure their safety. Law enforcement should have, at a minimum, Level IIIA bulletproof vests and consider higher levels for rifle protection, alongside ballistic helmets and lightweight shields.³⁶³ Similarly, firefighters and EMS require Level IIIA vests, designed for quick wear and removal given their diverse tasks, complemented with ballistic helmets and protective blankets for evacuations and patient care. Level IIIA vests, suitable for urban patrol and rapid response, protect against most handgun rounds and shotgun blasts. Level III vests, which are significantly heavier and bulkier, offer protection against high-caliber rifle rounds and are essential for scenarios involving high-powered threats. Ballistic helmets, shields, and blankets provide added protection against shrapnel, ricochets, and direct fire, especially during breach-and-clear operations or when advancing toward a threat. Bulletproof blankets protect civilians in active shooter scenarios. They can be thrown over groups of people, such as children in a school setting, to provide a temporary shield against gunfire.³⁶⁴

Gas masks can be worn in environments where tear gas, smoke, or other chemical hazards are present. They are essential for scenarios in which assailants use chemical agents to create chaos or deter law enforcement responses, and they provide full-face

³⁶² Eugene Nielsen, “Firing Off the Ruck: Tactical Considerations,” *S.W.A.T. Magazine*, November 10, 2014, <https://www.swatmag.com/article/firing-off-the-ruck-tactical-considerations/>; “M107A1,” Barrett Firearms, accessed September 6, 2023, <https://barrett.net/products/firearms/m107a1/>.

³⁶³ Shield Technology Inc., “NIJ Body Armor Ratings Explained.”

³⁶⁴ Shield Technology Inc.

protection and filtration against various airborne threats.³⁶⁵ Medical kits for law enforcement provide a quick response for life-threatening injuries and can save lives. Having trauma kits available during active shooter situations can be crucial. They contain tools and supplies designed for trauma, including gunshot wounds.³⁶⁶ Other tools such as electronic control devices (tasers), foam baton rounds, chemical irritants (pepper spray), and chemical munitions can be used to de-escalate a situation without using lethal force. These tools provide officers with options to control situations without resorting to firearms.³⁶⁷ Breaching tools for law enforcement are often required to gain access to locked areas quickly. Battering rams, prying and cutting tools, and door-breaching shotguns all can assist with rapid entry to areas where active shooters have barricaded access.³⁶⁸ These tools, like the rifle platform, should be issued to most if not all law enforcement members or deployed out on patrol and be readily available when needed.³⁶⁹

c. Unmanned Aerial Vehicles

Unmanned aerial vehicles are used for surveillance, reconnaissance, and sometimes a means of delivering essential equipment or disrupting assailants. They give a bird's-eye view of the situation, helping command centers make informed decisions. They offer multiple thermal and visual sensors and a long flight time, and they are built for robust operations. In active shooter situations, they can help ascertain the shooter's location and movement patterns without putting officers directly in the line of fire. Unmanned aerial vehicles also offer invaluable support in hostage situations, large crowd monitoring, or efficient surveillance across vast areas.³⁷⁰

³⁶⁵ Tierney, "Facilitating the Medical Response into an Active Shooter Hot Zone," 31; Justice, "Active Shooters," 63–67; Norton, "Primary Law Enforcement Mistakes," 46–48.

³⁶⁶ Justice, "Active Shooters," 70.

³⁶⁷ Philip Bulman, "Police Use of Force: The Impact of Less-Lethal Weapons and Tactics," *National Institute of Justice Journal* 267 (March 2011), 4–5.

³⁶⁸ Seebock, "Responding to High-Rise Active Shooters," 38.

³⁶⁹ Seebock, 62–63.

³⁷⁰ Justice, "Active Shooters," 70–71.

All these tools, when combined with the right tactics and proper training, can greatly enhance law enforcement's response to active shooter situations. However, any adoption of new equipment must be accompanied by comprehensive training and strategy development. The equipment alone is not a solution; how it is integrated into an overall response strategy determines its effectiveness.

5. Civilian Preparation

A comprehensive national cross-disciplinary first responder–civilian response policy inherently involves civilians in a meaningful way, not only to enhance their safety but also to tap into the strength of community intelligence and action during emergencies. Civilian preparation can be systematized, structured, and embedded into the fabric of society.³⁷¹

In a world that demands heightened safety and security measures, the integration of preparedness initiatives across various platforms is crucial. Starting at the educational level, school programs should incorporate active shooter preparedness and safety protocols, ensuring students assimilate this information from a young age. Such a foundation can make responding to emergencies feel like second nature, providing a sense of security to both students and their families. On the academic front, universities can be engaged to research safety measures, host training seminars, and facilitate community interactions. Collaboration with NGOs, known for their community outreach, can further extend the reach of information and training. Joint training exercises, involving both first responders and the public, can provide hands-on experience and foster understanding between all parties.³⁷²

In the professional realm, partnerships with businesses are essential. Regular training sessions for employees can be established, with bodies like the Occupational Safety and Health Administration formulating standardized guidelines for businesses to

³⁷¹ Alghazali, “Active Shooter Training Improvements,” 4.

³⁷² Cybersecurity & Infrastructure Security Agency, “Active Shooter Preparedness.”

implement.³⁷³ Similarly, the business community at large can benefit from frequent workshops conducted by first responders. These workshops, which share best practices and potential attack scenarios, can be augmented by town hall meetings. Such platforms offer invaluable interactions between law enforcement and the community, allowing a mutual exchange of concerns and updates on safety protocols.³⁷⁴

However, reinforcing safety does not end at in-person sessions. The existing “See Something, Say Something” campaign should be continuously emphasized and expanded to cover an extensive range of threats, including active shooters.³⁷⁵ Digital measures, such as social media campaigns, websites, and other online platforms, play a pivotal role in disseminating updates and educational resources. Furthermore, the development of emergency apps can revolutionize how civilians report suspicious activities and receive real-time updates. Existing online portals maintained by government agencies can be better advertised, offering free resources on safety measures in multiple languages to cater to diverse communities. Partnerships with media outlets, including television and radio, can ensure rapid information sharing during crises.³⁷⁶

By weaving civilian preparedness into the fabric of the community, a national cross-disciplinary first-responder policy can be more robust, inclusive, and effective. The active engagement of civilians does not just empower them; it also creates a stronger and more cohesive front against threats.

B. FUTURE RESEARCH

The landscape of threats and challenges is continually evolving. To stay ahead of these challenges, continuous research is pivotal. Whether it means improving our current understanding, refining strategies, or exploring the evolving dynamics of interagency

³⁷³ “Home Page,” Occupational Safety and Health Administration, accessed September 6, 2023, <https://www.osha.gov/>.

³⁷⁴ Cybersecurity & Infrastructure Security Agency, “Active Shooter Preparedness.”

³⁷⁵ Department of Homeland Security, *Active Shooter: How to Respond*.

³⁷⁶ Department of Homeland Security, *Active Shooter: How to Respond*; Cybersecurity & Infrastructure Security Agency, “Active Shooter Preparedness”; Federal Bureau of Investigation, “Active Shooter Safety Resources.”

collaboration, research plays a crucial role. Active shooter situations are tragically prevalent across the United States, and extensive research is still needed to better prepare communities and potentially reduce the frequency and severity of such events. The following paragraphs offer two areas of research that merit consideration for future researchers.

One fundamental area of research focuses on the underlying causes of these incidents. Delving into the motivations behind these attacks and understanding any mental health connections are crucial. Predictive analysis that leverages algorithms and analytical tools could help identify threats early on, considering factors like social media activity and purchase patterns. Emerging technologies, encompassing fields like artificial intelligence and biometrics, can usher in novel prevention or response mechanisms, marking another avenue of research. At a broader level, understanding the societal and cultural influences that might make certain areas more prone to active shooter situations is essential. This line of inquiry could involve comparative case studies between regions with differing active shooter incident frequencies.

The second area of research is the study of the aftermath of such incidents. A meta-analysis of post-incident reports that includes a thorough forensic study of each case can reveal overlooked patterns or indicators as well as analyze existing security protocols at the attack locations to see whether any preventive measures were in place or could be put in place to prevent or mitigate an attack. Moreover, the value of physical security measures, such as metal detectors or bulletproof installations, needs empirical scrutiny.

C. FINAL THOUGHTS

To effectively address the increasing threat of active shooter incidents, response strategies must evolve. As cities and towns expand and urbanize, the risk of such attacks permeates every corner of the U.S. landscape. While complete prevention might be out of reach, swift response becomes our most powerful tool in reducing and halting these assaults. This thesis offers recommendations for potential enhancements to the current approaches of first responders. Gleaning insights from past incidents and incorporating them can sharpen our reaction to future threats. A concentrated effort on training and

equipping responders and refining strategies bolstered by robust public-private collaborations will hasten response times and, consequently, save more lives.

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