

Whitepaper; Technology & Active Shooter Life Safety Report:

Marjory Stoneman Douglas High School

Intrusion Technologies Inc

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Introduction

We have developed this Whitepaper to illustrate the life saving capabilities available that have the greatest capacity to stop the killing in seconds. There is no panacea to effectively stop these attacks. However, a coordinated, integrated technology based platform of components and humans to stop the Active Shooter/Active Assailant from doing great harm.

Nikolas Cruz, armed with an AR-15 rifle, entered Marjory Stoneman Douglas High School Building 1200 in Parkland, Florida, at approximately 2:20 p.m. on February 14th, 2018. One minute later, the attacker began firing on students and staff (Enforcement, 2019).

Approximately 150 rounds were fired during the attack, wounding 14 students and killing 14 students and three staff members. The attack lasted approximately seven minutes. There was one School Resource Officer (SRO) on the school grounds at the time of the attack. That SRO did not engage the attacker. The gunman activated the school's fire alarm system at approximately 2:22 p.m. by using a hallway “pull” station. At 2:23 p.m., a radio message was received by the Coral Springs dispatch center from the SRO that a possible shooting was occurring at the school.

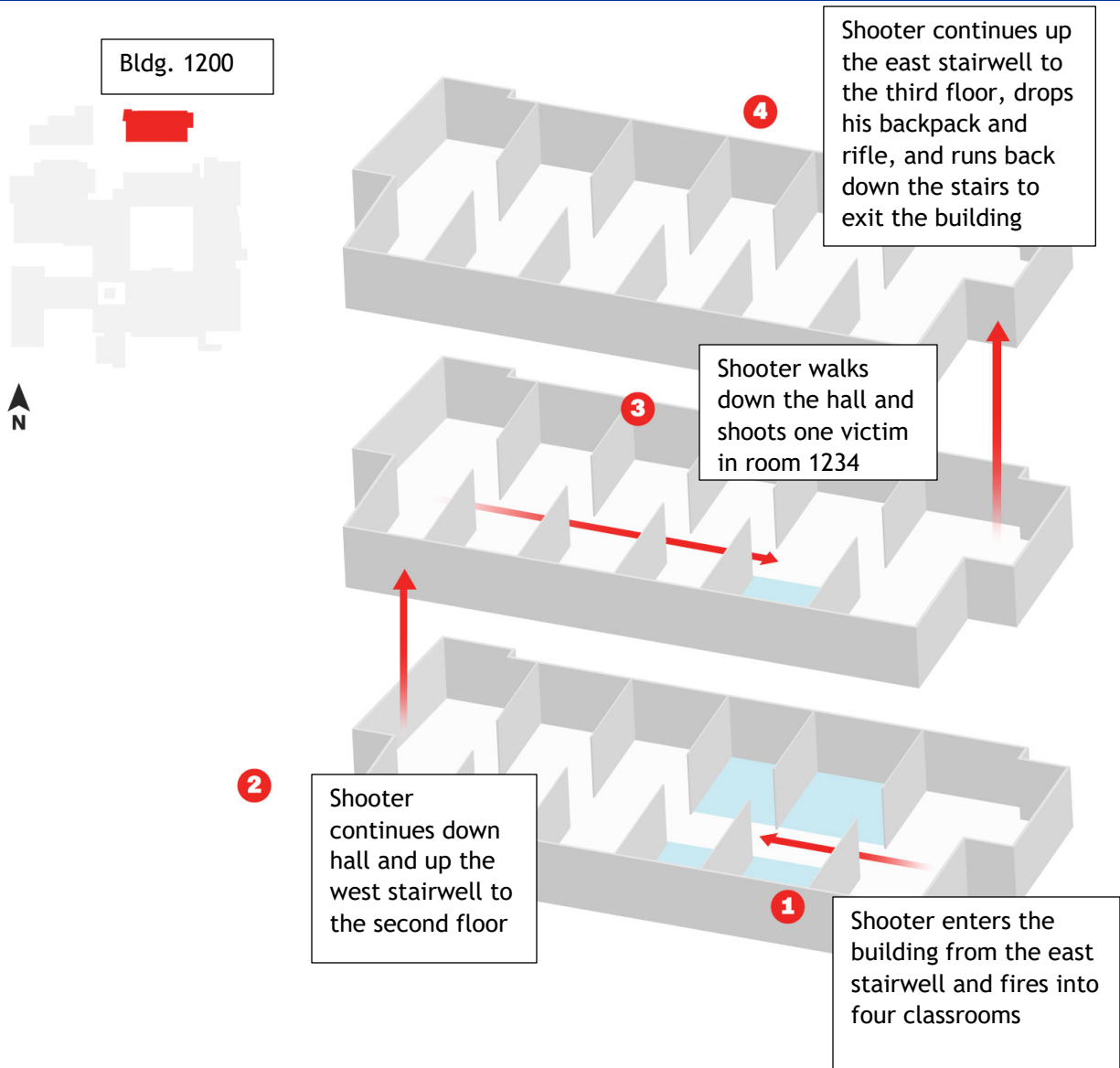
Over the course of the next seven minutes, the attacker roamed freely throughout Building 1200 shooting students and staff. The last gunshot was heard by law enforcement on scene, outside the building, at 2:29 p.m. The attacker dropped his weapon and blended in with the fleeing students, leaving the school grounds undetected. A four-member police Contact Team entered Bldg. 1200 at approximately 2:32 p.m. Just over an hour later, police located the attacker several blocks from the school and he was arrested without incident at 3:40 p.m.

Utilizing event detection and activation of 360° unparalleled protective systems in less than four seconds – more than 58 times faster than the average earliest emergency response time is critical to saving lives. As demonstrated in the next several pages, automated rapid response technology tied together with multiple components saves lives in seconds! Reducing the event timeline to as close to zero as possible would result in fewer casualties.

The comparative table below shows what Intrusion Technologies believes the difference in response timelines and consequences would have been if this available technology had been in place and activated.



Inside the Parkland school shooting





Timeline of Events

Event Timeline	Technology Response Action
<p>2:19:00 – Attacker Cruz arrives in the parking lot nearest Building 1200 of the campus by Uber taxi. He is noted by students carrying a long rectangular case.</p>	<p>2:19:01 – Comprehensive Technology enhanced with Video analytics and AI identify Cruz and the objects as a threat. Notify SRO and Senior Staff of his presence and based on the AI learned threat objects and behavior place AIMS in Level 2 (lock-down mode).</p>
<p>2:19:54 – Cruz is observed by Andrew Medina walking toward Bldg 1200 with a rifle bag and backpack. Medina does nothing.</p>	<p>NOTE; this is the next generation currently under development</p>
<p>2:21 – Attacker Cruz enters an unsecured east stairway door into the first floor of Building 1200. It is assumed at this point he removes his long rifle from the case. Cruz enters the first-floor hallway.</p>	<p>2:21:16 – Prepositioned Panic Button activated by Taylor and Chris McKenna (2:21:23)</p>
<p>2:21:16 - Attacker Cruz, is observed by David Taylor (Campus Monitor) who was alerted by Medina (Campus Monitor that saw Cruz in the parking lot and identified him as “crazy boy”) in the first floor of Bldg 1200. Taylor turns around and walks away.</p>	<p>2:21:17 - Detection activates Level 1 Technology protection. Including; facility wide notification, 9-11 direct notification, automated rapid securing of all room and access doors, mass notification via text or email, real-time video feed to responding agencies.</p>
<p>2:21:23- Cruz is observed in the stairwell loading his weapon by student Chris McKenna. Cruz tells McKenna “You better get out of here. Things are gonna start getting messy”.</p>	<p>2:21:17 - Automated technology directly notifies Broward County 911 of active violent event via the Computer Aided Dispatch link. Mass notification is sent via text email to receivers. Live video feed sent to response community via secure link. Fire Alarm pull stations are deactivated by interconnected technologies. All other fire suppression is still operational.</p>
<p>2:21:38- Cruz fires 1st shots killing Martin Duque, Luke Hoyer and Gina Montalto in the 1st floor hallway. Taylor hides in a closet does not notify anyone via his radio of event.</p>	<p>2:21:18- Automated Access Control/Lock-down Deterrent and Delay features secure all classrooms and fire doors. Activates audible and visual alarm components. Provides voice instructions for shelter in place in all safe-rooms. Attacker has no access to victims.</p>
<p>2:22:00 - Hearing what he believed to be gunfire, teacher Scott Beigal opens a classroom door and is fatally wounded. Student Peter Wang held a door open to let other students escape and was fatally wounded.</p>	
<p>22:22:13 – First 911 call made. Caller is bounced from Coral Springs 911 to Broward County 911 call information not taken until 2:22:41</p>	



2:22:39 – Fire alarm activated, students and faculty enter the hallway. SRO Peterson first learns of Active Shooter on campus.

2:22:51- Attacker Cruz sees football coach Chris Hixon pushing students to the floor and fatally wounds him.

2:23:17 – SRO Peterson arrives at Bldg 1200. Reports possible shots fired over his Police Radio. Takes cover outside. Does not enter Bldg 1200 ever.

2:24:32- Attacker Cruz ascends the west stairway to the second floor to find no targets in the hallway. He proceeds to the 3rd floor and finds the hallway full of students and staff from the fire alarm activation. He shoots additional student and staff.

2:25:35 – Cruz opens fire from the 3rd floor teachers' lounge through the glass on fleeing students and arriving Police. His shots do NOT penetrate the Hurricane glass of the windows.

2:27:54- Cruz drops his weapon and backpack and flees the Bldg. unnoticed.

3:40- Attacker Cruz is identified by an officer and arrested without incident.

2:21:38 – Automatic Gunshot Detection components detect the first gunshot. Notifies 911 and School officials of an Active Shooter and the location of activation. Saving precious time in response.

2:22:00- Live video of the attacker is sent to 911 center.

2:23:40- Attacker is identified in the first-floor hallway of Bldg. 1200. Trained Control Center staff deploy Fog components in the hallway.

2:24:00- Attacker rapidly exits Bldg. 1200 and is identified by SRO waiting outside.

(Sun Sentinal Newspaper, 2019)

Conclusions

The Parkland shooting, and other similar active shooter/active killer events indicate that a systematic rapid response technology is effective in mitigating the horrendous consequences caused by active shooter(s). In this specific instance, there would have been a reduction of fatalities and wounded if an immediate automatic activation of a comprehensive protective system had been deployed. Couple that with training staff for threat recognition and threat reaction and the outcome most assuredly would have been different. Automatic-initiated mitigation is the most effective means of providing protection for occupants of high occupancy facilities (Hubbard, 2012). By reducing the event timeline from minutes to seconds, many lives will be saved.



Technology reacts in milliseconds, humans react in minutes. Human recognition and reaction have been the main failure point of almost every event since Columbine in 1999. Automated technology components tied together by an integration package isolates potential victims from the shooter. The system should provide a facility-wide alarm, immediate locking of all saferooms or classrooms, immediate accurate 911 information, a mass notification component, immediate video feed from the event location, and a comprehensive threat recognition threat reaction training program for staff and occupants with clear direction on actions. Law enforcement and other response agencies need have stakeholder input and functional training on how to interact with this protective technology. The technology provides for a responder defeat capability to allow responders to search and clear each area without having a person open a door.

By connecting intelligence gathering technology, detection technology, deter & delay technology, mass notification technology and responder engagement we can be extremely effective at reducing the event timeline to near or at zero. These technologies need to be integrated in order to meet the goal of saving lives. This requires the industries of AI/Video Analytics, Gunshot Detection/Audio Detection, Access Control, Smart Apps, Mass Notification and Public Safety to come together and address how this technology can be pushed to the in-need markets. Also required is the markets to realize that “it can happen”. Assuming one component is the answer to the threat of an Active Shooter is not only dangerous, it can be a fatal mistake.

This technology enhances the human response capability to defeat the attacker(s). The bottom line is this – technology can save lives by providing automatic-initiated mitigation that will keep our children and other loved ones safe from violent attacks.

Works Cited

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