Active Shooters (Attackers)

Special Report

Prepared by the ST, PT and OTRB ISACs

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I. Summary

The wave of active shooter and active attacker incidents across the United States and abroad in recent months highlights the unpredictable nature of such events, as well as the importance of enacting certain protective security measures to mitigate their potential impact. While most recent attacks occurred at non-transportation related facilities, the public nature and presence of large crowds both in-and-around public transportation venues make them potentially attractive targets for: violent extremists, mentally troubled individuals, disgruntled citizens and employees, or criminals intent on inflicting mass casualties.

As with any physical threat, preparation and coordination between law enforcement and facility personnel in response to an active shooter scenario is critical. Employees should be instructed to remain vigilant and report all odd or suspicious activity to security officers and law enforcement personnel charged with protecting transportation assets. Managers should reinforce and use the "If You See Something, Say Something" campaign among employees to promote security awareness and timely reporting. All businesses should prepare, regularly exercise, and continually evolve active shooter and all hazard emergency response plans. Safe areas should be established for refuges during crises. Managers should develop and regularly test communication protocols to alert employees to immediate threats and direct protective actions. They should also regularly conduct active shooter training for all employees to ensure familiarity with response plans, ensure that emergency communications equipment is always operable, and that employees are adequately trained in their use.

The Surface Transportation, Public Transportation, and Over the Road Bus Information Sharing and Analysis Centers (ST, PT, and OTRB ISACs) developed this Special Report to provide security planners an unclassified open source overview of the active shooter and active attacker threat and highlight potential security measures and risk mitigation planning strategies organizations could employ to mitigate this threat.

II. Active Shooter and Active Attacker Defined

The Department of Homeland Security (DHS) defines an active shooter as "an individual actively engaged in killing or attempting to kill people in a confined and populated area," noting that, "in most cases, active shooters use firearm(s) and there is generally no pattern or method to their selection of victims." The New York City Police Department (NYPD) further limits its definition to include only those cases that spill beyond an intended victim to others. Both definitions provide for the inclusion of similar acts of mass violence that employ weapons other than firearms, such as knives or other melee weapons into the "active shooter" category.

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However, data sets covering this topic generally focus on gun-dominated scenarios only. Other definitions confuse this subject further. The National Tactical Officers Association offers a more limited definition, defining an active shooter as "one or more subjects who participate in a random or systematic shooting spree, demonstrating their intent to continuously harm others." Yet, they note later in their definition that the term active shooter "can include any assault with a deadly weapon causing a mass homicide." The broadness of, and differences among definitions, generate ambiguity that may confuse and certainly complicates efforts to analyze and compare data sets to identify and clearly communicate trends.

For clarity in this report, the term "active shooter" refers specifically to incidents, or data sets, where the active attacker(s) primarily uses firearms during the attack, such as the Fort Hood shootings in 2009 and 2014. The term "active attacker" is used to collectively refer to both active shooter scenarios and similar incidents of attempted mass violence involving blades or any other rudimentary melee weapons as the primary destructive implement Active attacker is defined here-in as, *one or more individuals actively engaged in a continuous random or systematic armed assault.* Organizing the threat in this manner makes sense from a preparedness and response perspective, as there would be significant overlap in both the mitigation efforts and response procedures for any type of active armed assault, regardless of the implements used or the motivation of the attacker(s).

III. Historical Analysis

Active attacker incidents are inherently dynamic and unpredictable, varying widely from one incident to another. A review of past active attacker events reveals a large degree of variation among attacks in attacker age, number of perpetrators, tactics, targets, number of casualties, location(s), weapons employed, and resolution. This complicates efforts at building a useful threat profile. Nevertheless, an in-depth analysis of a compendium of active shooter events from 1966 through 2012 compiled by the New York Police Department (NYPD) in its 2012 edition of "Active Shooter: Recommendations and Analysis for Risk Mitigation," and a comparison to a comprehensive analysis of active shooter data titled "Active Shooter Events from 2000-2012," published by the Federal Bureau of Investigation (FBI), does provide insight into the active shooter phenomenon.

A. General Active Shooter Characteristics

A large degree of variation exists between active attack characteristics, but analysis of the data in both the NYPD and FBI reports yields the following important findings:

- **Active shooters are overwhelmingly male**; accounting for at least 97% of the perpetrators in the NYPD data set and 94% in the FBI data set.

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- **Active shooters tend to act alone**; 98% of the attacks within the NYPD data set and 100% of the attacks in the FBI data set were carried out by a single actor.
- **Active shooter events can occur without provocation or at locations unconnected to the attacker(s); however, the majority of active shooters are members of the communities they target:**
  - FBI data reveals that the majority (55%) of the attackers had a connection to the location of the incident.
  - NYPD data concurs with this finding, indicating that 74% of perpetrators bore some previous connection to at least one of the victims of the attack; however they note, the remaining 26% of active shooters had no previous connection to the victims, suggesting that active shooter events can still occur absent a previous "altercation or grievance."
- **While the age of active shooters is wide-ranging, a target-based correlation does exist:**
  - Within the FBI data set, the age of the attackers spanned from 13 to 88
  - However, according to the NYPD figures:
    - At schools, the majority of active shooters were 15-19 years old.
    - At non-school facilities, the majority of active shooters were 35-44.
- **The motive of an active attacker can vary from mental illness to revenge or terrorism.**
  - Of the 87 attacks documented in the NYPD data set where the attacker bore some professional connection to a victim, less than 1/3 were perpetrated by former employees.
  - Many instead resulted from a disagreement between employees of an organization, indicating that the active shooter phenomenon is not primarily driven by the disgruntled employee or terrorism.

B. Frequency

The FBI report concludes that there has been an increase in active shooter events over the past 12 years. According to the FBI report, the most dramatic increase occurred between 2009 and 2012, when attacks tripled from just 5 per year from 2000 to 2008 to 16 per year from 2009 to 2012. The FBI analysis also finds that these attacks are becoming increasingly more deadly. The NYPD analysis supports the FBI's assertion that active shooter incidents in the U.S. have grown more frequent and deadly since the year 2000. While it concludes that it "has not observed evidence of an increase in active shooter incidents from 2006-2012," a careful review of their data set does support the FBI's findings of an increase from 2009 to 2012. According to the NYPD data, the number of attacks per year nearly doubled during that period, increasing from 9 attacks per year from 2000 to 2008 to nearly 17.5 per year from 2009 to 2012.

C. Location

Both the FBI and NYPD data sets reveal that the most common targets are businesses, accounting for more than 40% of the target locations. Despite overwhelming media coverage, the data suggests that fewer than 30% of active shooter events occur at schools. According to the FBI, 18% percent of attackers "went mobile" or started at one location and moved to another. NYPD analysis notes that among its data set, attacks at restricted commercial facilities, such as warehouses or office buildings, occurred at the same frequency as attacks at open commercial facilities, such as retail stores.

D. Resolution

History demonstrates that once an active attacker event begins, it is likely to continue until either the perpetrator(s) commits suicide or are confronted by either law enforcement or a potential victim at the scene. According to the FBI report, police used force to stop 60% of the assailants in incidents that were ongoing when they arrived at the scene. In events that ended before the police arrived, the attacker(s) committed suicide 67% of the time; victims intervened and ended the incident in 33% of these attacks.

E. Transportation Specific Data

Neither the NYPD nor FBI reports specifically highlighted threats against the transportation industry in their analysis. However, a careful review of each incident within the NYPD's compendium of active shooter incidents provides some relevant data. Among the 324 incidents included in this report, 20 threatened the transportation sector at some point: 7 occurred at airports, 6 occurred against highway infrastructure in general, 3 threatened the bus industry, 2 threatened the railroads, and 2 threatened the trucking sector.

The transportation related data appears to parallel the broader data set. Characteristics such as attack location, perpetrator profiles, and motivation varied significantly across incidents. While the perpetrators behind 6 out of 7 active shooter events at airports appeared to be motivated by the political or ideological extremism that typically characterizes terrorism, only 2 out of the 13 remaining incidents actually had a potential terrorism connection. Aside from the anomaly of terrorism driving active shooter events at airports, the data largely coincides with broader active shooter trends already presented; except that only 20% the perpetrators possessed some previous professional or familial relationship with at least one victim. Mental illness played a key role in at least one event as well. As in the broader NYPD active shooter compendium, the majority (70%) of active shooter incidents that threatened the transportation sector ended in force.

It is important to note that four incidents began with the assailant targeting non-transportation related organizations, but directly threatened transportation equipment and/or infrastructure, employees, or patrons as they moved between attack sites. The data highlights the importance of considering not only the active attacker threat to fixed installations, but also assets in transit that might be directly targeted or could encounter an active attacker scenario during normal operations.

Figure 1 – Transportation Related Active Shooter Incidents in the NYPD Compendium

Case	Date	Location	Description	Connection
61	4/24/2009	San Diego, CA	A Veteran Metropolitan Transit System employee fired on a bus depot complex.	Professional (Employee)
64	11/26/2008	Mumbai, India	LeT militants launched a series of coordinated shooting and bombing attacks at 10 different locations, including the Chhatrapati Shivaji Rail Terminus.	None (Terrorism)
84	4/28/1996	Tasmania, Australia	Individual initiated an extended shooting spree, during which he opened fire on a bus and later fired from a vehicle at pedestrians and vehicle passengers.	None
94	8/19/1987	Berkshire, UK	Individual initiated an extended shooting spree, during which he indiscriminately fired while driving down the road.	None
265	10/16-11/6/2012	Wixom, MI	Individual repeatedly fired on drivers and pedestrians on various stretches of highway.	None
270	12/2/2011	New York City, NY	Individual opened fire on a bus.	None
275	3/2/2011	Frankfurt, Germany	Assailant opened fire inside a bus at Frankfurt International Airport.	None (Terrorism)
277	10/4/2014	Gainesville, FL	Assailant initiated an extended shooting spree throughout his neighborhood, firing from a car.	Familial (Mental Illness)
295	5/7/2004	Mississauga, Canada	Individual opened fire at a trucking facility.	Professional (Employee)
296	11/6/2003	West Chester, OH	Individual opened fire at Watkins Motor Lines.	Professional (Past-Employee)
300	10/2/2002	Washington	Two assailants initiated a 3-week shooting	None

		D.C. Area	spree, firing indiscriminately at motorists at 14 different locations.	(Terrorism)
301	7/8/2002	New Orleans, LA	Assailant opened fire at Louis Armstrong International Airport.	None (Altercation)
302	7/4/2002	Los Angeles, CA	Individual opened fire at an El-Al ticket counter at Los Angeles International Airport.	None (Terrorism)
316	12/7/1993	New York State	Assailant opened fire in a crowded car on a Long Island Railroad train.	None
317	4/30/1989	North Tyneside, UK	Shooter initiated an extended shooting spree, indiscriminately firing at nearby gardens, houses, and passing cars.	None
318	8/9/1987	Melbourne, Australia	Assailant opened fire on pedestrians and cars from atop a billboard platform.	None
319	12/27/1985	Rome, Italy	Four Abu Nidal Organization gunmen opened fire at the Leonardo da Vinci Airport.	None (Terrorism)
320	12/27/1985	Vienna, Austria	Three Abu Nidal gunmen opened fire at Vienna's Schwechat Airport.	None (Terrorism)
321	8/5/1973	Athens, Greece	Two assailants opened fire and threw grenades in a crowded lounge at Athens Airport.	None (Terrorism)
322	5/29/1972	Airport City, Israel	Three Japanese Red Army members recruited by the PFLP opened fire on crowds at Lod International Airport.	None (Terrorism)

IV. Threat Mitigation

Active attacker incidents can occur without warning and often evolve rapidly. They generally feature extreme and unexpected close-in violence. While planning, training, and exercises can help mitigate the threat, ultimately, it is the actions of staff within the first few minutes after an attack that will dictate survival. In general, private and public security officials and personnel should consider the following security practices compiled by the ST, PT, & OTRB ISACs to mitigate the active attacker threat.

1. Develop an Active Attacker Plan:

   - Designate a person or committee to develop and maintain an active attacker plan and incorporate it into the organization's preparedness plan.
   - Conduct a realistic security assessment to determine an organization's vulnerability to an active attacker. Consider the speed with which these attacks can occur.

- Identify multiple evacuation routes:
    - Post evacuation routes in conspicuous locations throughout the facility
    - Ensure that evacuation routes account for individuals with special needs and disabilities
- Designate shelter locations or "rallying points" within the confines of the facility:
    - Identify areas with thick walls, as few windows as possible and solid doors with locks
    - Stock first-aid emergency kits, communication devices, and duress alarms
- Designate a point-of-contact with knowledge of the facility's security procedures and floor plan to liaise with police and other emergency agencies in the event of an attack.
- Establish a central command station for building security.

2. Consider Enhanced Security Measures, When Necessary:

- Vary security guards' patrols and patterns of operation.
- Implement credential-based access control systems that provide accurate attendance reporting, limits unauthorized entry, and does not impede emergency egress.
- Install closed-circuit television systems that provide domain awareness of the entire facility and its perimeter; ensure that video feeds are viewable from a central command station.
- Provide communications infrastructure that allows for facility-wide, real-time messaging and establish communication protocols and means to instruct personnel on immediate personal protective actions.
- Install/modify elevator systems that may be controlled or locked down from a central command station.
- Install secure locks on all external and internal doors and windows with quick-release capability from within for emergency escape.

3. Implement Training and Exercise Plans:

- Ensure all employees are familiar with current active shooter and other emergency response plans.
- Train employees on response options when an active shooter is in the vicinity:
    - **Evacuate:** Employees should evacuate the facility or leave the immediate area if safe to do so; evacuees should leave behind their belongings, visualize their entire escape route before beginning to move, and avoid using elevators or escalators.
    - **Hide:** If evacuating is not possible, employees should hide in a secure area out of the attackers view and block entry to their hiding place: lock the door, blockade

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the door with heavy furniture, and cover all windows. Turn off all lights, silence any electronic devices, lie on the floor, and remain silent. Try to identify areas with thick brick walls and few windows.

- **Take Action:** As a last resort, if neither evacuating the facility nor seeking shelter is possible, employees should attempt to disrupt and/or incapacitate the active shooter. Use surprise if possible and act with aggression by throwing objects, using extreme force, and yelling. Employ immediately available implements (e.g., furniture, or other equipment) to protect oneself and disarm the attacker(s).

- Advise employees on potential immediate actions to secure cover that provides protection from weapons and use immediately available improvised protective devices.
- Advise employees to keep their cell phones with them to ensure communications with first responders and others.
- Train employees to call 911 as soon as it is safe to do so.
- Test first responders' response times and identify and address them in security plans
- Train employees on how to respond when law enforcement arrives on scene:
  - Follow all official instructions
  - Remain calm
  - Keep hands empty and visible at all times
  - Avoid sudden or alarming movements
- Incorporate an active attacker drill or exercise into the organization's regular emergency preparedness procedures to:
  - Validate procedures
  - Practice evacuation routes in varying conditions
  - Test communication systems and protocols
  - Evolve plans and procedures based on lessons learned

V. Informed Vigilance Matters

While security plans and measures put in place are of critical importance, history demonstrates that few countermeasures are more effective in mitigating threats than the sustained vigilance of security personnel and the general public. Based on day-to-day experience in their work settings and a familiarity with their surroundings, residents, frequent riders and transportation employees are particularly well-placed to notice suspicious items, or behavior, that could indicate an emerging or imminent threat. When in public, everyone should remain attentive to what's common and what's different from that which is normally seen or heard; noting specifically the observation of items that vary from the norm, are out of place, or otherwise prompt concern. More critically, once aware of a potential problem, they should promptly report what was seen, when, and where in the greatest detail possible.

The mass transit/rail sectors should continue to promote reporting programs such as "If You See Something, Say Something," which encourage both employees and patrons to contact local law enforcement or security if suspicious activity is observed. History demonstrates that it is often a tip received by a vigilant employee or citizen that saves lives by identifying a threat before, or as, it emerges.

Potential indicators of pre-operational surveillance or attack planning include:

- Presence of trespassers or other suspicious individuals on transportation sector property
- Persons lacking appropriate background or qualifications who attempt to gain employment within a rail or mass transit system
- Persons engaging in overtly suspicious actions to provoke and observe responses by security personnel
- Persons showing unusual interest in sensitive information about security measures, access controls, personnel, entry points, and hours of operation
- Persons attempting to discreetly use cameras or video recorders, or sketching or note-taking, near mass transit sites or property
- Unwarranted observation of, or questions about facility equipment, security drills, or procedures
- Repeated visits by the same subjects to the same, or similar locations
- Persons attempting to disguise or change appearance
- Attention to, or avoidance of, surveillance cameras or other countermeasures
- Presence of people wearing inappropriate attire for the weather

In addition to the indicators above, mass transit and rail security personnel should also remain on the lookout for potential indicators that any type of attack may be imminent. These include:

- Suspicious bags or containers left unattended at or near mass transit facilities, or on buses, rail cars, or along their routes
- Damaged mass transit property or infrastructure
- Persons whose behavior indicates an inordinate amount of stress, anxiety, or nervousness such a profuse sweating or irritability, or any other behavior that might cause concern

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