

**HURRICANE KATRINA:  
A NATION STILL UNPREPARED**

**EXECUTIVE SUMMARY**

REPORT OF THE SENATE COMMITTEE ON HOMELAND  
SECURITY AND GOVERNMENTAL AFFAIRS

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## EXECUTIVE SUMMARY

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 1500 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: 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 9/11, this country went through one of the most sweeping reorganizations of 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 our heightened national awareness of the dangers of both terrorist acts and natural disasters, but because so much effort had been directed towards improvement.

Our 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. Our report, more than xxx pages long, includes xxx findings and xxx recommendations.

Most of our hearings focused on what went wrong in Katrina.

Two of our 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.

This report has four major sections: a narrative of what happened (Part I); findings grouped by elements of preparation and response (Part II); recommendations for changes in resources, organization and operations (Part III); and appendices incorporating timelines, maps, charts and other supporting material (Part IV).

### **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 in an "ordinary" disaster.

### **Long-Term and Short-Term Warnings Went Unheeded**

The Committee has worked to identify and understand the sources of 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 region has been known for forty 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 in 1998, spurring the state of Louisiana to ask 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 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 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 the National Hurricane Center and the National Weather Service saw that the storm was turning west. First in phone calls to Louisiana emergency management officials and then in their 5 p.m. EDT 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 to the Florida panhandle. The National Hurricane Center warned that Katrina could be a Category 4 or even a 5 by landfall. By the next morning, Weather Service 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; Max Mayfield of the Hurricane Center 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; 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 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. Mayor Nagin and Governor 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; not as important to state and local preparedness activities, 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 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 Secretary 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 made efforts to activate the federal emergency health capabilities of the National Disaster Medical System (NDMS) and the U.S. Public Health Service, 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 — might need.

Similarly, had he invoked the Catastrophic Incident Annex (CIA) of the NRP, 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. Understanding that delay may preclude meaningful assistance and that state and local resources could be quickly overwhelmed and incapacitated, the NRP CIA directs federal agencies to pre-position resources without awaiting requests from the state and local governments. Even then, the NRP CIA holds these resources at mobilization sites until requested by state and local officials, except in certain prescribed circumstances.

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 National Response Plan, 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 FEMA Director Michael 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 States prior to Katrina making 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 was evident in the inadequate preparations before Katrina's landfall and then again in the initial response to the storm.

### **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 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 at the same time 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 Department of Fisheries and Wildlife 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 owned no boats, and the New Orleans Police Department 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 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. FEMA Director Michael 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 it 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.

The Department of Defense 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 FEMA Director Michael 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, and the buses did not begin to arrive at all 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 shortages was portable toilets, which were requested for the Superdome but never arrived there, as more than 20,000 people were forced to reside inside the Dome 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 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 the Department of Defense, 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.

While the National Response Plan has specific procedures for active-duty involvement in natural disasters, their deployment 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. The Defense Department 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 the Department of Defense 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. The Department of Defense 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 or 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 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 inflaming the public's perception of the 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 New Orleans police department 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 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 Hurricane Pam 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 Dome, 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 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 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 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. While 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 Terms 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, 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, long known to be among the nation's cities 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 and no boats, respectively. In 2004, the city turned down a request by the New Orleans Fire Department 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 – shortfalls 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.

We also found inadequate training in the details of the recently promulgated National Response Plan was a contributing factor in shortcomings in 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 Top Officials 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. Dating back to at least 1994, local and state officials have known 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 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. 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, 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, charged under the National Response Plan 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 regarding how responders would operate 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, they either did not function properly or officials were not trained on how to use these relatively complex devices. Moreover, the National Communications System, the agency within DHS



that is primarily responsible under the National Response Plan 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 pre-dating 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 inevitable cascading waters that were sure to 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, flood walls and other structures existing 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.

### **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 was 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 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 them being installed 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 21<sup>ST</sup> CENTURY**

Our report sets out seven foundational recommendations together with a series of supporting "building blocks," or 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 foundational 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 nonprofit sector.

**Our second foundational 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 foundational 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 NGOs 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 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 foundational 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, in a timely manner. When there is notice of a potential major disaster, the NOC should implement plans, including one for securing information from the Department of Defense, 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 foundational recommendation is to renew and sustain commitments at all levels of government to the nation's emergency 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 National Response Plan – 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 National Response Plan 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 foundational recommendation is to strengthen the underpinning of the nation's response to disasters and catastrophes.** Despite their shortcomings and imperfections, the National Response Plan (NRP) and National Incident Management System (NIMS), including the 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 and the Federal Coordinating Officer are overlapping and were a source of confusion during Hurricane Katrina. The Stafford Act should be amended to clarify the roles and responsibilities of the Federal Coordinating Officer, 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 foundational recommendation is to improve the nation's capacity to respond to catastrophic events.** DHS should ensure that the Catastrophic Incident Annex is fully understood by the federal departments and agencies with responsibilities associated with it. The Catastrophic Incident Supplement 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

Our 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.

## RECOMMENDATIONS

In the recommendations that follow, we set out seven foundational recommendations meant to help establish a sturdy underpinning for the nation's emergency management structure. Based on the weaknesses and challenges we uncovered in our investigation, we believe the foundational recommendations are the essential first steps in the successful construction of an effective system.

These recommendations are then followed by what will be the building blocks for the structure, the more tactical actions that must be taken – by federal, state, and local governments, non-governmental organizations, the private sector, and individual citizens – to make the system strong, agile, effective, and robust. The foundation is crucial, and every building block we can add will make the system stronger. We believe these measures, if implemented, will significantly improve the nation's ability to prepare for and respond to disasters and catastrophes, providing better safety and security for our citizens.

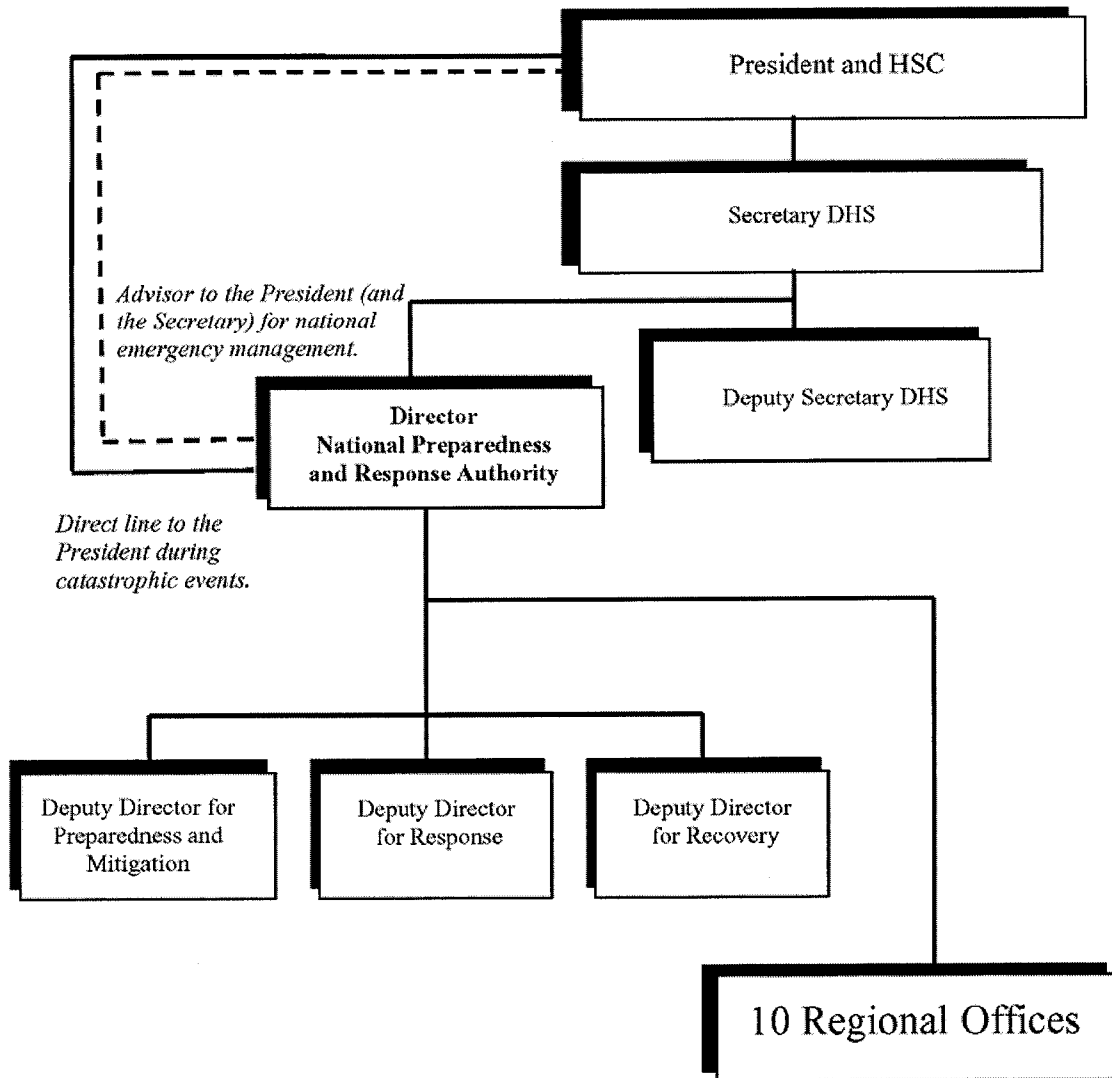
### Foundational Recommendations

#### **Foundational Recommendation #1- Create a New, Comprehensive Emergency Management Organization within DHS to Prepare for and Respond to All Disasters and Catastrophes.**

Hurricane Katrina exposed flaws in the structure of FEMA and DHS that are too substantial to mend. We propose to abolish FEMA and build a stronger, more capable structure within DHS. The structure will form the foundation of the nation's emergency management system. It will be an independent entity within DHS, but will draw on the resources of the Department and will be led and staffed by capable, committed individuals.

We must create a robust National Preparedness and Response Authority (NPRA) within the Department of Homeland Security. The NPRA would fuse the Department's emergency management, preparedness and critical infrastructure assets into a powerful new organization that can confront the challenges of natural or man-made catastrophes. It will provide critical leadership for preparedness and response by combining key federal personnel and assets, as well as federal partnerships with state and local officials and the private sector to prepare for and respond to terror attacks or natural disasters.

# National Preparedness and Response Authority



The NPRA will have the following characteristics<sup>1</sup>:

***Distinct Entity within DHS, with Access to the Full Resources of the Department.*** It is essential that NPRA be located within DHS, but it should be situated as a “distinct entity” – the same status accorded the U.S. Coast Guard and the U.S. Secret Service. The organization’s mission and components should also be protected from internal reorganizations or diminution by the Department.

DHS is the central agency in the federal government for protecting the nation from the effects of terrorist attacks and natural disasters, and NPRA’s mission is a necessary part of that. Maintaining NPRA within DHS allows the new organization to take full advantage of the substantial range of resources DHS has at its disposal – the Coast Guard, the National Communications System, SAFECOM (which provides research and support for interoperable communications), and one of the largest bodies of federal law enforcement agents in any federal agency. DHS’s prevention and intelligence resources also represent potentially valuable assets, as more effective identification of risks and vulnerabilities can lead to better and more targeted preparedness. In short, DHS has a substantially greater and wider range of resources that can be brought to bear on the challenge of natural or man-made catastrophes in a disaster than was or would be the case with an independent FEMA; what was formerly the responsibility of a small 2500-person independent agency is now the responsibility of a 180,000 person, cabinet-level department.

Removing NPRA (or FEMA as it currently exists) from the Department, moreover, would do nothing to solve the key problems that Katrina has revealed, including a lack of resources and weak and ineffective leadership. Separating NPRA from DHS would, in fact, potentially cause new difficulties, including the need to replicate a number of key functions, such as facilities to maintain situational awareness, in two different agencies. It would also place a hardship on states that would have to coordinate their preparedness and response efforts through two separate federal agencies. Katrina has made it clear that we need more integration in federal preparedness and response, not less, and that we need to effectively integrate, not bifurcate, prevention, preparedness, protection and response initiatives with state, local, and non-governmental and private sector partners.

It is important to draw a distinction between preventing a terrorist attack and preventing damage from a terrorist attack or natural disaster. Prevention activities related directly to preventing a terrorist incident from occurring, largely a law enforcement and intelligence function, are not included in the NPRA. Neither would be the grants that support this function.

***Director with Sufficient Access and Clout.*** The Director of National Preparedness and Response should be a Level II official – that is, of the same rank as the Deputy Secretary – and would report directly to the Secretary of DHS. The Director would also serve as the Advisor to

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<sup>1</sup> While the entirety of DHS’ Preparedness Directorate would become part of NPRA, we continue to review the appropriate placement of individual offices (e.g., Infrastructure Protection, the Chief Medical Officer, and Cyber and Telecommunications).



the President for national emergency management, in a manner akin to the Chairman of the Joint Chiefs of Staff. The Director would have a direct line of communication to the President during catastrophes.

The Director should also have the political authority to direct appropriate personnel within DHS and in other departments and agencies of the federal government to carry out their assigned emergency management responsibilities under the Stafford Act, the National Response Plan (NRP), Emergency Support Functions (ESFs), and other appropriate emergency management doctrine.

***Capable and Qualified Leadership.*** Those leading NPRA should have skills commensurate with the organization's critically important mission of protecting American lives and property in the event of a terrorist attack or natural disaster. The three Deputy Directors – for Preparedness and Mitigation, Response, and Recovery – would serve under the Director and would be Level III, Senate-confirmed appointees. Each of ten regional offices would be headed by an SES-level Regional Director qualified to act as a senior FCO to provide strategic oversight of incident management when needed.

The Director and each of the three Deputy Directors should have significant experience in crisis management, in addition to substantial management and leadership experience, whether in the public, private or nonprofit sector. For example, appropriate experience could include a military career with broad leadership experience; emergency management experience and a proven track record of leading complex preparedness and response efforts; or private sector experience successfully leading a company or organization through a crisis.

Those with direct technical and operational responsibilities during disasters should be individuals with emergency or crisis management knowledge, training, and experience. The nation's preparedness and response agency requires a cadre of seasoned professionals with knowledge of crisis management and government operations, who have exhibited leadership and commitment and will build trusted relationships with other federal agencies, state and local governments, non-governmental organizations (NGOs), volunteer organizations, and the private sector.

#### **Foundational Recommendation #2 - From the Federal Level Down, Take a Comprehensive All-Hazards *Plus* Approach to Emergency Management.**

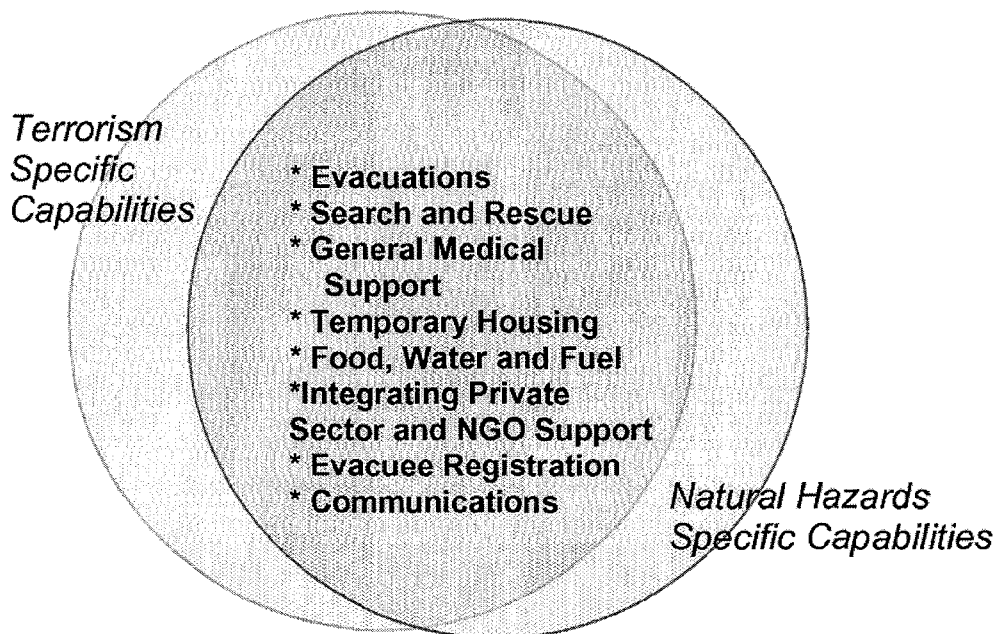
The new organization should bring together the full range of responsibilities that are core to preparing for and responding to disasters. These include the four central functions of comprehensive emergency management – preparedness, response, recovery and mitigation – which need to be integrated. Actions in recent years that removed preparedness grants from FEMA and separated preparedness from response weakened FEMA's relationship with state officials and undermined its ability to utilize "the power of the purse," in the form of grant funding, to encourage states to improve their preparedness and response functions. A more comprehensive approach should be restored. If NPRA is going to effectively respond to major events, for example, it needs to have been involved in the preparations for such events. The

Director, moreover, must be responsible for the administration and distribution of preparedness grants to state and local governments and for national preparedness training, as these are key tools for ensuring a consistent and coordinated national response system.

**All-Hazards Plus.** 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.

### Common Emergency Management Elements

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**Protect Critical Infrastructure.** NPRA’s mandate would 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 – an essential part of an effective response. The critical infrastructure programs would work with the Department’s intelligence arm and other Department assets to help prevent terror attacks, and should establish priorities for the protection and restoration during an emergency of critical infrastructure and should help support restorative efforts.

#### **Foundational Recommendation #3 – Establish Regional Strike Teams and Enhance**

## **Regional Operations to Provide Better Coordination between Federal Agencies and the States.**

Most of the essential work of emergency management does not happen in Washington, D.C. but on the front lines, with state and local officials and first responders having lead responsibility in a disaster. Regional offices – building on FEMA's 10 existing regional offices – should play a key role in coordinating with and assisting states and localities in preparing for and responding to disasters. Regional offices can facilitate planning tailored to the specific risks and needs of a particular geographic area: for example, the risks faced, and the types of preparedness necessary, in Gulf Coast states may differ markedly from that of cities along the Northeast Corridor that were attacked on 9/11 or those areas that lie along the New Madrid fault.

***Federal Strike Teams.*** The regional offices should provide the federal government's first-line response to a disaster, when assistance is requested by a state. A critical feature of the regional structure should be a robust, deployable, multi-agency Strike Team at each of the regional offices that consists of, at a minimum, a designated Federal Coordinating Officer (FCO); personnel trained in incident management, public affairs, response 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.

***Coordination and Assistance to States.*** The regional offices 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, based on the specific risks and weaknesses identified at the regional level; coordinate and develop inter-state agreements; enhance coordination with NGOs 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.

***Adequate Regional Staffing.*** Regional offices would be staffed based on the needs in that region but would likely include any or all of the following: a regional Strike Team, a dedicated staff and FCO for each state in the region, regional grants administration and oversight coordinator(s), regional and interstate planning, training, and exercise support and coordination officer(s), a federal interagency liaison, an interstate cooperation coordinator, designated state DCOs and National Guard liaisons, a private sector, NGO, and volunteer organization coordinator, mitigation specialist(s), and response and recovery specialist(s).

***Multi-Agency Regional Efforts.*** The regional offices should coordinate with personnel from other components of DHS as well as from federal agencies outside DHS who are likely to be called upon to respond to a significant disaster in the region, including the Coast Guard, and the Departments of Health and Human Services (HHS), Defense (DOD), Transportation (DOT), Justice (DOJ) and others.

**Foundational Recommendation #4 - Build a True, Government-Wide Operations Center to Provide Enhanced Situational Awareness and Manage Interagency Coordination in a Disaster.**

During Katrina, the Homeland Security Operations Center (HSOC) had difficulty maintaining accurate situational awareness and failed to ensure that those in DHS's leadership had an accurate picture of the situation on the Gulf Coast, particularly about the failing levee system in New Orleans. 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).

***Common Operating Picture.*** The NOC, housed within DHS, should include representatives from all relevant federal agencies. In an actual or potential disaster, the operations center should supply government-wide situational awareness, facilitate information sharing, and provide overall operational coordination through agency mission assignments and the NRP's Emergency Support Function (ESF) process. All federal and relevant state and local command centers would feed relevant information to the NOC, which would develop a common operating picture not just for DHS, but for the entire federal government as well as states and local jurisdictions involved in an incident. The NOC 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. DHS should work with the NOC to develop protocols for disseminating information on the status of relief efforts to decisionmakers, responders, the private sector and affected individuals.

***Replace the IIMG.*** The IIMG would be disbanded and replaced by a permanent policy staff comprised of detailees from relevant federal agencies who would conduct planning for emergencies and would help resolve conflicts among different federal entities. Conflicts that could not be resolved at this level would be forwarded to higher-level agency officials or the HSC for resolution. The NOC would include a strong analytic team capable of sorting through and assessing information and determining which pieces would become part of the common operating picture.

***Improved Performance.*** 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, in a timely manner. When there is notice of a potential major disaster, the NOC should implement plans, including one for securing 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.

#### **Foundational Recommendation #5 - Renew and Sustain Commitments at All Levels of Government to the Nation's Emergency Management System**

***Commitment from State and Local Government.*** Although the federal government should play a more proactive role in responding to catastrophic events, when state and local officials may be overwhelmed, states and localities will continue to provide the backbone of response – the first

response – for all disasters, catastrophic or not. State and local officials must take responsibility for their citizens' welfare and conduct the planning, training and exercising that will prepare them to meet this obligation.

***Commitment Commensurate with the Mission.*** The importance of providing for the safety of our citizens in the event of a natural disaster or terrorist attack can hardly be overstated. Yet our investigation showed that FEMA did not have the resources to fulfill the mission and respond effectively in a catastrophic event. Resources are needed for additional planning, more frequent and ambitious training and exercises, the enhancement of regional offices, staffing and preparation of regional Strike Teams, better development of a trained cadre of reservists, and the development of new logistics capabilities. 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 National Response Plan – 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 pattern over the last three years of steadily declining funds for state and local preparedness needs to be reversed. NPRA should be given sufficient funds for homeland security and emergency management grants to assist state and local governments in developing and exercising emergency plans, providing training, and attaining and maintaining essential capabilities, such as survivable, interoperable communications. But the states and localities must do their part, as well. Every homeland security dollar, whether provided by the federal government or through state and local resources, must be spent only on those things that truly support the homeland security mission. The new NPRA regional offices should be tasked with working with states to ensure that homeland security dollar expenditures are based on the risks and needs identified for that state or locality.

***Federal Commitment.*** The President, DHS, and Congress must ensure that the NPRA is funded, staffed and equipped consistent with the range of risks facing American citizens. The federal government must provide protection no less robustly for all domestic hazards than it does for the defense from threats abroad.

The Administration and DHS must ensure that Federal leaders understand their key responsibilities under the National Response Plan and the resources they need to effectively carry out the comprehensive planning required, while also training and exercising on the National Incident Management System (NIMS), NRP and other operational plans. Each agency that has a role under an ESF, whether primary, coordinating, or supporting, should have a sufficient number of full-time staff whose primary responsibilities are to prepare for executing the agency's responsibilities under the ESF. Such preparedness activities should include training people who will be deployed to DHS's operational center for disaster response or to the disaster scene. These individuals must have sufficient authority and experience to be able to efficiently and effectively execute the agency's responsibilities under the ESF.

***State and Local Advisory Council.*** Any attempt to develop a full-fledged national system of

preparedness and response must 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, and 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.

***Better Integrate NGOs and the Private Sector.*** After Katrina struck, private companies and their employees provided important, and even life-saving, relief to citizens across the Gulf Coast region; many other companies sought to offer assistance. Yet there was no system in place to effectively incorporate many private sector resources into the response effort. Nor was there a system to efficiently incorporate important contributions from faith-based and other charitable and community organizations that sought to offer assistance.

DHS and 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. In all cases, advance planning for how to most effectively utilize these nongovernmental resources is essential.

#### **Foundational Recommendation #6 – Strengthen the Plans and Systems for the Nation's Response to Disasters and Catastrophes.**

Despite their shortcomings and imperfections, the National Response Plan (NRP) and National Incident Management System (NIMS), including the ESF structure that has taken years to develop, currently represent the best approach available to respond to multi-agency, multi-jurisdictional emergencies of any kind, and should be retained and improved. 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.

The NRP should be amended to add an Emergency Support Function (ESF) responsible for assessing the damage to critical infrastructure, taking measures to mitigate the impact on the economy and national security, and restoring critical infrastructure. DHS should be responsible for leading this ESF, but it should have the involvement of the private sector, other federal agencies, and state and local governments, as appropriate.

Successfully implementing the NIMS during a disaster or catastrophe requires a true unity of effort. We saw in Katrina that a unity of effort generates much better outcomes than the lack thereof. 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. The NRP should clearly

demonstrate the importance of establishing a unified command in which the principal incident management organizations – the Federal Joint Field Office (JFO), the DOD Joint Task Force (JTF), and the state Emergency Operations Center (EOC) – are co-located where the Incident Command System (ICS) and ESF staffs can be fully integrated. The NRP should also be revised to further clarify the importance of integrating agencies with ESF responsibilities into the ICS, rather than their operating in “stovepipes.” Agencies should not function as independent “cells,” but should be represented by functional areas throughout the ICS. For example, agency representatives working on transportation issues should be sitting together, whether they are from DOT, NPRA, or DOD. Likewise, agencies supporting ESF-13 (Public Safety and Security), which may include the DOJ, NPRA, the Coast Guard, and the State Police, should all be physically located and working together in a unity of effort.

The roles and responsibilities of the Principal Federal Official (PFO) and the Federal Coordinating Officer (FCO) are overlapping 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.

DHS should work with state and local governments to clarify expectations for such governments within the NRP. For the federal response to be effective, all levels of government must follow the same game plan. This did not always occur in Katrina.

The Stafford Act should be amended to address responses to all disasters and catastrophes, whether natural or man-made.

#### **Foundational Recommendation #7 – Improve the Nation’s Capacity to Respond to Catastrophic Events.**

As documented in this report, FEMA does not have the capacity to respond to large-scale disasters and catastrophes. The United States was, and is, ill-prepared to respond to a catastrophic event of the magnitude of Hurricane Katrina. Catastrophic events are, by their nature, difficult to imagine and to adequately plan for, and the existing plans and training proved inadequate in Katrina. Yet it is precisely events of such magnitude – where local responders may be rendered victims, where hundreds of thousands of citizens are rendered homeless and thousands may need medical attention, where normal communications systems may fail, and where the usual coordination mechanisms may not be available, that most require advance planning. As stated previously, preparation for domestic incidents must be done as robustly as that for foreign threats. We would not tolerate a DOD that was not prepared for a worst-case catastrophic attack – nor should we tolerate a NPRA that is unprepared for domestic catastrophes.

***Catastrophic Incident Annex and Supplement.*** DHS should ensure that the Catastrophic Incident Annex (NRP-CIA) is fully understood by the federal departments and agencies with responsibilities associated with it. The Catastrophic Incident Supplement (NRP-CIS) should be clarified and published, and the supporting operational plans for departments and agencies with

responsibilities under the NRP-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. In addition, ambiguities in the plans – such as whether commodities are to be pre-positioned to mobilization centers or directly to incident sites absent a state request – must be clarified. The NRP-CIS itself should also be continuously reviewed and revised based upon the lessons of Katrina and future catastrophes.

DHS should define the circumstances under which the Catastrophic Incident Annex and Supplement may be invoked, both for known and no-notice events. Finally, the Stafford Act should be amended to more clearly reflect the proactive responsibility of the federal government for catastrophic events represented in the NRP-CIA, including authorizing funding for federal agencies to pre-deploy necessary assets before a disaster when the NRP-CIA is activated by the Secretary or NPRA Director.

***Surge Capacity.*** DHS must 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. The Disaster Assistance Employee (DAE) corps should be modified/revamped so that it more closely resembles a reserve corps that can quickly and reliably respond with trained personnel in the case of a large-scale catastrophic event. Funds should be made available to ensure that these reservists receive appropriate and regular training, as well as adequate compensation for their time when called upon. DHS should investigate cross-training some of its 180,000 employees to become part of this reserve cadre.



Building the Nation's Emergency Management System
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<b>Readiness</b>
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Planning, Training, Exercising (39-41) Waste/Fraud/Abuse (42-43) Evacuation and Sheltering (44-49) Search and Rescue (50-51) Mitigation (52-54) Credentialing (55-57) Education (58-61) Special Needs Awareness (62-63) Military Preparations (64-70) State and Local (71-81) Levees (82-86)
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<b>Coordination</b>	<b>Technological Support</b>
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Stafford Act/NRP/NIMS (8-14) Interagency Coordination (15-22) NGO/Private Sector Involvement (23-25)	Communications/Interoperability (26-31) Information Systems (32-38)
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<b>New Structure</b>	<b>Commitment</b>
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Foundational Recommendations (1-4)	Foundational Recommendations (5-7)
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## **BUILDING BLOCKS**

### **COORDINATION**

#### **Reviewing, Aligning and Improving the Stafford Act, the National Response Plan, and the National Incident Management System**

**Recommendation 8:** The NRP should be reviewed/ revised to provide clear guidance to federal agencies and clear information to state, local and tribal officials, private sector organizations and nongovernmental organizations, eliminating ambiguities. The NRP should be a clear and accessible document that can be readily understood by those preparing for or participating in the response to a disaster. DHS should build commitment to the National Incident Management System (NIMS) from federal, state and local officials and other responders.

**Recommendation 9:** The Stafford Act and the NRP should be updated to better address and provide guidance for short and long-term recovery activities, so that DHS, the Executive Branch and Congress are not forced to react, but will already have plans and a structure in place to guide short and long-term recovery efforts. Within the Recovery Branch of the new organization, there should be a long-term recovery office, able to ramp up and coordinate the federal government's long-term recovery assistance, as needed.

**Recommendation 10:** The Stafford Act should be reviewed, and if appropriate amended, to provide statutory authority for committing resources and technical assistance to enable state and local governments and eligible non-profits to conduct short-term assessments and long-term recovery activities to meet the environmental mitigation needs of affected communities.

**Recommendation 11:** The scope of ESF-8 (Public Health and Medical Services), as defined in the NRP, should be expanded to clearly include the public health and medical needs not only of victims of an emergency, but also those of evacuees, special needs populations, and the general population who may be impacted by the event or may need to be evacuated or sheltered-in-place. The NRP should also clarify that responsibility for all mortuary activities, including collection of victims, resides with ESF-8, and appropriate mass fatality plans and capabilities should be developed.

**Recommendation 12:** The NRP should be revised to include language assigning a single federal maritime salvage coordinator who will be responsible for responses to maritime salvage during times of national disasters (man-made or natural) and clarify federal agency responsibilities (NPRA, U.S. Coast Guard, U.S. Navy, U.S. Army Corps of Engineers).

**Recommendation 13:** DHS should amend the NRP to designate which agency should have primary responsibility for ESF-13 (Public Safety and Security) in which circumstances, and clarify relationships between the Senior Federal Law Enforcement Official (SFLEO) designation

and ESF-13 functions described in the annex.

**Recommendation 14:** The NRP should be revised to reflect the broad range of search and rescue requirements that may arise in a disaster or catastrophe. ESF-9 (currently Urban Search and Rescue) should be expanded to encompass the multiple environments and requirements that may arise in a disaster or catastrophe, and should designate the appropriate lead agency and supporting agencies, as determined by the nature of the disaster.

### **Interagency Coordination**

**Recommendation 15:** DOD and DHS should improve their coordination.

- DOD should continue to provide experienced officers to assist DHS officials in the execution of their responsibilities during an incident or disaster;
- DHS and NPRA officials should receive better training as to the capabilities and authorities of DOD during an emergency;
- DOD should streamline its existing, cumbersome process for Mission Assignments (MAs), particularly as applied in the event of a catastrophe;
- Key DOD personnel who may be called to participate in DOD's response efforts should receive training on the National Response Plan, the National Incident Management System, and the Incident Command System;
- DOD should coordinate with the Secretary of DHS to develop a plan for commodities distribution in the event that DOD is called upon to augment DHS's commodities distribution in a catastrophic event.
- DOD and DHS should coordinate to expand the presence of DHS officials at U.S. Northern Command (NorthCom) and integrate DHS officials into NorthCom's planning, training, exercising, and responding to an incident or disaster.
- DOD and DHS should develop an inventory of assets under DOD's control that are most likely to be needed in response to a disaster in order to enable expeditious deployment should they be required. Such assets may include, for example, utility and heavy-lift helicopters, medium-lift helicopters capable of performing search-and-rescue, shallow-draft boats, communications equipment, medical equipment and personnel, and engineering equipment.

**Recommendation 16:** DHS and HHS should improve their coordination.

- The Secretary of HHS should strengthen the Department's emergency preparedness and response organization (Office of Public Health Emergency Preparedness) by giving it greater authority to coordinate and integrate programs across HHS that relate to emergency, bioterrorism and public health preparedness. In addition, the Secretary of HHS should increase the capabilities of the regional emergency coordination officers in the field and direct them to coordinate efforts with the regional NPRA offices.
- The Secretary of DHS and the Secretary of HHS should enter into a formal memorandum of understanding between the two agencies specifically describing how the departments will coordinate ESF-8 (Public Health and Medical Services) resources on all aspects of

preparedness and deployment, as well as clearly defining responsibility for logistical, security, and other support, including mortuary activities, required by health care facilities and organizations providing emergency medical care in a disaster or catastrophe.

- DHS, in conjunction with HHS, should develop and implement a system to identify, deploy and track Federal public health and medical assets (human, fixed and materiel) used in preparation for or response to national disasters and catastrophes.
- The National Disaster Medical System (NDMS) is a critical medical response asset whose capabilities must be increased. In particular, the Secretary of DHS should develop a strategic plan and a management structure that recognizes the unique nature of NDMS teams (e.g., highly skilled all volunteer staff and outside sponsor relationships). This should include providing adequate resources to equip, staff, and train NDMS teams; improving transportation, logistics and communications capabilities; and developing more effective management support team capability. NDMS should remain in DHS – possibly reporting to the Chief Medical Officer (CMO) – but should coordinate closely with HHS in preparing for disaster response.

**Recommendation 17:** DOJ and DHS should inventory their law enforcement assets and identify other available assets, including units with particular skill sets, in advance of a domestic incident. Planning for the deployment of law enforcement personnel should include how to transport officers to the affected region, which may require coordination with the Department of Defense and the Department of Transportation. Planning also should include arrangements to provide personnel with food, sheltering, supplies, and vehicles once they arrive. Federal law enforcement units should be self-sustaining so that they do not impose any additional burden on state and local responders.

**Recommendation 18:** Federal agencies and departments, including DOD, HHS, and DOJ, should work with DHS to create an inventory of physical and support assets within the agencies and departments that can be used in responding to disasters. For assets most likely to be used in responding to future disasters, DHS should develop pre-scripted Mission Assignments/Requests for Assistance (MAs/RFAs). The purpose of the pre-scripted MAs/RFAs should be to expedite the submission and approval of MAs/RFAs and the provision of commonly requested assets and support in the event of a disaster. These MAs/RFAs should include provisions to pre-position assets and personnel.

**Recommendation 19:** The NPRA, through the National Communications System (NCS), should develop a database for monitoring the inventory of all federal, including DOD, and, where appropriate, private sector communications equipment that can be deployed following a catastrophic incident to assist first responders and restore commercial communications services. In addition, DHS should maintain an inventory of what federal resources are necessary to support the deployment and operation of such assets.

**Recommendation 20:** DHS should work with all federal departments and agencies with responsibilities under the NRP, including the ESFs, to pre-identify areas in policy, doctrine and guidance that can be streamlined, or that provide an opportunity for regulatory flexibility, where

appropriate/necessary during a disaster or catastrophe. DHS should ensure that policies and procedures provide emergency management experts sufficient regulatory and policy flexibility so that they are empowered to make decisions that are critical to a quick and effective response during a catastrophic event. For example, during a catastrophe, it may be appropriate to waive certain training requirements.

**Recommendation 21:** DHS should develop data sharing arrangements with other federal agencies, prior to the next disaster, to more effectively respond to disasters, while protecting privacy, and to protect against waste, fraud and abuse. For example, (1) a data sharing agreement between NPRA and the Social Security Administration would allow NPRA to ensure that a disaster victim registering for assistance is using a valid social security number, helping to prevent fraudulent registrations, and (2) a data sharing agreement between the Federal Bureau of Investigation (FBI) and DHS would facilitate tracking missing children and adults.

**Recommendation 22:** The lack of easily understandable, policy-based, field operations guides available to responders at all levels contributed to misunderstandings and inefficiencies, and degraded overall operations. DHS should develop and publish a comprehensive Federal Disaster Field Operations Guide and make the guide available to all federal, state and local response officials, so that all responders are better informed of what to expect from federal agency operations.

#### **NGO and Private Sector Involvement**

**Recommendation 23:** DHS should coordinate with the private sector and NGOs at the state, regional, and national level to incorporate those entities, where appropriate, into their planning, training, and exercises, to the greatest extent possible.

**Recommendation 24:** There needs to be a balance, even in a time of disaster, between procuring essential goods and services and maintaining fairness and reasonableness in the procurement process to the extent possible.

- The federal government should establish pre-negotiated contracts for priority resources prior to disasters, especially in the areas of food, water, ice, fuel distribution, and housing. DHS should include provisions in pre-negotiated contracts to provide the surge capacity needed to respond to catastrophic disasters.
- The federal government, working with the private sector, should develop standard-form agreements tailored for various needs to facilitate faster procurement for disaster relief operations.
- The federal government should consider expanding the cooperative purchasing authority of state and local governments to use all of the General Services Administration (GSA) Schedules (not just IT Schedule 70), for the purchase of goods and services that are designed to facilitate response to and recovery from a presidentially-declared disaster or catastrophe. Under the expanded authority, state and local governments would use the same procedures as GSA already has adopted for Schedule 70 cooperative purchasing.

**Recommendation 25:** DHS should develop a policy for accepting and directing corporate in-kind donations. The U.S. Department of State, in coordination with DHS, should develop a policy for accepting and directing foreign donations.

## **TECHNOLOGICAL SUPPORT**

### **Communications and Interoperability**

**Recommendation 26:** DHS should develop a national strategy, including timeframes, for implementing a survivable, resilient, national interoperable communications network. DHS should establish a plan to migrate to the use of 1) interoperable platforms for communications networks; 2) equipment that permits sharing of resources in times of crisis; and 3) systems to promote high-precedence data communications and interoperability during disasters so that data (such as medical, victim registration, and Geographic Information Systems (GIS) data) can be electronically shared among responders, as needed, at all levels of government. This process of developing a national strategy should recognize existing state plans and provide a mechanism for states to collaborate on interoperability and the ability to provide emergency assistance to other states through shared communications resources. DHS should condition the award of grants for public safety communications equipment on their being used to purchase interoperable communications systems that operate under open architecture standards developed by the SAFECOM unit within DHS.

**Recommendation 27:** The NPRA, through the regional Strike Teams, should coordinate with NCS, state-level ESF-2 (Communications) agencies, and private-sector partners to be prepared to deploy in an emergency to facilitate reestablishment of public and private communications systems that work across jurisdictions. This should be done with the recognition that maintaining and/or reestablishing communications capabilities is critical to an effective emergency response. Although most of the physical damage to telecommunications equipment may occur in a central area, it may adversely affect large portions of the surrounding areas. DHS should take a lead role to facilitate and encourage cooperation among local jurisdictions to address mutual restoration and redundant routing that will help create a more resilient network to aid public safety first responders.

**Recommendation 28:** DHS should strengthen its mobile emergency response teams' (now incorporated into the regional Strike Teams) ability to provide communications support during disasters. DHS should acquire and position at regional offices mobile communications suites or caches of secure, interoperable emergency communications equipment and systems that can be deployed when normal land line, mobile, and radio systems are disrupted or destroyed, as does the National Interagency Fire Center.

**Recommendation 29:** The NPRA, through NCS, should work with all communications providers to encourage development of and adherence to best practices to ensure reliability in the event of a disaster or quick restoration of services and facilities in the event service is disrupted. These best practices should address, among other things, (1) maintaining service during extended commercial power outages through the use of back-up generators and equipment; (2) building

communications towers, transmitters, and repeaters to withstand a severe storm; and (3) implementing regional interoperable communications networks that would increase the survivability of communications by allowing first responders' radios to operate off of towers in a neighboring jurisdiction that survived the disaster. DHS and state and local governments should develop plans for better direct redundant lines of communications between the emergency operations centers used by all levels of government.

**Recommendation 30:** States should be encouraged to purchase communications systems – such as satellite phones – that can operate when land-based infrastructures are damaged or destroyed.

**Recommendation 31:** DHS should work with state and local officials to encourage 9-1-1 call centers to develop plans to route calls to other centers in case the center is not functional and should encourage the inclusion of 9-1-1 communicators in Emergency Management Assistance Compacts (EMACs).

### **Information Systems**

**Recommendation 32:** DHS should adopt a common computer software standard for use by all Federal and state entities involved in incident management that will serve as the information architecture for shared situational and operational awareness. Based on this standard, the Homeland Security Information Network (HSIN) may be improved, or a new system may need to be developed. The system might include a GIS capability to support functions such as tracking commodities, Search and Rescue (SAR), and status of evacuation shelters, among others.

**Recommendation 33:** DHS should refine and streamline the Action Request Form system (the system through which state and local governments request disaster-related assistance from the federal government) and work with state and local governments to ensure that federal and state systems are compatible and provide for seamless interfacing.

**Recommendation 34:** DHS should complete and/or adopt technology and information management systems to effectively manage disaster-related activities. DHS should develop an efficient ordering system that minimizes delays and provides order status visibility and accurate, timely commodity tracking, and a transportation protocol that moves commodities and resources directly from the supplier to the usage area.

**Recommendation 35:** The states, in coordination with DHS, should establish systems to facilitate reunification of family members separated as a result of a disaster or catastrophe.

**Recommendation 36:** Given the importance of providing as much warning as possible to coastal populations in the event of a major hurricane, the National Oceanographic and Atmospheric Administration (NOAA) and the National Hurricane Center (NHC) should review their protocols for issuing hurricane advisories and related forecast products to ensure that critical information is made available to the public as soon as possible, in a form that is as complete and understandable as possible. Further, NOAA and the NHC should identify any technical or resource constraints that limit their ability to do so.

**Recommendation 37:** Because storm surge is historically the most deadly element in major hurricanes, NOAA and the NHC should examine the use of additional forecasting models, such as the Advanced Circulation Model (ADCIRC) sponsored by the U.S. Army Corps of Engineers (the Corps), to provide additional confidence and perspective to their periodic modeling and publication of storm surge projections and pre-landfall storm surge forecasts, as is currently done for forecasting hurricane intensity and track. As part of this review, the NHC should also reexamine its practice of making pre-landfall storm surge forecasts for major hurricanes no earlier than 24 hours before landfall.

**Recommendation 38:** NOAA, utilizing expertise within the National Weather Service, the NHC, and the National Geodetic Survey, should routinely revise its models and published impacts of hurricane storm surge projections to take into account changes in modeling and forecasting technology and regional conditions, such as regional subsidence, loss of coastal wetlands, and sea level rise. Changes in projected impacts as a result of such revisions should be clearly documented and published.

## **READINESS**

### **Planning, Training, and Exercising**

**Recommendation 39:** DHS should ensure that the NRP becomes more than just words on paper – it must be operationalized if it is to be effectively executed in response to disasters and catastrophes. In doing so, DHS should direct all federal departments and agencies with responsibilities in the NRP, including DOD, in the completion of a coordinated, operational, federal disaster response plan that is then exercised, with lessons learned incorporated into a revised plan. DHS should simultaneously coordinate with the states to ensure that the states' emergency response plans are aligned with the NRP, including ESF responsibilities, to the highest degree possible and exercised, with lessons learned incorporated into a revised plan, and should provide necessary support for any additional planning required to achieve this level of preparedness. DHS should lead an effort, coordinated with the states, to develop response plans for specific geographic regions and for specific types of high-risk events that will augment the NRP and provide additional operational detail.

**Recommendation 40:** Federal departments and agencies with responsibilities under the NRP should be required to conduct exercises to ensure that their plans are continually revised and updated. The exercises should include broad all-encompassing federal disaster and catastrophic exercises. DHS, in conjunction with DOD, other federal agencies, and state and local participants should stage exercises simulating a large-scale catastrophe to improve the training for all personnel, familiarize responding agencies with one another's personnel and capabilities, address issues of command and control, and improve the working relationships between DHS and other response agencies.

**Recommendation 41:** Emergency agencies at the federal, state, and local levels of government, as well as first responder groups outside of government, should receive regular training on NRP



and NIMS, integrating the ESF structure, including statutorily required exercises and simulations to expose unaddressed challenges, provide feedback about progress, and maintain pressure to improve. These exercises and simulations should be objectively assessed by an independent evaluator. DHS should consider tying future cost-share requirements for preparedness grant funds to performance and results of these exercises.

### **Protecting Against Waste, Fraud, and Abuse**

**Recommendation 42:** Fraud related to disaster assistance and contracting is not tolerable. DHS should work with DOJ and other federal agencies to ensure that a cooperative effort is made to investigate and prosecute fraud. DHS should also strengthen controls on the Individuals and Households Program (IHP), and other programs where appropriate, to reduce fraud and abuse, while continuing to offer speedy assistance and relief to the true victims of a disaster.

**Recommendation 43:** In a disaster where the government is entering into contracts and other procurement vehicles (grants, cooperative agreements, direct purchase orders, etc.) quickly and with expedited procedures and oversight, it is all the more important that the agencies making these procurements be thoroughly committed to full transparency. This transparency must occur from the outset so that waste, fraud, abuse or simple mismanagement or inefficiency can be identified before additional financial liability is incurred by the taxpayers. There is no Federal dollar that is spent on disaster relief and recovery for which the government is not accountable to taxpayers. DHS should:

- Ensure that NPRA has sufficient contracting staff to handle the flow of disaster assistance and should identify and train procurement staff from other agencies who can provide additional surge capacity.
- Develop procurement plans, based on past experience, for a variety of disaster scenarios and use those plans as a guide in future disasters so that spending is not reactionary.
- Engage in more rigorous procurement planning and execution to ensure that there are always one or more competitively-awarded technical assistance contracts in place.
- Improve acquisition process accountability post-disaster, discouraging and strictly reviewing sole-source and no-bid contracts (where necessary), as well as reviewing purchase decisions by the government that appear excessive, unwise, or poorly managed.
- Make non-proprietary information related to disaster-related procurements available to the general public in an easily accessible format.

### **Evacuation and Sheltering**

**Recommendation 44:** As the primary federal agency under ESF-1 (Transportation), the Department of Transportation, in coordination with DHS, should:

- Develop plans to assist in conducting mass evacuations when an effective evacuation is beyond the capabilities, or is likely to be beyond the capabilities, of the state and affected local governments. DOT should develop plans to quickly deploy transportation assets to

an area in need of mass evacuation. DHS should, in coordination with DOT, assist state and affected local governments in evacuating populations when requested.

- In coordination with the states, plan, train, and exercise for evacuations including medical patients and others with special needs, in coordination with other relevant federal agencies, the American Red Cross, and state and local partners. DOT should consider using a variety of transportation modes, including air medical services.
- Work with state and local emergency planners – in particular, state and local agencies charged with ESF-1 responsibilities – to help them assess the resources needed to assist with evacuations, those that are locally available, and what shortfalls exist; determine unique geographical/demographic obstacles to evacuation in particular areas; and develop catalogues of regionally available evacuation-related assets, including transit agencies from various municipalities.
- Establish liaisons with ESF-6 (Mass Care, Housing, and Human Services) to coordinate sheltering destinations for evacuees from various areas, and work with ESF-13 (Public Safety and Security) to ensure that air, bus, and other transportation providers have appropriate security escorts to ensure safety during evacuation activities.

**Recommendation 45:** All evacuation plans must provide for populations that do not have the means to evacuate. DHS and DOT should make available assistance to state and local governments for the development of these plans to ensure that the nation's most vulnerable citizens are not left behind in a disaster.

**Recommendation 46:** DHS should support state and local governments in planning, training and exercising evacuation plans and ensure that these plans address the challenges posed by evacuating hospitals, nursing homes, and individuals with special needs.

**Recommendation 47:** DHS, in conjunction with HHS, DOD, the U.S. Department of Veterans Affairs (VA) and state and local partners in the patient movement system, should develop a specific concept of operations (CONOP), training and outreach programs, and patient triage and tracking capabilities to execute domestic patient movement/evacuations utilizing the NDMS patient movement capability. Non-governmental emergency response and emergency management entities, including private air medical services, should be integrated into the planning and response process.

**Recommendation 48:** DHS should coordinate with DOT to annually evaluate state evacuation plans, as well as evacuation plans for large urban areas.

**Recommendation 49:** DHS should encourage individuals, and state and local governments to plan for the evacuation and sheltering of pets.

- Due to various health, safety, and other concerns, pets may be separated from their owners during transportation or sheltering. State and local agencies should work with animal welfare organizations to develop procedures for animal identification and processing to facilitate the return of the pets to their owners.
- State and local agencies should establish memorandums of understanding with animal

welfare organizations to ensure their assistance with the transport, sheltering and rescue of pets.

- State and local evacuation plans should include consideration of transportation and sheltering of pets owned by residents in need of transportation or shelter themselves.

### **Search and Rescue**

**Recommendation 50:** Signatory agencies to the National Search and Rescue Plan should develop a comprehensive plan for search and rescue in a multi-environment disaster. The plan should provide for a unified coordination structure, with subordinate coordination of air, land, and water-borne assets, and should establish the means for obtaining the necessary assets and personnel. The plan should also provide for a unified communications network, a common grid reference system, and standardized procedures and methods for utilizing and sharing local situational awareness acquired by search and rescue operational units.

**Recommendation 51:** Policies, plans, and procedures, as defined by the National Search and Rescue Plan, need to be incorporated into personnel recovery training at the operational and strategic levels of NorthCom so that DOD can more effectively participate in future domestic mass rescue operations.

### **Mitigation**

**Recommendation 52:** In order to protect coastal areas from becoming increasingly vulnerable to damage from hurricanes, ecological restoration efforts must be integrated into hurricane protection in a comprehensive manner that addresses the root causes of ongoing ecological and geological processes, such as the loss of coastal wetlands and regional subsidence.

**Recommendation 53:** Future decision making regarding Mississippi River-Gulf Outlet (MRGO) and other navigation channels should recognize, account for, and mitigate not only the direct role that navigation channels can play in increasing, speeding, or transferring storm surges, but also the impact of the channels on wetland loss and the coastal environment and the resulting long-term implications for hurricane vulnerability.

**Recommendation 54:** DHS, with the participation of the Corps, the U.S. Department of the Interior, NOAA, and other relevant agencies, should establish an interagency review board, including state and local officials, to examine the level of vulnerability of communities located in floodplains and coastal regions, to hurricanes and floods, and specifically examine the adequacy of existing and planned flood and hurricane protection levees and flood control structures, the contribution of environmental and ecological conditions, and the impact of non-structural programs, such as the federal flood insurance program and pre- and post-disaster mitigation programs.

### **Credentialing**

**Recommendation 55:** DHS should ensure that all federal emergency response personnel from

federal departments and agencies with responsibilities under the NRP have a standard credential that details the emergency management positions the person is qualified for based on measurable criteria, performance, objectives and standards so that they may easily integrate into emergency response operations (Red Card system). DHS should coordinate with state governments to ensure that all state emergency response personnel from departments and agencies with responsibilities under the state emergency response plan, and volunteers, also have a standard credential, based on the same credentialing system.

**Recommendation 56:** HHS, in conjunction with DHS, should lead a Federal, state and local initiative to roster and credential, in a centralized or linked manner, medical personnel and volunteers (National Disaster Medical System, Medical Reserve Corps, U.S. Public Health Service, etc.) to ensure that, in the case of national emergencies, properly qualified medical providers are quickly identified and able to gain appropriate access to the affected area.

**Recommendation 57:** Private sector telecommunications, utility, critical infrastructure, and other private entities should be included in emergency response planning and be assured appropriate access to disaster areas to repair critical infrastructure and restore essential services. DHS should coordinate with federal, state, local, and other emergency management officials to develop a standardized national credential that would allow emergency management professionals, first responders, and other response personnel from the private sector access to disaster areas, as appropriate.

#### **Professional and Public Education**

**Recommendation 58:** DHS should, during the transition to the NPRA organizational structure, conduct an agency-wide training assessment (inventory) to assess the current state of capabilities to meet the FEMA/NPRA mission. Based on this assessment, DHS should develop and implement strategies, including appropriate incentives and rewards, to recruit, retain and build a cadre of trained, practiced, and experienced professional emergency response professionals; develop career paths that reward and promote individuals who have served in multiple state and federal agencies with emergency management responsibilities; and, as part of the NPRA career track, require all personnel to engage in continuous learning and education.

**Recommendation 59:** DHS should establish and maintain a Homeland Security Academy to:

- develop and provide a course of instruction on Homeland Security matters, including the nation's emergency preparedness and response system, to meet the specific needs of political officials (cabinet officials, agency heads, governors, mayors and other federal, state and local officials) who must provide leadership during emergency response operations; and
- develop, provide a course of instruction, and maintain a web-based "lessons recognized-lessons learned" and best practices program that can be accessed by emergency management professionals at the federal, state, and local levels.

**Recommendation 60:** DHS should strengthen and expand the Emergency Management Institute's (EMI) courses for emergency management personnel. In order to reach the widest audience, EMI should develop "train the trainer" courses to expedite building a cadre of emergency management experts around the country. Course schedules should be designed around the heaviest emergency "seasons," so that experienced instructors are available to teach the courses.

**Recommendation 61:** DHS should develop and implement a comprehensive strategy to develop a culture of preparedness in America. DHS should coordinate with state and local officials to ensure that emergency plans are community-based and include outreach and education to the public, through community and faith-based organizations and other institutions to promote individual preparedness based on the risks in their communities. This information should be widely distributed in languages appropriate to the relevant constituencies.

### **Special Needs Awareness**

**Recommendation 62:** DHS should ensure and direct that all federal departments and agencies with responsibilities under the NRP, including the ESFs, take into consideration the special needs of persons with physical, mental, and other disabilities, the most vulnerable and those least able to help themselves, in their response and recovery plans. DHS should coordinate with state and local governments to ensure that their response and recovery plans also address persons with special needs.

**Recommendation 63:** DHS should coordinate with the private sector and NGOs, including the American Red Cross, to ensure that the response and recovery plans of those participating in emergency preparedness and response operations, take into consideration the special needs of persons with physical, mental, and other disabilities.

### **Military Preparations**

**Recommendation 64:** DOD should continue to provide the Commander, U.S. Northern Command (NorthCom), with authority to assign DCOs and Defense Coordinating Elements, and identify staging bases as necessary and prudent, to provide anticipated support for a domestic emergency or catastrophe. DOD should expand this authority to include the ability to deploy pre-packaged or pre-identified basic response assets (such as helicopters, boats, medical supplies and personnel, food and water, and communications equipment). DOD should develop procedures and guidelines for pre-positioning assets.

**Recommendation 65:** DOD should make the position of DCO in NPRA regional offices a full-time assignment for senior officers. The DCO should receive training and education on DOD's role under the NRP, and should coordinate closely with DHS, NorthCom, and state officials in plans, training and exercises.

**Recommendation 66:** NPRA should work with DOD and the state governors to assist them in developing an integrated plan for the deployment of National Guard units and personnel in State

status when large-scale military support is requested by a state to respond to a catastrophic incident or disaster. The plan should include a process for identification of National Guard units with the capabilities required to respond to the incident or disaster, and should take into account the availability of National Guard units for mobilization for national defense missions. The plan should include expedited procedures for requesting and approving federal funding under Title 32, United States Code, for National Guard forces employed in accordance with the plan, and procedures for DOD and the Governors, during a catastrophe, to coordinate the process of matching units and capabilities of National Guard forces with the requirements of the Governors. The integrated plan should ensure that there is sufficient command and control and reception, staging and onward integration capability for any such large-scale National Guard deployment.

**Recommendation 67:** In developing a federal catastrophic disaster response plan, DHS should work with DOD to develop a plan for the employment of active duty units and personnel when wide-scale military support is requested by a state or ordered by the President to respond to a catastrophic incident or disaster. The plan should include a process for identification of active duty units with the capabilities required to respond to the incident or disaster, include planning for reception, staging and onward integration of the active duty forces and commodities distribution, and should, via the National Guard Bureau, take into account the availability and capability of National Guard units.

**Recommendation 68:** DHS, DOD, and the states should develop detailed operational plans for Defense Support to Civil Authorities (DSCA) missions, including specific plans for response to hurricanes, wildfires, earthquakes, pandemics, and other natural disasters.

**Recommendation 69:** NorthCom and the National Guard Bureau should coordinate to expand the presence of the National Guard Bureau at NorthCom and integrate National Guard Bureau officials into NorthCom's planning, training, exercising, and responding to an incident or disaster.

**Recommendation 70:** DOD should require that officers selected for general officer or flag rank are trained on the NRP, NIMS, ICS, and DOD's Defense Support to Civil Authorities (DSCA) mission.

### **State and Local Preparations**

**Recommendation 71:** At least annually, state emergency preparedness offices should audit plans of agencies with ESF responsibilities under the state's emergency operations plan to ensure they: 1) take an all-hazards approach to emergency management; 2) comprehensively address the agency's ESF responsibilities; 3) are up-to-date; and 4) include provisions for regular training and exercising. Governors should require their state emergency preparedness offices to then report to them the state of the emergency preparedness office, all supporting agencies, and the state emergency operations plan. The audit should review, at a minimum:

- realistic, comprehensive evacuation plans to provide for the safety of the state's population in a disaster, especially those who lack their own transportation or have physical, mental, or other disabilities;
- the staffing needs of agencies with emergency operations responsibilities and long range plans to attract and maintain qualified staff;
- laws/regulations/plans to ensure clear responsibilities for ordering evacuations and to address liability issues that may be impediments to evacuation orders;
- laws/regulations/plans that clarify the Governor's authority to assume control of emergency response where local governments' response capabilities are significantly damaged;
- pre-contracting for emergency supplies to address needs of shelters in disaster stricken areas; plans for sheltering and then evacuating people who have remained in an area struck by a disaster; and evaluations of the capacity, suitability and structural strength of shelters in the state;
- plans for alternative means of distributing commodities in situations where distribution through central distribution points may not be possible;
- plans that outline resource needs, such as volunteers for emergency support functions, transportation providers, and medical supplies, and where they will be obtained when disaster strikes;
- plans, under ESF-9 (Urban Search and Rescue) of the state emergency operations plan, to ensure there is the appropriate equipment and resources, based on the state's terrain and risks, to effectively carry out this function; and
- plans for ensuring the protection of vital records, whether paper or electronic, such as property titles, court case files, and driver's license and voter information.

**Recommendation 72:** States should coordinate with the NPRA to assess or upgrade their logistics management capabilities and address any asset tracking deficiencies.

**Recommendation 73:** States should coordinate through the NPRA regional offices to develop plans adequate to address shelter needs in a catastrophe or when needs exceeds a state's capacity.

**Recommendation 74:** State and local governments should review and resolve, to the extent possible, legal and operational issues incident to the issuance of evacuation orders and should be prepared to issue a mandatory evacuation order quickly in the event of a disaster.

**Recommendation 75:** States with high risk urban areas should develop multi-phased evacuation plans that provide for the speediest evacuation of residents most at risk, particularly those who lack the means to evacuate on their own. States with high risk urban areas should consider whether a contra-flow plan is advisable, and if so, should develop agreements with bordering states to secure their participation in the contra-flow plan. Neighboring political entities should work together to coordinate evacuation plans in advance, and state and local governments should publicize their evacuation plans and ensure that citizens are familiar with one or more evacuation

options. States whose location puts them at high risk of recurring hurricanes and tropical storms should use updated storm surge estimates to establish evacuation zones and evacuation clearance times. States whose locations put them at risk of other types of natural disasters should evaluate those risks and consider evacuation zones and clearance times in line with them.

**Recommendation 76:** States should develop estimates of populations that will require short-term sheltering in the event of a catastrophic event. This estimate should particularly focus on special needs populations. In consultation with NPRA, states should then develop plans for providing shelter for these estimated populations. Such plans should include a way to create a voluntary database of people in the shelters so victims can be accounted for. States should develop a catastrophic medical response plan that is integrated with its evacuation and shelter plan and documents the availability of nurses and health care professionals with emergency medical and trauma training in the state.

**Recommendation 77:** States should establish neighborhood pre-disaster and post-disaster information centers at schools, shopping centers, places of worship, and other community institutions, to provide information on evacuations and the location of disaster assistance sites.

**Recommendation 78:** States should ensure that effective communications lines and information sharing systems exist between the state emergency operations centers and all facilities or mobile units that provide medical care or other assistance to victims of a catastrophic event.

**Recommendation 79:** State agencies responsible for licensing of hospitals and nursing homes should ensure those facilities have evacuation plans and audit them annually, including evaluation of availability of transportation resources, to verify that they are viable.

**Recommendation 80:** State agencies responsible for special needs shelters, working with local counterparts and emergency support organizations, should consider developing and maintaining a voluntary database of special needs persons residing in the area.

**Recommendation 81:** The EMAC system should (1) be refined to pre-certify qualified out-of-state first responders, such as those with specialized skills like search and rescue or medical services, in order to shorten the response time; (2) develop National Guard civil affairs support teams trained in continuity of government operations (these could be the same teams that are already constituted for a weapons of mass destruction (WMD) event); (3) streamline the required paperwork process; and (4) streamline the deputization process with regard to various law enforcement agencies that may assist during the disaster response.

### Levees

**Recommendation 82:** The Interagency Performance Evaluation Taskforce (IPET), along with the American Society of Civil Engineers (ASCE) External Review Panel (ERP), should be continued beyond the scope of the current task and should have the ongoing responsibility to evaluate and review the design, construction, operation, reconstruction, and improvements to the



hurricane protection levee system in Southeast Louisiana. Formal charters for the IPET and the ASCE ERP should be created for this purpose and should ensure that the IPET process is independent from the U.S. Army Corps of Engineers' (the Corps) operational organizations. The independent review task forces should be extended to other levee systems that protect significant population centers throughout the country.

**Recommendation 83:** The Corps, in conjunction with the State of Louisiana, the local levee districts, and other relevant federal, state, and local agencies, should assume responsibility for development of a comprehensive emergency plan for the hurricane protection and Mississippi River levees systems, including high-water accidents, breaches, and floods. Current plans, including, but not limited to, the New Orleans Unwatering Plan, must be re-examined and brought into conformance with this comprehensive plan. The emergency plan must address incident command, interoperable communications, repair and flood fighting resources, monitoring of levee conditions, the acquisition of assets or alternative arrangements that allow the Corps to have real-time (or close to real-time) situational awareness of levee and flood conditions in the New Orleans area, and reporting and exercise procedures.

**Recommendation 84:** The Corps and local levee sponsors should immediately clarify and memorialize responsibilities and procedures for the turn-over of projects to local sponsors, and for operations and maintenance, including, but not limited to, procedures for the repair or correction of levee conditions that reduce the level of protection below the original design level (due to subsidence or other factors) and also emergency response. It must always be clear – to all parties involved – which entity is ultimately in charge of each stage of each project. The Corps should also provide real-time information to the public on the level of protection afforded by the levee system. A mechanism should be included for the public to report potential problems and provide general feedback to the Corps.

**Recommendation 85:** In states where applicable, governors should ensure that the equivalent of ESF-3 (Public Works and Engineering) of the state emergency plan is clarified to ensure that hurricane protection levee systems and other flood control infrastructures within the state are included within the definition of critical infrastructure, that a designated state agency is responsible for ensuring that state and local agencies and levee districts prepare for, and are able to respond to, emergencies involving these structures, whether they are directly owned by the state or not, and that the designated state agency executes this responsibility.

**Recommendation 86:** State statutes governing the operation of levee districts, such as preparation of emergency plans and training for levee board members and staff, must be re-examined and revised to ensure that levee districts exercise state-of-the art care and inspection of levees and are prepared to meet their primary obligation of flood protection and respond to emergencies. The inspection regime should include the use of advanced inspection techniques that are commensurate with the potential threat to life and property posed by the failure of a flood control project.

