

# Inspector General

United States  
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U.S. Army Corps of Engineers Administration of  
Emergency Temporary Roofing Repair Contracts

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### **Acronyms**

ACI	Advance Contracting Initiative
AFARS	Army Federal Acquisition Regulation Supplement
DCAA	Defense Contract Audit Agency
DFARS	Defense Federal Acquisition Regulation Supplement
EFARS	Engineer Federal Acquisition Regulation Supplement
FAR	Federal Acquisition Regulation
FEMA	Federal Emergency Management Agency
IG	Inspector General
IR	Internal Review
NRP	National Response Plan
PRT	Planning and Response Team
QA	Quality Assurance
RoE	Right of Entry



INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-4704

December 20, 2007

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Report on U.S. Army Corps of Engineers Administration of Emergency  
Temporary Roofing Repair Contracts (Report No. D-2008-037)

We are providing this report for your information and use. We considered management comments on the draft report when preparing the final report.

Comments from the Commander, U.S. Army Corps of Engineers conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, no additional comments are required.

We appreciate the courtesies extended to the staff. Questions should be directed to Ms. Deborah L. Culp at (703) 604-9335 (DSN 664-9335) or Ms. Dianna J. Pearson at (703) 604-9063 (DSN 664-9063). See Appendix C for the report distribution. The team members are listed inside the back cover.

By direction of the Deputy Inspector General for Auditing:

A handwritten signature in cursive script, reading "Richard B. Jolliffe", is positioned above the printed name.

Richard B. Jolliffe  
Assistant Inspector General  
Acquisition and Contract Management



## Department of Defense Office of Inspector General

Report No. D-2008-037

December 20, 2007

(Project No. D2006-D000CG-0081.001)

### U.S. Army Corps of Engineers Administration of Emergency Temporary Roofing Repair Contracts

#### Executive Summary

**Who Should Read This Report and Why?** U.S. Army Corps of Engineers (Corps) emergency management and contracting personnel should read this report. This report discusses quality assurance for the temporary roofing mission.

**Background.** This is the second of two reports discussing the temporary roofing repair contracts used for emergency situations. We issued DoD Inspector General Report No. D-2007-038, "U.S. Army Corps of Engineers' "Operation Blue Roof" Project in Response to Hurricane Katrina," on December 22, 2006. The report addressed Congressmen Bennie G. Thompson's and Bill Pascrell Jr.'s concerns regarding the award of temporary roofing repair contracts. This report addresses the administration of the 2005 temporary roofing repair contracts related to the Hurricane Katrina recovery effort and the award process for the 12 contracts awarded for the 2006 U.S. hurricane season.

The Operation Blue Roof program provides a free temporary roof for residential structures, schools, day cares, and all publicly owned facilities. These temporary roofs provide short-term relief until the owner can make permanent repairs. The temporary roofs also prevent additional damage from occurring to the building and its contents and may be the difference between a resident remaining in the structure versus seeking temporary shelter. Following Hurricane Katrina, the Corps oversaw the installation of more than 62,000 temporary roofs in Louisiana and more than 47,000 temporary roofs in Mississippi.\*

**Results.** The Corps internal controls were not adequate. We identified an internal control weakness in the quality assurance procedures for the temporary roofing mission. The Corps relies on Corps and other Government volunteers to perform the quality assurance function for the temporary roofing mission. As a result, the Corps may not be able to inspect damaged and repaired roofs in a timely manner and the Corps could be subject to overbilling. Developing a formal plan to deploy sufficient numbers of quality assurance personnel would improve an important internal control and help ensure that the temporary roofing mission was accomplished more efficiently. We did not consider the internal control weakness to be material. (See the Finding section of the report for the detailed recommendation.)

The Corps properly awarded temporary roofing contracts for the 2006 U.S. hurricane season. The Corps awarded contracts to small and small disadvantaged businesses and

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\* The Corps also oversaw the installation of an additional 18,000 temporary roofs in Louisiana in response to Hurricane Rita.

encouraged the use of local contractors. In addition, the Corps awarded the contracts after adequate competition and price consideration.

**Management Comments and Audit Response.** The Commander, U.S. Army Corps of Engineers concurred with the recommendation. The Corps proposed corrective actions to address the quality assurance problem such as focusing on contractor quality control procedures, using random sampling methods, and continuing to make use of other Government agency personnel for the inspection process. The comments were responsive and no additional comments are required. A discussion of the management comments is in the Finding section of the report, and the complete text of the comments is in the Management Comments section.

# Table of Contents

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<b>Executive Summary</b>	i
<b>Background</b>	1
<b>Objective</b>	2
<b>Review of Internal Controls</b>	2
<b>Finding</b>	
Quality Assurance Inspectors for the Temporary Roofing Mission	3
<b>Other Matters of Interest</b>	
Congressional Oversight	10
2006 Temporary Roofing Contracts	12
<b>Appendixes</b>	
A. Scope and Methodology	15
B. Prior Coverage	18
C. Report Distribution	20
<b>Management Comments</b>	
U.S. Army Corps of Engineers	21





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## Background

This is the second of two reports discussing the temporary roofing repair contracts used for emergency situations. We issued DoD Inspector General (IG) Report No. D-2007-038, “U.S. Army Corps of Engineers’ “Operation Blue Roof” Project in Response to Hurricane Katrina,” on December 22, 2006. The report addressed Congressmen Bennie G. Thompson’s and Bill Pascrell Jr.’s concerns about the award of temporary roofing repair contracts. The report concluded that the Corps generally followed Federal and DoD acquisition regulations when awarding seven contracts for temporary roofing repairs for the Hurricane Katrina recovery effort. This report addresses the administration of those seven 2005 temporary roofing repair contracts and the award process for the 12 contracts awarded for the 2006 U.S. hurricane season.

**Emergency Guidance.** The “Robert T. Stafford Disaster Relief and Emergency Assistance Act” (Stafford Act) and the 2004 National Response Plan (NRP) provide guidance for Government officials to use during emergency situations. The Stafford Act authorizes the President to provide financial and other forms of assistance to support response, recovery, and mitigation efforts following declared disasters. The 2004 NRP is used to respond to the Presidential declarations and provides structure for effective and efficient incident management among the Federal, State, and local emergency management agencies after a disaster. The 2004 NRP authorized the Federal Emergency Management Agency (FEMA), part of the Department of Homeland Security, to issue mission assignments. The Corps is primarily responsible for one of the 15 NRP functions, “Emergency Support Function #3-Public Works and Engineering Annex.”

**Advance Contracting Initiative Contracts.** To execute a quick response to emergencies and disasters, the Corps developed and implemented Advance Contracting Initiative (ACI) contracts to use for disaster relief. ACI requirements contracts are awarded before disasters occur. These contracts provide Corps contracting personnel the ability to place delivery orders after a disaster at the prenegotiated rate for supplies and services. Agencies use requirements contracts as a method to fill actual needs by placing delivery orders against the contracts.

**Operation Blue Roof.** The Corps manages the Operation Blue Roof program, which is a priority mission, for FEMA. FEMA funds the Operation Blue Roof program through mission assignments. FEMA procures and delivers the blue plastic sheeting to staging areas where the Corps then manages distribution and installation. The purpose of the temporary roofing program is to move affected people out of shelters and return them to their residences as quickly as possible.

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The Operation Blue Roof program provides a free temporary roof for residential structures, schools, day cares, and all publicly owned facilities. These temporary roofs provide short-term relief until the owner can make permanent repairs. The temporary roofs also prevent additional damage from occurring to the building and its contents and may be the difference between a resident remaining in the structure versus seeking temporary shelter. Following Hurricane Katrina, the Corps oversaw the installation of more than 62,000 temporary roofs in Louisiana and more than 47,000 temporary roofs in Mississippi.\*

## **Objective**

Our overall audit objective was to review the award and the administration of the temporary roofing repair contracts for the Hurricane Katrina recovery efforts. We limited our review to Corps quality assurance (QA) procedures, followup actions to internal audits, and the awarding of follow-on contracts for the 2006 hurricane season. See Appendix A for a discussion of the scope and methodology and Appendix B for prior coverage related to the objective.

## **Review of Internal Controls**

We identified an internal control weakness in the quality assurance procedures for the temporary roofing mission as defined by DoD Instruction 5010.40, "Managers' Internal Control (MIC) Program Procedures," January 4, 2006. The Corps relies on Corps and other Government volunteers to perform the quality assurance function for the temporary roofing mission. The Corps did not have procedures in place to ensure that sufficient numbers of quality assurance personnel would be available for the temporary roofing mission. We did not consider the internal control weakness to be material. Implementing the report recommendation should strengthen controls for administering temporary roofing repair contracts. See the Finding section of the report for a detailed discussion of the internal controls.

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\* The Corps also oversaw the installation of an additional 18,000 temporary roofs in Louisiana in response to Hurricane Rita.

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## Quality Assurance Inspectors for the Temporary Roofing Mission

The Corps could improve QA procedures for the temporary roofing mission. Improvements are needed because the Corps relies on Corps and other Government volunteers to perform the QA function and does not have a formal plan to ensure that sufficient numbers of QA inspectors are available for the temporary roofing mission. As a result, the Corps may not be able to inspect damaged and repaired roofs in a timely manner and the Corps could be subject to overbilling.

### Temporary Roofing Repair

QA procedures for the temporary roofing mission require improvement because the Corps does not have standard operating procedures for ensuring that sufficient numbers of personnel are available to perform the QA function. The Government QA inspections provide an important internal control over the temporary roofing repair process. The Government is responsible for providing quality assurance and the contractor is responsible for providing quality control.

**Roofing Process.** QA inspectors are an important internal control over the temporary roofing mission. The temporary roofing repair process starts with a request from the homeowner or an authorized representative to repair a damaged roof. A Corps or other Government representative prepares a Right of Entry (RoE) that authorizes access to the property. Next, a Corps QA inspector visits the location and prepares an estimate of the work required. The Corps then gives the RoE to the contractor to begin work, using FEMA-supplied plastic to make the roofing repair. When a roof installation is complete, the contractor quality control inspector and the Government QA inspector examine the repaired roof and record and verify the actual amounts of material used. By comparing the estimate with the final measurements, the QA inspector can determine whether contractor personnel used a reasonable amount of materials to properly install a roof. Corps personnel enter the agreed-on amounts into the RoE master database. When the contractor requests payment, Corps personnel compare the information on the payment invoice with the information contained in the master database.

**Quality Assurance.** The Government performs QA to ensure that installed temporary roofing is in agreement with the contract requirements. QA personnel inspect contractor work for quality, safety, and accuracy. Before installation, QA inspectors verify the eligibility status of a home and estimate the amount of materials required for a temporary roof installation. After installation, QA inspectors then inspect and verify the contractor's work for quality and accuracy

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in supplies required. Verification includes the comparison of QA estimates with actual measurements taken from the completed roof installation. In addition, QA personnel verify contractor quality control.

**Quality Control.** The prime contractor is responsible for quality control. Quality control ensures that the contractor's repair process, including work performed by subcontractors, complies with contractual requirements. A contractor submits a quality control plan that specifies the methods the contractor will use to ensure that workers properly install temporary roofs.

## QA Guidance

The Corps did not have standard operating procedures for ensuring enough QA inspectors are available for the temporary roofing mission. Instead the Corps relies on Corps and other Government employees who volunteer to work as QA inspectors. The current temporary roofing guidance provides procedures for establishing Planning and Response Teams (PRT) and performing the mission on a daily basis; however, the Corps had no standard operating procedures for mobilizing the large number of QA inspectors called for in the handbook estimates.

**Planning and Response Team.** The "U.S. Army Corps of Engineers Disaster Guidebook- Temporary Roofing" (Disaster Guidebook) provides guidance for the temporary roofing mission including roles and responsibilities of the PRT members. The PRT consists of 19 people including two QA supervisors. Roofing PRTs are located in the Districts of Jacksonville, Florida; Omaha, Nebraska; Nashville, Tennessee; Little Rock, Arkansas; and St. Louis, Missouri. The Northwestern Division is the lead for the Temporary Roofing program. PRTs are placed on alert when there is an imminent threat that could result in FEMA mission assignments. Some PRT members deploy in advance of the disaster declaration in order to be on-site immediately after the disaster strikes. The number of PRTs activated is dependent on the magnitude of the event. The Disaster Guidebook identifies the 12 positions on the Roofing PRT. Although QA supervisors are part of the team, QA inspectors are not assigned to the roofing PRTs. Table 1 provides a listing of PRT positions.

**Table 1. Composition of Roofing PRT and Deployment Timeline**

Title	Deployed Before Disaster Declaration	Deployed After Disaster Declaration	Total
Action Officer	1	0	1
Mission Manager	1	0	1
Mission Specialist	2	1	3
Contract Specialist	1	0	1
Resident Engineer	1	1	2
Real Estate Specialist	1	1	2
Logistics	1	1	2
Administrative Assistant	1	1	2
Geographic Information System Specialist	0	1	1
Database Manager	1	0	1
Information Management	1	0	1
QA Supervisor	1	1	2
<b>TOTAL</b>	<b>12</b>	<b>7</b>	<b>19</b>

**Assignment of QA Inspectors.** The Disaster Guidebook uses Hurricane Emily as an example of how many QA inspectors are needed for a roofing mission of 6,000 temporary roof installations. The estimate in Table 2 assumes that for a 6,000 roof repair requirement, between 35 and 111 QA inspectors would be required per day to perform a temporary roofing mission in the allotted time of 2 planning days and 13 work days. The model assumed that a QA inspector could average 7 RoEs and inspect 15 roofs per day. However, the Disaster Guidebook did not specify procedures to ensure that sufficient numbers of QA inspectors are available.

**Table 2. Estimate of QA Inspectors Needed for 6,000 Roofs**

Day	Roofs per day	Roofs Remaining	QA RoEs	QA Inspectors	QA Supervisors	RoEs Collected	RoEs Remaining	Total QAs
T-1	0	0	75	0	4	525	5475	79
T-0	0	6000	75	0	4	525	4950	79
1	100	5900	75	6	4	525	4425	85
2	200	5700	75	12	5	525	3900	92
3	300	5400	75	18	5	525	3375	98
4	400	5000	75	24	5	525	2850	104
5	500	4500	75	30	5	525	2325	110
6	500	4000	75	30	6	525	1800	111
7	500	3500	75	30	6	525	1275	111
8	500	3000	75	30	6	525	750	111
9	500	2500	75	30	6	525	225	111
10	500	2000	34	30	5	225	0	69
11	500	1500	0	30	5	0	0	35
12	500	1000	0	30	5	0	0	35
13	500	500	0	30	5	0	0	35

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In 2005, the missions in Florida, Mississippi, Louisiana, and Texas each required between 400 and 500 QA personnel at their peaks. During the Katrina recovery effort, the Corps relied on Corps employees who had volunteered to be QA inspectors. The Corps also used personnel from other Government agencies such as the Bureau of Reclamation and the National Park Service. In addition, the Corps used contractor personnel from existing architect and engineering contracts. Still, shortages occurred.

**Katrina QA Shortages.** The Engineer Inspector General for the Corps and Corps internal review (IR) personnel acknowledged that the availability of QA inspectors was a problem following Hurricane Katrina. Corps IR and Defense Contract Audit Agency (DCAA) personnel were on-site during the repair process and noted various QA problems. One report stated that during the first few days of RoE operations in Mississippi, the large number of requests coupled with a lack of trained QA inspectors created a backlog in the QA estimation process. A temporary roofing action officer estimated that at one point, only about 30 percent of the 190 required QA personnel were available. To expedite the roof repairs, contractors were sometimes given RoEs without initial estimates because not enough QA inspectors were available.

**Reason for Shortage.** The Corps relies primarily on Corps personnel who volunteer for the QA mission. The volunteers' home districts absorb the additional workload from the deployed volunteers. QA volunteers may also be assigned to other missions that require deployment and may not be available for the temporary roofing mission. In addition, the QA function can be physically demanding. Corps personnel also cited a shortage of living accommodations following Katrina as an impediment to deploying QA inspectors.

## Importance of QA

The QA process is an important internal control over the temporary roofing process. Corps personnel recognized that a shortage of QA inspectors could affect the roofing mission. However, as of September 2007, the Corps had not taken action to address the problem.

**Internal Control.** Without sufficient numbers of QA inspectors, the Corps may not be able to properly inspect damaged and repaired roofs in a timely manner and the Government could incur unnecessary additional costs. The QA process is an important internal control over the temporary roofing process. Before a roof is installed, QA inspectors review the RoE and visit the property to determine whether a property qualifies for a temporary roof. If the property qualifies, then the QA inspector prepares an initial estimate of the work required before any contractor crew can begin work.

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The initial estimate is used for multiple purposes. The contractor uses the estimated quantities to draw plastic sheeting and other material from storage. After the job is complete, the estimate is used to compare the contractor's actual work with what the QA initially estimated to complete the job. The final QA site visit may not occur until days after the contractor installed the temporary roof. As such, the estimated quantity is a final check to determine whether the contractor completed the work using a reasonable quantity of materials necessary to cover only the damaged portion of a roof. However, without an initial estimate, the QA inspector may not be able to determine the extent of the damage and whether the contractor used the proper amount of material for the repair. This determination is important because contractors are paid primarily on the amount of material installed. A shortage of QA inspectors could result in contractors:

- installing roofs on nonqualifying structures;
- using more material than necessary; and
- improperly installing roofing material, resulting in rework and lost time.

In addition, a shortage of QA inspectors could result in contractors being unable to work at the full performance level of 500 roof repairs per day. Thus, the Government would be paying for excess capacity on the temporary roofing contracts.

**Corps Efforts.** The Corps Remedial Action Plan for the 2005 hurricane season noted the QA problem, as did Corps personnel on-site during the recovery effort. The Corps Northwestern Division is the lead office for the temporary roofing mission. Northwest Division Emergency Management personnel stated that the Corps was considering options to address the problem. One option was to better enforce the contractor quality control requirements in the contract, possibly lessening the QA inspection time for temporary roof repairs. A second option was to award an ACI contract for QA inspectors for the roofing mission. Corps personnel expressed concern that QA is an inherently governmental function.

**Inherently Governmental Function.** Corps personnel expressed concern about using contractors as QA inspectors. QA inspectors approve the quality of the work and the amount of material used; thus, the QA inspectors are accepting the contractor's product. Federal Acquisition Regulation (FAR) Part 7.5, "Inherently Governmental Functions," provides a list of examples of inherently governmental functions. Example 12(v) identifies administering contracts (including ordering changes in contract performance or contract quantities, taking action based on evaluations of contractor performance, and accepting or rejecting contractor products or services) as inherently governmental functions. However, FAR 7.503(d), "Policy," provides a list of examples of functions generally not

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considered to be inherently governmental functions. Number 17 states that contractors providing inspection services is not an inherently governmental function. It also states that the services listed may approach being inherently governmental because of the nature of the function, the manner in which the contractor performs the contract, or the manner in which the Government administers contractor performance. The Defense Federal Acquisition Regulation Supplement (DFARS) Subpart 207.5, "Inherently Governmental Functions," contains additional guidance allowing the head of an agency to enter into a contract for performance of the acquisition functions that are listed at FAR 7.503(d) only if:

(i) The contracting officer determines that appropriate military or civilian DoD personnel—

(A) Cannot reasonably be made available to perform the functions;

(B) Will oversee contractor performance of the contract; and

(C) Will perform all inherently governmental functions associated with the functions to be performed under the contract; and

(ii) The contracting officer ensures that the agency addresses any potential organizational conflict of interest of the contractor in the performance of the functions under the contract.

**Plans for 2007.** Corps Mobile District personnel and personnel from the Jacksonville District temporary roofing PRT stated that they again plan to rely on Corps volunteers and other Government agency volunteers for the 2007 hurricane season. In addition, the Corps may use personnel from existing architect and engineering contracts or award contracts for QA inspectors early in the response period.

**Northwest Division.** In September 2007, Corps Northwest Division personnel responsible for the temporary roofing mission agreed that deploying sufficient numbers of QA personnel is a problem. They are considering several options but are focusing on lessening the number of Government QA inspectors that would be required by better enforcing contractor quality control requirements, altering material measurement procedures, and performing final inspections by using statistical sampling techniques. In addition, the Corps is considering adding five QA inspectors to the roofing PRTs to perform initial inspections to ramp-up roofing repairs faster. However, Corps personnel cited limited emergency preparedness funding as an obstacle to implementing changes to the roofing program. As of October 2007, the Corps had not implemented any of the options.



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## Conclusion

Following Hurricane Katrina, the Corps oversaw the installation of more than 62,000 temporary roofs in Louisiana and more than 47,000 temporary roofs in Mississippi. According to the standard operating procedures for temporary roofing, each roof repair required an inspection by a Government representative before and after the repair. As of September 2007, the Corps did not have standard operating procedures for ensuring that sufficient numbers of QA inspectors are available for the temporary roofing mission. A shortage of QA inspectors can slow the response time, and it weakens an important internal control over the temporary roofing process.

## Recommendation, Management Comments, and Audit Response

**We recommend that the Commander, U.S. Army Corps of Engineers develop and implement procedures to ensure sufficient numbers of quality assurance inspectors are available to meet contract requirements for the temporary roofing mission.**

**Management Comments.** The Chief Audit Executive for the Headquarters Internal Review Office, U.S. Army Corps of Engineers, responding for the Commander, concurred with the recommendation. The Corps acknowledged that a shortage of QA inspectors was a problem. The Corps proposed corrective actions to address the QA problem such as focusing on the effectiveness of contractor quality control procedures, using random sampling methods, and continuing to make use of other Government agency personnel for the inspection process. The Corps is also performing an evaluation of other staffing requirements for the temporary roofing mission such as Right of Entry collection, assessment of damage, and installation inspection. The Corps stated that corrective actions would be addressed at the standard operating procedures Writing Workshop in January 2008.

**Audit Response.** The comments were responsive. When implemented, the Corps proposed actions should improve an important internal control over the roofing mission. The Corps was aware of QA problems during the response to Hurricane Katrina in 2005. However, the Corps had not implemented a formal plan as of November 2007. We must reiterate the importance of the Corps having a formal plan in place prior to the 2008 hurricane season.

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## Other Matters of Interest

We reviewed issues discussed during congressional hearings by the House Committee on Government Reform in May 2006. We also reviewed contracts awarded for emergency temporary roofing repair for the 2006 hurricane season to determine whether the new contracts addressed issues identified in the initial congressional audit request.

## Congressional Oversight

In a May 2006 statement and memorandum, Congressman Henry A. Waxman stated that Corps IR and DCAA reports disclosed fraud, waste, abuse, and mismanagement of the Katrina recovery effort. Congressman Waxman specifically cited the Corps' "Operation Blue Roof" contracts, stating that the reports identified two main problems: overbilling and failure to properly manage subcontractors.

**Corps Real-Time Oversight.** Immediately following Hurricane Katrina, Corps IR and DCAA personnel were on-site in Louisiana and Mississippi to provide real-time audit support of the recovery effort. The review teams observed Government and contractor personnel performing the temporary roofing and other missions and prepared field reports that noted discrepancies. They provided the reports to Corps contracting and operations personnel responsible for taking corrective action. The teams provided an additional internal control over the temporary roofing mission.

From September 14, 2005, through June 24, 2006, the Corps IR and DCAA personnel issued more than 150 reports concerning temporary roofing in Louisiana and Mississippi. The reports identified problems primarily in the areas of quality control, billing, payroll, and safety. The reports identified problems such as RoEs with inaccurate estimates, blue tarp installations that failed inspection, contractors that covered more roofing area than needed, and contractors that failed to inspect completed repairs. Shortly after the May 2006 congressional hearings, we visited the Louisiana Recovery Field Office to determine what corrective actions the Corps had taken to address the issues identified in Corps IR and DCAA reports.

**Corrective Actions.** Our review of temporary roofing files at the Louisiana Recovery Field Office indicated that the Corps took corrective actions to address discrepancies identified in the Corps IR and DCAA reports. Project files contained letters and e-mails between Corps contracting personnel and contractors notifying the contractors of the deficiencies and requesting corrective action plans. The files also contained weekly letters to the Commander

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identifying issues raised in the IR and DCAA reports. The progression of the Commander's letters over the months often indicated improvements in areas such as safety, quality, and submitting certified payrolls. Although it appears that the Corps took corrective actions, we could not determine through the documentation that such actions resulted in a final solution to all issues reported in the Corps IR and DCAA reports.

Corps personnel stated that in many instances, people took corrective action to immediately address the issue but failed to document the corrective actions. Personnel from different Corps district offices as well as some retired Corps personnel rotated in and out of the recovery field offices during the cleanup effort. Thus the person who wrote the report or the person who took corrective action may have rotated out of the field office before documenting what occurred. In October 2007, Corps IR personnel provided us a spreadsheet that they plan to use to track corrective actions taken in future disaster responses. The spreadsheet should help in tracking corrective actions taken in response to discrepancies.

**Subcontractor Oversight.** The Corps IR and DCAA reports noted instances of the prime contractors failing to properly manage their subcontractors. For example, prime contractors did not always perform quality control inspections of completed roofs. As a result, Government QA inspectors found roofs that had not been completed or that required rework. In addition, some of the reports cited problems in ensuring that subcontracted workers were paid properly.

The prime contractors in Louisiana and Mississippi used subcontractors extensively during the Katrina temporary roofing mission. Each of the 5 large business prime contractors used between 6 and 52 first-tier subcontractors. Many of the prime contractors subcontracted with second-tier contractors who might have then subcontracted the work to a lower tier. Following Hurricane Katrina, Corps IR and DCAA reports and Government hearings identified concerns regarding the extent of subcontracting in the temporary roofing mission. Concerns included additional costs resulting from multiple tiers of subcontractors.

**Subcontracting Costs.** In January 2007, the Government Accountability Office (GAO) announced GAO Engagement No. 120613, "Pass-through Charges in Defense Department Contracts or Subcontracts." The engagement was required by Public Law 109-364, "The National Defense Authorization Act of FY 2007," section 852. The following statements are two objectives of GAO Engagement No. 120613.

- Address the extent to which DoD has paid excessive pass-through charges to contractors who provided little or no value to the performance of the contract.

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- Determine the extent to which any prohibition on excessive pass-through charges would be inconsistent with existing commercial practices for any specific category of contracts or have an unjustified adverse effect on any specific category of contractors (including any category of small business).

The legislation specifically excluded fixed-price contracts awarded after adequate competition, such as those used for temporary roofing repair.

## 2006 Temporary Roofing Contracts

Our first report, DoD Inspector General Report No. D-2007-038, “U.S. Army Corps of Engineers’ “Operation Blue Roof” Project in Response to Hurricane Katrina,” December 22, 2006, addressed the award of temporary roofing contracts for the 2005 hurricane season. The Corps awarded those contracts using expedited procurement practices. For this, our second report, we examined the award of the temporary roofing contracts for the 2006 hurricane season to determine whether the Corps addressed concerns noted during our first audit. Specifically, we reviewed whether the contracts for the 2006 hurricane season:

- encouraged awards to small and disadvantaged business and the use of local and small businesses,
- considered contractor pricing, and
- addressed subcontracting concerns.

On November 30, 2005, the Corps Mobile District office issued solicitation W91278-06-R-0007 for indefinite-delivery, indefinite-quantity contracts for temporary roof repairs in 10 states: Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas. From March 17 through May 24, 2006, the Corps Mobile District office awarded 12 contracts for temporary roofing. The contracts were for the 2006 hurricane season with two option years. Seven contracts were 8(a) set-asides, three contracts were unrestricted, one contract was a Service-Disabled Veteran-Owned Small Business award, and one contract was a Historically Underutilized Business Zone set-aside award.

**Small and Small Disadvantaged Businesses.** The Corps provided ample opportunity for small and small disadvantaged businesses. The solicitation specified one set-aside contract for a Service-Disabled Veteran-Owned Small Business, one set-aside contract for a Historically Underutilized Business Zone contractor, and two set-aside contracts per state for small disadvantaged businesses. In addition, all large businesses were required to submit

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subcontractor plans for the use of small and disadvantaged businesses. All contracts were subject to the Stafford Act, which directs that businesses or individuals who live or work in the area that is affected by a disaster be given preference to the extent practicable.

**Contract Price.** The Corps awarded the 12 fixed-price contracts for temporary roofing after adequate competition and price consideration. The Corps received 66 proposals for the 12 contracts. Only qualifying proposals with the lower prices were passed to the source selection team. However, price was not the primary determination of contract award. Because the Corps intended to award fixed-price contracts, the source selection process did not require the contractor to submit cost or pricing information.

The FAR encourages the use of fixed-price contracts because it limits the risk to the Government. FAR Subpart 16.2, “Fixed Price Contracts,” states:

A firm-fixed-price contract provides for a price that is not subject to any adjustment on the basis of the contractor’s cost experience in performing the contract. This contract type places upon the contractor maximum risk and full responsibility for all costs and resulting profit or loss. It provides maximum incentive for the contractor to control costs and perform effectively and imposes a minimum administrative burden upon the contracting parties.

In addition, FAR Subpart 15.4, “Contract Pricing,” discourages the Government from obtaining contractor cost or pricing data when adequate price competition exists.

**Subcontracts.** The temporary roofing contracts awarded for 2006 hurricane season did not provide significant new requirements for subcontracting. The contracts specified that the prime contractor employees must perform at least 20 percent of the contract work and included standard requirements to submit contractor quality control plans. However, the contracts did not place any restrictions on the extent of subcontracting to lower tiers.

## Conclusion

The Corps IR and DCAA real-time oversight was an effective internal control over the temporary roofing mission during the Katrina recovery effort. Corps IR and DCAA personnel were effective at identifying problem areas; however, we could not always determine from the project documentation whether the corrective actions alleviated the discrepancies noted in the reports. Better documentation of corrective actions would increase the effectiveness of the internal control.

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The contracts awarded for the 2006 hurricane season and in place for 2007 and 2008 addressed some of the concerns raised during our first audit. The Corps Mobile District awarded contracts that provided ample opportunities for small and small disadvantaged businesses and encouraged the use of local contractors. In addition, the Corps awarded the contracts after adequate competition and price consideration. However, the contracts did not contain significant limitations on subcontracting.

## **Management Comments on Other Matters of Interest and Audit Response**

**Management Comments.** The Chief Audit Executive for the Headquarters Internal Review Office, U.S. Army Corps of Engineers, responding for the Commander, stated that although the Corps cannot limit the amount of subcontractor layering on a given contract, the Corps is considering other means of addressing the issue. For example the Corps is considering reducing the daily production rate of each contractor and also requiring the contractor to perform a percentage of the work using in house forces to limit the amount of layering.

**Audit Response.** We agree that the prime contractors' use of a several second and lower level subcontractors caused problems following Hurricane Katrina. However, the number of subcontractors also allowed the prime contractors to ramp up quickly and effectively help the Corps to accomplish the temporary roofing mission of repairing roofs so that people could return to their residences as quickly as possible. The Corps' plan to focus on the effectiveness of contractor quality control procedures, as stated in their comments on the recommendations, will reduce some of the problems with subcontractor layering.

## Appendix A. Scope and Methodology

We performed this performance audit starting in August 2006. We suspended the audit from June 2007 through July 2007 to participate in a higher priority audit. We completed this audit in September 2007. We conducted the audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We originally conducted an audit to review the award of the temporary roofing contracts at the request of Congressmen Thompson and Pascrell Jr. DoD IG Report No. D-2007-038, "U.S. Army Corps of Engineers' "Operation Blue Roof" Project in Response to Hurricane Katrina," December 22, 2006, addressed Congressmen Thompson and Pascrell Jr.'s concerns and addressed the pre-award and the award process. Additionally, the report stated that a second report would be issued, addressing issues related to the administration of temporary roofing contracts. For the second report, we reviewed contract administration of the 2005 temporary roofing contracts listed in Table A-1.

**Table A-1. Contracts Awarded for the 2005 Hurricane Season**

<u>Contract Number</u>	<u>Contractor</u>	<u>Award Date</u>	<u>Period of Performance</u>	<u>Award Value (in millions)</u>
W912P9-05-D-0515	Shaw Constructors, Inc.	July 8, 2005	July 8, 2005–Dec. 31, 2005	\$ 10.0
W912P9-05-D-0518	Carothers/Aduddull, A Joint Venture	Sept. 2, 2005	Sept. 2, 2005–Dec. 31, 2005	10.0
W912P9-05-D-0520	Ceres Environmental Services, Inc.	Sept. 4, 2005	Sept. 4, 2005–Dec. 31, 2005	10.0
W912P9-05-D-0521	LJC Defense Contracting, Inc.	Sept. 4, 2005	Sept. 4, 2005–Dec. 31, 2005	10.0
W912P9-05-D-0522	Simon Roofing and Sheet Metal Corp.	Sept. 4, 2005	Sept. 4, 2005–Dec. 31, 2005	10.0
W912EE-06-D-0001	S&M and Associates, Inc.	Oct. 4, 2005	Oct. 4, 2005–Dec. 31, 2005	12.0
W912P9-06-D-0505	Ystueta, Inc.	Oct. 18, 2005	Oct. 18, 2005–Dec. 31, 2005	50.0
<b>Total</b>				<b>\$ 112.0</b>

We reviewed the source selection and award of the 2006 through 2008 Blue Roof contracts awarded out of the Corps Mobile District (Table A-2), QA practices, and the Corps' corrective actions to address discrepancies identified in the Corps IR and DCAA "real time audits," inspections, and reviews. Because temporary roofing repair work was substantially completed by November 2005 and Corps personnel had returned to their home districts, we limited our review to performance documentation obtained during the initial audit and to the temporary roofing contracts awarded for the 2006 through 2008 hurricane seasons.

**Table A-2. Contracts Awarded for the 2006 Hurricane Season**

<u>Contract Number</u>	<u>Contractor</u>	<u>Award Date</u>	<u>Not to Exceed (in millions)</u>	<u>Type of Award</u>	<u>State Coverage</u>
W91278-06-D-0047	S&M and Associates, Inc.	May 19, 2006	\$ 100.0	HubZone <sup>1</sup>	All 10 States <sup>2</sup>
W91278-06-D-0056	Acme Roofing & Sheet Metal Co., Inc./ITS	August 2, 2006	100.0	SDVOB <sup>3</sup>	All 10 States <sup>2</sup>
W91278-06-D-0048	Campbell Roofing & Construction, Inc.	May 23, 2006	100.0	Unrestricted	All 10 States <sup>2</sup>
W91278-06-D-0049	Carothers Construction, Inc.	May 23, 2006	100.0	Unrestricted	All 10 States <sup>2</sup>
W91278-06-D-0051	Ceres Environmental Services, Inc.	May 24, 2006	100.0	Unrestricted	All 10 States <sup>2</sup>
W91278-06-D-0027	S&M and Associates, Inc.	March 17, 2006	25.0	8(a) set-aside	Mississippi
W91278-06-D-0031	Crown Roofing Services, Inc.	March 20, 2006	25.0	8(a) Set-aside	Texas
W91278-06-D-0028	Crown Roofing Services, Inc.	March 22, 2006	25.0	8(a) Set-aside	Louisiana
W91278-06-D-0033	Carter's Contracting Services, Inc.	March 24, 2006	25.0	8(a) Set-aside	Alabama
W91278-06-D-0046	R.L. Campbell Roofing Company, Inc.	May 19, 2006	25.0	8(a) Set-aside	Florida
W91278-06-D-0045	Pete & Ron's Tree Service, Inc.	May 19, 2006	25.0	8(a) Set-aside	Florida
W91278-06-D-0044	MGC/Campbell Roofing & Construction, Inc.	May 24, 2006	25.0	8(a) Set-aside	Georgia
<b>Total</b>			<b>\$ 675.0</b>		
<sup>1</sup> Historically Underutilized Business Zone					
<sup>2</sup> Contract coverage is for performance in any or all of the states of Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas					
<sup>3</sup> Service-Disabled Veteran-Owned Small Business					

We reviewed the "Homeland Security Act of 2002"; "Robert T. Stafford Disaster Relief and Emergency Assistance Act," amended October 30, 2000; FAR Part 4, "Administrative Matters"; FAR 5.203, "Publicizing and Response Times"; FAR Part 7, "Acquisition Planning"; FAR Part 15, "Contracting by Negotiation"; FAR Part 16, "Types of Contracts"; FAR Part 19, "Small Business Programs";



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FAR Subpart 36.2, “Special Aspects of Contracting for Construction”; Engineer Federal Acquisition Regulation Supplement (EFARS) Subpart 7.1, “Acquisition Plans”; EFARS Subpart 19.5, “Set-Asides for Small Business”; DFARS Subpart 219.5, “Set-Asides for Small Business”; DFARS Part 207, “Acquisition Planning”; Army Federal Acquisition Regulation Supplement (AFARS) Part 5107, “Acquisition Planning”; AFARS Subpart 5119.502, “Setting Aside Acquisitions”; “2004 National Response Plan”; “Emergency Support Function #3-Public Works and Engineering Annex”; and “Emergency Support Function #6-Mass Care, Housing, and Human Services Annex.”

We also reviewed the “United States Army Corps of Engineers Disaster Guidebook,” October 1999, May 2000, and June 2006 editions; “Operations Order 2006-25 USACE Support to National Response Plan” (All Hazards OPORD 2006); and documentation pertaining to Hurricane Katrina recovery efforts.

We obtained and reviewed contract documentation such as the acquisition plan, purchase request, contractor bidding schedules, and source selection and evaluation documentation for the 12 temporary roofing contracts awarded in 2006. In addition, we reviewed Corps standard operating procedures as well as the corrective actions taken by the Corps in response to the August 15, 2005 through June 24, 2006 field reports prepared by Corps IR and DCAA personnel.

We interviewed personnel at five Corps office locations (Corps Headquarters, Washington, D.C.; Mobile District office, Mobile, Alabama; Jacksonville District office, Jacksonville, Florida; Northwest Division, Portland, Oregon; and Omaha District office, Omaha, Nebraska) to determine their involvement and understanding of the Operation Blue Roof contracts. Contacts included personnel from contracting, emergency management, and internal review.

**Use of Computer-Processed Data.** We used data generated from the Corps’ Headquarters and Mobile District offices for informational purposes. We did not assess the reliability of computer-processed data because the data were not a basis for our conclusions or finding.

**Government Accountability Office High-Risk Area.** The Government Accountability Office has identified several high-risk areas in DoD. This report provides coverage of the DoD Contract Management high-risk area.

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## Appendix B. Prior Coverage

During the past 5 years, GAO has published two testimonies and the DoD IG, the Army Audit Agency, and the Naval Audit Service have issued nine reports relating to the contracts for Hurricane Katrina recovery efforts. Unrestricted GAO testimonies can be accessed over the Internet at <http://www.gao.gov>. Unrestricted DoD IG, Army, and Navy reports can be accessed at <http://www.dodig.mil>, <http://www.hqda.army.mil/aaaweb/>, and <http://www.hq.navy.mil/NavalAudit>, respectively.

### GAO

GAO Testimony No. GAO-06-714T, “Improving Federal Contracting Practices in Disaster Recovery Operations,” May 4, 2006

GAO Testimony No. GAO-06-622T, “Planning for and Management of Federal Disaster Recovery Contracts,” April 10, 2006

### DoD IG

DoD IG Report No. D-2007-118, “Contract Administration of the Ice Delivery Contract Between International American Products, Worldwide Services and the U.S. Army Corps of Engineers During the Hurricane Katrina Recovery Effort,” August 24, 2007

DoD IG Report No. D-2007-055, “Contract Administration of the Water Delivery Contract Between the Lipsey Mountain Spring Water Company and the United States Army Corps of Engineers,” February 5, 2007

DoD IG Report No. D-2007-038, “U.S. Army Corps of Engineers’ “Operation Blue Roof” Project in Response to Hurricane Katrina,” December 22, 2006

DoD IG Report No. D-2006-116, “Ice Delivery Contracts Between International American Products, Worldwide Services and the U.S. Army Corps of Engineers,” September 26, 2006

DoD IG Report No. D-2006-109, “Response to Congressional Requests on the Water Delivery Contract Between the Lipsey Mountain Spring Water Company and the United States Army Corps of Engineers,” August 29, 2006

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## **Army Audit Agency**

Army Audit Agency Report No. A-2007-0016-FFD, "Debris Removal Contracts,"  
November 9, 2006

Army Audit Agency Report No. A-2006-0198-FFD, "Contracts for the Hurricane  
Protection System in New Orleans," August 22, 2006

## **Naval Audit Service**

Naval Audit Service Report No. N2007-0021, "Hurricane Relief Funds for  
Military Family Housing Construction at Gulfport and Stennis Space Center,  
Mississippi," March 27, 2007

Naval Audit Service Report No. N2006-0015, "Chartered Cruise Ships,"  
February 16, 2006

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## **Appendix C. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition, Technology, and Logistics  
Under Secretary of Defense (Comptroller)/Chief Financial Officer  
Deputy Chief Financial Officer  
Deputy Comptroller (Program/Budget)  
Director, Program Analysis and Evaluation

### **Department of the Army**

Assistant Secretary of the Army, (Financial Management and Comptroller)  
Auditor General, Department of the Army  
Commander, United States Army Corps of Engineers

### **Department of the Navy**

Auditor General, Department of the Navy

### **Department of the Air Force**

Auditor General, Department of the Air Force

### **Non-Defense Federal Organizations and Individuals**

Office of Management and Budget  
Government Accountability Office

### **Congressional Committees and Subcommittees, Chairman and Ranking Minority Member**

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Homeland Security and Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Oversight and Government Reform  
House Subcommittee on Government Management, Finance, and Accountability,  
Committee on Oversight and Government Reform  
House Subcommittee on National Security, Emerging Threats, and International  
Relations, Committee on Government Reform  
House Committee on Homeland Security

# U.S. Army Corps of Engineers Comments



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
441 G ST. NW  
WASHINGTON, D.C. 20314-1000

CEIR (36-5e)

30 November 2007


MEMORANDUM FOR Inspector General, Department of Defense, 400  
Army Navy Drive, Arlington, Virginia 22202-4704

SUBJECT: Report on U. S. Army Corps of Engineers Administration of  
Emergency Temporary Roofing Repair Contracts (Project No. D2006-  
D000CG-0081.001)

1. Reference DoDIG Memo, subject as above, 1 November 2007.
2. Our comments on the recommendation contained in the subject draft report are attached.
3. Please contact either Ms. Alicia Matias (202-761-4573) or Ms. Donna F. Johnson (202-761-8518) if you have questions.

FOR THE COMMANDER:

End  
As  
  
CF:  
CECW-HS  
CECT

  
DONNA F. JOHNSON  
Acting Chief Audit Executive  
HQUSACE Internal Review Office

**U. S. ARMY CORPS OF ENGINEERS COMMAND COMMENTS  
ON DODIG Report on Administration of Emergency Temporary  
Roofing Repair Contracts (Project No. D2006-D000CG-0081.001)**

**COMMAND RESPONSE**

**RECOMMENDATION:** We recommend that the Commander, U. S. Army Corps of Engineers develop and implement procedures to ensure sufficient numbers of quality assurance inspectors are available to meet contract requirements for the temporary roofing mission.

**Management Comments:** Concur.

The lack of Contractor Quality Control (CQC) and the shortage of Quality Assurance (QA) inspectors have been identified by this report, internally by after action reviews and by Defense Contract Audit Agency (DCAA) audits. The Corps' inspection process in the past focused on inspection of the actual installation of the temporary roof and not the effectiveness of the CQC responsibilities that were part of the contracts. Joint inspections by the contractor's representative and a Corps (Federal Employee) QA allowed contractors to skip any quality control inspections prior to the joint inspection as any deficiencies would be caught by the Corps QA. This inspection process was costly and required large numbers of trained QAs.

USACE is now developing a new inspection process that will focus more on evaluating the effectiveness of the CQC Plan, using QAs to perform random sampling after the contractor has notified Corps that the installation has been inspected for quality and measured for payment. This will significantly reduce the numbers of QAs needed to perform installation inspections and also reduce the overall number of QAs to perform the temporary roofing mission.

It should be noted that the Corps continues to work with other agencies (i.e. Bureau of Reclamation) to provide significant numbers of Federal QA Inspectors to supplement the QA requirements for this and other missions following major or catastrophic disasters.

In conjunction with improving the inspection process, USACE is also performing an evaluation of the total manpower requirements for various aspects of the temporary roofing mission, such as Right of Entry collection, assessment of damage and installation inspection. These manpower requirements will then be used to develop a standardized operating procedure (SOP) for manpower resourcing of the temporary roofing mission during an event response. New procedures will be addressed by Corps at the SOP Writing Workshop in January 2008.

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**U. S. ARMY CORPS OF ENGINEERS COMMAND COMMENTS  
ON DODIG Report on Administration of Emergency Temporary  
Roofing Repair Contracts (Project No. D2006-D000CG-0081.001)**

**ADDITIONAL COMMENT**

Reference Page 14, after Conclusion – USACE cannot limit the amount of subcontracting layering that takes place on a given contract. However, under our new contracts, the Corps is researching the effect of reducing the daily production rate of each contractor and also requiring the contractor to perform a percentage of the work using in house forces as a way to reduce some of the tiering of subcontractors and improve communication and control between the prime contractor and the actual installation crews.

We are also looking into the feasibility of using local Purchase Order Service Contracts with a capacity of 5.5 million each (FAR 13.500), after an event occurs. These contracts could be let relatively quickly to local companies. It should be noted that depending on the size and severity of an event, availability of local contractors may be limited and those contractors that are available may already be subcontractors to ACI contractors.

## **Team Members**

The Department of Defense Office of the Deputy Inspector General for Auditing, Acquisition and Contract Management prepared this report. Personnel of the Department of Defense Office of Inspector General who contributed to the report are listed below.

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# Inspector General Department of Defense

