AUDIT REPORT

**OFFICE OF AUDITS** 

# NASA'S IMPLEMENTATION OF THE NATIONAL INCIDENT MANAGEMENT SYSTEM

OFFICE OF INSPECTOR GENERAL



National Aeronautics and Space Administration

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## Acronyms

DHS	Department of Homeland Security
EOC	Emergency Operations Center
NIMS	National Incident Management System
NPD	NASA Policy Directive
NPR	NASA Procedural Requirements
OSMA	Office of Safety and Mission Assurance
OSPP	Office of Security and Program Protection

## **IN BRIEF**

# NASA'S IMPLEMENTATION OF THE NATIONAL INCIDENT MANAGEMENT SYSTEM

The Issue

On August 29, 2005, two NASA sites—Stennis Space Center in Mississippi and Michoud Assembly Facility in Louisiana—sustained considerable damage from Hurricane Katrina. Normal operations at these sites were disrupted and their mission work suspended. NASA's response and recovery efforts, both during the storm and in Katrina's aftermath, were hampered by communication and coordination problems.

As part of our audit of NASA's response and recovery efforts, we reviewed NASA's emergency preparedness plans (see Appendix A for details of the audit's scope and methodology). Although the Department of Homeland Security (DHS) did not request that NASA execute those plans because of the hurricane, plan elements required by DHS may have improved the effectiveness of NASA's efforts.

In March 2004, DHS issued guidance for a National Incident Management System (NIMS), which integrates existing best practices into a consistent, nationwide approach to domestic incident management and is used as the framework for the National Response Plan. NIMS comprises six components, five of which apply to NASA: (1) Command and Management, (2) Preparedness, (3) Resource Management, (4) Communications and Information Management, and (5) Supporting Technologies. In June 2005, NASA stated it provided to DHS the NASA NIMS Implementation Plan, which addressed NASA's plan for incorporating all five components of NIMS into Headquarters, Center, and component facility emergency preparedness plans and established specific milestones for completing implementation. For this report, we reviewed the emergency preparedness plans of the NASA facilities identified in the NIMS Implementation Plan.

### Results

As of May 2006, NASA's emergency preparedness plans did not fully comply with the NASA NIMS Implementation Plan. Of the 14 locations required to incorporate NIMS components into their emergency preparedness plans, 12 had plans, one component facility was included in its Center's plan, and another component facility had not prepared a plan. Of the 12 plans, none addressed four NIMS components, and the other NIMS component (Command and Management) was only partially addressed by three of the plans. Although NASA had prepared a NIMS Implementation Plan, it had not updated its official guidance on emergency preparedness plans to reflect the requirements of that

Implementation Plan as policy. In addition, the Office of Security and Program Protection (OSPP) was not reviewing the individual plans of NASA facilities. The plans that we reviewed did not address interoperability across NASA Centers and component facilities, delineate processes for sharing resources that may be required during a national emergency, or incorporate NIMS as outlined by the NASA NIMS Implementation Plan. As a result, NASA may not be able to effectively fulfill its National Response Plan mission during an incident of national significance.

### Management Action

We recommended that the Assistant Administrator for Security and Program Protection update NASA's guidance on emergency preparedness plans to reflect the requirements of the NASA NIMS Implementation Plan as well as develop and implement a review process that includes interoperability and resource-sharing issues. The review process also needs to follow up on the requirements of the NIMS Implementation Plan.

We recommended that the Center Directors update their emergency preparedness plans to incorporate NIMS and develop an individual emergency preparedness plan for component facilities as required.

The Assistant Administrator for Security and Program Protection and the Center Directors provided comments in response to a draft of this report, generally concurring with our recommendations. In summary, the Assistant Administrator agreed that Agency emergency preparedness plans needed updating to reflect integration of NIMS components. He stated that OSPP would revise NASA Procedural Requirements (NPR) 8715.2 to incorporate NIMS and other Federal-level requirements; that OSPP notified Center Director representatives of their responsibility to ensure emergency preparedness plans exist for their component facilities; and that OSPP will develop and implement a review process for evaluating emergency preparedness plans and procedures to ensure the integration of NIMS components. The Assistant Administrator partially concurred with the recommendation to update and resubmit to DHS the NIMS Implementation Plan (Recommendation 3), stating that there is no DHS requirement to resubmit it and that the plan will be superseded by revisions to NASA Policy Directive 8710.1B and NPR 8715.2.

The Center Directors stated that they will update their emergency preparedness plans to address the five components of NIMS. The Dryden and Marshall Directors partially concurred with the recommendation to standardize a framework for the Communications and Information Management component of NIMS (Recommendation 5.d), stating that NASA Headquarters needs to address that recommendation. The Assistant Administrator stated that OSPP would ensure standardized processes for all emergency operations centers (EOCs).

Management's comments are responsive to the recommendations, which we consider to be resolved. The recommendations will remain open pending completion of planned management actions and our verification of those actions.

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# INTRODUCTION 1 Background 1 Objectives 2 RESULTS 2 Emergency Preparedness Plans Needed Improvement 4 APPENDIX A 19 Scope and Methodology 19 Review of Internal Controls 20 Prior Coverage 20 APPENDIX B 21 APPENDIX C 49

# Background

On August 29, 2005, Hurricane Katrina came ashore on the Gulf Coast near the Louisiana/Mississippi border. Two NASA sites—Stennis Space Center, Bay St. Louis, Mississippi (Stennis), and Michoud Assembly Facility, New Orleans, Louisiana (Michoud)—sustained considerable damage. Normal operations at these sites were disrupted and their mission work suspended. On August 30, 2005, the Deputy Assistant Administrator for Security and Program Protection activated NASA Headquarters' emergency operations center (EOC). The Headquarters EOC's role was to coordinate the Agency's actions in assisting Stennis and Michoud in the aftermath of Hurricane Katrina.

INTRODUCTION

**Homeland Security Emergency Operations Guidance.** To position the Federal Government to efficiently and effectively respond to devastating national disasters, the President issued Homeland Security Presidential Directive-5, "Management of Domestic Incidents," in February 2003. The intent of the directive was to enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive system to prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. Homeland Security Presidential Directive-5 introduced the National Incident Management System (NIMS) and the National Response Plan and required Federal agencies to adopt and implement emergency planning and operations policies as defined by the Department of Homeland Security (DHS).

In March 2004, DHS issued NIMS, which integrates existing best practices into a consistent, nationwide approach to domestic incident management. NIMS is designed to be applicable at all levels of Government and across functional disciplines in an "all-hazards" context. NIMS comprises six components, representing a core set of processes to enable effective, efficient, and collaborative incident management at all levels. In accordance with Homeland Security Presidential Directive-5, Federal agencies must implement NIMS into their emergency plans. In an undated letter, DHS directed each Federal agency to submit a plan to implement NIMS by December 31, 2004, and required that the emergency plans of Federal departments and agencies reflect full implementation of NIMS by September 30, 2005. In response, NASA stated it provided DHS its NIMS Implementation Plan in June 2005.

Homeland Security Presidential Directive-5 also required DHS to develop the National Response Plan, which DHS issued in December 2004. The National Response Plan integrates Federal Government prevention, preparedness, response, and recovery plans into a single, all-discipline, all-hazards plan. Using the NIMS framework, the National Response Plan is intended to provide the structure and mechanisms for national-level

1

policy and operational coordination for domestic incident management. The National Response Plan is applicable to all Federal departments and agencies that may be requested to provide assistance during an incident of national significance. The plan identifies NASA as a coordinating agency for missions involving NASA space vehicles or joint space vehicles with significant NASA involvement. NASA also has an emergency support function, to provide available geospatial modeling and decision support.

**Management of NASA Emergency Preparedness Program.** The NASA Headquarters office with overall responsibility for emergency response is the Office of Security and Program Protection (OSPP). In March 2005, the Associate Administrator for Institutions and Management issued a letter transitioning responsibility for NASA's Emergency Preparedness Program, effective January 2005, to OSPP from the Office of Safety and Mission Assurance (OSMA). That responsibility includes the functional leadership for the development and implementation of NASA's emergency preparedness, response, and continuity of operations plans.

NASA Policy Directive (NPD) 8710.1B, "Emergency Preparedness Program (Revalidated April 28, 2004)," establishes baseline capabilities for responding to emergencies occurring at NASA facilities. In addition, the directive addresses NASA's ability to respond to local, national, and international emergencies. The directive is applicable to NASA Headquarters, Centers, and component facilities.

NASA Procedural Requirements (NPR) 8715.2, "NASA Emergency Preparedness Plan Procedural Requirements w/Change 4, March 03, 2005," identifies NASA's Agency-wide roles and responsibilities in supporting the NASA mission under emergency conditions, defines NASA's emergency preparedness program plan, and addresses unique NASA emergency preparedness concerns. NPR 8715.2 is applicable to "NASA Headquarters and NASA Centers, including Component Facilities, and to JPL [Jet Propulsion Laboratory] and other NASA contractors to the extent specified in their contracts." In addition, it states that "NASA Centers (including Component Facilities) shall develop multihazard functional emergency preparedness plans using the FEMA [Federal Emergency Management Agency]<sup>1</sup> format."

### Objectives

The overall audit's objective was to evaluate NASA's response and recovery efforts. Specifically, the audit was to

1. determine whether NASA had established the necessary internal controls to manage Hurricane Katrina recovery and reconstruction efforts and

<sup>&</sup>lt;sup>1</sup> The Federal Emergency Management Agency is a part of DHS.

2. evaluate NASA's estimation and execution of Hurricane Katrina funds and the processes used to ensure that those funds were used for their intended purposes.

This report addresses NASA's emergency preparedness plans, which are an internal control for managing a disaster. We reported the results of our audit work on estimating and executing Hurricane Katrina funds and the processes NASA used to ensure that those funds were used for their intended purposes in a separate memorandum to NASA: "Final Memorandum on the Audit of the Management of Hurricane Katrina Disaster Relief Efforts (Report No. ML-06-009; Assignment No. A-05-030-01)," August 29, 2006. In addition, we will issue a separate memorandum to address the status of NASA's reimbursable records for the Federal Emergency Management Agency's mission assignment funds.

### EMERGENCY PREPAREDNESS PLANS NEEDED IMPROVEMENT

NASA's emergency preparedness plans did not fully comply with the June 2005 NASA NIMS Implementation Plan. The Implementation Plan required that 14 NASA locations—NASA Headquarters, 10 Centers, and 3 component facilities fully implement NIMS components into NASA's emergency preparedness plans, policies, and procedures and established specific milestones for completing implementation by January 2006. As of May 2006, milestones for the emergency preparedness plans had not been met.

Of the 14 locations required to incorporate NIMS components into their emergency preparedness plans, 12 had plans, one component facility was included in its Center's plan, and another component facility had not prepared a plan. However, as of May 2006, none of the 12 plans addressed four NIMS components, and the other NIMS component (Command and Management) was only partially addressed by three of the plans.

NASA's Headquarters, Center, and component facility emergency preparedness plans were not in full compliance because OSPP had not updated NPD 8710.1B to incorporate the NIMS requirement or updated NPR 8715.2 to reflect the requirements of the NASA NIMS Implementation Plan. In addition, OSPP did not centrally maintain and review the plans of NASA Centers and component facilities, as required by NPR 8715.2, to ensure that the NIMS components were addressed, that all required plans were completed, and that the milestones established by the Implementation Plan were met. As a result, NASA may not be able to effectively fulfill its National Response Plan mission during an incident of national significance.

### **NASA Implementation of NIMS**

As of May 2006, NASA had not adequately implemented NIMS. OSPP stated it had submitted a NIMS Implementation Plan to DHS in June 2005. NASA's four-phase plan provided for full implementation of the applicable NIMS components into NASA's emergency preparedness plans, policies, and procedures at Headquarters, all 10 Centers, and 3 component facilities by January 2006. However, the milestones established by the Implementation Plan were not met.

• Phase 1 addressed training and required appropriate staff members to complete by July 2005 two independent study courses offered by the Federal Emergency Management Agency's Emergency Management Institute. The plan required that supervisors responsible for operational assets ensure that all employees with duties involving or supporting domestic emergency management receive the NIMS-required training. As of May 2006, not all the required NIMS training had been completed.

- Phase 2 consisted of OSPP identifying the existing plans, policies, and procedures to be updated to incorporate NIMS implementation by August 2005. NASA identified the following as requiring an update:
  - NASA Continuity of Operations Program
  - Emergency Operations Plans
  - NASA Centers' NIMS Integration Plans
  - Emergency Preparedness Plans' Test, Training, and Exercise Matrix

As of May 2006, NASA had not updated its policies and procedures to reflect the requirement to implement NIMS into its emergency preparedness plans.

- Phase 3 called for emergency preparedness coordinators to modify existing plans, policies, and procedures to incorporate NIMS, to include any emergency preparedness plans supporting the National Response Plan. This phase was to be completed by October 2005. As of May 2006, NASA had not updated its emergency preparedness plans to implement NIMS.
- Phase 4 entailed verifying that employees assigned emergency management duties had completed NIMS training. This phase was to be completed by December 2005, but cannot be completed until the completion of Phase 1.

### **Emergency Preparedness Plans Needed Updating**

As of May 2006, NASA's emergency preparedness plans had not been updated to implement NIMS. Homeland Security Presidential Directive-5 requires that NIMS be implemented by all Federal, state, and local agencies to provide continuity in their emergency plans when responding to emergencies.

NASA Headquarters, Centers, and component facilities have individual emergency preparedness plans because their geographic locations make them susceptible to dissimilar emergencies. We reviewed the plans to determine whether they adequately implemented NIMS by addressing the five relevant NIMS components: (1) Command and Management, (2) Preparedness, (3) Resource Management, (4) Communications and Information Management, and (5) Supporting Technologies. The sixth component, Ongoing Management and Maintenance, does not apply to NASA.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Homeland Security Presidential Directive-5 requires the Secretary of Homeland Security to establish a mechanism for ensuring the ongoing management and maintenance of NIMS. The Secretary established the NIMS Integration Center to address this component.

As of May 2006, none of the 14 required emergency preparedness plans adequately addressed the five NIMS components. Two locations did not have an individual plan.<sup>3</sup> Of the 12 plans, none addressed four NIMS components, and the other NIMS component was only partially addressed by three of the plans (see Table 1).

<b>Table 1. Emergency Preparedness Plans and NIMS Components</b> as of May 2006							
	NIMS Component						
Location	Command and Management	Preparedness	Resource Management	Communications and Information <u>Management</u>	Supporting Technologies		
Ames	No	No	No	No	No		
Dryden*	No	No	No	No	No		
Glenn	No	No	No	No	No		
Goddard	No	No	No	No	No		
Headquarters*	Partially	No	No	No	No		
Jet Propulsion Laboratory	Partially	No	No	No	No		
Johnson	No	No	No	No	No		
Kennedy	No	No	No	No	No		
Langley	No	No	No	No	No		
Marshall	Partially	No	No	No	No		
Michoud	No	No	No	No	No		
Stennis	No	No	No	No	No		
*Only a draft plan was available at the time of our review.							

**Command and Management.** This component encompasses three organizational systems: incident command structure, multi-agency coordination, and public information. The incident command structure, which focuses on tactical on-scene responses, facilitates activities in five areas: command, operations, planning, logistics, and finance and administration. In addition, the incident command structure provides common terminology to enable effective and efficient coordination and management for all levels of Government during emergencies. The multi-agency coordination system facilitates support for coordinating emergency-related information and issues regarding emergency management policies and strategies. The coordination of information and resources to support emergency situations occurs in emergency operations centers (EOCs). EOCs are structured by major discipline (fire, law enforcement, medical services). Lastly, the public information system refers to procedures for communicating timely and accurate information to the public. Of the 12 emergency preparedness plans we reviewed, three

<sup>&</sup>lt;sup>3</sup> Johnson Space Center's White Sands Test Facility, New Mexico, which was included in Johnson's plan, and Goddard Space Flight Center's Wallops Flight Facility, Virginia.

partially addressed Command and Management by addressing the incident command structure.

**Preparedness.** This component involves training emergency management personnel at all levels of Government to improve emergency management capability. To ensure emergency management personnel can function effectively together in emergency situations, DHS developed NIMS training, consisting of standard courses on incident command and management, incident management structure, and operational coordination processes and systems. Prior to Hurricane Katrina, NASA had identified two NIMS training courses to be completed: Basic Incident Command System and National Incident Management System. However, the emergency preparedness plans that we reviewed did not identify the NASA personnel required to complete NIMS training. Subsequently, the emergency preparedness coordinators identified who needed to attend NIMS training. Table 2 shows the number of identified personnel and the number who had completed the training as of May 2006.

Table 2, NIMS Training Status (as of May 2006)				
Location	Total Number of Personnel Requiring Training	Number of Personnel Who Completed NIMS Training	Percent	
Ames	48	27	56.25	
Dryden	11	1	9.09	
Glenn	17	17	100.00	
Goddard	89	89	100.00	
Headquarters	26	13	50.00	
Jet Propulsion Laboratory	7	3	42.86	
Johnson	101	48	47.52	
Kennedy	94	91	96.81	
Langley	23	12	52.17	
Marshall	59	45	76.27	
Michoud	4	3	75.00	
Stennis	19	19	100.00	
Total	498	368	73.90	

NASA personnel from Headquarters, Marshall, Michoud, and Stennis staffed the EOCs activated in response to Hurricane Katrina. Their training records showed that most had not attended the NIMS training courses required by NASA in its NIMS Implementation

Plan. As shown in Table 3, of the 101 EOC members, only 14 (14 percent) had taken one required course prior to Katrina. In the NIMS Implementation Plan submitted to DHS, NASA had established a milestone to complete the identified training by July 2005 (Phase 1).

Table 3. NIMS Training Status of Personnel Who Staffed           EOCs Activated in Response to Hurricane Katrina				
Location	Total Number of Personnel Requiring Training	Number of Personnel Who Took at Least One Course Prior to Katrina	Percent	
Headquarters	20	4	20.00	
Marshall	58	4	6.90	
Michoud	4	0	0.00	
Stennis	19	6	31.58	
Total	101	14	13.86	

**Resource Management.** This component requires that Federal agencies have processes that describe, track, and recover resources used in response to an emergency. Resources include personnel, teams, facilities, equipment, and supplies. NASA's emergency preparedness plans did not address a formal process for tracking and recovering resources that NASA loaned during an emergency. The NASA Emergency Preparedness Coordinator stated that during Hurricane Katrina NASA deployed considerable equipment without proper accountability directly to Michoud and Stennis, which circumvented coordination by the NASA Headquarters EOC.

**Communications and Information Management.** This component requires a standardized framework for communications, information management, and information-sharing for emergencies. Communications and information management are processes used by emergency personnel to execute operational decisions and requests for assistance. The emergency preparedness plans of the NASA Centers and component facilities did not address providing support to each other or how requests for support would be communicated among NASA Centers.

To assist Stennis and Michoud with their recovery from the damage caused by Hurricane Katrina, Centers initially called the sites directly to determine what was required and how they could provide support. Then NASA's Headquarters EOC became the focal point for communicating resource needs and assigning NASA Centers the responsibility of acquiring the resources. However, NASA still experienced problems with resources being requested by sources other than the Headquarters EOC. For example, the Johnson Space Center's Occupational Health Office was asked by the Office of the NASA Medical Officer, based on information from the Johnson medical team deployed to Stennis, to purchase medications needed at Stennis and Michoud. That request conflicted with information provided by the NASA Headquarters EOC. At Stennis, an EOC

member stated that trucks would show up and neither the Headquarters EOC nor the Stennis EOC knew what items they contained, who ordered the items, or who needed them.

**Supporting Technologies.** This component involves reviewing science and technology for opportunities to leverage improved capabilities to further refine NIMS. This includes technologies that facilitate incident management activities in situations that call for unique technology-based capabilities. As required by the National Response Plan, NASA identified its unique resources that could potentially be available to provide support in response to a national emergency. NASA listed those resources in NPR 8715.2. However, since NASA Centers and component facilities are required to have individual emergency preparedness plans, those plans should identify what unique resources are available at each location. The individual emergency preparedness plans that we reviewed did not identify unique resources, which could impede timely response to emergency requests.

### NASA Guidance and OSPP Oversight

OSPP had not updated NPD 8710.1B to incorporate the NIMS requirement or updated NPR 8715.2 to reflect the requirements of the NASA NIMS Implementation Plan. In addition, OSPP did not centrally maintain and review the plans of NASA Centers and component facilities, as required by NPR 8715.2, to ensure that the NIMS components were addressed, that all required plans were completed, and that the milestones established by the Implementation Plan were met.

**Modification of NASA Guidance.** NASA Headquarters, Centers, and component facilities use NPD 8710.1B and NPR 8715.2 to develop and update their emergency preparedness plans. As of May 2006, that guidance had not been updated to include the requirement to implement NIMS into NASA's emergency preparedness plans.

In April 2005, personnel from OSPP and DHS's NIMS Integration Center briefed NASA's emergency preparedness coordinators regarding the requirement to incorporate NIMS into their emergency plans. According to a Center Emergency Preparedness Coordinator, the briefing covered the components of NIMS and the ability of Federal, state, and local officials to communicate during emergencies. However, NASA's Centers did not update their emergency preparedness to incorporate NIMS requirements as briefed by OSPP.

In June 2005, OSPP stated it provided a NIMS Implementation Plan to DHS that addressed NASA's plan to incorporate NIMS into its emergency preparedness plans. However, the requirements of that Implementation Plan were not reflected in NPR 8715.2 as policy. OSPP must update NPD 8710.1B to incorporate NIMS as a requirement and update NPR 8715.2 to reflect the requirements of the NIMS Implementation Plan for

incorporating all five components of NIMS into Headquarters, Center, and component facility emergency preparedness plans to ensure that NASA meets the requirements of Homeland Security Presidential Directive-5.

Maintaining and Reviewing Emergency Preparedness Plans. NPR 8715.2 requires that the NASA Emergency Preparedness Coordinator maintain copies of all the Agency's emergency preparedness plans and conduct reviews of each Center and its emergency preparedness plan at least biennially.

Locations Requiring Emergency Preparedness Plans. As of May 2006, NASA had not clearly defined which locations require an emergency preparedness plan. There is an inconsistency between NPR 8715.2 and the NASA NIMS Implementation Plan. NPR 8715.2 states that Headquarters, NASA Centers, and component facilities should develop individual emergency preparedness plans because their geographic locations make them susceptible to dissimilar emergencies. NPD 1000.3B, "The NASA Organization w/Change 21 (4/6/06)," identifies 21 NASA locations, to include Headquarters, Centers, and component facilities, which may, according to NPR 8715.2, require emergency preparedness plans. However, the NASA NIMS Implementation Plan identified only 14 locations as being required to incorporate NIMS into their emergency preparedness plans. The NASA Emergency Preparedness Coordinator was unable to explain the discrepancy between the NPR and the Implementation Plan. NASA needs to ensure that all facilities requiring emergency preparedness plans are clearly specified in NPR 8715.2 and that the NIMS Implementation Plan is updated to reflect appropriate locations.

**Central Repository of Plans.** OSPP was not maintaining copies of existing emergency preparedness plans as required by NPR 8715.2. OSPP did not have any plans for the 14 NASA facilities identified by the NASA NIMS Implementation Plan as requiring an emergency preparedness plan. In response to our request for copies of each Center's plan, OSPP provided us with eight plans that it had to request from the Centers. We obtained four additional plans directly from three Centers and one component facility. As of May 2006, OSPP personnel stated that they had not yet received emergency plans from all the Centers. OSPP needs to ensure it is maintaining copies of all emergency preparedness plans as required by NPR 8715.2.

**Oversight of Plans.** NASA was not reviewing emergency preparedness plans as required by NPR 8715.2. Prior to January 2005, OSMA was responsible for reviewing NASA's emergency preparedness plans. OSMA's records showed that it performed only minimal reviews, concentrating solely on safety issues. In January 2005, the responsibility for reviewing NASA's emergency preparedness plans was transferred to OSPP. Since assuming that responsibility, OSPP had not performed any reviews of the emergency preparedness plans and had not formalized a process or a schedule for performing those reviews.

NASA needs to conduct thorough reviews to ensure that its emergency preparedness plans appropriately address Agency-wide operational issues in addition to Center-specific issues. The plans that we reviewed did not address interoperability across NASA Centers and component facilities, delineate processes for sharing resources that may be required during a national emergency, or incorporate NIMS as outlined by the NASA NIMS Implementation Plan. OSPP needs to develop and implement a review process that includes interoperability and resource-sharing issues. The review process also needs to follow up on the requirements of the NIMS Implementation Plan.

### Hurricane Katrina Lessons Learned

NASA may not be able to effectively fulfill its National Response Plan mission during an incident of national emergency if its emergency preparedness plans do not fully comply with the NASA NIMS Implementation Plan. Although DHS did not request that NASA execute its emergency preparedness plans because of Hurricane Katrina, plan elements required by DHS may have improved the effectiveness of NASA's response and recovery efforts. In February 2006, OSPP issued a consolidated Hurricane Katrina after-action report that discusses communication, logistics, and coordination problems that NASA experienced during its response and recovery efforts.

**Communication.** The report identifies numerous communication devices located at various NASA Centers that appear to have been used in support of Katrina response and recovery efforts. However, NASA facilities had not identified a standard means of communicating among the NASA Centers and component facilities, which caused problems during the actual emergency. For example, Stennis and Michoud experienced power outages that affected their ability to communicate. In response, NASA deployed a total of 38 Iridium Satellite Phones.<sup>4</sup> However, because NASA does not have a regular requirement for the phones, most were provided without an active service and were missing accessories needed to re-charge the phones.

**Logistics.** Emergency responders who traveled in and out of the disaster area assumed that transportation and logistical requirements had been addressed. However, such requirements had not been addressed and, as a result, the service and assistance that emergency responders could have provided was delayed. During the peak of the response effort, EOCs were advised of the availability of resources and assets. However, when Stennis and Michoud EOCs requested them, the assets were not available, and the EOCs had to search elsewhere for the needed resource or asset, delaying the overall relief effort.

**Coordination.** NASA did not have a formalized process for getting preliminary damage assessments routed through the Headquarters EOC. A Web site for Katrina response and recovery efforts was established on September 2, 2005, and contained an EOC contact

<sup>&</sup>lt;sup>4</sup> These are small hand-held devices, a little larger than a cellular telephone.

list, EOC action items, documents, and other useful information. However, before EOC members could access this information, they had to request a password from NASA's Information Technology and Communications Division. In at least one instance, an EOC member's request received no response.

By fully implementing NIMS, NASA's emergency preparedness plans will better provide the flexibility necessary to effectively and efficiently respond to local and national emergencies.

### Management Action Taken

In April 2006, NASA sent out for comment a draft of NPD 8710.1C, "Emergency Preparedness Program." The proposed update to NPD 8710.1B incorporates the requirement to comply with NIMS; therefore, we are not making a recommendation to update that directive.

### Management Comments on the Finding and Audit Response

The Assistant Administrator for Security and Program Protection and the Center Directors generally agreed with the finding. However, the Center Directors of Glenn, Marshall, and Johnson took exception to the information reported for their Centers concerning compliance with the five NIMS components (Table 1) and NIMS training (Table 2). In addition, OSMA provided comments concerning several aspects of the report.

In response to management comments, we changed Marshall's rating in Table 1 regarding the Command and Management NIMS component to partially compliant. A summary of the comments and our response follow; see Appendix B for the full text of the comments.

**Glenn Comments.** Glenn security personnel stated that Glenn is redrafting its emergency preparedness plan and has already taken action to implement NIMS principles in its emergency preparedness operations. Glenn requested that its compliance rating for all five NIMS components be changed to partially compliant and provided comments in support of that request.

Audit Response. We disagree with changing Glenn's rating for any of the five components. The actions noted in Glenn's comments partially reflect NIMS compliance; however, the plan that we reviewed, and which Glenn has agreed to update, did not address the components as defined by NIMS.

**Marshall Comments.** Marshall's Center Director stated that Table 1 of the draft of this report showed that Marshall had not complied with any of the five NIMS components.

Marshall requested that its compliance rating be changed to partially compliant for four of the five components and provided comments in support of that request.

- Command and Management. Marshall stated that its current emergency • preparedness plan adequately addresses two of the three Command and Management elements. Marshall agreed to update its plan, stating, "[w]hile the incident command structure is dictated for a number of disaster scenarios, it is not addressed for all perceived events. [Marshall] plans to update their Emergency Plan to more clearly dictate the use of the Incident Command System (ICS) and to ensure it is addressed for all events." Marshall also stated that its emergency preparedness plan addresses an Interservice Support Agreement with the Army's Redstone Arsenal, which clearly defines the working relationship between the two and designates the services provided to each other. As Redstone is the only Federal agency Marshall coordinates with, the agreement adequately addresses the multi-agency coordination element, adding that further interagency coordination would go through NASA Headquarters. For the public information element, Marshall's Public Affairs Office is responsible for interface with the media during emergencies and the emergency plan clearly identifies those duties. As a result, Marshall believes it should have been rated at least partially compliant.
- Preparedness. Marshall agreed that not all staff had completed NIMS training. However, in February 2006, Marshall had requested an extension from OSPP to complete the NIMS training by June 2006. As a result, Marshall believes it should have been rated partially compliant.
- Communications and Information Management. Marshall agrees that the Agency needs to establish a standardize framework for communications, information management, and information sharing for emergencies that affect multiple Centers. However, Marshall believes it should receive a partially compliant rating because its current plan addresses communication for local events.
- Supporting Technologies. Marshall stated that although its plan does not specifically address an inventory of resources, an inventory of resources exists in the EOC. Marshall believes that the auditors erroneously concluded that Marshall did not have a list of resources and, therefore, Table 1 should be changed to reflect a partially compliant rating.

Audit Response. After further discussion with Marshall's personnel, we changed Marshall's rating in Table 1 regarding the Command and Management component to partially compliant. Although Marshall's Interservice Support Agreement with the Army's Redstone Arsenal is not clearly delineated in the emergency plan, the plan does depict a relationship between Marshall and Redstone's Fire and Emergency Services Department. The Fire and Emergency Services Department is shown as the initial incident commander for each emergency event that can occur at the location. The plan also provides a limited description of Marshall's Public Affairs Office responsibility relating to emergencies.

We did not concur with Marshall's request to change the other three ratings to partially compliant for the following reasons:

- Preparedness. The NASA NIMS Implementation Plan reflects July 2005 as the date for completing NIMS training, approximately 1 year prior to Marshall's request for an extension.
- Communications and Information Management. Although Marshall's emergency plan addresses local communication, the basic purpose of the NIMS Communications and Information Management component is to standardize Federal agencies' processes for communicating during domestic incidents, which Marshall's plan did not address.
- Special Technologies. We reviewed Center plans to determine whether resources that could be made available to support national emergencies were identified as required by the National Response Plan.

**Johnson Comments.** Johnson's Director stated that 68 Center personnel had received NIMS training—20 more than the 48 listed in Table 2—which increases the Center's percentage to 67. In addition, Johnson stated the training numbers it provided for the White Sands Test Facility should have been included under Johnson in the table. The Director also noted that confusion from the NIMS Integration Center about which employees required certification contributed to the delayed implementation of NIMS training.

Audit Response. We disagree with Johnson's training numbers. We used the NASA NIMS Implementation Plan as the baseline for developing Table 2. The Implementation Plan identifies two NIMS training courses to be completed by NASA personnel. We reviewed the spreadsheet provided by Johnson and determined that only 48 of 101 personnel had taken at least two NIMS courses. Johnson reported staff members who completed only one course as being NIMS trained. In addition, component facilities' training numbers were excluded from all Centers listed in Table 2.

**OSMA Comments.** Although we did not request that OSMA comment on the draft report, OSMA provided the following comments:

- The "Oversight of Plans" paragraph should include that OSMA had reviewed all NASA Installation Plans on numerous formal occasions prior to January 2005.
- The "Communication" paragraph should include the information that OSMA had funded an extensive "Web Based Emergency Operations Center" program for more than 4 years to help assure interoperability of communications. In addition,

NASA had an extensive satellite communications system to support emergency communications.

Audit Response. During the audit, we analyzed documentation of OSMA's reviews of NASA plans, and we determined that the records made only minimal reference to the emergency preparedness plans, as indicated in this report. In addition, the communication issue is identified as a problem in the February 2006 consolidated Hurricane Katrina after-action report issued by OSPP that discusses problems that NASA experienced during its response and recovery efforts.

### Recommendations, Management's Response, and Evaluation of Management's Response

**Recommendation 1.** We recommend that the Assistant Administrator for Security and Program Protection update NPR 8715.2 to incorporate the requirement to implement NIMS into Headquarters, Center, and component facility emergency preparedness plans.

**Management's Response.** The Assistant Administrator for Security and Program Protection concurred, stating that his office would revise NPR 8715.2 to incorporate NIMS and other Federal-level requirements. OSPP anticipates completion of this action by November 30, 2006.

**Evaluation of Management's Response.** Management's planned action is responsive. The recommendation is resolved, but will remain open pending verification of the revision of NPR 8715.2.

**Recommendation 2.** We recommend that the Assistant Administrator for Security and Program Protection define the NASA locations, in coordination with the Center Directors, that require an emergency preparedness plan.

**Management's Response.** The Assistant Administrator for Security and Program Protection concurred, stating that OSPP had notified Center Director representatives of their responsibility to ensure emergency preparedness plans exist for their component facilities.

**Evaluation of Management's Response.** We consider management comments to be responsive and the recommendation to be resolved, but it will remain open pending verification that planned actions have been completed.

**Recommendation 3.** We recommend that the Assistant Administrator for Security and Program Protection, based on the outcome of Recommendation 2, update and resubmit to DHS the NIMS Implementation Plan, to reflect appropriate locations.

**Management's Response.** The Assistant Administrator partially concurred, stating that the NIMS Integration Center has never required submission of NIMS integration plans below the agency level, nor has the Center requested any updates to the original plan. Additionally, according to the NIMS Integration Center, the implementation phase has evolved and agencies should be in a state of sustainment and plan maintenance. The Assistant Administrator also stated that the revised NPD 8710.1B and NPR 8715.2 will supersede the NIMS Implementation Plan.

**Evaluation of Management's Response.** We consider management comments to be responsive and the recommendation to be resolved. It will remain open pending the revision of NPD 8710.1B and NPR 8715.2 to include requirements outlined in the NIMS Implementation Plan.

**Recommendation 4.** We recommend that the Assistant Administrator for Security and Program Protection develop and implement a requirement and process for reviewing plans that, at a minimum, ensures required plans are completed; evaluates Agency-wide operational issues, to include interoperability and resource-sharing; and follows up on the requirements of the NIMS Implementation Plan.

**Management's Response.** The Assistant Administrator concurred, stating that OSPP will continue with the development and implementation of a review process for evaluating emergency preparedness plans and procedures to ensure the integration of NIMS components. OSPP expects to implement the review process by September 15, 2006, and to begin reviewing Headquarters, Center, and component facility plans January 1, 2007.

**Evaluation of Management's Response.** The planned action is responsive. We consider the recommendation to be resolved, but it will remain open until we verify that OSPP has implemented its review process.

**Recommendation 5.** We recommend that the Center Directors update their emergency preparedness plans to incorporate the five components of NIMS. Specifically, NASA Center and component facility plans should

- a. address the three organizational systems of the Command and Management NIMS component;
- b. define which emergency preparedness personnel require NIMS training and ensure the training is completed;

- c. define a process for describing, tracking, and recovering resources used in response to an emergency;
- d. standardize a framework for Communications and Information Management for emergency personnel executing operational decisions and requesting assistance both within and external to NASA; and
- e. identify within their emergency preparedness plans unique resources at their respective Centers that are available to support emergencies.

**Management's Response.** The Center Directors generally concurred with the recommendation, stating they will update their emergency preparedness plans to address the five components of NIMS. All Center plans are expected to be updated to incorporate NIMS by April 30, 2007.

The Directors of Dryden and Marshall only partially concurred with Recommendation 5.d, stating that NASA Headquarters would need to establish an Agency-wide standardized framework for Communications and Information Management. The Stennis Director also noted that the process "needs to be worked collaboratively with all NASA Centers."

The Assistant Administrator for Security and Program Protection concurred with all parts of the recommendation, stating that OSPP will conduct reviews of emergency preparedness plans to ensure NIMS is incorporated. OSPP is developing an Agency-wide spreadsheet to track and report NIMS training activities. OSPP will also ensure that all EOCs adopt a standardized process for requesting or offering assistance, with the NASA Headquarters EOC serving as the focal point for executing and coordinating actions to meet internal and external needs. In addition, OSPP plans to have the NASA Headquarters EOC maintain a master registry of all assets and resources available for mobilization and reassignment in support of emergencies. OSPP expects to complete these actions by May 31, 2007.

**Evaluation of Management's Response.** The actions planned by the Center Directors are responsive to Recommendations 5.a, b, c, and e. OSPP's planned actions are responsive to Recommendation 5.d. We consider Recommendation 5 to be resolved, but it will remain open pending completion and verification of planned actions.

**Recommendation 6.** We recommend that the Center Directors, based on the outcome of Recommendation 2, require component facilities to develop an individual emergency preparedness plan.

**Management's Response.** The Center Directors generally concurred and stated that, in coordination with OSPP, any indicated individual emergency preparedness plans will be developed for their component facilities. Management plans to complete this action no

later than April 30, 2007. The Dryden Director asked that the recommendation be closed for his Center, as it has no component facilities.

OSPP also concurred, stating that Center Directors have been notified of their responsibilities to develop emergency preparedness plans for their designated component facilities. OSPP plans to review emergency preparedness plans for all NASA locations by May 31, 2007.

**Evaluation of Management's Response.** The planned management actions are responsive. We consider the recommendation to be resolved, but it will remain open pending completion of management actions and our verification of those actions. We concur that this recommendation is not applicable to Dryden.

# **APPENDIX A**

### Scope and Methodology

We conducted fieldwork primarily at NASA Headquarters, Marshall, Stennis, and Michoud. We also held discussions with emergency preparedness coordinators at Ames, Dryden, Glenn, Goddard, the Jet Propulsion Laboratory, Johnson, Kennedy, Langley, Wallops, and White Sands. We reviewed the Agency process for executing its emergency plans in response to Hurricane Katrina. We reviewed DHS's Homeland Security Presidential Directive-5; NIMS guidance dated March 1, 2004; NIMS Integration Plan Guidelines; NIMS training requirements; and the National Response Plan. We also reviewed NPD 1000.3B; NPD 8710.1B and the draft of NPD 8710.1C; NPR 8715.2; the NIMS Implementation Plan; and the emergency plans of NASA Headquarters, 10 Centers, and 1 component facility. In addition, we reviewed "The NASA Response to Hurricane Katrina: An After-Action Perspective," a report issued by OSPP in February 2006. The documentation reviewed covered from July 1999 through March 2006.

We conducted interviews with OSPP and NASA Headquarters personnel with EOC responsibilities. We visited Marshall to conduct interviews of EOC personnel responsible for coordinating the Agency's Hurricane Katrina response and recovery efforts at Stennis and Michoud. We held discussions with EOC personnel at Centers and component facilities to identify guidance provided for developing emergency preparedness plans. We obtained training data regarding required NIMS courses from the Centers' emergency preparedness coordinators. We did not verify this data to individual records. We also attended NASA Headquarters EOC meetings concerning Hurricane Katrina relief and recovery efforts.

To evaluate OSPP's management of the Agency's emergency preparedness plans, we identified and analyzed DHS and NASA requirements, policies, and guidance relating to emergency preparedness programs. This entailed identifying NIMS-related issues in the lessons learned documents, reviewing OSPP emergency preparedness management responsibilities, and reviewing NASA Headquarters and Center emergency plans. We also evaluated OSMA's review records from FY 1999 through FY 2005.

We performed this audit from October 2005 through May 2006 in accordance with generally accepted government auditing standards.

Use of Computer-Processed Data. We did not use computer-processed data to review the emergency preparedness plans and NASA's implementation of NIMS during this audit.

### **Review of Internal Controls**

We identified and tested compliance with key policies and procedures related to NASA's emergency preparedness program. We reviewed OSPP's internal controls for managing the emergency preparedness program that would ensure NASA's emergency preparedness plans implemented NIMS. In addition, we reviewed NASA controls to ensure intra-Agency compatibility of the emergency plans.

We identified internal control weaknesses with respect to implementing NIMS. Actions taken in response to the recommendations in this report will correct those weaknesses.

### **Prior Coverage**

Within the past year, the Comptroller of the United States has provided testimony to Congress that has particular relevance to the subject of this report. The testimony, "Statement by Comptroller General David M. Walker on GAO's Preliminary Observations Regarding Preparedness and Response to Hurricanes Katrina and Rita" (GAO-06-365R, February 1, 2006), is available over the Internet on the Government Accountability Office's Web site at <u>http://www.gao.gov</u>.

We reported the results of our audit work on estimating and executing Hurricane Katrina funds and the processes NASA used to ensure that those funds were used for their intended purposes in a separate memorandum to NASA: "Final Memorandum on the Audit of the Management of Hurricane Katrina Disaster Relief Efforts (Report No. ML-06-009; Assignment No. A-05-030-01)," August 29, 2006.

Our overall audit was conducted in conjunction with the President's Council on Integrity and Efficiency (PCIE) as part of its examination of relief efforts provided by the Federal Government in the aftermath of Hurricanes Katrina and Rita. The PCIE Homeland Security Roundtable, which is coordinating Inspector General (IG) reviews of this important subject, receives copies of all relevant IG products. For an overview of IG activities, see the Roundtable's Web site at <u>http://www.ignet.gov/pande/hsr1.html#relief</u>.

# **MANAGEMENT COMMENTS**

	National Aerona Space Administ <b>Headquarters</b> Washington, DC	ration NASA			
		July 27, 2006			
কিচলার মন্যা হা	Office of Sec	urity and Program Protection			
	TO:	Assistant Inspector General for Auditing			
	FROM:	Assistant Administrator, Office of Security and Program Protection (OSPP)			
	SUBJECT:	Draft Audit Report, "NASA's Implementation of the National Incident Management System (NIMS)" (Assignment No. A-05-030-00)			
	As requested subject repor attached.	we are providing consolidated Agency management comments to the t. You will also find comments submitted by individual Centers and Offices			
	In summary, we agree agency emergency preparedness plans need updating to reflect integration of the NIMS components. The intent of the NIMS is to build a comprehensive capability for the management of any adverse event. The National Response Plan, as the overarching document outlining domestic incident protocol provides the structure and legal mechanism, supported by the NIMS framework, to direct Federal government domestic incident response and recovery roles and responsibilities.				
	With the upcoming revision and update of NPD 8710.1B and NPR 8715.2, it is expected the National Aeronautics and Space Administration (NASA) NIMS Implementation Plan will no longer stand and serve its intended purpose as implementing instructions for NIMS program components throughout the Agency. Any further efforts will not be phased-in as described in NIMS implementation plans but will be implemented forthwith as a policy priority.				
	<b>RECOMMENDATION 1:</b> Update NPR 8715.2 to incorporate the requirement to implement NIMS into Headquarters, Center and Component Facility emergency preparedness plans.				
	RESPONSE	E: Concurrence			
	to revise NP prior to Aug	OSPP has notified the NASA Management Assessment Division of the intent R 8715.2 using NODIS for official coordination. This action will commence ust 31, 2006, and will incorporate NIMS and other Federal-level s into the revision. This will be completed by November 30, 2006.			



RESPONSE: Concurrence
ACTION: OSPP will conduct comprehensive reviews of NASA Headquarters, Center and Component Facilities emergency preparedness plans to ensure incident command, multiagency coordination and public information systems have been incorporated. This will be completed by May 31, 2006.
<b>RECOMMENDATION 5b</b> - Define which emergency preparedness personnel require NIMS training and ensure training is competed.
RESPONSE: Concurrence
<b>ACTION:</b> OSPP is developing a "spreadsheet" document for implementation at the HQ, Center and Component Facility levels to be used for tracking and reporting NIMS training activities. A corresponding "dashboard gauge" with red-yellow-green reporting will also be developed for instant illustration of progress towards achieving training compliance. This action shall be implemented by September 30, 2006.
<b>RECOMMENDATION 5c</b> – Define a process for describing, tracking, and recovering resources used in response to an emergency.
RESPONSE: Concurrence
<b>ACTION:</b> OSPP will ensure Headquarters, Centers, and Component Facility emergency plans include resource management coordination. With the agency mandate to organize subordinate emergency operations centers (EOC) consist with the incident command system (ICS) structure, the responsibility for resource management will fall within the responsibility of the EOC Logistics Section.
Improvements achieved thus far includes the Office of Procurement conducting a review of agency/center procedures for handling emergency procurements and acquisitions, including contract actions in accordance with emergency authorities to execute using the appropriate acquisition mechanisms. The Office of Procurement is satisfied with the agency's ability to acquire resources necessary during an emergency.
In order to track, distribute and account for resources during an emergency, every NASA EOC will be required to utilize an Operational Planning Worksheet (ICS-215) or similar document providing the same categories of information and offering the same intended value as the ICS-215 form. This process shall be implemented immediately.
RECOMMENDATION 5d - Standardize a framework for Communications and
Information Management for emergency personnel executing operational decisions and requesting assistance both within and external to NASA.

ACTION: We understand that maintaining a common operating picture and interoperability are paramount to successful emergency management and OSPP will ensure all EOCs standard operating procedures map the process for requesting or offering assistance. The NASA Headquarters EOC shall serve as the focal point for executing and coordinating actions to meet internal and external needs. It is the NASA Headquarters EOC which serves as the conduit for coordinating support via the overarching multiagency coordination system and underscores the need that Center EOCs operate in a manner consistent with that framework. The OSPP review process will ensure all subordinate level plans incorporate the NIMS communications and information management component. The NASA Emergency Preparedness Plan Review assessing Headquarters, Center and Component Facility emergency preparedness plans will commence January 1, 2007 and be completed by May 31, 2007. RECOMMENDATION 5e - Identify within their emergency preparedness plans unique resources at their respective Centers that are available to support emergencies. **RESPONSE:** Concurrence ACTION: During the official coordination of NPR 8715.2, Headquarters, Centers, and Component Facilities will be responsible for updating their respective resources and assets available for mobilization and reassignment if needed, during emergency operations. The NASA Headquarters EOC will maintain a master registry of all reported assets and resources as the coordinating point for internal and multiagency response operations. This action will commence September 24, 2006, with the opening of NODIS for comments on NPR 8715.2 and be completed by December 31, 2006. RECOMMENDATIONS 6 - Based on the outcome of Recommendation 2, require Component Facilities to develop individual emergency preparedness plans. **RESPONSE:** Concurrence ACTION: As reported in the ACTION section of RECOMMENDATION 2, Center Director representatives have been notified of their respective responsibilities to develop emergency preparedness plans for their designed Component Facilities consistent with NPD 1000.3B w/Change 24 (6/21/2006). In addition, OSPP will ensure all NASA locations are included in the NASA Emergency Preparedness Plan Review schedule and assessed for NIMS compliance. This will be completed by May 31, 2007. The point of contact for this action is Mr. Robert Young, CPP, NASA Chief Emergency Management Officer at 202-358-1284 or Robert.young-1@nasa.gov. OA fil David A. Saleeba



NASA Ames Resea Mail Stop 200-9 Moffett Field CA 9 Voice 650-604-090 Cell 650-465-089 FAX 650-604-003 Email Rick.Serran	1035-1000 2 9	
	DRYDEN FLIGHT RESEARCH CENTER	
Comments receiv A-05-030-00	ved from Sandy Meske on July 10, 2006; SUBJECT: Dryden response to	
the OIG. It any hesitate to call m signed, the secor	len's response to A-05 -030-00 for consolidation into a single response to clarification is necessary as to our corrective action plan please do not are directly. I have attached two copies of the letter, the first is pdf and is nd is the word version for you to use (cut and paste) for Please supply me with a copy of your consolidated reply.	
Thanks		
Sandy Meske OIG/GAO Audit 661-276-2835	Liaison Officer	
MEMORANDU	М	
TO:	Robert A. Young NASA Chief Emergency Management Officer	
FROM:	XM/Audit Control Official	
SUBJECT:	Dryden Flight Research Center Response (DFRC) to OIG Draft Audit Report (A-05-030-000)	
Below you will the draft OIG rej Management Sy	find our corrective action plan in response to recommendation 5 and 6 in port (A-05-030-000), NASA's Implementation of the National Incident stem.	
Audit Li	on 5: Il Point of Contact: Jack Vechil, 661-276-2859 aison Representative: Sandy Meske, 661-276-2835 Soncur	



### **GLENN RESEARCH CENTER**

GRC comments received from Ron Mohr on June 2, 2006; SUBJECT: GLENN RESPONSE TO INSPECTOR GENERAL - NASA IMPLEMENTATION OF NIMS

### **GLENN RESEARCH CENTER**

NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) TRAINING MAY 2006 STATUS UPDATE

	COMPONENT	RATING	PROPOSED RATING
1.	COMMAND AND MANAGEMENT:	No	Partially
2.	PREPAREDNESS:	No	Partially
3.	RESOURCE MANAGEMENT:	No	Partially
4.	COMMUNICATIONS AND INFORMATION MANAGEMENT:	No	Partially
5.	SUPPORTING TECHNOLOGIES:	No	Partially

TABLE 1	
EMERGENCY PREPAREDNESS PLANS AND NIMS COMPONE	NTS

Glenn is redrafting the Glenn Emergency Preparedness Plan (EPP) and has already taken action to implement unified command and NIMS principles in its emergency preparedness operations. The following information as a minimum merits the indicated change to reflect the readiness rating:

1. Glenn has committed to and has documented the Center requirement to institute the incident command structure. This practice was demonstrated during a major fire in January 2006. Multi-agency coordination is effective and ongoing. The public information function is effective. The Glenn Emergency Preparedness Manager participated in the Federal Executive Board National Response Plan Table Top Exercise in November 2005, at which multi-agency command and management issues were thoroughly addressed. All designated Glenn personnel with emergency preparedness responsibilities have completed FEMA NIMS training. (See Table 2).

2. Glenn has addressed the training of all designated personnel with emergency preparedness responsibilities. All of the 17 designated personnel have completed FEMA training. Readiness to respond to a full range of emergency incidents has improved since Hurricane Katrina.

3. Glenn has identified and addressed resource management issues, has clarified and documented requirements, and will continue to document compliance. Issues addressed include alternate work locations and devolution of functions, logistics requirements and


GSFC comments received from Barbara L. Sally on July 13, 2006; SUBJECT: GSFC Comments on OIG Draft Report A-05-030-00, NASA's Implementation of the NIMS
The following GSFC response to the subject OIG draft report was provided by the GSFC Emergency Preparedness Office and coordinated with the GSFC Chief of Security. It is forwarded for your inclusion in the consolidated Agency response to the OIG.
OIG Recommendation 5:
The Center Directors should update their Emergency Preparedness Plans to incorporate the five components of NIMS listed in the OIG report.
GSFC Response to Recommendation 5: CONCUR
GSFC concurs with the recommendation to update the Center Emergency Preparedness Plan (EPP) to incorporate the following five components of NIMS: (1) address the three organizational systems of the Command and Management NIMS component; (2) define which emergency preparedness personnel require NIMS training and ensure the training is completed; (3) define a process for describing, tracking, and recovering resources used in response to an emergency; (4) standardize a framework for Communications and Information Management for emergency personnel executing operational decisions and requesting assistance both within and external to NASA; and (5) identify within the emergency preparedness plan unique resources at GSFC that are available to support emergencies. GSFC will complete these updates to the Center EPP by November 30, 2006.
OIG Recommendation 6:
The Center Directors should require component facilities to develop an individual Emergency Preparedness Plan.
GSFC Response to Recommendation 6: CONCUR
GSFC concurs with the recommendation to develop individual Emergency Preparedness Plans for its component facilities. Wallops Flight Facility currently has an EPP, and it will be updated to incorporate the NIMS components as required. EPPs will be developed for the Goddard Institute for Space Studies (GISS) and the Independent Verification and Validation (IV&V) facility. GSFC will complete these EPPs by January 31, 2007.
Please contact me or Mr. Bob Raimond in the GSFC Emergency Preparedness Office at 301-286-7233 if you need additional information or have any questions concerning our response. Please send me a copy of the consolidated response once it is submitted to the OIG.
Barbara Sally



	<ul> <li>Public Information Systems - JPL has a public information office (PIO) and internal information systems. The PIO maintains contact with mass media via radio, T.V. and internet. Internal communications are via T.V., internet, telephone, emergency status recordings and a public address system.</li> </ul>
	b. Define which emergency preparedness personnel require NIMS training and ensure the training is complete. JPL is currently in the process of completing the requirements per the NASA OIG. All emergency managers are required to take online ICS-NIMS courses by the end of FY 06. The four FEMA courses are: IS100, IS200, IS700 and IS800. All emergency responders are required to take course IS100 at a minimum.
	c. Define a process for describing, tracking and recovering resources used in response to an emergency. The process JPL uses is the standardized language described in the NIMS-ICS document and The Emergency Medical System training guidelines.
	d. Standardize a framework for Communications and Informative Management for emergency personnel executing operational decisions and requesting assistance both within and external to NASA. JPL has a standard framework for emergency personnel. This starts with the on-scene incident commander who can also request additional assistance through our dispatch center, or if activated, through the JPL Emergency Operations Center and in communication with NASA HQ EOC.
	e. Identify within their emergency preparedness plans unique resources at their respective Centers that are available to support emergencies. JPL has a fully trained and equipped Urban Search & Rescue Team (USAR) in support of the JPL fire department. This team consists of approximately 70 members and can support other Centers in an emergency situation. The USAR Team was on standby to respond to NASA Centers after Hurricane Katrina.
Pg. 14, #6	Based on the outcome of Recommendation 2, require component facilities to develop an individual emergency preparedness plan. This plan entitled the "Multi Hazard Emergency Response Plan" was developed in the mid 1990s and is updated on a regular basis. The document is available for review.

Page 17



	National Aeron Space Adminis Lyndon B. Joh 2101 NASA Ro Houston, Taxas	tration Inson Space Center NASA
ar of	JS7-06-020	July 12, 2006
	447-40-65M	
	TO:	NASA Headquasters Attn: Assistant Administrator, Office of Security and Program Protection
	FROM:	AA/Director
	SUBJECT:	Response to Office of Inspector General's (OIGs) Draft Audit Report, "NASA's Implementation of the National Incident Management System (NIMS)" (Assignment No. A-05-030-00)
	in the Agence the number of the number of the number of the Second for that 68 employers that 68 employers that 68 employers that 68 employers that 68 employers the JSC OID to the OIG r bringing JSC also reflecte Managemen certificates of mitended to 1 higher than a Additionally the training. Emergency 1 Integration 0 delayed imp received in 1	iewed the subject andit findings and recommendations, and provide as to the issues affecting the Johnson Space Center (JSC) for inclusion by response. The information provided in the draft report concerning of JSC personnel trained does not accurately reflect the personnel using. Approximately one hundred JSC employees and supervisors leftified as requiring NLMS certification. Documentation affirming loyces have completed the training and provided certification copies to ecc of Emergency Management was provided to the OIG. Subsequent eport, an additional three individuals have completed NIMS training 2 totals to 72. White Sands Test Facility (WSTF) training figures were d in the spreadsheet submitted by the Office of Emergency 1 that added another 36 employees requiring training with 17 providing of training. Adding these numbers to the JSC count, its they were be, attounts to a 64 percent compliance rate, which is significantly the 48 percent figure reflected in the OIG report for this Center. 7, many other JSC/WSTF employees have completed the training but certification documentation has not been received by the JSC Office of Management. It should also be noted that confusion from the NIMS feature about which employees required certification contributed to a temenation of NIMS training at this Center until clarification was february 2006

JS7-06-020 2
The recommendation read:
We recommend that the Center Directors:
<ol> <li>Update their emergency preparedness plans to incorporate the five components of NIMS. Specifically NASA Center and component facility plans should</li> </ol>
<ul> <li>a. address the three organizational systems of the Command and Management NIMS component;</li> <li>b. define which emergency preparedness personnel require NIMS training and</li> </ul>
ensure the training is completed;
<ul> <li>define a process for describing, tracking, and recovering resources used in response to an emergency;</li> </ul>
d. standardize a framework for Communications and Information Management
for emergency personnel executing operational decisions and requesting assistance both within and external to NASA; and
<ul> <li>identify within their emergency preparedness plans unique resources at their respective enters that are available to support emergencies.</li> </ul>
<ol> <li>Based on the outcome of Recommendation 2, require component facilities to develop an individual emergency preparedness plan.</li> </ol>
JSC Comments:
We concur with recommendation 5 of the audit report. The JSC Emergency iPreparedness Plan is currently under revision for inclusion of criteria defined in Homeland Security Presidential Directives for the National Incident Management System (NIMS). The JSC Emergency Preparedness Program policy document incorporating NIMS concepts was signed by the Center Director on December 8, 2005. Anticipated completion date for the basic plan and submission to Senior Staff for signature is July 15, 2006. Annex conversions are already in work and should be complete by the end of the 2006 fiscal year. In accordance with NASA's policy, JSC's emergency plans will continue to be reviewed annually to assure they remain current. The three organizations systems of the Command and Management NIMS component (Incident Command System (ICS), multiagency coordination system and public information system) figure prominently in the updated plans for JSC as does clarification of mandatory NIMS training by employees and supervisors directly involved in emergency management. The revised JSC emergency preparedness plan will include a resource management annex supperted by Human Resources. Procurement, and Logistics to provide a process for describing, tracking, and recovering resources used in response to an emergency. The resource management annex will also include an inventory of unique JSC resources that are available to support emergencies.
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a. The three organizational systems of the Command and Management National Incident Management System (NIMS) components are contained in Diagram
Incident Management System (NIMS) components are contained in Diagram
Incident Management System (NIMS) components are contained in Diagram
Incident Management System (NIMS) components are contained in Diagram
3, page 20 of our current CCEMP, JHB 2000, and Revision C. A copy of this document will be provided upon request.
b. Those required to take the National Incident Management System (NIMS) training are not identified in the CCEMP. Ninety-four employees, from multiple disciplines have completed the NIMS training as depicted in the NIMS Implementation Plan. Appropriate changes to the CCEMP will be made to identify all employees required to complete the NIMS training.
c. Numerous equipment items and personnel were provided to support the post Katrina relief effort, including more than 30 employees who supported FEMA deployments of more than 30 days, but there was no established procedure to track these resources. Resources description and equipment tracking and recovery procedures will be developed and will be included in our CCEMP. All items we sent to support Katrina were returned in operationally good condition, and all employees returned without injury or harm.
<ul> <li>Communications and Information Management could be more clearly defined. The decision process for assistance both internal and external will be revised as appropriate for clarity.</li> </ul>
e. Unique resources and equipment are very important assets during a disaster. Communications resources are identified in our JDP-KSC-P-3002, <u>Direction,</u> <u>Control and Communications</u> ; vehicles, generators, and recovery resources are identified in JDP-KSC-P-3006, <u>Hurricane Response and Recovery</u> , and JDP- KSC-P-3007, <u>Damage Assessment</u> . Resources will be consolidated under the resource management component in the CCEMP.
At this time it is not certain, but the Joint Base Operations Support Contract (JBOSC) between NASA/KSC and the USAF/Cape Canaveral Air Force Station may require modification to enable the required changes. If so, once the JBOSC has been modified, the KSC Consolidated Comprehensive Emergency Management Plan (CCEMP), Joint Hand Book 2000, will be revised to incorporate changes outlined above.
<b>Projected Corrective Action Completion Date(s)</b> : December 31, 2006. (If no contract modification is required) March 30, 2007 (If contract modification is required)
Projected Closure Date: January 31, 2007 (If no contract modification) April 30, 2007 (If contract modification is required)



of Staff, along with the Associate Director for Operations and were accepted as reasonable. Pls use these in coordinating the Agency Response to the Report. 1. Develop/include a new Annex in LPR 1046.1, "NASA LaRC Emergency Plan" that addresses NIMS and NIMS requirements. Estimated completion date: 9/30/06. Mr. Young -- For the next two items, the LaRC Emergency Preparedness Plan is posted on our internal web site. Because of the requirements for privacy, training records, sensitivity of data, etc., we recommend that we meet the intent of what the OIG is recommending, but keep the information separate from the Emergency Preparedness Plan. 2. Define who/what level of NIMS training are required and keep this list separate from the Emergency Plan -- because of training, privacy, and "need to know" concerns. Estimated completion date: 9/30/06. 3. Develop a list of Center unique resources; again; separate and distinct from the Emergency Plan; because of "sensitivity" and "need to know" concerns. Estimated completion date: 9/30/06. If you need anything further, please contact me at (757)864-8994. Thanks. Alan H. Phillips Director, Safety and Mission Assurance Office NASA Langley Research Center Mail Stop 304 8 Langley Boulevard B1232, Room 238A Hampton, VA 23681 (757)864-3361 (Voice) (757)864-8918 (Fax) MARSHAL SPACE FLIGHT CENTER Comments received electronically from Keri Roberts on July 11, 2006; SUBJECT: MSFC Comments on OIG Draft Report - A-05-030-00 - NASA's Implementation of the National Incident Management System DE01

TO: NASA Headquarters

	ATTN: Mr. Robert Young, NASA Chief Emergency Management Officer Office of Security and Program Protection
FROM:	Associate Director, Marshall Space Flight Center
SUBJECT:	MSFC Comments on the Office of Inspector General Draft Audit Report Entitled "NASA's Implementation of the National Incident Management System" (Assignment No. A-05-030-00) We have reviewed the subject draft report and our detailed comments are enclosed. If you have any questions or need additional information regarding our comments, please contact Ms. Keri Roberts at (256) 544- 2953 or keri.h.roberts@nasa.gov.
Original sign	ed by Charles B. Chitwood on July 11, 2006 for
Robin N. Her	nderson
Enclosure	
bcc: AS01/Mr. Ca	rter
RS03/Ms. Ro	berts
MSFC Resp National Inc <u>General Cor</u>	onse to the OIG <u>Draft</u> Audit Report "NASA's Implementation of the ident Management System (NIMS)," Assignment Number A-05-030-00 nments
While the Of	
Agency, this that went rigl consolidated sites were we NASA team, result the rec were lessons team membe challenging, expressions of report would addition to th	G correctly pointed out many opportunities for improvement throughout the report does not appear to be balanced, never mentioning many of the things it with the Katrina response and recovery. Because of the quick response from the Agency, the NASA team members at the two affected ill cared for. Further, due to the planning and the quick response of the the MAF area was not flooded like the rest of east New Orleans and as a overy time for facility activation was lessened significantly. Certainly there learned but the entire NASA community came together to ensure our fellow rs were supported. While sometimes the logistics of delivering them were resources were never a problem. When the event was over, there were many of deep appreciation by those affected for the support they received. This be much better balanced if it addressed the things that worked well in nose that need improvement.
Specific Cor	<u>aments</u>





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<ul> <li>Corrective Action Official: AS01/Jim Carter</li> <li>Corrective Action Closure Official: DE01/Robin Henderson</li> <li>Projected Closure Date: December 15, 2006</li> <li>d. standardize a framework for Communications and Information</li> <li>Management for emergency personnel executing operational decisions a requesting assistance both within and external to NASA; and</li> <li>MSFC Response: Partially concur. We believe this recommendation should be addressed to NASA HQ. MSFC already has a system that works well for local even It is agreed that the Agency needs to ensure a system is in place for both intra-agency inter-agency events, but this needs to be led from an Agency-wide perspective.</li> <li>c. identify within their emergency preparedness plans unique resources at respective Centers that are available to support emergencies.</li> </ul>	and
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<ul> <li>identify within their emergency preparedness plans unique resources at respective Centers that are available to support emergencies.</li> </ul>	nts. Icy and
	t their
MSFC Response: Concur. We will update our emergency preparedness plans to identify unique resources at our Center that are available to support emergencies.	
Corrective Action Official:AS01/Jim CarterCorrective Action Closure Official:DE01/Robin HendersonProjected Closure Date:December 15, 2006	
<ol> <li>Center Directors based on the outcome of Recommendation 2, require component facilities to develop an individual emergency preparedness plan</li> </ol>	n.
NOTE: Recommendation 2 of the report states that the Assistant Administrator for Security and Program Protection define the NASA locations, in coordination with t Center Directors, that require an emergency preparedness plan.	r the
MSFC Response: Concur. We will coordinate with the Assistant Administrator for Security and Program Protection to define the NASA locations that require an emer preparedness plan and require our component facilities to develop an individual emergency preparedness plan.	ior rgency
Corrective Action Official:AS01/Jim CarterCorrective Action Closure Official:DE01/Robin HendersonProjected Closure Date:December 15, 2006	
OFFICE OF SAFETY AND MISSION ASSURANCE	





4. Page 12, Para 4. Communication. "..NASA facilities had not identified a standard means of communicating among the NASA Centers and component facilities, which caused problems during the actual emergency."

- OSMA had funded an extensive Web Based Emergency Operations Center (Web EOC) program for over four years to help assure interoperability of communications,
  - i. The Web EOC as an agency project was funded to the Dryden Flight Research Center for agency lead and then transferred to Ames Research Center. The last funding in FY 2005 was \$220K. Centers with known in place Web EOC capability are DFRC, KSC, ARC, and JPL.
- NASA had extensive satellite communications radios and a High Frequency (HF) communications system to support emergency communications.

#### STENNIS SPACE CENTER

SSC comments were forwarded on July 18, 2006, by the Office of the Director.

	-	ce Center, MS 39529-6000				
		July 11, 2006				
epty to the Ant	AA00/Office of the Director					
	TO:	NASA Headquarters Attn: Security and Program Protection, Deputy Assistant Administrator				
	FROM:	Director				
	SUBJECT:	Draft Audit Report, "NASA's Implementation of the National Incident Management System" (Assignment Number A-05-030-00)				
	below in bo Agency resp	bject audit report, each Center Director was asked to "update their emergency s plans to incorporate the five components of NIMS" in the specific ways listed ld type. The Office of Inspector General (OIG) also asked for a "single, coordinated ponse" and accordingly we are providing this to your office as to the actions taken by ce Center to address these comments:				
	1. Address the three organizational systems of the Command and Management NIMS component					
	2006, re. Respons also cov Public ir updated the three	n C. Stennis Space Center Emergency Management Plan (SPLN 1040-0006), June ferences the incident command structure in Section 3.1 NASA/SSC Personnel ibilities and also in Appendix B.2 of the document. Multi-agency coordination is ered in Section 3.1 under subsection "f" concerning the SSC Emergency Council. iformation is dealt with by reference in Appendix B. Since the plan will need to be to address some of the comments below, we will update the plan to better address corganizational systems of Command and Management. This activity is expected to applished by September 30, 2006.				
	2. Define v training	which emergency preparedness personnel require NIMS training and ensure the is completed				
	the audit Emergen	of people requiring NIMS training has been submitted previously to the OIG and, as report indicates, 100 percent of those requiring training have done so. The acy Management Plan will be updated by September 30, 2006 with a list of positions irre such training.				
	3. Define a an emer	process for describing, tracking, and recovering resources used in response to gency				
	This is n update to	ot currently covered in the Emergency Management Plan and will be included in the othe plan by September 30, 2006.				

2 4. Standardize a framework for Communications and Information Management for emergency personnel executing operational decisions and requesting assistance both within and external to NASA This process needs to be worked collaboratively with all NASA Centers. Stennis will update Section 4.2 Communications in our Emergency Management Plan to reflect that process in the September 30, 2006 update. 5. Identify with their emergency preparedness plans unique resources at their respective Centers that are available to support emergencies This is not currently covered in the Emergency Management Plan and will be included in the update to the plan by September 30, 2006. As stated above, we plan to address all the findings by updates to our Emergency Management Plan by September 30, 2006. This plan was recently released and addressed NIMS terminology and processes as we understood them at the time. If you have any questions concerning these comments, please contact our Emergency Director, Ronald Magee, at 228-688-1417. R. Silhal Richard J. Gilbrech, Ph.D. cc: Center Operations Director/Ms. Benigno Emergency Director/Mr. Magee Audit Liaison Representative/Mr. Roth Headquarters/ NASA Emergency Preparedness Officer/Mr. Young

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Major Contributors to the Report:

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AUGUST 29, 2006

REPORT NO. IG-06-016



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