Historic Overview of the Terrorist Threat

What You Will Learn

- The process by which the emergency management function evolved within the United States, and the watershed events that drove these changes
- Measures taken to address the terrorism hazard within the United States, both prior to and following the September 11 terrorist attacks
- The influence exacted upon all-hazards emergency management in the United States by the series of post-event revisions to the nation’s emergency management systems and structures
- The financial costs of disasters in the United States and around the world

Introduction

Harry Truman once said, “The only thing new is the history we don’t know.” For many Americans, the rush of activities by the government to pass new laws, reorganize government institutions, and allocate vast sums of money in the aftermath of the September 11, 2001, terrorist attacks may have seemed unprecedented. The reality is that similar actions in terms of both type and scope have happened in the past, and these historical experiences can provide insight into the prospect of the ultimate success or failure of the actions that have been taken since the September 11 attacks occurred.

The purpose of this chapter is to provide an historic perspective of the evolution of emergency management policies, statutes, and practices in the United States and to examine the chronology of events and actions leading up to and beyond September 11, 2001. This perspective will help frame the issues to be discussed in subsequent chapters of this book, which will detail the legislative, organizational, and operational underpinnings of America’s homeland security structure.

This chapter provides summaries of the tragic events of September 11 including updated statistics, first responder anecdotes and perspectives, timelines, and review of after-action reports. Additional information is provided for three other major terrorist incidents: the 1993 World Trade Center (WTC) bombing, the 1995 Oklahoma City bombing of the Murrah Federal Office Building, and the 2001 anthrax incidents in Washington, DC.

Emergency Management in the United States

In this section, we explore the historical, organizational, and legislative history of modern emergency management in the United States. We review some of the significant events and people who have shaped the emergency management discipline over the years. Understanding this history and evolution is important because it can provide insight into why emergency management concepts have been applied differently at different times.
There is no single definition of emergency management, and those that have been applied tend to be extremely broad and all encompassing. Additionally, in the United States the discipline of emergency management has expanded and contracted in response to events, the desires of Congress, and leadership styles. Simply defined, emergency management is the discipline dealing with the identification and analysis of public hazards, the mitigation of and preparedness for public risk, and the coordination of resources in response to and recovery from associated emergency events. Risk represents a broad range of issues and includes an equally diverse set of players.

The range of situations that could possibly involve emergency management or various components of the emergency management system is extensive. Through time, as it has developed, the emergency management function has become integral to the security of our daily lives and has been integrated into our daily decisions. Emergency management professionals are no longer called upon only in times of disaster.

Emergency management has clearly become an essential role of government. The Constitution entrusted the states with responsibility for ensuring public health and safety — hence, responsibility for public risks — and assigned the federal government to a secondary, supportive role. The federal role was originally conceived such that it intervenes when the state, local, or individual entities are overwhelmed. This fundamental philosophy continues to guide the government function of emergency management.

The nation’s strong foundation of emergency management was developed and has evolved over a period of many decades, and through all this the validity of the discipline has never come into question. Entities and organizations fulfilling the mission of this function, likewise, have existed at the state and local level for a considerable time, even before the federal government became involved. But as history-defining events occurred, political philosophies changed, and the nation developed, the federal role in emergency management steadily increased to the point where it stands today. The following section outlines the development of the emergency management function in the United States from the early 19th century to present day.

**Critical Thinking**

What are the benefits of a statutory authority that assigns the federal government a secondary, supportive role in the nation’s emergency management system, while the local government maintains command and control authority? Are there any intrinsic problems with such a system? What is done to alleviate those problems?

**Early History: 1800–1950**

In 1803, a congressional act was passed to provide financial assistance to a New Hampshire town devastated by fire. This is the first example of the federal government becoming involved in a local disaster. Following this disaster it was not until the administration of Franklin Roosevelt began to use government as a tool to stimulate the economy that we saw a significant investment in emergency management functions in the federal government.

During the 1930s, the Reconstruction Finance Corporation and the Bureau of Public Roads were both granted the authority to make disaster loans available for repair and reconstruction of certain public facilities after disasters. The Tennessee Valley Authority (TVA) was created during this era to produce hydroelectric power and, as a secondary purpose, to reduce flooding in the region.

A significant piece of emergency management legislation, the Flood Control Act of 1934, was passed during this time. This act, which gave the U.S. Army Corps of Engineers increased authority to design and build flood control projects, ultimately made a significant and long-lasting impact on emergency management in this country. The Flood Control Act reflected the philosophy that humanity could control nature, thereby eliminating the risk of floods. The immediate-term success of this program
promoted economic and population growth patterns along the nation’s rivers, but history proved with a vengeance that such bold attempts at emergency management can be shortsighted and costly.

The Cold War and the Rise of Civil Defense: 1950s

The next notable period of emergency management evolution occurred during the 1950s. The Cold War era presented the potential for nuclear war and nuclear fallout as the principal disaster risk. Civil defense programs proliferated across communities during this time. Individuals and communities alike were encouraged to and did build bomb shelters to protect themselves and their families from a nuclear attack by the Soviet Union.

Almost every community appointed a civil defense director, and most states designed into their state government hierarchy a position whose incumbent managed civil defense activities in that state. These individuals tended to have military backgrounds, and their operations received little political or financial support from the state or local governments they served. Furthermore, the civil defense responsibilities they managed were often in addition to other duties.

Federal support for these activities was vested in the Federal Civil Defense Administration (FCDA), an organization with few staff and limited financial resources whose main role was to provide technical assistance. Despite these shortfalls, the local and state civil defense directors are the first recognized face of emergency management in the United States.

A companion office to the FCDA, the Office of Defense Mobilization, was established in the Department of Defense (DOD). The primary functions of this office were to allow for the quick mobilization of materials and the production and stockpiling of critical materials in the event of war. It included a function called emergency preparedness. In 1958, these two offices were merged into the Office of Civil and Defense Mobilization.

The 1950s were a quiet time for large-scale natural disasters, but not devoid of them. Hurricane Hazel, a Category 4 hurricane, inflicted significant damage in Virginia and North Carolina in 1954; Hurricane Diane hit several mid-Atlantic and northeastern states in 1955; and Hurricane Audrey, the most damaging of the three storms, struck Louisiana and north Texas in 1957. Congressional response to these disasters followed a familiar pattern of ad hoc legislation to provide increased disaster assistance funds to the affected areas.

Natural Disasters Bring Changes to Emergency Management: 1960s

As the 1960s began, three major natural disasters occurred. In a sparsely populated area of Montana in 1960, the Hebgen Lake earthquake struck, measuring 7.3 on the Richter scale, raising attention to the fact that the nation’s earthquake risk extended far beyond California’s borders. Later that year Hurricane Donna hit the west coast of Florida, and in 1961 Hurricane Carla blew across Texas. The incoming Kennedy administration decided to change the federal approach to disasters. In 1961, it created the Office of Emergency Preparedness inside the White House to deal with these large-scale events. It distinguished these activities from the civil defense responsibilities, which remained in the Office of Civil Defense within DOD.

During the remainder of the 1960s, the United States was struck by a series of major natural disasters. The 1962 Ash Wednesday storm devastated more than 620 miles of shoreline on the East Coast, inflicting more than $300 million in damages. In 1964, in Prince William Sound, Alaska, an earthquake measuring 9.2 on the Richter scale garnered front-page news throughout the nation and the world. This Easter quake killed 123 people and generated a tsunami that affected beaches as far south as the Pacific Coast of California. Hurricane Betsy struck in 1965, and Hurricane Camille in 1969, together killing and injuring hundreds and causing hundreds of millions of dollars in damage along the Gulf Coast.
The response to these events, as with previous disasters, was the passage of ad hoc legislation for funds. However, the financial losses resulting from Hurricane Betsy’s path across Florida and Louisiana engendered a discussion of insurance as protection against future floods and a potential method to reduce continued government assistance after disasters. The unavailability of flood protection insurance on the standard homeowner policy, and the prohibitive cost of such insurance where it was available, prompted congressional interest. These discussions eventually led to the passage of the National Flood Insurance Act of 1968, which in turn created the National Flood Insurance Program (NFIP).

It is interesting to note how local and state governments have chosen to administer this flood risk program. At those levels, civil defense departments had usually been responsible for dealing with matters pertaining to risk and disasters. Although the NFIP pertained to these areas, responsibilities for the NFIP were given to local planning departments and state departments of natural resources. This is but one illustration of the fragmented and piecemeal approach to emergency management that began to evolve during the 1960s and continued during the following decade.

The Call for a National Focus on Emergency Management: 1970s

During the 1970s, responsibility for various emergency management tasks and functions was allotted to more than five separate federal departments and agencies, including the Department of Commerce (weather, warning, and fire protection), the General Services Administration (continuity of government, stockpiling, federal preparedness), the Treasury Department (import investigation), the Nuclear Regulatory Commission (power plants), and the Department of Housing and Urban Development (flood insurance and disaster relief).

With the passage of the Disaster Relief Act of 1974, prompted by the previously mentioned hurricanes and the San Fernando earthquake of 1971, the Department of Housing and Urban Development (HUD) possessed the most significant authority for natural disaster response and recovery through the NFIP, which it administered under the Federal Insurance Administration (FIA) and the Federal Disaster Assistance Administration (FDAA), which handled disaster response, temporary housing, and assistance. On the military side, there existed the Defense Civil Preparedness Agency (nuclear attack) and the U.S. Army Corps of Engineers (flood control). However, when one looked at the broad range of risks and potential disasters, more than 100 federal agencies were involved in some aspect of risk and disasters.

This pattern continued down to the state and, to a decreasing extent, local levels. Parallel organizations and programs added to confusion and turf wars, especially during disaster response efforts. The states and the governors grew increasingly frustrated over this fragmentation. In the absence of a single clear federal lead agency in emergency management, a group of state civil defense directors led by Lacy Suiter of Tennessee and Erie Jones of Illinois launched a drive, by means of the National Governors Association (NGA), to consolidate federal emergency management activities in one agency.

With the election of Jimmy Carter, a former governor from Georgia, the effort gained steam. President Carter arrived in Washington already committed to streamlining all government agencies and seeking more control over key administrative processes. The state directors lobbied the NGA and Congress for consolidation of federal emergency management functions. When the Carter administration finally proposed such an action, it was met with a receptive audience in the Senate. Congress had already expressed concerns about the lack of a coherent federal policy and the inability of states to know where to turn in the event of an emergency, so the state directors’ concerns rang true for them.

In the midst of these discussions, an accident occurred at the Three Mile Island nuclear power plant in Pennsylvania, validating and further galvanizing the consolidation effort. This accident also brought national media attention to the lack of adequate off-site preparedness around commercial nuclear power plants and the role of the federal government in responding to such an event.

On June 19, 1978, President Carter transmitted to Congress the Reorganization Plan Number 3 (3 CFR 1978, 5 U.S. Code 903). The intent of this plan was to consolidate emergency preparedness,
mitigation, and response activities into a single federal emergency management organization. The president stated that the plan would provide for the establishment of the Federal Emergency Management Agency (FEMA) and that the FEMA director would report directly to the president.

Reorganization Plan Number 3 transferred the following agencies or functions to FEMA: National Fire Prevention Control Administration (Department of Commerce), Federal Insurance Administration (HUD), Federal Broadcast System (Executive Office of the President), Defense Civil Preparedness Agency (DOD), Federal Disaster Assistance Administration (HUD), and the Federal Preparedness Agency (GSA).

Additional transfers of emergency preparedness and mitigation functions to FEMA were as follows: oversight of the Earthquake Hazards Reduction Program (Office of Science and Technology Policy), coordination of dam safety (Office of Science and Technology Policy), assistance to communities in the development of readiness plans for severe weather-related emergencies, coordination of natural and nuclear disaster warning systems, and coordination of preparedness and planning to reduce the consequences of major terrorist incidents.

The plan articulated several fundamental organizational principles.

First, to anticipate, prepare for, and respond to major civil emergencies, federal authorities should be supervised by one official responsible to the president and given attention by other officials at the highest levels. Second, an effective civil defense system requires the most efficient use of all available resources. Third, whenever possible, emergency responsibilities should be extensions of federal agencies. Fourth, federal hazard mitigation activities should be closely linked with emergency preparedness and response functions (Reorganization Plan Number 3, 3 CFR 1978; 5 U.S. code 903).

After congressional review and concurrence, the Federal Emergency Management Agency was officially established by Executive Order 12127 of March 31, 1979 (44 FR 19367, 3 CFR, Compilation, p. 376). A second executive order, Executive Order 12148, mandated reassignment of agencies, programs, and personnel into this new entity.

Creation of the new organization made sense. However, integrating the diverse programs, operations, policies, and people into a cohesive operation was a much bigger task than most people realized once the consolidation began, and its success required extraordinary leadership and a common vision. It also created immediate political problems. By consolidating these programs and the legislation that created them, the new agency would have to answer to 23 committees and subcommittees in Congress with oversight of its programs. Unlike most other federal agencies, it would have no organic legislation to support its operations and no clear champions to look to during the congressional appropriations process.

John Macy became the first director of FEMA, and his task was to unify an organization that was not only physically separated — parts of the agency were located in five different buildings around Washington — but also philosophically separate. Programs focused on nuclear war preparations were combined with programs focused on a new consciousness of the environment and flood-plain management.

Macy focused his efforts by emphasizing the similarities between natural hazards preparedness and civil defense by developing a new concept called the Integrated Emergency Management System (IEMS). This system was an all-hazards approach that included direction, control, and warning as functions common to all emergencies — from small isolated events to the ultimate emergency of nuclear attack.

For all of Macy’s good efforts, FEMA’s departments continued to operate as individual entities pursuing their own interests and answering to their different congressional bosses. It was a period of few major disasters, so virtually no one noticed this problem of disjointedness.

Critical Thinking

What are the primary benefits of having all of the nation’s emergency management agencies under the umbrella of a single organization (the Department of Homeland Security)? What are the disadvantages, if any?
Civil Defense Reappears as Nuclear Attack Planning: 1980s

The early and middle 1980s saw FEMA facing many challenges, but no significant natural disasters. The absence of the need for a coherent federal response to disasters, as was called for by Congress when it approved the establishment of FEMA, allowed FEMA to continue to exist as an organization of many parts.

In 1982, President Ronald Reagan appointed Louis O. Guiffrida as director of FEMA. Guiffrida, a California friend of Ed Meese, one of the president’s closest advisers, had a background in training and terrorism preparedness at the state government level. General Guiffrida proceeded to reorganize FEMA consistent with administration policies and his own background. Top priority was placed on government preparedness for a nuclear attack. Resources within the agency were realigned, and additional budget authority was sought to enhance and elevate the national security responsibilities of the agency. With no real role for the states in these national security activities, the state directors who had lobbied for the creation of FEMA saw their authority and federal funding declining.

Because of congressional questions about the agency’s operations, the Department of Justice and a grand jury began investigations of senior political officials at FEMA. These inquiries led to the resignation of Guiffrida and top aides in response to a variety of charges, including misuse of government funds.

President Reagan then selected General Julius Becton to be director of FEMA. General Becton was a retired military general and had been director of the Office of Foreign Disaster Assistance in the State Department. From a policy standpoint, he continued to emphasize the programs of his predecessor, but in a less visible manner. Becton himself expanded the duties of FEMA when he was asked by DOD to take over the program dealing with the off-site cleanup of chemical stockpiles on DOD bases. This program was fraught with problems, and bad feelings existed between the communities and the bases over the funds available to the communities for the cleanup. FEMA had minimal technical expertise to administer this program and depended on the DOD and the army for the funding. This situation led to political problems for the agency and did not lead to significant advancements in local emergency management operations as promised by DOD.


As Congress debated and finally passed major reform of federal disaster policy as part of the Stewart McKinney-Robert Stafford Act, the promise of FEMA and its ability to support a national emergency management system remained in doubt.

As the 1980s came to a close, FEMA was an agency in trouble. It suffered from severe morale problems, disparate leadership, and conflicts with its partners at the state and local levels over agency spending and priorities. In 1989 two devastating natural disasters called into question the continued existence of FEMA. In September, Hurricane Hugo slammed into North and South Carolina after first hitting Puerto Rico and the Virgin Islands. It was the worst hurricane in a decade, with more than $15 billion in damages and 85 deaths. FEMA was slow to respond, waiting for the process to work and for the governors to decide what to do. Senator Ernest Hollings (D-SC) personally called the FEMA director and asked for help, but the agency moved slowly. Hollings went on national television to berate FEMA in some of the most colorful language ever, calling the agency the “sorriest bunch of bureaucratic jackasses.”

Less than a month later, the Bay Area of California was rocked by the Loma Prieta earthquake as the 1989 World Series got under way in Oakland Stadium. FEMA was not prepared to respond. While FEMA had spent the last decade focused on nuclear attack planning, FEMA’s state partners in emergency management, especially in California, had been preparing for a more realistic risk, an earthquake. Although damages were great, few lives were lost. This was a testament to good mitigation practices in building codes and construction that were adopted in California and some good luck relative to the time the earthquake hit.
In 1992, FEMA was not so lucky. In August of that year, Hurricane Andrew struck Florida and Louisiana and Hurricane Iniki struck Hawaii within months of each other (Figure 1–1). FEMA wasn’t ready, and neither were FEMA’s partners at the state level. The agency’s failure to respond was witnessed by Americans all across the country as major news organizations followed the crisis. The efficacy of FEMA as the national emergency response agency was in doubt. After dispatching then-Secretary of Transportation Andrew Card to take over the response operation, President George H.W. Bush sent in the military.

It was not just FEMA that failed during Hurricane Andrew; it was the whole federal emergency management process and system. In Hurricane Andrew, FEMA recognized the need to apply all of its resources to the response and began to use its national security assets for the first time in a natural disaster response. But these efforts came too late. Starting with Hurricane Hugo, public concern over natural disasters was high. People wanted and expected the government to be there to help in their time of need. FEMA seemed incapable of carrying out this essential government emergency management function.

In the aftermath of Hurricanes Andrew and Iniki, there came calls to abolish FEMA. Investigations by the General Accounting Office (GAO) and other governmental and nongovernmental watchdog groups called for major reforms. None of this was lost on the incoming Clinton administration.


When President William Jefferson Clinton appointed James Lee Witt as FEMA director, he breathed life back into the troubled agency and introduced a whole new style of leadership. Witt was the first director with emergency management experience. He was from a constituency that had played a major role in creating FEMA but had been forgotten — the state directors. With Witt, President Clinton had a politician with skill and credibility and, more important, an understanding of the importance of building partnerships and serving the customer.
Witt came in with a mandate to restore the trust of the American people that their government would be there for them during times of crisis. He initiated sweeping reforms both within and outside the agency. Inside FEMA, he reached out to all employees, implemented customer service training, and reorganized the agency to break down stovepipes. He supported the application of new technologies to the delivery of disaster services and emphasized mitigation and risk avoidance. Outside of the agency, he strengthened the relationships with state and local emergency managers and built new relationships with Congress, within the administration, and with the media. A hallmark of the Witt years at FEMA was open communication, both internally and externally.

Throughout the next several years, FEMA and its state and local partners would face almost every possible natural hazard, including killer tornadoes, ice storms, hurricanes, floods, wildfires, and drought.

When President Clinton elevated Witt to the position of director of FEMA and he became a member of Clinton’s cabinet, the value and importance of emergency management were recognized. Witt used this newfound respect as an opportunity to lobby the nation’s governors to include state emergency management directors in their cabinets.

The Oklahoma City bombing in April 1995 represented a new phase in the evolution of emergency management. This event, which followed the first bombing of the World Trade Center in New York City in 1993, raised the issue of our nation’s preparedness for terrorism events (Figure 1–2). Because emergency management responsibilities are defined by risks and the consequences of those risks, responding to terrorist threats was included. The Oklahoma City bombing tested this thesis and set the stage for interagency disagreements over which agency would be in charge of terrorism.

The Nunn-Lugar legislation of 1995 left open the question as to who would be the lead agency in terrorism. Many fault FEMA leadership for not quickly claiming that role, and the late 1990s were marked by several different agencies and departments assuming various roles in terrorism planning. The question of who should respond first to a terrorism incident — fire or police department, emergency management, or emergency medical personnel — was closely examined, but no clear answers emerged. The state directors looked to FEMA to claim the leadership role. In an uncharacteristic way, the leadership of FEMA vacillated on this issue. Terrorism was certainly part of the all-hazards

**FIGURE 1–2** Oklahoma City, Oklahoma, April 26, 1995 — A scene of the devastated Murrah Federal Office Building after the Oklahoma City bombing. (FEMA News Photo)
approach to emergency management championed by FEMA, but the resources and technologies needed to address specific issues, such as weapons of mass destruction and the consequences of a chemical/biological attack, seemed well beyond the reach of the current emergency management structure.

While this debate continued, FEMA took an important step in its commitment to disaster mitigation by launching a national initiative to promote a new community-based approach called Project Impact: Building Disaster Resistant Communities. This program was designed to mainstream emergency management and mitigation practices into every community in America. Project Impact’s goal was to incorporate decisions about risk and risk avoidance into the community’s everyday decision-making processes. By building a disaster-resistant community, it was believed, Project Impact’s members would promote sustainable economic development, protect and enhance their natural resources, and ensure a better quality of life for all citizens.

As the decade and century ended, with a noticeable lack of major technological glitches from Y2K (when the nation was unsure about what would happen to computer programs when the year changed from 1999 to 2000), FEMA was recognized as the preeminent emergency management system in the world. Other countries began to emulate the agency within their own governments, and Witt became an ambassador for emergency management overseas. State and local emergency management programs had grown, and their value was recognized and supported by society. Private-sector and business continuity programs were flourishing. And with Hurricane Mitch, a vast international disaster, the world had even seen a change in American foreign policy toward promoting and supporting community-based mitigation projects.

The role and responsibility of emergency management had significantly increased, as had the partnerships supporting it. Its budget and stature had grown. Good emergency management became a way to get economic and environmental issues onto the table; it became a staple of discussion relative to a community’s quality of life.

The profession of emergency management was attracting a different type of public servant. Political and management skills were critical, and candidates for state, local, and private emergency management positions were now being judged on the basis of their training and experience rather than their political connections. Undergraduate and advanced degree programs in emergency management were flourishing at more than 65 national colleges and universities. It was now a respected, challenging, and sought-after profession.

**Critical Thinking**

Why was open internal and external communication so important in terms of improving the emergency management function in the United States?

**Terrorism Becomes Major Focus: 2001**

Prior to the attacks of September 11, 2001, the Nunn-Lugar-Domenici legislation (Defense against Weapons of Mass Destruction Act of 1996) provided the primary authority and focus for domestic federal preparedness activities for terrorism. Several agencies, including FEMA, the Department of Justice (DOJ), the Department of Health and Human Services (HHS), DOD, and the National Guard, were involved, and all jockeyed for leadership on the issue. Some attempts at establishing coordination systems were launched, but in general, these individual agencies pursued their own agendas. The obvious lack of direction caused significant confusion for state and local governments, who as a result were largely unprepared for terrorist acts. These state and municipal governments complained to the federal government of the need to address what they recognized as an excessive vulnerability to the will of terrorists. The TOPOFF exercise, held in 1999, involving federal, state, and local emergency officials in a first ever weapons of mass destruction exercise, reinforced these concerns and vividly demonstrated the problems that could arise in a real event.
With the election of George W. Bush, Joe Allbaugh was nominated and approved by Congress to lead FEMA. As a former chief of staff to Governor Bush in Texas and President Bush’s campaign manager in the 2000 presidential race, Allbaugh and Bush had a close personal relationship. As demonstrated by the relationship between Director Witt and President Clinton, such close rapport was clearly a positive aspect for the agency. Despite the fact that Allbaugh had an obviously weak emergency management background, the matter did not arise during his confirmation hearings.

As part of a major reorganization of the agency, Allbaugh recreated the Office of National Preparedness (ONP). This office was first established in the 1980s during the Guiffrida reign for planning for World War III and eliminated by Witt in 1992. The new director’s actions raised some concerns among FEMA’s constituents and FEMA staff, but their concerns fell on deaf ears in light of the fact that the office’s mission was already moving toward an overall focus on terrorism adopted by the administration as a whole.

In a September 10, 2001, speech, Director Allbaugh spoke about his priorities as being firefighters, disaster mitigation, and catastrophic preparedness. These words seem prophetic in light of the events of September 11. As the events of that tragic day unfolded, FEMA activated the Federal Response Plan and response operations proceeded as expected in New York and in Virginia. Most of the agency’s senior leaders, including the director, were in Montana, attending the annual meeting of the National Emergency Management Association (NEMA), an organization that represents state emergency management directors. The strength of the U.S. emergency management system was proven, however, as hundreds of response personnel initiated their operations within just minutes of the onset of events.


Almost immediately following the terrorist attacks, President Bush created by executive order the Office of Homeland Security within the White House. The same day that announcement was made, Pennsylvania Governor Tom Ridge was sworn in to lead the office with the rank of “assistant to the president.” The office, having only 120 employees and what was derided as a prohibitively small budget in light of the gravity of the events the nation had just witnessed, began to be seen as just another government bureaucracy.

In March 2002, President Bush signed Homeland Security Presidential Directive 3 (HSPD-3), which stated that:

The Nation requires a Homeland Security Advisory System to provide a comprehensive and effective means to disseminate information regarding the risk of terrorist acts to Federal, State, and local authorities and to the American people. Such a system would provide warnings in the form of a set of graduated “Threat Conditions” that would increase as the risk of the threat increases. At each Threat Condition, Federal departments and agencies would implement a corresponding set of “Protective Measures” to further reduce vulnerability or increase response capability during a period of heightened alert.

This system is intended to create a common vocabulary, context, and structure for an ongoing national discussion about the nature of the threats that confront the homeland and the appropriate measures that should be taken in response. It seeks to inform and facilitate decisions appropriate to different levels of government and to private citizens at home and at work.

The product outcome of this directive was the widely recognizable color-coded Homeland Security Advisory System (HSAS). The HSAS has been called on repeatedly since its inception to raise and lower the nation’s alert levels between elevated (yellow) and high (orange), although the frequency of these movements has decreased over time as standards for such movements have been developed.
On November 25, 2002, President Bush signed into law the Homeland Security Act of 2002 (HS Act) (Public Law 107-296), and announced that former Pennsylvania Governor Tom Ridge would become secretary of a new Department of Homeland Security (DHS) to be created through this legislation. This act, which authorized the greatest federal government reorganization since President Harry Truman joined the various branches of the armed forces under the Department of Defense, was charged with a threefold mission of protecting the United States from further terrorist attacks, reducing the nation’s vulnerability to terrorism, and minimizing the damage from potential terrorist attacks and natural disasters.

The sweeping reorganization into the new department, which officially opened its doors on January 24, 2003, joined more than 179,000 federal employees from 22 existing federal agencies under a single, cabinet-level organization. Since that time, there have been many additions, movements, and changes to both the organizational makeup of the department and its leadership. The Department of Homeland Security, its importance within the framework of the U.S. government and society, and the changes that have taken place since its inception are discussed in much greater detail in Chapter 3.

Critical Thinking

Were members of Congress justified in making such a sweeping reform of the federal government as they did in the aftermath of the September 11 attacks? What could have, or should have, been done differently now that the benefit of hindsight exists?


In the first few years following the creation of the Department of Homeland Security, the nation worked through many of the growing pains associated with such a drastic bureaucratic overhaul. Of all the criticisms associated with the new department, and of the many new and changing policies related to both national security and emergency management, that which sparked the greatest concern was that the focus of emergency management at all levels of government was being led away from the all-hazards philosophy to that of the single terrorism hazard. Several members of Congress even proposed legislation to remove the Federal Emergency Management Agency from DHS, although their efforts were ultimately rebuffed.

In late August 2005, Hurricane Katrina veered into the Gulf Coast states of Louisiana, Mississippi, and Alabama, dealing a blow considered by many emergency planners to be a worst case scenario. At the last minute, the category 5 storm weakened to a category 3, and its track turned just slightly askew, thus preventing a direct hit on the City of New Orleans, but the damage that followed this glancing blow was still enough to completely overwhelm all mitigation and preparative measures that had been taken to protect the city and its residents. The storm’s impact covered a broad geographic area stretching from Alabama, across coastal Mississippi and southeast Louisiana, spanning an estimated 90,000 square miles. As of January 2007, the official death toll attributable to the storm stood at 1,836 with another 705 individuals listed as missing.

By any account, Hurricane Katrina was a massive storm, both deadly and destructive. But it was the failed response that followed which exposed severe cracks that had developed in the nation’s emergency management system and its ability to respond to a catastrophic event. Both government and independent after-action reports, and several media accounts, judged the overall response an outright failure — with the ongoing recovery phase receiving the same poor evaluation. Many of the problems of the immediate response exposed the impacts of a priority focus on terrorism and homeland security that had developed in preceding years, which had likely been a major contributing factor in the decrease in local, state, and national capacities and capabilities.

In the actual response, elected officials at all levels of government stumbled badly as they tried to provide leadership in the face of this disaster. The business community, voluntary agencies, and
nongovernmental organizations (NGOs) stepped up to provide the extraordinary services to storm victims of which many continue today. The general public, corporations, unions, and foundations donated billions of dollars for disaster relief. The storm impacted over 1.5 million people and displaced more than 800,000 citizens. Almost two and a half years later, in early 2008, over 200,000 individuals remained displaced from their homes and communities. Forty-four states and the District of Columbia received emergency declarations to cover their expenses for sheltering victims evacuated from the impacted Gulf Coast states.

Congress immediately tackled the apparent emergency management shortfalls, drawing up legislation aimed at patching many of the holes that had been exposed, and developing new systems that it was hoped would reduce overall risk for the future. For the moment, at least, it seemed as if the nation’s emergency management focus was willing to regain its all-hazards approach. The resulting legislation, the Post Katrina Emergency Reform Act, was signed into law by the president on October 4, 2006. This law served to reconfigure the leadership hierarchy of the Department of Homeland Security, and to return many functions that were stripped from FEMA back into the agency. Additionally, FEMA was returned to its independent agency status, although it remained within the Department of Homeland Security as had been done with the U.S. Coast Guard and the U.S. Secret Service. The changes mandated according to this law, as described in greater detail in Chapters 2 and 3, became effective in early 2007.

The Future: 2008 and Beyond

In the aftermath of the terrorist attacks on September 11, FEMA and the newly formed Department of Homeland Security, together with partners in emergency management, fire, police, and public health at the state and local government levels, were charged with expanding and enhancing our nation’s emergency management system. In the years following the creation of the Department of Homeland Security, billions of dollars were — and continue to be — allocated from the federal government to state and local governments in order to expand existing programs and establish new ones designed to meet the new terrorism threat.

Most notably within the United States, but also in many other countries around the world (several of which were themselves affected by major terrorist attacks, including the United Kingdom and Spain), a budgetary focus on the preparedness for and prevention of terrorist attacks that has emerged has steadily increased at the expense of other social and governmental programs. In the seven years after the September 11 attacks, there have been advancements in transportation security and commerce security, large increases in budgetary allowances for first responder terrorism training and related equipment acquisitions, the emergence of homeland security management structures at the state and local levels, a widespread public recognition of and preparedness for the terrorism threat, and many other positive changes. Whether as a result of these changes or in the absence of any realistic or significant attempts, there have been no major terrorist attacks within the borders of the United States since the attacks in 2001.

The response to Hurricane Katrina proved that the focus on terrorism has, as expected, altered much of the focus that once existed on the mitigation of and preparedness for natural and technological hazards, which by their very nature are much more likely to occur. In fact, during this same time period after the events of September 11, the nation experienced severe flooding, several seasons of extensive wildfires, record-breaking hurricanes, tornadoes, earthquakes, volcanic activity, drought, avalanches, ice storms, severe winter storms, and many more major and minor disaster events. One has to wonder whether the reversal in the country’s accomplishment of reducing hurricane deaths is directly attributable to this shift in priorities (see Figure 1–3). The recognized failure of the federal response to Hurricane Katrina was a clear example of how an exclusive focus on terrorism prevention marginalized the federal government’s and FEMA’s capacity and capability to respond to a catastrophic natural disaster. One can only hope that the sweeping changes that occurred in this event’s aftermath are sufficient to reverse such a disastrous course of policy decisions.
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The professional and operational environment of emergency management has continued to grow, and the quality, skill base, technical demands, and caliber of its practitioners have only increased (see Figure 1–4). The hyper-attention that is given to the terrorist threat has provided an unexpected opportunity to expand that base. The goal of this textbook is to provide the background and working knowledge of the disciplines, players, and organizations that are part of this nation's homeland security efforts.


**FIGURE 1–4** New York City, New York, October 13, 2001 — New York firefighters at the site of the World Trade Center. (Photo by Andrea Booher/FEMA News Photo)
INTRODUCTION TO HOMELAND SECURITY

As has often occurred following previous defining events, the environment for emergency management will continue to absorb major events and evolve to reflect their impacts. History has certainly shown itself capable of repeating itself in the case of Katrina, but still the focal shift to a more national approach to the problem has progressed. Likewise, there has been an increased emphasis on preparedness through training and equipment. Thankfully, the resilience of the system allows for midstream corrections. Ultimately, the long-term viability and measure of the influence of emergency management will continue to depend on its value to all citizens in all communities, every day, not just during times of crisis.


World Trade Center Bombing

On February 23, 1993, a massive explosion occurred in the basement parking lot of the World Trade Center in New York City. The explosive device, which weighed more than 1,000 pounds, caused extensive damage to seven of the building’s floors, six of which were below grade. A blast crater that resulted from the explosion measured 130 feet in width by 150 feet in length. More than 50,000 people were evacuated, 25,000 of whom were in the twin towers of the Trade Center. The entire evacuation process required approximately 11 hours to complete (Fusco, 1993).

At the time, the response to the bombing was described as being the largest incident that the City of New York Fire Department (FDNY) had ever managed in its 128-year history. In terms of the number of fire units that responded, the event was described as being “the equivalent of a 16-alarm fire” (Fusco, 1993). The following list provides a summary of relevant data from the bombing event:

- Deaths: 6
- Injuries: 1,042
- Firefighter injuries: 85 (one requiring hospitalization)
- Police officers injured: 35
- EMS workers injured: 1
- Firefighter, police, and EMS deaths: 0
- Number of people evacuated from WTC complex: approximately 50,000
- FDNY engine companies responding: 84
- FDNY truck companies responding: 60
- FDNY special units responding: 26
- FDNY personnel responding: 28 battalion chiefs, 9 deputy chiefs
- Percentage of FDNY on duty staff responding: 45% (Fusco, 1993)

Murrah Federal Building Bombing

On April 19, 1995, a massive truck bomb exploded outside of the Alfred P. Murrah Federal Building in downtown Oklahoma City. All told, 168 people died, including 19 children attending a day care program in the building. A total of 674 people were injured. The Murrah building was destroyed, 25 additional buildings in the downtown area were severely damaged or destroyed, and another 300 buildings were damaged by the blast. The ensuing rescue and recovery effort during the next 16 days involved, among many other resources, the dispatch of 11 FEMA urban search-and-rescue teams (see sidebar, “FEMA Urban Search . . .”) from across the country to assist local and state officials.
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FIGURE 1–5 Oklahoma City, Oklahoma, April 26, 1995 — Search-and-rescue crews work to save those trapped beneath the debris after the Oklahoma City bombing. (FEMA News Photo)

search first for survivors and, ultimately, to recover victims' bodies (Figure 1–5) (City of Oklahoma City, 1996).

FEMA Urban Search and Rescue at Murrah Building Bombing in Oklahoma City, 1995

At 9:02 AM on the morning of April 19, 1995, a bomb exploded from inside a Ryder truck under the Alfred P. Murrah Federal Building in Oklahoma City. The blast caused a partial collapse of all nine floors of the 20-year-old building, and 168 people died.

Rescuers from the Oklahoma City Fire Department entered the building unsure of whether the building would continue to support its own weight. Most of the steel support system had been blown out.

Within five hours of the blast the first FEMA urban search-and-rescue task force was deployed. By 6 PM the task force was in the building, searching for victims. One of the first assignments was to search the second floor nursery for victims.

Teams with search-and-rescue dogs began the search in the nursery. The dogs are trained to bark when they find live victims. No dogs barked that night.

Eleven of FEMA’s 27 USAR [U.S. Army Reserve] task forces worked in the building, with representation from virtually every task force in the country. The FEMA teams coordinated with local fire departments, police departments, and military and Federal agencies during the search-and-rescue effort.

The rescue effort involved extensive stabilization of the fragmented building, rescuing of people trapped within tight spaces, rescues from high angles, breaking through concrete, and hazardous materials analysis and removal.

An innovative plan was developed to help rescuers deal with the psychological and emotional trauma of such a grisly scene. The plan allowed workers to be briefed in
INTRODUCTION TO HOMELAND SECURITY

September 11 Attacks on the World Trade Center and the Pentagon

On September 11, 2001, terrorists hijacked four planes and crashed them into the twin towers of the World Trade Center in New York City, the Pentagon in Washington, DC, and a field in Pennsylvania (see sidebar September 11, 2001, Terrorist Attacks Timeline . . .). These actions resulted in the collapse of both twin towers as well as a section of the Pentagon, and unprecedented deaths and injuries:

- Total deaths for all 9/11 attacks: 2,974 (not counting the 19 terrorists)
- Total injured for all 9/11 attacks: 2,337
- Total deaths in the World Trade Center towers: 2,603
- Total injured at World Trade Center: 2,261
- Total firefighter deaths at World Trade Center: 343
- Total police deaths at World Trade Center: 75
- Total deaths at Pentagon: 125
- Total injured at Pentagon: 76
- Total deaths, American Flight 77, Pentagon: 59
- Total deaths, United Airlines Flight 93, Pennsylvania: 40
- Total deaths, American Airlines Flight 11, WTC North Tower: 88

September 11, 2001, Terrorist Attacks Timeline for the Day of the Attacks

Note: All times in New York time (EDT). This is four hours before GMT.

Tuesday, September 11, 2001

7:58 AM: American Airlines Flight 11, a fully fueled Boeing 767 carrying 81 passengers and 11 crew members, departs from Boston Logan airport, bound for Los Angeles, California.

8:00 AM: United Airlines Flight 175, another fully fueled Boeing 767 carrying 56 passengers and 9 crew members, departs from Boston’s Logan airport, bound for Los Angeles, California.
8:10 AM: American Airlines Flight 77, a Boeing 757 with 58 passengers and 6 crew members, departs from Washington’s Dulles airport for Los Angeles, California.


8:42 AM: United Airlines Flight 93, a Boeing 757, takes off with 37 passengers and 7 crew members from Newark airport bound for San Francisco, following a 40-minute delay caused by congested runways. Its flight path initially takes it close to the World Trade Center.

8:43 AM: The FAA notifies NORAD about the suspected hijacking of United Airlines Flight 175.

8:46:26 AM: American Airlines Flight 11 crashes with a speed of roughly 490 miles per hour into the north side of the north tower of the World Trade Center, between floors 94 and 98. (Many accounts have given times that range between 8:45 AM and 8:50 AM) The building’s structural type, pioneered in the late 1960s to maximize rentable floor space and featuring lightweight tubular design with no masonry elements in the facade, allows the jetliner to literally enter the tower, mostly intact. It plows to the building core, severing all three gypsum-encased stairwells and dragging combustibles with it. A massive shock wave travels down to the ground and up again. The combustibles, as well as the remnants of the aircraft, are ignited by the burning fuel. Because the building lacks a traditional full-cage frame and depends almost entirely on the strength of a narrow structural core running up the center, the fire at the center of the impact zone is in a position to compromise the integrity of all internal columns. People below the severed stairwells in the north tower start to evacuate. Officials in the south tower tell people shortly afterward by megaphone and office announcements that they are safe and can return to their offices. Some don’t hear it; some ignore it and evacuate anyway; others congregate in common areas such as the 78th-floor sky lobby to discuss their options.

9:02:54 AM: United Airlines Flight 175 crashes with a speed of about 590 miles per hour into the south side of the south tower, banked between floors 78 and 84 in full view of media cameras. Parts of the plane leave the building at its east and north sides, falling to the ground six blocks away. A passenger on the plane, Peter Hanson, had called his father earlier from the plane reporting that hijackers were stabbing flight attendants in order to force the crew to open the cockpit doors.

8:46 AM to 10:29 AM: At least 20 people, primarily in the north tower, trapped by fire and smoke in the upper floors, jump to their deaths. There is some evidence that large central portions of the floor near the impact zone in the north tower collapsed soon after the plane hit, perhaps convincing some people that total collapse was imminent. One person at street level, firefighter Daniel Thomas Suhr, is hit by a jumper and dies. No form of airborne evacuation is attempted because the smoke is too dense for a successful landing on the roof of either tower, and New York City lacks helicopters specialized for horizontal rescue.

9:04 AM (approximately): The FAA’s air route traffic control center in Boston stops all departures from airports in its jurisdiction (New England and eastern New York State).

9:06 AM: The FAA bans takeoffs of all flights bound to or through the airspace of New York center from airports in that center and the three adjacent centers — Boston, Cleveland, and Washington. This is referred to as a first-tier groundstop and covers the Northeast from North Carolina north and as far west as eastern Michigan.

9:08 AM: The FAA bans all takeoffs nationwide for flights going to or through New York center airspace.
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9:24 AM: President George W. Bush is interrupted with the news of the second crash as he participates in a class filled with Florida schoolchildren. He waits out the lesson then rushes into another classroom commandeered by the Secret Service. Within minutes he makes a short statement, calling the developments “a national tragedy,” and is hurried aboard Air Force One.


9:26 AM: The FAA bans takeoffs of all civilian aircraft regardless of destination — a national groundstop.

9:37 AM: American Airlines Flight 77 crashes into the western side of the Pentagon and starts a violent fire. The section of the Pentagon hit consists mainly of newly renovated, unoccupied offices. Passenger Barbara K. Olson had called her husband, Solicitor General Theodore Olson, at the Justice Department twice from the plane to tell him about the hijacking and to report that the passengers and pilots were held in the back of the plane. As bright flames and dark smoke envelop the west side of America’s military nerve center, all doubts about the terrorist nature of the attacks are gone.

9:45 AM: United States airspace is shut down. No civilian aircraft are allowed to lift off, and all aircraft in flight are ordered to land at the nearest airport as soon as practical. All air traffic headed for the United States is redirected to Canada. Later, the FAA announces that civilian flights are suspended until at least noon, September 12. The groundings last until September 14, but there are exemptions for Saudi families who fear retribution if they stay in the United States. Military and medical flights continue. This is the fourth time all commercial flights in the United States have been stopped, and the first time a suspension was unplanned. All previous suspensions were military related (Sky Shield I–III) and took place from 1960 to 1962.

9:45 AM: The White House and the Capitol are closed.

9:50 AM (approximately): The Associated Press reports that American Airlines Flight 11 was apparently hijacked after departure from Boston’s Logan Airport. Within an hour, this report is confirmed for both Flight 11 and United Airlines Flight 175.

9:57 AM: President Bush is moved from Florida.

9:59:04 AM: The south tower of the World Trade Center collapses. A vast TV and radio audience reacts primarily with horrified astonishment. It is later widely reported that the collapse was not directly caused by the jetliner’s impact but that the intense sustained heat of the fuel fire was mostly or wholly responsible for the loss of structural integrity. Later, a growing number of structural engineers assert that the fire alone would not have caused the collapse. Both towers made use of external load-bearing mini columns, and on one face of each building approximately 40 of these were severed by the jetliners. Had they been intact to efficiently distribute the increasing gravity load as the bunched core columns and joist trusses weakened in the fires, the towers might have stood far longer or perhaps indefinitely. Concrete in the towers’ facades might have prevented most of the debris and fuel from reaching the building core. Investigations that may radically change skyscraper design (or result in a radical retreat to full-cage construction with high concrete-to-steel ratios as in pre-1960s skyscrapers) are ongoing.

10:03 AM: United Airlines Flight 93 crashes southeast of Pittsburgh in Somerset County, Pennsylvania. Other reports say 10:06 or 10:10. According to seismographic data readings,
the time of impact was 10:06:05. The first reports from the police indicate that none on board survived. Later reports indicate that passengers speaking on cell phones had learned about the World Trade Center and Pentagon crashes and at least three were planning on resisting the hijackers. It is likely that the resistance led to the plane crashing before it reached its intended target. Reports stated that an eyewitness saw a white plane resembling a fighter jet circling the site minutes after the crash. These reports have limited credibility, although fighter jets had been scrambled to defend the Washington, DC, region earlier. These jets, however, stayed within the immediate DC area.

10:10 AM: Part of the Pentagon collapses.


10:15 AM (approximately): The Democratic Front for the Liberation of Palestine is reported to have taken responsibility for the crashes, but this is denied by a senior officer of the group soon after.

10:28:31 AM: The north tower of the World Trade Center collapses from the top down, as if being peeled apart. Probably as a result of the destruction of the gypsum-encased stairwells on the impact floors (most skyscraper stairwells are encased in reinforced concrete), no one above the impact zone in the north tower survives. The fact that the north tower stood much longer than the south one is later attributed to three facts: The region of impact was higher (which meant that the gravity load on the most damaged area was lighter), the speed of the airplane was lower, and the fireproofing in the affected floors had been partially upgraded. Also, the hottest part of the fire in the south tower burned in a corner of the structure, perhaps leading to a more concentrated failure of columns or joist trusses or both. The Marriott Hotel, located at the base of the two towers, is also destroyed.

10:35 AM (approximately): Police are reportedly alerted about a bomb in a car outside the State Department in Washington, DC. Later reports claim that nothing happened at the State Department.

10:39 AM: Another hijacked jumbo jet is claimed to be headed for Washington, DC. F-15s are scrambled and patrol the airspace above Washington, DC, while other fighter jets sweep the airspace above New York City. They have orders, first issued by Vice President Cheney and later confirmed by President Bush, to shoot down any potentially dangerous planes that do not comply with orders given to them via radio.

10:45 AM: CNN reports that a mass evacuation of Washington, DC, and New York has been initiated. The UN headquarters are already empty. A few minutes later, New York’s mayor orders an evacuation of lower Manhattan.

10:50 AM: Five stories of part of the Pentagon collapse as a result of the fire.

10:53 AM: New York’s primary elections are canceled.

11:15 AM (approximately): Reports surfaced that the F-15s over Washington had shot something down. There was no later confirmation of these reports.

11:16 AM: American Airlines confirms the loss of its two airplanes.

11:17 AM: United Airlines confirms the loss of Flight 93 and states that it is “deeply concerned” about Flight 175.

11:53 AM: United Airlines confirms the loss of its two airplanes.
11:55 AM: The border between the United States and Mexico is on highest alert, but has not been closed.

12:00 PM (approximately): President Bush arrives at Barksdale Air Force Base in Louisiana. He was on a trip in Sarasota, Florida, to speak about education but is now presumed to be returning to the capital. He makes a brief and informal initial statement to the effect that terrorism on U.S. soil will not be tolerated, stating that “freedom itself has been attacked and freedom will be protected.”

12:02 PM: The Taliban government of Afghanistan denounces the attacks.

12:04 PM: Los Angeles International Airport, the intended destination of Flight 11, Flight 77, and Flight 175 is shut down.

12:15 PM: San Francisco International Airport, the intended destination of United Airlines Flight 93, is shut down.

12:15 PM (approximately): The airspace over the 48 contiguous United States is clear of all commercial and private flights.

1:00 PM (approximately): At the Pentagon, fire crews are still fighting fires. The early response to the attack had been coordinated from the National Military Command Center, but that location had to be evacuated when it began to fill with smoke.

1:04 PM: President Bush puts the U.S. military on high alert worldwide. He speaks from Barksdale Air Force Base and leaves for the Strategic Air Command bunker in Nebraska.

1:27 PM: Mayor Anthony A. Williams of Washington, DC, declares a state of emergency; the DC National Guard arrives on site.

2:30 PM: Senator John McCain characterizes the attack as an “act of war.”

2:49 PM: At a press conference in New York, Mayor Rudy Giuliani is asked to estimate the number of casualties at the World Trade Center. He replies, “More than any of us can bear.”

4:00 PM: National news outlets report that high officials in the federal intelligence community are stating that Osama bin Laden is the primary suspect in the attacks.

4:25 PM: The New York Stock Exchange, NASDAQ, and the American Stock Exchange report that they will remain closed on Wednesday, September 12.

5:20 PM: Salomon Brothers 7, commonly referred to as “7 World Trade Center,” a 47-story building that had sustained what was originally thought to be light damage in the fall of the twin towers and was earlier reported on fire, collapses. Structural engineers are puzzled, and the investigation continues. The building was not designed by the same team responsible for the twin towers. The building contained New York’s special emergency center, which may well have been intended for such a disaster as September 11.

6:00 PM: Explosions and tracer fire are reported in Kabul, the capital of Afghanistan, by CNN and the BBC. The Northern Alliance, involved in a civil war with the Taliban government, is later reported to have attacked Kabul’s airport with helicopter gunships.

6:00 PM: Iraq announces that the attacks are the fruit of “U.S. crimes against humanity” in an official announcement on state television.

6:54 PM: President Bush finally arrives at the White House. Executive authority through much of the day had rested with Vice President Cheney.
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7:00 PM: Frantic efforts to locate survivors in the rubble that had been the twin towers continue. Fleets of ambulances have been lined up to transport the injured to nearby hospitals. They stand empty. “Ground Zero” is the exclusive domain of the FDNY and NYPD, despite volunteer steel and construction workers who stand ready to move large quantities of debris quickly. Relatives and friends displaying enlarged photographs of the missing printed on home computer printers are flooding downtown. The New York Armory, at Lexington Avenue and 26th Street, and Union Square Park, at 14th Street, become vigil centers of vigil.

7:30 PM: The U.S. government denies any responsibility for reported explosions in Kabul.

8:30 PM: President Bush addresses the nation from the White House. Among his remarks: “Terrorist attacks can shake the foundations of our biggest buildings, but they cannot touch the foundation of America. These acts shatter steel, but they cannot dent the steel of American resolve.”

9:00 PM: President Bush meets with his full National Security Council, followed roughly half an hour later by a meeting with a smaller group of key advisers. Bush and his advisers have evidence that Osama bin Laden is behind the attacks.

11:00 PM: There are reports of survivors buried in the rubble in New York making cell phone calls. These rumors were later proved to be wrong.


The response to these attacks by fire, police, and emergency medical teams was immediate, and their combined efforts saved hundreds if not thousands of lives, especially at the World Trade Center (Figure 1–6). The following facts provide additional insight into the situation faced by the responders that day:

● Year the World Trade Center was built: 1970
● Number of companies housed in the World Trade Center: 430
● Number working in World Trade Center on average working day before September 11: 50,000
● Average number of daily visitors: 140,000
● Maximum heat of fires, in degrees Fahrenheit, at World Trade Center site: 2,300
● Number of days underground fires at World Trade Center continued to burn: 69
● Number of days that workers dug up debris at Ground Zero, searching for body parts: 230
● Number of body parts collected: 19,500
● Number of bodies discovered intact: 291
● Number of victims identified by New York medical examiner: 1,102
● Number of death certificates issued without a body at request of victims’ families: 1,616
● Number of people still classified as missing from the World Trade Center that day: 105
● Number of people who survived the collapse of the towers: 16 (Sources: http://observer.guardian.co.uk/waronterrorism/story/0,1373,776451,00.html and www.snopes.com/rumors/survivor.htm)

The addition of another stairway in each tower, the widening of existing stairways, and regular evacuation drills — actions implemented in the aftermath of the 1993 World Trade Center
bombing — are all credited with facilitating the evacuation of thousands of office workers in the towers before they collapsed. Federal, state, and nongovernmental groups (e.g., Red Cross, Salvation Army) also responded quickly, establishing relief centers and dispensing critical services to victims and first responders. The following list illustrates the relief efforts that ensued:

- Cases opened: 55,494
- Mental health contacts made: 240,417
- Health services contacts made: 133,035
- Service delivery sites opened: 101
- Shelters opened: 60
- Shelter population: 3,554
- Meals/snacks served: 14,113,185
- Response vehicles assigned: 292
- Disaster workers assigned: 57,434 (Source: www.redcrossalbq.org/04a_911statistics.html)

In addition to the stunning loss of life and the physical destruction caused by the attacks, two other losses are significant for their size and impact. First, 343 New York City firefighters and 75 New York City police officers were lost in the World Trade Center when the towers collapsed, setting a record for the highest number lost in a single disaster event in the United States. Their untimely deaths brought extraordinary attention to America’s courageous and professional firefighters, police officers, and emergency medical technicians. They became the heroes of September 11, and this
increased attention has resulted in increased funding for government programs that provide equipment and training for first responders. It has also resulted in a reexamination of protocols and procedures in light of the new terrorist threat. The examination of the after-action reports from the World Trade Center and the Pentagon in the next section of this chapter provides insight into the issues currently being addressed by the first responder community.

The second significant aspect of the September 11 attacks is the magnitude and the scope of the losses resulting from the attacks. The total economic impact on New York City alone is estimated to be between $82.8 and $94.8 billion. This estimate includes $21.8 billion in lost buildings, infrastructure, and tenant assets; $8.7 billion in the future earnings of those who died; and $52.3 to $64.3 billion gross city product (Curci, 2004). The economic impact of the attacks was felt throughout the United States and the world, causing jobs to be lost and businesses to fail in communities hundreds and thousands of miles from Ground Zero:

- Value of U.S. economy: $11 trillion
- Estimated cost of attacks to United States based solely on property losses and insurance costs: $21 billion
- Amount of office space lost, in square feet: 13.5 million
- Estimated number of jobs lost in lower Manhattan area following September 11: 100,000
- Estimated number of jobs lost in the United States as a result of the attacks, by the end of 2002: 1.8 million
- Number of jobs lost in U.S. travel industry in the final 5 months of 2001: 237,000
- Amount allocated by Congress for emergency assistance to airline industry in September 2001: $15 billion (Source: http://observer.guardian.co.uk/waronterrorism/story/0,1373,776451,00.html)

The federal government costs were extraordinary, and spending by FEMA on these events easily exceeded its spending on past natural disasters and disasters that have happened since (see also Table 1–1).

- Direct emergency assistance from FEMA: $297 million
- Aid to individuals and families: $255 million
- Direct housing: 8,957 applications processed; 5,287 applications approved (59%)
- Mortgage and rental assistance: 11,818 applications processed; 6,187 applications approved (52%)
- Individual and family grant program: 43,660 applications processed; 6,139 applications approved (14%)
- Disaster unemployment: 6,657 claims processed; 3,210 claims approved (48%)
- Crisis counseling: $166 million
- Aid to government and nonprofits: $4.49 billion
- Debris removal: $437 million
- Overtime for New York Police Department (NYPD): $295.4 million

The insurance losses resulting from the September 11 events were also extraordinary, especially when considered in light of the relatively small amount of physical property that was directly affected by the events themselves. Despite that many natural hazards affect hundreds, if not thousands and even tens of thousands of square miles of inhabited and developed land, thereby affecting thousands of structures and infrastructure components, these terrorist attacks that were isolated to one neighborhood in
New York City and one building in Arlington Virginia exceeded all but two events worldwide in terms of their insurance-related disaster losses (Tables 1–2 and 1–3). This comprehensive terrorist attack illustrates the far-reaching indirect, intangible consequences of terrorism, and their potential for damaging a nation’s economy.

- Amount of federal aid New York received within 2 months of the September 11 events: $9.5 billion
- Amount collected by the 11 September Fund: $501 million
- Percentage of fund used for cash assistance and services such as grief counseling for families of victims and survivors: 89
- Quantity, in pounds, of food and supplies supplied by 11 September Fund at Ground Zero: 4.3 million
- Number of hot meals served to rescue workers by 11 September Fund: 343,000
- Number of displaced workers receiving job referrals: 5,000
- Amount of compensation sought by the families of civilian casualties of U.S. bombing in Afghanistan from the U.S. government: $10,000
- Amount of compensation sought for reckless misconduct and negligence from American Airlines by husband of September 11 victim: $50 million (Source: http://observer.guardian.co.uk/waronterrorism/story/0,1373,776451,00.html)
Table 1–2  Ten Most Costly World Insurance Losses, 1970–2006\textsuperscript{a}

<table>
<thead>
<tr>
<th>Date</th>
<th>Country</th>
<th>Event</th>
<th>Insured Loss ($ millions)\textsuperscript{b}</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 25, 2005</td>
<td>United States, Bahamas, Gulf of Mexico, North Atlantic</td>
<td>Hurricane Katrina</td>
<td>$66,311</td>
</tr>
<tr>
<td>August 23, 1992</td>
<td>United States, Bahamas</td>
<td>Hurricane Andrew</td>
<td>$22,987</td>
</tr>
<tr>
<td>September 11, 2001</td>
<td>United States</td>
<td>Terrorist attack on WTC, Pentagon, and other buildings</td>
<td>$21,379</td>
</tr>
<tr>
<td>January 17, 1994</td>
<td>United States</td>
<td>Earthquake</td>
<td>$19,040</td>
</tr>
<tr>
<td>September 2, 2004</td>
<td>United States</td>
<td>Hurricane Ivan</td>
<td>$13,651</td>
</tr>
<tr>
<td>October 19, 2005</td>
<td>United States, Mexico, Haiti, Jamaica</td>
<td>Hurricane Wilma</td>
<td>$12,953</td>
</tr>
<tr>
<td>September 20, 2005</td>
<td>United States, Gulf of Mexico, Cuba</td>
<td>Hurricane Rita</td>
<td>$10,382</td>
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<tr>
<td>August 11, 2004</td>
<td>United States, Cuba, Jamaica</td>
<td>Hurricane Charley</td>
<td>$8,590</td>
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<tr>
<td>September 27, 1991</td>
<td>Japan</td>
<td>Typhoon Mireille</td>
<td>$8,357</td>
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<td>September 15, 1989</td>
<td>Puerto Rico, United States, et al.</td>
<td>Hurricane Hugo</td>
<td>$7,434</td>
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</table>

\textsuperscript{a}Property and business interruption losses, excluding life and liability losses. Includes flood losses in the United States insured via the National Flood Insurance Program.

\textsuperscript{b}Adjusted to 2006 dollars by Swiss Re.


Table 1–3  Ten Most Costly Catastrophes, United States\textsuperscript{a}

<table>
<thead>
<tr>
<th>Date</th>
<th>Peril</th>
<th>Insured Loss When Event Occurred ($ millions)</th>
<th>In 2006 Dollars\textsuperscript{b}</th>
</tr>
</thead>
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<td>August 2005</td>
<td>Hurricane Katrina</td>
<td>$41,100</td>
<td>$42,426</td>
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<td>August 1992</td>
<td>Hurricane Andrew</td>
<td>$15,500</td>
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<td>September 2001</td>
<td>World Trade Center</td>
<td>$18,800</td>
<td>$21,401</td>
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<tr>
<td>January 1994</td>
<td>Northridge Earthquake</td>
<td>$12,500</td>
<td>$17,004</td>
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<tr>
<td>Oct. 2005</td>
<td>Hurricane Wilma</td>
<td>$10,300</td>
<td>$10,632</td>
</tr>
<tr>
<td>August 2004</td>
<td>Hurricane Charley</td>
<td>$7,475</td>
<td>$7,978</td>
</tr>
<tr>
<td>September 2004</td>
<td>Hurricane Ivan</td>
<td>$7,110</td>
<td>$7,588</td>
</tr>
<tr>
<td>September 1989</td>
<td>Hurricane Hugo</td>
<td>$4,195</td>
<td>$6,820</td>
</tr>
<tr>
<td>September 2005</td>
<td>Hurricane Rita</td>
<td>$5,627</td>
<td>$5,809</td>
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<tr>
<td>September 2004</td>
<td>Hurricane Frances</td>
<td>$4,595</td>
<td>$4,904</td>
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\textsuperscript{a}Property coverage only.

\textsuperscript{b}Adjusted to 2007 dollars by the Insurance Information Institute.


Additional information concerning these attacks and their impact is provided in subsequent chapters of the book.

**First Responder Issues**

In July and August 2002, two September 11–related after-action reports were released: “Improving NYPD Emergency Preparedness and Response,” prepared by McKinsey & Company for the New York City Police Department, and “Arlington County After-Action Report on the Response to the
September 11 Terrorist Attack on the Pentagon,” prepared for Arlington County, Virginia, by Titan Systems Corporation. Both reports are based on hundreds of interviews with event participants and reviews of organizational plans. These reports provide lessons learned and present hundreds of recommendations.

The NYPD report did not pass judgment on the success or failure of the NYPD on September 11 but rather assessed the NYPD’s response objectives and instruments in order to identify 20 “improvement opportunities” for the NYPD, of which six merited immediate action:

- Clearer delineation of the roles and responsibilities of NYPD leaders
- Better clarity in the chain of command
- Radiocommunications protocols and procedures that optimize information flow
- More effective mobilization of members of the service
- More efficient provisioning and distribution of emergency and donated equipment
- A comprehensive disaster response plan, with a significant counterterrorism component


The Arlington County after-action report declared the response by the county and others to the Pentagon terrorist attack a success that “can be attributed to the efforts of ordinary men and women performing in extraordinary fashion” (Titan Systems Corporation, 2002). The terrorist attack on the Pentagon sorely tested the plans and skills of responders from Arlington County, Virginia; other jurisdictions; and the federal government.

The Arlington County report contains 235 recommendations and lessons learned. Of these many recommendations, the report highlights examples of lessons learned in two categories: things that worked well and contributed to the overall success of the response and challenges encountered and overcome by responders that could serve as examples for other jurisdictions in the future.

The events at the World Trade Center and the Pentagon vary significantly in size and impact, but from a responder’s perspective, they are similar in terms of surprises and challenges. There are striking similarities between the “improvement opportunities” listed in the NYPD report and the “lessons learned” in the Arlington County report (Figure 1–7). While the specifics vary, both responses identified issues in five key areas:

- Command
- Communications
- Coordination
- Planning
- Dispatching personnel

Many of the actions taken after September 11 by government officials and emergency managers at the federal, state, and local levels reflect the need for changes in order to prepare for the next terrorist event.

Conclusion

The terrorist attacks of September 11 have forever changed America and, in many ways, the world. This event has been termed the most significant disaster since the attack on Pearl Harbor, and the first disaster that affected the United States on a national scale. It seemed that every American knew someone or knew of someone who perished in the attacks, and surely every citizen felt the economic impact in the form of lost jobs, lost business, and an immediate reduction in the value of college savings and retirement accounts. Moreover, the perception that nobody was immune from the risk of becoming the next victim of terrorism spread quickly across the nation in the days and weeks that
followed the attacks. The feelings of vulnerability were only strengthened in the wake of the October 2001 anthrax incidents and the sniper attacks in the Washington, DC, metropolitan area on October 2002. In 2008, seven years after the events transpired, their aftermath continues to shape decisions on everything from immigration to civil liberties. Including such measures as the global war on terrorism that is a direct result of the attacks themselves, the total cost of government spending on the issue has reached far beyond $1 trillion.

The threat portfolio under the area of terrorism has only expanded, thereby presenting the nation with a whole new set of hazards about which to worry (e.g., biological, chemical, radiological, and nuclear weapons), and which must now be studied and understood in much greater detail in order to best prepare both our first responders and our citizens (see Chapter 4) for their prevention and response. New laws and executive orders that have been established and which still await their certain passage, each addressing the terrorism threat, must seek to strike a balance between our sense of security and our civil rights (see Chapter 2). A new and very large federal government agency, the Department of Homeland Security, has been formed from the parts of 22 other agencies and programs to coordinate and guide our nation’s efforts in fighting terrorism on the domestic front (see Chapter 3). And many new funding programs have been established, further guiding the operational focus for the nation’s first responders.

These significant changes are reflected not only in the daily lives of the American people but also in the way in which the country’s emergency management system operates. The emergency management community will continue to speculate whether or not this new focus on terrorism can be sustained, and whether the actual threat from terrorism merits the sacrifices the nation has made in terms of spending, prevention for and mitigation of other pressing hazards, and overall capacity of the function.

It is important to recall that FEMA, as noted earlier in this chapter, has traversed this path before, when its focus was shifted from all-hazards to nuclear attack planning in the 1980s — with disastrous results for the agency and the victims of Hurricane Hugo, the Loma Prieta earthquake, and Hurricane Andrew. Although it can be argued that FEMA, in its new location within the Department of Homeland Security, is avoiding this fate, only time and experience will be effective judges. FEMA required a full
INTRODUCTION TO HOMELAND SECURITY

14 years to become an effective agency. DHS has a long way to go before reaching that distinction. Nobody, however, can predict what challenges the future will bring. Even Hurricane Katrina, when measured against the full potential of nature’s fury, was nowhere near the largest disaster event that must be planned for. As America’s emergency management system continues to adapt to its ever-changing terrorism risk, these will be the critical issues that must be addressed to ensure that it can effectively reduce the impact of all future disasters and mount a timely response when these events occur.

Key Terms

Department of Homeland Security: A federal agency whose primary mission is to help prevent, protect against, and respond to acts of terrorism on United States soil.

Emergency Management: The discipline dealing with the identification and analysis of public hazards, the mitigation of and preparedness for public risk, and the coordination of resources in response to and recovery from associated emergency events.

Cold War: A struggle for power waged between the United States and the Soviet Union, which lasted from the end of World War II until the Soviet Union ultimately collapsed. This war was defined as being “cold” because the aggression was ideological, economic, and diplomatic rather than a direct military conflict.

National Flood Insurance Program (NFIP): A program that provides the availability of flood insurance in exchange for the adoption and enforcement of a minimum local floodplain management ordinance. The ordinance regulates new and substantially damaged or improved development in identified flood hazard areas.

TOPOFF (Top Officials): A national-level, multiagency, multipurposd, “real-time,” limited-notice WMD response exercise, designed to better prepare senior government officials to effectively respond to an actual terrorist attack involving WMD. In addition, TOPOFF involves law enforcement, emergency management first responders, and other nongovernmental officials. Short of an actual attack, such exercises are the best possible way to train responders, gauge preparedness, and identify areas for improvement.

Homeland Security Presidential Directive (HSPD): Policy decisions, issued by the president, on matters that pertain to Homeland Security. As of January 2008, there have been 21 HSPDs issued by the president.

Review Questions

1. Identify the role the U.S. Constitution defines for federal, state, and local governments in the area of emergency management and public safety.
2. Which president established the Federal Emergency Management Agency (FEMA) and on what date? Which president established the Department of Homeland Security (DHS) and on what date?
3. Why did the National Governors Association and its members push the federal government to create FEMA? Why was DHS established?
4. After reviewing the difficulties that FEMA encountered in becoming a functioning emergency management agency, what issues do you anticipate DHS will encounter in its evolution into a functioning government agency? Identify some lessons learned in the FEMA experience that could guide DHS actions in the future. Will history repeat itself as DHS matures as a government agency?
5. Throughout the history of emergency management in the United States, the priorities set for government emergency management agencies have been driven by the most widely perceived threat or hazard. How do you think the new threat of terrorism and the hazards associated with terrorism will impact the practice of emergency management in the United States at all levels of government (federal, state, and local) and in the business sector?
Chapter 1 * Historic Overview of the Terriost Threat

References


