



II. MISSION AND FOCUS

For the FDNY, attaining the optimal state of terrorism and disaster preparedness to achieve the Department’s homeland security mission within a complex threat environment demands an organization that is:

- strong and swift in the initial response
- clear about the operational mission
- confident in the leadership and command
- trained and equipped to execute the mission
- dedicated to protecting responders and civilians against danger
- informed and able to maintain a sharp sense of situational awareness
- adaptive to changes in the operational environment and
- resilient enough to sustain operations until the job is completed.

These qualities are imperative for an immediate and effective response, especially when the organization’s operational mission is saving lives.

The core mission of the FDNY is *life safety*. Life safety operations include tactical initiatives taken to preserve and protect the public.

These actions are the highest priority incident objectives

and supersede other objectives during an incident. Life safety operations also refer to the phase of incident operations where these tactical measures are implemented in response to imminent hazards or threats to life.¹²

The Department’s life safety mission applies to operations at all types of incidents and extends through all phases of hazard mitigation. Fire and emergency medical service agencies long have been recognized as the lead agencies for mitigation activities, which the National Response Plan (NRP) describes as those “designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident.”¹³ The NRP further states that “mitigation measures may be implemented prior to, during, or after an incident.”¹⁴

Within New York City, the FDNY has an important role to play in all stages of incident mitigation or, stated another way, within each of the nationally delineated mission areas: Prevent, Protect, Respond and Recover. Given the new reality of homeland security and the expansive nature of the threats the Department faces, it is imperative that responders--within the FDNY and across the country--recognize the full spectrum of ways in which they can contribute to terrorism and disaster mitigation.

Achieving a high level of preparedness for mitigating

FDNY All-Hazards Life Safety

Actions taken to save lives, reduce risks and mitigate hazards resulting from fires, public safety and medical emergencies, accidents, terrorist incidents and natural disasters.

major incidents requires the FDNY to maintain a strong focus on four main points:

1. organizational adaptability
2. response capability
3. prevention and protection and
4. coordination and collaboration.

Organizational Adaptability

After 9/11, the FDNY leadership recognized that broad organizational change was needed in order for the Department to be able to adapt its response operations to the large and complex incidents the new threat environment presented. This re-organization has embraced three main concepts: network-centric command, tiered response and decentralization.

Network-Centric Command

Effective strategic and tactical decision-making for homeland security requires that Commanders receive timely and complete information, as well as an ability to communicate that information to other security partners. To facilitate the management and exchange of information, the Department has developed and is continuing to enhance a network-centric command system.

Focus Points

1. Organizational adaptability

Create an organizational structure that enables the FDNY to rapidly and effectively adapt to complex incident planning and operations

2. Response capability

Strengthen and enhance the Department's core competencies that form the foundation of the FDNY's response operations

3. Prevention and protection

Maximize the FDNY's contribution to preventing terrorist incidents and reducing the City's vulnerability to future attacks

4. Coordination and collaboration

Enhance the FDNY's ability to coordinate and collaborate on homeland security efforts with other public and private entities

Network-centric command is an information-sharing framework that integrates voice, video and data information from multiple internal and external sources. This system provides a comprehensive, real-time picture of credible threats for strategic planning and situational assessments for enhanced tactical command.

Information that can be accessed by the network-centric command system includes real-time threat intelligence, situational images from multiple vantage points and pertinent subject matter data. This information comes from FDNY databases, imaging libraries and field units, as well as from other City, State and Federal agencies, the private sector and the media.

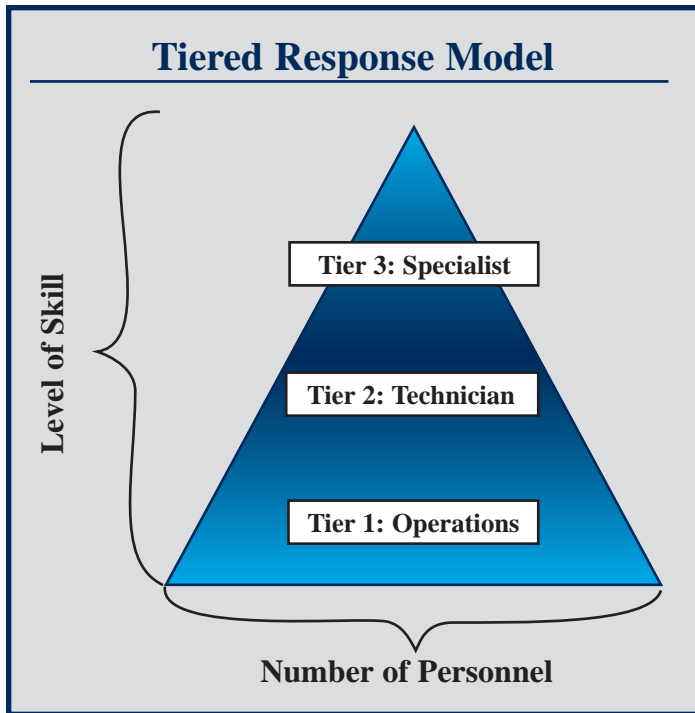
During an incident, network-centric command supports information-sharing among all homeland security partners to improve situational awareness (a constantly evolving picture of the environment) and provide a common operating picture for FDNY Commanders and all response agencies. A real-time view of the total operational picture results in a greatly enhanced collaboration of operations.

The FDNY's newly designed and substantially upgraded Fire Department Operations Center (FDOC) serves as the hub for the Department's network-centric command system and interoperable communications capabilities. Additional components of the network-centric command system include a Borough Communications Center, Field Communications System, Mobile Command Centers, Geographic Information Systems, Automatic Vehicle Locator System, live video feeds from the public and private sectors and network connections to the Department of Homeland Security (DHS), Federal Bureau of Investigations (FBI), New York City Police Department (NYPD), New York City Office of Emergency Management (OEM) and other City, State and Federal agencies.

Tiered Response

To ensure the optimal availability and distribution of response resources, the FDNY established a tiered response system. Tiered response is a system of layered resource grades, with each layer containing a defined number of units with incrementally higher levels of special response capabilities. This system enables Incident Commanders to rapidly deploy the appropriately scaled mix of specialty units in a manner that is responsive to an incident's escalation or recession, while maintaining adequate capabilities to manage additional incidents and coverage throughout the Department's entire response area.

While having every member of the Department trained and equipped to the highest level for every special task--including hazardous materials, search and rescue and medical treatment--may be ideal, reaching and maintaining that state for a department as large as the FDNY would be highly time-consuming and cost-prohibitive. By training FDNY units with a variety of response capabilities at incremental proficiency levels and strategically locating those units across the City's five boroughs, the tiered response system maximizes the FDNY's capabilities for incident response in a manner that is highly effective, economically efficient and sustainable over the long term.



The FDNY’s system of tiered response follows the two main principles of the National Incident Management System (NIMS): flexibility and standardization.¹⁵ Just like the Incident Command System (ICS), which is a component of NIMS, tiered response “has considerable flexibility. It can grow or shrink to meet different needs. This flexibility makes it a very cost-effective and efficient management approach for both small and large situations.”¹⁶

The FDNY’s tiered response system also adheres to stringent standardization that exceeds the national level of qualifications for personnel, training and equipment within each tier of its response model. Uniform and stringent standards for units and individuals that fall within nationally recognized capability levels (e.g., Hazardous Materials Technician) give FDNY Commanders a clear understanding of the scope of capabilities for each unit they assign within the response matrix. As mandated by NIMS, standardization also improves the interoperability of FDNY units with other agencies (City, State or Federal) during major incident operations.

Decentralization

New York City covers 321 square miles and is composed of five boroughs on four separate land masses (including three islands), all of which are connected by a series of bridges and tunnels. Given the City’s size and geography, simultaneous terrorist incidents or natural disasters occurring within multiple boroughs could make it difficult to get the right resources to the right location in a timely fashion. Additionally, damage to the City’s connecting physical and technological corridors could completely disable the movement of resources and disrupt normal communications among the boroughs.

Recognizing this possibility, FDNY response resources have been decentralized and strategically located throughout the City, essentially creating a separate tiered response scheme within each of the City’s five boroughs. This configuration ensures an appropriate mix of response resources (including those for fire suppression, search and rescue operations, hazardous materials mitigation and emergency medical services) are immediately available to handle any incident scenario within any borough. Resource logistics are managed by the FDNY dispatch system, which also has been designed to operate independently within each of the City’s boroughs.

To further enhance borough autonomy, the Department established a Borough Command System. In addition to providing the day-to-day management and leadership for his respective borough, each of the FDNY’s five Borough Commanders has the ability to manage borough operations independently. This decentralization of command enables each borough to essentially function as a separate entity, managing incidents that fall within that borough.

The Borough Command System enables the FDNY to adhere to the Incident Command System (ICS) principle of appropriate span of control, ensuring no single individual is tasked with managing too many organizational elements. For example, if there are simultaneous incidents within multiple boroughs, the City-wide command structure functions much like the ICS Area Command model, with the Area Command Chiefs operating out of the FDOC and Borough Commanders serving as the Incident Commander for the incident within his borough. This ensures each incident has the full attention of one Commander, while City-wide strategy and resource allocation are properly managed according to overarching priorities. As incidents are mitigated, the command structure collapses back to a single City-wide Commander.

Collectively, the organizational principles of network-centric command, tiered response and decentralization ensure the FDNY can adapt to changes in the threat and operational environments and continue to provide an effective response regardless of incident conditions.

Response Capability

The core competencies identified as FDNY mandates include:¹⁷

- fire suppression
- pre-hospital emergency medical care
- structural evacuation
- search and rescue
- CBRN/haz-mat life safety and decontamination and
- arson investigation.

Fire Suppression

The FDNY’s cadre of personnel available to handle fire events includes more than 11,000 Firefighters and Fire Officers,

trained and equipped to handle large and small incidents across the City.

As was the case on 9/11, it will be the FDNY’s primary responsibility to mitigate the effects of all fires, regardless of their cause, and rescue victims trapped within the fire scene. Doing so will require Firefighters to have a keen sense of situational awareness for potential additional dangers, including hazardous materials that may be intentionally planted to feed the fire or create a poisonous plume. Dangers also include the possibility of secondary attacks directly targeting first responders. With the appropriate counterterrorism and hazardous materials training, Firefighters are becoming better able to identify the signs of danger and take appropriate actions to protect themselves and their fellow responders.

To address threats that occur within the many waterways surrounding the City, the FDNY has both marine- and land-based resources with specialized marine response training. FDNY Marine Operations includes more than 100 dedicated members, three operational and two reserve fireboats, four operational and four reserve small patrol firefighting rescue craft and two 13-foot boats, plus three rigid-bottom inflatable vessels for hurricane response.

The Marine companies provide safety and surveillance patrols for 560 miles of shoreline and a reliable source of water and/or foam solution for fire suppression and haz-mat mitigation throughout the harbor and to any land point along the waterways. In addition to the Marine companies, 3000+ land-based Firefighters have received special training in marine firefighting.

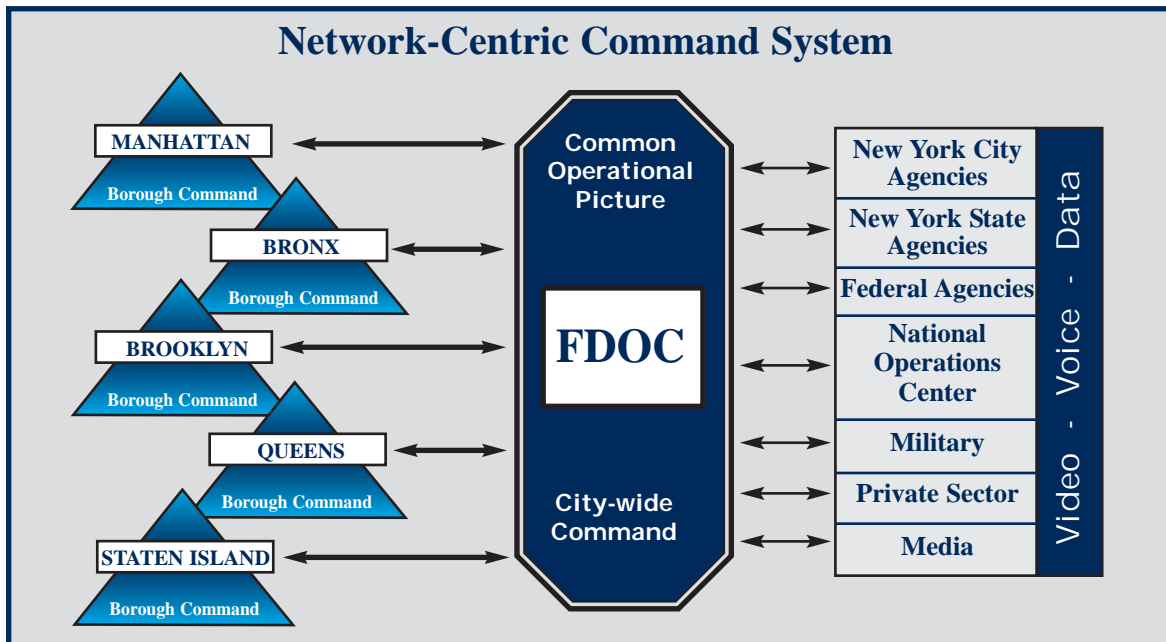
On land or at sea and whether originating from a terrorist attack or natural calamity, most disaster scenarios have the potential to produce a single or multiple fires. If these fires are not rapidly extinguished, they can grow and spread, posing an immediate life safety risk. If large fires erupt in a densely populated

urban setting--such as New York City--they could further result in widespread panic, civil unrest and breaches in security.

In addition to fire being a component of other incidents, the potential use of fire as a terrorist weapon is a recognized threat and one for which FDNY is preparing. Terrorists continue to utilize conventional weapons (explosive and incendiary devices) as their weapons of choice because they are inexpensive, readily available and tactically simple to use. While improvised explosive devices (IEDs) have received much attention, the use of improvised incendiary devices (IIDs) actually may pose a greater threat to life safety.

IIDs (or “fire bombs”) range from the crudely constructed Molotov cocktail, made with alcohol or gasoline, to more sophisticated devices composed of materials such as napalm, thermite, chlorine trifluoride or white phosphorus, which create fires that cannot be extinguished by conventional means. Unlike IEDs, IIDs do not produce shattering shock or massive pressure waves. Instead, they are designed to ignite intense fires that can burn both combustible and non-combustible materials. When these fires are ignited within a building, they can burn at temperatures extreme enough to weaken structural members remote from the site of ignition and potentially cause a progressive collapse of the structure.

The September 11, 2001, attacks on the World Trade Center proved that terrorists can create fires larger than New York City buildings are designed to contain. The tremendous fire generated from the jet fuel of the airliners crashing into the World Trade Center towers ignited the combustible materials on a number of floors of the towers and the resulting fire weakened the structural members, causing the total pancake collapse of both 110-story structures. Devices strategically placed in other structures--including buildings, bridges, tunnels, ships, trains or aircraft--could have similarly devastating effects.





Department will seek to expand the medical capabilities of its Firefighters to include certified EMTs and Paramedics. This will increase the FDNY's capacity to manage incidents involving large numbers of victims who require immediate medical care.

FDNY pre-hospital care operations are supported by the FDNY's Office of Medical Affairs (OMA), which actively participates in the development of protocols and exercises to enhance the Department's capabilities for responding to a mass-casualty incident. OMA is responsible for medical direction, control and oversight of the practice of medicine in the pre-hospital setting; physician field responses to MCIs; the issuance of field orders to initiate public/victim antidote administration; and interface with regional providers of pre-hospital care via the Regional Emergency Medical Advisory Committee, Regional Emergency Medical Services Council and Greater New York Hospital Association. OMA also participates in the FEMA-sponsored Urban Search and Rescue New York Task Force 1 (NYTF-1) and continually works to develop ways to streamline and improve all pre-hospital care for disaster response.

Recognizing the important interface with area hospitals during an MCI, the FDNY will continue to foster relationships and strengthen communications with hospitals on a variety of MCI-related issues, including protocols for accepting "decontaminated" patients involved in haz-mat incidents.

Structural Evacuation

The FDNY is responsible for making all tactical and strategic decisions regarding structural evacuation, including the decision to shelter in place. The events of 9/11 demonstrated the FDNY's ability to quickly mobilize its resources and effectively save lives. In fact, the New York City Urban Area Homeland Security Initial Assessment and Strategy acknowledged that the actions taken by the FDNY "as the lead response agency on September 11th saved more than 25,000 lives, and displayed the Department's extensive homeland security responsibilities in the aftermath of a terrorist strike."¹⁸

Effective evacuation requires that responders are familiar with a building's composition and contents. During routine building inspections and responses, FDNY Firefighters and Fire

Pre-Hospital Emergency Medical Care

Any terrorist attack or natural disaster likely could result in a mass casualty incident (MCI), which is generally defined as an incident involving five or more patients and potentially requiring extraordinary resources. These incidents also could produce MCI situations with exacerbating circumstances, such as the presence of a hazardous material. To save the greatest possible number of patients from death or serious injury requires mass decontamination (five or more patients), prompt triage, appropriate treatment and prioritized patient transport to designated medical facilities.

To address an MCI, the FDNY has 3000 Emergency Medical Technicians (EMTs) and Paramedics, who are supplemented by an additional 2000 contracted emergency medical personnel. All FDNY emergency medical service personnel have New York State emergency medical certification and currently are being trained to the HazMat Operations level.

To further supplement the Department's emergency medical response capabilities, most Firefighters have received Certified First Responder/Defibrillator (CFR-D) training. The

Officers become familiar with the building layouts, means of egress, HVAC systems (systems that provide heating, ventilating and/or cooling for a building) and the potential presence of hazardous materials within the buildings in their normal response area.

Additional information about a building and its condition (e.g., construction in a section of the building or an elevator bank that is inoperable) is provided to the responding units by the building's fire safety director and/or security personnel. The FDNY is responsible for developing laws that require evacuation plans for buildings within the City and working with building personnel to provide guidance regarding how to exercise their evacuation plans.

The prior knowledge of buildings, existence of exercised evacuation plans and pre-incident relationships with fire safety and security personnel facilitates the rapid movement of people out of a building or the orderly sheltering of people within the structure.

Safe evacuation and sheltering also require a high degree of situational awareness for secondary dangers, including potential explosions, noxious releases, partial collapses or falling objects. The training Firefighters receive in normal fire operations, haz-mat operations and counterterrorism, combined with their vast experiential knowledge, provide them with sophisticated situational awareness and the ability to steer evacuees away from secondary dangers and on to safety.

Search and Rescue

Search and rescue involves the location, rescue (disentanglement and extrication) and initial medical stabilization of victims trapped in confined spaces. Victims may become trapped as a result of structural collapse, transportation accidents, falls or caved-in trenches, due to a variety of emergencies or disasters, including earthquakes, hurricanes, tornadoes, floods, technological accidents, terrorist activities and hazardous materials releases.

The FDNY directs all search and rescue efforts within New York City. Disciplines of search and rescue that FDNY personnel perform include high-angle urban/structural rope rescue, dive rescue, confined space rescue, trench/excavation rescue and building collapse rescue, among others.

Inherent dangers present in search and rescue operations include the potential for rescuers to become injured (e.g., asphyxiated) or trapped within the usually hazardous atmosphere surrounding their operations. Therefore, the ability to successfully perform search and rescue requires a vast array of tools and capabilities, including those required to securely shore up a trench; evaluate and stabilize damaged structures; and assess and control hazardous materials.

The FDNY's search and rescue resources are organized following the tiered response model and include five Rescue Companies, with the highest level of technical extrication and victim-removal capabilities for rescuing civilians or first responders in extraordinary situations. There are seven Squad Companies, whose members receive more than 280 hours of spe-



cialized rescue training in collapse response and rescue operations. Five of these units are also SCUBA-qualified for in-water firefighting; two units are trained and equipped for specialized response to high-angle rescue incidents; and five units have advanced hydraulics and search equipment for operating at building collapses.

Additionally, 25 Special Operations Ladder Companies are available to provide personnel and equipment to support search and rescue operations. All search and rescue members receive advanced training in collapse and have equipment caches (collapse pods) stocked with shoring equipment, etc., to assist with collapse operations. Having personnel trained at different levels and strategically placed around the City allows the Department to scale its search and rescue response for a single, large incident or multiple, simultaneous incidents.

While Special Operations Firefighters are trained to provide preliminary medical care to trapped victims, at times, complex rescue situations require that victims receive immediate advanced medical care prior to being extracted from the incident site. To address this, the FDNY is cross-training 50+ members with Paramedic certification, as well as confined space operations, trench rescue and collapse rescue qualifications. These members understand the skills, techniques and use of tools that are necessary to function effectively in a structural collapse operation and are able to safely enter, rescue, package and retrieve victims from confined areas.

The advanced rescue training FDNY search and rescue Firefighters and Paramedics receive satisfies the training requirements for their participation in the New York Task Force 1, Urban Search and Rescue Team, an elite inter-agency unit that is part of a national network of search and rescue teams under the Federal Emergency Management Agency. The FDNY's own Chiefs Ray Downey and Jack Fanning, who perished on 9/11 during response operations, were the key pioneers of this national search and rescue network.

CBRN/Haz-Mat Life Safety and Decontamination

To handle incidents involving the release of hazardous materials, the FDNY has a highly specialized and dedicated Hazardous Materials (HazMat) Company 1, with members trained to the Hazardous Materials Specialist Level (more than 500 hours training each) and beyond. HazMat 1 members also have received advanced training in nuclear, biological and chemical warfare response.

Operational support for HazMat 1 is provided by 1600+ members trained to the Technician I or II level; 600+ Technical Decontamination members; and 800+ Chemical Protective Clothing (CPC) qualified members. Additionally, all 11,000+ Fire personnel members are trained at least to the HazMat Operations level.

To provide medical treatment in a haz-mat environment, the FDNY has 35 Hazardous Materials Tactical (HazTac) Ambulance Units, with more than 300 members who are trained to the HazMat Technician Level and are able to perform medical monitoring and intervention in hot and warm zones and other contaminated areas. Soon, all 3000 FDNY EMS members also will have Operations level haz-mat training.

In addition to handling land-based haz-mat incidents, the FDNY is capable of addressing the threat of attacks or major incidents within the City's waterways. Terrorists have made it clear that maritime areas are favorable targets due to their numerous vulnerabilities and the great economic consequences that would result from such an attack. The characteristics of maritime vehicles--e.g., their extremely large fuel loads, possible chemical or radiological cargo and high-voltage electrical systems--make every shipboard incident a haz-mat incident. This presents terrorists with the opportunity to cause an intense, but self-contained incident when a ship is floating in the harbor or an even higher impact land-based incident when a ship is anchored in the port.

Because every shipboard incident also has the potential for a confined space component (due to the composition and configuration of ship interiors), all Firefighters assigned to respond to incidents occurring within the City's waterways are trained to safely operate under the unique conditions they will face once shipboard.

Investigation, Intelligence and Security

The primary mission of the FDNY Bureau of Fire Investigation (BFI) is to investigate complex, fatal and suspicious fires in the City of New York and deter additional acts of arson. FDNY Fire Marshals are experts in the cause and origin of fires and the investigative efforts and data they compile can be critical in reducing the incidence of trends involving both incendiary and accidental causes. This information has been used to enhance both fire and arson awareness initiatives which, in turn, saves lives and reduces property damage.

The BFI works closely with other law enforcement agencies and the intelligence community on threat analysis and complex incident investigations. Fire Marshals are members of numerous collaboration and intelligence networks, including the



Joint Terrorist Task Force (JTTF) with the Federal Bureau of Investigations. The information FDNY Fire Marshals exchange through the JTTF not only aids in incident investigations, but also helps FDNY and all New York City security and response agencies prepare for and prevent future incidents.

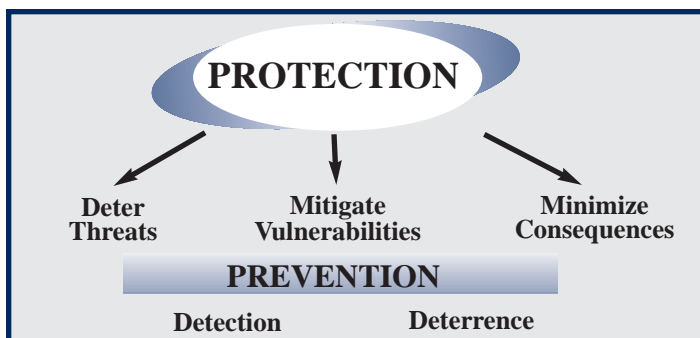
The BFI consists of approximately 100 Fire Marshals who, in addition to firefighting experience, have full police powers (CPL, section 1.20/34 (I)) and are recognized as expert witnesses regarding fire cause and origin in New York State court of law. The FDNY Fire Marshals also are recognized nationwide for their unique expertise and case load in the arena of fire and arson investigation. They played an important role in the responses and investigations of the World Trade Center attacks in both 1993 and 2001 and they will continue to be vital components protecting first responders and the public during future incidents.

After 9/11, the BFI took on the mission of augmenting and enhancing the safety and security of all FDNY personnel. During incident responses, BFI Fire Marshals assist local law enforcement in protecting emergency responders from secondary attacks. The BFI also has specially trained members to provide for and augment security at various Department functions and ceremonies.

BFI Fire Marshals have become an increasingly important sector of FDNY operations during the past five years, but during that same time, the size of BFI actually has been reduced. The FDNY will work to increase the number of Fire Marshals within the Department so they can continue to effectively execute their role in member safety and homeland security, as well as the many other critical functions they perform.

Prevention and Protection

As the agency tasked with championing life safety within New York City, the FDNY is responsible for ensuring that mandates are effectively fulfilled. Additionally, the Department also must continue to work with other City, State and Federal agencies, as well as the private sector, to enhance the quality, capability and cohesiveness of the City's and nation's overall ability to provide homeland security.



Information-Sharing

One of the most effective ways to enhance homeland security efforts is by sharing information with security partners. The FDNY has worked steadily toward increasing the ability to interface with other local, State and Federal emergency management, intelligence and law enforcement agencies to collectively enhance prevention and preparedness through the rapid and comprehensive exchange of information.

Real-time intelligence and information lead to a heightened state of situational awareness, which is imperative in both the planning and responding stages of operations. In reaction to information gathered and based on the type of intelligence received, the FDNY can increase inspection activity to assist in detection or strategically locate additional resources to act as a terrorism deterrent. The Department also can bolster the presence of Fire Marshals at high-risk incidents to ensure the lives of first responders are protected against secondary threats.

The FDNY will continue to work with security partners to fill the significant information-sharing gaps that exist. The FDNY currently has numerous members with "Top Secret" and "Secret" level clearances and has connections to the intelligence community, including direct communications with the Department of Homeland Security. Additionally, the Department has liaisons with the NYPD and the FBI. Several members of the BFI also serve on the JTTF. These important connections help inform the Department's leaders of current threats the FDNY must prepare for, as well as how the Department can better contribute to the City's preparedness efforts.

The FDNY also is working with the DHS Office of Intelligence and Analysis to establish a direct information conduit between the FDNY and DHS. By sharing pre-incident intelligence, field observation reports and real-time incident updates, this two-way exchange of information will enhance both the FDNY's and the nation's preparedness efforts. It also will be imperative to establishing a common operational picture on the local and national levels during a major incident.

Information-sharing among all City, State and Federal agencies would be greatly enhanced through the creation of a City-wide fusion center within New York City. The Department is attempting to forge the necessary relationships to form such an establishment and will continue to advocate for its creation.

Terrorism Prevention

The history of fire prevention in the FDNY dates back to 1865, when the Department officially was formed. Prevention, however, did not receive a high level of public support until March 25, 1911, when a fire broke out in the Triangle Shirtwaist factory in the Greenwich Village neighborhood of Manhattan. When Firefighters arrived, fire was consuming the upper floors of the building, trapping victims beyond the reach of Fire Department ladders. Bystanders watched in horror as desperate workers jumped to their death. In total, 146 people died.

On May 1, 1913, the Bureau of Fire Prevention was formed as a direct result of the Factory Investigation Commission. For the Fire Department, this marked the first time that prevention was recognized as having equal importance with fire suppression in the protection of life and property.

The similarities between the Triangle Shirtwaist fire and the World Trade Center attack are striking. Both incidents involved minimal levels of concern given to prevention before the tragedy, a fast-moving fire that prohibited Firefighters from getting to people before they jumped and a large death toll. These events also resulted in post-incident Commission Reports that impelled significant changes within the Department.

The events of 9/11, like 1911, again prompted the Fire Department to see prevention on the same level as consequence management. And, like fire prevention, terrorism prevention is a role of the FDNY that needs to develop and grow.

An examination of the events leading to 9/11 highlighted many gaps in information-gathering capabilities and information-sharing protocols within the homeland security community. The FDNY recognized that the Department could help to fill some of these gaps by contributing to local intelligence-gathering efforts. When routinely shared with intelligence and law enforcement agencies, the information gathered by FDNY personnel could make a significant contribution to existing intelligence and lead to the identification and disruption of terrorist activities.

Terrorism-related information can be gathered by the FDNY in many ways. During the course of routine building inspections, arson investigations and the response to fires and medical emergencies, FDNY personnel have unique access to homes and buildings that generally are concealed from outsiders. For example, the FDNY conducts frequent building inspections, system testing and safety and evacuation plan reviews throughout the City.

Department personnel visit all premises storing or operating hazardous materials or equipment, communicate inter-agency referrals for high-hazard conditions, help coordinate the sealing and demolition of vacant buildings and process general complaints from the public. FDNY Firefighters and inspectors also have a presence at many high-profile (and, therefore, target-rich) events, where they work to ensure public safety. The scope of access for FDNY personnel enables them to spot suspicious materials and activities that otherwise may go unseen.

FDNY personnel also may observe characteristics--materials, equipment, literature, etc.--during their normal response

operations that would indicate a threat of terrorist activity. The hazardous materials monitoring equipment carried by every Fire Department unit can detect radiation and potentially lead to the discovery of materials intended for use in a dirty bomb attack. Identification of unusual patterns of symptoms in medical patients (through the EMS syndromic surveillance system) also could alert personnel to the presence of a bioterrorist or pandemic event. Such early warning is vital in preventing a widespread event.

The FDNY's information-gathering potential is substantial. Each year, FDNY units make approximately two million fire, medical and other emergency responses and 300,000 building inspections.¹⁹ That means in just one year during the course of normal operations, personnel set foot in commercial buildings, enter residential dwellings and walk through public system facilities millions of times, representing an equal number of chances for terrorism-related activities or materials to be spotted and reported to law enforcement officials.

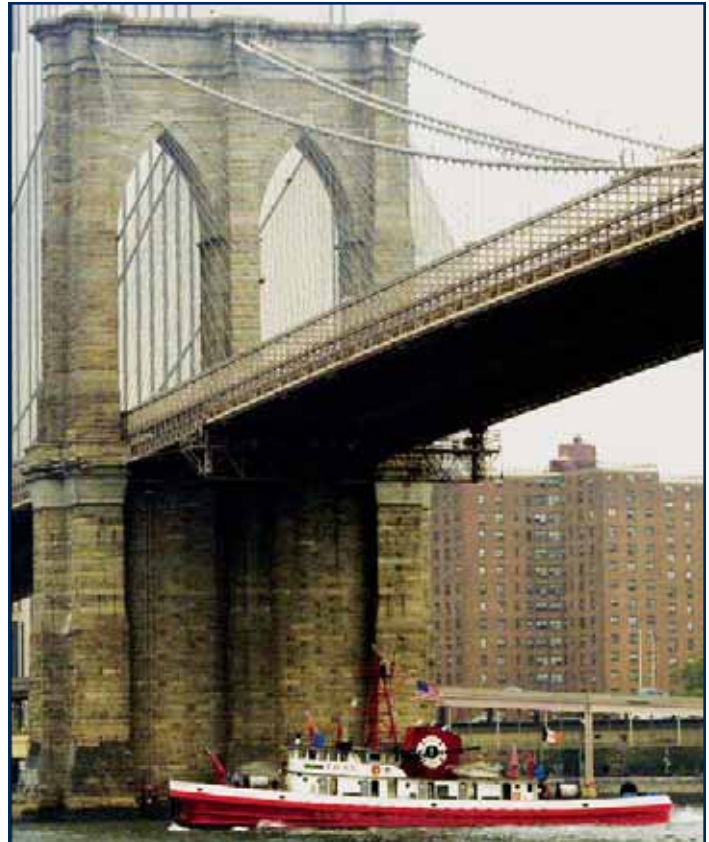
Collectively, this represents an incredible opportunity for FDNY personnel to be what the President has labeled the nation's **"First Preventers"**--first responders who are able to recognize tell-tale signs of danger to homeland security, report the suspicious activity and preserve the scene until the proper authorities arrive. The FDNY currently is developing a training program to provide personnel with the skills they need to be optimally effective in identifying and reporting suspicious materials, activities or symptoms.

Infrastructure Protection

The National Infrastructure Protection Plan defines risk as a product of threat, vulnerability and consequence ($Risk = Threat \times Vulnerability \times Consequence$).²⁰ Calculating the threat of a terrorist attack on critical infrastructure and key resources (those assets, systems, networks and functions that provide vital services to the nation) begins with a realistic assessment of likely terrorist targets, coupled with timely information from law enforcement and intelligence agencies on credible threats to specific structures. However, terrorists are not the only threat with which FDNY must be concerned. The damage to the critical infrastructure within and surrounding the city of New Orleans that resulted from Hurricane Katrina in 2005 illustrated the widespread damage that natural disasters can cause.

Given the relative uncertainty of the threat element of risk, effective risk assessment and reduction for New York City's and the nation's critical infrastructure requires integrating threat intelligence with advanced knowledge of structural vulnerability and consequence management. Collectively, this information can be used both to enhance structural protection measures (target hardening) for critical infrastructure, as well as bolster emergency responder preparedness and safety for response operations at specific structures.

While law enforcement generally examines structures from a security perspective, the Fire Department provides another dimension of knowledge by looking at the same structure from a vulnerability and consequence management point of view.



When fire personnel conduct building inspections or perform a size-up of an incident, they observe those characteristics that would profoundly affect a building's vulnerability to attack and the likely associated consequences of an attack (e.g., building construction, normal occupancy, water supply, auxiliary appliances, exposures, street conditions and presence of hazardous materials).

The Department is greatly enhancing the ability to reduce the vulnerability of critical infrastructure across the City through the *Risk Assessment and Target Hazard (RATH)* program. The RATH unit coordinates the evaluation of sites that are part of New York City's Threat Matrix, including special inspection of critical infrastructure throughout the City and the development of tactical response plans for specific structures (e.g., bridges, tunnels, stadiums, government buildings, transportation systems, etc.).

The RATH Unit also is collaborating with the FDNY Bureau of Fire Prevention to expand the Department's system for collecting and disseminating data on structures throughout the City. This information will be entered into a database that will be accessed by the Fire Department Operations Center, Mobile Command Centers and Electronic Command Boards. Initial sources of data will be internal, including FDNY field unit observations, the Fire Prevention Bureau database and the Phoenix Unit mapping data. Eventually, buildings, planning and intelligence data from other City, State and Federal databases will be tied into this system to provide more comprehensive site information for incident planning and management for all relevant agencies.

The RATH Unit is working closely with the Department of Homeland Security Office of Infrastructure Protection to ensure the risk assessment models and databases FDNY produces follow national guidelines and can be integrated with national systems.

Coordination and Collaboration

To manage the Department's core competencies, the Department must be able to rapidly scale resources to respond to a large spectrum of conventional and unconventional terrorist attacks and natural disasters. This requires the ability to manage communications, command, control and information during exacerbating circumstances and throughout lengthy operations.

Incident Management

In compliance with NIMS and because of its value and effectiveness for incident management, the FDNY has adopted the Incident Command System and integrated ICS into everyday planning, organization and incident operations. All FDNY Fire and EMS personnel have received ICS 100, 200 and 700 training; Fire Lieutenants and Captains have been through ICS 300 training and all Fire and EMS Chiefs have been through ICS 800. Additionally, 35 FDNY members also have successfully completed ICS 400 training.

The employment of ICS and a unified command structure greatly reduces information gaps among responding agencies at an incident scene. The close, collaborative efforts achieved through unified command ensure that all responding parties receive a comprehensive picture of the response environment, enabling them to maximize their contribution to the effort, while protecting all responders from undue dangers.

Safe and effective operations also require that information streaming into and out of the Department comes from multiple perspectives and reaches multiple agencies. For example, on 9/11, the FDNY's response operations would have been enhanced by information coming from an aerial view. This information gap now is being addressed by placing FDNY Chiefs in helicopters above major incidents so they can provide direct accounts of scene conditions. Further information will be received via a live feed from

local news helicopters directly to the FDOC. The Department will continue to train Commanders on the principles and benefits of unified command and educate all members on the importance of sharing vital information with other agencies operating at the scene.



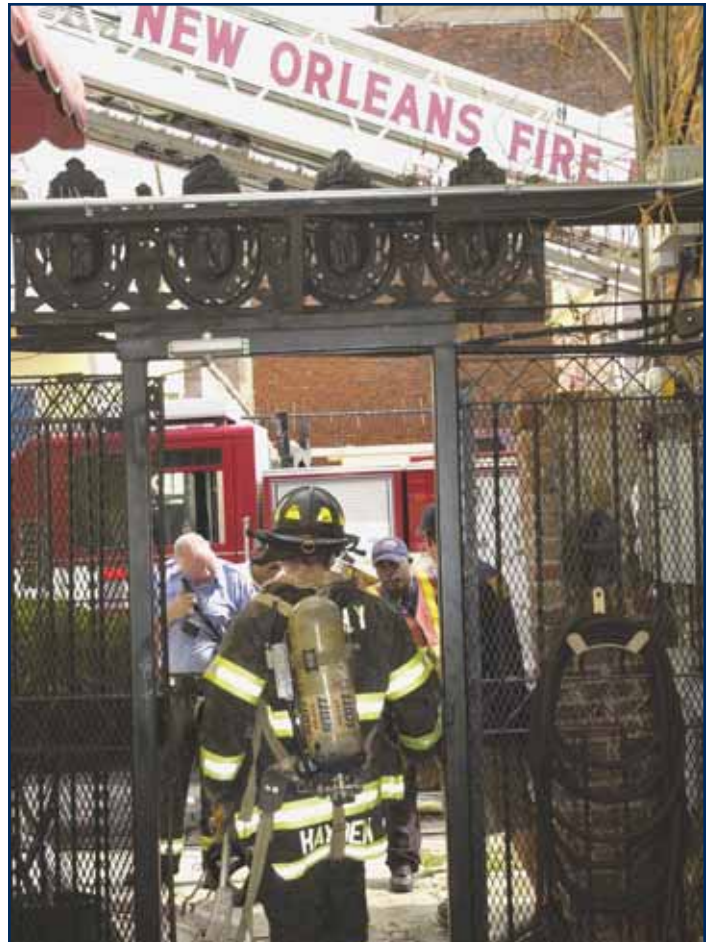
To provide for the most effective operational management and leadership at long-term incidents, the FDNY has established its own Incident Management Team (IMT). This 52-member team (with more than 85 additional members in training) ensures appropriate resource needs for large-scale, long-term response and recovery operations are procured, deployed and coordinated with other government agencies, the private sector and non-governmental organizations.

The FDNY will continue to expand incident management capacity and proficiency through enhanced information-sharing protocols, additional IMT member recruitment and training and exercising for a multitude of response scenarios.

Mutual Aid

The ability of the IMT to establish command and control for handling major incidents under the guiding principles of ICS demonstrates their value and importance in New York City. These skills also make IMT members--as a collective team or as individuals assisting other IMTs--valuable mutual-aid resources for the entire nation.

While the FDNY's operational authority exists within the physical area of New York City, the Department's duty goes beyond the City limits. The FDNY has an obligation to provide response and management resources to support other jurisdictions that face



incidents that outstrip their response capability or capacity.

The FDNY's Incident Management Team can provide service anywhere in the country when requested by Federal officials. The IMT originally was created in 2003 under a joint agreement between the FDNY and the U.S. Department of Agriculture Forest Service to provide additional resources for homeland security within New York City. However, since completing their training, the FDNY's IMT members have been deployed as individuals assisting other IMT groups at more than 100 incidents across the country. In some cases, these deployments have paired FDNY members with Forest Service officials and, in other cases, the FDNY has worked in direct collaboration with local fire and emergency response agencies. Incidents responded to by members of the FDNY IMT include forest fires in Arizona, Utah, New Mexico, Montana and Alaska, as well as the storm-ravaged areas of Texas, Louisiana and Mississippi.

Due to the size of the FDNY force, the FDNY also can function as a national mutual-aid partner and deploy fire, EMS, search and rescue and haz-mat resources wherever they are needed. In the weeks following Hurricane Katrina, the FDNY deployed a firefighting task force of more than 750 Firefighters and Fire Officers to New Orleans to assist in handling emergency response operations around the city. FDNY personnel also aided the New Orleans Fire Department in their recovery efforts, helping to repair and revamp firehouses that were damaged by the storm. The ability of the FDNY to quickly deploy such a large force to major disasters and incidents of national significance makes the Department a unique and valuable national mutual-aid asset.

Within the New York City region, the Department coordinates its mutual-aid activities through the New York City Office of Emergency Management. The FDNY currently has regional mutual-aid agreements in place or pending with the State of New Jersey and Westchester, Suffolk and Nassau Counties for both fire and EMS resources. The Department will continue to develop these formal agreements, draft mutual-aid emergency response plans and exercise mutual-aid capabilities.

Private Sector

Protecting the lives of New York City residents and visitors means not only working with public sector partners to provide a robust response, it also means empowering the private sector with the knowledge and training they need to protect themselves. The FDNY has launched a campaign to increase the number of local residents with the skills to perform cardiopulmonary resuscitation (CPR) and has worked closely with the New York City Office of Emergency Management to train hundreds of local residents regarding how to prepare themselves and their communities through the Community Emergency Response Team (CERT) program.

Just as CERT team members are tasked with creating a coordinated disaster response plan within their communities, business owners are responsible for creating safety plans for the individuals inside their buildings, including how building occu-



pants will be evacuated during a fire or non-fire emergency. This is especially important for those operating or residing in high-rise buildings with hundreds or thousands of occupants.

Structural evacuation, especially when it is the evacuation of one of the City's 5982 high-rise buildings,²¹ presents many challenges. A Centers for Disease Control and Prevention report²² on the World Trade Center evacuation stressed that "improved preparedness at the individual, organizational, and building environmental levels can facilitate rapid evacuation."²³ As a result of New York City Local Law 26, implemented in August 2006, high-rise office buildings must submit an emergency action plan (EAP), which addresses non-fire emergencies (chemical, biological, radiological, nuclear or explosive).

Improving preparedness necessitates not only drafting a safety plan, but also ensuring that the plan can be effectively executed. The FDNY's Exercise Design Team has forged a close relationship with many local business owners and is working with them to create and conduct mutually beneficial response exercises. These exercises--which have been/are being done with hotels, corporate offices, department stores and even a local prison--not only help building owners test their safety and evacuation plans, they also provide FDNY personnel with an opportunity to test their skills and become more familiar with the unique characteristics and challenges of structures within their response areas.

The FDNY will continue to help improve citizen preparedness at the individual, business and property owner levels through continued participation in the CPR and CERT training programs. The Department also will actively further FDNY's valuable public-public and public-private partnerships through joint exercise design and execution. Additional important preparedness actions for enhancing life safety include updating protocols for building evacuation and sheltering in place.