



4.3.16 Terrorism

The following section provides the hazard profile (hazard description, location, extent, previous occurrences and losses, probability of future occurrences, and impact of climate change) and vulnerability assessment for the terrorism hazard in Essex County.

2020 HMP Update Changes

- All subsections have been updated using best available data.
- Previous events between 2014 and 2019 were researched, with a comprehensive list of previous events in Appendix X.

4.3.16.1 Profile

Hazard Description

Terrorism is the use of force or violence against persons or property with the intent to intimidate or coerce. Acts of terrorism include threats of terrorism; assassinations; kidnappings; hijackings; bomb scares and bombings; cyber-attacks (computer-based attacks); and the use of chemical, biological, nuclear, and radiological weapons (FEMA 2009).

In 1985, the Federal Bureau of Investigation (FBI) and the New Jersey State Police (NJSP) entered into a partnership to combat domestic and international terrorism operations. Since then, a contingent of Counter Terrorism Bureau detectives have been assigned to participate in the Joint Terrorism Task Forces (JTTF) coordinated through the FBI in Newark, New Jersey, New York City, New York and Philadelphia, Pennsylvania (NJSP 2019). The New Jersey Domestic Security Preparedness Act, signed into law on October 4, 2001, created the Domestic Security Preparedness Task Force as the State’s cabinet-level body responsible for setting homeland security and counter-terrorism policy after September 11, 2001. The State Police established a Counter Terrorism Bureau (CTB) in 2003 and the New Jersey Regional Operations Intelligence Center (ROIC) was activated in 2005. The New Jersey Joint Terrorism Task Force (JTTF) North Unit, also known as the Newark JTTF, covers most of the State, while the Philadelphia JTTF covers the Camden area. The U.S. attorney chairs an Anti-Terrorism Advisory Council (ATAC) in Newark (Washington Post 2009).

All county prosecutors are required to designate a Counter-Terrorism Coordinator in their respective counties. The Counter-Terrorism Coordinator is the primary link between all law enforcement agencies in the county and the New Jersey Office of Homeland Security and Preparedness (OHSP). The Essex County Counter-Terrorism Coordinator has obtained the necessary clearances in order to receive classified homeland security briefings from the FBI and the U.S. Department of Homeland Security (Essex County Prosecutor’s Office 2010).

In addition to the Counter-Terrorism Coordinator, who also serves as the Chief Assistant Prosecutor in charge of the Homicide, Visible Intermodal Prevention and Response (VIPR) and Arson Units, the Homeland Security Unit is staffed by a Risk Mitigation Planner, who performs vulnerability assessments at the numerous critical infrastructures in the County (Essex County Prosecutor’s Office 2010).

The Counter-Terrorism Coordinator also oversees the operations of the Essex County Rapid Deployment Team (RDT), consisting of over 100 sworn law enforcement officers from all law enforcement agencies in the County. The RDT serves as “force-multiplier” capable of deploying quickly to assist other law enforcement agencies in matters of civil disorder, crowd control, infrastructure protection, and natural disaster relief (Essex County Prosecutor’s Office 2010). Various types of terrorism are discussed in the sections below.

Armed Attacks and Assassinations





Armed attacks include raids and ambushes. Assassinations are the killing of a selected victim, usually by bombings or small arms. Drive-by shootings is a common technique employed by unsophisticated or loosely organized terrorist groups. Historically, terrorists have assassinated specific individuals for psychological effect.

Arson and Firebombing

Incendiary devices are inexpensive and easy to hide. Arson and firebombing are easily conducted by terrorist groups that may not be as well organized, equipped, or trained as a major terrorist organization. An act of arson or firebombing against a utility, hotel, government building, or industrial center portrays an image to the public that the ruling government is incapable of maintaining order.

Bioterrorism

Bioterrorism refers to the intentional release of toxic biological agents to harm and terrorize civilians, in the name of a political or other cause. The United States Centers for Disease Control and Prevention (CDC) has classified the viruses, bacteria, and toxins that could be used in an attack. Category A Biological Diseases are those most likely to do the most damage. They include:

- Anthrax (*Bacillus anthracis*)
- Botulism (*Clostridium botulinum* toxin)
- The Plague (*Yersinia pestis*)
- Smallpox (*Variola major*)
- Tularemia (*Francisella tularensis*)
- Hemorrhagic Fever, due to Ebola Virus or Marburg Virus

Bombings and Explosive Attacks

Explosive attack can be defined as an attack in which a bomb and or destructive device is used to destroy, incapacitate, harass, or distract. Bombings are the most common type of terrorist act. Typically, improvised explosive devices are inexpensive and easy to make. Modern devices are smaller and harder to detect and contain very destructive capabilities. Terrorists such as those responsible for this bombing can use materials that are readily available to the average consumer to construct a bomb.

Cyber Terrorism

Cyber terrorists use information technology to attack civilians and draw attention to the terrorists' cause. This may mean that they use information technology, such as computer systems or telecommunications, as a tool to orchestrate a traditional attack. More often, cyber terrorism refers to an attack on information technology itself in a way that would radically disrupt networked services. For example, cyber terrorists could disable networked emergency systems or hack into networks housing critical financial information. There is wide disagreement over the extent of the existing threat by cyber terrorists. A full discussion of cyber terrorism is presented in Section 4.3.12 (Cyber Attack).

Ecoterrorism

Ecoterrorism is a recently coined term describing violence in the interests of environmentalism. In general, environmental extremists sabotage property to inflict economic damage on industries, businesses, or persons perceived as harming animals or the natural environment. Targets of ecoterrorist attacks have included fur companies, logging companies, and animal research laboratories.

Electromagnetic Pulse (EMP)



An EMP is a high-intensity burst of electromagnetic energy caused by the rapid acceleration of charged particles. In an attack, these particles interact and send electrical systems into chaos in three ways: First, the electromagnetic shock disrupts electronics, such as sensors, communications systems, protective systems, computers, and other similar devices. The second component has a slightly smaller range and is similar in effect to lightning. Although protective measures have long been established for lightning strikes, the potential for damage to critical infrastructure from this component exists because it rapidly follows and compounds the first component. The final component is slower than the previous two but has a longer duration. It is a pulse that flows through electricity transmission lines-damaging distribution centers and fusing power lines. The combination of the three components can easily cause irreversible damage to many electronic systems (Heritage Foundation 2008).

Hijackings and Skyjackings

Hijacking is the seizure by force of a surface vehicle, its passengers, and/or its cargo. Skyjacking is the taking of an aircraft, which creates a mobile, hostage barricade situation; provides terrorists with hostages from many nations; and draws heavy media attention. Skyjacking also provides mobility for the terrorists to relocate the aircraft to a country that supports their cause and provides them with a human shield, making retaliation difficult.

Kidnappings and Hostage-Takings

Terrorists use kidnapping and hostage-taking to establish a bargaining position and to elicit publicity. Kidnapping is one of the most difficult acts for a terrorist group to accomplish, but, if a kidnapping is successful, it can gain terrorists money, release of jailed comrades, and publicity for an extended period. Hostage-taking involves the seizure of a facility or location and the taking of hostages present in that facility. Unlike a kidnapping, hostage-taking provokes a confrontation with authorities. It forces authorities to either make dramatic decisions or to comply with the terrorist's demands. It is overt and designed to attract and hold media attention. The terrorists' intended target is the audience affected by the hostage's confinement, not the hostage.

Nuclear Terrorism

Nuclear terrorism refers to a number of different ways nuclear materials might be exploited as a terrorist tactic. These include attacking nuclear facilities, purchasing nuclear weapons, or building nuclear weapons or otherwise finding ways to disperse radioactive materials.

Location

Terrorist attacks can occur anywhere; however, the State of New Jersey is a particularly attractive target of a potential terrorist activity because of its dense population and location relative to major urban areas. The State also houses the busiest commuter rail system in the United States, as well as the headquarters of major corporations in economically vital sectors such as the financial and pharmaceutical industries.

Additional targets in New Jersey include the State's critical infrastructure such as utilities, roadways, bridges, tunnels, hospitals, schools, civic centers, and other high-profile venues such as Met Life Stadium and the Prudential Center (City of Newark). The link between New Jersey Transit and New York City also makes this transportation system a target for terrorists. In Essex County, transportation systems available include large, interconnected rail, roadway, and water transportation networks. Major highways accessible to Essex County include the Garden State Parkway; New Jersey Turnpike; Interstates 78, 80, and 280; Routes 1-9, 21, 22, 23, 24, and 46; and the Eisenhower Parkway. Public roads have a total mileage of 1,673 miles; total interstate mileage is 27 miles; state highway mileage is 59 miles; county road mileage is 233 miles; and municipal road mileage of 1,330 miles. The County also has three of the nation's major transportation centers, which includes Newark Liberty International Airport, Port Newark, and Penn Station (Essex County 2014).



Jersey City/Newark is one of the 64 urban metropolitan areas that have been designated by the federal government as “high-threat, high-density” with regard to acts of terrorism (Washington Post 2014).

Extent

Any acts of terrorism can occur anywhere at any time of day. The National Terrorism Advisory System (NTAS) communicates information about terrorist threats by providing detailed information to the public, government agencies, first responders, airports and other transportation hubs, and the private sector. When there is a threat, an NTAS Alert will be announced by the Secretary of Homeland Security and will be shared with the public. It may include specific information about the nature of the threat, including the geographic region, mode of transportation, or critical infrastructure potentially affected, as well as steps that individuals and communities can take to protect themselves and help prevent, mitigate or respond to the threat. The alert indicates whether the threat is elevated or imminent. Elevated threats are when there is no specific information about the timing or location. Imminent threats are when it is believed the threat is impending or very soon. The alerts will be posted online and released to the news media for distribution. The United States Department of Homeland Security (DHS) will also distribute alerts through its social media channels (U.S. DHS 2013).

The effect of a terrorism event can vary depending on the type of attack and the magnitude of the event or events. A terrorism event can cause public fear regarding the use of mass transportation or leaving their homes in the event of a biological or nuclear attack. Communication systems, both public and private, can fail because of an overwhelming amount of usage or damage to its infrastructure. Healthcare facilities can become quickly inundated and must be prepared to triage injured patients, handle mass casualties, and conduct decontamination operations.

In terms of explosive attacks, Figure 4.3.16-1 summarizes the capacity of different explosives.

Figure 4.3.16-1. Capacity of Different Explosives

Threat	Threat Description	Explosive Capacity	Building Evacuation Distance	Outdoor Evacuation Distance
	Small Package/letter	1 lb	40 ft	900 ft
	Pipe Bomb	5 lb	70 ft	1,200 ft
	FedEx Package	10 lb	90 ft	1,080 ft
	Vest/Container Bombs	20 lb	110 ft	1,700 ft
	Parcel Package	50 lb	150 ft	1,850 ft
	Compact Car	500 lb	320 ft	1,900 ft
	Full Size Car/Minivan	1,000 lb	400 ft	2,400 ft
	Van/SUV/Pickup Truck	4,000 lb	640 ft	3,800 ft
	Delivery Truck	10,000 lb	860 ft	5,100 ft

Source: NJOEM 2019

There is often very little if any warning time that a terrorist attack is about to occur. It is possible, however, to thwart terrorist attacks through aggressive intelligence monitoring and monitoring of individuals who exhibit radical tendencies. Some terrorist attacks may show warning signs that an incident may occur, such as a suspicious package left unattended. Local, state, and federal officials as well as the general public are responsible for recognizing the warning signs of terrorism incidents and for taking appropriate actions to mitigate against possible attacks. In New Jersey, the coordination, direction, and control of all law enforcement personnel and



resources fall under the purview of the Attorney General. Additionally, the New Jersey Office of Homeland Security and Preparedness administers, coordinates, leads, and supervises New Jersey’s counter-terrorism efforts.

In New Jersey, the NJOEM, New Jersey Office of Homeland Security and Preparedness (OHSP), and the Regional Operations Intelligence Center (ROIC) have introduced NJ Alert, a mass text and email emergency notification system. During an emergency, NJ Alert assists these agencies in delivering emergency messages to the public through their handheld devices or computers, in addition to the Emergency Alert Systems and Amber Alert (NJOEM 2009).

Previous Occurrences and Losses

Many sources provided historical information regarding previous occurrences and losses associated with terrorist events throughout the State of New Jersey and Essex County. With so many sources reviewed for the purpose of this HMP, loss and impact information for many events could vary depending on the source. Therefore, the accuracy of monetary figures discussed is based only on the available information identified during research for this HMP.

Between 1954 and 2019, FEMA issued a disaster (DR) or emergency (EM) declaration for the State of New Jersey for one terrorism-related, in which Essex County was included.

Previous events between 2014 and 2019 were researched and listed in Table 4.3.16-1. No terrorist events were identified to have occurred within in the County during this timeframe; however, with the County’s proximity to New York City, the County has the potential to be impacted by these events.



Table 4.3.16-1. Terrorism Events in New Jersey and Surrounding Area, 2014 to 2019

Date(s) of Event	Event Type	FEMA Declaration Number (if applicable)	Essex County Designated?	Description
September 17-19, 2016	Bombing	N/A	N/A	On the morning of September 17, a pipe bomb exploded in Seaside Park, New Jersey. Later that day, a homemade pressure cooker bomb went off in Manhattan, New York City. A second pressure cooker bomb was discovered four blocks away. Late on September 18, multiple bombs were discovered at the train station in Elizabeth, New Jersey. One of these bombs detonated early next day.

Source: NJ State HMP 2019
N/A Not Applicable; Not Available

DRAFT





Probability of Future Occurrences

While the potential for future terrorism incidents in Essex County is difficult to predict, the combination of past incidents and potential terrorist targets make a terrorism incident possible. Efforts from local, state, and federal officials must be coordinated to prevent future terrorist incidents from occurring. However, despite the best efforts of these entities, the reality is that a terrorist attack may occur in Essex County or the surrounding areas.

In Section 4.4, the identified hazards of concern for Essex County were ranked. The probability of occurrence, or likelihood of the event, is one parameter used for hazard rankings. Based on historical records and input from the Steering Committee and Planning Committee, the probability of occurrence for terrorism events in the County is considered ‘occasional’.

Climate Change Impacts

Because terrorism is a human-caused hazard, no climate change impacts are associated with the hazard.

4.3.16.2 Vulnerability Assessment

To understand risk, a community must evaluate what assets are exposed or vulnerable to the identified hazard. The following discusses Essex County’s vulnerability, in a qualitative nature, to the terrorism hazard.

Impact on Life, Health and Safety

For the purposes of this HMP, the entire population in Essex County is exposed to terrorism events. However, because terrorists typically prefer to impact the greatest number of individuals in a given location, it can be inferred that individuals living in highly populated areas, or mass transit systems with a large number of commuters will have a greater exposure to terrorist incidents than those living in rural areas. Refer to Section 3 (County Profile) for a summary of population statistics for the County. Large-scale incidents have the potential to kill or injury many residents in the immediate vicinity of the attack, and they may also affect people located a distance from the initial event.

Impact on General Building Stock

All of the building stock in the County is exposed to the terrorism hazard. Accessibility, design, availability to roof access, driveways underneath buildings, unmonitored areas, and the proximity of structures to transportation routes, underground pipelines, and the potential for a terrorist to strike any structure randomly, makes all buildings in the County exposed and vulnerable to this hazard. Terrorist groups would be likely target structures of significant cultural or financial value. Refer to Section 3 (County Profile) which summarizes the building inventory in Essex County.

Impact on Critical Facilities

Critical facilities are exposed to terrorist attacks, particularly because of the impact that an attack has on these types of facilities. Dams, power stations, and tunnels are all examples of critical infrastructure and facilities that are vulnerable. Additionally, communications systems, first-responder stations, and emergency operations centers are all vulnerable to terrorist attacks. Disrupting one of these facilities or destroying critical infrastructure would have devastating, cascading impacts on Essex County. All critical facilities in the County are exposed to the terrorism hazard.



Impact on Economy

Measuring the economic impact of a terrorist attack on Essex County is difficult. The initial impact can be measured in immediate costs such as costs related to responding to the event, and those associated with the immediate loss of productivity due to closed businesses. Should a terrorist event be of a significant magnitude, there could be ramifications in the financial markets which could affect a greater geographic extent compared to Essex County. The fuller economic impact includes long-term costs such as terrorism mitigation activities and likely heightened anti-terrorism activities.

Future Changes that May Impact Vulnerability

Understanding future changes that impact vulnerability in the County can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place. The county considered the following factors to examine potential conditions that may affect hazard vulnerability:

- Potential or projected development.
- Projected changes in population.
- Other identified conditions as relevant and appropriate, including the impacts of climate change.

Projected Development and Change in Population

As discussed in Sections 3 and 9, areas targeted for future growth and development have been identified across Essex County. Any areas of growth could be potentially impacted by terrorism because the entire County is exposed and vulnerable. At this time, it is difficult to model any impacts terrorism may have on new development within Essex County. Please refer to the specific areas of development indicated in tabular form and/or on the hazard maps included in the jurisdictional annexes in Volume II, Section 9 of this plan.

According to population projections from the State of New Jersey Department of Labor and Workforce Development, Essex County will experience an increase in population through 2034 (approximately 40,000 people between 2017 and 2034). Population change is not expected to have a measurable effect on the overall vulnerability of the county's population over time.

Climate Change

Because terrorism events are human-caused, no climate change impacts are associated with the hazard.

Change of Vulnerability

Overall, the County's vulnerability has not changed, and the entire County will continue to be exposed and vulnerable to terrorism events.