Audit Report

BUDGET DATA FOR REALIGNMENT OF
GAS SYSTEMS TEST CELLS FROM
KELLY AIR FORCE BASE TO HILL AIR FORCE BASE

Report No. D-2000-074 February 10, 2000

Office of the Inspector General
Department of Defense

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

February 10, 2000

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Budget Data for Realignment of Gas Systems Test Cells from Kelly Air Force Base to Hill Air Force Base (Report No. D-2000-074)

We are providing this report for your information and use. This report is one in a series about FYs 1999 and 2000 Defense base realignment and closure military construction budget data. Because this report contains no adverse findings or recommendations, no written comments were required on the draft and none were received. Therefore, we are publishing this report final form.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Wayne K. Million at (703) 604-9312 (DSN 664-9312) or Ms. Bobbie Sau Wan at (703) 604-9259 (DSN 664-9259). See Appendix C for the report distribution. The audit team members are listed inside the back cover.

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Acronyms

AFB	Air Force Base
AFMC	Air Force Materiel Command
BRAC	Base Realignment and Closure
MILCON	Military Construction

Office of the Inspector General, DoD

Report No. D-2000-074 **February 10, 2000**
Project No. 8CG-5012.04

Budget Data for Realignment of Gas Systems Test Cells from Kelly Air Force Base to Hill Air Force Base

Executive Summary

Introduction. This report is one in a series about FY 1999 Defense base realignment and closure military construction costs. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, directs the Secretary of Defense to ensure that the amount of the authorization that DoD requested for each Defense base realignment and closure military construction project does not exceed the original estimated cost provided to the Commission on Defense Base Closure and Realignment (the Commission). If the requested budget amounts exceed the original project cost estimates provided to the Commission, the Secretary of Defense is required to explain to Congress the reasons for the differences. The Office of the Inspector General, DoD, is required to review each Defense base realignment and closure military construction project for which a significant difference exists from the original cost estimate, and to provide the results of the review to the congressional defense committees.

Audit Objectives. Our overall objective was to determine the accuracy of Defense base realignment and closure military construction budget data. This report provides results of the audit of one project, originally valued at $2.1 million and later revised to $7 million for the realignment of gas systems test cells from Kelly Air Force Base, Texas, to Hill Air Force Base, Utah. A review of the management control program, as it applies to the overall audit objective, will not be addressed in this report but will be reported in a summary report for FYs 1999 and 2000 project audits.

Audit Results. The facility requirement and the revised cost estimate for project KRSM993009, "Base Closure—Gas Systems Test Cells," were valid. However, budget justification information related to both the initial and revised cost estimates was inaccurate. The cost increase was caused primarily by the lack of realism in the initial estimate, not by safety considerations, as stated in the Air Force documentation.

Management Comments. We provided a draft of this report on December 22, 1999. No written comments were required and none were received. Therefore, we are publishing this report in final form.

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Background

The Office of the Inspector General, DoD, is performing audits of the Defense base realignment and closure (BRAC) process and the DoD implementation of approved recommendations of the Commission on Defense Base Closure and Realignment (the Commission). This audit is one in a series about FYs 1999 and 2000 BRAC military construction (MILCON) costs. For additional information on the audit process, see Appendix A. For background information on the BRAC process, see Appendix B.

Objectives

The overall objective was to determine the accuracy of BRAC MILCON budget data. The specific objectives were to determine whether the proposed project was a valid BRAC requirement, whether the decision for MILCON was supported with required documentation, and whether an economic analysis was prepared to consider the use of existing facilities as an alternative to new construction.

This report provides the results of the audit of BRAC MILCON project KRSM993009, "Base Closure—Gas Systems Test Cells," valued at $7 million, resulting from the realignment of the test facility from Kelly Air Force Base (AFB), Texas, to Hill AFB, Utah. The audit also assessed the management control program as it applied to the overall audit objective. However, the management control program will be discussed in a summary report upon completion of the current reviews.

Gas Systems Test Cells

The requirement for project KRSM993009, "Base Closure—Gas Systems Test Cells"* was valid, although the initial cost estimate of $2.1 million was unrealistic. The revised cost estimate of $7.0 million was reasonable, although the cause of the cost increase was incorrectly portrayed.

Project Background

The 1995 Commission on Defense Base Closure and Realignment found that significant excess capacity and infrastructure in the Air Force depot system required the closure of the San Antonio Air Logistics Center at Kelly AFB. The Air Force initially planned to relocate various depot maintenance workloads to the Oklahoma City Air Logistics Center at Tinker AFB. A site survey was conducted at Tinker AFB to develop the requirements for the workloads, including project KRSM993009, "Base Closure—Gas Systems Test Cells." On August 25, 1997, the Chief, Depot Maintenance Division, Air Force Materiel Command (AFMC), notified the depots that the gas systems workload would move to the Ogden Air Logistic Center at Hill AFB instead of Tinker AFB. The test facility provided test cells for full-scale monitored testing of reassembled gas turbine engines, air turbine starters, auxiliary drive gearboxes, and jet fuel starters. Test bays were also available for testing oil and pneumatic accessories.

Project Requirements and Cost Validation

The "Gas Turbine Engines Relocation Program Review," held at Hill AFB November 17 - 21, 1997, established the requirement for a new test cell facility of approximately 28,220 square feet. The new testing facility was scheduled for construction adjacent to an existing facility for the overhaul and repair portion of the workload. The Hill AFB civil engineers adequately documented the requirements for project KRSM993009 in the Requirements Document dated February 28, 1998.

The DD Form 1391 budget data request for project KRSM993009, submitted to Congress in February 1998, estimated the cost of the project at $2.1 million. The initial cost was under estimated and the DD Form 1391 was later revised to $7.0 million. We determined that the revised cost estimate reflected competitive bids received.

* Project KRSM993009 was formerly titled, "Base Closure—Gas Turbine Engine Test Cells."

Justification Given for Cost Estimates

The Air Force Material Command (AFMC) did not follow established policies and procedures when the initial funding request was submitted for the Hill AFB test facility. Specifically, AFMC provided Hill AFB with a cost estimate of $2.1 million to construct a new test cell facility; however, the cost estimate submitted on the initial DD Form 1391 was not properly supported. The DD Form 1391 submitted to Congress in February 1998 stated that 35 percent of design had been completed on January 5, 1998. Achievement of 35 percent design is generally necessary to enable a reasonable cost estimate to be made. However, AFMC was unable to provide documentation to support that the design estimate existed and later referred to the amount as a "budget wedge."

On March 9, 1999, based on actual competitive bids, the Air Force was forced to request a $4.9 million funding increase for the test cell project. To justify the increase to Congress, AFMC asserted that the increase was based on increased safety requirements. We found no support for that assertion.

The unrealistic initial cost estimate for the Hill AFB test cell project was another example of a systemic problem reported by the Inspector General, DoD, in Report No. 98-175, "Summary Report on the Audit of Defense Base Realignment and Closure Construction Budget Data for FYs 1997 and 1998," in July 1998. The report recommended that the Secretaries of the Military Departments require major commands to certify that BRAC MILCON projects are valid, adequately documented, and are either 35 percent design complete or based on a parametric estimation process. The Air Force concurred, stating that guidance would be issued if another round of base closures is authorized. If the recommendations in Report 98-175 were implemented, this action would result in more accurate cost estimates and less risk of unprogrammed funding increases.

Appendix A. Audit Process

Scope

Work Performed and Limitations to Overall Audit Scope. We reviewed DoD guidance, made on-site visits to assess the implementation of the guidance, and reviewed the methods used to determine the facility size, prepare an economic analysis, and calculate a reasonable cost estimate.

DoD-Wide Corporate Level Government Performance and Results Act (GPRA) Goals. In response to the GPRA, the Department of Defense has established 2 DoD-wide goals and 7 subordinate performance goals. This report pertains to achievement of the following goals (and subordinate performance goals).

Goal 2: Prepare now for an uncertain future by pursuing a focused modernization effort that maintains U.S. qualitative superiority in key warfighting capabilities. Transform the force by exploiting the Revolution in Military Affairs and reengineer the Department to achieve a 21st century infrastructure. **Performance Goal 2.3:** Streamline the DoD infrastructure by redesigning the Department's support structure and pursuing business practice reforms. **(00-DoD-2.3)**

General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in the DoD. This report provides coverage of the Defense Infrastructure high-risk area.

Methodology

Use of Computer-Processed Data. We did not use computer-processed data to perform this audit.

Audit Type, Dates, and Standards. This economy and efficiency audit was performed from March to September 1999, in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD

Contacts During the Audit. We visited or contacted organizations within DoD. Further details are available on request.

Prior Coverage

The Inspector General, DoD, has issued four summary reports for the audits of BRAC budget data for FYs 1992 through 1998. Details on those reports, and the numerous audit reports that they summarize, are available upon request.

Air Force Audit Agency Report, "Military Construction Requirements Associated with the Realignment and Closure of Kelly and McClellan AFBs," (Project 96052028) July 25, 1996.

Appendix B. Background of Defense Base Realignment and Closure

Commission on Defense Base Closure and Realignment. On May 3, 1988, the Secretary of Defense chartered the Commission on Defense Base Closure and Realignment (Commission) to recommend military installations for realignment and closure. Congress passed Public Law 100-526, "Defense Authorization Amendments and Base Closure and Realignment Act," October 24, 1988, which enacted the Commission's recommendations. The law also established the Defense Base Closure Account to fund any necessary facility renovations or MILCON projects associated with BRAC. Public Law 101-510, "Defense Base Closure and Realignment Act of 1990," November 5, 1990, reestablished the Commission. The law also chartered the Commission to meet during calendar years 1991, 1993, and 1995 to provide a fair process that will result in a timely closure and realignment of military installations inside the United States. In addition, the law stipulates that realignment and closure actions must be completed within 6 years after the President transmits the recommendations to Congress.

Required Defense Reviews of BRAC Estimates. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, states that the Secretary of Defense shall ensure that the authorization amount that DoD requested for each MILCON project associated with BRAC actions does not exceed the original estimated cost provided to the Commission. Public Law 102-190 also states that the Inspector General, DoD, must evaluate significant increases in BRAC MILCON project costs over the estimated costs provided to the Commission, and the Secretary of Defense shall send a report to the congressional defense committees.

Military Department BRAC Cost-Estimating Process. To develop cost estimates for the Commission, the Military Departments used the COBRA computer model. The COBRA computer model uses standard cost factors to convert the suggested BRAC options into dollar values to provide a way to compare the different options. After the President and Congress approve the BRAC actions, DoD realigning activity officials prepare a DD Form 1391, "FY 1999 Military Construction Project Data," for each individual MILCON project required to accomplish the realigning actions. The COBRA computer model provides cost estimates as a realignment and closure package for a particular realigning or closing base. The DD Form 1391 provides specific cost estimates for an individual BRAC MILCON project.

Limitations and Expansion to Overall Audit Scope. Because the COBRA computer model develops cost estimates as a BRAC package and not for individual BRAC MILCON projects, we were unable to determine the amount of cost increases for each individual BRAC MILCON project. Additionally, because of prior audit efforts that determined potential problems with all BRAC MILCON projects, our audit objectives included all large BRAC MILCON projects.

Overall Audit Selection Process. We reviewed the FYs 1999 and 2000 BRAC MILCON $324.6 million budget submitted by the Military Departments and the

Defense Logistics Agency. We excluded projects that were previously reviewed by other DoD audit organizations. We grouped the remaining BRAC MILCON projects by location and selected all projects in the budget.

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Audit Team Members

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