

Chapter 6

Emergency Management Restructured: Intended and Unintended Outcomes of Actions Taken since 9/11

The national emergency management team that responded to the terrorist attacks of September 11, 2001, was not the product of unilateral federal action; rather, it evolved from the bottom up, demonstrating that emergency management is primarily a local responsibility. As discussed in the previous chapter, the federal legislation that created the organizations and systems in place on 9/11 recognized that the federal government was responsible for supporting state and local governments in a coordinated, effective manner in order to minimize human suffering and economic loss.

The evolution of the functions and profession of emergency management in the United States is described in detail in William W. Vaughn Jr.'s *Living with Hazards, Dealing with Disasters*, and in George Haddow and Jane Bullock's *Introduction to Emergency Management*. It is also demonstrated graphically in the *Disaster Time Line* and *Terrorism Time Line* products developed by Claire B. Rubin and Associates.¹ Major milestones in this evolution include:

- The development of a comprehensive emergency management taxonomy in the 1970s, based on an all-hazards approach and the four phases of disaster (mitigation, preparedness, response, and recovery)
- The establishment of the Federal Emergency Management Agency (FEMA) in 1979, consolidating federal mitigation, preparedness, response, and recovery activities into one agency reporting directly to the president
- The National Wildfire Coordinating Group's acceptance in 1982 of the revised FIRESCOPE incident command system as the organizing protocol of the National Interagency Incident Management System (NIIMS)
- The development of the Certified Emergency Management program by the International Association of Emergency Managers (IAEM) in 1993, offering certification for emergency managers
- The formation of the National Emergency Management Association (NEMA) as the professional association of state emergency management directors in 1974 and its formal affiliation with the Council of State Governments in 1990

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- The publication of the Federal Response Plan (FRP) in 1992, which provided a mechanism for organizing and coordinating the resources of twenty-three (later twenty-seven) federal agencies and departments and the American Red Cross
- The development in 1995/1996 of NFPA 1600, a *Standard on Disaster/Emergency Management and Business Continuity Programs*, by the National Fire Protection Association Standards Committee (with assistance from the Disaster Recovery Institute International and the Business Continuity Institute), which was significantly revised in 2004 and endorsed by FEMA, IAEM, and NEMA
- The creation of the state-to-state mutual aid program encapsulated in the Emergency Management Assistance Compact (EMAC) in 1995, which was adopted by NEMA and ratified by Congress in 1996
- NEMA's creation in 1997 of the Emergency Management Accreditation Program, a voluntary assessment and accreditation process for state/territorial, tribal, and local government emergency management programs
- The amendment of the FRP in 1999 by the inclusion of a terrorism annex to coordinate emergency management (or "consequence management") and law enforcement (or "crisis management") during a terrorist attack.

Although providing a uniform organization and doctrine for responding to and recovering from all types of disaster (the all-hazards approach) continued to be a guiding principle for FEMA's efforts to fulfill its legislative responsibilities throughout the 1990s, the overall federal approach to emergency management vested responsibility for individual hazards or classes of hazards among several federal agencies and plans (see Table 6-1). Depending on the type of threat, each of these plans specified a different federal lead agency and different relationship among federal, state, and local governments. Under the FRP, the federal government played a support role, through FEMA, for state and local responders. Under the National Contingency Plan (NCP), the federal and state governments responded to oil spills and hazardous material releases with equal authority, with the federal response coordinated by the U.S. Environmental Protection Agency (EPA) or the U.S. Coast Guard. In the case of a radiological incident, the Federal Radiological Emergency Response Plan (FRERP) specified federal leadership coordinated by the U.S. Department of Energy and FEMA.

NIIIMS, which was created by the National Wildfire Coordinating Group, standardized the doctrine for state and federal agency use of the incident command system (ICS), unified command, and multiagency coordination system (MACS) in fighting wildfires. It was assumed that during a wildfire the state or federal agency responsible for the affected geographic area would take the lead.

Type of Event	Federal Plan	Lead Agencies	Government Roles
Presidentially declared disaster (natural disaster, terrorist attack)	Federal Response Plan (FRP)	FEMA, FBI	State has lead role, supported by federal government resources
Environmental disaster (release of oil, toxic substances)	National Contingency Plan (NCP)	EPA, Coast Guard	Parallel federal government and state government roles
Nuclear/radiological release	Federal Radiological Emergency Response Plan (FRERP)	DOE, FEMA	State and local support of federal response
Wildfire	National Interagency Incident Management System (NIIMS)	USDA, National Wildfire Coordinating Group	Federal government leads on federal lands, states lead on state lands
Biohazard/epidemic	Health and Medical Services Support Plan; National Disaster Medical System	DHHS, CDC	Federal government support of state and local medical and public health response
Terrorist attack	Interagency Domestic Terrorism Concept of Operations Plan (CONPLAN)	DOJ/FBI, FEMA	Federal government leads; state and local governments request federal assistance

Table 6-1. U.S. Disaster Plans in 2001. Source: John Harrell, "Agility and Discipline: Critical Success Factors for Disaster Response," in *Annals of the American Academy of Political and Social Sciences* (Spring 2006): 256-272.

In general, since the 1970s the system has changed in an evolutionary manner, with issues over authority and responsibility being settled on an incident-by-incident basis. For example, the Coast Guard, EPA, and FEMA had worked out a protocol to link the FRP and NCP authorities when oil spill response efforts occurred within the context of a presidential disaster declaration; however, FEMA quickly ceded all responsibility for the 1989 Exxon Valdez spill to the Coast Guard when a presidential declaration was not forthcoming.² In another case, FEMA and the FBI, through the establishment of the Terrorism Annex to the FRP and CONPLAN, tried to integrate law enforcement and response activities by ensuring that the FBI had the lead for crisis management activities while FEMA retained the status as lead agency for the consequence management phase. This artificial division had little meaning in the field, but through this superficial attempt at integration, the U.S. Department of Justice and FEMA appeared to be collaborating while ceding no authority to each other.

The Response to 9/11

The federal government responded to the 9/11 attacks on the World Trade Center and the Pentagon under the framework described above. The assets of the federal government were coordinated in both locations, using the protocols of the FRP. Some organizational problems occurred, and in both cases, the coordination of federal, state, and local governments required extensive improvisation and creativity.

The integration of the DoD, local law enforcement, and emergency management forces into a high-performing ICS-based organization during the response to the attack on the Pentagon was accomplished without conflict.³ The ICS has long served as basic protocol for firefighting organizations, and the establishment of an ICS-based organization was standard operating procedure for the Arlington County [Virginia] Fire Department (ACFD). The findings from the after-action report funded by the National Academy of Sciences and conducted by The George Washington University summarize the reasons for the effective response effort at the Pentagon:

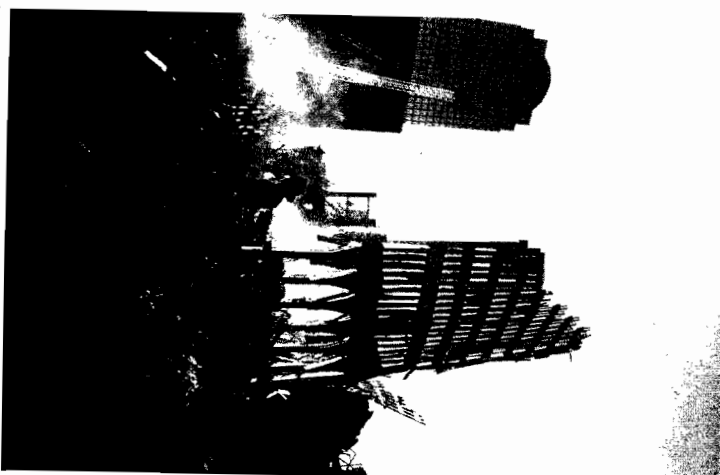
- The response system designed for natural disasters was effective for managing the consequences of a terrorist attack. The ability of the ACFD to establish an ICS-based organizational structure and the acceptance of this organization by federal responders (including DoD) was the key to success.
- Unified command worked well for coordinating multiple disparate assets.
- Federal assets and teams were obtained through the FRP structure and used effectively.
- An effective on-scene response organization was rapidly created, and goals were defined and met.
- The organization that evolved was based upon ICS, but creativity and coordination resulted in a flexible, effective organization. "Management" rather than "command" approaches may have contributed to the successful coordination of multiple disparate organizations.
- Organizations with diverse organizational cultures (fire, search and rescue, military, medical, and law enforcement) were effectively coordinated. Pre-established personal relationships greatly eased potential organizational problems.
- Information management and media relations were critical to actual and perceived success.⁴

The initial response to the attack on the World Trade Center in New York City was made by the city's fire department, emergency medical system, police department, and office of emergency management, as well as by the New York/New Jersey Port Authority police. The response was complicated by the loss of the emergency operations center (EOC) in Building 7 of the World Trade Center, which was a state-of-the-art facility when it was constructed in 1999. Following the collapse of the towers, the loss of 343 New York City firefighters, 37 Port Authority police, and 23 New York City police further exacerbated the multiagency response.⁵

The federal government was immediately involved in response operations, using the procedures of the FRP. FEMA urban search and rescue teams were requested within fifteen minutes after the first plane struck the north tower.⁶ Since FEMA's regional office in New York City had been disabled by the communications outage, FEMA headquarters in Washington, D.C. assumed the lead federal role for the response.

The federal response to the World Trade Center attack was massive, but federal, state, and local coordination was impeded by the inability of different agencies to communicate with one another during the immediate response.⁷ The improvisation and creativity required to restore intergovernmental coordination during the relocation of the EOC, first to the New York City Police Academy and then to Pier 92, is described in detail in Tricia Wachtendorf's doctoral dissertation, *Improvising 9/11*, and in a 2002 working paper by Wachtendorf and James Kendra.⁸

Faced with the most devastating attacks on U.S. soil in modern history, the existing federal emergency management structure performed well at the



The debris from the collapsed World Trade Center dwarfs rescue workers. Photo courtesy of the Federal Emergency Management Agency.

Pentagon and adequately at the World Trade Center. The FRP's problematic differentiation of responsibilities for crisis management (FBI law enforcement) and consequence management (FEMA disaster response) was not a major issue. The attacks occurred without warning, the perpetrators died in the attack, and rescue and recovery operations took precedence over preserving the crime scene.

The ACFPD proved exceedingly capable in coordinating a highly complex, interorganizational response using an ICS structure and the principles of unified command. Although interagency coordination was a problem at the World Trade Center, the state and local governments were not overwhelmed; their preparation, professionalism, and competence were exceptional. New York City also had the ability to quickly reestablish its EOC and fully participate in a unified command with the federal and state governments.

Overall, local infrastructure did not fail. Communication, power, water, and transportation systems just a few blocks away from Ground Zero in New York and from the Pentagon remained intact. In addition, the high fatality rate among those who did not evacuate resulted in relatively few injuries at both locations, and the immediate needs of survivors were relatively minimal; as a result, the medical systems in both New York City and northern Virginia had the capacity to manage the injuries. It was primarily the response and recovery workers, not disaster victims, who needed water, food, and shelter.

The Federal Government Reaction to 9/11

As part of its reaction to the 9/11 attacks, the U.S. government reexamined its structure for preparing for and responding to extreme events. The examination identified a need for a fuller integration of law enforcement and emergency management during the response to a terrorist attack and for the creation of a true national response system that can integrate the efforts of local, state, and federal civilian and military response forces.

As shown in Table 6-2, which lists key milestones in the development of a national response system following 9/11, President George W. Bush established the White House Office of Homeland Security and the Homeland Security Council in October 2001. The national strategy for homeland security, issued by the Office of Homeland Security in July 2002, identified the following vision for a national response system:

We will strive to create a fully integrated national emergency response system that is adaptable enough to deal with any terrorist attack, no matter how unlikely or catastrophic, as well as all manner of natural disasters.⁹

July 2002	National Strategy for Homeland Security
October 2002	DoD Northern Command (NORTHCOM) operational
November 2002	Homeland Security Act of 2002
January 2003	Department of Homeland Security operational
February 2003	Homeland Security Presidential Directive 5 (HSPD-5, Management of Domestic Incidents)
May 2003	Initial National Response Plan (NRP)
July 2003	National Incident Management System (NIMS) initial system
December 2003	HSPD-7, Critical Infrastructure Identification, Prioritization and Protection
February 2004	HSPD-8, National Preparedness
February 2004	Final Draft of NIMS
March 2004	Draft of NRP
March 2004	Final NIMS
December 2004	Final NRP
January 2005	Final Draft: Catastrophic Incident Supplement to the NRP
March 2005	Interim National Preparedness Goal
November 2005	Draft National Infrastructure Protection Plan (NIPP)

Table 6-2. Post-9/11 National Response System Critical Dates.

The national strategy called for the government to:

- Integrate separate federal response plans into a single all-discipline incident management plan
- Create a national incident management system
- Improve tactical counterterrorist capabilities
- Enable seamless communication among all responders
- Prepare health care providers for catastrophic terrorism
- Augment America's pharmaceutical and vaccine stockpiles
- Prepare for chemical, biological, radiological, and nuclear contamination
- Plan for military support to civil authorities
- Build the Citizen Corps
- Implement the First Responder Initiative of the FY 2003 budget
- Build a national training and evaluation system.¹⁰

These were the first steps in a series of actions that produced the National Response System first tested during the late summer of 2005 by Hurricane Katrina. The remainder of this chapter describes how these actions produced the response system, discusses the system's strengths and weaknesses, and identifies some of the major policy choices that were made.



The 9/11 terrorist attacks on the World Trade Center changed the focus and conduct of U.S. disaster management more than any other single event in the history of the nation. Photo courtesy of the Federal Emergency Management Agency.

The formation of the U.S. Department of Homeland Security (DHS) occurred concurrently with the development of the national response system. The new department incorporated many existing agencies and agency functions. For some agencies, this transition went relatively smoothly. The Secret Service was moved with form and function intact. The Coast Guard moved from the U.S. Department of Transportation to DHS without losing its unique status as an independent entity, and it gained a direct reporting relationship to the secretary of homeland security. With this reorganization, DHS became a cabinet-level agency responsible for reacting to a wide range of disasters.

FEMA, however, lost much of its bureaucratic and operational strength. Although it kept its name, it lost its independent agency status, becoming instead the core agency in DHS's Emergency Preparedness and Response Directorate, where it joined with unfunded elements from the Department of Justice (National Domestic Preparedness Office), Health and Human Services (Office of Emergency Preparedness and Strategic National Stockpile), and other departments and agencies.¹¹ The Office of Domestic Preparedness moved from the Department of Justice to DHS as part of the State and Local Government Coordination and Preparedness Office in a different directorate, becoming a competitor to FEMA for mitigation and recovery funding.

Richard Sylves and William Cumming point out that when FEMA had previously occupied the role taken over by DHS, it had become a presi-

dent-serving and president-dependent agency.¹² However, President Bush's directive HSPD-5 formally transferred this role from FEMA to DHS by designating the secretary of homeland security as the "principal Federal official for domestic incident management . . . responsible for coordinating Federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies."¹³ HSPD-5 also directed the secretary to "establish a single, comprehensive approach to domestic incident management . . . [that] treats crisis management and consequence management as a single, integrated function, rather than as two separate functions."¹⁴ Following on the congressional mandate in the Homeland Security Act of 2002, HSPD-5 specifically directed DHS to develop a national incident management system based on a core set of principles "covering the incident command system; multi-agency coordination systems; [and] unified command" and to develop an "all-discipline, all-hazards" national response plan.¹⁵

Within this organizational context, DHS created a process that would establish a true national response system and embarked on implementation efforts. It convened an interagency working group to create a national incident management system and contracted with RAND Corporation to facilitate the development of a draft national response plan. Parallel to these efforts, the interagency national response team conducted a review and reconciliation of existing federal response plans.¹⁶

Table 6-3 shows the key elements of the HSPD-5 work plan, as well as the target dates for completing the work and the dates in which each milestone was met. Unfortunately, the unrealistic deadlines set out in the directive resulted in a process that limited state and local participation in policy formulation, limited time for review and comment, and relied on contractors to draft key documents.

Product Required	HSPD-5 Target Date	Date Achieved
Initial version of NRP	4/1/03	5/14/03
Draft NIMS standards, guidelines, and protocols	6/1/03	7/11/03
Identify legislative changes necessary to implement draft NRP	9/1/03	2/25/04
Final draft NIMS		2/10/04
Final NIMS		3/04
Final NRP		12/04
All departments NIMS compliant	8/1/03	10/1/05
All recipients of federal grants and contracts to be NIMS compliant	10/1/04	10/1/06

Table 6-3. National Response Plan (NRP) and National Incident Management System (NIMS) Implementation Timeline.

The National Incident Management System

NIMS, the national incident management system that emerged from this process, established a national standard for the uniform adoption of the Incident Command System (ICS), which had been developed in the 1970s to coordinate the mobilization of resources to fight wildfires. In 1982, the National Wildlife Coordinating Group adopted the ICS as the National Interagency Incident Management System (NIIMS). The National Fire Academy and the National Fire Protection Association both recommended the ICS as a firefighting standard; the ICS was also adopted by the U.S. Coast Guard for oil spill response and by FEMA's national urban search and rescue teams. It became the standard incident management system for local firefighters and other first responders.¹⁷

Prior to the 1994 establishment of NIMS, the ICS had not been used as an organizing system for natural disasters at the federal level, however. Many social scientists saw it as a "command-and-control" system that was ill suited to the complex, unexpected issues encountered in large disaster response operations.¹⁸ The national adoption of NIMS temporarily ended the debate on how to organize for response and established a standard set of ICS structures and protocols to be followed by all response organizations throughout the country.

NIMS goes beyond ICS, unified command, and the multi-agency coordination system (MACS). NIMS also specifies principles of preparedness consistent with the national preparedness goal. Currently, NIMS compliance is required as a prerequisite for federal grant and contract funding. A NIMS implementation center within DHS provides doctrine, guidance, and training to response organizations nationwide.¹⁹

The creation of the NRP in 2004 proved to be a more difficult task than implementing NIMS and ICS. The initial draft NRP created by the RAND Corporation departed significantly from the philosophy and structure of the FRP. In particular, the plan rejected the all-hazards approach for an agent-specific incident response doctrine. In addition, it did not incorporate the emergency support function structure used in the FRP to assign federal responsibilities and identify potential federal resources. Since most states used an all-hazards approach and had spent the prior decade organizing their emergency management systems to reflect the federal emergency support function (ESF) structure, the proposed elimination of the ESF structure resulted in strenuous opposition from state, local, and tribal authorities. States also questioned the need for a primary federal official (PFO) as an on-scene representative of the president, viewing that role as redundant to that of the federal coordinating officer (FCO) as the lead federal official specified by the FRP and continued by the NRP) and the on-scene coordinator (the lead

federal official for oil and hazardous spill response specified by the national contingency plan).

Subsequently, the revised NRP retained many of the features of the FRP (including the emergency support function structure), while also adopting the goals of integrating crisis and consequence management and response to terrorist threats. Additionally, the plan was broadened to include the full incident management spectrum of prevention and mitigation, preparedness, response, and recovery. This was done through fifteen emergency support function annexes that assign functional and operational responsibilities, nine support annexes that describe general incident management support requirements, and seven incident support annexes that describe issues unique to each incident type (see Table 6-4). Despite opposition from the states, the final plan contained the principal federal official PFO concept.

In December 2004, the NRP was signed by twenty-eight federal agencies, the CEO of the American Red Cross, the postmaster general, the CEO of the

Emergency Support Function Annexes	
ESF 1: Transportation	ESF 9: Urban Search and Rescue
ESF 2: Communications	ESF 10: Oil and Hazardous Materials Response
ESF 3: Public Works and Engineering	ESF 11: Agricultural and Natural Resources
ESF 4: Firefighting	ESF 12: Energy
ESF 5: Emergency Management	ESF 13: Public Safety and Security
ESF 6: Mass Care, Housing, and Human Services	ESF 14: Long-term Community Recovery and Mitigation
ESF 7: Resource Support	ESF 15: External Affairs
ESF 8: Public Health and Medical Services	
Support Annexes	
Financial Management	Science and Technology
International Coordination	Tribal Relations
Logistics Management	Volunteer and Donations Management
Private Sector Coordination	Worker Safety and Health
Public Affairs	
Incident Annexes	
Biological Incident	Nuclear/Radiological Incident
Catastrophic Incident	Oil and Hazardous Materials Incident
Cyber Incident	Terrorism Incident Law Enforcement and Investigation
Food and Agriculture Incident	

Table 6-4. Functional and Incident Annexes of the National Response Plan Emergency Support Function Annexes

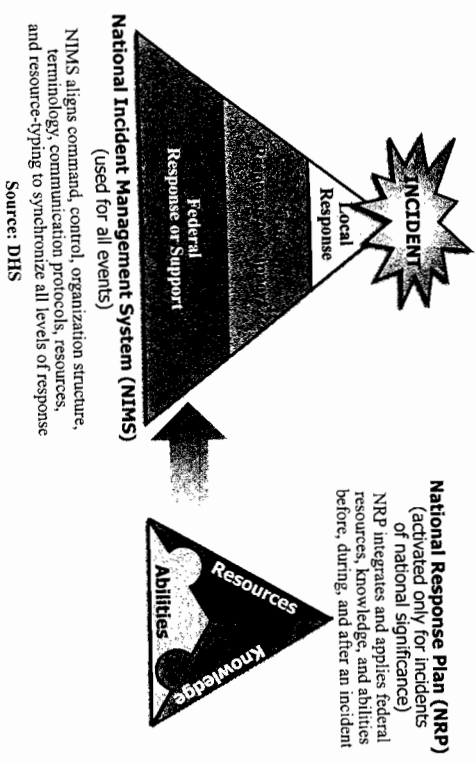


Figure 6-1. Relationship Between NIMS and NRP. Corporation for National and Community Services, and the president of the National Voluntary Organizations Active in Disasters.

Implementation of the NRP and NIMS provided for the first time both the structure and the doctrine to effectively and consistently apply federal capability and resources to preparation for, response to, and recovery from incidents of national significance (see Figure 6-1). The NRP policy integrated federal resources, knowledge, and ability; NIMS provided the doctrine to enable command and control, align structures, define terminology, and specify operational protocols.

The publication and implementation of the NRP and NIMS were part of a larger DHS strategy for establishing a common approach to national incident management. The national infrastructure protection plan (required by HSPD-7) and the national preparedness goals, planning tools, and guidelines (required by HSPD-8) were other key components of the national strategy (see Figure 6-2).²⁰

In concordance with these measures, the federal government began disbursing preparedness funds directly to state and local governments through a variety of grant mechanisms, including State Homeland Security grants, Urban Area Security Initiative grants, Port Security grants, Emergency Management Performance Initiative grants, Assistance to Firefighter grants, Metro-Management Medical Response System grants, Law Enforcement grants, and of course, congressional earmarks. The federal government also funded ICS, weapons of mass destruction (WMD) training, and other training for police, fire, emergency medical services, and other first responders. The implicit as-

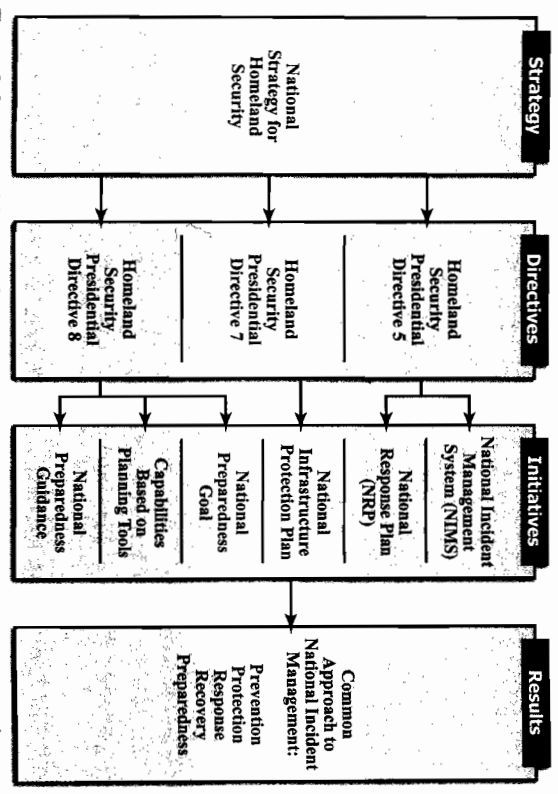


Figure 6-2. National Strategy for Homeland Security: Directives, Initiatives, and Results. Source: Interim National Preparedness Goal, DHS, March 31, 2005, Figure 1, p. 3.

sumption was that development of strategy and doctrine at the higher levels of government in Washington, combined with local funding and training, would result in improved preparedness and response capability.

The Stafford Act Amendments

Although approved by Congress on October 10, 2000, essential provisions of the Disaster Mitigation Act of 2000 (P.L. 106-390)—commonly known as the 2000 Stafford Act Amendments—did not become fully effective until 2002 and were therefore part of the post-9/11 evolution of emergency management. The legislation promoted pre-disaster planning and mitigation and required state and tribal governments to have FEMA-approved mitigation plans in place by 2004 to receive federal disaster assistance. Other provisions of the Stafford Act were meant to control federal costs for response and recovery operations and enhance the role of voluntary agencies. However, the act had significant impacts on the federal government's ability to provide individual assistance to disaster victims as it restricted the types of assistance provided, capped housing assistance, and restricted eligibility for assistance.²¹ These concerns were addressed in the Post-Katrina Emergency Reform Act of 2006. This later act and other initiatives recombined preparedness and response under an independent and strengthened FEMA within DHS.

The System in Transition: The Hurricanes of 2004

As the nation entered the 2004 hurricane season, its response system was in transition. Housed within DHS, FEMA maintained its Stafford Act responsibilities, including the obligation to appoint a federal coordinating officer for each state included in a presidential disaster declaration. NIMS had become a national standard, but its implementation was not yet required. The final NRP was in draft form; the governing policy document essentially continued the policies and practices of the FRP with changes made to acknowledge the location of FEMA within DHS. The secretary of DHS was designated as the principal federal official for all incidents of national significance, but no changes were made to FEMA's leadership role or to the functional structure of the FRP.

The 2004 hurricane season was among the most devastating in history. In August and September, five major storms struck the coast of Florida in just



Figure 6-3. Florida's 2004 hurricane season was unprecedented. Five storms struck the state in forty-eight days; the four hurricanes shown and Tropical Storm Bonnie, which preceded them. Collectively these storms exceeded the costs associated with Hurricane Andrew (the most expensive storm previously) and posed a major test for the federal emergency management system that emerged after September 11, 2001.

forty-eight days: Tropical Storm Bonnie (August 12), Category 4 Hurricane Charley (August 13), Category 2 Hurricane Frances (September 5), Category 3 Hurricane Ivan (September 16), and Category 3 Hurricane Jeanne (September 26).²² These storms cumulatively caused more damage than Hurricane Andrew, resulting in 117 fatalities and \$23 million in insurance claims in Florida alone.²³

The federal response was coordinated completely within FEMA. The agency's organizational location within DHS helped it to obtain and coordinate other DHS resources, such as the U.S. Coast Guard, but in general, the disaster response was managed using pre-DHS procedures and protocols. The scale of the response was immense. FEMA established a disaster field office in Orlando, assigned a federal coordinating officer for each affected state (Florida sustained the greatest impact, but Alabama and Georgia were also affected), successfully established a unified command with the state coordinating officer, and established twenty-three logistics staging areas.²⁴

The state of Florida had an experienced and capable emergency management system and was able to coordinate closely with FEMA. The 2004 hurricanes also became the first major test of the Interstate Emergency Management Assistance Compact (EMAC), which had been established by 1996 federal legislation (P.L. 104-321).²⁵ During the response to the Florida hurricanes, assistance through EMAC was closely coordinated with the federal response effort through the Florida director of field operations; reimbursement for mutual aid through EMAC was coordinated outside of the federal system on a state-to-state basis.

In general, government agencies, operating under the transitional emergency management plan, responded reasonably well to the 2004 hurricane swarm. There was relatively little political or personal conflict between the national and state political leaders, which facilitated coordinated response operations. In addition, Florida's emergency management system had been much improved and tested since Hurricane Andrew in 1992. Sufficient infrastructure existed within the state to support the Federal Coordinating Officer's actions and Disaster Field Office (DFO) operations within the affected area. Because neighboring states did not sustain heavy damages, they were able to provide assistance through EMAC.

As with almost any response operation, the response to the 2004 hurricanes had to overcome unanticipated obstacles. Almost 10 million people were evacuated, and at times, the scale of the disaster exceeded the Red Cross's ability to provide shelter and FEMA's ability to distribute water and food. But the problems that occurred during the state and federal response did not overwhelm or disable response operations. Most of the problems resulted from strained capacity and capability and, to some degree, a bureaucratic federal decision-making structure.

Long-term recovery was less successful, however. The system for funding the transition from immediate response to long-term recovery was inadequate. At the start of the 2005 hurricane season, thousands of Floridians displaced by the 2004 hurricanes were still in “temporary” housing trailers, and thousands of homes still had temporary roofs (commonly referred to as FEMA blue tarps). The failure to coordinate permanent housing and repair programs indicated that the nation was still inadequately prepared to meet long-term recovery needs.²⁶

The New National Response System

The response to the hurricanes of 2004 was the last major effort conducted under the framework of the FRP (as institutionalized by the interim plan). The final NRP was signed in December 2004, directing federal agencies to become NIMS compliant. This represented a significant change in the way the nation prepared for and responded to extreme events. The new system would be severely tested in 2005.

In 2004, in an “invited comment” in the *Natural Hazards Observer*, Charles Hess and Jack Harrauld raised several questions about both the need for and future effectiveness of the new national response system:

- Will a centralized, highly structured, closed system entrusted solely to trained professionals work effectively for managing complex events?
- Was such a sweeping change necessary to achieve immediate policy goals?
- What will be the unintended consequences of this policy initiative?²⁷

According to Harrauld, the new system was potentially much more of a closed system than the system it replaced. NIMS has important features that enhance its ability to be scaled to hazard- and response-driven requirements.

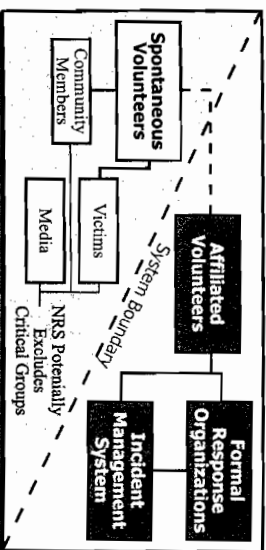


Figure 6-4. The National Response System. A system is a collection of interrelated components that work together to accomplish a common goal. Source: Lauren Fernandez, 2007. Volunteer Management System Design and Analysis for Disaster Response and Recovery. Unpublished Dissertation, The George Washington University, 58.

As shown in Figure 6-4, however, it creates an artificial barrier between formal and informal response systems, potentially excluding critical groups. Specifically, it restricts formal access to those trained and certified in NIMS, potentially excluding local volunteers and emergent groups that have historically played an important role in disaster response.²⁸

Factors in the Development of the National Response System

The development of emergency management policy and structure following 9/11 was the extension of a thirty-year trend. Since the 1970s, the U.S. emergency management community had increased its ability to structure and manage a large response through improved plans and adoption of the ICS. The result of this evolution is the national response system.

Over the past several decades, social scientists and other disaster researchers have documented and described the nonstructural factors, such as improvisation, adaptability, and creativity, that are critical to successful coordination, collaboration, communication, and problem solving in response operations. These two streams of thought represent two dimensions—discipline and agility—that are both necessary in effective emergency response. Nevertheless, the post-9/11 evolution of the U.S. national response system has focused almost exclusively on building discipline in a closed organizational system. The more structured and less creative process that results tends to produce a bureaucratic and procedural response (Figure 6-5).

The ability of the new system to scale to a truly catastrophic incident was also questionable.²⁹ Actions taken following 9/11 had significantly strengthened the capabilities of police, fire, and other first responders and

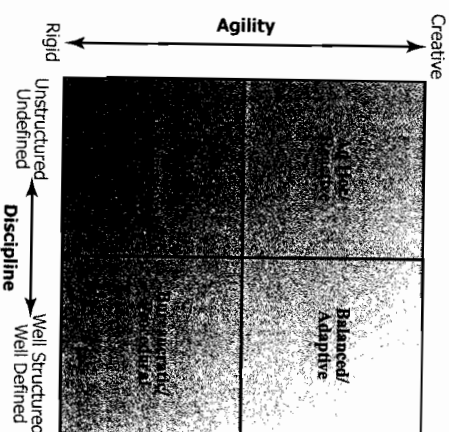


Figure 6-5. Agility and discipline define response organization types. Source: John Harrauld, “Agility and Discipline: Critical Success Factors for Disaster Response,” *Annals of the American Academy of Political and Social Sciences* (Spring 2006): 268.

National Response Plan, Catastrophic Incident Annex

The following excerpt from the NRP's Catastrophic Incident Annex gives insight into the complexity of planning for a catastrophic event.

- The response capabilities and resources of the local jurisdiction (to include mutual aid from surrounding jurisdictions and response support from the state) may be insufficient and quickly overwhelmed. Local emergency personnel who normally respond to incidents may be among those affected and unable to perform their duties.
 - A catastrophic incident may cause significant disruption of the area's critical infrastructure, such as energy, transportation, telecommunications, and public health and medical systems.
 - A detailed and credible common operating picture may not be achievable for 24 to 48 hours (or longer). As a result, response activities must begin without the benefit of a detailed or complete situation and critical needs assessment.
 - Federal support must be provided in a timely manner to save lives, prevent human suffering, and mitigate severe damage. This may require mobilizing and deploying assets before they are requested via normal NRP protocols.
 - Large numbers of people may be left temporarily or permanently homeless and may require prolonged temporary housing.
 - A catastrophic incident may produce environmental impacts . . . that severely challenge the ability and capacity of governments and communities to achieve a timely recovery.
 - A catastrophic incident has unique dimensions/characteristics requiring that response plans/strategies be flexible enough to effectively address emerging needs and requirements.
 - A catastrophic incident results in a large number of casualties and/or displaced persons, possibly in the tens of thousands.
 - A catastrophic incident may occur with little or no warning. Some incidents, such as rapid disease outbreaks, may be well underway before detection.
 - Large-scale evacuations, organized or self-directed, may occur. The health-related implications of an incident aggravate attempts to implement a coordinated evacuation management strategy.
- Source: DHS, Catastrophic Incident Annex to the NRP, 2.

had provided funding to state homeland security and emergency management agencies, but they had not added significant capacity or capability to FEMA. The nature and challenge of a potential catastrophic incident was captured by DHS in the draft of the Catastrophic Incident Annex to the NRP (see accompanying sidebar):

Prior to the publication of this annex, E. L. Quarantelli identified the political and social implications of a catastrophic disaster:

- Most or all of the built environment is heavily impacted.

- Local officials are unable to undertake their usual roles and responsibilities (this often extends into the recovery period); outsiders to the community might have to assume leadership roles as a result.
- Help from nearby communities cannot be provided.
- Most, if not all, of the everyday community functions are sharply and concurrently interrupted.
- The mass media system constructs catastrophes even more than they do disasters; the public perception of a catastrophic event is determined by what and how the media reports an event.
- The political arena becomes even more important. National government and top officials become involved.²⁹

Challenges to the System: 2005

By the end of 2004, the federal government had identified the challenges posed by potential catastrophic terrorist attacks as well as by natural and technological disasters. It had gone through a major reorganization and developed extensive policies and guidelines designed to improve the country's ability to prevent, mitigate, prepare for, respond to, and recover from such events. The nation had invested billions to improve first-responder capacity and capability. But despite the post-9/11 infusion of funding for DHS and state and local emergency management and response operations, earlier catastrophic natural disaster planning efforts were put aside as DHS focused on preventing and preparing for a terrorist attack. Minimal efforts were made to ensure that the nation had the capacity and capability to respond to a catastrophic natural disaster.

The restructuring of the national response system had produced both intended and unintended outcomes, all of which would become apparent during the response to Hurricane Katrina in 2005. One structure and doctrine was provided for all organizations, but some federal agencies and key state and local organizations had not yet implemented the structure when Katrina struck. The federal government had created new positions of authority and coordination mechanisms: the DHS secretary became responsible for all incident management, the principal federal official (PFO) became the lead presence on the ground, and the Homeland Security Operations Center became the primary information coordination center for the federal government. However, the authority of the PFO was not clearly specified by the NRP and was not understood by state officials. The process of obtaining DoD resources was modified, and Northern Command (NORTHCOM) became the key coordinating command for military assistance.

System discipline had been increased through training and credentialing, but the insistence upon NIMS compliance and proper credentials created problems for volunteer organizations. In addition, while some states had progressed in developing their response capabilities, capacity, and competencies, others had not.

The restructuring of the national response system also had unintended consequences that would prove to be critical during the response to Hurricane Katrina. First, the specification of detailed doctrine, structure, and process reduced system agility, creativity, and flexibility and increased the tendency toward bureaucratic solutions. The scalability and expandability attributes of NIMS would have to be used to counter this tendency. In addition, the NIMS structure implied, but did not define, an information flow that would ensure a common situational awareness at all levels of the distributed decision network (including the Joint Field Office, National Response Coordination Center, Homeland Security Operations Center, and the White House).

The new structure inadvertently increased the layers between operational and political leaders. Whereas FEMA was once a cabinet-level organization with direct access to the president, the director was now three levels down in a very complex departmental structure. The federal coordinating officer in the Joint Field Office had to communicate through the PFO, the National Response Coordination Center, the Homeland Security Operations Center, and the DHS secretary to pass time-sensitive information to the White House.

The intent of the NRP was that the PFO would be a coordinating official and decision making would continue to reside with the federal coordinating officer, but, as the representative of the president, the PFO is seen as the leader of operations, not a coordinator. As a result, the PFO became the key on-scene decision maker. This is yet another bureaucratic layer in the response system, increasing the confusion about who has the authority to make decisions.

DHS and DoD had created parallel planning and preparedness efforts, but the boundary between homeland security and domestic defense was not clearly drawn. The procedures for engaging NORTHCOM and using DoD assets under DHS control also were not clearly defined.

The nation entered the hurricane season of 2005 with a new, but basically untested, national response system that made emergency management an integral part of homeland security. The system was to be the responsibility of and directed by DHS, but there had been little effort to identify the skills, knowledge, responsibilities, and experience that, by implication, would be required of senior DHS managers. By focusing on doctrine and process,

DHS left unresolved major policy questions that would become crucial political issues before the close of 2005. These questions include the following:

- What actions should the federal government be prepared to take and what services should it provide following a catastrophic incident?
- How are federal responsibilities best coordinated with states?
- Does the all-hazards approach and comprehensive emergency management make sense when terrorism is included?
- Should we separate organizational responsibilities for mitigation, preparedness, response, and recovery?
- Can a response and recovery directorate within DHS operate as effectively as an independent FEMA with direct access to the president?
- What is the appropriate role for DoD, particularly NORTHCOM, during response to an extreme event?
- What level of preparedness should we expect from state and local governments, and how do we achieve it?

The national response system was severely tested when Hurricane Katrina struck Mississippi and Louisiana at the end of August, 2005. The inability of the federal, state, and local governments to relieve the immediate suffering of hurricane victims, to effectively coordinate humanitarian assistance, and to initiate effective recovery actions became the source of media criticism, congressional hearings, and internal reviews. In response, the Department of Homeland Security initiated a complete review of the National Response Plan in 2007³⁰ and has initiated a comprehensive catastrophic disaster preparedness project. The goal of creating a national response system capable of dealing with a catastrophic natural disaster or terrorist attack remains an elusive.

Endnotes

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- 7 *Ibid.*, 397.
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- 13 "Homeland Security Presidential Directive/HSPD-5," whitehouse.gov/news/releases/2003/02/20030228-9.html.
- 14 *Ibid.*
- 15 *Ibid.*
- 16 U.S. National Response Team, *Reconciliation Analysis of the Federal Response Plan, National Oil and Hazardous Substances Contingency Plan, U.S. Government Interagency Domestic Terrorism Concept of Operations Plan, and the Federal Radiological Emergency Response Plan* (Washington, D.C.: U.S. National Response Team, July 31, 2003).
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- 18 Russell R. Dynes, "Community Emergency Planning: False Assumptions and Inappropriate Analogies," *International Journal of Mass Emergencies and Disasters* 12 (August 1994): 141–158.
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- 20 Available at dhs.gov/xlibrary/assets/NRP_Fulltext.pdf.
- 21 New York City Voluntary Organizations Active in Disaster (VOAD), "Amendments to the Stafford Act, The Disaster Mitigation Act of 2000: What the Changes Mean for Families and Their Homes," private correspondence, 2004.
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- 25 As discussed in the previous chapter, EMAC, coordinated by the National Emergency Management Association (NEMA), is a mechanism for states to request assistance directly from other states without the intervention of the federal government.

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