SIGIR INSPECTIONS

To date, SIGIR has completed 164 project assessments covering 152 project sites. This quarter, SIGIR completed five project assessment reports:

- Renovation of the Tomb of the Unknown Soldier
- Abu Ghraib Dairy
- Rabeaa Point of Entry Screening Facility
- Hammam Al Alil Division Training Center
- Hammam Al Alil Regional Training Center

These projects were funded by the Commander’s Emergency Response Program (CERP), the Iraq Freedom Fund (IFF), and the Iraq Security Forces Fund (ISFF). Of the five assessments, one was a sustainment assessment, and four were in-progress construction assessments.

SIGIR’s sustainment assessment focused on whether the projects delivered to the Iraqis were operating at the capacity planned in the original contract or task order objective. To accomplish this, SIGIR determined whether the projects were at planned capacity when accepted by the U.S. government, when transferred to Iraqi operators, and during the assessment. In addition, SIGIR determined whether sustainability was adequately planned for and whether it is likely to continue.

SIGIR’s in-progress construction assessments addressed these general questions:

- Were the project components adequately designed before construction or installation?
- Did the construction or rehabilitation meet the standards of the design?
- Were the contractor’s quality control and the U.S. government’s quality assurance programs adequate?
- Were project sustainability and operational effectiveness adequately addressed?
- Were the project results consistent with the original objectives?

Since the Inspections program began four years ago, SIGIR has also completed 96 limited on-site inspections and 846 aerial assessments.

Security continues to improve in Iraq, though the risk of violence still exists. SIGIR’s ability to conduct on-site assessments of reconstruction projects continues to be facilitated by the transportation, security escort, and life support provided to it by U.S. Forces-Iraq (USF-I) and the Gulf Region District and local project offices of the U.S. Army Corps of Engineers (USACE). While it has not been possible for SIGIR inspection teams to spend as much time on site at some of the project locations as would be possible for locations in the United States, every effort has been made to enable and assist SIGIR inspections.

### Table 4.2

**Five Projects Assessed this Quarter**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Assessment Type</th>
<th>Province</th>
<th>Budgeted Cost</th>
<th>Executing Agency</th>
<th>Funding Source</th>
<th>Contractor</th>
<th>GRD Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renovation of the Tomb of the Unknown Soldier</td>
<td>Sustainment</td>
<td>Baghdad</td>
<td>$1,741</td>
<td>MNC-I</td>
<td>CERP</td>
<td>Bennett, Fouch, and Associates</td>
<td>Central</td>
</tr>
<tr>
<td>Abu Ghraib Dairy</td>
<td>Construction</td>
<td>Baghdad</td>
<td>$3,400</td>
<td>TFBSO</td>
<td>IFF</td>
<td>Al Balagh Investments</td>
<td>Central</td>
</tr>
<tr>
<td>Rabeaa Point of Entry Screening Facility</td>
<td>Construction</td>
<td>Ninewa</td>
<td>$3,110</td>
<td>GRN</td>
<td>ISFF</td>
<td>Biltex Construction Company</td>
<td>North</td>
</tr>
<tr>
<td>Hammam Al Alil Division Training Center</td>
<td>Construction</td>
<td>Ninewa</td>
<td>$3,574</td>
<td>GRN</td>
<td>ISFF</td>
<td>Local</td>
<td>North</td>
</tr>
<tr>
<td>Hammam Al Alil Regional Training Center</td>
<td>Construction</td>
<td>Ninewa</td>
<td>$5,029</td>
<td>GRN</td>
<td>ISFF</td>
<td>Local</td>
<td>North</td>
</tr>
</tbody>
</table>
Results of this quarter’s assessments were similar to SIGIR’s findings in previous sustainment and construction assessments:

- Long-term operations and maintenance practices were not always being accomplished.
- Proper design plans and QA/QC oversight were negatively impacting construction.
- Routine maintenance was not always being performed.

For a list of the project assessments that SIGIR completed this quarter, see Table 4.2. For a complete list of project assessments from previous quarters, see Appendix E.

Figure 4.3 shows the approximate location of each project assessed this quarter and in previous quarters.

SIGIR Project Assessments

This section provides summaries of SIGIR project assessment reports completed this quarter. For the full reports, see the SIGIR website, www.sigir.mil.

Renovation of the Tomb of the Unknown Soldier, Baghdad, Iraq
SIGIR PA-09-168
The objective of this $1.74 million CERP-funded project located in Baghdad was to fully renovate the Tomb of the Unknown Soldier monument and provide the Iraqi Military Honor Unit with ceremonial uniforms. At the time of SIGIR’s inspection, the project was complete and had been turned over to the Iraqis in 2006; however, the Iraq Reconstruction Management System (IRMS) listed the “Tomb of the Unknown Soldier” project as 75% complete.

Findings
After the fall of the Saddam Hussein regime in 2003, an important monument in Baghdad, the Iraqi Tomb of the Unknown Soldier, was looted and damaged. In 2006, the U.S. military awarded a contract under the CERP to fully renovate the landmark and provide the Iraqi Military Honor Unit with ceremonial uniforms.
SIGIR determined that the project file did not contain all documentation required by the contract and applicable CERP guidance, such as payment documentation and quality assurance reports. The lack of payment documentation resulted in confusion as to the amount of CERP funding disbursed for this project. Eventually, Multi-National Corps-Iraq representatives researched the Army’s Standard Finance System and found that the actual amount paid to the contractor was $1,740,772.

In addition, without quality assurance reports and project photographs, SIGIR could not determine the contractor’s construction practices during the course of the project, the actual amount of work completed, or the condition of the project when it was completed.

The contract required installation of an oil proofing system to ensure that the fountain did not leak. This system was not installed, nor were damaged tiles replaced. The contract also required sodding of all garden sections with St. Augustine grass and planting of date palm trees, which was not done.

A summary of disbursements for the work performed indicates that on January 10, 2007, the civil works and landscaping portions of this project were determined to be 100% complete and that the contractor was paid the entire $476,000 for civil works and $155,000 for landscaping. Because the contract statement of work (SOW) did not break down the individual cost of each civil works and landscaping element, SIGIR could not determine the actual value the contractor was paid for work not performed. Further, the summary of disbursements confirmed that the contractor was paid $300,000 for uniforms and ceremonial weapons; however, the project file lacked documentation to verify the number of uniforms and ceremonial weapons provided to the Iraqi Military Honor Unit.

Based on SIGIR’s site visit, review of available project file documentation, and discussions with Honor Unit personnel, SIGIR determined that although the project did not meet all the standards specified in the contract’s SOW, the Iraqi Tomb of the Unknown Soldier has been significantly improved by the renovation project.

**Recommendations**
SIGIR recommends that the Commanding General, Multi-National Force-Iraq (MNF-I), take these actions:
in 2002, had been sitting idle because the Iraqi State Company for Dairy Products did not have the funding to construct a building to house and operate the equipment.

A cooperative agreement, funded by the U.S. Task Force for Business and Stability Operations (TFBSO), to construct a building and to set up and operate the milk line equipment was entered into by the Joint Contracting Command-Iraq/Afghanistan and the State Company for Dairy Products. SIGIR’s review disclosed that the contractor’s design drawings lacked significant details for water supply and treatment and sewage treatment. In addition, SIGIR identified significant deficiencies in the building’s structural integrity.

On April 12, 2009, SIGIR visited the project site, which was approximately 30% complete. SIGIR observed construction deficiencies, such as inadequately protected anchor bolts, improper concrete masonry construction, poorly constructed floor slab, and deformation of several of the roof trusses.

SIGIR immediately brought these concerns to the attention of TFBSO representatives who promptly engaged the services of the USACE Gulf

1. Update this project in IRMS with the most current information. Updates should include percentage complete, total construction cost, and date of completion.
2. Determine the value of contract-required work not performed and goods not provided by the contractor and recover this amount from the contractor.

Management Comments
SIGIR received comments on its draft report from the MNF-I concurring with the recommendations in the report. MNF-I also provided technical comments for clarification.

Evaluation of Management Comments
MNF-I comments addressed Recommendation 1. MNF-I’s response to Recommendation 2 was that the contractor performed work for all of the $1,740,772 it was paid. However, SIGIR noted civil work and landscaping work not performed by the contractor for which payment was made, as well as lack of documentation for the number of uniforms and ceremonial weapons provided to the Iraqi Military Honor Unit. SIGIR revised Recommendation 2 and requested MNF-I determine the value of contract-required work not performed and goods not provided by the contractor and recover this amount from the contractor.

Abu Ghraib Dairy, Abu Ghraib, Iraq
SIGIR PA-09-172
The overall objective of this $3.4 million Iraq Freedom Fund project was to rebuild the Iraqi State Company for Dairy Products—Abu Ghraib Dairy factory’s production capability, satisfy the local market, and support the Ministry of Education’s school nutrition program of providing Iraqi school children with pasteurized milk.

Findings
Equipment to reconstitute powdered milk, purchased by the then-Saddam Hussein government...
Region Division (GRD) to provide oversight of the contractor’s corrective actions. GRD is determining the acceptability of proposed corrective actions and verifying implementation.

SIGIR, however, remains concerned about the state of the milk line equipment and whether it will be operational after sitting idle in a warehouse for more than seven years.

**Lessons Learned**
A significant number of issues negatively affecting this project are a direct result of the use of a cooperative agreement versus a standard construction contract and the initial lack of U.S. government oversight. The cooperative agreement did not provide specific requirements to the contractor regarding design submittals and specifications, warranty clauses, and quality control; nor did it require the U.S. government to review the design submittals and specifications for accuracy and completeness or to provide construction oversight via a quality assurance program. The lack of design submittals and specifications review allowed the contractor to begin construction with an inadequate design that lacked significant details while the lack of quality assurance allowed the contractor to continue construction without being required to correct deficient work.

Following discussions with SIGIR, TFBSO realized the above-mentioned limitations of the cooperative agreement and the impact of limited oversight of a construction project. Consequently, TFBSO representatives stated that when they recently awarded a contract for an open air market in Basrah, the contract contained specific requirements for design submittals and specifications. In addition, construction oversight will be enforced through the use of an external entity, such as USACE GRD, to promote quality construction.

**Recommendations**
SIGIR recommends that USACE take these actions:
1. Continue oversight of the contractor’s corrective actions.
2. Work with the contractor to develop specific details with respect to site utilities.

SIGIR also recommends that TFBSO continue to work with the Abu Ghraib Dairy Director General to determine the status of missing equipment and the award of the contract to install and commission the milk line equipment.
Findings
On May 17, 2009, SIGIR performed an on-site assessment of the Rabeaa Point of Entry Screening Facility project. A point of entry is a place where people lawfully enter a country. It typically has a staff that verifies passports and visas and inspects luggage to ensure that contraband is not imported. At the time of the site visit, the project was approximately 60% complete. SIGIR observed ongoing construction work, such as concrete formwork and preparation for concrete placement. SIGIR identified a number of construction deficiencies, including:
- construction that did not adhere to the contract’s SOW
- construction that was not in compliance with design drawings
- defective construction
- safety concerns

The contractor’s implementation of the quality control (QC) program and the U.S. government’s application of the quality assurance (QA) program were not effective in monitoring this construction project.

Management Comments
SIGIR received comments on the draft of this report from GRD and TFBSO concurring with the recommendations, citing corrective actions taken, and providing comments for clarity and accuracy of the report.

Evaluation of Management Comments
SIGIR appreciates the concurrence by GRD and TFBSO with the draft report’s recommendations. Their comments addressed SIGIR’s recommendations, cited corrective actions taken, and provided additional clarifying information for this final report.

Rabeaa Point of Entry Screening Facility, Rabeaa, Iraq
SIGIR PA-09-173
The objective of this $3.1 million ISFF project was to provide a new 1,230 square meter single-story screening facility and multiple support structures, such as a water distribution system, septic system, electrical distribution system, and 1-megawatt generator, as well as the demolition of existing buildings.
SIGIR discussed these issues with personnel from the USACE Mosul Area Office. Mosul Area Office representatives stated that the contractor would address these issues throughout the project, and corrective action would be taken.

Although SIGIR identified significant issues with this project, the actions that the Mosul Area Office indicated that they would take should remedy the identified deficiencies and should result in a new functioning Rabeaa Point of Entry Screening Facility.

**Recommendations**

SIGIR recommends that the USACE Mosul Area Office take these actions:

1. Review all areas of concern identified in SIGIR’s report by comparing actual field construction to SOW and design drawing requirements.
2. Determine if cost savings are due to the U.S. government for the approval of alternative materials and methods.
3. Require the contractor to repair any construction defects without cost increases to the U.S. government.
4. Enforce the contractor safety plan.

5. Implement controls to ensure that the procedures outlined in the QA and QC plans of the project are applied.

**Management Comments**

SIGIR received comments on its draft report from the Gulf Region District of USACE concurring with the recommendations and documenting corrective actions taken.

**Evaluation of Management Comments**

The comments addressed the issues identified in SIGIR’s recommendations. As a result, no additional comments are required.

**Hammam Al Alil Division Training Center, Mosul, Iraq**

SIGIR PA-09-174

The overall objective of this $3.5 million ISFF project was to construct a division training center consisting of new ranges and facilities. The contract required the construction of three multi-purpose small-arms ranges, two military operation on urban terrain (MOOT) facilities, a combat assault
course, and 14 three-sided outdoor training structures. At the time of the site visit, the project was approximately 78% complete.

Findings
On July 8, 2009, SIGIR performed an on-site assessment of the Hammam Al Alil Division Training Center project. SIGIR observed ongoing and completed construction work. SIGIR found:

- project components were adequately designed
- construction did not fully adhere to the contract
- quality management programs were in need of improvement
- project results were or will be consistent with their original objectives

The contract required the construction and installation of overhead baffles between the firing positions and the terminal end of the range. Overhead baffles were designed to contain all bullets that overshot the berm at the terminal end of the range. However, at the time of the SIGIR site assessment, there were no overhead baffles present.

The Mosul Area Office representative stated that the overhead baffles were constructed, but were of such poor quality that they were removed. Therefore, the multi-purpose small-arms ranges went from being fully contained to non-contained ranges. Documentation that addressed the safety concerns of removing the overhead baffles was not available.

In addition, the contractor used precast concrete planks in several areas as footbridges over the swale constructed to convey runoff away from the range site. SIGIR observed a safety hazard where the contractor had not removed the rebar lifting lugs from the precast planks.

SIGIR determined that the QC and QA staff were not effective in achieving quality construction. The QC personnel did not maintain a presence on the job site or provide effective project management and oversight. The QA representative did not enforce the daily QC report requirements.

Recommendations
SIGIR recommends that the Mosul Area Office of the USACE take these actions:

1. Conduct a ground safety study to determine the danger zone for the small-arms range and the MOUT facility, and provide this information to the Hammam Al Alil Division Training Center for planning to lessen the severity of any danger presented by the open range.
2. Require the contractor to replace all deteriorating sandbags.
3. Ensure that the rebar lifting lugs are removed from panels that are used as footbridges.
4. Implement controls to ensure that the procedures outlined in the QA and QC plans of the project are applied.

Management Comments
SIGIR received comments on its draft report from USF-I concurring with the recommendations in the report and also providing technical comments for clarification.

Evaluation of Management Comments
The comments addressed SIGIR’s recommendations and provided additional clarifying information for the final report.

Hammam Al Alii Regional Training Center, Mosul, Iraq
SIGIR PA-09-183
The overall objective of this $5 million ISFF project was to provide a new Iraqi Army Regional Training Center. The work consisted of new construction as well as renovation and upgrades of existing utilities, including enlisted barracks, latrines, potable water, wastewater management system, and power generation, as well as demolition of existing buildings, structures, and tents. Subsequent to the award of the original contract, the Iraqi Army decided not to increase the number of students at the facility. Therefore, a partial termination of the project was requested, and the contract requirements were reduced. The new barracks were not required; however, the contractor would perform repairs to the existing barracks building to allow for adequate heating and cooling. In addition, the contractor was to repave the existing roads and reconfigure the separate latrines into one single building. At the time of the site visit, the project was approximately 34% complete.
Findings
On July 8, 2009, SIGIR performed an on-site assessment of the Hammam Al Alil Regional Training Center, located at Forward Operating Base Scorpion. The project site is approximately 15 miles south of Mosul, near the Tigris River. The site is relatively flat with little ground cover or vegetation, and contains several buildings along with existing utility facilities.

SIGIR determined that project components were adequately designed, the construction complied with the design standards, project sustainability was addressed, and project results to date were consistent with the original objectives.

The U.S. government QA program was effective in monitoring the contractor’s QC program. The Mosul Area Office employed local Iraqi QA representatives to monitor field activities and complete daily QA reports. The daily reports documented the number of workers on site and the daily work performed. The QA representatives supplemented the daily reports with detailed photographs that reinforced the information provided in the reports. In addition, QA representatives maintained a deficiency tracking log that provided a description of the deficiency, location, and suggested corrective action. The QA representatives did an effective job identifying and correcting construction deficiencies at the project site.

Recommendations
This report does not contain any negative findings. As a result, no recommendations for corrective action were made. Therefore, management comments are not required.

Management Comments
U.S. Central Command, USF-I, and the USACE provided a response to the draft report indicating that they had reviewed it, generally agreed with the facts as stated in the report, and had no comments to provide.

Aerial Project Survey Program
The SIGIR Satellite Imagery Group, based in Arlington, Virginia, performs aerial assessments of U.S.-funded reconstruction project sites throughout Iraq. The SIGIR satellite imagery analyst provides current imagery, imagery-based intelligence, and map products to the SIGIR.
analyses of potential future sites. This quarter, the SIGIR imagery analyst assessed and reviewed projects funded by the IFF, ISFF, CERP, and other sources. For an overview of the imagery products produced this quarter, see Table 4.3.

In partnership with the National Geospatial-Intelligence Agency and the National Ground Intelligence Center, SIGIR imagery analysis has resulted in 846 cumulative satellite imagery assessments and products. For an overview of the approximate locations of these assessments, see Figure 4.4.

### Table 4.3

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Number of Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zurbatiya Point of Entry Cargo Transload Area</td>
<td>6</td>
</tr>
<tr>
<td>Al Farabi School</td>
<td>4</td>
</tr>
<tr>
<td>Tomb of the Unknown Soldier</td>
<td>3</td>
</tr>
<tr>
<td>Basrah Modern Slaughter House</td>
<td>3</td>
</tr>
<tr>
<td>Thi Qar Bee Farm</td>
<td>2</td>
</tr>
<tr>
<td>Al Hadi Permanent Police Station</td>
<td>2</td>
</tr>
<tr>
<td>Al Qaim Electrical Mobile Substation</td>
<td>2</td>
</tr>
<tr>
<td>Haditha Dam Perimeter Security</td>
<td>2</td>
</tr>
<tr>
<td>Hammam Al Alli Regional Training Center</td>
<td>1</td>
</tr>
</tbody>
</table>

**Additional Products**

- Diyala Province—Al Wajhiya PHC: 1
- Diyala Province—Hai Al Tahrir PHC: 1

This quarter, SIGIR conducted imagery analysis of 40 images and created 27 imagery products, using satellite imagery and limited contract information. Imagery support products—including site overviews, project site break-outs, and site assessments—are used to prepare for inspection site visits and to identify possible problems. The 27 imagery products produced this quarter assisted inspectors with their project assessments of the 5 sites assessed this quarter and provided

## Figure 4.4

**Aerial Imagery Assessments**

Approximate locations of SIGIR’s aerial imagery assessments conducted this quarter and the locations by province of assessments from previous quarters.
Aerial Imagery taken on April 16, 2009, of the Hammam Al Alil Regional Training Center site (PA-09-183).

Aerial Imagery taken on April 22, 2008, of the Zurbatiya Point of Entry Cargo Transload Area (PA-09-187) to be assessed in a future quarter.