

Hurricane Katrina: A Nation Still Unprepared

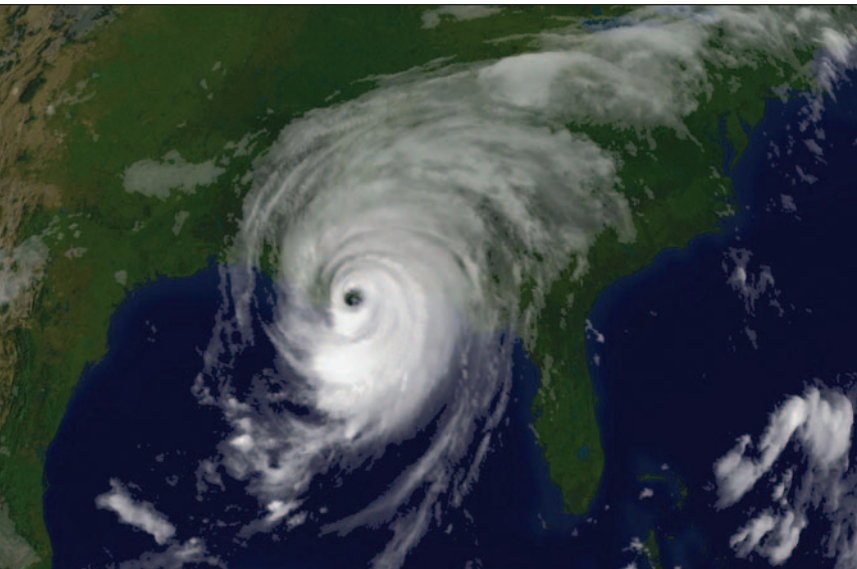
Executive Summary



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Hurricane Katrina was an extraordinary act of nature that spawned a human tragedy. It was the most destructive natural disaster in American history, laying waste to 90,000 square miles of land, an area the size of the United Kingdom. In Mississippi, the storm surge obliterated coastal communities and left thousands destitute. New Orleans was overwhelmed by flooding. All told, more than 1,500 people died. Along the Gulf Coast, tens of thousands suffered without basic essentials for almost a week.

But the suffering that continued in the days and weeks after the storm passed did not happen in a vacuum; instead, it continued longer than it should have because of – and was in some cases exacerbated by – the failure of government at all levels to plan, prepare for, and respond aggressively to the storm. These failures were not just conspicuous; they were pervasive. Among the many factors that contributed to these failures, the Committee found that there were four overarching ones:



Hurricane Katrina over the Gulf Coast, August 2005
NOAA photo

1. Long-term warnings went unheeded and government officials neglected their duties to prepare for a forewarned catastrophe;

2. Government officials took insufficient actions or made poor decisions in the days immediately before and after landfall;

3. Systems on which officials relied on to support their response efforts failed; and

4. Government officials at all levels failed to provide effective leadership.

These individual failures, moreover, occurred against a backdrop of failure, over time, to develop the capacity for a coordinated, national response to a truly catastrophic event, whether caused by nature or man-made.

The results were tragic loss of life and human suffering on a massive scale, and an undermining of confidence in our governments' ability to plan, prepare for, and respond to national catastrophes.

Effective response to mass emergencies is a critical role of every level of government. It is a role that requires an unusual level of planning, coordination, and dispatch among governments' diverse units. Following the terrorist attacks of September 11, 2001, this country went through one of the most sweeping reorganizations of the federal government in history. While driven primarily by concerns of terrorism, the reorganization was designed to strengthen our nation's ability to address the consequences of both natural and man-made disasters. In its first major test, this reorganized system failed. Katrina revealed that much remains to be done.

The Committee began this investigation of the preparations for and response to Hurricane Katrina within two weeks of the hurricane's landfall on the Gulf Coast. The tragic loss of life and human suffering in Katrina's wake would have been sufficient in themselves to compel the Committee's attention. But the conspicuous failures in governments' emergency preparedness and response added a sense of urgency to the investigation – not only because of

our heightened national awareness of the dangers of both terrorist acts and natural disasters, but because so much effort had been directed towards improvement.

The Committee's investigation has been bipartisan, and has examined in detail the actions of officials of local, state, and federal government departments and agencies. Though suffering was pervasive across the Gulf Coast, the Committee focused most of its efforts on the response in New Orleans, where massive flooding presented extraordinary challenges to responders and victims alike. In addition, the investigation centered largely on the initial response to the hurricane in the critical week or so after the storm hit. We have conducted formal interviews of more than 325 witnesses, reviewed over 838,000 pages of documentation, and conducted 22 public hearings with 85 witnesses in the course of our information gathering efforts.

Most of the hearings focused on what went wrong in Katrina. Two of the hearings, however, examined the successes: the effective and heroic search-and-rescue efforts by the U.S. Coast Guard; and the outstanding performance of certain members of the private sector in restoring essential services to the devastated communities and providing relief to the victims.

These successes shared some important traits. The Coast Guard and certain private-sector businesses both conducted extensive planning and training for disasters, and they put that preparation into use when disaster struck. Both moved material assets and personnel out of harm's way as the storm approached, but kept them close enough to the front lines for quick response after it passed. Perhaps most important, both had empowered front-line leaders who were able to make decisions when they needed to be made.

The Roles of the Different Levels of Government in Disaster Response

Assessing the government's response to Katrina requires, at the outset, an understanding of the roles of government entities and their leaders and the framework within which they operate. Every level of government, and many components within each level, play important roles. At every level of government, the chief executive has the ultimate responsibility to manage an emergency response.

It has long been standard practice that emergency response begins at the lowest possible jurisdictional level – typically the local government, with state government becoming involved at the local government's request when the resources of local government are (or are expected to be) overwhelmed. Similarly, while the federal government provides ongoing financial support to state and local governments for emergency preparedness, ordinarily it becomes involved in responding to a disaster at a state's request when resources of state and local governments are (or are expected to be) overwhelmed. Louisiana's Emergency Operations Plan explicitly lays out this hierarchy of response.

During a catastrophe, which by definition almost immediately exceeds state and local resources and significantly disrupts governmental operations and emergency services, the role of the federal government is particularly vital, and it would reasonably be expected to play a more substantial role in response than it would in an "ordinary" disaster.

Long-Term and Short-Term Warnings Went Unheeded

The Committee has worked to identify and understand the sources of the government's inadequate response and recovery efforts. And while this Report does not purport to have

identified every such source, it is clear that there was no lack of information about the devastating potential of Katrina, or the uncertain strength of the levees and floodwalls protecting New Orleans, or the likely needs of survivors. Nonetheless, top officials at every level of government – despite strongly worded advisories from the National Hurricane Center (NHC) and personal warnings from NHC Director Max Mayfield – did not appear to truly grasp the magnitude of the storm’s potential for destruction before it made landfall.

The potentially devastating threat of a catastrophic hurricane to the Gulf Coast has been known for 40 years: New Orleans experienced flooding in some areas of remarkably similar proportions from Hurricane Betsy in 1965, and Hurricane Camille devastated the Gulf Coast in 1969. More recently, numerous experts and governmental officials had been anticipating an increase in violent hurricanes, and New Orleans’ special and growing vulnerability to catastrophic flooding due to changing geological and other conditions was widely described in both technical and popular media.

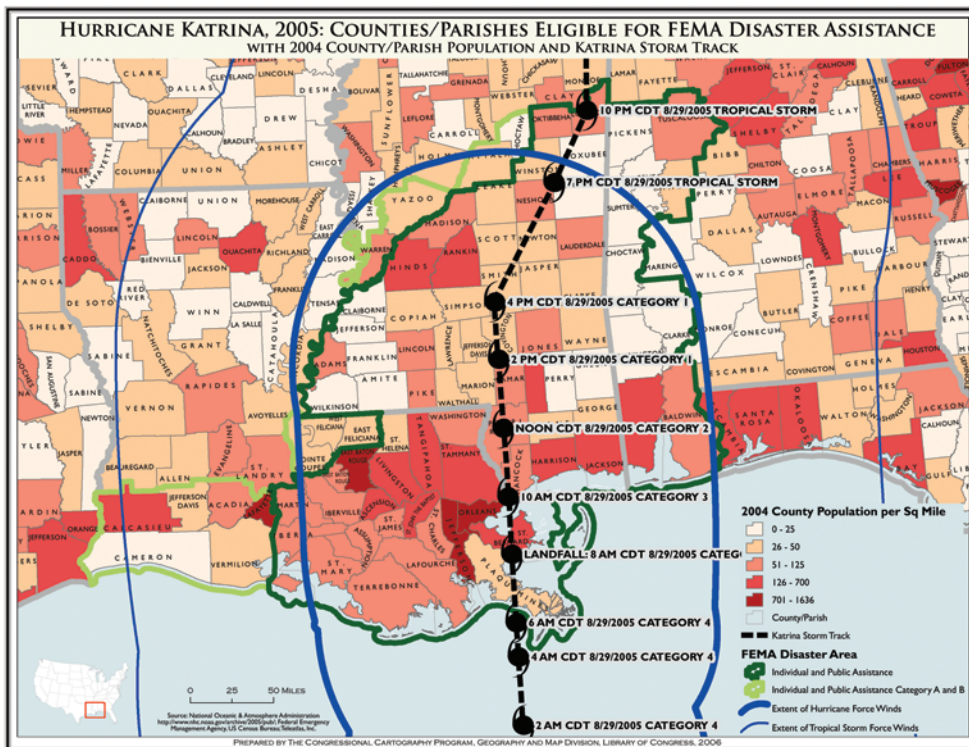
Hurricane Georges hit the Gulf Coast in 1998, spurring the State of Louisiana to ask Federal Emergency Management Agency (FEMA) for assistance with catastrophic hurricane planning. Little was accomplished for the next six years. Between 2000 and 2003, state authorities,

an emergency-preparedness contractor, and FEMA’s own regional staff repeatedly advised FEMA headquarters in Washington that planning for evacuation and shelter for the “New Orleans scenario” was incomplete and inadequate, but FEMA failed to approach other federal agencies for help with transportation and shelter or to ensure that the city and state had the matters in hand.

Then, in 2004, after a White House aide received a briefing on the catastrophic consequences of a Category 3 hurricane hitting New Orleans, the federal government sponsored a planning exercise, with participation from federal, state, and local officials, based on a scenario whose characteristics foreshadowed most of Katrina’s impacts. While this hypothetical

“Hurricane Pam” exercise resulted in draft plans beginning in early 2005, they were incomplete when Katrina hit. Nonetheless, some officials took the initiative to use concepts developed in the drafts, with mixed success, in the critical aspects of the Katrina response. However, many of its admonitory lessons were either ignored or inadequately applied.

During the Hurricane Pam exercise, officials determined that massive flooding from a catastrophic storm in New Orleans could threaten the lives of 60,000 people and trap hundreds of thousands more, while incapacitating local resources for weeks to months. The Pam exercise gave all levels of government a reminder that the “New Orleans scenario” required more forethought, preparation, and investment than a “typical” storm. Also, it reinforced



Katrina’s track of disaster
Geography and Map Division,
The Library of Congress

the importance of coordination both within and among federal, state, and local governments for an effective response.

The specific danger that Katrina posed to the Gulf Coast became clear on the afternoon of Friday, August 26, when forecasters at NHC and the National Weather Service (NWS) saw that the storm was turning west. First in phone calls to Louisiana emergency-management officials and then in their 5 p.m. ET Katrina forecast and accompanying briefings, they alerted both Louisiana and Mississippi that the track of the storm was now expected to shift significantly to the west of its original track toward the Florida panhandle. NHC warned that Katrina could be a Category 4 or even a Category 5 by landfall. By the next morning, NWS officials directly confirmed to the Governor of Louisiana and other state and local officials that New Orleans was squarely at risk.

Over the weekend, there was a drumbeat of warnings: FEMA held video-teleconferences on both days, where the danger of Katrina and the particular risks to New Orleans were discussed; NHC's Max Mayfield called the governors of the affected states, something he had only done once before in his 33-year career; President Bush took the unusual step of declaring, in advance, an emergency for the states in the impact zone; numerous media reports noted that New Orleans was a "bowl," and could be left submerged by the storm; the Department of Homeland Security's Simulation and Analysis group generated a report stating that the levees protecting New Orleans were at risk of breaching and overtopping; and internal FEMA slides stated that the projected impacts of Katrina could be worse than those in the Hurricane Pam exercise. The warnings were as widespread as they were dire.

Preparation Proved Insufficient

Katrina was not a "typical" hurricane as it approached landfall; it was much larger, more powerful, and was capable of producing catastrophic damage.

In some respects, officials did prepare for Katrina with the understanding that it could be a catastrophe. Some coastal towns in Mississippi went to extraordinary lengths to get citizens to evacuate, including sending people door-to-door to convince and cajole people to move out of harm's way. The State of Louisiana activated more than twice the number of National Guard troops called to duty in any prior hurricane, and achieved the largest evacuation of a threatened population ever to occur. The City of New Orleans issued its first ever mandatory evacuation order. The Coast Guard readied its personnel, pre-positioned its equipment, and stood by to begin search-and-rescue operations as quickly as humanly possible. Departing from usual practice, the governors of the three affected states requested, and President Bush issued, emergency declarations before the storm made landfall.

But however vigorous these preparations, ineffective leadership, poor advance planning, and an unwillingness to devote sufficient resources to emergency management over the long term doomed them to fail when Katrina struck. Despite the understanding of the Gulf Coast's particular vulnerability to hurricane devastation, officials braced for Katrina with full awareness of critical deficiencies in their plans and gaping holes in their resources. While Katrina's destructive force could not be denied, state and local officials did not marshal enough of the resources at their disposal.

In addition, years of short-changing federal, state, and local emergency functions left them incapable of fully carrying out their missions to protect the public and care for victims. For example, the lack of survivable, interoperable communications, which Governor Haley Barbour of Mississippi said was the most critical problem in his state, occurred because of

an accumulation of decisions by federal, state, and local officials that left this long-standing problem unsolved.

The Committee believes that leadership failures needlessly compounded these losses. New Orleans Mayor Ray Nagin and Louisiana Governor Kathleen Blanco – who knew the limitations of their resources to address a catastrophe – did not specify those needs adequately to the federal government before landfall. For example, while Governor Blanco stated in a letter to President Bush, two days before landfall, that she anticipated the resources of the state would be overwhelmed, she made no specific request for assistance in evacuating the known tens of thousands of people without means of transportation, and a senior State official identified no unmet needs in response to a federal offer of assistance the following day. The State’s transportation secretary also ignored his responsibilities under the state’s emergency operations plan, leaving no arm of the State government prepared to obtain and deliver additional transportation to those in New Orleans who lacked it when Katrina struck. In view of the long-standing role of requests as a trigger for action by higher levels of government, the State bears responsibility for not signaling its needs to the federal government more clearly.

Compounded by leadership failures of its own, the federal government bears responsibility for not preparing effectively for its role in the post-storm response.

FEMA was unprepared for a catastrophic event of the scale of Katrina. Well before Katrina, FEMA’s relationships with state and local officials, once a strength, had been eroded in part because certain preparedness grant programs were transferred elsewhere in the Department of Homeland Security (DHS). With its importance to state and local preparedness activities reduced, FEMA’s effectiveness was diminished. In addition, at no time in its history, including in the years before it became part of DHS, had FEMA developed – nor had it been designed to develop – response capabilities sufficient for a catastrophe, nor had it developed the capacity to mobilize sufficient resources from other federal agencies, and the private and nonprofit sectors.

Moreover, FEMA’s former Director, Michael Brown, lacked the leadership skills that were needed. Before landfall, Brown did not direct the adequate pre-positioning of critical personnel and equipment, and willfully failed to communicate with DHS Secretary, Michael Chertoff, to whom he was supposed to report. Earlier in the hurricane season, FEMA had pre-positioned an unprecedented amount of relief supplies in the region. But the supplies were not enough. Similarly, while both FEMA and the Department of Health and Human Services (HHS) made efforts to activate the federal emergency health capabilities of the National Disaster Medical System (NDMS) and the U.S. Public Health Service (PHS), only a limited number of federal medical teams were actually in position prior to landfall to deploy into the affected area. Only one such team was in a position to provide immediate medical care in the aftermath of the storm.

More broadly, DHS – as the Department charged with preparing for and responding to domestic incidents, whether terrorist attacks or natural disasters – failed to effectively lead the federal response to Hurricane Katrina. DHS leadership failed to bring a sense of urgency to the federal government’s preparation for Hurricane Katrina, and Secretary Chertoff himself should have been more engaged in preparations over the weekend before landfall. Secretary Chertoff made only top-level inquiries into the state of preparations, and accepted uncritically the reassurances he received. He did not appear to reach out to the other Cabinet secretaries to make sure that they were readying their departments to provide whatever assistance DHS – and the people of the Gulf Coast – might need.

Similarly, had he invoked the Catastrophic Incident Annex of the National Response Plan (NRP-CIA), Secretary Chertoff could have helped remove uncertainty about the federal government's need and authority to take initiative before landfall and signaled that all federal government agencies were expected to think – and act – proactively in preparing for and responding to Katrina. The Secretary's activation of the NRP-CIA could have increased the urgency of the federal response and led the federal government to respond more proactively rather than waiting for formal requests from overwhelmed state and local officials. Because delay may preclude meaningful assistance and state and local resources may be quickly overwhelmed and incapacitated, the NRP-CIA directs federal agencies to preposition resources without awaiting requests from the state and local governments. Even then, except in certain prescribed circumstances, the NRP-CIA holds these resources at mobilization sites until requested by state and local officials.

The military also had a role to play, and ultimately, the National Guard and active-duty military troops and assets deployed during Katrina constituted the largest domestic deployment of military forces since the Civil War. And while the Department of Defense (DOD) took additional steps to prepare for Katrina beyond those it had taken for prior civil-support missions, its preparations were not sufficient for a storm of Katrina's magnitude. Individual commanders took actions that later helped improve the response, but these actions were not coordinated by the Department. The Department's preparations were consistent with how DOD interpreted its role under the NRP, which was to provide support in response to requests for assistance from FEMA. However, additional preparations in advance of specific requests for support could have enabled a more rapid response.

In addition, the White House shares responsibility for the inadequate pre-landfall preparations. To be sure, President Bush, at the request of Brown, did take the initiative to personally call Governor Blanco to urge a mandatory evacuation. As noted earlier, he also took the unusual step of declaring an emergency in the Gulf Coast States prior to Katrina's landfall. On the other hand, the President did not leave his Texas ranch to return to Washington until two days after landfall, and only then convened his Cabinet, as well as a White House task force, to oversee federal response efforts.

Response at all Levels of Government Was Unacceptable

The effect of the long-term failures at every level of government to plan and prepare adequately for a catastrophic hurricane in the Gulf of Mexico was evident in the inadequate preparations before Katrina's landfall and then again in the initial response to the storm.



Waiting for help, New Orleans

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Search and Rescue

Flooding in New Orleans drove thousands of survivors to attics and rooftops to await rescue. Some people were trapped in attics and nursing homes and drowned as the dirty waters rose around them. Others escaped only by chopping their way through roofs. Infrastructure damage complicated the organization and conduct of search-and-rescue missions in New Orleans and elsewhere. Destruction of communications towers and equipment, in particular, limited the ability of crews to communicate with one another, undermining coordination and efficiency. Rescuers also had to contend with weapons fire, debris, and polluted water. The skill and dedication of Louisiana Department of Wildlife and Fisheries (W&F) officials and others working in these adverse conditions stand out as a singular success story of the hurricane response.

Applying a model developed in the Hurricane Pam exercise, rescue teams in Louisiana brought hurricane victims to high ground, where they were supposed to receive food, water, medical attention, and transport to shelters. Here, too, there were problems. Poor communications delayed state and federal officials' learning about where rescuees had been dropped, in turn slowing shipments of food and water to those areas. The City of New Orleans was unprepared to help people evacuate, as many buses from the city's own fleet were submerged, while officials had not arranged in advance for drivers for those buses that were available.

The storm also laid waste to much of the city's police, whose headquarters and several district offices, along with hundreds of vehicles, rounds of ammunition, and uniforms were all destroyed within the first two days of landfall.

Planning for search and rescue was also insufficient. FEMA, for instance, failed to provide boats for its search-and-rescue teams even though flooding had been confirmed by Tuesday. Moreover, interagency coordination was inadequate at both the state and federal levels. While the Louisiana W&F and FEMA are responsible for interagency search-and-rescue coordination at the state and federal levels, respectively, neither developed adequate plans for this mission. Staggeringly, the City of New Orleans Fire Department (NOFD) owned no boats, and the New Orleans Police Department (NOPD) owned five. Meanwhile, widespread communications failures in Louisiana and Mississippi were so bad that many officers reverted to either physically running messages from one person to another, or passing messages along a daisy chain of officers using radios with limited range.

Situational Awareness

While authorities recognized the need to begin search-and-rescue missions even before the hurricane winds fully subsided, other aspects of the response were hindered by a failure to quickly recognize the dimensions of the disaster. These problems were particularly acute at the federal level. The Homeland Security Operations Center (HSOC) – charged with providing reliable information to decision makers including the Secretary of DHS and the President – failed to create a system to identify and acquire all available, relevant information, and as a result situational awareness was deeply flawed.

With local and state resources immediately overwhelmed, rapid federal mobilization of resources was critical. Yet reliable information on such vital developments as the levee failures, the extent of flooding, and the presence of thousands of people in need of life-sustaining assistance at the New Orleans Convention Center did not reach the White House, Secretary Chertoff, or other key officials for hours, and in some cases more than a day. Brown, then in Louisiana, contributed to the problem by refusing to communicate with Secretary Chertoff, opting instead to pass information directly to White House staff. Moreover, even though senior DHS officials did receive, on the day of landfall, numerous reports

that should have led to an understanding of the increasingly dire situation in New Orleans, many indicated they were not aware of the crisis until sometime Tuesday morning.

DHS was slow to recognize the scope of the disaster or that FEMA had become overwhelmed. On the day after landfall, DHS officials were still struggling to determine the “ground truth” about the extent of the flooding despite the many reports they had received about the catastrophe; key officials did not grasp the need to act on the less-than-complete information that is to be expected in a disaster. DHS leaders did not become fully engaged in recovery efforts until Thursday, when in Deputy Secretary Michael Jackson’s words, they “tried to kick it up a notch”; after that, they did provide significant leadership within DHS (and FEMA) as well as coordination across the federal government. But this effort should have begun sooner.

DOD also was slow to acquire information regarding the extent of the storm’s devastation. DOD officials relied primarily on media reports for their information. Many senior DOD officials did not learn that the levees had breached until Tuesday; some did not learn until Wednesday. As DOD waited for DHS to provide information about the scope of the damage, it also waited for the lead federal agency, FEMA, to identify the support needed from DOD. The lack of situational awareness during this phase appears to have been a major reason for DOD’s belated adoption of the forward-looking posture necessary in a catastrophic incident.

Post-Storm Evacuation

Overwhelmed by Katrina, the city and state turned to FEMA for help. On Monday, Governor Blanco asked Brown for buses, and Brown assured the state the same day that 500 buses were en route to assist in the evacuation of New Orleans and would arrive within hours. In spite of Brown’s assurances and the state’s continued requests over the course of the next two days, FEMA did not direct the U.S. Department of Transportation to send buses until very early on Wednesday, two days after landfall. The buses did not begin to arrive until Wednesday evening, and not in significant numbers until Thursday. Concerned over FEMA’s delay in providing buses – and handicapped by the Louisiana Department of Transportation and Development’s utter failure to make any preparation to carry out its lead role for evacuation under the state’s emergency plan – Governor Blanco directed members of her office to begin locating buses on Tuesday and approved an effort to commandeer school buses for evacuation on Wednesday. But these efforts were too little, too late. Tens of thousands of people were forced to wait in unspeakably horrible conditions until as late as Saturday to be evacuated.

Logistics and Military Support

Problems with obtaining, communicating, and managing information plagued many other aspects of the response as well. FEMA lacked the tools to track the status of shipments, interfering with the management of supplying food, water, ice, and other vital commodities to those in need across the Gulf Coast. So, too, did the incompatibility of the electronic systems used by federal and state authorities to manage requests for assistance, which made it necessary to transfer requests from the state system to the federal system manually.

Supplies of commodities were especially problematic. Federal shipments to Mississippi did not reach adequate levels until 10 days after landfall. The reasons for this are unclear, but FEMA’s inadequate “surge capacity” – the ability to quickly ramp up the volume of shipments – is a likely cause. In both Mississippi and Louisiana, there were additional problems in getting the supplies the “last mile” to individuals in need. Both states planned to make supplies available for pickup at designated distribution points, but neither anticipated the problems people would face in reaching those points, due to impassable roads or other issues. And in Louisiana, the National Guard was not equipped to assume this task. One of

Louisiana's greatest shortage was portable toilets, which were requested for the Superdome but never arrived there, as more than 20,000 people were forced to stay in the Superdome without working plumbing for nearly a week.

For their part, Louisiana and Mississippi relied heavily on support from other states to supplement their own emergency resources. Both states were parties to an interstate agreement known as the Emergency Management Assistance Compact (EMAC), which provides a system for sharing National Guard troops and other resources in natural disasters. As in many other areas of the Katrina response, however, the magnitude of the demands strained the EMAC process and revealed limitations in the system. Paperwork burdens proved overwhelming. Louisiana experienced difficulties processing the volume of incoming resources. On Wednesday, August 31, the federal National Guard Bureau, which ordinarily serves a coordinating function within DOD, relieved Louisiana and Mississippi of many of the bureaucratic responsibilities by making direct requests for available troops to state adjutants general.

This process quickly resulted in the largest National Guard deployment in U.S. history, with 50,000 troops and supporting equipment arriving from 49 states and four territories within two weeks. These forces participated in every aspect of emergency response, from medical care to law enforcement and debris removal, and were considered invaluable by Louisiana and Mississippi officials.

Although this process successfully deployed a large number of National Guard troops, it did not proceed efficiently, or according to any pre-existing plan or process. There is, in fact, no established process for the large-scale, nation-wide deployment of National Guard troops for civil support. In addition, the deployments of National Guard troops were not coordinated with the federal Northern Command, which was overseeing the large-scale deployments and operations of the active-duty military (i.e., Regular and activated Reserve forces).

While the NRP has specific procedures for active-duty involvement in natural disasters, the deployment of these troops raised unforeseen issues and was initially a source of frustration to Governor Blanco. The Governor directed her adjutant general to secure additional troops on the day after landfall, but federal and state officials did not coordinate her requests well, and ground troops didn't arrive in significant numbers for several days. DOD chose to rely primarily on the deployment of National Guard troops (versus federal active-duty troops) pursuant to its declared strategy and because it believed they were best suited to the required tasks, including performing law enforcement. In addition, the need to resolve command issues between National Guard and active-duty forces – an issue taken up (but not resolved) in a face-to-face meeting between President Bush and the Governor on Air Force One on the Friday after landfall – may have played a role in the timing of active-duty troop deployments. The issue became moot as the two forces stayed under their separate commands, an arrangement that turned out to work well in this case, thanks to the cooperation of the respective commanders.

While the large numbers of active-duty troops did not arrive until the end of the first week following landfall, National Guard troops did, and DOD contributed in other important ways during that period. Early in the week, DOD ordered its military commanders to push available assets to the Gulf Coast. They also streamlined their ordinarily bureaucratic processes for handling FEMA requests for assistance and emphasized movement based on vocal commands with the paperwork to follow, though some FEMA officials believe that DOD's approval process continued to take too long. They provided significant support to search-and-rescue missions, evacuee airlifts, logistics management of buses arriving in the state for evacuation, and other matters.

Toward the end of the week, with its own resources stretched thin, FEMA turned to DOD to take over logistics for all commodity movements. DOD acceded to the request, and provided some logistics assistance to FEMA. However, it did not undertake the complete logistical take-over initially requested by FEMA because that was not needed.

By Tuesday afternoon, the New Orleans Superdome had become overcrowded, leading officials to turn additional refugees away. Mayor Nagin then decided to open the Morial Convention Center as a second refuge of last resort inside the city, but did not supply it with food or water. Moreover, he communicated his decision to open the Convention Center to state and federal officials poorly, if at all. That failure, in addition to the delay of shipments due to security concerns and DHS's own independent lack of awareness of the situation, contributed to the paucity of food, water, security, and medical care at the Convention Center, as a population of approximately 19,000 gathered there. Those vital commodities and services did not arrive until Friday, when the Louisiana National Guard, assisted by National Guard units from five other states, brought in relief supplies provided by FEMA, established law and order, and then evacuated the Convention Center on Saturday within eight hours.

Law Enforcement

Law enforcement outside the Superdome and the Convention Center was a problem, and was fueled by several contributing factors, including erroneous statements by top city officials that inflamed the public's perception of lawlessness in New Orleans.

Without effective law enforcement, real or imagined safety threats interrupted virtually every aspect of the response. Fearing for their personal safety, medical and search-and-rescue teams withdrew from their missions. FEMA and commercial vendors of critical supplies often refused to make deliveries until military escorts could be arranged. In fact, there was some lawlessness, yet for every actual act there were rumors of dozens more, leading to widespread and inaccurate reporting that severely complicated a desperate situation. Unfortunately, local, state, and federal officials did little to stanch this rumor flow. Police presence on the streets was inadequate, in part because in a matter of hours Katrina turned the NOPD from protectors of the public to victims of the storm. Nonetheless, most New Orleans police officers appear to have reported for duty, many setting aside fears about the safety of their families or the status of their homes.

Even so, the ability of the officers who remained to perform their duties was significantly hampered by the lack of basic supplies. While supplies such as weapons and ammunition were lost to flooding, the NOPD leadership did not provide its officers with basic necessities such as food; nor did the department have logistics in place to handle supplies. Members of the NOPD also identified the lack of a unified command for this incident as a major problem; eight members of the command staff were extremely critical of the lack of leadership from the City's Office of Emergency Preparedness (OEP). The department's rank and file were unfamiliar with both the department's and the city's emergency-operations manuals and other hurricane emergency procedures. Deficiencies in the NOPD's manual, lack of training on this manual, lack of familiarity with it, or a combination of the three resulted in inadequate protection of department resources.

Federal law-enforcement assistance was too slow in coming, in large part because the two federal departments charged under the NRP with providing such assistance – DHS and the Department of Justice (DOJ) – had done almost no pre-storm planning. In fact, they failed to determine even well into the post-landfall period which of the two departments would assume the lead for federal law enforcement under the NRP. As a result, later in the week, as federal law-enforcement officers did arrive, some were distracted by a pointless “turf war”

between DHS and DOJ over which agency was in the lead. In the end, federal assistance was crucial, but should have arrived much sooner.

Health Care

Safety concerns were only one of numerous challenges faced by health-care providers. There were numerous other challenges, including the following:

- Medical teams had to triage more than 70,000 rescuees and evacuees and provide acute care to the sick and wounded. While officials used plans developed in the Hurricane Pam exercise as a helpful framework for managing this process, existing emergency-room facilities were overwhelmed by the volume of patients. Local and state officials quickly set up temporary field hospitals at a sports arena and a K-Mart in Baton Rouge to supplement hospital capacity.
- New Orleans had a large population of “special-needs patients,” individuals living at home who required ongoing medical assistance. Before Katrina struck, the City Health Department activated a plan to establish a care facility for this population within the Superdome and provided transportation to evacuate several hundred patients and their caregivers to Baton Rouge. While Superdome facilities proved useful in treating special-needs patients who remained behind, they had to contend with shortages of supplies, physical damage to the facility necessitating a post-landfall relocation of patients and equipment to an area adjacent to the Superdome, and a population of more than 20,000 people using the Superdome as a refuge of last resort. Also, FEMA’s Disaster Medical Assistance Teams (DMATs) which provide the invaluable resources of pharmacies and hospital equipment, arrived at the Superdome on the night following landfall, but left temporarily on Thursday, before the evacuation of the Superdome’s special-needs population was completed, because of security concerns.
- In Louisiana, hospitals had to evacuate after landfall on short notice, principally due to loss of electrical power. While hospitals had evacuated some of their patients before landfall, they had retained others thought to be too frail for transport, and believed that by staying open they would be available to serve hurricane victims. Their strategy became untenable after landfall when power was lost, and their backup generators were rendered inoperable by flooding and fuel shortages. The Louisiana Department of Health and Hospitals (DHH) stepped in to arrange for their evacuation; while successful, it had to compete with search-and-rescue teams for helicopters and other needed resources.
- Many nursing homes in and around New Orleans lacked adequate evacuation plans. Although they were required to have plans on file with local government, there was no process to ensure that there were sufficient resources to evacuate all the nursing homes at once, and dozens of patients who were not evacuated died. When evacuation became necessary, some sent their patients to the Superdome, where officials, struggling to handle the volume of patients already there, were obliged to accept still more.

Long-Term Factors Contributed to the Poor Response

Actions taken – and failures to act – well before Katrina struck compounded the problems resulting from the ineffective leadership that characterized the immediate preparations for

the hurricane and the post-landfall response. A common theme of these earlier actions is underfunding emergency preparedness. While the Committee did not examine the conflicting political or budget priorities that may have played a role, in many cases the shortsightedness associated with the underfunding is glaring. Among notable examples are the following:

- The Louisiana Office of Homeland Security and Emergency Preparedness (LOHSEP), the state counterpart to FEMA, suffered chronic staffing problems and employee turnover due to underfunding. LOHSEP's planning chief also testified that lack of resources prevented the agency from meeting its schedule for periodic review and updates of state emergency plans.
- The Office of Emergency Preparedness for New Orleans, a city long known to be among the nation's most vulnerable to a catastrophic hurricane, had a staff of only three. Its police and fire departments, responsible for search-and-rescue activities, had five boats and no boats, respectively. In 2004, the city turned down a request by the NOFD to fund the purchase of six additional boats.
- The Hurricane Pam exercise faced repeated delays due to funding constraints. It took nearly five years for the federal government to approve the state's initial funding request, and the limited funding finally granted necessitated last-minute cutbacks in the scope of the exercise. Follow-up workshops were delayed by funding shortfalls – some as small as the \$15,000 needed for participants' travel expenses – that either the state or federal government should have remedied.
- Numerous witnesses testified that FEMA's budget was far short of what was needed to accomplish its mission, and that this contributed to FEMA's failure to be prepared for a catastrophe. FEMA witnesses also universally pointed out that the agency has suffered for the last few years from a vacancy rate of 15 to 20 percent (i.e., between 375 to 500 vacant positions in a 2,500-person agency), including several at key supervisory levels. FEMA sought additional funding but did not receive it. The Committee found that FEMA's budget shortages hindered its preparedness.

The Committee also found that inadequate training in the details of the recently promulgated NRP was a contributing factor in shortcomings in the government's performance. Louisiana emergency-management officials and National Guardsmen were receiving basic NRP and Incident Command System (ICS) training two days after the storm hit. Certain FEMA officials, also, were inadequately trained on the NRP and ICS. Only one large-scale federal exercise of the NRP took place before Katrina, the DHS's Top Officials 3 (TOPOFF 3) exercise in April 2005, approximately three months after the NRP was issued. TOPOFF 3, sponsored by DHS, involved responders from all levels of government. A November 2005 report by the DHS Inspector General, echoing the findings of an earlier report by DHS itself in May 2005, found that the exercise, which involved federal, state and local responders, "highlighted – at all levels of government – a fundamental lack of understanding for the principles and protocols set forth in the NRP and [National Incident Management System]." The lack of familiarity with emergency-management principles and plans hampered the Katrina response.

The Committee also identified significant planning failures that predated Katrina. One of the most remarkable stories from this investigation is the history of planning for the 100,000 people in New Orleans believed to lack the means to evacuate themselves. Local and state officials have known since at least 1994 about the need to address this problem. For its part, the federal government, which knew about this problem for some time, neither

monitored their planning nor offered assistance. This evacuation problem was not included in the Hurricane Pam exercise and, during follow-up meetings in the summer of 2005, New Orleans officials informed counterparts from FEMA, other federal agencies, and the state preparedness agency that the city was not able to provide for the necessary pre-storm evacuation, but nothing was done to resolve the issue.

- The City of New Orleans, with primary responsibility for evacuation of its citizens, had language in its plan stating the city's intent to assist those who needed transportation for pre-storm evacuation, but had no actual plan provisions to implement that intent. In late 2004 and 2005, city officials negotiated contracts with Amtrak, riverboat owners, and others to pre-arrange transportation alternatives, but received inadequate support from the City's Director of Homeland Security and Emergency Preparedness, and contracts were not in place when Katrina struck.



Trapped by floodwaters,
New Orleans
AP/Wide World Photo

As Katrina approached, notwithstanding the city's evacuation plans on paper, the best solution New Orleans had for people without transportation was a private-citizen volunteer carpool initiative called Operation Brothers' Keepers and transit buses taking people – not out of the city, but to the Superdome. While the Superdome provided shelter from the devastating winds and water, conditions there deteriorated quickly. Katrina's "near miss" ripped the covering off the roof, caused leaking, and knocked out the power, rendering the plumbing, air conditioning, and public announcement system totally useless.

- The Louisiana Department of Transportation and Development (DOTD), whose Secretary had personally accepted departmental responsibility under the state's emergency operations plan to arrange for transportation for evacuation in emergencies, had done nothing to prepare for that responsibility prior to Katrina. While the Secretary attempted to defend his inaction in a personal appearance before the Committee, the Committee found his explanations rang hollow, and his account of uncommunicated doubts and objections to state policy disturbing. Had his Department identified available buses or other means of transport for evacuation within the state in the months before the hurricane, at a minimum the state would have been prepared to evacuate people stranded in New Orleans after landfall more quickly than it did.
- FEMA and the U.S. Department of Transportation (DOT), charged under the NRP with supporting state and local government transportation needs (including evacuation) in emergencies, did little to plan for the possibility that they would be called on to assist with post-landfall evacuation needs, despite being on notice for over a month before Katrina hit that the state and local governments needed more buses and drivers – and being on notice for years that tens of thousands of people would have no means to evacuate.

- Though much attention had been paid to addressing communications shortfalls, efforts to address interoperability – as well as simply operability – were inadequate. There was little advance preparation for responders operating in an area with no power and where virtually all forms of pre-existing communications were destroyed. And while satellite phones were available to some, either they did not function properly or officials were not trained to use these relatively complex devices. Moreover, the National Communications System, the DHS agency primarily responsible under the NRP for providing communications support to first responders during disasters, had no plans to do so.

These planning failures would have been of far less consequence had the system of levees built to protect New Orleans from flooding stayed intact, as they had in most prior hurricanes. But they did not, and the resulting inundation was catastrophic. The levee failures themselves turned out to have roots long predating Katrina as well. While several engineering analyses continue, the Committee found deeply disturbing evidence of flaws in the design and construction of the levees. For instance, two major drainage canals – the 17th Street and London Avenue Canals – failed at their foundations, prior to their flood walls being met with the water heights for which they were designed to protect central New Orleans.

Moreover, the greater metropolitan New Orleans area was literally riddled with levee breaches caused by massive overtopping and scouring of levees that were not “armored,” or properly designed, to guard against the cascading waters that would inevitably accompany a storm of the magnitude of Hurricane Katrina. The Committee also discovered that the inspection-and-maintenance regime in place to ensure that the levees, floodwalls, and other structures built to protect the residents of the greater New Orleans area was in no way commensurate with the risk posed to these persons and their property.

Equally troubling was the revelation of serious disagreement – still unresolved months after Katrina – among officials of several government entities over who had responsibility, and when, for key levee issues including emergency response and levee repair. Such conflicts prevented any meaningful emergency plans from being put in place and, at the time of Katrina, none of the relevant government agencies had a plan for responding to a levee breach. While the deadly waters continued to pour into the heart of the city after the hurricane had passed, the very government agencies that were supposed to work together to protect the city from such a catastrophe not only initially disagreed about whose responsibility it was to repair the levee breaches, but disagreed as to how the repairs should be conducted. Sadly, due to the lack of foresight and overall coordination prior to the storm, such conflicts existed as the waters of Lake Pontchartrain continued to fill central New Orleans.



Taking refuge on an Interstate island, Louisiana
FEMA

Waste, Fraud, and Abuse

Besides overwhelming many government emergency-response capabilities, Katrina severely affected the government's ability to properly track and verify its costs when it contracted for disaster relief goods and services. While the Committee did not specifically include this issue in its investigation, the Committee became aware of wasteful, and sometimes fraudulent and abusive spending practices, and held two hearings on the subject.

It takes money to prepare, respond, and recover from a disaster, and typically the bigger the disaster, the more money it takes. As of March 8, 2006, the federal government had committed \$88 billion to the response, recovery, and rebuilding efforts. Unfortunately, not all of this money has been wisely spent. Precious taxpayer dollars have been lost due to waste, fraud, and abuse.

Among the problems that have come to the Committee's attention are FEMA's lack of financial controls, failures to ensure eligibility of individuals receiving disaster-related assistance, and poor contracting practices, including the use of no-bid contracts. A notable example of the resulting wastefulness was FEMA's purchase of 25,000 manufactured homes that are virtually useless because FEMA's own regulations prohibit their installation in a flood plain. In a similar vein, FEMA's lack of controls in dealing with hotels providing temporary housing for evacuees resulted in instances where hotels charged for empty rooms; individuals held multiple rooms; hotel rooms were used as storage units for personal goods; individuals stayed at resorts; and hotels charged rates as high as \$400 per night.

Recommendations: A New National Emergency-Management System for the 21ST Century

The Committee's Report sets out seven core recommendations together with a series of supporting tactical recommendations, all designed to make the nation's emergency-preparedness and response system strong, agile, effective, and robust.

Hurricane Katrina exposed flaws in the structure of FEMA and DHS that are too substantial to mend. **Our first core recommendation is to abolish FEMA and replace it with a stronger, more capable structure, to be known as the National Preparedness and Response Authority (NPRA).** To take full advantage of the substantial range of resources DHS has at its disposal, NPRA will remain within DHS. Its Director would be assured of having sufficient access and clout by having the rank of Deputy Secretary, and having a direct line of communication to the President during catastrophes. The Director would also serve as the Advisor to the President for national emergency management, in a manner akin to the Chairman of the Joint Chiefs of Staff. To ensure capable and qualified leadership, senior NPRA officials would be selected from the ranks of professionals with experience in crisis management, in addition to substantial management and leadership experience, whether in the public, private, or non-profit sector.

Our second core recommendation is to endow the new organization with the full range of responsibilities that are core to preparing for and responding to disasters. These include the four central functions of comprehensive emergency management – mitigation, preparedness, response, and recovery – which need to be integrated. In addition, NPRA would adopt an “all-hazards plus” strategy for preparedness. In preparing our nation to respond to terrorist attacks and natural disasters, NPRA must focus on building those common capabilities – for example survivable, interoperable communications and evacuation plans – that are necessary regardless of the incident. At the same time, it must not neglect to build those unique capabilities – like mass decontamination in the case of a radiological attack or water

search and rescue in the case of flooding – that will be needed for particular types of incidents. NPRA’s mandate should also include overseeing protection of critical infrastructure, such as energy facilities and telecommunications systems, both to protect such infrastructure from harm and to ensure that such infrastructure is restored as quickly as possible after a natural disaster or terrorist attack.

Our third core recommendation is to enhance regional operations to provide better coordination between federal agencies and the states and establish regional strike teams. Regional offices should be adequately staffed, with representation from federal agencies outside DHS that are likely to be called on to respond to a significant disaster in the region. They should provide coordination and assist in planning, training, and exercising of emergency-preparedness and response activities; work with states to ensure that grant funds are spent most effectively; coordinate and develop inter-state agreements; enhance coordination with non-governmental organizations and the private sector; and provide personnel and assets, in the form of Strike Teams, to be the federal government’s first line of response to a disaster.

The Strike Teams would consist of, at a minimum, a designated Federal Coordinating Officer (FCO); personnel trained in incident management, public affairs, relief and recovery, and communications support; a Defense Coordinating Officer (DCO); and liaisons to other federal agencies. These regional Strike Teams should coordinate their training and exercises with the state and local officials and the private sector entities they will support when disasters occur.

Our fourth core recommendation is to build a true, government-wide operations center to provide enhanced situational awareness and manage interagency coordination in a disaster. Currently, there is a multiplicity of interagency coordinating structures, with overlapping missions, that attempt to facilitate an integrated federal response. Three of these structures – the Homeland Security Operations Center (HSOC), the National Response Coordination Center (NRCC), and the Interagency Incident Management Group (IIMG) – should be consolidated into a single, integrated entity – a new National Operations Center (NOC). The NOC would include representatives of all relevant federal agencies, and should provide for one clearly defined, emergency-management line of communication from the states to the federal government, and from the federal government to the states. It would also include a strong analytic team capable of sorting through and assessing information and determining which pieces would become part of the common operating picture.

To improve its performance in future disasters, the NOC should establish clear protocols and procedures to ensure that reports are received and reviewed at appropriate levels and in a timely manner. When there is notice of a potential major disaster, the NOC should implement plans, including one for obtaining information from DOD, for obtaining post-disaster situational awareness, including identifying sources of information and data particular to the region in which the disaster may occur and, where appropriate, bringing in individuals with particular knowledge or expertise about that region.

Our fifth core recommendation is to renew and sustain commitments at all levels of government to the nation’s emergency core management system. FEMA emergency-response teams have been reduced substantially in size, are inadequately equipped, and training for these teams has been all but eliminated. If the federal government is to improve its performance and be prepared to respond effectively to the next disaster, we must give NPRA – and the other federal agencies with central responsibilities under the NRP – the necessary resources to accomplish this. We must fund NPRA commensurate with the significance of its mission and ensure that those funds are well spent. To be full partners in the national preparedness effort, states, and localities will need additional resources as well.

The Administration and DHS must also ensure that federal leaders of all agencies with an emergency-support role understand their key responsibilities under the NRP and the resources they need to effectively carry out the comprehensive planning required, while also training and exercising on NIMS, NRP, and other operational plans. To fully integrate state and local officials into the system, there should be established an advisory council to NPRA made up of state and local officials and first responders. The advisory council should play an integral role in ensuring that the full range of activities of the new organization – including developing response plans, conducting training and exercises, formulating preparedness goals, effectively managing grants and other resources – are done in full consultation and coordination with, and take into account the needs and priorities of, states and localities.

DHS and the NPRA should more fully integrate the private and nonprofit sectors into their planning and preparedness initiatives. Among other things, they should designate specific individuals at the national and regional levels to work directly with private-sector organizations. Where appropriate, private-sector representatives should also be included in planning, training, and exercises.

Our sixth core recommendation is to strengthen the underpinning of the nation’s response to disasters and catastrophes. Despite their shortcomings and imperfections, the NRP and National Incident Management System (NIMS), including the Emergency Support Function (ESF) structure currently represent the best approach available to respond to multi-agency, multi-jurisdictional emergencies. Federal, state, and local officials and other responders must commit to supporting the NRP and NIMS and working together to improve the performance of the national emergency management system. We must undertake further refinements of the NRP and NIMS, develop operational plans, and engage in training and exercises to ensure that everyone involved in disaster response understands them and is prepared to carry them out. In particular, the NRP should be strengthened to make the unity of effort concept very clear, so that everyone understands the concept and their roles in establishing unity, and there should be clarification of the importance of integrating agencies with ESF responsibilities into the ICS, rather than their operating in “stovepipes.”

The roles and responsibilities of the Principal Federal Official (PFO) and FCO overlap, and were a source of confusion during Hurricane Katrina. The Stafford Act should be amended to clarify the roles and responsibilities of the FCO, and the NRP should be revised to eliminate the PFO position for Stafford Act-declared emergencies and disasters. It should also be amended to ensure that the Act addresses response to all disasters and catastrophes, whether natural or man-made.

Our seventh core recommendation is to improve the nation’s capacity to respond to catastrophic events. DHS should ensure that the Catastrophic Incident Annex (CIA) is fully understood by the federal departments and agencies with responsibilities associated with it. The Catastrophic Incident Supplement (CIS) should be completed and published, and the supporting operational plans for departments and agencies with responsibilities under the CIA should be completed. These plans should be reviewed and coordinated with the states, and on a regional basis, to ensure they are understood, trained and exercised prior to an emergency.

DHS must also develop the national capabilities – especially surge capacity – it needs to respond to catastrophic disasters, ensuring it has sufficient full-time staff, response teams, contracting personnel, and adequately trained and sufficiently staffed reserve corps to ramp up capabilities, as needed. These capabilities must be scalable so that NPRA can draw on the appropriate resources from supporting ESF agencies to respond to a disaster irrespective of cause, size, or complexity.

Conclusion

The Committee's Report can do justice neither to the human suffering endured during and after Katrina nor to the dimensions of the response. As to the latter, we have identified many successes and many failures; no doubt there are others in both categories we have missed. The Committee shares the view expressed by President Bush shortly after Katrina that our nation can do better.

Avoiding past mistakes will not suffice. Our leadership and systems must be prepared for catastrophes we know will be unlike Katrina, whether due to natural causes or terrorism. The Committee hopes to help meet that goal through the recommendations in this Report, because almost exactly four years after 9/11, Katrina showed that the nation is still unprepared.



Ruins of apartment building,
Long Beach, MS
Denton Herring photo