

VICTIM-INITIATED MITIGATION

Most Effective Means of Protection from Violent Intrusion into High-occupancy Facilities

By

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Introduction

From 2000 to 2012 there has been a steady climb in the number of attacks at high-occupancy facilities that resulted in mass shootings.¹ These events have resulted in deaths and injuries to hundreds of victims and left communities stunned by tragedy. During these incidents, the majority of the victims were killed or wounded in the first five minutes of the event.² 79% of the incidents ended in less than 12 minutes.³ The average response and engagement time for an armed resource was 12 minutes. In many cases, the ability of the responding forces to reduce or mitigate the events was hampered by misinformation and tactical obstacles. These factors, coupled with the lack of pre-warning information, leaves high-occupancy facilities vulnerable to violent events with high casualties.

In June of 2012, a comprehensive study and recommendations paper was prepared by Major Charles E. Ergenbright (US Army) and Major Sean K. Hubbard (US Army). This study was published by the Naval Postgraduate School, Monterey, California, as a thesis titled *Defeating the Active Shooter: Applying Facility Upgrades in Order to Mitigate the Effects of Active Shooters in High Occupancy Facilities*. Although this document is primarily focused on institutes of higher learning, it applies to almost every facility that has been targeted by violent mass attackers and those who remain at risk.

In this article, we will discuss the finding, conclusions, and recommendations about which Ergenbright and Hubbard wrote. The roadmap for success in mitigating mass casualties is found in their research and conclusions. Understanding and implementing a Victim-initiated Mitigation System (VIMS) is the most effective means of providing protection to all occupants in a High-occupancy Facility (HOF).

Proving the Effectiveness of Victim-initiated Mitigation

Over the past few decades we have witnessed the evolution of Victim Initiated Mitigation (VIM) for various types of events. The most prominent and clearest example of the effectiveness of these type of systems is in educational facility fire fatality reduction.⁴ In the case of educational facility fire mortality, the implementation of victim-activated alarm systems⁵ effectively eliminated fire fatalities in schools. Another example of the victim-initiated mitigation system is in manufacturing. Emergency stop systems for machinery and industrial processes have saved countless lives.

In active shooter or mass killing events, the ability to *stop* the event before mass killing or injury occurs is virtually impossible by means of human interdiction. The reaction time of emergency and law

¹Blair, Martaindale, Nichols FBI Law Enforcement Bulletin January 2014 Active Shooter Events from 2000 to 2012

² Ergenbright, Hubbard Defeating the Active Shooter: Applying Facility Upgrades in Order to Mitigate Active Shooters in High Occupancy Facilities. Naval Postgraduate School June 2012

³ Schweit, FBI Law Enforcement Bulletin Addressing the Problem of the Active Shooter May 2013

⁴ U.S. Department of Homeland Security, U.S. Fire Administration National Fire Data Center, "School Fires."

⁵ Fleming, The President's Conference on Fire Prevention Action Program.

enforcement responders, coupled with the response time to engage an attacker, takes from four to twenty minutes, as opposed to the reaction of a Victim Initiated Mitigation System (VIMS), which takes seconds.⁶ During the Virginia Tech shooting rampage, the suspect shot most victims before the police arrived.⁷ The suspect had secured the normal outside egress doors with chains and locks to defeat the responding forces. In the cases where students or faculty secured their respective rooms by locking or placing barriers at the doors, the suspect was unable to easily enter and, therefore, effectively attack those occupants.⁸ It is safe to assume that those rooms secured from intrusion created an effective barrier against the attacker, saving countless lives.

The use of an automated system that is activated almost immediately from the initiation of a violent event provides the most effective means of protecting occupants. Coupling VIMS with training and drills maximizes the ability to *stop* the attacker(s). It is clear through verifiable research that victim-initiated automatic controls during an attack or fire incident work.⁹

VIMS Components

An effective VIMS requires a series of automated components that simultaneously engage to provide a blanket of protection. These components must be integrated. As with fire alarm systems, the initiator (pull station) must be readily available to the occupants and clearly identified as unique to the violent intrusion system. Listed below are some of the components that would be effective at mitigating these events quickly and automatically.

Initiation Station/Device	This device can come in many forms: panic button, key fob, or pull station for example. These devices must be placed in areas that are readily accessible to the facility occupants.
Visual Alarm Notification Device	A visual light/strobe that activates when the system is initiated to notify the facility wide occupants that an attack is underway. These devices should be placed in all rooms and hallways. The color of these lights must be distinct to the event and separate from fire alarms.
Audio Alarm Notification Device	The audio device should be installed in the common areas such as hallways. The sound emitted must be unique to the event and separate from the fire alarm system. Placing this device in rooms is not recommended.
Automatic Door Closures	These devices should be installed on all office or classroom doors. This ensures the door is automatically closed upon system activation (similar to fire alarm systems).
Magnetic Locking Device	Each saferoom must have an automatic locking device to engage at door closure or if the door is closed upon system initiation. This is the single most effective means of protecting occupants.
Automated Notification to Responders	Upon system initiation, an automated notification to responders of an attack should occur. This notification should be similar in nature to a bank hold-up alarm. This function would eliminate the confusion caused by 911 call limitations.

⁶ FBI Law Enforcement Bulletin Stats & Services, Reports and Publications, LEB, May 2013, Active Shooter

⁷ Virginia Tech Review Panel, Mass shooting at Virginia Tech

⁸ Ibid.

⁹ Ergenbright, Hubbard Defeating the Active Shooter: Applying Facility Upgrades in Order to Mitigate Active Shooters in High Occupancy Facilities, Naval Postgraduate School, June 2012

Video Feed	Each system should include the ability to feed video to a command center within the facility. Additional benefit is obtained if the video is viewable by responders.
Visibility Limiting Medium	A component that limits the intruder/attacker ability to easily move through the facility and identify targets in the common areas of the facility. This medium also promotes the retreat of the attacker away from the intended target. This medium should be a secondary activated device that is initiated upon visual verification of the attacker.

At a minimum, the facility should use the VIMS in its capacity of automated notification, lock-down, and door closure. These components are the essential backbone to providing effective protection to occupants. Video feed systems are part of a fair amount of HOF today; integration with a VIMS is easily accomplished. Visibility reducing mediums come in various styles and types. These components must be coordinated with local responders to facilitate effective search and clear operations post mitigation.

VIMS in Conjunction with Training and Drills

A training and drill component must accompany the VIMS in order to be effective. The current Department of Justice training program for Active Shooter provides some great information and victim action recommendations. Additional training specific to the VIMS must occur so occupants understand the criteria for activation and resulting functions from activation – knowing what to expect from the VIMS puts the occupants one step ahead of the attacker.

Training with local responders on the system and how to interact with the system is also essential. Responders must understand the systems functions, benefits, and limitations. In the pre-install phase of any VIMS, the system vendor must work closely with law enforcement and others that may be required to operate in and around the VIMS. Developing an Emergency Response Plan (ERP) for facilities having VIMS is an essential tool to successfully mitigating violent attacks.

Periodic drills to re-enforce the procedures associated with VIMS activation should be conducted. These drills should occasionally involve interaction with responders in order to maintain adequate coordination during life threatening events. As with fire drills, the re-enforcement of reactions necessary for survival must be practiced in order to quickly react to critical events.

Comprehensive Mitigation is Achievable

As indicated, victim-initiated mitigation is the most effective means of stopping active violent attacks in high-occupancy facilities. Technological advances have allowed for the development of VIMS – like Intrusion Technologies’ AIMS™ (Active Intrusion Mitigation System) – to meet the demands of at-risk facilities. These systems, once installed, offer full-time protection to vulnerable occupants. Conducting an analysis of HOF ability to protect is the first step in the mitigation process.

As clearly identified by Major Ergenbright and Major Hubbard, if we want to save lives we must incorporate a comprehensive approach to mitigation.¹⁰ That strategy must include the ability of the potential victim to activate some safety system immediately upon recognition of an attack. Once

¹⁰ Ergenbright, Hubbard Defeating the Active Shooter: Applying Facility Upgrades in Order to Mitigate Active Shooters in High Occupancy Facilities. Naval Postgraduate School June 2012

activated, automatic components should be engaged to provide a holistic protective blanket for all occupants and stops an attacker or causes an attacker to retreat.