

# Recommendations

In the recommendations that follow, we set out seven core 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 core 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.

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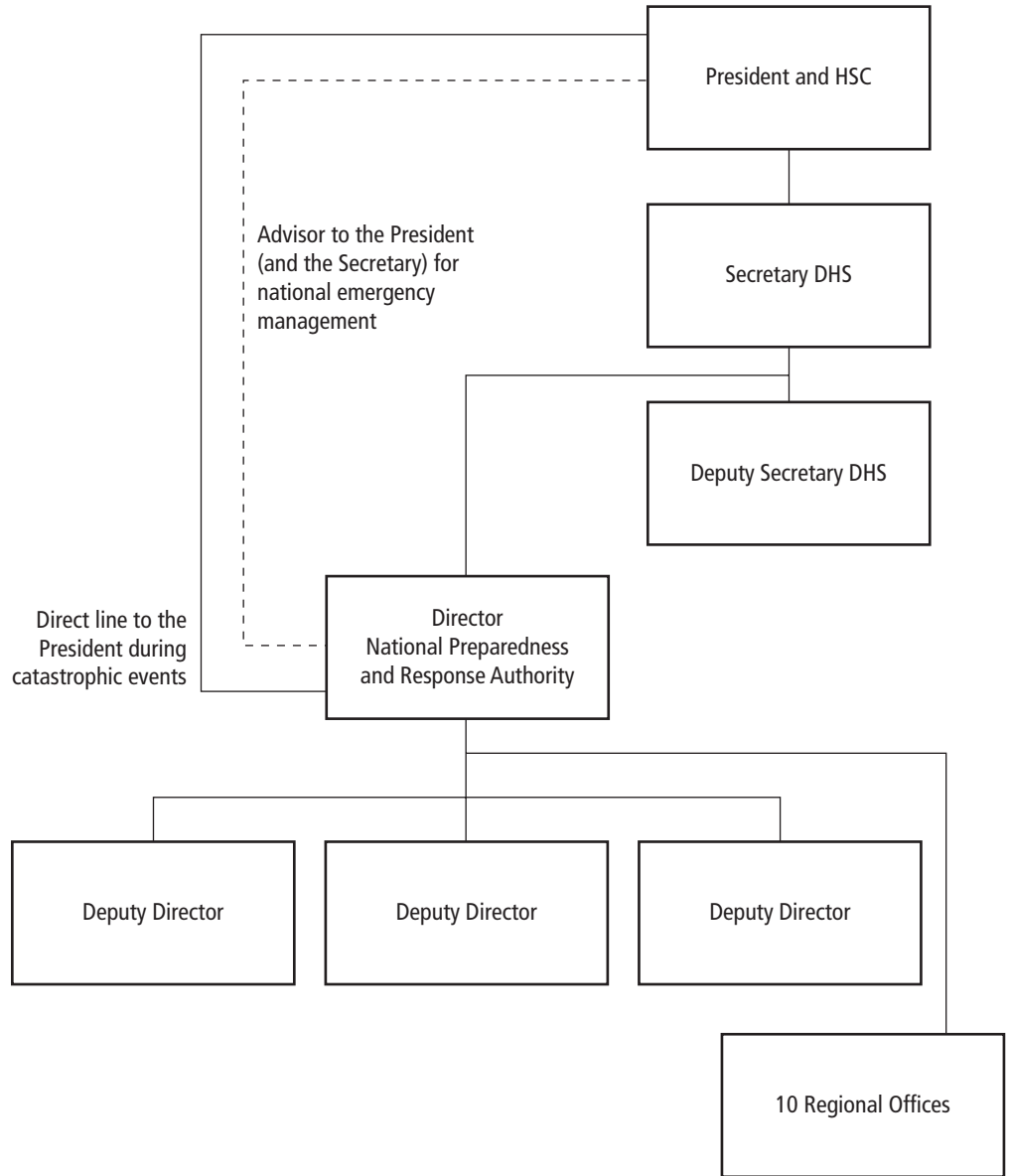
## Core Recommendations

### **Core 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 the Federal Emergency Management Agency (FEMA) and the Department of Homeland Security (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 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 2,500-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 could, in fact, 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 distinguish 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 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 the ten regional offices would be headed by a Senior Executive Service-level Regional Director qualified to act as a senior Federal Coordinating Officer (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.

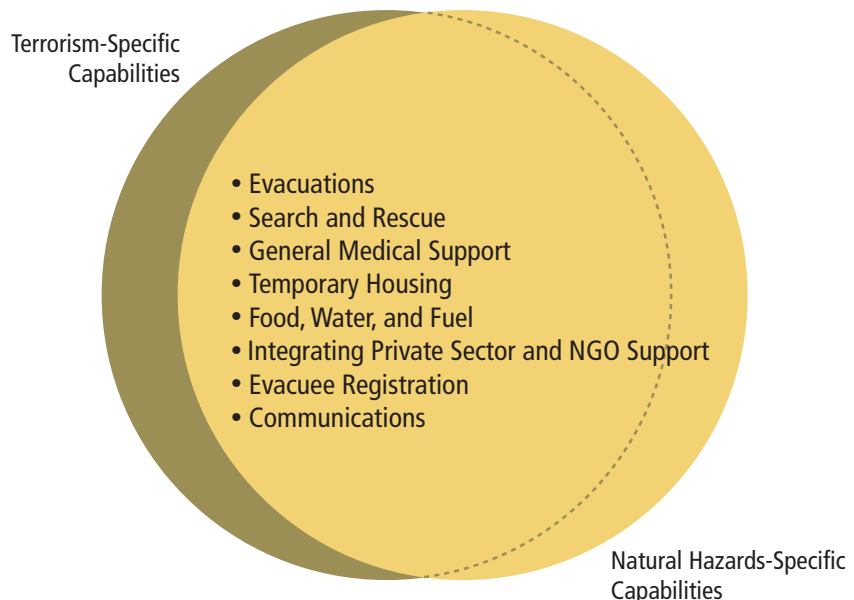
Those with direct technical and operational responsibilities during disasters should be individuals with emergency or crisis-management knowledge, training, and experience. The nation’s preparedness and response agency requires a cadre of seasoned professionals with knowledge of crisis management and 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.

**Core 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 administering and distributing 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**



*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 of critical infrastructure during an emergency and should help support restorative efforts.

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### **Core 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 of those areas that lie along the New Madrid seismic fault in the central Mississippi Valley.

*Federal Strike Teams.* The regional offices should provide the federal government's first-line response to a disaster when a state requests assistance. 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 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.

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### **Core 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, a multiplicity of interagency coordinating structures with overlapping missions 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 composed 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.

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### **Core 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 American citizens in the event of a natural disaster or terrorist attack can hardly be overstated. Yet this 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, enhancement of regional offices, staffing and preparation of regional Strike Teams, better development of a trained cadre of reservists, and development of new logistics capabilities. If the federal government is to improve its performance and be prepared to respond effectively to the next disaster, it must give NPRA – and the other federal agencies with central responsibilities under the NRP – the necessary resources to accomplish this. NPRA funding must be commensurate with the significance of its mission, with assurance 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 and 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 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 NRP 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 ESFs.

*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 Non-Governmental Organizations (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.

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

Despite their shortcomings and imperfections, the 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 work 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 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. Katrina showed 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 FCO overlap and were a source of confusion during Hurricane Katrina. The Stafford Act should be amended to clarify the roles and responsibilities of the FCO, and the NRP should be revised to eliminate the PFO position for Stafford Act-declared emergencies and disasters.

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.

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### **Core 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 FEMA 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 associated responsibilities. The NRP-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 NRP-CIA and NRP-CIS 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 regardless 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

### Readiness

Planning, Training, Exercising (39-41)	Education (59-62)
Waste/Fraud/Abuse (42-43)	Special Needs Awareness (63-64)
Evacuation and Sheltering (44-50)	Military Preparations (65-72)
Search and Rescue (51-52)	State and Local (73-83)
Mitigation (53-55)	Levees (84-88)
Credentialing (56-58)	

### Coordination

Stafford Act/NRP/NIMS (8-14)  
 Interagency Coordination (15-22)  
 NGO/Private Sector Involvement (23-25)

### Technological Support

Communications/Interoperability (26-31)  
 Information Systems (32-38)

### New Structure

Core Recommendations (1-4)

### Commitment

Core Recommendations (5-7)

## 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 and revised to provide clear guidance to federal agencies and clear information to state, local, and tribal officials, private-sector organizations and non-governmental 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 needs 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 NRP support 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 NRP, NIMS, and ICS;
- 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, as appropriate, U.S. Pacific Command (PACOM), and integrate DHS officials into NORTHCOM and PACOM'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 (i.e., 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 or 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:* NPRA should develop data-sharing arrangements with other federal agencies and other appropriate organizations, prior to the next disaster, to more effectively respond to disasters, while protecting privacy and protecting against waste, fraud, and abuse. For example:

- A data-sharing agreement between NPRA, HHS, DOJ, and other appropriate organizations (such as the National Center for Missing and Exploited Children) could facilitate tracking missing children and adults and reunifying families separated during evacuation. These data-sharing arrangements should have protections in place to address privacy concerns and to comply with child-custody agreements.
- 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.

*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 Information Technology 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 IT 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.

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## **Technological Support**

### **Communications and Interoperability**

*Recommendation 26:* DHS should develop a national strategy, including timeframes, for implementing a survivable and 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 information 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 can 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 via 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 911 call centers to develop plans to route calls to other centers in case the center is not functional and should encourage the inclusion of 911 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 Geographic Information System 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 (ARF) 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, DOJ, HHS and other appropriate agencies and organizations, should establish evacuee-registration systems to facilitate reunification of family members separated as a result of a disaster or catastrophe. DHS should work with the states to encourage development of systems that can share data across states, including the use of a model intake form with standard information to be collected.

*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 NWS, 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.

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## 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 simply reactive.
- Engage in more rigorous procurement planning and execution to ensure that one or more competitively awarded technical-assistance contracts are always 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 developing 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 and DOT should support state and local governments in developing evacuation plans that prevent, to the extent practicable, families being separated from one another during an evacuation and that facilitate rapid reunification in the event that families are separated.

*Recommendation 49:* DHS should coordinate with DOT to annually evaluate state evacuation plans, as well as evacuation plans for large urban areas.

*Recommendation 50:* DHS should encourage individuals, and state and local governments to plan for evacuating and sheltering 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 51:* 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 52:* 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 and, as appropriate, PACOM, so that DOD can more effectively participate in future domestic mass-rescue operations.

### **Mitigation**

*Recommendation 53:* 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 54:* Future decision making regarding the 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 55:* 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 for 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 56:* DHS should ensure that all federal emergency-response personnel from federal departments and agencies with responsibilities under the NRP have a standard credential (a Red Card system) 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. 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 57:* 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 case of national emergencies, properly qualified medical providers are quickly identified and are able to gain appropriate access to the affected area.

*Recommendation 58:* 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 59:* DHS should, during the transition to the NPRA organizational structure, conduct an agency-wide training assessment (inventory) of 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 60:* 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, gover-

nors, mayors, and other federal, state and local officials) who must provide leadership during emergency-response operations; and

- Develop and 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 61:* 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 62:* 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 63:* 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 64:* 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 65:* DOD should continue to provide the Commander, U.S. Northern Command (NORTHCOM) and, as appropriate, the Commander, U.S. Pacific Command (PACOM), 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 66:* 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 PACOM, as appropriate, and state officials in plans, training, and exercises.

*Recommendation 67:* 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 Na-

tional 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 68:* 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 69:* 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 70:* DOD and the States should develop the systems and processes of communication, coordination, and command and control, to ensure unity of effort when National Guard and Title 10 forces are deployed in integrated disaster-response missions.

*Recommendation 71:* 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 72:* 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) missions.

### **State and Local Preparations**

*Recommendation 73:* 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, and plans to ensure clear responsibilities for ordering evacuations and to address liability issues that may be impediments to evacuation orders;

- Laws, regulations, and 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 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 74:* States should coordinate with the NPRA to assess or upgrade their logistics-management capabilities and address any asset-tracking deficiencies.

*Recommendation 75:* States should coordinate through the NPRA regional offices to develop plans adequate to address shelter needs in a catastrophe or when needs exceed a state's capacity.

*Recommendation 76:* 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 77:* 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 contraflow plan is advisable, and if so, should develop agreements with bordering states to secure their participation in the contraflow 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 78:* 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 79:* States should establish neighborhood pre- 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 80:* 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 81:* 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 82:* 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 83:* 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 84:* 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' operational organizations. The independent review task forces should be extended to other levee systems that protect significant population centers throughout the country.

*Recommendation 85:* 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 86:* 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 87:* 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 88:* 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.

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<sup>1</sup> While the entirety of DHS's 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).