

May 2006

HURRICANE KATRINA

Better Plans and Exercises Needed to Guide the Military's Response to Catastrophic Natural Disasters





Highlights of [GAO-06-643](#), a report to congressional committees

Why GAO Did This Study

Hurricane Katrina was one of the largest natural disasters in U.S. history. Despite a large deployment of resources at all levels, many have regarded the federal response as inadequate. GAO has a body of ongoing work that covers the federal government's preparedness and response to hurricanes Katrina and Rita. Due to widespread congressional interest, this review was performed under the Comptroller General's authority. It examined (1) the extent to which pre-Katrina plans and training exercises reflected the military assistance that might be required during a catastrophic, domestic, natural disaster, (2) the military support provided in response to Katrina and factors that affected that response, and (3) the actions the military is taking to address lessons learned from Katrina and to prepare for the next catastrophe.

What GAO Recommends

GAO is making recommendations to improve the military response to catastrophic disasters. The recommendations address the needs to clearly delineate military capabilities in the National Response Plan and to improve military plans and exercises. The recommendations specifically address the integration of the military's National Guard and active duty and Reserve forces, as well as response problems associated with damage assessment, communication, search and rescue, and logistics issues. DOD partially concurred with all of our recommendations. www.gao.gov/cgi-bin/getrpt?GAO-06-643.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Sharon Pickup at (202) 512-9619 or pickups@gao.gov.

HURRICANE KATRINA

Better Plans and Exercises Needed to Guide the Military's Response to Catastrophic Natural Disasters

What GAO Found

The military mounted a massive response to Hurricane Katrina that saved many lives and greatly assisted recovery efforts but many lessons are emerging. Prior to Hurricane Katrina, disaster plans and exercises did not incorporate lessons learned from past catastrophes to fully delineate the military capabilities needed to respond to a catastrophe. For example, the government's National Response Plan made little distinction between the military response to a smaller regional disaster and its response to a catastrophic natural disaster. In addition, DOD's emergency response plan for providing military assistance to civil authorities during disasters lacked adequate detail. The plan did not: account for the full range of assistance that might be provided by DOD, divide tasks between the National Guard and the federal responders, or establish response time frames. National Guard state plans were also inadequate and did not account for the level of outside assistance that would be needed during a catastrophe, and they were not synchronized with federal plans. Moreover, plans had not been tested with a robust exercise program. None of the exercises that were conducted prior to Katrina called for a major deployment of DOD capabilities in response to a catastrophic hurricane. As a result, a lack of understanding exists within the military and among federal, state, and local responders as to the types of assistance and capabilities that DOD might provide in the event of a catastrophe, the timing of this assistance, and the respective contributions of the active-duty and National Guard forces.

Despite the lack of planning, the military took proactive steps and responded with about 50,000 National Guard and 20,000 active federal personnel. Based on its June 2005 civil support strategy, DOD relied heavily on the Guard during the initial response. Active duty forces were alerted prior to landfall and key capabilities such as aviation, medical, and engineering forces were initially deployed. Growing concerns about the magnitude of the disaster prompted DOD to deploy large, active ground units to supplement the Guard beginning about 5 days after landfall. Several factors affected the military's ability to gain situational awareness and organize and execute its response, including a lack of timely damage assessments, communications difficulties, force integration problems, uncoordinated search and rescue efforts, and unexpected logistics responsibilities. Without detailed plans to address these factors, DOD and the federal government risk being unprepared for the next catastrophe.

DOD is examining the lessons learned from its own reviews and those of the White House and the Congress, and it is beginning to take actions to address the lessons and prepare for the next catastrophe. It is too early to evaluate DOD's actions, but many appear to hold promise. However, some issues identified after Katrina such as damage assessments are long-standing problems that were identified by GAO after Hurricane Andrew in 1992. They will be difficult to address because they are complex and cut across agency boundaries. Thus, substantial improvement will require sustained attention from the highest management levels in DOD, and across the government.

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Figure 1: Buildup of Military Forces Supporting Hurricane Katrina Operations

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Abbreviations

DOD Department of Defense
FEMA Federal Emergency Management Agency
NRP National Response Plan

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United States Government Accountability Office
Washington, DC 20548

May 15, 2006

Congressional Committees

When Hurricane Katrina made its final landfall along the Louisiana/Mississippi border on August 29, 2005, it quickly became one of the largest natural disasters in the history of the United States. Despite a massive deployment of resources and support from both military and civilian agencies, many have regarded the federal response as inadequate. As local, state, and federal governments responded in the days following Katrina, confusion surfaced as to what responsibilities the military¹ has and what capabilities it would provide in planning and responding to a catastrophic event. As recovery operations continue, the nation is quickly approaching the 2006 hurricane season, and faces other natural and man-made threats that could result in a catastrophe at any instant.

About 9 months prior to Katrina's landfall, the National Response Plan (NRP) was issued to frame the federal response to domestic emergencies ranging from smaller, regional disasters to incidents of national significance. The plan generally calls for a reactive federal response following specific state requests for assistance. However, the NRP also contains a catastrophic incident annex that calls for a proactive federal response when catastrophes overwhelm local and state responders. The NRP generally assigns the Department of Defense (DOD) a supporting role in disaster response, but even in this role, DOD has specific planning responsibilities. For example, the NRP requires federal agencies to incorporate the accelerated response requirements of the NRP's catastrophic incident annex into their own emergency response plans.

Within DOD, the Strategy for Homeland Defense and Civil Support, which was issued in June 2005, envisions a greater reliance on National Guard and Reserve forces for homeland missions. The military response to domestic disasters typically varies depending on the severity of an event. During smaller disasters, an affected state's National Guard may provide a sufficient response but larger disasters and catastrophes that overwhelm the state may require assistance from out-of-state National Guard or

¹ Throughout this report, we use the term military to refer to the combined efforts of the National Guard and the federal military force. We use the term DOD to distinguish between the federal military response commanded by Northern Command and the National Guard response. During Katrina, DOD's federal military response consisted of active-duty military personnel and reservists who volunteered to be part of the federal response.

federal troops. For Katrina, the response was heavily reliant on the National Guard, which is consistent with DOD's Strategy for Homeland Defense and Civil Support. This represents a departure from past catastrophes when active-duty forces played a larger role in the response.

During disaster response missions, National Guard troops typically operate under the control of the state governors. However, the National Guard Bureau has responsibility for formulating, developing, and coordinating policies, programs, and plans affecting Army and Air National Guard personnel, and it serves as the channel of communication between the United States Army, the United States Air Force, and the National Guard in U.S. states and territories. Although the Chief of the National Guard Bureau does not have operational control of National Guard forces in the states and territories, he has overall responsibility for National Guard Military Support to Civil Authorities programs. The United States Northern Command also has a support to civil authorities mission. Because of this mission, Northern Command was responsible for commanding the federal military response to Hurricane Katrina.

Over the years, we have completed a number of reviews related to disaster preparedness and response. Our past work has shown that both DOD and National Guard forces play key roles in the wake of catastrophic disasters.² Our recent Katrina testimony and statement,³ along with White House and congressional reports,⁴ have highlighted deficiencies in the NRP's implementation and thoroughness. For example, the Secretary of the Department of Homeland Security did not implement the NRP's Catastrophic Incident Annex during Katrina. In addition, the plan's catastrophic incident supplement, which was supposed to have listed specific proactive actions agencies would take in response to a

² GAO, *Disaster Assistance: DOD's Support for Hurricanes Andrew and Iniki and Typhoon Omar*, [GAO/NSIAD-93-180](#) (Washington, D.C.: Jun. 18, 1993).

³ GAO, *Hurricane Katrina: GAO's Preliminary Observations Regarding Preparedness, Response, and Recovery*, [GAO-06-442T](#) (Washington, D. C.: Mar. 8, 2006) and GAO, *Statement by Comptroller General David M. Walker on GAO's Preliminary Observations Regarding Preparedness and Response to Hurricanes Katrina and Rita*, [GAO-06-365R](#) (Washington, D. C.: Feb. 1, 2006).

⁴ White House, *The Federal Response to Hurricane Katrina: Lessons Learned*, (Feb. 23, 2006), House of Representatives, *A Failure of Initiative: Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina*, (Feb. 15, 2006), and Senate, *Hurricane Katrina: A Nation Still Unprepared*, (May 2006).

catastrophe, had not been approved during the 9 months between the plan's issuance and Katrina's landfall.

We currently have a large body of ongoing work to address preparation, response, recovery, and rebuilding efforts related to hurricanes Katrina and Rita. Due to the widespread congressional interest in these subjects, our work is being completed under the Comptroller General's authority. This report presents the results of our review of the military response to Hurricane Katrina, which examined (1) the extent to which pre-Katrina plans and training exercises reflected the military assistance that might be required during a catastrophic, domestic, natural disaster, (2) the support that the military provided in responding to Katrina and factors that affected that response, and (3) the actions the military is taking to address lessons learned from Katrina and to prepare for the next catastrophic event.

To address our first two objectives, we traveled to the affected areas, interviewed officials who led the response efforts, and collected, compared, and analyzed data from numerous military organizations that provided support to the Hurricane Katrina response operations. We also reviewed the military responses to prior catastrophes and analyzed disaster planning documents and exercise reports. To determine the actions that the military is taking to address lessons learned from Katrina and to prepare for the next catastrophic event, we collected and analyzed after action and lessons learned documents from a wide range of military and civilian organizations, and we interviewed responsible officials and reviewed available documentation on DOD's actions to address lessons learned and prepare for the next catastrophic event. A detailed discussion of our scope and methodology can be found in appendix I. We determined the reliability of the military response data we obtained by interviewing DOD officials knowledgeable about the data and corroborating the information with information gathered from other DOD and military service organizations. We conducted our review from September 2005 through April 2006 in accordance with generally accepted government auditing standards.

Results in Brief

Prior to Hurricane Katrina, disaster plans and training exercises involving the military did not sufficiently incorporate lessons learned from past catastrophes to fully delineate the military capabilities that could be needed to respond to a catastrophic natural disaster. Pre-Katrina plans involving the military were inadequate at multiple levels: (1) at the federal government level, through the NRP (2) at the DOD level, and (3) at the

state level through National Guard plans. First, the NRP made little distinction between the military response to smaller, regional disasters and the military response to large-scale, catastrophic, natural disasters even though past disasters had shown that the military tends to play a much larger role in catastrophes. Second, DOD, in its own emergency response plan, did not fully address the military capabilities that could be needed to respond to a catastrophic natural disaster. DOD has procedures to develop specific detailed operations and contingency plans for its missions, but opted to use its least detailed type of plan, a functional plan, as its emergency response plan to provide defense assistance to civil authorities during disasters or catastrophes. This plan was adequate for most disasters, but did not account for the full range of tasks and missions the military could be expected to provide in the event of a catastrophe, despite the NRP requirement that agencies incorporate the accelerated response requirements of the NRP's catastrophic incident annex into their emergency response plans. Another significant shortfall of DOD's pre-Katrina planning was that the department did not fully address the division of tasks between National Guard resources under the governors' control and federal resources under Presidential control, nor did it establish time frames for the response. Third, Mississippi and Louisiana National Guard plans were not synchronized with DOD plans and were inadequate for a catastrophe of Katrina's magnitude. For example, the plans did not adequately account for the outside assistance that could be needed during a catastrophe. In addition, the Chief of the National Guard Bureau, who has overall responsibility for military support to civil authorities programs in the National Guard, had not coordinated in advance with the Adjutants General in the states and territories to develop plans to identify the types of units that were likely to be available to respond to disasters across the country. Moreover, disaster plans had not been tested and refined with a robust exercise program. The Homeland Security Council has issued planning scenarios—including a major hurricane scenario—that provide the basis for disaster exercises throughout the nation. However, few exercises led by the Department of Homeland Security or DOD focused on catastrophic natural disasters and none of the exercises called for a major deployment of DOD capabilities in response to a catastrophic hurricane. In addition, a 2004 catastrophic hurricane exercise had revealed problems with situational awareness and operational control of forces that still had not been resolved when Katrina made landfall in August 2005. As a result of the inadequate plans and exercises, when Hurricane Katrina struck, a lack of understanding existed within the military and among federal, state, and local responders as to the types of assistance and capabilities that the military might provide, the timing of this assistance, and the respective contributions of the National Guard and federal military forces.

Even though there was a lack of detailed planning, the military mounted a massive response to Hurricane Katrina that saved many lives and greatly assisted recovery efforts, but several factors affected this response. The military proactively took steps and supported the Katrina response with more than 50,000 National Guard and 20,000 federal military personnel. This heavy reliance on the National Guard was based on DOD's Strategy for Homeland Defense and Civil Support, which was issued in June 2005. However, it represents a departure from past catastrophes such as Hurricane Andrew, when the National Guard constituted less than 20 percent of the military response. For Katrina, active-duty forces were alerted prior to landfall and after landfall key capabilities such as aviation, medical, and engineering forces were initially deployed. Growing concerns about the magnitude of the disaster prompted DOD to deploy large active-duty ground units to supplement the National Guard, beginning about 5 days after landfall. However, a number of interrelated factors affected the military's ability to leverage its resources to gain situational awareness and effectively organize and execute its Katrina response efforts. Without detailed plans to address each of the following factors, the military risks being unprepared for the next catastrophe that strikes the United States.

- **Lack of timely damage assessment.** As with Hurricane Andrew, an underlying problem was the failure to quickly assess damage and gain situational awareness. The NRP notes that local and state officials are responsible for damage assessments during a disaster, but it also notes that state and local officials could be overwhelmed in a catastrophe. Despite this incongruous situation, the NRP did not specify the proactive means necessary for the federal government to gain situational awareness when state and local officials are overwhelmed. Moreover, DOD's planning did not call for the use of the military's extensive reconnaissance assets to meet the NRP catastrophic incident annex's requirement for a proactive response to catastrophic incidents. Because state and local officials were overwhelmed and the military's extensive reconnaissance capabilities were not effectively leveraged as part of a proactive federal effort to conduct timely comprehensive damage assessments, the military began organizing and deploying its response without fully understanding the extent of the damage or the required assistance. According to military officials, available reconnaissance assets could have provided additional situational awareness.
- **Communications difficulties.** Hurricane Katrina caused significant damage to the communication infrastructure in Louisiana and Mississippi, which further contributed to a lack of situational

awareness for military and civilian officials. Even when local officials were able to conduct damage assessments, the lack of communications assets caused delays in transmitting the assessments. Under the NRP, the Department of Homeland Security has responsibility for coordinating the communications portion of disaster response operations. However, neither the NRP, the Department of Homeland Security, nor DOD fully identified the extensive military communication capabilities that could be leveraged as part of a proactive federal response to a catastrophe. DOD's plan addressed internal military communications requirements but not the communication requirements of communities affected by the disaster. Because state and local officials were overwhelmed and the Department of Homeland Security and DOD waited for requests for assistance rather than deploying a proactive response, some of the military's available communication assets were never requested or deployed. In addition, some deployed National Guard assets were underutilized because the sending states placed restrictions on their use. Communications problems, like damage assessment problems, were also highlighted following Hurricane Andrew.

- **Problems with integrating military forces.** The military did not adequately plan for the integration of large numbers of deployed troops from different commands during disaster response operations. For example, a Louisiana plan to integrate military responders from outside the state called for the reception of not more than 300 troops per day. However, in the days following Hurricane Katrina, more than 20,000 National Guard members from other states arrived in Louisiana to join the response effort. In addition, the National Guard and federal responses were coordinated across several chains of command but not integrated, which led to some inefficiencies and duplication of effort. Because military plans and exercises had not provided a means for integrating the response, no one had the total picture of the forces on the ground, the forces that were on the way, the missions that had been resourced, and the missions that still needed to be completed. Also, a key mobilization statute⁵ limits DOD's Reserve and National Guard units and members from being involuntarily ordered to federal active duty for disaster response. As a result, all the reservists who responded to Hurricane Katrina were volunteers. The process of lining up volunteers can be time consuming and is more appropriate for mobilizing individuals than it is for mobilizing entire units or

⁵ 10 U.S.C. §12304.

capabilities that may be needed during a catastrophe. After Hurricane Andrew, we identified this issue in two 1993 reports,⁶ but it has not been resolved.

- **Uncoordinated search and rescue efforts.** While tens of thousands of people were rescued after Katrina, the lack of clarity in search and rescue plans led to operations that, according to aviation officials, were not as efficient as they could have been. The NRP addressed only part of the search and rescue mission, and the National Search and Rescue Plan had not been updated to reflect the NRP. As a result, the search and rescue operations of the National Guard and federal military responders were not fully coordinated, and military operations were not integrated with the search and rescue operations of the Coast Guard and other rescuers. At least two different locations were assigning search and rescue tasks to military helicopter pilots operating over New Orleans, and no one had the total picture of the missions that had been resourced and the missions that still needed to be performed.
- **Logistics challenges.** DOD had difficulty gaining visibility over supplies and commodities when the Federal Emergency Management Agency (FEMA) asked DOD to assume a significant portion of its logistics responsibilities. Under the NRP, FEMA is responsible for coordinating logistics during disaster response efforts, but during Hurricane Katrina, FEMA quickly became overwhelmed. Four days after Katrina's landfall, FEMA asked DOD to take responsibility for procurement, transportation, and distribution of ice, water, food, fuel, and medical supplies. However, because FEMA lacked the capability to maintain visibility—from order through final delivery—of the supplies and commodities it had ordered, DOD did not know the precise locations of the FEMA-ordered supplies and commodities when it assumed FEMA's logistics responsibilities. As a result of its lack of visibility over the meals that were in transit, DOD had to airlift 1.7 million meals to Mississippi to respond to a request from the Adjutant General of Mississippi, who was concerned that food supplies were nearly exhausted.

DOD is beginning to take actions to address lessons learned from Hurricane Katrina and to prepare for the next catastrophic event. The

⁶ [GAO/NSIAD-93-180](#), and GAO, *Disaster Management: Improving the Nation's Response to Catastrophic Disasters*, [GAO/RCED-93-186](#) (Washington, D.C.: July 23, 1993).

department has been conducting its own lessons learned reviews and is also examining the lessons and recommendations in reports from a White House review panel and congressional oversight committees, and it is beginning to take actions to address them. While it is too early to fully evaluate the effectiveness of the DOD actions, many appear to hold promise for improving future responses. For example, to improve interagency coordination, DOD is placing specially trained military personnel into FEMA regional offices. It is also establishing two command posts capable of deploying as joint task forces for catastrophes. In addition, DOD officials stated that the department is currently updating its emergency response plan and plans to use a contingency plan rather than a less detailed functional plan to guide its military support to civil authority missions. However, some problems, like the damage assessments and logistics visibility are long-standing, and were reported after Hurricane Andrew in 1992. Addressing these problems will be difficult because they are complex and cut across agency boundaries. Thus, substantial improvement will occur only if the actions receive sustained management attention at the highest levels of DOD, and from the key officials from across the government.

We are making four recommendations to improve the military's response to catastrophic events. First, we recommend that the Secretary of Defense provide the Secretary of the Department of Homeland Security with proposed revisions to the NRP that will fully address the proactive functions the military will be expected to perform during a catastrophic incident, for inclusion in the next NRP update. Second, we recommend that the Secretary of Defense establish milestones and expedite the development of detailed plans and exercises to fully account for the unique capabilities and support that the military is likely to provide to civil authorities in response to the full range of domestic disasters, including catastrophes. The plans and exercises should specifically address the

- use of reconnaissance capabilities to assess damage,
- use of communications capabilities to facilitate support to civil authorities,
- integration of active component and National Guard and Reserve forces,
- use of search and rescue capabilities and the military's role in search and rescue, and
- role the military will be expected to play in logistics.

Third, we recommend that the Secretary of Defense direct the Chief of the National Guard Bureau to work with the state governors and adjutants general to develop and maintain a list of the types of capabilities the National Guard will likely provide in response to domestic natural disasters under state-to-state mutual assistance agreements, along with the associated units that will provide these capabilities. In addition, we recommend that the Secretary of Defense direct the Chief of the National Guard Bureau to make this information available to Northern Command, U.S. Joint Forces Command, and other organizations with federal military support to civil authority planning responsibilities. Finally, we recommend that the Secretary of Defense establish milestones and identify the types of scalable federal military capabilities and the units that will provide those capabilities in response to the full range of domestic disasters and catastrophes covered by DOD's military support to civil authorities plans.

In commenting on a draft of this report, DOD partially concurred with our recommendations and stated that the report was thorough and made a significant contribution to DOD's plans to improve the department's support to civil authorities during domestic disaster incidents. In addition, DOD provided technical comments, which we incorporated as appropriate.

Background

The National Response Plan

The National Response Plan (NRP) was issued in December 2004 to establish a single, comprehensive framework for the management of domestic incidents, including natural disasters. The NRP is the federal government's plan to coordinate its resources and capabilities across agencies and integrate them with other levels of government, as well as private sector organizations, for prevention of, preparedness for, response to, and recovery from natural disasters, terrorism, or other emergencies. According to the plan, the NRP serves as the foundation for the development of detailed supplemental plans and procedures to effectively and efficiently implement federal assistance for specific types of incidents.

The heart of the NRP is its base plan, which outlines planning assumptions, roles and responsibilities, and incident management actions. The NRP also contains 15 emergency support function annexes, which describe the mission, policies, structure, and responsibilities of federal agencies in an incident. Appendix II contains a table that shows

organizational responsibilities for the 15 emergency response functions. It shows that DOD does not have sole primary responsibility for any emergency function, and its role is primarily that of a supporting agency. While multiple agencies support each emergency support function, DOD is the only agency with supporting responsibilities for all 15 emergency support functions.⁷ The NRP also contains seven incident annexes describing responsibilities, processes, and procedures for specific types of incidents. One of these annexes addresses catastrophic incidents.

Catastrophic Incidents

The catastrophic incident annex establishes the strategy for implementing an accelerated, proactive response when a catastrophic incident occurs. The NRP defines a catastrophic incident as any natural or manmade incident that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, or government functions.

In terms of its combined casualties, damage, and disruption to the population, environment, and economy, Hurricane Katrina was clearly a catastrophe and it was arguably the most devastating natural disaster in United States' history. More than 1,300 people lost their lives; damage stretched over a 90,000 square mile area; more than a million people were driven from their homes; buildings, bridges, roads, and power and communications infrastructure were destroyed or severely damaged; and millions of gallons of oil were spilled into the environment. We may never fully know the financial cost of Hurricane Katrina but one projection has put it at more than \$200 billion.

Military Support

During disasters and catastrophes, the military may provide support at two different levels. First, the military may provide support at the state level through its National Guard personnel and units. The governor of a state may call the National Guard forces within that state to active duty in response to a local or statewide emergency. In these cases, the state pays

⁷ Other agencies have supporting responsibilities for most of the emergency support functions. For example, both the Department of Homeland Security and the Department of Commerce have supporting responsibilities for 13 of the 15 functions. The Department of Homeland Security is also involved in the remaining two functions where it is not a supporting agency. It is the coordinating agency for the external affairs function, and is the departmental head of FEMA, which is a supporting agency for the firefighting emergency support function.

the salaries of the National Guard members. Under an existing Emergency Management Assistance Compact that establishes a framework for mutual assistance, governors may also call their National Guard forces to active duty in a state status and then send them to another state that is facing a disaster.⁸ The governor of the affected state, through the state's adjutant general, commands both the National Guard forces from the affected state and the out-of-state National Guard forces that may flow into the affected state under emergency management assistance compacts. National Guard troops also respond to disasters under Title 32 of the United States Code.⁹ Under Title 32, National Guard troops continue to report to the governor of the affected state but they receive federal pay and benefits. In response to Hurricane Katrina, National Guard forces were generally activated in a state active-duty status and then eventually placed in Title 32 status.¹⁰

The military can also respond to disasters at the federal level. The federal military response can consist of active component or Reserve or National Guard personnel. Active component troops that deploy to disaster areas remain under the control of the President and the Secretary of Defense, but they usually deploy in response to a request from an affected state. The President can also send Reserve and National Guard troops to a disaster area in a federal status under Title 10 of the United States Code. However, federal laws place certain limitations on the use of federal troops.¹¹ For Hurricane Katrina, the federal military response consisted of active component troops and Reserve volunteers.

The use of the military for disaster relief is authorized by the Robert T. Stafford Disaster Relief and Emergency Assistance Act.¹² Under

⁸ Before the National Guard troops are actually sent to another state, the emergency management assistance compact is generally implemented through a specific memorandum of agreement that is signed by the sending and receiving states.

⁹ Title 32 U.S.C. §502(f).

¹⁰ On September 7, 2005, the Deputy Secretary of Defense authorized the placement of National Guard personnel into Title 32 status, retroactive to August 29, 2005.

¹¹ Section 12304 of Title 10 of the United States Code prohibits the involuntary activation of National Guard and Reserve members for domestic disaster operations. Under 10 U.S.C. §12302, the President must declare a national emergency before he can involuntarily activate National Guard and Reserve members, but under 10 U.S.C. §12301 (d) he can activate National Guard and Reserve volunteers for any purpose. The Posse Comitatis Act and DOD policy prohibit the use of federal military forces to perform law enforcement functions. 18 U.S.C. §1385, DOD Directive 5525.5.

¹² Title 42 U.S.C. § 5170b(c).

procedures to implement the Stafford Act, the military provides support to civil authorities through a specific request process. However, under its immediate response authority, which is outlined in DOD directives, a local military commander can assist civil authorities or the public without prior approval if the action is necessary to save lives, prevent human suffering, or mitigate great property damage under imminently serious conditions.

Military Roles and Responsibilities

On March 25, 2003, DOD established the office of the Assistant Secretary of Defense for Homeland Defense to oversee homeland defense activities for DOD, under the authority of the Under Secretary of Defense for Policy, and as appropriate, in coordination with the Chairman of the Joint Chiefs of Staff. This office develops policies, conducts analysis, provides advice, and makes recommendations on homeland defense, support to civil authorities, emergency preparedness and domestic crisis management matters within the department. Specifically, the assistant secretary assists the Secretary of Defense in providing policy direction to the United States Northern Command and other applicable commands to guide the development and execution of homeland defense plans and activities.¹³ This direction is provided through the Chairman of the Joint Chiefs of Staff. The Assistant Secretary of Defense for Homeland Defense also serves as the DOD Domestic Crisis Manager. In this capacity, he represents the department on all homeland-defense-related matters with all levels of government, ranging from state and local officials to the Department of Homeland Security and the Executive Office of the President.

In 2002, following the September 11, 2001, terrorist attacks against the United States, DOD established the United States Northern Command with a dual mission of homeland defense and civil support. Northern Command receives policy direction on both missions from the Assistant Secretary of Defense for Homeland Defense. Northern Command's civil support activities are triggered by the President or the Secretary of Defense, generally in response to requests for federal assistance. Following a catastrophic incident, DOD may provide extensive lifesaving and sustaining support to civil authorities. However, DOD may also provide smaller scale support for other incidents such as wild fires, floods,

¹³ Northern Command has responsibility for the major homeland defense and military support to civil authorities plans for the 48 contiguous states and Alaska. However, other commands have responsibilities for the military support to civil authorities plans that cover Hawaii, U.S. territories, and some specific functional areas, such as medical support.

tornados, blizzards, or other disasters. The United States Joint Forces Command generally provides Northern Command the military resources and forces it needs to assist civil authorities.

The National Guard Bureau is the federal military coordination, administrative, policy, and logistical center for the Army and Air National Guard and serves as the channel of communication between the United States Army, the United States Air Force, and the National Guard in 54 states and territories. The Bureau is responsible for formulating, developing, and coordinating policies, programs, and plans affecting Army and Air National Guard personnel. However, the Bureau does not have operational control over National Guard forces that are operating in either a state or federal status.

The governor is the commander in chief of all National Guard units within the state's jurisdiction that are not in active federal service. Command is normally exercised through the state's adjutant general. During military support to civil authority operations, the National Guard Bureau provides policy guidance and facilitates assistance, when needed, by locating and coordinating out-of-state National Guard assistance. However, the actual execution of mutual assistance agreements between the states does not involve the National Guard Bureau.

Past GAO Work

Over the years, we have completed a number of reviews related to disaster preparedness and response, and a list of our related reports and testimonies is included at the end of this report. Two reports that we issued in 1993 following Hurricane Andrew are of particular note.¹⁴ In the first, we identified problems related to inadequate damage assessments and coordination. In the second, we also addressed coordination issues. In both, we suggested that to improve DOD's ability to respond to catastrophic events, the Congress might wish to consider amending Title 10 of the United States Code to allow reserve component units to be involuntarily activated to provide military assistance during catastrophes.

¹⁴ [GAO/NSIAD-93-180](#) and [GAO/RCED-93-186](#).

Pre-Katrina Preparations Did Not Fully Address the Military Capabilities Needed during a Catastrophic Natural Disaster

Prior to Hurricane Katrina, disaster plans and training exercises involving the military were insufficient, and did not incorporate lessons learned from past catastrophes to fully delineate the military capabilities that could be needed to respond to a catastrophic natural disaster. The military had responded to numerous natural disasters and catastrophes in the past but these prior experiences were not reflected in key planning documents or in the disaster exercises that had been conducted prior to Hurricane Katrina. For example, the NRP contained few details about the specific military capabilities that would likely be needed in a natural disaster, even if the natural disaster were catastrophic. DOD's emergency response plan also did not fully address the military capabilities that could be needed to respond to a catastrophic natural disaster. DOD's primary planning document, Functional Plan 2501, was inadequate because it did not address the functions DOD could be asked to perform as a supporting agency for all 15 NRP emergency support functions. National Guard state plans, which had been sufficient for past smaller disasters, were also insufficient for large-scale catastrophes and did not adequately account for the outside assistance that could be needed during a catastrophe. Moreover, disaster plans had not been tested and refined with a robust exercise program. As a result of the inadequate plans—and the lack of realistic exercises to test those plans—a lack of understanding existed within the military and among federal, state, and local responders as to the types of assistance and capabilities that the military might provide, the timing of this assistance, and the respective contributions of the active-duty and National Guard components.

Disaster Experience Was Not Reflected in the NRP's Planned Use of Military Capabilities during Catastrophes

Disaster plans in place prior to Hurricane Katrina did not adequately delineate military capabilities that could be needed to respond to a catastrophic event. Over the years, the military has been frequently called upon to provide assistance in the aftermath of hurricanes and other disasters. Prior to Hurricane Katrina, the largest disaster-relief deployment of military forces was in 1992 when Hurricane Andrew swept across south Florida. The military also provided extensive support to civil authorities following other catastrophes, such as the 1989 earthquake in the San Francisco area and the terrorist attacks of September 11, 2001. The National Guard has even more experience, albeit typically with smaller-scale disasters. In fiscal year 2001, the National Guard responded to 365 requests for disaster assistance following hurricanes, floods, fires, ice storms, tornadoes, and the terrorist attacks on the World Trade Center and Pentagon.

None of these prior disasters compared to the devastation wrought by Katrina, and the military was not prepared for what would be needed in her wake. Overall, plans proved to be insufficient because they did not identify the military capabilities that could be needed to respond to a catastrophic natural disaster of this magnitude. The NRP, which guides planning of supporting federal agencies, lacks specificity as to how DOD should be used and what resources it should provide in the event of a domestic natural disaster. For example, the NRP makes little distinction between the military response to smaller, regional disasters and the military response to large-scale, catastrophic natural disasters, even though past disasters have shown that the military tends to play a much larger role in catastrophes. The NRP states that DOD has significant resources that may be available to support the federal response to an incident of national significance, but it lists very few specific DOD resources that should be called upon even in the event of a catastrophic natural disaster. Given the substantial role the military is actually expected to play in a catastrophe—no other federal agency brings as many resources to bear—this lack of detailed planning represents a critical oversight.

The NRP contains a catastrophic incident annex that addresses the need for accelerated, proactive federal responses during catastrophic incidents. The annex contains principles and guidelines but few details about the anticipated proactive federal response. The details were to be contained in the NRP's catastrophic incident supplement and in detailed supplemental plans and procedures. A draft version of the NRP catastrophic incident supplement was released in September 2005, but it still has not been finalized. It contained a 12-page execution schedule with many details about the tasks that many agencies are expected to accomplish in response to a catastrophic event. However, despite extensive deployments of military capabilities for past catastrophes like Hurricane Andrew, the draft supplement lists very few specific tasks that DOD should perform during a catastrophe. The only specific DOD actions it addresses are deploying a coordinating officer and team to the affected region, making bases available as operational staging areas, and preparing for medical evacuation missions. The additional detailed planning was left for DOD to develop.

The NRP represents a planning framework, not the detailed planning that would be necessary to support the plan. In addition to designating primary agencies for each of its 15 emergency support functions, the NRP designates an emergency function coordinator. The coordinator, which is also a primary agency, is responsible for coordinating all activities related

to catastrophic incident planning. Since the NRP generally places DOD in a supporting role rather than in a coordinator role, DOD relied on other agencies to take the lead in coordinating the overall response within each functional area. However, according to DOD officials, coordinated emergency support function plans were generally not completed when Katrina struck. Lacking coordinated plans to clearly identify the capabilities that other agencies would provide during a catastrophe, DOD was forced to anticipate which capabilities the primary agencies and other supporting agencies would provide as it developed the details in its supporting plan. After evaluating the use of military capabilities during Hurricane Katrina, the White House report recommended, among other things, that DOD plan and prepare to have a significant role during catastrophes, and develop plans to lead the federal response for events of extraordinary scope and nature.

DOD's Supporting Plan Lacked Details About the Military Response to Catastrophic Natural Disasters

While the military's approach to planning is well defined, prior to Hurricane Katrina, DOD did not develop a detailed plan to account for the full range of tasks and missions the military could need to provide in the event of a catastrophe. DOD planners typically use one of three different types of plans for its missions. From most to least detailed, they are operations plans, contingency plans, and functional plans. Combatant commanders, like Northern Command, have some discretion to determine what type of planning is necessary for their assigned missions. For its emergency response plan to provide defense assistance to civil authorities during disasters or catastrophes, DOD opted to use its least detailed type of plan, the functional plan. Functional plans are generally used to address peacetime operations in permissive environments. DOD's plan is called Functional Plan 2501.¹⁵ Even though functional plans are less detailed than the two other types of plans, according to DOD's joint planning guidance, a functional plan must be adequate and feasible. Adequate means that the scope and concept of the plan satisfy the specified task and accomplish the intended mission, and feasible means the plan accomplishes the assigned tasks with resources that are available within the time frames contemplated.

¹⁵ The United States Northern Command Functional Plan 2501 was originally issued by the United States Atlantic Command as Commander, United States Atlantic Command Functional Plan 2501-97, Military Support to Civil Authorities, on February 2, 1998.

While Functional Plan 2501 was adequate for most disasters, it was not adequate or feasible for a catastrophe. The existing plan was nearly 9 years old, and was undergoing revision when Katrina struck. It had not been updated since the Northern Command was established in 2002, nor was it aligned with the recently published NRP. Just as the NRP did not differentiate between military tasks in a disaster and a catastrophe, Northern Command's Functional Plan 2501 lacked the details necessary to address issues that emerge in a catastrophe but not in smaller-scale disasters. The plan did not account for the full range of tasks and missions the military could need to provide in the event of a catastrophe, despite the NRP requirement that agencies incorporate the accelerated response requirements of the NRP's catastrophic incident annex into their emergency response plans. It did not anticipate that DOD, as a supporting agency for the 15 emergency support functions outlined in the NRP, could be called upon by the primary agencies to assume significant responsibilities for those functions—from search and rescue to communications to transportation and logistics.

In addition, DOD's plan had little provision for integrating active and reserve component forces. In general, a feasible plan would anticipate the personnel and resources that might be required in response to a catastrophic event. This would include the emergency support function tasks to which DOD was committed in a supporting role. Resources likely to be employed in a catastrophic event include reserve component forces—the National Guard and Reserves—and yet the plan did not fully address the division of tasks between National Guard resources under the governors' control and federal resources under Presidential control. The 2005 DOD Strategy for Homeland Defense and Civil Support called for focused reliance on reserve component capabilities for civil support missions, but Functional Plan 2501 did not envision the large-scale employment of National Guard and Reserve assets and did not outline a concept of operations using National Guard/Reserve capabilities. It did not address key questions of integration, command and control, and the division of tasks between National Guard resources under state control and federal resources under U.S. Northern Command's control. Moreover, the functional plan did not establish time frames for the response.

Functional Plan 2501, created in 1997, was written without the benefit of numerous strategies, directives, and publications that directly bear upon military support to civil authorities. For example, the 2005 DOD Strategy for Homeland Defense and Civil Support identified the need for improved communications capabilities in domestic incidents, but Functional Plan 2501 does not specifically address this issue. Furthermore, the strategy

envisions effective surveillance and reconnaissance capabilities in support of homeland defense operations and again, the functional plan does not sufficiently address this capability. In contrast, the Northern Command has more detailed and operationally specific plans for other homeland defense missions, like its response missions following a terrorist attack. Understandably, development of these plans was given priority after the terrorist attacks of September 11, 2001. While specifics about these plans are classified for national security reasons, DOD officials told us that many of the capabilities and procedures used in these plans could be adopted for civil support operations conducted after natural disasters.

National Guard Plans Were Also Inadequate

Two related problems were evident with respect to the National Guard's planning prior to Katrina. First, the National Guard Bureau and Northern Command had not planned a coordinated response. Second, at the state level, the plans of the National Guard in Louisiana and Mississippi were inadequate for a catastrophic natural disaster.

The National Guard civil support plans were not integrated with DOD's Functional Plan 2501. While the Chief of the National Guard Bureau does not have operational control of National Guard personnel in the states and territories, he does have overall responsibility for military support to civil authorities programs in the National Guard. However, the bureau had not coordinated in advance with the governors and adjutants general in the states and territories to develop plans to provide assistance for catastrophic disasters across the country. Specifically, the bureau had not identified the types of units that were likely to be needed during a catastrophe or worked with the state governors and adjutants general to develop and maintain a list of National Guard units from each state that would likely be available to meet these requirements during catastrophic natural disasters. In addition, the Northern Command and the National Guard Bureau had not planned which disaster response missions would be handled by National Guard members and which would be handled by reservists and active component members.

Prior to Katrina, the Mississippi and Louisiana National Guard plans were not synchronized with DOD's plans, and they were also inadequate for a catastrophe of Katrina's magnitude. Like DOD's Functional Plan 2501, the Mississippi and Louisiana National Guard plans were adequate for smaller disasters but insufficient for a catastrophe, and did not adequately account for the outside assistance that could be needed during a catastrophe. For example, Joint Forces Headquarters Louisiana modified its plan and reassigned disaster responsibilities when thousands of Louisiana National

Guard personnel were mobilized for federal missions prior to Hurricane Katrina. However, the Louisiana plan did not address the need to bring in thousands of military troops from outside the state during a catastrophe. Similarly, Mississippi National Guard officials told us that even their 1969 experience with Hurricane Camille, a category 5 storm that hit the same general area, had not adequately prepared them for a catastrophic natural disaster of Katrina's magnitude. For example, the Mississippi National Guard disaster plan envisioned the establishment of commodity distribution centers but it did not anticipate the number of centers that could be required in a catastrophic event or following a nearly complete loss of infrastructure.

Exercise Programs Did Not Adequately Test Disaster Plans

Disaster plans had not been tested and refined with a robust exercise program. The Homeland Security Council has issued 15 national planning scenarios—including a major hurricane scenario—that provide the basis for disaster exercises throughout the nation. While DOD sponsors or participates in no less than two major interagency field exercises per year, few exercises led by the Department of Homeland Security or DOD focused on catastrophic natural disasters and none of the exercises called for a major deployment of DOD capabilities in response to a catastrophic hurricane. According to DOD officials, DOD has been involved in only one catastrophic hurricane exercise since 2003—Unified Defense 2004. This exercise, which simulated a nuclear detonation along with a category 4 hurricane, revealed problems with situational awareness and operational control of forces that still had not been resolved when Katrina made landfall in August 2005. In addition, although DOD has periodically held modest military support to civil authorities exercises, the exercises used underlying assumptions that were unrealistic in preparing for a catastrophe. For example, DOD assumed that first responders and communications would be available and that the transportation infrastructure would be navigable in a major hurricane scenario. Finally, the First U.S. Army conducted planning and exercises in response to six hurricanes in 2005. These exercises led to actions, such as the early deployment of Defense Coordinating Officers, which enhanced disaster response efforts. However, DOD's exercise program was not adequate for a catastrophe of Hurricane Katrina's magnitude.

As a result of the inadequate plans and exercises, when Hurricane Katrina struck, a lack of understanding existed within the military and among federal, state, and local responders as to the types of assistance and capabilities that the military might provide, the timing of this assistance,

and the respective contributions of the National Guard and federal military forces.

The Military's Response to Hurricane Katrina was Massive but Faced Several Challenges

Even though there was a lack of detailed planning, the military mounted a massive response to Hurricane Katrina that saved many lives and greatly assisted recovery efforts, but several factors affected this response. During the response to Katrina, a number of interrelated factors affected the military's ability to leverage its resources to gain situational awareness and effectively organize and execute its response efforts. Some factors that affected the military response were: a lack of timely damage assessments, communications difficulties, problems integrating the use and capabilities of active-duty and National Guard forces, uncoordinated search and rescue efforts, and challenges with the significant logistics functions that FEMA unexpectedly turned over to DOD.

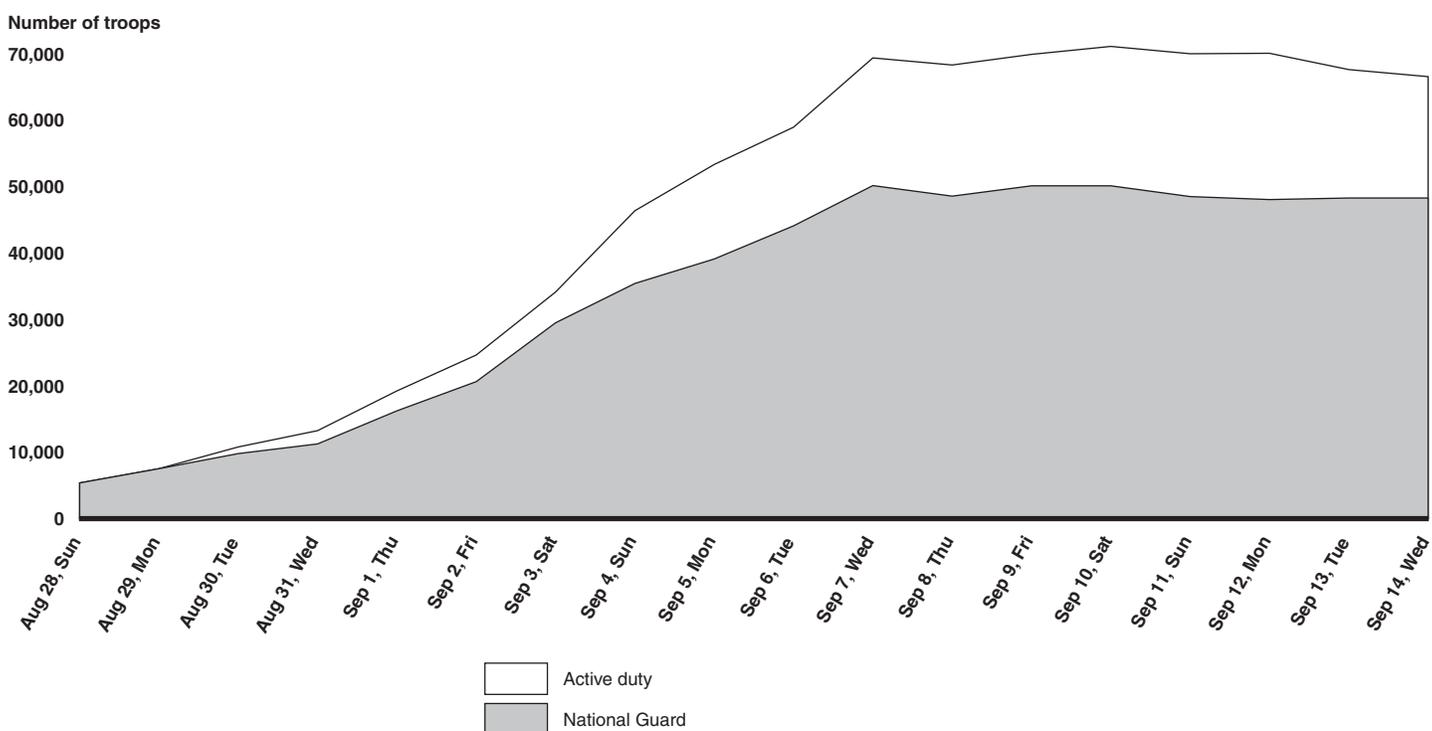
The Military Response Was Massive

The military response to Hurricane Katrina reached more than twice the size of the military response to the catastrophic Hurricane Andrew in 1992. Military officials began tracking Hurricane Katrina when it was an unnamed tropical depression and took steps to proactively respond as the storm strengthened to a category 5 hurricane in the Gulf of Mexico. Prior to landfall, anticipating the disruption and damage that Hurricane Katrina could cause, the governors of Louisiana and Mississippi activated their National Guard units. In addition, National Guard officials in Louisiana and Mississippi began to contact National Guard officials in other states to request assistance. By the time Katrina made landfall on August 29, 2005, the military was positioned to respond with both National Guard and federal forces. For example, commands had published warning and planning orders and DOD had already deployed Defense Coordinating Officers to all the potentially affected states. After landfall, the governors and National Guard officials in Louisiana and Mississippi requested additional support from other states. The governor of Louisiana also requested federal military assistance to help with response and recovery efforts.

Figure 1 shows the buildup of forces as the military supported response and recovery operations with engineering, communication, and military police units as well as helicopter search-and-rescue and ship crews, and personnel with many other critically needed capabilities. Active-duty forces were alerted prior to landfall and the initial buildup of active-duty forces shown in figure 1 reflects the deployment of key active-duty capabilities such as aviation, medical, and engineering forces. Growing

concerns about the magnitude of the disaster prompted DOD to deploy large active-duty ground units beginning on September 3, 2005, 5 days after Katrina's landfall.

Figure 1: Buildup of Military Forces Supporting Hurricane Katrina Operations



Source: GAO analysis of DOD data.

Figure 1 also indicates that the military response, which began prior to Katrina's landfall on August 29, 2005, peaked at more than 70,000 troops—over 50,000 National Guard and over 20,000 active federal personnel. This reliance on the National Guard was based on DOD's Strategy for Homeland Defense and Civil Support, which was issued in June 2005. The strategy called for a focused reliance on the National Guard and Reserves for civil support missions because, among other things, they have key civil support capabilities and are located in 3,200 communities throughout the nation. The reliance on the National Guard and Reserves represents a departure from past catastrophes when active-duty forces played a larger

role in the response. For example, during the military response to Hurricane Andrew, the National Guard provided less than 20 percent of the more than 30,000 military responders.

Most of the National Guard response to Hurricane Katrina came from outside Louisiana and Mississippi, with the National Guard Bureau acting as a conduit to communicate requirements for assistance in Louisiana and Mississippi to the adjutants general in the rest of the country. The adjutants general of other states, with the authorization of their state governors, then sent their National Guard troops to Louisiana and Mississippi under emergency assistance agreements between the states. Requirements for out-of-state National Guard or federal assistance were increased because thousands of National Guard personnel from Mississippi and Louisiana were already mobilized for other missions and thus unavailable when Hurricane Katrina struck their states. The National Guard troops that had been mobilized from within the affected states were able to quickly deploy to where they were needed because they had trained and planned for disaster mobilizations within their states. The deployment of out-of-state forces, though quick when compared to past catastrophes, took longer because mobilization plans were developed and units were identified for deployment in the midst of the crisis. By Monday, September 5, 2005 (a week after Katrina made landfall), over 13,800 out-of-state National Guard troops were in Louisiana assisting with response and recovery efforts. However, when the Superdome bus evacuations began on Thursday, September 1, 2005, only about 1,600 out-of-state National Guard troops were in Louisiana, fewer than the number of Louisiana National Guard members who were mobilized for other missions and unavailable when Katrina made landfall. At the peak of the military's response, nearly 40,000 National Guard members from other states were supporting operations in Louisiana and Mississippi—an unprecedented domestic mobilization.

In the days after the hurricane passed, considerable confusion surrounded the employment of military support and many questioned why more federal ground troops were not sent sooner. According to senior DOD officials involved in executing DOD's response to Katrina, DOD was aware that the situation warranted significant military support and they noted that the department took steps to proactively deploy federal military capabilities from all the services to the region. For example, DOD deployed a joint task force, medical personnel, helicopters, ships from Texas, Virginia, and Maryland, and construction battalion engineers. Many of these capabilities were providing assistance or deploying to the area within hours of Katrina's landfall. Given the current DOD homeland

defense strategy, which calls for “focused reliance” on the reserve components for civil support missions, DOD officials told us that they also began working with the National Guard Bureau to ensure the mobilization of National Guard forces from across the country. As the situation unfolded during the week, concerns about the magnitude of the disaster led to discussions about the need to deploy additional active-duty forces to supplement the National Guard forces. After visiting the region and meeting with the Louisiana Governor on Friday, September 2, 2005, the President, on the next day, ordered the deployment of over 7,000 active-duty ground troops to the region.

Data concerning the military response were not always fully documented in the midst of the Hurricane Katrina crisis, but it is clear that the military had a huge impact on response and recovery operations. Data from the active-duty military task force that headed the federal response indicate that the military

- flew thousands of helicopter sorties, rescuing tens of thousands of people and carrying thousands of tons of cargo, including sandbags to repair breaches in the levees around New Orleans;
- delivered millions of meals ready to eat, gallons of water, and pounds of ice;
- searched hundreds of thousands of houses in the affected regions;
- provided medical treatment to tens of thousands of civilians; and
- conducted mosquito spraying missions over more than 1 million acres.

Several Factors Affected the Military Response

Despite the significant contribution of its massive response, a number of interrelated factors affected the military’s ability to leverage its resources to gain situational awareness and effectively organize and execute its response efforts. Without detailed plans to address each of the following factors, the military risks being unprepared for the next catastrophe that strikes the United States.

Comprehensive Damage Assessments Were Not Completed Promptly

Hurricane Katrina response efforts were hampered by the federal government’s failure to fully use its available assets to conduct timely, comprehensive damage assessments in Louisiana and Mississippi. The failure to quickly assess damage and gain situational awareness had also been a problem during Hurricane Andrew in 1992. The NRP notes that following a disaster, state and local governments are responsible for conducting initial damage assessments, but it also notes that state and local officials could be overwhelmed in a catastrophe. The NRP addresses

this incongruous situation, where state and local officials who may be overwhelmed have critical functions to perform during the initial stages of disaster recovery efforts, by stating that the federal government should provide a proactive response when state and local officials are overwhelmed during a catastrophe. However, the NRP does not specify the proactive means or capabilities the federal government should use to conduct damage assessments and gain situational awareness when the responsible state and local officials are overwhelmed.

The military has significant capabilities to conduct damage assessments using reconnaissance aircraft and satellite imagery, but our analysis shows that neither the NRP nor DOD's Functional Plan 2501 specifically called for the proactive use of these assets to meet the NRP catastrophic incident annex's requirement for a proactive response to catastrophic incidents. In addition, DOD did not initially receive significant requests for these capabilities. At FEMA's request, DOD initially provided three helicopters to assist in damage assessments. About 4 days after Katrina's landfall, the military began providing imagery data from some of its reconnaissance assets to its forces and civilian agencies. However, the process for sharing information proved difficult for several reasons. Some information was classified due to its source and could not be shared directly with civilian agencies. In addition, some agencies were not able to access some of the available information because the data files were too large to download to the agency computers. A National Guard Hurricane Katrina after-action review reported that the adjutants general (in Mississippi and Louisiana) required real time imagery that the military community should have been able to provide, but did not.

Because state and local officials were overwhelmed and the military's extensive reconnaissance capabilities were not effectively leveraged as part of a proactive federal effort to conduct timely, comprehensive damage assessments, the military began organizing and deploying its response without fully understanding the extent of the damage or the required assistance. According to military officials, available reconnaissance assets could have provided additional situational awareness. In contrast, DOD officials told us that almost immediately after Hurricane Rita struck Louisiana and Texas in September 2005, considerable surveillance assets were made available to assess damage, primarily because of lessons learned from Katrina.

Communications Difficulties Affected the Military Response

Hurricane Katrina caused significant damage to the communication infrastructure in Louisiana and Mississippi, which further contributed to a lack of situational awareness for military and civilian officials. Katrina

destroyed or severely degraded many commercial landline and cellular telephone systems, and emergency radio systems were oversubscribed, making it difficult to establish necessary connections between officials and responders at the local, state, and federal levels. As a result, it was difficult for officials to gain situational awareness. Even when local officials were able to conduct damage assessments, the lack of communications assets caused delays in the transmitting of the results of the assessments. Communications problems, like damage assessment problems, have been long-standing problems that were also highlighted following Hurricane Andrew in 1992.

The military, other agencies, and public companies all have extensive communications assets and capabilities, but the Department of Homeland Security¹⁶ has responsibility for coordinating the communications portion of disaster response operations under the NRP. However, neither the NRP, the Department of Homeland Security, nor DOD fully identified the extensive military communication capabilities that could be leveraged as part of a proactive federal response to a catastrophe. In addition, DOD's emergency response plan, Functional Plan 2501, addressed internal military communications requirements, but it did not address the communication requirements of communities affected by a catastrophic natural disaster. It also did not address coordination with civilian responders. Typically, military equipment cannot communicate with civilian police, fire, and emergency medical systems unless it is augmented with specialized equipment. While the military and civilian agencies deployed mobile communication vans that were able to connect different communications systems that are normally incompatible, the placement of these vans was not coordinated and some areas had multiple systems while other areas had no systems at all. Because state and local officials were overwhelmed and the Department of Homeland Security and DOD waited for requests for assistance rather than deploying a proactive response, some of the military's available communication assets were never requested or deployed.

In addition to the coordination challenges, communications challenges arose within the military response. Some deployed National Guard assets were underutilized because the states that sent the assets placed restrictions on their use. The equipment was sent solely to support the

¹⁶ Department of Homeland Security/Information Analysis and Infrastructure Protection/ National Communications System.

The Military Encountered Problems Integrating Its Response

sending states' units and thus was unavailable for priority use. As a result, a number of mobile communications vans were collocated at a single site while other areas remained without communications. In addition, some National Guard responders were short of equipment. For example, one National Guard unit deployed to the area of operations with only 5 percent of its communications personnel and 50 percent of its communication equipment. As a result of these problems, military forces lacked good communication between headquarters units and troops on the ground. While subordinate military commanders are trained to complete their missions even when they do not have communications with their headquarters, this lack of communication made it difficult for senior military leaders to determine which missions had been completed, which were still ongoing, and what new missions may have surfaced.

The integration of the military response to Hurricane Katrina was affected by inadequate planning and by a key mobilization statute that limited DOD's reserve component members from being involuntarily ordered to active duty for disaster response. The military did not adequately plan for the integration of large numbers of deployed troops from different commands during disaster response operations. For example, a Louisiana plan to integrate military responders from outside the state called for the reception of not more than 300 troops per day. However, in the days following Hurricane Katrina, more than 20,000 National Guard members from other states arrived in Louisiana to join the response effort, and on one single day—September 5, 2005—more than 8,500 National Guard members from other states arrived in Louisiana to join the Katrina response effort.

One critical issue that needs to be resolved in any large, integrated operation is the decision concerning command and control of the forces. This issue had not been resolved prior to Hurricane Katrina and was a subject of discussion during the critical first days after Katrina made landfall. Ultimately, the military took a pragmatic approach to deconflict the operation with separate active-duty and National Guard chains of command. The federal forces—the active component and mobilized Reserve volunteers—were under the command and control of Northern Command's Joint Task Force-Katrina, while the National Guard forces, including those from other states, were under the command and control of the governors in Mississippi and Louisiana. While response operations were coordinated across the several chains of command, they were not integrated, which led to some inefficiencies and duplication of effort. For example, many responding military units from outside the states were assigned missions within established geographic boundaries, but the

Louisiana and Mississippi National Guard units had functional missions that cut across these geographic boundaries. Furthermore, in New Orleans, the geographic boundaries were not the same as the city district boundaries. This made coordination with local responders more difficult. Despite the lack of prior planning to address integration issues, many efforts were made to integrate the response. For example, active military representatives were assigned to state emergency operations centers and the commander of the active forces traveled daily throughout the affected region coordinating and collaborating with National Guard, and federal, state, and local civilian officials.

Because the military had not specifically planned nor decided which parts of the military response would be handled by the National Guard and which parts would be handled by the active component and mobilized reservists, many of the force flow decisions and integration efforts were ad hoc in the midst of the crisis. Because military plans and exercises had not provided a means for integrating the response, no one had the total picture of the forces on the ground, the forces that were on the way, the missions for which forces had been allocated, and the missions that still needed to be done. For example, National Guard commanders in Mississippi and Louisiana were not prepared to receive the division headquarter elements that were sent from Indiana and Kansas to command the out-of-state National Guard forces that were arriving in the two states from around the country.

A key mobilization statute¹⁷ also affected the integration of the military response. Title 10 of the United States Code currently limits a unit or member of a reserve component from being involuntarily ordered to federal active duty for disaster response. While this restriction applies to both National Guard and Reserve forces, National Guard forces were mobilized under both state active duty and Title 32 for Hurricane Katrina. No similar provisions exist to specifically mobilize Reserve forces for disaster response, although it is conceivable that if the President declares a national emergency, reserve component forces could become available for involuntary activation. As a result, all the Reservists who responded to Hurricane Katrina were volunteers, and Reservists constituted a relatively small portion of the response when compared to the National Guard and active component portions of the response.

¹⁷ 10 U.S.C. §12304.

If the military continues to rely on Reserve volunteers it will have difficulty fully executing DOD's 2005 civil support strategy that calls for a focused reliance on both the National Guard and the Reserves.¹⁸ The strategy notes that the National Guard is particularly well suited for civil support missions because it is routinely exercised with local law enforcement and first responders, experienced in supporting neighboring communities in times of crisis, and accessible in state active duty and Title 32 status. However, the strategy also emphasizes the use of the Reserves for domestic missions. The strategy specifically states that "the nation needs to focus particular attention on better using the competencies of National Guard and Reserve" organizations, and notes that Reserve forces currently provide many key capabilities. The process of lining up volunteers can be time-consuming and is more appropriate for mobilizing individuals than it is for mobilizing entire units or capabilities that may be needed during a catastrophe.

In 1993, after Hurricane Andrew, the military was facing a drawdown in force size and increasing mission requirements, and we issued two reports related to disaster assistance that addressed the Title 10 limitation. One of the reports¹⁹ said that, to improve DOD's response to catastrophic events, the Congress may want to consider amending Title 10 of the United States Code to allow reserve component units to be involuntarily activated to provide disaster assistance. Such a change would have provided DOD with more flexibility in the use of its total force. However, the limitation has remained in place. While the mobilization restriction did not limit the military's ability to respond to Hurricane Katrina, it could limit DOD's ability to respond to future catastrophes if large portions of the active-duty and National Guard forces are unavailable due to other mission requirements.

Search and Rescue Plans and Efforts Were Not Coordinated

While tens of thousands of people were rescued after Katrina through the efforts of military, civil government, and private rescuers, the lack of clarity in search and rescue plans led to operations that, according to aviation officials, were not as efficient as they could have been. The NRP

¹⁸ Department of Defense, Strategy for Homeland Defense and Civil Support, June 2005.

¹⁹ GAO/NSIAD-93-180 noted that the legislative intent of the Title 10 limitation was to prevent Reserve personnel from being activated frequently, which could cause problems with their employers, but noted that we would expect Reserve units would be activated for disaster assistance only when there is a catastrophe. We further stated that any changes to the call-up authority may need to consider limitations on the number of units/personnel that can be activated as well as the period of activation.

addressed only part of the search and rescue mission, and the National Search and Rescue Plan had not been updated to reflect the NRP. Under the United States National Search and Rescue Plan, which was issued in 1999, the Coast Guard ordinarily has responsibility for providing or arranging maritime search and rescue services, and the Air Force ordinarily has responsibility for providing or arranging nonmaritime search and rescue services in the continental United States. The plan also calls on DOD to support civil search and rescue efforts when the efforts do not interfere with DOD's primary military duties, and it states that DOD and Coast Guard commands should provide their facilities for civil search and rescue to the fullest extent practicable. While the NRP acknowledges the existence of the National Search and Rescue Plan, the NRP does not specifically address how the Coast Guard and the Air Force organizational responsibilities in the National Search and Rescue Plan coincide with the NRP's urban search and rescue annex. That annex lays out organizational responsibilities for search and rescue during a disaster, but it focuses on ground rescues. While the NRP includes DOD and the Coast Guard among the many supporting agencies, it lists the Department of Homeland Security's Emergency Preparedness and Response and FEMA as the primary and coordinating agencies for urban search and rescue.

As a result of the lack of clear search and rescue guidance, the aviation portion of military search and rescue operations was not fully integrated with the helicopter search and rescue operations of the Coast Guard and other rescuers. At least two different locations were assigning search and rescue tasks to military helicopter pilots operating over New Orleans and no one had the total picture of the missions that had been resourced and the missions that still needed to be performed. In accordance with the National Search and Rescue Plan, the Air Force established a Joint Search and Rescue Center at Tyndall Air Force Base, Florida, to manage Hurricane Katrina search and rescue missions; however, this center was not set up until September 4, 2005, 6 days after Katrina's landfall. Furthermore, the center did not have radar coverage over New Orleans. After Katrina made landfall, search and rescue helicopters operating in the New Orleans area were receiving their tasks from either the Coast Guard, which was based at Belle Chase, Louisiana, or from a task force led by the Louisiana National Guard, which was operating at the Superdome. According to Louisiana National Guard officials, they worked with the Coast Guard to deconflict the aviation operations, but the search and rescue efforts that were being directed from the two sites were not integrated. For example, some military aircraft received their direction from the task force at the Superdome, while others received their direction from the Coast Guard or the Joint Task Force that was in command of the

DOD Assumed an
Unanticipated Logistics Role

active troops on the ground. Neither the Coast Guard nor the Louisiana National Guard had visibility of all the aircraft operating over the city of New Orleans in the initial days after Katrina made landfall. According to military officials, better integration of search and rescue efforts could reduce duplications of effort for search and rescue aircraft.

Another factor that affected the military response was the large and unanticipated logistics role it was asked to assume when FEMA became overwhelmed. Under the NRP, FEMA is responsible for coordinating logistics during disaster response efforts but during Hurricane Katrina, FEMA quickly became overwhelmed. Supplies that had been positioned prior to Katrina's landfall were quickly exhausted. As a result, FEMA placed orders for more than 9 million meals-ready-to-eat and then, 4 days after landfall, asked DOD to assume a significant portion of its logistics responsibilities. Specifically, FEMA gave DOD responsibility for procurement, transportation, and distribution of ice, water, food, fuel, and medical supplies and it authorized DOD to spend up to \$1 billion to accomplish this mission. According to DOD officials, all of the 9 million meals that FEMA had ordered were shipped to the region by September 4, 2005. However, because FEMA lacked the capability to maintain visibility—from order through final delivery—of the supplies and commodities it had ordered, DOD had difficulty gaining visibility over the supplies and commodities when it assumed FEMA's logistics responsibilities. As a result of its lack of visibility over the meals that were in transit, DOD had to airlift 1.7 million meals to Mississippi to respond to a request from the Adjutant General of Mississippi, who was concerned that food supplies were nearly exhausted.

We recently issued a report that examined how the food provided by foreign nations was managed,²⁰ and we have additional work planned to look at the entire logistics process to best determine how the federal government can provide support in the future.

²⁰ GAO, *Hurricane Katrina: Comprehensive Policies and Procedures are Needed to Ensure Accountability for International Assistance*, GAO-06-460 (Washington, D.C.: Apr. 6, 2006).

DOD Has Begun Taking Actions to Address Catastrophic Disaster Response Problems, Some of Which are Complex and Long-standing

DOD is aware of disaster response problems described in this report and is beginning to take actions to address the lessons learned from Hurricane Katrina and to prepare for the next catastrophic event. The department has been conducting its own lessons-learned reviews and is also examining the lessons and recommendations in reports from a White House review panel, congressional oversight committees, and other sources. As a result, DOD is taking some actions to address catastrophic disaster response problems. While it is too early to fully evaluate the effectiveness of these ongoing and planned actions, many appear to hold promise for improving future responses. However, the issues identified during the aftermath of Katrina are often complex, cross agency boundaries, and are, in some cases, long-standing. Substantial improvement to the military's disaster and catastrophe response will require sustained attention from management at the highest levels of DOD and from key officials across the government.

Military Lessons Learned Are Emerging

DOD has collected lessons learned following Hurricane Katrina from a variety of sources. Within the department, DOD has a formal set of procedures to identify, capture, and share information collected as a result of operations in order to enhance performance in future operations. Even in the midst of the Hurricane Katrina response operation, officials from various military organizations were collecting information on lessons learned and this continued well after most operations had ceased. For example, communications issues that had surfaced were studied by both active and National Guard commands that had responded to Hurricane Katrina. DOD also formed a task force to study the response and is compiling and analyzing various military and other lesson learned reports to help design an improved response to future natural catastrophic events. In addition, the DOD Inspector General's Office and the service audit agencies are reviewing aspects of the Hurricane Katrina response.

Other organizations have also been gathering lessons learned. According to DOD officials, they have reviewed White House and congressional reports identifying lessons to be applied or challenges to be addressed in future response operations. While the assessments were different, many common themes emerged and are similar to the issues we describe in this report. For example, a February 2006 White House report²¹ also recognized

²¹The White House, *The Federal Response to Hurricane Katrina: Lessons Learned*, February 23, 2006.

the significant role that the military plays in catastrophes, and it even recommended that DOD work with the Department of Homeland Security to identify those extraordinary circumstances when it is appropriate for DOD to temporarily lead the federal response. That report also noted the lack of a unified command structure for active and National Guard forces and suggested that DOD work on ensuring integration of those forces in future responses. It further recommended that DOD seek ways to leverage Reserve members' civilian skills in disaster relief efforts. In addition, an over 500-page congressional report²² found numerous issues with the Katrina response, including the lack of integration of National Guard and active-duty forces, which hampered the military response.

DOD Is Taking Initial Steps to Improve Future Military Response to Catastrophes

To address the challenges highlighted in these lessons learned reports, DOD is currently planning numerous actions to improve its ability to respond to a catastrophic event. For example, DOD officials stated that the department is currently updating its emergency response plan and intends to use a contingency plan rather than a less detailed functional plan to guide its military support to civil authority missions. Recognizing the urgency of preparing for catastrophic events, the department hopes to complete many of its initial steps by June 1, 2006, the start of the next hurricane season. Since details about many of the department's actions were still emerging as we completed our review we were unable to fully assess the effectiveness of DOD's actions. However, many actions appear to offer promise for improving future responses. Several additional examples of DOD's planned efforts follow.

- To improve situational awareness and assist in damage assessment after a catastrophe, DOD is working on a plan to coordinate and synchronize surveillance and reconnaissance requests and assets.
- To improve integration of responders, DOD is planning several steps, including (1) expanding its training programs to accommodate planners from other agencies and (2) conducting new homeland defense and civil support exercises.
- To improve coordination between National Guard and active forces, and, specifically, avoid duplication of effort by military forces during an

²² *A Failure of Initiative: Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina*, U.S. House of Representatives, February 15, 2006.

incident, NGB officials will work with the states to build a database of current and planned state-to-state agreements for sharing National Guard forces.

DOD also has an organizational realignment underway that military officials believe should improve the response to future disasters and catastrophes. This realignment gives a single Army organization, the Fifth United States Army, responsibility for domestic disaster response. When Katrina made landfall in August 2005, disaster responsibilities within the Army were split between two organizations.²³ Under the change, the Fifth Army becomes a subordinate (U.S. Army, North) to the Northern Command and will focus on homeland defense and disaster response. According to military officials, Army, North, is establishing two command posts that will be capable of deploying within 18 hours as joint task forces for catastrophes anywhere in the United States. The command posts will be available when Army, North, reaches its full operating capability in October, 2006. Furthermore, to improve interagency coordination, specially trained defense coordinating elements are being established and co-located within each of FEMA's 10 regional offices. Army, North, also has a number of training and planning efforts underway to improve its support to civil authorities.

Complex and Long-standing Issues Will Require Sustained Management Attention to Resolve

While DOD's efforts to address the Katrina lessons learned appear to be steps in the right direction, some of the issues DOD is facing are complex and long-standing and cut across agency boundaries. As a result, substantial improvement will occur only if the actions receive sustained management attention at the highest levels, both within DOD and within the other responsible agencies. Many of the problems encountered during the Katrina response were also reported after Hurricane Andrew in 1992. For example, in a 1993 report,²⁴ we found that the practice of assigning responsibility for conducting damage assessments to state and local officials under the Federal Response Plan²⁵ was not suitable for

²³ The First United States Army had responsibility for responding to hurricanes and other disasters in Minnesota and states east of the Mississippi River, including Mississippi, Alabama, and Florida. The Fifth United States Army had responsibility for responding to hurricanes and other disasters in the remaining states, including Louisiana and Texas. Both commands had mobilization and training responsibilities as well.

²⁴ [GAO/NSIAD-93-180](#).

²⁵ The Federal Response Plan was issued in 1992 and was replaced by the National Response Plan in 2004.

catastrophic situations and it contributed to the lack of timely damage assessments during Hurricane Andrew. Our report also found supply distribution delays caused by a lack of visibility over FEMA-ordered supplies, and found confusion over the command and control relationships, which had not been fully resolved prior to Andrew's landfall. Due to the complexity and long-standing nature of these problems, DOD's planned and ongoing actions must receive sustained top-management attention in order to effect needed improvements in the military's ability to support civil authorities.

Part of DOD's challenge in moving forward is the complexity of the problems, especially given the uncertainty of potential events and the sheer number of organizations at all levels of government that are involved. Coordinating improvements across the various parts of the military, alone, will be a challenge. The National Guard and active-duty forces have complicated chains-of-command, especially in peacetime when the National Guard typically serves the state governors. Other issues require close coordination with state and local governments. For example, conducting damage assessments, a critical early step in developing an appropriate response to an event, can involve many different agencies at all levels of government. Damage assessments are normally to be conducted by local or state officials during a disaster. However, local and state officials who are overwhelmed in a catastrophe are unlikely to be able to conduct timely and comprehensive damage assessments. Paradoxically, without timely, comprehensive damage assessments federal responders may not realize the extent to which local and state officials are overwhelmed. While the issues are complex, they are also urgent, and experience has illustrated that the military has critical and substantial capabilities that are needed in the wake of catastrophic events.

Conclusions

Clearly, Hurricane Katrina was one of the most devastating natural disasters in our nation's history, and because of its size and strength, it will have long-standing effects for years to come. By their nature, major catastrophic events involve extraordinary levels of casualties, damage, or disruption that will likely immediately overwhelm state and local responders—circumstances that make sound planning for catastrophic events all the more crucial. Prior disasters and the actual experience of Hurricane Katrina show that the military is likely to contribute substantial support to state and local authorities. More detailed planning would improve officials' understanding of the support the military could be expected to provide following a catastrophic incident, including the types of capabilities that might be provided, the actions that might be taken

proactively and in response to specific requests, and the integrating of the National Guard and active-duty response. Further, while the limited participation of Reserve members after Katrina did not affect response efforts, under current law, DOD's ability to respond to future catastrophes may be limited if it cannot involuntarily mobilize reserve component members—particularly if large portions of the active and National Guard forces are unavailable due to other mission requirements. The devastation of Katrina and the issues it revealed serve as a warning that actions are needed to clearly identify the military capabilities that will be required from the National Guard, Reserve, and active forces as part of a proactive federal response following a catastrophic natural disaster. Without urgent and detailed attention to improve planning, the military and federal government risk being unprepared for the next catastrophe.

Recommendations for Executive Action

We recommend that DOD take the following four actions:

First, given the expected heavy reliance on the military during catastrophes, we recommend that the Secretary of Defense provide the Secretary of the Department of Homeland Security with proposed revisions to the NRP that will fully address the proactive functions the military will be expected to perform during a catastrophic incident, for inclusion in the next NRP update.

Second, in view of the fast approaching 2006 hurricane season and other natural and man-made threats that could result in a catastrophe at any instant, we recommend that the Secretary of Defense establish milestones and expedite the development of detailed plans and exercises to fully account for the unique capabilities and support that the military is likely to provide to civil authorities in response to the full range of domestic disasters, including catastrophes. The plans and exercises should specifically address the

- use of reconnaissance capabilities to assess damage,
- use of communications capabilities to facilitate support to civil authorities,
- integration of active component and National Guard and Reserve forces,
- use of search and rescue capabilities and the military's role in search and rescue, and
- role the military might be expected to play in logistics.

Third, since National Guard troops can join response efforts as part of the federal response or as part of the state response under mutual assistance agreements, we recommend that the Secretary of Defense direct the Chief of the National Guard Bureau to work with the state governors and adjutants general to develop and maintain a list of the types of capabilities the National Guard will likely provide in response to domestic natural disasters under state-to-state mutual assistance agreements along with the associated units that could provide these capabilities. In addition, we recommend that the Secretary of Defense direct the Chief of the National Guard Bureau to make this information available to the Northern Command, U.S. Joint Forces Command, and other organizations with federal military support to civil authority planning responsibilities.

Finally, based on the above action by the National Guard Bureau to identify the National Guard units that are likely to respond to domestic disasters under state-to-state mutual assistance agreements, we also recommend that the Secretary of Defense establish milestones and identify the types of scalable federal military capabilities and the units that could provide those capabilities in response to the full range of domestic disasters and catastrophes covered by DOD's defense support to civil authorities plans.

Matter for Congressional Consideration

In a 1993 report²⁶ we suggested that the Congress may want to consider removing the statutory restriction on DOD's authority to involuntarily activate Reserve units for catastrophic disaster relief. In view of the significant military downsizing that has occurred since we first raised this matter and the need to actively engage the total force in order to meet missions at home and abroad, we continue to believe that the Congress should consider lifting or modifying the mobilization restriction—10 U.S.C. §12304 (c)(1)—that limits reserve component participation in catastrophic natural disasters.

Agency Comments and Our Evaluation

In commenting on a draft of this report, DOD stated the report was thorough and made a significant contribution to DOD's plans to improve the department's support to civil authorities during domestic disaster incidents. In addition to partially concurring with our recommendations, DOD's made several comments about the report that fell into two broad

²⁶ [GAO/RCED-93-186](#).

categories, DOD's role during domestic disaster response and its pre-Katrina planning and exercise schedule.

First, DOD believed the report called for a greater DOD role during domestic disaster response but noted that it must strike a balance between its warfighting role overseas and the need to support civil authorities at home. While DOD said it would continue to work as part of a unified interagency effort, it said that the goal is to enhance the domestic disaster response capacities of other agencies. Until that goal is achieved, DOD will be prepared to respond even more rapidly with more resources to another catastrophe in the United States. We recognize the need to balance DOD's overseas warfighting mission and its domestic response missions. In the report, we note DOD's role is primarily that of a supporting agency under the NRP, and that the nature of the military response will vary depending on the nature of the emergency. However, given the military's capabilities, its response and level of support to civil authorities is likely to be more significant during large disasters and catastrophes.

Second, DOD said that the title of the report is misleading because it does not recognize DOD's extensive planning and exercise schedule prior to August 29, 2005, such as specific preparations in response to six 2005 hurricanes. We added additional information about these efforts. However, we continue to believe that the title accurately reflects the report's findings and recommendations. As stated in the report, DOD had periodically held modest military support to civil authorities exercises but the exercises used underlying assumptions that were unrealistic in preparing for a catastrophe. We also note that DOD's comments acknowledge the need to improve its plans and exercises. In fact, DOD's comments acknowledged the need to conduct at least one fully integrated major exercise with the Department of Homeland Security each year rather than the separate exercises that have been conducted in the past.

DOD also commented on our four recommendations, partially concurring with each of them. With respect to our first recommendation—to revise the NRP to fully address the proactive functions that the military will be expected to perform during a catastrophic incident—DOD said that proactive military functions can be identified in all 15 major disaster scenarios and said it is working with the Department of Homeland Security to revise the NRP. While DOD stated that the long-term focus of the U.S. government should be to develop more robust domestic disaster capabilities within the Department of Homeland Security, it acknowledged that DOD will need to assume a more robust response role in the interim

period, and when other responders lack the resources and expertise to handle a particular disaster.

With respect to our second recommendation that concerned the development of detailed plans and exercises, DOD listed a number of steps it is taking to improve its disaster response planning and exercises and said that consistent with its Strategy for Homeland Defense and Civil Support the active component should complement, but not duplicate, the National Guard's likely role as an early responder. The DOD comments also said that planning and exercises should include local, state, and federal representatives and should stress the responders with the highest degree of realism possible—to the breaking point if possible. However, the comments said that logistics planning and execution is the clear responsibility of FEMA and individual states, and DOD would remain ready in a supporting role. We agree with DOD that effective disaster plans and exercises require stressing scenarios with the active participation of representatives from all levels of government. We also agree that FEMA and states have logistics responsibilities. However, we continue to believe that DOD should plan and prepare to assume additional emergency support function responsibilities during catastrophes when other responders may be overwhelmed.

DOD also partially concurred with our third recommendation—that the Chief of the National Guard Bureau work with the state governors and adjutants general to develop and maintain a list of the types of capabilities the National Guard will likely provide in response to domestic natural disasters under state-to-state mutual assistance agreements, along with the associated units that will provide these capabilities. DOD said that it was not feasible to identify the specific units that would provide these capabilities and requested that we modify our recommendation to say units that “could” provide these capabilities rather than units that “will” provide those capabilities. We agree and have adjusted our recommendation. In addition, DOD listed steps the U.S. Northern Command is taking to better understand the capabilities of National Guard units and it stated that the National Guard is creating a database to facilitate planning its employment in support of the homeland. As part of the database implementation, the National Guard Bureau has identified a need to place a contractor in each of its Joint Force Headquarters-State locations.

Finally, DOD partially concurred with our recommendation that it identify the types of scaleable federal military capabilities and units that will provide those capabilities in response to the full range of domestic

disasters and catastrophes covered by DOD's defense support to civil authorities plans. DOD noted that it has developed scalable capability packages in conjunction with pre-scripted requests for assistance and Northern Command's Contingency Plan 2501, which is scheduled to be signed in the spring of 2006. However, because DOD's forces can be used to meet many different types of missions, DOD requested that we modify our recommendation to say identify the types of scaleable federal military capabilities and units that "could" (rather than "will") provide those capabilities. We agree and have adjusted our recommendation.

DOD also provided technical comments, which we incorporated as appropriate. DOD's written comments are reprinted in their entirety in appendix III.

We are sending copies of this report to the appropriate congressional committees; the Secretary of Defense; the Secretaries of the Army, Navy, and Air Force; the Commandant of the Marine Corps; the Chairman of the Joint Chiefs of Staff; the Commander, U.S. Northern Command; the Chief of the National Guard Bureau; the Director of the Defense Logistics Agency; the Director, Office of Management and Budget; and other interested parties. In addition, this report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staffs have any questions about this report, please contact me at (202) 512-9619 or pickups@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributors to this report are listed in appendix IV.



Sharon L. Pickup
Director, Defense Capabilities and Management

List of Congressional Committees

The Honorable John Warner
Chairman
The Honorable Carl Levin
Ranking Minority Member
Committee on Armed Services
United States Senate

The Honorable Susan M. Collins
Chairman
The Honorable Joseph I. Lieberman
Ranking Minority Member
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Ted Stevens
Chairman
The Honorable Daniel K. Inouye
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable Duncan L. Hunter
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Committee on Armed Services
House of Representatives

The Honorable Tom Davis
Chairman
The Honorable Henry A. Waxman
Ranking Minority Member
Committee on Armed Services
House of Representatives

The Honorable C. W. Bill Young
Chairman
The Honorable John P. Murtha
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

Appendix I: Scope and Methodology

To address our objectives, we interviewed officials from DOD, the National Guard, the military services, and defense agencies that participated in the response to Hurricane Katrina. In addition, we reviewed military time lines, after-action reports, lessons learned studies, briefings, congressional testimonies, and other documents. During our review, we met with and obtained information from officials in the following organizations.

Office of The Secretary Of Defense

Office of the Under Secretary of Defense Comptroller, Arlington, Va.
Office of the Under Secretary of Defense for Policy, Arlington, Va.
Office of the Secretary of Defense, Office of the General Counsel, Arlington, Va.
Office of the Deputy Under Secretary of Defense for Industrial Policy, Arlington, Va.
Office of the Deputy Under Secretary of Defense for Logistics & Material Readiness, Arlington, Va.
Office of the Assistant Secretary of Defense for Health Affairs, Arlington, Va. McHale-Mauldin Hurricane Katrina Task Force, Arlington, Va. Joint Staff Director of Military Support, National Military Command Center, Arlington, Va.

DOD Agencies

Defense Logistics Agency, Ft. Belvoir, Va.
Office of the Inspector General, Logistics Management Division, Arlington, Va.
Defense Intelligence Agency, Washington, D.C.

Commands

U.S. Strategic Command, Joint Functional Component Command for Intelligence Surveillance and Reconnaissance, Bolling Air Force Base, Washington, D.C.
U.S. Northern Command, Peterson Air Force Base, Colorado Springs, Colo.
U.S. Joint Forces Command, Atlantic Fleet Compound, Norfolk, Va.
U.S. Transportation Command, Scott Air Force Base, Ill.

Military Services

U.S. Army

U.S. Army Forces Command, Headquarters, Fort McPherson, Ga.
First U.S. Army, Fort Gillem, Ga.
Fifth U.S. Army/ Army North, Fort Sam Houston, San Antonio, Tex.
U.S. Army Reserve Command, Fort McPherson, Ga.
Surface Distribution and Deployment Command, Alexandria, Va.
2nd Brigade Combat Team, 1st Cavalry Division, Fort Hood, Tex.
13th Corps Support Command Fort Hood, Tex.
82nd Airborne Division, Fort Bragg, N.C.

U.S. Navy

Fleet Forces Command, Naval Station Norfolk , Norfolk, Va.
Joint Force Maritime Component Command, Naval Station Norfolk,
Norfolk, Va.
2nd Fleet, Naval Station Norfolk, Norfolk, Va.
USS Iwo Jima
USS Truman
USS Bataan
Military Sealift Command, Washington, D.C.
First Naval Construction Division, Little Creek Amphibious Base, Norfolk,
Va.
Naval Facilities Engineering Command, Norfolk, Va.

U.S. Marine Corps

Headquarters Marine Corps Plans, Policies, and Operations Department,
Arlington, Va.
Marine Corps Forces Command, Naval Station Norfolk, Norfolk, Va.
2nd Marine Expeditionary Force, Camp Lejeune, N.C.
24th Marine Expeditionary Unit, Camp Lejeune, N.C.

U.S. Air Force

Operations Group, Arlington, Va.
National Security Emergency Preparedness, Arlington, Va.
Joint Force Air Component Command, 1st Air Force, Tyndall Air Force
Base,
Panama City, Fla.
Air Mobility Command, Scott Air Force Base, Ill.
Air Combat Command, Langley Air Force Base, Va.

Task Forces

Joint Task Force Katrina, New Orleans, La.
Task Forces Pelican and Eagle, Louisiana National Guard, Camp Beauregard, La.

National Guard

National Guard Bureau, Arlington, Va.
Louisiana National Guard, Baton Rouge, La.
Louisiana National Guard, Carville, La.
Assistant Adjutant General, Mississippi Army National Guard, Gulfport, Miss.
186th Air Refueling Wing, Mississippi Air National Guard, Meridian, Miss.
172nd Airlift Wing, Mississippi Air National Guard, Jackson, Miss.
Joint Forces Headquarters, Indiana National Guard, Indianapolis, In.
38th Infantry Division (Mechanized), Indianapolis, In.
Joint Forces Headquarters, Kansas National Guard, Topeka, Ks.
35th Infantry Division (Mechanized) Ft. Leavenworth, Ks.
Joint Force Headquarters, Jackson, Ms.

To assess the extent to which pre-Katrina plans and training exercises reflected the military assistance that might be required during a catastrophic, domestic, natural disaster, we analyzed planning and directive documents related to military support to civil authority, such as the Strategy for Homeland Defense and Civil Support, and the Military Support²⁷ and Assistance²⁸ to Civil Authorities directives, and state plans. In analyzing these documents and others, we determined the extent to which they addressed a mechanism for the integration of forces and established a process to identify and communicate the military capabilities available to civil authorities or those that could be sent by DOD following a disaster or catastrophic event. We also reviewed after-action reports from training exercises to determine whether assumptions for the exercises were realistic in light of recent catastrophic disasters, to establish the level of military involvement in recent disaster planning exercises, and to determine whether the training scenarios exercised available military capabilities. We discussed our analysis with officials from the Office of the Assistant Secretary of Defense for Homeland Defense, Northern Command, the National Guard Bureau, and others to determine the extent to which the directives, plans, and lessons from

²⁷ DOD Directive 3025.1, Military Support to Civil Authority.

²⁸ DOD Directive 3025.15, Military Assistance to Civil Authority.

exercises adequately supported the military's response to civil authority after Hurricane Katrina.

To examine the support that the military provided in responding to Katrina and factors that affected that response, we obtained briefings and reports describing the military's response to Hurricane Katrina in Louisiana and Mississippi. We compared and contrasted data collected and resolved discrepancies through interviews with officials from DOD, state National Guard forces, Joint Task Force Katrina, and service, and state officials. We specifically examined the time line of the military's response, the size and nature of the forces that responded, and the challenges faced in supporting civil authorities. To compare this response to prior military responses, accounting for differences in storms, we analyzed testimony and reports about the military's response to other natural disasters.²⁹ We analyzed relevant documents and lessons learned reports from the military to specifically examine the damage assessment, logistics, communication, search and rescue, and security/law enforcement response to determine if previously identified concerns had been addressed prior to Hurricane Katrina.

Additionally, to determine what actions, if any, the military is taking to address lessons learned from Katrina, we collected and analyzed briefings and lessons learned reports from organizations participating in the response. We discussed recommended actions from lessons learned reports and how the military plans to improve its response to future disasters with officials from DOD and the National Guard Bureau.

²⁹ GAO, *Disaster Assistance: DOD's Support for Hurricanes Andrew and Iniki and Typhoon Omar*, [GAO/NSIAD-93-180](#) (Washington, D.C.: June 18, 1993), *Disaster Management: Improving the Nation's Response to Catastrophic Disaster*, [GAO/RCED-93-186](#) (Washington, D.C.: July 23, 1993), and *Disaster Management: Recent Disasters Demonstrate the Need to Improve the Nation's Response Strategy*, [GAO/RCED-93-46](#) (Washington, D.C.: Jan. 27, 1993).

We conducted our work from September 2005 through April 2006 in accordance with generally accepted government auditing standards.

Appendix II: NRP Emergency Support Function Responsibilities

Emergency support function	Primary agencies or organizations	Supporting agencies or organizations ^a
#1- Transportation	Department of Transportation	DOD and 10 others
#2- Communications	DHS/Information Analysis and Infrastructure Protection/National Communications System	DOD and 7 others
#3- Public works and engineering	DOD/U.S. Army Corps of Engineers DHS/Emergency Preparedness and Response/FEMA	DOD and 16 others
#4- Firefighting	Department of Agriculture/Forest Service	DOD and 5 others
#5- Emergency management	DHS/Emergency Preparedness and Response/FEMA	DOD and 25 others
#6- Mass care, housing, and human services	DHS/Emergency Preparedness and Response/FEMA American Red Cross	DOD and 15 others
#7- Resource support	General Services Administration	DOD and 9 others
#8- Public health and medical services	Department of Health and Human Services	DOD and 15 others
#9- Urban search and rescue	DHS/Emergency Preparedness and Response/FEMA	DOD and 10 others
#10- Oil and hazardous materials response	Environmental Protection Agency	DOD and 14 others
#11- Agriculture and natural resources	Department of Agriculture Department of the Interior	DOD and 12 others
#12- Energy	Department of Energy	DOD and 11 others
#13- Public safety and security	DHS Department of Justice	DOD and 12 others
#14- Long-term community recovery and mitigation	Department of Agriculture Department of Commerce DHS/Emergency Preparedness and Response/FEMA Department of Housing and Urban Development Department of the Treasury Small Business Administration	DOD and 10 others
#15- External affairs	DHS/Emergency Preparedness and Response/FEMA	DOD and 25 others

Source: GAO analysis of the National Response Plan.

DHS = Department of Homeland Security.

FEMA = Federal Emergency Management Agency.

^aThe Army Corps of Engineers was included with DOD and not counted as a separate agency.

Appendix III: Comments From the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



HOMELAND
DEFENSE

ASSISTANT SECRETARY OF DEFENSE
2600 DEFENSE PENTAGON
WASHINGTON, DC 20301-2600

MAY 5 2006

Ms. Sharon L. Pickup
Director, Defense Capabilities and Management
U.S. Government Accountability Office
Washington, DC 20548

Dear Ms. Pickup:

We appreciate the opportunity to comment on the draft report, "HURRICANE KATRINA: Better Plans and Exercises Needed to Guide the Military's Response to Catastrophic Natural Disasters." We found that your report is thorough and makes a significant contribution to the DoD action plans to improve the Department's support to civil authorities during domestic disaster incidents. Many of the GAO's observations were also identified by DoD during earlier internal after-action reviews. We appreciate the detail of your report and believe it will help us as we move forward.

We request you make several changes to the draft report. In general, our comments fall under two broad categories. First, the report calls for a greater DoD role during domestic disaster response. While we agree with the general thrust of your recommendation, striking the appropriate balance between the military's primary warfighting role overseas and the need to support civil authorities at home is a difficult, but fundamental issue. DoD will continue to work as part of a unified interagency effort with other Federal, state, and local agencies to plan for and respond to domestic disasters and catastrophic events. The goal is to enhance the capacity of other agencies and state and local governments to perform their assigned responsibilities during domestic disaster response, with the continued ability to call on U.S. military support when required by the circumstances. Until that goal is achieved, however, the Department will be prepared to respond even more rapidly and with more resources to another catastrophe in the United States should the capacity of civilian agencies be overwhelmed.

In addition, as Lieutenant General Honoré points out in his May 1, 2006, letter to you (attached), the title of the draft GAO report is misleading in that it does not recognize DoD's extensive planning and exercise schedule prior to August 29, 2005. We agree that we can plan and exercise better. However, our planning and exercise schedule prior to and during the 2005 severe weather season enhanced DoD's ability to conduct the largest, fastest response to a civil disaster in the nation's history. This is not to imply we can't improve – we can and will do

See comment 1.

See comment 1.

**Appendix III: Comments From the
Department of Defense**

better. Our attached comments enumerate many positive steps underway to posture ourselves for future support to civil authorities. We hope you will incorporate them in the final version of the report.

Again, let me take this opportunity to thank you and your staff for producing a thorough report.

Sincerely,



Paul McHale

Attachments
As stated

GAO DRAFT REPORT – DATED APRIL 14, 2006
GAO CODE 350755/GAO-06-643

“HURRICANE KATRINA: Better Plans and Exercises Needed
to Guide the Military’s Response to Catastrophic Natural Disasters”

DEPARTMENT OF DEFENSE COMMENTS
TO THE RECOMMENDATIONS

GENERAL: We found that your report is thorough and makes a significant contribution to the DoD action plans to improve the Department’s support to civil authorities during domestic disaster incidents. Many of the GAO’s observations were also identified by DoD during earlier internal after-action reviews. We appreciate the detail of your report and believe it will help us as we move forward.

Echoing the comments of LTG Honoré, 1st Army Commander, while the report’s emphasis is correctly on better planning and more stressing exercises, the title could mislead if enough focus is not given to DoD’s extensive planning and exercise schedule prior to August 29th of 2005. We agree we can plan and exercise better. However, our planning and exercise schedule prior to and during the 2005 severe weather season enhanced DoD’s ability to conduct the largest, fastest response to a civil disaster in the nation’s history. In addition, in concert with both internal lessons learned processes and White House initiatives, DoD is not just “beginning to take action” but rather has been aggressively taking action and accelerating our plans. For example:

- By June 1, 2006, DoD will:
 - Co-locate permanent Defense Coordinating Officers (DCOs) at FEMA regional offices
 - Finalize emergency response plans
 - Revise the National Response Plan (NRP) and plan for a significant DoD role in catastrophe response
 - Support DHS in developing an analysis and planning capability
 - Fold National Geospatial Intelligence Agency (NGA) & National Security Agency (NSA) support into normal DoD civil support processes
- DoD has released a Defense its Support of Civil Authorities (DSCA) Standing Execution Order (EXORD) that authorizes Combatant Commanders to:
 - Deploy Defense Coordinating Officers/Defense Coordinating Elements (DCO / DCE)
 - Task DoD installations as Base Support Installations
 - Deploy Modular Airborne Fire Fighting Systems (MAFFS)
 - Place on Prepare to Deploy Orders: Deployable Communications, Helicopters, Aerial Reconnaissance, Patient Evacuation

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See comment 1.

See comment 2.

- DoD has developed pre-scripted Mission Assignments for FEMA
 - Done at request of FEMA, with cost estimates
 - 18 broken out in 7 Emergency Support Functions
- DoD is undergoing an extensive exercise preparation
 - Catastrophic Assessment Task Force III (CATF III) (Executive Level) on Hurricane Preparedness
 - USNORTHCOM ARDENT SENTRY /CJSC POSITIVE RESPONSE 06
 - 5 FEMA Regions will host 6 Table Top Exercises
- DoD's Quadrennial Defense Review (QDR) calls for "Building Partnership Capacity." The QDR execution roadmap will include training of DHS planners and assistance in developing disaster assistance plans for consequence management and catastrophic events

See comment 3.

Finally, the Report should not advocate or create an expectation of too extensive a role for DoD in domestic disaster response. Domestic response, except under extraordinary circumstances, is led by DHS, with DoD and other agencies in support. Striking the appropriate balance as to the military's role in civil affairs is a difficult but fundamentally significant exercise -- DoD capabilities are critical and should be called upon when required by the circumstances. Our partner agencies need to ensure their capabilities are fully resourced, planned, and exercised as well.

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense provide the Secretary of the Department of Homeland Security with proposed revisions to the National Response Plan (NRP) that will address fully the proactive functions the military will be expected to perform during a catastrophic incident, for inclusion in the next NRP update. (Page 28/GAO Draft Report)

DoD RESPONSE: Partially concur. The proposals of the GAO report are valid as an interim solution. DoD will have a more robust disaster/catastrophe response role. To the extent that local, state, and Federal civilian responders do not have the resources or expertise to handle a particular disaster, there is no other institution in our nation other than DoD capable of promptly marshalling the necessary capabilities. Further, it would make no sense for the U.S. Government to create a stand-by capability the size of the U.S. Armed Forces dedicated solely to catastrophic events -- man-made or natural. However, too much reliance on DoD is also not desirable. DoD assets exist primarily for use in DoD's national security mission and may not be available for a domestic response. The long-term focus of the U.S. Government (both legislative and executive branches) should be to fund and develop more robust DHS capabilities for planning and execution of the Federal government's response to domestic disasters.

See comment 4.

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Additionally, with regard to the National Response Plan, proactive military functions can be identified in all 15 major disaster scenarios. DoD is already working with DHS and other Executive Branch partners to develop plans against these scenarios and to revise appropriate portions of the NRP.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense establish milestones and expedite the development of detailed plans and exercises to account fully for the unique capabilities and support that the military is likely to provide to civil authorities in response to the full range of domestic disasters, including catastrophes. The plans and exercises should specifically address the:

- use of reconnaissance capabilities to assess damage;
- use of communications capabilities to facilitate support to civil authorities;
- integration of active component and National Guard and Reserve forces;
- use of search and rescue capabilities and the military's role in search and rescue; and
- role the military will be expected to play in logistics. (Page 28-29/GAO Draft Report)

DoD RESPONSE: Partially concur. DoD has extensive logistics capabilities and expertise that can be used as a template for standard domestic disaster relief interagency cooperation. The draft GAO report makes several comments suggesting a lack of FEMA readiness to deal with the logistics required for natural disasters on the scale of Hurricane Katrina. Although the DoD remains ready in a supporting role with regard to logistics, planning for and executing responses to natural disasters is the clear responsibility of FEMA and individual states.

Additionally, DoD domestic disaster relief exercises that lack active participation by other government and non-government agencies are of limited utility. The gaps and seams that were highlighted during the aftermath of Hurricane Katrina between military and civilian government agencies can be addressed in current exercises with appropriate focus and committed civilian participation. These exercises should be detailed enough to include the projected prioritized flow of identified forces, their required sustainment, and logistical support.

USNORTHCOM, as the geographic Combatant Commander for most U.S. territory, should take the lead in planning for domestic disasters. USNORTHCOM Plans and Secretary of Defense Standing Execute Orders (EXORDS) are signed or under final development regarding DoD's response to domestic disasters. Examples of planning and exercise initiatives include:

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See comment 5.

- Development of USNORTHCOM CONPLAN 2501: “Defense Support of Civil Authorities” to be signed this Spring
- Development of pre-scripted mission assignments in support of DHS / FEMA.
- Conduct of USNORTHCOM mission analyses / vulnerability assessments
- Co-location of permanent Defense Coordinating Officers in the 10 FEMA Regional Offices
- Standing Defense Support to Civilian Authorities (DSCA) EXORD signed April 28, 2006
- Identification of DoD installations for FEMA Operational Staging Areas and Mobilization Center Operations
- Support to the DHS/FEMA Tabletop Exercise in FEMA Regions I, II, III, IV, and VI
- Conducted 140-150 conferences/tabletop exercises since Hurricane Katrina.
- Hosted Federal Coordinating Officer and Defense Coordinating Officer Conference
- Development of DoD/DHS damage assessment Concept of Operations (CONOPS) using both aircraft and ground assessment teams
 - Development of a USNORTHCOM and USSTRATCOM framework to provide pre-coordinated initial assessment options
- Development of communications packages in support of first responders, small staffs, and large staffs

Additionally, consistent with the DoD Strategy for Homeland Defense and Civil Support, DoD Active Component’s focus should be to complement, but not duplicate, the National Guard’s likely role as an early responder to a tactical emergency. For example, states have access to tactical assets such as security forces, either through state agencies, their own National Guard, or through the Emergency Management Assistance Compact process. On the other hand, states do not have easy access to Federal strategic assets, such as the Air and Space recon/damage assessment capabilities provided by various federally-owned sensor arrays. Clear delineation, when possible, between Title 32 and Title 10 capabilities, will help create executable plans. For this reason, planning and exercises should include local, state, (HLS and National Guard), and Federal (DoD, DHS) representatives and should stress the responders with the highest degree of realism possible – to the breaking point if possible.

RECOMMENDATION 3: The GAO recommended that the Secretary of Defense direct the Chief of the National Guard Bureau (NGB) to work with the state governors and Adjutants General to develop and maintain a listing of the types of capabilities the National Guard will likely provide in response to domestic natural disasters under state-to-state mutual assistance agreements with the associated units that will provide these capabilities. In addition, the GAO recommended that the Secretary of Defense

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direct the Chief of the National Guard Bureau to make this information available to U.S. Northern Command, U.S. Joint Forces Command, and other organizations with Federal military support to civil authority planning responsibilities. (Page 29/GAO Draft Report)

See comment 6.

DoD RESPONSE: Partially concur. This effort is underway in the form of the Joint Capabilities Database (JCD) developed and maintained by partnership between NGB-J5 and the 54 Joint Force Headquarters-State. As part of the JCD implementation, the National Guard Bureau has identified a need to place a contractor in every state/territory/district to facilitate planning and provide in-depth integration analysis for employment of the National Guard in support of the homeland.

Identification of specific units -- aside from command headquarters -- is no more feasible for the National Guard than it is for the active component, as most forces/capabilities are multi-mission capable and subject to deployment. Aligning specific forces to specific contingency plans when execution is not imminent is often of limited benefit. Accordingly, we recommend the following text change in the first part of Recommendation 3: "associated units that will provide these capabilities" to "associated units that could provide these capabilities."

USNORTHCOM is engaged in better understanding the capabilities of National Guard units. Examples of USNORTHCOM initiatives to further this understanding include:

- Hosted USNORTHCOM Commander's Hurricane Conference
- Met with 54 State and Territorial Adjutants General
- Established a permanent NGB desk in the USNORTHCOM Command Center to provide situational awareness of National Guard activities and movements

See comment 7.

To enhance the goal of an integrated, executable plan, the Chief of the National Guard Bureau should include USTRANSCOM in the distribution of this information to the Continental United States (CONUS)-based Combatant Commanders. As a direct support command to USNORTHCOM, USTRANSCOM oversees several key active duty and reserve component capabilities that also reside in the National Guard.

RECOMMENDATION 4: The GAO recommended that the Secretary of Defense establish milestones and identify the types of scaleable Federal military capabilities and the units that will provide those capabilities in response to the full range of domestic disasters and catastrophes covered by DoD's Defense Support to Civil Authorities (DSCA) plans. (Page 29/GAO Draft Report)

See comment 8.

DoD RESPONSE: Partially concur. We recommend the following text change to Recommendation 4: "will provide those capabilities" to "could provide those capabilities." This change emphasizes that while DoD has these assets, they may not always be available depending on other national security missions. The Department of

Homeland Security should take the lead on interagency cooperation and coordinate milestones with the primary governmental and non-governmental participants.

Scalable capability packages have been developed in conjunction with pre-scripted Requests For Assistance and USNORTHCOM CONPLAN 2501. Continuing DoD guidance is to leverage wartime force structure and training, and not to build capabilities primarily focused on DSCA.

ADDITIONAL RECOMMENDATIONS:

- The GAO should recommend that the Department of Homeland Security and Department of Defense conduct at least one fully integrated exercise annually. This exercise should involve the command centers at tactical, operational, and strategic levels for both Departments, responding to a common, jointly designed catastrophic scenario. It should be of sufficient scope and duration to require a national response for both response and recovery phases.

Comment: Major DoD and DHS joint exercises (ARDENT SENTRY and TOP OFFICIALS, respectively) are currently de-coupled and typically involve only response cells from one Department supporting the exercise of the other. Furthermore, in the past these exercises, when conducted concurrently, have not been integrated and synchronized as to training objectives. Additionally, the scope and duration of the exercises did not allow for extensive interplay under a stressful environment.

- The GAO report on pages 3, 4, and 15 describes the Chief of the National Guard Bureau (NGB) as having overall responsibility for military support to civil authorities programs for the states. While the NGB does have impact on state programming, the overall responsibility remains with the state governors. We recommend revising these statements accordingly.

FIRST ARMY COMMENTS: Our comments above do not repeat the issues raised by LTG Honoré, but they remain valid DoD inputs to the report.

Damage Assessment and Situational Awareness: DoD's unique damage assessment capabilities, especially air- and space-borne, are important additive factors in the initial assessments of a disaster. USNORTHCOM's damage assessment annex for disaster response, in part exercised successfully during Hurricane Rita, will provide these unique DoD capabilities when appropriate and authorized.

National Guard and Title 10 integration: DoD acknowledges that although superb planning occurred in both Title 10 and Title 32 headquarters, the

See comment 1.

See comment 9.

See comment 10.

See comment 11.

See comment 12.

planning was not as integrated as we desire. On the other hand, the superb execution of an integrated National Guard/Active Duty mission is well described by the First Army response.

Search and Rescue Integration: DoD acknowledges that better integration of interagency and Title 32/Title 10 assets would have led to greater efficiency for the Search and Rescue mission. However, it is worth noting that the operation was conducted safely – a considerable accomplishment under the extreme conditions of Hurricane Katrina’s aftermath.

See comment 13.

ADDITIONAL LINE-IN / LINE-OUT COMMENTS

1. Page 2, Para. 3, 1st sentence: Beginning with “... envisions a greater reliance on...,” replace end of sentence to read: “... envisions a greater reliance on the Reserve component, especially the National Guard.”
2. Page 10, Para. 2, Last sentence: After “... a local military commander ...,” insert “...when requested by local civil authorities ...” and then delete following phrase “civil authorities or the public .”
3. Page 14, Para 2, 4th sentence: in last part of sentence “... concept of operations using National Guard and Reserve capabilities.”, replace “using” with “envisioning intense coordination with” and replace “capabilities” with “forces.”
4. Page 15, Para. 2, line 2: Delete entire second sentence starting with “First,” and replace with “First, Northern Command and State National Guard response planning was not coordinated.”
5. Page 19, Para. 1, 2nd sentence: After the ending phrase “... the federal response indicate that the military,” insert “(Active Duty and National Guard):”
6. Page 20, Last Para, 1st sentence: After “...portion of disaster response operations,” insert “and ensure interoperability.” Also, after 1st sentence which ends with “under the NRP.”, insert a new sentence that reads “While DoD communications systems are developed to provide the warfighter with reliable communications for military operations, DoD communication capabilities have significant civilian support applicability.”
 - Insert this same new sentence on page 5, Para 3, before the last sentence which reads “However, neither the NRP,”

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7. Page 21, 1st Partial Para, last sentence: After “ ... local officials were overwhelmed and ...”, delete “Department of Homeland Security and DOD waited for requests for assistance rather than deploying a proactive response, ...” and insert “DoD did not anticipate the need to supplement lost or degraded civilian communication capabilities nor did DoD receive requests for assistance in this category,” .

8. Page 26, middle page, first bullet: Change “synchronize surveillance and reconnaissance requests and assets” to “synchronize damage assessment assets.”
Rationale: The use of the term “ISR” in a domestic setting, regardless of how benign or in what circumstances, could be considered controversial by some. DoD prefers to use the term “damage assessment.”

9. Page 28, bottom page, 3rd bullet: Insert “planning” at the end, following “Reserve Forces”

10. Appendix I, SCOPE AND METHODOLOGY

- Under Commands, add “US” before both Transportation Command and Joint Forces Command.
- Under Commands, move these lines to their respective military services:
 - Move “Air Mobility Command” to USAF
 - Move “Surface Distribution and Deployment Command” to Army
 - Move “Military Sealift Command” to USN
- While each entity above uses the term “command,” these three organizations are “service” component providers to USTRANSCOM, a unified “command.”

Appendix III: Comments From the
Department of Defense



DEPARTMENT OF THE ARMY
HEADQUARTERS FIRST UNITED STATES ARMY
4705 N WHEELER DRIVE
FOREST PARK GA 30297-5000
1 May 2006

Office of the Commanding General

Ms. Sharon L. Pickup
Director
Defense Capabilities and Management
U.S. Government Accountability Office
Washington, DC 20548

Dear Ms. Pickup:

After reviewing the draft GAO report, I am concerned that the report's recommendations fail to properly account for DoD's preparations and historic response to Hurricane Katrina. The title of the GAO Report itself, "Better Plans and Exercises Needed to Guide the Military Response to Catastrophic Natural Disasters," implies that DoD was unprepared to execute its assigned tasks which is factually incorrect as supported by DoD's actions. A more fitting title for the report is "Assessment of The Military Response to Catastrophic Natural Disasters." Additionally, it must be noted that throughout the Hurricane Katrina response, all DoD forces operating in the Gulf were working in support of and in accordance with the regulatory and policy guidelines established by civil authorities. DoD should not be used as a vehicle to counter the perceived shortcomings of these regulatory and policy guidelines.

The explicit purpose of planning efforts is to prepare for future execution. The report fails to address proactive measures taken by DoD forces prior to landfall. First Army conducted planning and exercises in response to six earlier storms (Arlene, Cindy, Dennis, Emily, Franklin and Irene) of the 2005 Hurricane Season. Proactive measures were taken by First Army prior to designation as a Joint Task Force (JTF). These measures included publishing warning orders and a planning order, identifying and submitting a request for capabilities, and deploying Defense Coordinating Officers (DCOs) and Defense Coordinating Elements (DCEs) to all the potentially affected states prior to Hurricane Katrina's landfall. Early relief efforts were enhanced as a result of these efforts.

With DoD relief efforts for Katrina underway, the ability to preposition capabilities proved effective as the Gulf Coast was faced with the landfall of Hurricane Rita. As Hurricane Rita approached, JTF-Katrina pre-positioned key assets that contributed to a timely and effective response. Learning from our response to Rita, DoD again took proactive actions in preparation for the subsequent landfall of Hurricane Wilma in Florida by directing the pre-deployment of a Title 10 command and control element. However, prior to the arrival of the command element, the Governor of Florida turned down (denied) the DoD offer of support. Without the consent of a state's leadership (governor), pre-deployment of Title 10 forces in preparation for a pending disaster will remain constrained.

See comment 1.

See comment 14.

See comment 9.

See comment 15.

See comment 14.

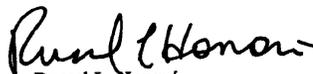
Certainly there are many lessons to be learned. However, the proactive DoD stance recommended within the report exceeds DoD authority in accordance with the current National Response Plan. For DoD to be more proactive, this report should address changes to key policy issues.

See comment 12.

The following excerpt from the report is indicative of other issues that are addressed in the enclosure. From page 23 of the GAO Report: "While tens of thousands of people were rescued after Katrina...the lack of clarity in search and rescue plans led to operations that...were not as efficient or as safe as they could have been." It should be noted that while JTF-Katrina deployed into a crisis response environment there were zero safety-related aviation accidents throughout the relief effort.

I hope the comments here and in the enclosure help refine the final GAO Report. I look forward to the GAO's final report and if I can be of further assistance, please do not hesitate to contact me.

Sincerely,



Russel L. Honoré
Lieutenant General, U.S. Army
Commanding

**Response to Government Accountability Office (GAO) Report on Hurricane Katrina
*"Better Plans and Exercises Needed to
Guide the Military Response to Catastrophic Natural Disasters"***

GAO Report Section: Results in Brief, pages 4-8.

Issue #1. "...DOD, in its own emergency response plan, did not fully address the military capabilities that could be needed to respond to a catastrophic natural disaster." Reference page 4 of GAO Report.

First Army Response. First Army's routine planning process involves applying Effects Based Analysis to identify potential requirements in response to an impending natural disaster. Before Hurricane Katrina made landfall, First Army submitted a request for capabilities (Title 10) to U.S. Northern Command (USNORTHCOM) on 28 August 2005 that identified the following potential requirements:

- Satellite phones.
- Utility aviation (OH-58, UH1H or UH60) for aerial recon, damage assessment and C2.
- Maritime capability for inter-coastal waterway search and rescue ops and transportation of supplies and equipment.
- Medium lift aviation for movement of critical supplies and personnel.
- Medical evacuation aviation units with capability to support evacuation, Search and Rescue (SAR) missions.
- Engineer/transportation units with watercraft assets for the gulf coast area.
- Engineer portable power generation equipment (minimum 30kw capability) and operators.
- Medical detachments (sanitation/veterinary) with capability to support mass temporary housing.
- Construction/bridge/utility type engineer units with capability to restore lines of communication (remove and haul debris, repair roads, provide emergency bridging, emergency restoration of infrastructure to include repair/restore power/gas/water lines).
- MP units with capability to provide force protection and safeguard DOD assets as required.
- Transportation units (medium truck companies) with capability to provide haul/transport in high water.

No two crisis responses are the same, and a detailed plan cannot address every individual response effort. Each and every storm has a vote. Retaining the ability to respond to a crisis of this magnitude may often require the movement of the response forces outside the path of the storm in order to retain their capability. A storm of the magnitude of Hurricane Katrina covered a large geographical area as it made landfall.

See comment 16.

Subsequent movement back into the affected areas to provide an immediate response was initially hindered due to the destruction of roads, bridges and airfields.

Issue #2: "...DOD's planning did not call for the use of the military's extensive reconnaissance assets to meet the National Response Plan (NRP) catastrophic incident annex's requirement for a proactive response to catastrophic incidents." Reference page 5 of GAO Report.

See comment 17.

First Army Response: There are legal and regulatory restrictions on the ability to use DoD collection (reconnaissance) assets and products domestically. Conducting damage assessments is not a DoD mission. However, JTF-Katrina was ready to respond to properly approved requests for reconnaissance support received from FEMA, state, or local agencies fulfilling their damage assessment responsibilities under the NRP. JTF-Katrina acted promptly on immediate response issues, working collaboratively and in support of state, local, and federal officials to save lives, prevent human suffering and mitigate great property damage. JTF-Katrina supported the priority of effort per the governors in the affected states during the early response phase, which was Search and Rescue (SAR) and not damage assessment reconnaissance.

Issue #3: "...the National Guard and federal responses were coordinated across several chains of command but not integrated, which led to some inefficiencies and duplication of effort." Reference page 6 of GAO Report.

See comment 9.

First Army Response: JTF-Katrina efforts were coordinated across state and federal agencies. The Joint Task Force (JTF) – Katrina Commander traveled daily throughout the Joint Operations Area (JOA) coordinating, collaborating and maintaining situational awareness. DoD (JTF-Katrina) also placed representatives in key offices throughout the JOA to facilitate relief efforts. Brigadier General Mark Graham and a team of Fifth Army planners represented JTF-Katrina within the Louisiana Emergency Operations Center (EOC) during relief operations. In addition, USNORTHCOM Defense Coordination Officers (DCOs) and Defense Coordination Elements (DCEs) were placed in support of both the Mississippi and Louisiana EOCs to maintain situational awareness and support coordination. As relief efforts in Alabama were concluding, JTF-Katrina redirected the Alabama DCO and DCE to Gulfport, MS, to further enhance the coordination of DoD relief efforts.

Issue #4: "...the search and rescue operations of the National Guard and federal military responders were not fully coordinated, and military operations were not integrated with the search and rescue operations of the Coast Guard and other rescuers." Reference page 6 of GAO Report.

See comment 18.

First Army Response: Initial Hurricane Katrina response operations were conducted within a crisis environment. The hurricane destroyed all commercial means of communication, navigational aids, and power within the affected area.

On the morning of 30 August 2005 Task Force Eagle (Louisiana National Guard) established an ad hoc flight operations center "Eagle Base" at the Superdome parking garage that effectively controlled the initial Search and Rescue (SAR) effort in the vicinity of New Orleans. This flight operations center included personnel from Army National Guard, Air National Guard, Navy and Coast Guard. SAR operations were conducted with "analog systems" and tactical manual methods using grids drawn on available maps. At the peak of SAR operations there were over 230 helicopters flying daily in support of relief efforts. On 1 September 2005, 3 days after landfall, the Navy was operating P3 Orion aircraft over New Orleans assisting in air space coordination for the relief effort. As the Joint Operations Area matured, additional and more robust control methods were emplaced to support the relief effort. All methods applied to control the flight operations proved to be effective as there were "no" helicopter safety related accidents throughout the entire Hurricane Katrina recovery effort.

See comment 12.

GAO Report Section: The Military Response Was Massive, pages 16-19.

Issue: "Data concerning the military response were not always fully documented in the midst of the Hurricane Katrina crisis, but it is clear that the military had a huge impact on response and recovery efforts." Reference page 19 of GAO Report.

See comment 19.

First Army Response: JTF-Katrina published a daily Commander's Assessment that was distributed to subordinate commands, DCOs/DCEs, USNORTHCOM, FORSCOM, National Guard Bureau and others. Coupled with daily conference calls, JTF-Katrina collaborated and coordinated its hurricane relief efforts within the JOA. Within these assessments JTF-Katrina captured and reported ongoing relief efforts. Copies are available upon request.

GAO Report Section: Several Factors Affected the Military Response, pages 19-24.

Issue: "...many responding military units from outside the affected states were assigned missions within established geographical boundaries but the Louisiana and Mississippi National Guard units had functional missions that cut across the geographical boundaries. Furthermore, in New Orleans, the geographic boundaries were not the same as the city district boundaries." Reference page 22 of GAO Report.

See comment 20.

First Army Response: Operational boundaries were established based on a unit's ability to cover an area given their mission assignment. An overlap of operational boundaries

See comment 20.

was inevitable given the capability of the National Guard to perform law enforcement functions where Title 10 Soldiers could not perform these functions in addition to supporting the relief effort. Operational space may exceed jurisdictional boundaries in many cases.

GAO Report Section: APPENDIX I: SCOPE AND METHODOLOGY, Military Services, pages 31-32.

Issue: "Joint Forces Land Component Commander, 82nd Airborne Division, Fort Bragg, N.C." as listed under "Military Services, U.S. Army." Reference page 32 of GAO Report.

See comment 9.

First Army Response: This statement is not correct. As the JTF-Katrina Commander, I elected to retain the role of Joint Forces Land Component Commander. The 82d Airborne Division Commander was never designated as the Joint Forces Land Component Commander.

The following are GAO's comments on the Department of Defense letter dated May 5, 2006, and its attachments.

GAO Comments

1. See the "Agency Comments and Our Evaluation" section, which begins on page 36.
2. Many of the actions DOD cites were not completed when we ended our review, and several are still not completed, so we cannot evaluate their effectiveness. We continue to believe that "DOD is beginning to take action" is accurate.
3. Our report distinguishes between disasters and catastrophes and emphasizes the need to plan for extensive use of DOD capabilities during catastrophes, when other responders are overwhelmed. Our report does not call for expanded use of DOD capabilities during disasters.
4. See the comments on our first recommendation in the "Agency Comments and Our Evaluation" section.
5. See the comments on our second recommendation in the "Agency Comments and Our Evaluation" section.
6. See the comments on our third recommendation in the "Agency Comments and Our Evaluation" section.
7. USTRANSCOM is one of the agencies that would be included in our recommendation that the National Guard Bureau make the information available to "other organizations with federal military support to civil agency planning responsibilities."
8. See the comments on our fourth recommendation in the "Agency Comments and Our Evaluation" section.
9. We have addressed this comment in the report.
10. Our report makes reference to DOD's use of reconnaissance assets during Hurricane Rita.
11. While we have added additional information about DOD's integration efforts, these additional efforts do not diminish our finding that integration problems led to inefficiencies and duplication of effort.

12. Although aviation officials expressed safety concerns to us, we agree that the fact that military search and rescue efforts were conducted under extreme conditions without any aviation accidents constitutes a considerable accomplishment, so we have revised our search and rescue section.
13. We evaluated these technical comments and incorporated them as appropriate.
14. Our report recognizes that the military forces, which responded to Hurricane Katrina, were operating within existing regulatory and policy guidelines, such as the NRP, DOD's Strategy for Homeland Defense and Civil Support, and the current mobilization authorities, and the report recommends adjustments to some of these guidelines.
15. The focus of this report was the preparation for and response to Hurricane Katrina, not Hurricanes Rita and Wilma. However, where appropriate, we have incorporated information about lessons learned from Katrina, such as the use of reconnaissance assets to assess damage from Hurricane Rita.
16. We modified the report to show that commands had issued planning and warning orders prior to Katrina's landfall. However, our report emphasizes the need for deliberative, advanced planning in addition to crisis action planning.
17. We continue to believe that the solution to long-standing damage assessment problems requires military involvement.
18. The First Army comments provide additional information about the aviation picture over New Orleans, but as stated in the report, search and rescue tasks were being assigned from two sites that were not integrated. This led to some duplication of effort.
19. Military officials told us that many of their troops worked directly with local officials and performed whatever tasks were most needed. They said that many of these tasks were not captured in official statistics or mission assignments.
20. We agree that some operational overlap was inevitable, but limitations in planning led to inefficiencies and some duplication of effort.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

Sharon Pickup (202) 512-9619

Staff Acknowledgments

In addition to the contact named above, the following individuals also made contributions to this report: John Pendleton, Assistant Director; Krislin Bolling; Ann Borseth; Alissa Czyz; Amy Dingler; Michael Ferren; Richard Geiger; Kenya Jones; Tina Kirschbaum; Patricia Lentini; Brian Mateja; Thomas Mills; Elizabeth Morris; Robert Poetta; Gina Saylor; Natalie Schneider; Frank Smith; Leo Sullivan; and Steve Woods.

Related GAO Products

Preparedness

Reserve Forces: Actions Needed to Better Prepare the National Guard for Future Overseas and Domestic Missions. [GAO-05-21](#). Washington D.C.: November 10, 2004.

Reserve forces: Observations on Recent National Guard Use in Overseas and Homeland Missions and Future Challenges. [GAO-04-670T](#). Washington D.C.: April 29, 2004.

Homeland Defense: DOD Needs to Assess the Structure of U.S. Forces for Domestic Military Missions. [GAO-03-670](#). Washington D.C.: July 11, 2003.

Chemical Weapons: FEMA and Army Must Be Proactive in Preparing States for Emergencies. [GAO-01-850](#). Washington D.C.: August 13, 2001.

Federal Response

Military Personnel: Full Extent of Support to Civil Authorities Unknown but Unlikely to Adversely Impact Retention. [GAO-01-9](#). Washington D.C.: January 26, 2001.

Military Operations: DOD's Disaster Relief Assistance in Response to Hurricane Mitch. [GAO/NSIAD-99-122R](#). Washington D.C.: March 29, 1999.

Hurricane Katrina: GAO's Preliminary Observations Regarding Preparedness, Response, and Recovery. [GAO-06-442T](#). Washington D.C.: March 8, 2006.

Command and Control

Disaster Management: Improving the Nation's Response to Catastrophic Disasters. [GAO/RCED-93-186](#). Washington D.C.: July 23, 1993.

Disaster Management: Recent Disasters Demonstrate the Need to Improve the Nation's Response Strategy. [GAO/T-RCED-93-46](#). Washington D.C.: January 27, 1993.

Disaster Assistance: DOD's Support for Hurricane Andrew and Iniki and Typhoon Omar. [GAO/NSIAD-93-180](#). Washington D.C.: January 18, 1993.

Recovery

Interagency Contracting: Problems with DOD's and Interior's Orders to Support Military Operations. [GAO/T-RCED-93-46](#). Washington D.C.: January 27, 1993.

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E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Gloria Jarmon, Managing Director, JarmonG@gao.gov (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
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