



I. PURPOSE

The FDNY's purpose in creating a Terrorism and Disaster Preparedness Strategy is to ensure the Department is prepared to execute its life safety mission within the full range of possible threats and that preparedness goals be achieved in a manner that is effective, efficient and sustainable. The Strategy and its prescribed overall terrorism and disaster preparedness system will serve as a useful tool for Department leaders to identify and prioritize capability goals and ensure corresponding needs are being met through future initiatives.

During the past several years, a great deal of time, effort and money have been invested across the country to increase the nation's terrorism preparedness. The National Strategy for Homeland Security, released in July 2002, identified the nation's homeland security strategic objectives as:

- prevent terrorist attacks within the United States
- reduce America's vulnerability to terrorism and
- minimize the damage and recover from attacks that do occur.³

While preparing for terrorism-related incidents, FDNY has been harshly reminded of the formidable threat that natural disasters pose to the nation's physical infrastructure and the life

and safety of citizens. Members also have been reminded of the difficulties in responding to and managing large-scale and widespread devastation.

Recent history--both home and abroad--has shown that terrorist and natural hazards can occur anywhere, from the top floors of a high-rise building to a train car in a tunnel, aboard a ship docked in port or in a crowded street. Because of the diverse threats, the focus of national preparedness has been broadened to an all-hazards approach, incorporating "terrorist attacks, major disasters, and other emergencies."⁴

Attaining the appropriate response capabilities and requisite state of operational readiness to effectively respond to any hazard requires a comprehensive examination of the specific threats members face. The current threat landscape is both complex and dynamic, presenting a wide range of dangers and potentially devastating consequences.

Terrorist Threat

Historically, New York City has been and still remains a primary target for terrorists due to its size, concentration of significant critical and economic infrastructure and stature as an icon of the nation's history and ideals.



Substantial security enhancements have been made in and around the City since 9/11. However, terrorists have proved they are extremely adaptive and reactive to changes in the security environment. They seek to exploit the weakness of their targets and are willing to be patient in their planning and execution. They also enjoy the tactical advantage of determining time, place and method of attack. Therefore, to be truly prepared for terrorist incidents, the Department must be adaptive to new threats, proactive in preparedness efforts and vigilant in preventing the dangerous vulnerabilities created by complacency and a false sense of security.

While modern terrorist capabilities have become more sophisticated and now potentially include the use of unconventional (chemical, biological, radiological and nuclear) weapons, terrorists have continued to rely heavily on the use of conventional devices. In 2005, the use of Improvised Explosive Devices (IEDs) and Vehicle Borne Improvised Explosive Devices (VBIEDs) caused approximately 50 percent of all terrorism-related injuries around the world.⁵

These devices continue to be the most popular terrorist methods due to their low cost and ease of use. These methods have proved reliable in achieving the terrorists' objectives, including mass casualties and the disruption of urban systems. The March 11, 2004, bombings in Madrid, which killed 191 people, and the July 7, 2005, coordinated bombings on London's bus and subway cars, which killed 52 people and temporarily crippled the transportation system, illustrate the potential devastation from these simple devices.

While IEDs have been widely used for inflicting targeted damage and shattering public confidence, just as easily they could be combined with unconventional agents to create a weapon of mass destruction. If placed aboard a docked cargo ship carrying flammable and toxic chemicals or next to a rail car transporting

radiological materials, an IED incident could have far more catastrophic results than that which would be produced by a simple explosion.

Another potential terrorist threat is the use of Improvised Incendiary Devices (IIDs). An IID is designed to produce an intense fire, possibly leading to widespread damage, casualties and panic. Like IEDs, IIDs also can be combined with other agents--such as radioactive isotopes--to make the environment more dangerous for both victims and incoming first responders. The presence of a secondary substance could delay the ability of responders to suppress the fires, attend to the injured and mitigate the scene.

The increased potential and ensuing devastation from weaponized chemical, biological, radiological or nuclear substances is a disturbing and dangerous reality for the first responder community. A small quantity of a biological agent could rapidly expose thousands of people without any immediate indication of exposure, but with severe health effects and staggering economic costs. And, according to a Council on Foreign Relations report, the use of "a terrorist nuclear explosive could devastate a city, whether detonated in the hold of a ship in harbor, in a cargo container, in a cellar, or in an apartment...even if a terrorist set off a device that caused just a one-kiloton explosion, the effect on a city like Manhattan would be devastating."⁶

Natural Disasters

New York City's geographical location and urban structure also make it uniquely vulnerable to numerous types of natural disasters. Meteorologists have predicted that New York City will be hit by a major hurricane sometime within the next several years.⁷ The City's hundreds of miles of heavily developed shoreline create the potential for widespread human and economic devastation from a hurricane's powerful winds and pounding rains. Successfully evacuating the populace residing in flood plain areas prior to a hurricane presents a monumental task. Rescuing victims trapped after a hurricane hits will present additional dangerous challenges.

While it may seem unlikely, the City also is vulnerable to a damaging earthquake. The New York City region has experienced numerous small to moderate earthquakes during the past 100 years due to a network of fault lines around the metropolitan region, including one that runs directly through upper Manhattan (the 125th Street fault zone).⁸

Potentially adding to any earthquake damage within the City is the fact that New York City building codes did not include a seismic provision until 1996.⁹ This means the dense configuration of buildings, hundreds of miles of roadways and numerous bridges constructed around the City before 1996 were not built to withstand earthquake activity.

An additional factor contributing to the City's vulnerability to structural damage from both hurricanes and earthquakes is the fact that a large part of the City sits on loosely compacted gla-

cial till, rather than bedrock.¹⁰ Major disasters could cause the ground to lose its stability and result in the complete destruction of structures built within glacial till regions. Both a hurricane and an earthquake present serious dangers for building collapses, trapped victims, widespread fires and mass casualties.

All-Hazards Preparedness

The Department of Homeland Security encourages its homeland security partners to adopt an all-hazards and capabilities-based planning approach. Capabilities-based planning is planning, under uncertainty, to provide capabilities suitable for a wide range of challenges, while working within an economic framework that necessitates prioritization and choice.¹¹

Given the many terrorist and natural disaster threats that New York City faces, the FDNY must be prepared to handle all kinds of hazards within difficult and unpredictable response environments. Regardless of the cause, scope or scale of an incident, the FDNY still will rely on its core capabilities to successfully mitigate the situation. Therefore, the purpose and focus of FDNY's all-hazards preparedness efforts have been and will continue to be concentrated on building upon the Department's solid foundation of core skills.

To ensure the right mix and level of skills, FDNY must conduct a comprehensive, objective and accurate measurement of current capabilities and measure them against the most challenging circumstances. This will enable the Department to identify critical gaps in response abilities, set target performance levels and prioritize future preparedness initiatives. It also will force FDNY to recognize that a catastrophic incident can, in fact, stretch the Department or its functions to their breaking points.

A **breaking point** is the point at which operational needs exceed organizational capability (what FDNY can do), capacity (how much FDNY can do), proficiency (how well FDNY can do it) and/or deployment (how rapidly FDNY can do it).

During and immediately following the 9/11 response to the World Trade Center and despite the incredible losses the Department incurred on that day, the FDNY still was able to respond to incidents throughout the City's five boroughs. That is a testament to the available resources and exceptional skills within the Department. However, there are scenarios that could, in fact, push FDNY to its breaking point—a point beyond the Department's ability to maintain its response standards. To be fully prepared, FDNY must acknowledge and prepare for those circumstances.

The Department must examine breaking points in terms of **capability** (an incident may require tasks FDNY is in the best position to execute, but does not yet have the full ability to perform); **capacity** (an incident may require more resources than available); **proficiency** (an incident may require skills greater than the level possessed); and **deployment** (an incident may require resources more rapidly than FDNY can position them).



Once members understand these thresholds and compare them against the likeliest incident scenarios, actions can be taken to strengthen response abilities in the areas of prioritized need.

Members also must recognize that not all response gaps can be reasonably filled by the FDNY alone. The complexity and scale of a worst-case scenario incident will require assets and abilities beyond those that could be acquired and sustained over the long-term by any single organization.

Fortunately, the FDNY is a member of a robust emergency response network that extends throughout the New York City region and across the country. This network includes local (other City agencies) and mutual-aid partners that the FDNY can provide support to and receive support from. Collectively, the network has the ability to manage many situations. The Department will continue to foster cooperative efforts with all of its partners to successfully prepare for, prevent, protect against, respond to and recover from future disasters.

The outcome of these preparedness efforts will be FDNY's ability to meet the growing and dynamic challenges that the terrorist and natural threat environments present, while reinforcing the Department's ability to carry out its daily missions.

The FDNY Terrorism and Disaster Preparedness Strategy is designed to set an ambitious tone for the Department's preparedness efforts. FDNY's overall approach to preparedness cannot be short-sighted and shaped by current abilities (what the Department can do now) or possible constraints (what could hold the Department back). Rather, it must include a long-term vision for the Department's state of preparedness and an organizational methodology that can overcome and outlive transient obstacles. It also must include a Department-wide coordinated effort toward achieving and maintaining that vision.