DEFENSE BASE REALIGNMENT AND CLOSURE
BUDGET DATA FOR CLOSURE OF MARINE CORPS
AIR STATION TUSTIN, CALIFORNIA, AND
REALIGNMENT OF HELICOPTER SQUADRONS AND
AIRCRAFT TO MARINE CORPS AIR STATION
CAMP PENDLETON, CALIFORNIA

Report No. 96-220
September 13, 1996

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Department of Defense

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Acronyms

A&E
BRAC
MCAS
MILCON
NAVFAC

Architecture and Engineering
Base Realignment and Closure
Marine Corps Air Station
Military Construction
Naval Facilities Engineering Command
MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL
MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Defense Base Realignment and Closure Budget Data for
Closure of Marine Corps Air Station Tustin, California, and Realignment
of Helicopter Squadrons and Aircraft to Marine Corps Air Station Camp
Pendleton, California (Report No. 96-220)

We are providing this audit report for review and comment. This report is one
in a series of reports about FY 1997 Defense base realignment and closure military
construction costs. It discusses one FY 1997 project and five FY 1996 projects, all of
which were first covered in our 1994 audits.

DoD Directive 7650.3 requires that all audit issues be resolved promptly. As a
result of management comments on the draft report and our review of documentation
the Marine Corps provided after the audit, we revised Recommendations A.1.a.,
A.2.a. and A.2.c. We also revised Recommendations B.1.a. (draft Recommendation
B.1.) and B.2.a. (draft Recommendation B.2.) and added Recommendations B.1.b. and
B.2.b. The Marine Corps disagreed with our recommendation to resubmit project
budget estimates to reflect reduced budget estimate supported by the architecture and
engineering cost estimates and to reduce project budget estimates based on unsupported
and overstated facility requirements. We request that the Under Secretary of Defense
(Comptroller) provide comments on Recommendations B.1.a. and B.1.b. We also
request that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics)
provide comments on Recommendations A.2.a., A.2.b., B.2.a., and B.2.b. and
potential monetary benefits in response to the final report by October 13, 1996.

We appreciate the courtesies extended to the audit staff. Questions on the
audit should be directed to Mr. Terry L. McKinney, Audit Program Director, at
(703) 604-9288 (DSN 664-9288) or Ms. Bobbie Sau Wan, Audit Project Manager, at
(703) 604-9259 (DSN 664-9259). See Appendix F for the report distribution. The
audit team members are listed inside the back cover.

David K. Steensma
Deputy Assistant Inspector General
for Auditing
Office of the Inspector General, DoD

Report No. 96-220 (Project No. 6CG-5001.22) September 13, 1996

Defense Base Realignment and Closure Budget Data for Closure of Marine Corps Air Station Tustin, California, and Realignment of Helicopter Squadrons and Aircraft to Marine Corps Air Station Camp Pendleton, California

Executive Summary

Introduction. This report is one in a series about FY 1997 Defense base realignment and closure military construction costs. This report discusses revised budget data for six projects that were covered in our audits in 1994. Five projects were resubmitted as FY 1996 projects and one project as an FY 1997 project. 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 military construction project associated with Defense base realignment and closure 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. Our audits cover all projects valued at more than $1 million.

Audit Objectives. The overall audit objective was to determine the accuracy of Defense base realignment and closure military construction budget data. This report provides the results of the audit of six projects, valued at $90.75 million, resulting from closure of Marine Corps Air Station Tustin, California, and realignment of four CH-46 helicopter squadrons and four CH-53E helicopter aircraft to Marine Corps Air Station Camp Pendleton, California.

Audit Results. Defense base realignment and closure military construction budget costs were inaccurate. The budget estimates for the six projects could not be supported.

The Marine Corps overestimated construction budget costs for three projects and underestimated costs for one project. As a result, the $58.22 million of funding for the four projects can be reduced by $6.93 million of which $4.14 million was differences among the DD Forms 1391, "Military Construction Project Data," architecture and engineering reports, and planning documents and $2.79 million was questioned requirements costs. The $6.93 million are funds that can be put to use on other BRAC projects (Finding A).

The Marine Corps could not provide documentation to support project P-026T, "Aircraft Parking Apron," and one line item in project P-031T, "Engine Test Cell," valued at $3.5 million. As a result, budget requests for project P-026T, valued at $14.3 million and one line item in project P-031T could not be validated (Finding B).
See Part I for a discussion of the audit results. See Appendix D for a summary of partially valid requirements for the projects we reviewed.

**Summary of Recommendations.** We recommend that the Under Secretary of Defense (Comptroller) administratively withhold funds for the six projects involved in realigning four CH-46 squadrons and four CH-53E helicopters until the Marine Corps submits Form 460, "DoD Base Closure Account Financial Plan," or DD Form 1391, "Military Construction Project Data," for those projects. We recommend that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics) submit Form 460 and reduce the budget estimates for three of the projects by $7.88 million and submit Form 460 to account for any adjustments resulting in the redesign of Project P-026T. In addition, we recommend that a revised DD Form 1391, fully supported with the required planning documents, be submitted for projects P-029T and P-031T.

**Management Comments.** The Under Secretary of Defense (Comptroller) generally agreed with the findings and the recommendation to place the project funds on administrative withhold pending audit resolution. The Marine Corps did not agree to resubmit DD Forms 1391 to reflect reduced cost estimates based on architecture and engineering 100-percent cost estimates. Also, the Marine Corps did not agree to reduce project budget estimates based on unsupported and overstated facility requirements. See Part I for a discussion of management comments and Part III for the complete texts of management comments.

**Audit Response.** As a result of management comments and additional documentation provided by the Marine Corps after the audit, we changed the recommendation for the Marine Corps to resubmit DD Forms 1391 for projects P-026T, P-027T, P-028T, and P-518S. We maintain that the Under Secretary of Defense (Comptroller) should place funds on administrative withhold until the Marine Corps accurately substantiates requirements and costs. In addition, we revised the recommendation to require the Marine Corps to furnish Form 460, "DoD Base Closure Account Financial Plan," to reflect requirements and costs consistent with the architecture and engineering cost estimates. In any event, we maintain that the requirements of projects P-029T and P-031T are not documented and that the revised DD Forms 1391, "Military Construction Project Data," are necessary. Therefore, we request additional comments from the Under Secretary of Defense (Comptroller) and the Marine Corps by October 13, 1996.
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Part I - Audit Results
Audit Results

Audit Background

The Office of the Inspector General, DoD, is performing various audits of the Defense base realignment and closure (BRAC) process. This report is one in a series of reports about FY 1997 BRAC military construction (MILCON) costs. This report discusses five projects submitted as FY 1996 projects and one project submitted as an FY 1997 project.

This report provides the results of the audit of six BRAC MILCON projects for the realignment of four CH-46 helicopter squadrons and four CH-53E helicopter aircraft to Marine Corp Air Station (MCAS) Camp Pendleton, California, resulting from the closure of MCAS Tustin, California. Cost estimates on the DD Forms 1391, "Military Construction Project Data," total $90.75 million.

The six projects were previously included in the FY 1996 BRAC MILCON budget and were covered in Inspector General, DoD, Report No. 95-010, "Defense Base Realignment and Closure Budget Data for Marine Corps Air Station Tustin, California, and Realignment to Marine Corps Air Station Camp Pendleton, California," October 17, 1994. The report states that the Marine Corps did not adequately justify and document estimated costs and requirements for the six projects because BRAC MILCON planning documents were not completed. As a result, estimated costs on the DD Forms 1391 for the six projects, valued at $95 million, could not be validated. The report recommends that the Marine Corps revise cost estimates and submit new DD Forms 1391 for all six projects. This audit reviewed the resubmitted DD Forms 1391 for the projects.

For additional information on the BRAC process and the overall scope of the audit of BRAC MILCON costs, see Appendix C. See Appendix D for a summary of partially valid requirements for the projects we reviewed.

Audit Objectives

The overall audit objective was to determine the accuracy of BRAC MILCON budget data. The specific objectives were to determine whether the proposed projects were valid BRAC requirements, whether the decision for MILCON was supported with required documentation including an economic analysis, and
whether the economic analysis considered existing facilities. Another objective was to assess the adequacy of the management control program as it applied to the overall audit objective.

The following table describes the projects that this audit reviewed.

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Project Location</th>
<th>Description</th>
<th>Amount (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-026T</td>
<td>MCAS Camp Pendleton</td>
<td>Aircraft Parking Apron</td>
<td>$14.32</td>
</tr>
<tr>
<td>P-027T</td>
<td>MCAS Camp Pendleton</td>
<td>Training and Administrative Facility</td>
<td>3.16</td>
</tr>
<tr>
<td>P-028T</td>
<td>MCAS Camp Pendleton</td>
<td>BEQ* and Physical Fitness Center</td>
<td>10.75</td>
</tr>
<tr>
<td>P-029T</td>
<td>MCAS Camp Pendleton</td>
<td>Warehouse and Special Storage Facilities</td>
<td>6.08</td>
</tr>
<tr>
<td>P-031T</td>
<td>MCAS Camp Pendleton</td>
<td>Maintenance Facilities</td>
<td>18.21</td>
</tr>
<tr>
<td>P-518S</td>
<td>MCAS Camp Pendleton</td>
<td>Aircraft Maintenance Facilities</td>
<td>38.23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$90.75</strong></td>
</tr>
</tbody>
</table>

*BEQ - Bachelor Enlisted Quarters

See Appendix A for a discussion of the scope and methodology and Appendix B for a summary of prior coverage related to the audit objectives. The management control program objective will be discussed in a summary report on FY 1997 BRAC MILCON budget data.
Finding A. Estimation of Costs for Defense Base Realignment and Closure Military Construction Projects

The Marine Corps overestimated construction budget costs for three projects and underestimated costs for one project associated with the realignment of four CH-46 helicopter squadrons and four CH-53E helicopters to MCAS Camp Pendleton. The inaccurate cost estimates occurred because the Marine Corps did not notify the Office of the Under Secretary of Defense (Comptroller) of more realistic design cost estimates developed by an independent architecture and engineering (A&E) firm. The inaccurate estimates also occurred because the Marine Corps overstated facility requirements and included non-BRAC requirements in the DD Forms 1391. As a result, the $58.22 million of funding for projects P-027T, P-028T, P-029T and P-518S can be decreased by $6.93 million.

Criteria for BRAC Projects

Establishing and Supporting Space Requirements. Naval Facilities Engineering Command (NAVFAC) Instruction 11010.44E, "Shore Facilities Planning Manual," October 1, 1990, describes the development of valid facility requirements as the foundation for the remaining phases of the planning process. The Instruction defines the requirement based on an analysis of the organization's mission, work load, assigned tasks, and base loading. The Instruction provides that the MILCON planner is responsible for providing a detailed justification of the requirements, including functions to be accommodated, space needed for each function, number and organizational status of personnel, support space requirements, and an industrial engineering analysis of the operations. Included in the Instruction are requirements for using the basic facility requirements document as a basis for supporting space requirements. In addition, NAVFAC Publication P-80, "Facility Planning Criteria for Navy and Marine Corps Shore Installations," October 1982, provides guidance for the maximum allowable space measurements that may be used in determining facility requirements and scope.

Appropriate Use of BRAC MILCON Funds. Public Law 101-510, "Defense Base Closure and Realignment Act of 1990," November 5, 1990, states that BRAC MILCON funds are to be used for facility renovation and construction to accommodate realignment actions. BRAC MILCON funds are not to be used to fund an organization's current facility deficiencies if the deficiencies are not a result of BRAC actions.
Finding A. Estimation of Costs for Defense Base Realignment and Closure Military Construction Projects

DD Form 1391, "Military Construction Project Data"

The Navy, the Office of the Secretary of Defense (Comptroller), and Congress require the submission of DD Forms 1391, "Military Construction Project Data," that are cost estimates for budget year projects. These cost estimates should be based at a design level that are reasonably accurate at the time they are submitted. There is no requirement to adjust these DD Forms 1391 to reflect cost increases or decreases. However, congressional notification is required when a proposed cost change will increase or decrease the approved scope of the project by $2 million or 25 percent whichever is less from the Congressional approved DD Form 1391.

Independent A&E Firm Estimates

In May 1995, an independent A&E firm submitted to NAVFAC Southwest Division and the MCAS BRAC planning office a report of a 100-percent-design cost estimate for each of the four projects. In addition, the A&E firm provided subsequent cost estimate reports to reflect further refinement of the project cost estimates. The final A&E firm cost estimates for the four projects were $4.14 million lower overall than amounts on the DD Forms 1391.

Form 460, "DoD Base Closure Account Financial Plan"

The annual budget submission for BRAC MILCON funds includes a list of all BRAC MILCON projects anticipated to be accomplished based on closure and realignment requirements. At the start of each fiscal year, the Military Departments submit Form 460, "DoD Base Closure Account Financial Plan," to request allocations of base closure funds. Form 460 can also be submitted at any time to reflect a change in a Military Department's execution plan. For planned MILCON requirements, each project to be executed using requested BRAC funds is individually listed on the Form 460 (financial plan). The financial plan should reflect as accurately as possible the anticipated costs associated with each BRAC MILCON project. The Under Secretary of Defense (Comptroller) uses the Form 460 to support the allocation of BRAC MILCON funds.

Use of A&E Estimates in Audit

We used the A&E project cost estimates as the basis to validate BRAC MILCON requirements because the Marine Corps could not provide supporting
Finding A. Estimation of Costs for Defense Base Realignment and Closure Military Construction Projects

documents. We reviewed the space requirements contained in the A&E cost estimates and determined whether the requirements were in accordance with NAVFAC P-80.

Contingency and Other Related Costs. To provide a reasonable cost comparison between the submitted DD Forms 1391 and A&E cost estimates, we added contingency, supervision, inspection, and overhead costs to the A&E costs. The contingency cost is equal to 5 percent of the basic cost, and supervision, inspection, and overhead costs are equal to 6 percent of the sum of basic cost and contingency cost.

A&E Estimates Are More Realistic. The space requirements in the A&E estimates are more realistic than in the DD Forms 1391 because the A&E estimates would be used when the facilities are built, as the A&E cost estimates were based on 100-percent design. NAVFAC Southwest Division engineers and Marine Corps planning officials indicated during our visit that the projects were ready for construction contract solicitation and that the solicitation would be based on the A&E cost estimates.

Differences Among DD Forms 1391, A&E Reports, and Planning Documents

Differences in Cost Estimates. Cost estimates on the DD Forms 1391 were different from those on the A&E reports. The Marine Corps overestimated the overall costs for the four projects. The costs of the projects estimated at 100-percent design by the independent A&E firm were generally less than the costs reflected on the DD Forms 1391. As a result, the Marine Corps budgeted $4.14 million more than needed for the four BRAC MILCON projects.

Table 2 shows the differences between the estimated costs on the DD Forms 1391 and the A&E reports for each of the four BRAC MILCON projects.

<table>
<thead>
<tr>
<th>Project Number</th>
<th>DD Form 1391 Estimate (millions)</th>
<th>A&amp;E Estimate (millions)</th>
<th>Difference (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-027T</td>
<td>$3.16</td>
<td>$2.84</td>
<td>$0.32</td>
</tr>
<tr>
<td>P-028T</td>
<td>10.75</td>
<td>9.30</td>
<td>1.45</td>
</tr>
<tr>
<td>P-029T</td>
<td>6.08</td>
<td>7.28</td>
<td>(1.20)</td>
</tr>
<tr>
<td>P-518S</td>
<td>38.23</td>
<td>34.66</td>
<td>3.57</td>
</tr>
<tr>
<td>Total</td>
<td>$58.22</td>
<td>$54.08</td>
<td>$4.14</td>
</tr>
</tbody>
</table>
Finding A. Estimation of Costs for Defense Base Realignment and Closure
Military Construction Projects

Differences in Requirements. We found discrepancies in amounts of requirements among DD Forms 1391, planning documents, and A&E reports. Because of time constraints involved in the BRAC MILCON process, the MILCON planning documents to support project requirements and costs were not approved until after the DD Forms 1391 were submitted. During our review, the Marine Corps planning officials were still finalizing the MILCON planning documents. Also, economic analyses were considered and not used.

Planning Officials Rationale. Although the Marine Corps planning officials became aware of the differences between estimates on the DD Forms 1391 and the A&E reports, the planning officials did not intend to resubmit the DD Forms 1391 showing a reduced amount because the officials would not know actual construction cost until after the contract bids were known and because the officials wanted to ensure that funding was adequate. We recognize that little would be accomplished by amending DD Forms 1391 after they have been approved by Congress. However, to keep the Under Secretary of Defense (Comptroller) informed of the status of BRAC Marine Corps funds, the Marine Corps should submit DD Form 460 to reflect either the contract amount or the reduced A&E cost estimates.

Project Estimates by A&E. We believe the project estimates performed by the A&E firm based on the 100-percent design are the most realistic estimates. If and when the Marine Corps goes forward with its BRAC MILCON plan, the requested facilities would be constructed based on the data from the A&E 100-percent-design cost estimates. The Marine Corps overestimated projects P-027T, P-028T, and P-518S by $5.34 million and underestimated project P-029T by $1.2 million. Therefore, the total programmed funds for projects P-027T, P-028T, P-029T, and P-518S as requested by the Marine Corps were overstated $4.14 million.

DD Form 1391 Project Space Requirements in A&E Cost Estimates

Although the independent A&E reports were based on 100-percent-design estimates, the reports contained some project cost estimates that were based on unsupported requirements. The space requirements could not be justified because the calculated spaces do not all qualify as BRAC requirements. Therefore, the construction budget for the four BRAC projects can be further reduced by $2.79 million.
Finding A. Estimation of Costs for Defense Base Realignment and Closure
Military Construction Projects

Table 3 illustrates the space requirements and costs that the A&E firm proposed and the amounts we question for several project items.

<table>
<thead>
<tr>
<th>Project</th>
<th>Item</th>
<th>Proposed by A&amp;E Firm</th>
<th>Questioned Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Space</td>
<td>Cost</td>
</tr>
<tr>
<td>P-027T</td>
<td>Academic Instruction Building</td>
<td>3,984 sf</td>
<td>$ 744,020</td>
</tr>
<tr>
<td>P-028T</td>
<td>Physical Fitness Center</td>
<td>9,000 sf</td>
<td>1,173,692</td>
</tr>
<tr>
<td>P-029T</td>
<td>Small Arms Magazine</td>
<td>480 sf</td>
<td>122,430</td>
</tr>
<tr>
<td></td>
<td>Ordnance Operations Building</td>
<td>790 sf</td>
<td>122,430</td>
</tr>
<tr>
<td>P-518S</td>
<td>Academic Instruction Building</td>
<td>4,833 sf</td>
<td>785,084</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$2,947,656</td>
</tr>
</tbody>
</table>

1Cost includes 5 percent for contingency costs and 6 percent for supervision, inspection, and overhead costs.
2Square feet.

Project P-027T, Training and Administrative Facility

Project P-027T is for the construction of a training and administrative facility, which includes a training building, an administrative office building, and an addition to the aircraft operations building. Marine Corps officials could not provide documentation to support that the requirement for a 3,984-square-foot academic training building was all BRAC-related. Therefore, the project could not be fully justified, and the project cost estimate was unsupported by $744,020 for the 3,984-square-foot training building requirement.

According to Marine Corps officials, the instruction building is for the use of the Marine Expeditionary Unit (Special Operations Capability). However, Marine Corps officials could not provide any documentation to support that the instruction building requirement was all attributable to BRAC. Because Marine Corps officials could not justify that the instruction building requirement was all
Finding A. Estimation of Costs for Defense Base Realignment and Closure
Military Construction Projects

triggered by BRAC, the total cost of the instruction building was questionable
and should not be a part of project P-027T. Therefore, the cost for project
P-027T was overstated by $744,020.

Project P-028T, Bachelor Enlisted Quarters and Physical
Fitness Center

Project P-028T is for the construction of a bachelor enlisted quarters and
physical fitness center to accommodate realigning squadron personnel. Two
types of overstatements for the physical fitness center were made on the A&E
report. First, the number of square feet was overestimated. Also, the A&E
project cost estimate included both the realigning personnel requirement and the
non-BRAC personnel requirement. Because the fitness center requirement
included a non-BRAC requirement, the project should be only partly funded
with BRAC funds. As a result of both inaccuracies, the BRAC project cost as
estimated by the A&E for the fitness center was overstated by $1,011,462.

Overestimated Square Footage. The A&E cost estimate included a
requirement for construction of a 9,000-square-foot fitness center at a cost of
$1,173,692. The A&E basic cost estimate for the fitness center amounted to
$1,054,530 ($111.17 per square foot). We added to the project cost $52,727
for contingencies and $66,435 for other related costs. Thus, the construction of
the 9,000-square-foot fitness center has an estimated total cost of $1,173,692.

The project requirement for the physical fitness center was overestimated by
7,756 square feet (9,000 square feet minus 1,244 square feet). Using
NAVFAC P-80 criteria, we calculated the requirement for the physical fitness
center. Based on 4,386 personnel at MCAS Camp Pendleton, as shown on the
Marine Corps MILCON planning documents, we calculated a requirement of
7,774 square feet for the physical fitness center.

Non-BRAC Requirements. The requirement for the physical fitness center
was based on the total number of personnel assigned to MCAS Camp
Pendleton, including those whose assignments were not BRAC-related. The
total number of personnel was 4,386. According to the Marine Corps MILCON
planning documents, 688 personnel are being assigned to MCAS Camp
Pendleton resulting from BRAC, which represents 16 percent (688 divided by
4,386) of all the personnel assigned. Thus, the fitness center requirement
attributable to BRAC equates to 1,244 square feet (16 percent of 7,774 square
feet). The estimated total cost for the BRAC portion should be $162,230. That
total represents a cost of $145,759 ($117.17 per square feet times 1,244 square
feet, plus $7,288 for contingencies and $9,183 for other related costs).

Funding for the BRAC Requirement. Because MCAS Camp Pendleton had
an existing need for a physical fitness center prior to BRAC, Project P-028T
should be funded only for 16 percent of our calculated requirement of 7,774
square feet. Costs were, therefore, overstated by $1,011,462 ($1,173,692 [the
A&E amount] minus $162,230 [the amount we calculated]).
Project P-029T, Warehouse and Special Storage Facilities

Project P-029T is for the construction of warehouse and special storage facilities, which include a general-purpose, high-bay warehouse; a storehouse for hazardous and flammable agents; a small arms magazine; and an ordnance operations building.

Project P-029T contained requirements that the Marine Corps submitted on the DD Form 1391 but that did not become part of the A&E project cost estimate. The Marine Corps included on the DD Form 1391 invalid requirements totaling $244,860, which included contingency, supervision, inspection, and overhead costs for a small arms magazine and an ordnance operations building. Although the submission of the invalid requirements would have no effect on the total project costs because the requirements were not included in the A&E 100-percent design cost estimate, the Marine Corps should submit a revised DD Form 1391 for project P-029T to eliminate the invalid requirements.

Small Arms Magazine. Marine Corps planning officials submitted on DD Form 1391 for a 480-square-foot requirement to build a small arms magazine at an estimated cost of $122,430 including costs for contingency, supervision, inspection, and overhead. The small arms magazine, also called ready magazine, is used to store certain types of ammunition or weapons in a ready service condition for arming an aircraft or to store temporarily ammunition or weapons from an aborted flight. After completion of the MILCON planning documents, the Marine Corps determined that an existing facility would satisfy the small arms magazine requirement. Therefore, the Marine Corps should eliminate the requirement for construction of a small arms magazine from the DD Form 1391.

Ordnance Operations Building. Part of the total requirements the Marine Corps planning officials submitted on DD Form 1391 was for the construction of a 790-square-foot ordnance operations building totaling $122,430, which included costs for contingency, supervision, inspection, and overhead. The ordnance operations building provides spaces for an office assembly and briefing for ammunition handlers and storage of ammunition handling tools and equipment. The MILCON planning documents showed that the requirements for the building would be satisfied by new construction under two non-BRAC projects. Therefore, construction of the ordnance operations building using BRAC funds is not needed and the Marine Corps should eliminate the requirement for the ordnance operations building from the DD Form 1391.

Project No. P-518S, Aircraft Maintenance Facilities

Project P-518S is for the construction of aircraft maintenance facilities, which include a maintenance hangar, an aircraft parking apron, additions to an aviation maintenance complex building, and a tactical van pad and utility building. The A&E cost estimate included a requirement for construction of an academic
Finding A. Estimation of Costs for Defense Base Realignment and Closure
Military Construction Projects

instruction facility within the aviation maintenance complex building totaling 4,833 square feet. The A&E cost estimate for the instruction building amounted to $705,376 ($145.95 per square foot), plus $35,269 for contingency costs and $44,439 for related costs. Thus, the construction of the academic instruction building would have an estimated total cost of $785,084. According to Marine Corps officials, the instruction building was for the use of the Naval Aviation Engineering Support Unit. However, the Marine Corps could not provide documentation to show the new facility was for use by the personnel moving to MCAS Camp Pendleton as a result of BRAC. In addition, the Marine Corps could not provide documentation supporting the number of BRAC student personnel that formed the basis for the instruction building requirement. Therefore, project P-518S should not include a requirement for a new academic instruction building and the A&E cost estimate for the project should be reduced by $785,084.

Summary of Questioned Project Costs

Table 4 on the next page summarizes the total costs questioned by the audit for the four projects. The Under Secretary of Defense (Comptroller) should place the four projects on administrative withhold until the Marine Corps submits its financial plan (Form 460) to reflect the A&E 100-percent-design project cost estimates and revised DD Form 1391 to reflect the elimination of invalid project requirements.

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Cost Adjustment Resulting from A&amp;E 100-percent estimate (millions)</th>
<th>Questioned Requirements Cost (millions)</th>
<th>Total (millions)</th>
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<tr>
<td>P-027T</td>
<td>$0.32</td>
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<td>P-518S</td>
<td>3.57</td>
<td>.785</td>
<td>4.355</td>
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<tr>
<td>Total</td>
<td>$4.14</td>
<td>$2.785</td>
<td>$6.925</td>
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</table>
Revised and Renumbered Recommendations. As a result of management comments and our review of supporting documentation provided by the Navy after the audit, we revised Recommendations A.1.a and A.2.a.

A.1. We recommend that the Under Secretary of Defense (Comptroller):

a. Place funds for the following projects on administrative withhold until the Marine Corps accurately substantiates requirements and costs.


(2) Project P-028T, "Bachelor Enlisted Quarters and Physical Fitness Center," $2.461 million.


b. Place project P-029T, "Warehouse and Special Storage Facilities," on administrative withhold until management submits a revised DD Form 1391, "FY 1997 Military Construction Project Data," to accurately reflect requirements and costs.

Under Secretary of Defense (Comptroller) Comments. The Under Secretary of Defense (Comptroller) generally agreed with the audit findings and recommendations and stated that the funding for the projects will be placed on administrative withhold pending audit resolution.

A.2. We recommend that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics):

a. Submit Form 460, "DoD Base Closure Account Financial Plan," for the following projects to reflect base realignment and closure valid requirements and more realistic costs. The Form 460, "DoD Base Closure Account Financial Plan," should reflect the reduced budget estimate supported by the architecture and engineering cost estimates (including contingency and other related costs) and should be fully supported by the required military construction planning documents.

(1) Project P-027T, "Training and Administrative Facility."

(2) Project P-028T, "Bachelor Enlisted Quarters and Physical Fitness Center."

(3) Project P-518S, "Aircraft Maintenance Facilities."
Finding A. Estimation of Costs for Defense Base Realignment and Closure
Military Construction Projects

Management Comments. The Marine Corps nonconcurred with the draft report recommendations. The Marine Corps stated that current requirements from the Navy, the Under Secretary of Defense (Comptroller), and Congress require that cost estimates on the DD Forms 1391 be based on a level of design, usually 35 percent, which ensures that estimates are reasonably accurate at the time they are submitted. Additionally, the Marine Corps stated that there is no requirement that DD Form 1391 estimates be based on final design documents and that there is no requirement to adjust and resubmit DD Forms 1391 later in the budget process to reflect final design costs.

Audit Response. It was not our intent to imply that DD Forms 1391 are required to be based on final design documents and be resubmitted to reflect final design costs. Inherent to the budget process is a requirement to continuously refine budget estimates to allow for more efficient budget programming that eventually translates into an efficient allocation of funds. In the case of the Camp Pendleton projects, the Marine Corps could not provide MILCON planning documents to support the project cost estimates submitted on DD Forms 1391. Additionally, neither the Marine Corps nor our audit could prove that the budget estimates on the submitted DD Forms 1391 were accurate.

During the audit, the A&E project designs were already at 100 percent and cost estimates had been completed. Because the A&E estimates would provide more realistic project cost estimates and a higher probability for budget accuracy, the Marine Corps should adjust project budget estimates considering the 100-percent A&E estimates. We revised the recommendations to submit Forms 460 for projects P-027T, P-028T, and P-518S because BRAC MILCON FY 1996 funding for these projects had already been appropriated by Congress. We request that the Marine Corps provide additional comments on revised Recommendation A.2.a. in response to the final report.

Management Comments Regarding Project P-027T. The Marine Corps nonconcurred with adjusting the project budget estimate for Project P-027T based on the A&E estimate. The Marine Corps also nonconcurred with the recommendation to reduce the budget estimate based on training and administrative facility requirements questioned by the audit and stated that the Marine Expeditionary Unit (Special Operations Capability) will be "standing up" once the CH-46 helicopter squadrons arrive at MCAS Camp Pendleton. Some examples of the training to be conducted are general pilot, instrument ground school, production control, quality assurance, flight equipment, power plants, intermediate maintenance requirements list, maintenance administration, etc. The training will support not only the Marine Expeditionary Unit (Special Operations Capability) mission, but other missions as well. Therefore, the project is BRAC-related and the cost was not overstated.

Audit Response. The project budget estimate should be adjusted based on the most realistic estimate. In regard to the training facility requirement, we agree that the Marine Expeditionary Unit (Special Operations Capability) has training facility requirements. However, we maintain our position that the Marine Corps has not provided justification for the training facility requirement submitted under project P-027T and that requirement appears to be both BRAC- and non-BRAC-related. In our opinion, the total cost of the instruction building
Finding A. Estimation of Costs for Defense Base Realignment and Closure
Military Construction Projects

should not be funded under the BRAC account. As stated by the Marine Corps, the training will also support missions other than those directly attributable to the Marine Expeditionary Unit (Special Operations Capability).

Management Comments Regarding Project P-28T. The Marine Corps nonconcurred with adjusting the project budget estimate for Project P-28T based on the A&E estimate. After reviewing the supporting documentation, the Marine Corps agreed that the original requirement for the fitness center contained non-BRAC-related personnel. However, the Marine Corps stated that more than 688 personnel are being assigned to MCAS Camp Pendleton due to BRAC and that the facility size should be based on the number of personnel relocating (833 personnel) due to BRAC. In addition, the Marine Corps stated that because there is no existing physical fitness center at MCAS Camp Pendleton, and the personnel relocating from MCAS Tustin to MCAS Camp Pendleton had an adequate physical fitness center before BRAC actions, these personnel are entitled to a new physical fitness center. Utilizing NAVFAC P-80 criteria, the Marine Corps calculated a revised minimum physical fitness center size estimate of 5,582 square feet, with an estimated cost of $945,000.

Audit Response. The budget estimate for Project P-28T should be adjusted based on the most realistic estimate. In regard to reducing the budget estimate based on the fitness center requirement determined by the audit, we believe the minimum-sized physical fitness center proposed by the Marine Corps would use BRAC funds to satisfy existing MCAS Camp Pendleton physical fitness center deficiencies. Based on a base loading of 3,983 personnel, the Marine Corps calculated an MCAS Camp Pendleton physical fitness center deficiency totaling 6,140 square feet. The Marine Corps stated that because NAVFAC P-80 allows a minimum facility of 5,582 square feet for the 883 personnel relocating as a result of BRAC, the facility should be funded based on the 5,582 square feet. If constructed, the Marine Corps' proposed minimum-sized facility would satisfy 91 percent (5,582/6,140) of the MCAS Camp Pendleton physical fitness center deficiency. BRAC should fund only the share of the total MCAS Camp Pendleton basic facility requirement attributable to BRAC actions.

Management Comments Regarding Project P-518S. The Marine Corps nonconcurred with the Naval Aviation Engineering Support Unit instruction facility requirement questioned by the audit, stating that as a result of BRAC, the MCAS Camp Pendleton facility support requirement document shows a programmed staffing of 2 enlisted and 14 civilian personnel under the Naval Aviation Engineering Support Unit. The staffing showed an increase of 10 civilians, of which 2 are non-BRAC related, with the other 8 supporting the relocated squadrons. The Marine Corps also stated that the Naval Aviation Engineering Support Unit requires a total of 9,000 square feet of instruction facility and that 7,445 square feet are related to BRAC, but only 4,833 square feet are to be built under project P-518S.

Audit Response. The project budget estimate should be adjusted based on the most realistic estimate. In regard to the facility requirement, we do not dispute that the Naval Aviation Engineering Support Unit might have an additional training facility requirement. However, as stated in the report, the Marine Corps could not provide supporting documents on how it arrived at the
Finding A. Estimation of Costs for Defense Base Realignment and Closure
Military Construction Projects

estimates; therefore, we were unable to validate them. The Marine Corps
provided additional documents to support Naval Aviation Engineering Support
Unit requirement in responding to the draft report. However, the data in the
document were not supported with sufficient detail for us to verify
reasonableness of the instruction facility requirement under project P-518S.
The current Basic Facility Requirements the Marine Corps provided us during
our review shows a total requirement of 5,339 square feet for the Naval
Aviation Engineering Support Unit, both BRAC and non-BRAC. The document
the Marine Corps provided in response to the draft report shows a total
requirement of 7,445 square feet for the training facility for CH-46 squadrons
alone.

b. Submit a revised DD Form 1391, "Military Construction Project
Data," for project P-029T, "Warehouse and Special Storage Facilities," that
reflects valid Defense base realignment and closure requirements and costs.
The revised DD Form 1391 should be supported by the architecture and
engineering firm cost estimates and should reflect the exclusion of invalid
requirements submitted on previous DD Form 1391.

Management Comment. The Marine Corps did not concur with the draft
report recommendation to revise the DD Form 1391 to adjust the project budget
estimate based on the A&E 100-percent cost estimate. The Marine Corps
agreed that the requirements under project P-029T for a small arms magazine
and an ordnance operations building were submitted on the DD Form 1391 and
did not become part of the A&E design cost estimate and that they were invalid
requirements. However, the Marine Corps did not agree to revise the
DD Form 1391 to exclude these invalid requirements. The Marine Corps stated
that there is no requirement to adjust and resubmit the DD Forms 1391 at a later
point in time in the budget process to reflect final design costs.

Audit Response. It was not our intent to imply that the DD Form 1391 must
be resubmitted at a later time to reflect the final design cost. The resubmission
of DD Form 1391 would be most logical if substantial differences exist and the
timing in the budget process would still allow adjustment to the DD Form 1391
to reflect the most accurate budget estimate. However, because the Marine
Corps officials knew that the DD Form 1391 for project P-029T contained
invalid requirements, we believe that the Marine Corps should resubmit revised
DD Form 1391 to prevent funding of the invalid requirements. Therefore, we
believe that the recommendation is still valid, and we request that the Marine
Corps provide additional comments on Recommendation A.2.b in response to
the final report.
Finding B. Adequacy of Defense Base Realignment and Closure Project Documentation

The Marine Corps did not provide documentation to support cost estimates for project P-026T and one project item in project P-031T. The project cost estimates could not be supported because the Marine Corps planning officials had not completed the required MILCON planning documents resulting from the total redesign of the projects. As a result, cost estimates for the entire project P-026T and for one item, "Engine Test Cell," in project P-031T could not be validated.

Redesigning of the Projects

According to the Marine Corps planning officials, the entire project P-026T and an item in project P-031T, "Engine Test Cell," were to undergo a complete redesign and reconfiguration as a result of decisions made by the engineers and the Marine Corps headquarters. Although MILCON planning documents had been prepared before the redesign decision, the total redesign of the projects would invalidate those documents as being supportable to the project requirements and costs. At the time of our review, the Marine Corps planning officials stated that they were aware that a complete new set of MILCON planning documents would be prepared for project support; however, those documents had not been prepared. Because the documents were not yet available, no viable basis for audit existed; therefore, we could not validate the cost estimates for projects.

Project P-026T, Aircraft Parking Apron

The Marine Corps submitted a DD Form 1391 to request funding for project P-026T for the construction of a fueling access apron, a ready fuel storage facility, a direct fueling station, and a fuel spill containment facility. The most current submitted DD Form 1391 shows a budget request for a total of 66,320 square yards of facilities at a cost of $14.32 million. The May 18, 1995, A&E cost estimate shows a requirement for a 46,778-square-yard fueling access apron, a 180,000-gallon-capacity bulk fuel station, and a 1,349-square-foot fuel facility building. The total A&E estimated cost for the project was $10,291,803, but did not include the environmental mitigation cost the Marine Corps requested on DD Form 1391. However, because of the Marine Corps Headquarters decision to locate the fueling station to the north side of the runway instead of the east side, the project needs to be redesigned. According to the NAVFAC Southwest Division engineers, the total redesigning of the project would set back the A&E project design phase. Also, the
Finding B. Adequacy of Defense Base Realignment and Closure Project Documentation

engineers plan next time to include environmental mitigation in the project, which would increase costs. Consequently, the previously completed A&E 100-percent-design cost estimates are invalid for the purpose of supporting the project requirements and cost.

Project P-031T, Engine Test Cell

One of the project line items contained on the DD Form 1391 that the Marine Corps submitted for project P-031T is the engine test cell. The DD Form 1391 shows a request for 3,720 square feet of engine test cell at a cost of $3.54 million, excluding construction costs for contingency, supervision, inspection, and overhead. The A&E estimated at 100-percent design that the facility, considering new construction, would cost $2.35 million. Both Marine Corps personnel and NAVFAC Southwest Division engineers told us that the engine test cell would be totally redesigned for modification instead of new construction by engineers from another division. According to the Marine Corps officials, the NAVFAC South Division engineers, who have more experience in engine test cell modification, would be responsible for the redesign of the engine test cell. Because the redesign had not been accomplished, Marine Corps planning officials could not provide documentation to support the cost of the engine test cell. Therefore, we could not validate the engine test cell project.

Recommendations, Management Comments, and Audit Response

Revised Recommendations. As a result of management comments, we revised draft Recommendations B.1. and B.2. Also, we added Recommendations B.1.b. and B.2.b. Therefore, we ask that the Under Secretary of Defense (Comptroller) provide comments on Recommendations B.1.a. and B.1.b. in response to the final report. Also, we ask that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics) provide comments on Recommendations B.2.a. and B.2.b. in response to the final report.

B.1. We recommend that the Under Secretary of Defense (Comptroller):

Finding B. Adequacy of Defense Base Realignment and Closure Project Documentation

b. Place $3.54 million of funds for project P-031T, "Maintenance Facilities" on administrative withhold until the Marine Corps submits revised DD Form 1391, "Military Construction Project Data," to accurately reflect requirements and costs.

Under Secretary of Defense (Comptroller) Comments. The Under Secretary of Defense (Comptroller) generally agreed with the audit findings and recommendations and stated that the funding for the projects will be placed on administrative withhold pending audit resolution.

B.2. We recommend that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics):

a. Submit a financial plan (Form 460) for project P-026T, "Aircraft Parking Apron," to reflect valid base realignment and closure requirements and costs. The revised financial plan should be fully supported by the required military construction planning documents that are based on the redesign.

b. We recommend that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics) submit a revised DD Form 1391, "Military Construction Project Data," for project P-031T to reflect valid base realignment and closure planning documents that are based on the redesigned "Engine Test Cell."
Part II - Additional Information
Appendix A. Scope and Methodology

Scope of This Audit. We examined the FY 1996 BRAC MILCON budget requests and supporting documentation for five projects submitted as an FY 1996 projects and one project submitted as an FY 1997 project, estimated to cost $90.75 million. The Marine Corps submitted the six projects for construction of facilities to support the realignment of four CH-46 helicopter squadrons and four CH-53E helicopter aircraft to MCAS Camp Pendleton, California.

Audit Period, Standards, and Locations. This economy and efficiency audit was performed from January through March 1996 in accordance with auditing standards issued by Comptroller General of the United States as implemented by the Inspector General, DoD. The audit did not rely on computer-processed data or statistical sampling procedures. Appendix E lists the organizations visited or contacted during the audit.
Appendix B. Summary of Prior Audits and Other Reviews

Since 1991, numerous audit reports have discussed DoD BRAC issues. This appendix lists the summary reports for the audits of BRAC budget for FYs 1992 through 1996 and BRAC audit reports published since the summary reports.

Inspector General, DoD

<table>
<thead>
<tr>
<th>Report No.</th>
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<tr>
<td>96-209</td>
<td>Defense Base Realignment and Closure Budget Data for the Closure of Defense Electronics Supply Center Dayton, Ohio, and Realignment to Defense Supply Center Columbus, Ohio</td>
<td>August 13, 1996</td>
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<tr>
<td>96-206</td>
<td>Defense Base Realignment and Closure Budget Data for the Realignment of Navy and Air Force Food Services Training at Lackland Air Force Base, Texas</td>
<td>August 2, 1996</td>
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<tr>
<td>96-204</td>
<td>Defense Base Realignment and Closure Budget Data for the Realignment of the Deployment Function for the 10th Mountain Infantry (Light) Division to Fort Drum, New York</td>
<td>July 31, 1996</td>
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<tr>
<td>96-191</td>
<td>Defense Base Realignment and Closure Budget Data for the Relocation of the Carrier Air Wings From Naval Air Station Miramar, California, to Naval Air Station Lemoore, California</td>
<td>July 3, 1996</td>
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## Appendix B. Summary of Prior Audits and Other Reviews

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<td>96-166</td>
<td>Defense Base Realignment and Closure Budget Data for the Closure of Lowry Air Force Base, Colorado, and Realignment to Sheppard Air Force Base, Texas</td>
<td>June 18, 1996</td>
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<td>96-165</td>
<td>Defense Base Realignment and Closure Budget Data for the Construction of the Hazardous Material Storage Addition to Warehouse 28 at Defense Distribution Region West Tracy, California</td>
<td>June 17, 1996</td>
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<tr>
<td>96-158</td>
<td>Defense Base Realignment and Closure Budget Data for the Redirect of the 726th Air Control Squadron From Shaw Air Force Base, South Carolina, to Mountain Home Air Force Base Idaho</td>
<td>June 11, 1996</td>
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<tr>
<td>96-154</td>
<td>Defense Base Realignment and Closure Budget Data for the Realignment of the National Airborne Operations Center to Wright-Patterson Air Force Base, Ohio</td>
<td>June 10, 1996</td>
</tr>
<tr>
<td>96-147</td>
<td>Defense Base Realignment and Closure Budget Data for the Closure of Naval Training Center Orlando, Florida, and Realignment of Maintenance and Storage Facilities to the U.S. Army Reserve Center, Orlando, Florida</td>
<td>June 6, 1996</td>
</tr>
<tr>
<td>96-144</td>
<td>Defense Base Realignment and Closure Budget Data for the Realignment of Grissom Air Reserve Base, Indiana</td>
<td>June 6, 1996</td>
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<tr>
<td>96-142</td>
<td>Defense Base Realignment and Closure Budget Data for the Closure of Bergstrom Air Reserve Base, Texas, and Realignment of the 10th Air Force Headquarters to Naval Air Station Fort Worth, Joint Reserve Base, Texas</td>
<td>June 5, 1996</td>
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## Appendix B. Summary of Prior Audits and Other Reviews

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<tr>
<td>96-137</td>
<td>Defense Base Realignment and Closure Budget Data for the Realignment of March Air Force Base, Riverside, California</td>
<td>May 31, 1996</td>
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<td>96-131</td>
<td>Defense Base Realignment and Closure Budget Data for Realigning Elements of Headquarters, Department of the Navy, to the Washington Navy Yard</td>
<td>May 28, 1996</td>
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<td>96-128</td>
<td>Defense Base Realignment and Closure Budget Data for the Naval Training Center Great Lakes, Illinois</td>
<td>May 24, 1996</td>
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<td>96-127</td>
<td>Defense Base Realignment and Closure Budget Data for the Closure of Roslyn Air National Guard Base and Realignment to Stewart Air National Guard Base, New York</td>
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<td>96-119</td>
<td>Defense Base Realignment and Closure Budget Data for the Construction of a Multiple Purpose Facility at Fort McCoy, Wisconsin</td>
<td>May 14, 1996</td>
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<td>96-118</td>
<td>Defense Base Realignment and Closure Budget Data for the Medical and Dental Clinic Expansion Project at Naval Weapons Station Charleston, South Carolina</td>
<td>May 13, 1996</td>
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<td>96-116</td>
<td>Defense Base Realignment and Closure Budget Data for the Relocation of Deployable Medical Systems to Hill Air Force Base, Ogden, Utah</td>
<td>May 10, 1996</td>
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<tr>
<td>96-112</td>
<td>Defense Base Realignment and Closure Budget Data for the Closure of Naval Air Station Cecil Field, Florida, and Realignment of the Aviation Physiology Training Unit to Naval Air Station Jacksonville, Florida</td>
<td>May 7, 1996</td>
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<tr>
<td>96-104</td>
<td>Defense Base Realignment and Closure Budget Data for the Construction of the Overwater Antenna Test Range Facility at Newport, Rhode Island</td>
<td>April 26, 1996</td>
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<tr>
<td>96-101</td>
<td>Defense Base Realignment and Closure Budget Data for the Closure of Naval Air Station Barbers Point, Hawaii, and Realignment of P-3 Aircraft Squadrons to Naval Air Station Whidbey Island, Washington</td>
<td>April 26, 1996</td>
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## Appendix B. Summary of Prior Audits and Other Reviews

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Appendix C. Background of Defense Base Realignment and Closure and Scope of the Audit of FY 1997 Defense Base Realignment and Closure Military Construction Costs

Commission on Defense Base Closure and Realignment. On May 3, 1988, the Secretary of Defense chartered the Commission on Defense Base Closure and Realignment (the 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 renovation 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 verify that the process for realigning and closing military installations was timely and independent. 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 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 Cost of Base Realignment Actions computer model. The Cost of Base Realignment Actions 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 1997 Military Construction Project Data," for each MILCON project required to accomplish the realigning actions. The Cost of Base Realignment Actions 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.
Appendix C. Background of Defense Base Realignment and Closure and Scope of
the Audit of FY 1997 Defense Base Realignment and Closure Military
Construction Costs

Limitations and Expansion to Overall Audit Scope. Because the Cost of
Base Realignment Actions 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 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 FY 1997 BRAC MILCON
$820.8 million budget submitted by the Military Departments and the Defense
Logistics Agency. We excluded projects that were previously reviewed by DoD
audit organizations. We grouped the remaining BRAC MILCON projects by
location and selected groups of projects that totaled at least $1 million for each
group. We also reviewed those FY 1996 BRAC MILCON projects that were
not included in the previous FY 1996 budget submission, but were added as part
of the FY 1997 BRAC MILCON budget package.
Appendix D. Projects Identified as Partially Valid

Table D-1. Causes of Partially Valid Projects

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<tr>
<th>Project Location</th>
<th>Project Number</th>
<th>Causes of Partially Valid Projects</th>
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<td>P-028T</td>
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<td>MCAS Camp Pendleton</td>
<td>P-031T</td>
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<td>MCAS Camp Pendleton</td>
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Table D-2. Recommended Changes in Project Estimates

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<th>Project Location</th>
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<th>Amount of Estimate on DD Form 1391 (thousands)</th>
<th>Recommended Amount of Change Partially Valid Projects (thousands)</th>
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<td>MCAS Camp Pendleton</td>
<td>P-028T</td>
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<td>P-029T</td>
<td>6,080</td>
<td>(955)</td>
</tr>
<tr>
<td>MCAS Camp Pendleton</td>
<td>P-031T</td>
<td>18,210</td>
<td>3,540*</td>
</tr>
<tr>
<td>MCAS Camp Pendleton</td>
<td>P-518S</td>
<td>38,230</td>
<td>4,355*</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$90,750</td>
<td>$24,785</td>
</tr>
</tbody>
</table>

Total Partially Valid Projects: $24,785

*Unsupported and overstated.
Appendix E. Organizations Visited or Contacted

Office of the Secretary of Defense
Under Secretary of Defense (Comptroller), Washington, DC

Department of the Navy
Office of the Comptroller of the Navy, Washington, DC
Deputy Chief of Staff of the Marine Corps (Installations and Logistics), Washington, DC
Marine Corps Air Station El Toro, CA
Marine Corps Air Station Camp Pendleton, CA
Naval Facilities Engineering Command, Alexandria, VA
    Naval Facilities Engineering Command, San Diego, CA
Appendix F. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Deputy Under Secretary of Defense (Industrial Affairs and Installations)
  Principal Assistant Deputy Under Secretary of Defense (Industrial Affairs and Installations)
Assistant to the Secretary of Defense (Public Affairs)
Director, Defense Logistics Studies Information Exchange

Department of the Army

Auditor General, Department of the Army

Department of the Navy

Commandant of the Marine Corps
Assistant Secretary of the Navy (Financial Management and Comptroller)
Deputy Chief of Staff of the Marine Corps (Installations and Logistics)
Commander, Naval Facilities Engineering Command
  Commander, Southwest Division
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force
Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
Inspection General, National Security Agency
Inspection General, Defense Intelligence Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division,
General Accounting Office

Chairman and ranking minority member of each of the following congressional
committees and subcommittees:

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Subcommittee on Military Construction, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Military Construction, Committee on Appropriations
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal
Justice, Committee on Government Reform and Oversight
House Committee on National Security
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Part III - Management Comments
MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING, DOD IG

SUBJECT: DoD IG Draft Audit Report Defense Base Realignment and Closure Budget Data for Closure of Marine Corps Air Station Tustin, California, and Realignment of Helicopter Squadrons and Aircraft to Marine Corps Air Station Camp Pendleton, California (Project No. 6CG-5001.22)

This responds to your June 12, 1996, memorandum requesting our comments on the subject report.

The audit states that the Navy may have overstated requirements and costs for projects P-026T, "Aircraft Parking Apron;" P-027T, "Training and Administrative Facility;" P-028T, "BRQ and Physical Fitness Center;" P-039T, "Warehouse and Special Storage Facilities;" P-031T, "Maintenance Facilities;" and P-518S, "Aircraft Maintenance Facilities," associated with the realignment of aircraft from Marine Corps Air Station Tustin, California, to Marine Corps Air Station Camp Pendleton, California. The audit contends this occurred because the Navy overstated facility requirements and included no Base Realignment and Closure (BRAC) requirements in the DD 1391 forms.

The audit recommends that the USD(Comptroller) place the funds for projects P-026T, P-027T, P-028T, P-039T, P-031T, and P-518S on administrative withhold until the Navy submits revised DD 1391 forms to accurately reflect requirements and costs.

We generally agree with the audit findings and recommendations; however, since the Navy has not officially commented on the report and the amount of the savings in dispute, we will place the funding for the projects on administrative withhold pending audit resolution. Also, we will reprogram any savings resulting from the audit to other BRAC requirements as appropriate.

B. R. Paseur
Director for Construction
MEMORANDUM FOR DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR GENERAL FOR AUDITING

Subj: DODIG DRAFT AUDIT REPORT ON DEFENSE BASE REALIGNMENT AND CLOSURE BUDGET DATA FOR CLOSURE OF MARINE CORPS AIR STATION TUSTIN, CALIFORNIA, AND REALIGNMENT OF HELICOPTER SQUADRONS AND AIRCRAFT TO MARINE CORPS AIR STATION CAMP PENDLETON, CALIFORNIA (PROJECT NO. 6CG-5001.22)

I am responding to the draft audit report forwarded by Attachment 1, concerning base realignment and closure budget data for the closure of Marine Corps Air Station Tustin, California and realignment of helicopter squadrons and aircraft to Marine Corps Air Station Camp Pendleton, California. The Department of the Navy response is provided in Attachment 2.

Duncan Holaday
Deputy Assistant Secretary (Installations and Facilities)

Attachments:
1. DODIG memo of June 12, 1996
2. DON response to DODIG Draft Audit Report of June 12, 1996

Copy to:
USD(C)
ASN(FMB)
ASN(FMO-31)
CMC(RFR)
CMC(LF)
DEPARTMENT OF THE NAVY COMMENTS
ON
DODIG DRAFT AUDIT REPORT
ON
DEFENSE BASE REALIGNMENT AND CLOSURE BUDGET DATA
FOR CLOSURE OF MARINE CORPS AIR STATION TUSTIN,
CALIFORNIA, AND REALIGNMENT OF HELICOPTER
SQUADRONS AND AIRCRAFT TO MARINE CORPS AIR
STATION CAMP PENDLETON, CALIFORNIA
PROJECT NO. 6CG-5001.22

Encl: (1) BFRG Item Determination Sheets (11200)
(2) Facility Cost Development Sheets
(3) BRAC Camp Pendleton Project Funding Requirement
(4) Commander, Naval Facilities Engineering Command ltr of 17 Jul 96
(5) Environmental Impact Statement (excerpt)
(6) Facility Support Requirement (5 Aug 1995)
(7) Space Allowance for Fitness Center (3,983 personnel)
(8) Space Allowance for Fitness Center (683 personnel)
(9) KMA Architecture & Engineering ltr of 18 July 1996
(10) Aircraft Parking Plan / Striping Key Plan
(11) CH-46 Apron Space Requirement
(12) CH-53E (Detachment) Apron Space Requirement
(13) NABSU General Academic Instruction Classroom (based on BFR dated September 94)

General

DODIG

The draft audit report concerns proposed MCAS Camp Pendleton BRAC construction. All six projects were reviewed and have a combined value of $90.75 million. With regard to five projects (P-027T, P-028T, P-029T, P-031T, and P-518S) the auditors claim $6.57 million in savings due to the aggregate of the Architect and Engineering (A&E) 100 percent design estimates being lower (one was higher) than the estimates shown on the DD Forms 1391 submitted to Congress in February 1995. Another $5.7 million in savings was claimed due to scope the IG asserts the Marine Corps cannot justify under BRAC rules. The sixth project (P-026T), the IG recommended administrative funding withhold until the A&E 100 percent designs are completed so that they can validate the requirements and costs. In total the DODIG claimed savings of $12.27 million and recommended administrative funding withhold on all six BRAC military construction projects at MCAS Camp Pendleton until their
recommendations are met.

DON Response
The DON disagrees with a majority of the savings claimed and with the recommended corrective actions.

Planning Officials' Estimates

DODIG

"In February 1995, the Marine Corps submitted to the Under Secretary of Defense (Comptroller) the revised DD Forms 1391, which contained cost estimates for the five BRAC MILCON projects. However, planning officials could not provide us with any documentation to support the estimated costs for the projects because planning documents were not prepared until after the DD Forms 1391 were submitted. Therefore, the Marine Corps submitted five DD Forms 1391 for a total of $76.43 million and prepared the documentation 'after the fact.'"

DON Response:

Do not concur. Planning documents in the form of Basic Facility Requirements (BFR) were prepared prior to the DD Forms 1391 being submitted in February 1995. The latest preparation date on the BFRs is September 1994, Enclosure (1) provides a sample.

Naval Facilities Engineering Command (NAVFAC) reviewed and approved the DD Forms 1391 cost estimates submitted in February 1995. The cost estimates approved by NAVFAC were based on estimates prepared by the El Toro BRAC Team and are dated May 1994, Enclosure (2).

Use of A&E Estimates in Audit: Contingency and Other Related Costs

DODIG

"To provide a reasonable cost comparison between the submitted DD Forms 1391 and A&E cost estimates, we added contingency, supervision, inspection, and overhead costs to the A&E costs. The contingency cost is equal to five percent of the basic cost, and supervision, inspection, and overhead costs (SIGH) are equal to six percent of the sum of basic cost and contingency cost."

DON Response:

Do not concur. DODIG did not account for all construction contract
costs. NAVFAC defines the construction Funding Requirement (FR) as:
A&E estimate + Post Construction Award Services (negotiated) + In House
Support (.5% estimated) + Contingency + SIOH = Funding Requirement, see
Enclosure (3) as provided by NAVFAC.

Differences Among DD Forms 1391, A&E Reports, and Planning Documents:
Differences in Cost Estimates

DODIG

"Cost estimates on the DD Forms 1391 were different from those on the
A&E reports. The Marine Corps overestimated the overall costs for the
five projects because it failed to adjust costs on the DD Forms 1391 to
reflect the costs of the projects estimated at 100 percent design by the
independent A&E on its reports. As a result, the Marine Corps budgeted
$6.57 million more than needed for the five BRAC MILCON projects."

DON Response

Do not concur. The DODIG based their comments on DD Forms 1391
The final 100 percent design A&E estimates were not completed until
May/June 1996, which is consistent with the normal programming and
design time frame. Current Navy and OSD Comptroller, and Congressional
requirements for submission of DD Forms 1391 for budget year projects
require that cost estimates contained in the DD Forms 1391 be based on a
level of design, usually 35 percent, which ensures estimates are
reasonably accurate at the time they are submitted for review. Past
experience on facilities costs also contribute to the accuracy of the DD
Forms 1391 estimates. There is no requirement that these DD Forms 1391
estimates be based on final design (A&E) documents. There is also no
requirement to adjust and resubmit these DD Forms 1391 at a later point
in time in the budget process to reflect final design (A&E) costs. As
projects are awarded for construction, and subsequent budget reviews are
conducted, adjustments are made to account for any "savings" resulting
from prior year budgets established by DD Forms 1391 estimates.

Unlike the regular Navy military construction program, in the BRAC
construction program, project level "savings", or "overruns" are
reflected in subsequent budgets. The current funding required to
complete projects is updated in these subsequent budget submits. DD
Forms 1391, reflecting these "savings", or "overruns", are not required
to be resubmitted, unless necessary to meet Congressional notification
requirements (cost increase of $2 million or 25%, whichever is less from
the Congressional approved DD Forms 1391). (Enclosure (4))
DoD IG

"Table 2 shows the differences in the amount of estimated costs between the DD Forms 1391 and the A&E reports for each of the five BRAC MILCON projects. Table 2:

<table>
<thead>
<tr>
<th>Project DD Form</th>
<th>A&amp;E Estimate ($000)</th>
<th>Final Design ($000)</th>
<th>Difference ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-027T</td>
<td>3.16</td>
<td>2.84</td>
<td>0.32</td>
</tr>
<tr>
<td>P-028T</td>
<td>10.75</td>
<td>9.3</td>
<td>1.45</td>
</tr>
<tr>
<td>P-029T</td>
<td>6.08</td>
<td>7.28</td>
<td>(1.20)</td>
</tr>
<tr>
<td>P-031T</td>
<td>18.21</td>
<td>15.78</td>
<td>2.43</td>
</tr>
<tr>
<td>P-518S</td>
<td>38.23</td>
<td>34.66</td>
<td>3.57</td>
</tr>
<tr>
<td>Total</td>
<td>76.43</td>
<td>69.86</td>
<td>6.57</td>
</tr>
</tbody>
</table>

DoN Response

Do not concur. Based on a NAVFAC review of the A&E Final Design estimates, as supported by Enclosure (3), Table 2 should read:

<table>
<thead>
<tr>
<th>Project DD Form</th>
<th>A&amp;E Estimate ($000)</th>
<th>Final Design ($000)</th>
<th>Difference ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-027T</td>
<td>3.16</td>
<td>2.71</td>
<td>0.45</td>
</tr>
<tr>
<td>P-028T</td>
<td>10.75</td>
<td>11.14</td>
<td>(0.39)</td>
</tr>
<tr>
<td>P-029T</td>
<td>6.08</td>
<td>6.18</td>
<td>(0.10)</td>
</tr>
<tr>
<td>P-031T</td>
<td>18.21</td>
<td>16.5</td>
<td>1.71</td>
</tr>
<tr>
<td>P-518S</td>
<td>38.23</td>
<td>37.77</td>
<td>0.46</td>
</tr>
<tr>
<td>Total</td>
<td>76.43</td>
<td>74.29</td>
<td>2.14</td>
</tr>
</tbody>
</table>

We are not certain how the IG arrived at the figures in their Table 2. The figures may have been based on the 100 percent A&E design estimates, which are not considered final and official until reviewed by NAVFAC. In addition, we do not believe the IG's figures accounted for all legitimate construction contract costs (as stated in a previous response). A&E estimates rarely remain static. As the design and review process progresses, the construction estimates may vary and change.
due to many economic, design, and construction variables. A Final Design estimate does not assure the ability to award and complete a construction contract for the same amount. The actual amount will not be known until the project is completed and closed out. Therefore it would be inappropriate to adjust funding at this point based on the Final Design Estimate.

Differences Among DD Forms 1391, A&E Reports, and Planning Documents: Project Estimates by A&E

DODIG

"We believe the project estimates performed by an A&E based on the 100 percent design are the most realistic estimates. If and when the Marine Corps goes forward with its BRAC MILCON plan, the requested facilities would be constructed based on the data from the A&E 100 percent design cost estimates. The Marine Corps overestimated projects P-027T, P-028T, P-031T, and P-518S by $7.77 million and underestimated project P-029T by $1.2 million. Therefore, the total programmed funds for projects P-027T, P-028T, P-029T, P-031T, and P-518S as requested by the Marine Corps were overstated and should be reduced by $6.57 million."

DON Response

Do not concur. Once we go forward with our BRAC MILCON plan, the facilities will be constructed based on the scopes contained in the 100 percent final designs, but the costs will be based on the contract awarded to a construction company. The A&E 100 percent design costs are still estimates and their validity will not be shown until construction is complete. This is why there is not a Congressional, DOD Comptroller, or DON requirement to resubmit DD Forms 1391 based on Final Design estimates, nor is there a requirement to reduce/increase funding. Therefore, the programmed funds for MCAS Camp Pendleton BRAC MILCON should not be reduced based on 100 percent or Final Design estimates.

Project P-027T, Training and Administrative Facility

DODIG:

"According to Marine Corps officials, the instruction building is for the use of the Marine Expeditionary Unit (Special Operations Capability) (MEU(SOC)). However, Marine Corps officials could not provide any documentation to support that the instruction building requirement was attributable to BRAC and that a Marine Expeditionary Unit was moving to MCAS Camp Pendleton, California from MCAS Tustin, California. Because
Marine Corps officials could not justify that the instruction building requirement was triggered by BRAC, the total cost of the instruction building should not be a part of project P-027T. Therefore, the cost for project P-027T was overstated by $744,020."

DON Response:

Do not concur. A MEU (SOC) will be standing-up at MCAS Camp Pendleton due to the BRAC decision. The cost for project P-027T was not overstated.

MEU(SOC)s will stand-up on a regular basis once the CH-46 squadrons arrive at MCAS Camp Pendleton. A MEU(SOC) is not a permanent organization that is listed on the Installation's Facility Support Requirement (FSR). It is a unit that is formed for deploying. The MEU(SOC) Air Combat Element (ACE) is formed around a CH-46 squadron that is reinforced with AH-1s, UH-1s, and CH-53Es. Currently, the MEU(SOC)s form at MCAS Tustin. When the (4) CH-46 squadrons and NAS augment moving from MCAS Tustin arrive at MCAS Camp Pendleton (Enclosures 5 and 6), the MEU(SOC)s will form at MCAS Camp Pendleton. The training conducted will support the MEU(SOC) mission, but other training will be conducted that cannot be directly attributed to the MEU(SOC) mission. Some examples of the training to be conducted are: General Pilot, Instrument Ground School, Production Control, Quality Assurance, Flight Equipment, Power Plants, IMRL, Maintenance Administration, Respirator Operation, Facility Operator, First Responder, Incident Response, and Leadership to name a few. Therefore, the project is BRAC related and the cost for project P-027T was not overstated.

Project P-028T, Bachelor Enlisted Quarters and Physical Fitness Center

DODIG

"The project requirement for the physical fitness center was overestimated by 7,756 square feet (9,000 square feet minus 1,244 square feet). Using NAVFAC P-80 criteria, we calculated the requirement for the physical fitness center. Based on 4,386 personnel at MCAS Camp Pendleton, as shown on the Marine Corps planning documents, we calculated a requirement of 7,774 square feet for the physical fitness center."

DON Response:

Partial concur. The requirement for the physical fitness center was overestimated, but not by 7,756 square feet. The DODIG's calculations
for the correct size facility of 7,774 square feet were incorrect because they used an inaccurate base loading of 4,386 personnel.

As supported by the FSR, Enclosure (6), the correct base loading that should have been used is 3,983 personnel. The reduction of 403 personnel is due to one HMLA squadron always being deployed (Enclosures 5 and 6). Now applying 3,983 to the P-80 criteria you arrive at a facility size of 6,140 SF, Enclosure (7). Therefore our designed facility was oversized by 2,860 SF (9,000 - 6,140 SF) if we used the entire Air Station’s base loading.


discussion

"Non-BRAC Requirements. The requirement was based on the total number of personnel assigned to MCAS Camp Pendleton, including those whose assignments were not BRAC-related. The total number of personnel was 4,386 personnel. According to Marine Corps planning documents, 688 personnel are being assigned to MCAS Camp Pendleton resulting from BRAC, which represents 16 percent (688 divided by 4,386) of all the personnel assigned. Thus, the fitness center requirement attributable to BRAC equates to 1,244 square feet (16 percent of 7,774 square feet)."


don response

Partial concur. After reviewing documentation, we agree the original requirement for the Fitness Center contained non BRAC-related personnel. However, more than 688 personnel, are being assigned to MCAS Camp Pendleton due to BRAC. The facility size should be based on the number of personnel relocating (883 personnel) due to BRAC (Enclosure (5)). Applying 883 personnel to the P-80 criteria yields a minimum facility size of 5,582 square feet, Enclosure (8). The personnel at MCAS Tustin had an adequate physical fitness center before relocating. They should have an adequate physical fitness center after relocating.

The final submittal of the Environmental Impact Statement (EIS), Enclosure (5), shows there will be approximately 883 personnel relocating to MCAS Camp Pendleton due to BRAC decisions. Since there is not an existing physical fitness center at MCAS Camp Pendleton, nor one programmed, it is not appropriate to take a percentage of the square footage required for a properly sized facility if one were built, sized for all Air Station personnel. The percentage methodology would not provide a complete and usable facility when completed and the relocating BRAC personnel would be denied a facility they had access to before. Therefore, the facility size should be based on the 883 personnel arriving due to BRAC.
DODIG

"The estimated total cost for the BRAC portion should be $162,230. That cost represents a cost of $145,759 ($117.17 per square foot times 1,244 square feet, plus $7,288 for contingencies and $9,183 for other related costs)."

DON Response

Do not concur. The wrong facility size and unit cost were used in calculating the cost of the facility. We require a facility scope of 5,582 square feet. Using the unit cost shown on the DD Form 1391 ($139.00) and applying 5,582 square feet, we arrive at a primary facility cost of $775,900. After adding $40,000 for contingency, $50,000 for SIOC, and $80,000 (9%) for redesign, an appropriate estimate for the cost of the fitness center is $945,900. This yields an estimated savings of $597,000 (1,542,900 - 945,900) that can be used to cover other Marine Corps BRAC deficiencies.

DODIG

"Funding for BRAC requirement. Project P-028T should be funded for the fitness center only for 16 percent of our calculated requirement of 7,774 square feet. Therefore, the A&E estimate for the cost of BRAC project P-028T was overstated. Cost were, therefore, overstated on the A&E Report by $1,011,462 ($1,173,6-2 [the A&E amount] minus $162,230 [the amount we calculated])."

DON Response

Do not concur. Project P-028T should be funded for a complete and usable facility, as previously stated. The project should be funded for the minimum sized facility that will support the 883 personnel relocating due to BRAC. The correct facility size is 5,582 square feet, Enclosure (8), at a cost of $945,900 with an estimated savings of $597,000 that can be used to cover other Marine Corps BRAC deficiencies.

Project P-029T, Warehouse and Special Storage Facilities

DODIG

"Using the NAVFAC P-80, we calculated that the storehouse requirement attributable to BRAC should be 2,462 square feet, with a total cost of $416,018. This cost represented a basic cost of $373,781 ($151.82 per
square foot times 2,462 square feet), plus $18,689 for contingency costs and $23,548 for related costs. The requirement for the hazardous and flammable storehouse was overestimated by 178 square feet (2,640 square feet minus 2,462 square feet), which caused the A&E project cost estimate to be overstated by $30,078 ($466,096 minus 416,018)."

**DON Response**

Do not concur. The A&E does not believe it would be possible to reduce the size of the facility by 178 square feet and still meet all building codes and regulations for hazardous material storage, Enclosure (9). Therefore, the project was not overscoped nor was the estimate overstated by $30,078.

**Project P-031T, Maintenance Facilities**

**DODIG**

"Maintenance Hangar. Using NAVFAC P-60 criteria and the Marine Corps planning documents, we calculated the amount of space required for a maintenance hangar to accommodate the squadrons and aircraft realigning to MCAS Camp Pendleton to be 116,502 square feet. Our calculation concluded that the A&E estimate contained 6,740 square feet in excess of what was allowed for the realigning helicopters. Although the A&E estimate for project P-031T contained only 40,292 square feet for the maintenance hangar requirement, which brought the total hangar requirements in the A&E cost estimates to 123,242 square feet. Therefore, the A&E estimates were overstated by $845,882. That represented a cost of $112.76 per square foot, plus $38,000 for contingency costs and $47,800 for related costs."

**DON Response**

Do not concur. 123,897 square feet of hangar space is valid and justifiable under BRAC guidelines. The IG did not to take into account the hangar space requirement for a detachment of (4) CH-53Es. When the MEU(SOC) ACE stands-up, the CH-46 squadron sourcing the ACEs is required to provide hangar space to maintain the detachment of CH-53Es. We determined it would not be the most efficient solution to construct a separate hangar for this requirement (lack of available land). CH-46s rate a Type I hangar. CH-53Es rate a larger Type II hangar. A CH-53E is 29 feet wider than a CH-46 and a standard Type I hangar is 85 feet deep. Adding an additional 2,465 square feet (29' x 85') to each of the (3) CH-46 Type I hangars would allow a CH-53E to fit in the hangars and...
only one space would be lost for the CH-46s. If this additional space is not added, (2) CH-46s will be required to be pulled from the hangar to accommodate a CH-53E. This would negatively impact the maintenance capability of the squadrons. In summary, the justifiable BRAC hangar requirement is:

(3) Standard Type I Hangars 116,502 SF  
(3) Additions for CH-53Es 7,395 SF  
Justifiable Hangar Space: 123,897 SF

The deficiency of 655 square feet (123,897 - 123,242) is due to design efficiencies. Therefore, there are no savings to be realized due to the maintenance hangar portion of this project.

DODIG

"Crash Rescue Facility. During our review, the facilities planner for MCAS Camp Pendleton stated that the planned construction of the crash rescue facility addition was being canceled. Therefore, the addition to the crash rescue facility should not be a part of project P-031T and the project was overstated by $312,837."

DON Response

Do not concur. This portion of P-031T has not been canceled and the scope remains apart of the Final Design A&E estimate, Enclosure (3).

DODIG

"Marine Corps planning officials stated that the police station would be used to accommodate an estimated 39 security personnel relocating to MCAS Camp Pendleton as a result of BRAC. However, they could not provide supporting documents to show 39 security personnel were relocating from MCAS Tustin to MCAS Camp Pendleton. Because Marine Corps planning officials could not justify that the requirement for the police station was triggered by BRAC, the total estimated cost of the police station should not be a part of project P-031T. Therefore, the cost for project P-031T was overstated by $318,453 for the police station."

DON Response

Do not concur. BRAC triggered this requirement. Thirty-eight of the 39 personnel are a portion of the 883 personnel increasing the MCAS Camp Pendleton base loading. Half of the 39 personnel are permanent (20) and
the other half (19) are assigned to the Military Police as part of the Fleet Augmentation Program (FAP). The FAP provides to the Air Station personnel from fleet units to assist in the day to day running of the station. The station staff will increase by 79 personnel. The Military Police are part of the station staff.

Pre-BRAC, MCAS Camp Pendleton security was provided by Base Camp Pendleton and one permanent security billet at the Air Station. But due to BRAC increases in facilities, personnel, aircraft, and missions (MEO/OSOC) the current Air Station security arrangement is no longer viable. A full permanent security staff is now required for MCAS Camp Pendleton. It is important to stress, that without the BRAC decisions, this facility would not be required and the Pre-BRAC security arrangement would still be sufficient.

Using P-80 criteria, a facility of 2,045 square feet is required for 38 personnel. The scope of the planned facility is 1,936 square feet.

Project No. P-518S, Aircraft Maintenance Facilities

**ODIG**

*Aircraft Parking Apron.* Using NAVFAC P-80, we calculated that the total parking apron requirements attributable to the realigning helicopters should be 97,772 square yards, or 27,228 square yard less than in the AOE cost estimate. The estimated cost of the allowed requirement for the parking apron would be $5,351,062 ($54.73 per square yard), plus $257,553 for contingency costs and $337,117 for related costs, for a total of $5,955,732. Therefore, the cost for project P-518S was overestimated for the aircraft parking apron and should be reduced by $1,658,580 ($7,614,312 minus $5,955,732).

**ODN Response**

Do not concur. All paving being designed in project P-518S is required and attributable to BRAC decisions. Using P-80 criteria, a requirement of 124,941 square yards can be justified. It appears the IG did not account for some BRAC related paving that belongs to other categories of paving (i.e. compass calibration pad/taxiway, expeditionary pad, crash crew hot spot, towway expansion, and hangar access apron) that is included in the design and DD Form 1391 estimates. Some of this paving requirement was generated due to the paving currently providing for these functions requiring relocation to allow for the BRAC related apron expansion. In addition, the IG inferred there were 125,000 square yards being designed. Our review of the designs indicate there are 124,645
yards of paving being designed as part of this project.

To determine the apron requirement we determined the number of aircraft parking spaces required, laid out the parking spaces using the dimensions given in the P-80 for clearances between aircraft and interior taxi lanes (Enclosure (10)), and then provided peripheral taxiways around the perimeter of the apron. This yielded an apron space requirement for the relocating CH-46s and CH-53Es of 104,126 square yards. This includes 70,533 square yards for the CH-46s, Enclosure (11) and 33,593 square yards for the CH-53Es, Enclosure (12). In addition there is paving required for functions being relocated due to apron expansion and existing functions requiring expansion:

- Compass Calibration Pad & Taxiway: 8,165 SY
- Expeditionary Pad: 300 SY
- Crash Crew Hot Spot: 267 SY
- Taxiway Expansion: 8,750 SY
- Hangar Access Apron: 3,333 SY
- 20,815 SY

Adding the above relocated and expanded areas plus the parking space requirements we arrive at a BRAC related requirement of 124,941 square yards (104,126 + 20,815). Our review of the Final Designs shows a scope of 124,645 square yards designed. We are 296 square yards below the amount that design criteria would provide. Therefore there should be no reduction of funding for this project.

**DODIG**

"Academic Instruction Building. According to Marine Corps officials, the instruction building was for the use of the Naval Aviation Engineering Support Unit. However, the Marine Corps could not prove that the new facility would be constructed for the support of personnel assigned to the squadrons moving to MCAS Camp Pendleton as a result of BRAC. In addition, the Marine Corps could not provide documentation supporting the number of BRAC student personnel that formed the basis for the instruction building requirement. Therefore, project P-5185 should not include a requirement for a new academic instruction building and the A&E cost estimated for the project should be reduced by $785,084."

**DON Response**

Do not concur. As a result of BRAC relocation, the MCAS Camp Pendleton FSR shows a programmed manning of 2 enlisted and 14 civilians under the
Naval Aviation Engineering Support Unit (NAESU). This is an increase of 10 civilians from the 1980 FSR. Of those 10 additional personnel, two are non-Brac related, with the other eight supporting the relocated squadrons. These NAESU representatives provide extensive aircraft training functions, shown in the ESR for Category Code 171-10.

Using the NAVFAC P-80 Criteria, the NAESU requires classrooms and support space of over 9,000 square feet. Of this, the Brac related portion is as follows:

CH-46 related NAESU training needs 7,445 square feet of classroom and support. Only 4,833 square feet are under construction within P-518S. Sixteen classes provide CH-46 dedicated training and eight other classes provide both CH-46 and AH-1/HH-1 training. The dedicated training and the CH-46 pro-rated portion of the consolidated instruction spaces requires 2,473 square feet of classroom space. An additional 4,972 square feet in support spaces for the eight instructors, students, and library (serving only Brac-related functions) are needed, for the total requirement of 7,445 square feet. Since only 4,833 square feet will be constructed, some necessary support space and one of the classrooms will not be built at this time, and will require future construction to satisfy the unfunded shortfall. Detailed description of the requirement is provided as Enclosure (13).

Project P-029T Space Requirements on DD Form 1391

DODIG

"Project P-029T contained requirements that the Marine Corps submitted on the DD Form 1391 but that did not become part of the A&E project cost estimate. The Marine Corps included on the DD Form 1391 invalid requirements totaling $244,860, including contingency, supervision, inspection, and overhead cost for a small arms magazine and an ordnance operations building. Although the submission of the invalid requirements would have no impact on the total project costs because the requirements were not included in the A&E 100 percent project cost estimate, the Marine Corps should submit a revised DD Form 1391 for project P-029T eliminating the invalid requirements."

DON Response

Partial concur. We agree the above mentioned invalid requirements were not included in the current A&E project cost estimate and will have no impact on the total project cost. However, current Navy and OSD Comptroller, and Congressional requirements for submission of DD Forms
1391 for budget year projects require that cost estimates contained in
the DD Forms 1391 be based on a level of design, usually 35 percent,
which ensures estimates are reasonably accurate at the time they are
submitted for review. Past experience on facilities costs also
contribute to the accuracy of the DD Forms 1391 estimates. There is no
requirement that these DD Forms 1391 estimates be based on final design
(A&E) documents. There is also no requirement to adjust and resubmit
these DD Forms 1391 at a later point in time in the budget process to
reflect final design (A&E) costs. As projects are awarded for
construction, and subsequent budget reviews are conducted, adjustments
are made to account for any "savings" resulting from prior year budgets
established by DD Forms 1391 estimates.

Unlike the regular Navy military construction program, in the BRAC
construction program, project level "savings", or "overruns" are
reflected in subsequent budgets. The current funding required to
complete projects is updated in these subsequent budget submits. DD
Forms 1391, reflecting these "savings", or "overruns", are not required
to be resubmitted, unless necessary to meet Congressional notification
requirements (cost increase of $2 million or 25%, whichever is less from
the Congressional approved DD Forms 1391), Enclosure (4).

Recommendations for Corrective Action (Finding A)

DODIG

"A.1. We recommend that the Under Secretary of Defense (Comptroller):

"a. Place funds for the following projects on administrative
withhold until management submits revised DD Forms 1391, "Military
Construction Project Data," to accurately reflect requirements and
costs.

"(1) Project P-027T, "Training and Administrative Facility."
"(2) Project P-028T, "Bachelor Enlisted Quarters and Physical
   Fitness Center."
"(3) Project P-031T, "Maintenance Facilities."
"(4) Project P-518S, "Aircraft Maintenance Facilities."

"b. Place project P-029T, "Warehouse and Special Storage
   Facilities," on administrative withhold until management submits a
   revised DD Form 1391, "FY 1997 Military Construction Project Data," to
   accurately reflect requirements and costs."
DON Response

Do not concur. Current Navy and OSD Controller, and Congressional requirements for submission of DD Forms 1391 for budget year projects require that cost estimates contained in the DD Forms 1391 be based on a level of design, usually 35 percent, which ensures estimates are reasonably accurate at the time they are submitted for review. Past experience on facilities costs also contribute to the accuracy of the DD Forms 1391 estimates. There is no requirement that these DD Forms 1391 estimates be based on final design (A&E) documents. There is also no requirement to adjust and resubmit these DD Forms 1391 at a later point in time in the budget process to reflect final design (A&E) costs. As projects are awarded for construction, and subsequent budget reviews are conducted, adjustments are made to account for any "savings" resulting from prior year budgets established by DD Form 1391 estimates.

Unlike the regular Navy military construction program, in the BRAC construction program, project level "savings", or "overruns" are reflected in subsequent budgets. The current funding required to complete projects is updated in these subsequent budget submissions. DD Forms 1391, reflecting these "savings", or "overruns", are not required to be resubmitted, unless necessary to meet Congressional notification requirements (cost increase of $2 million or 25%, whichever is less from the Congressional approved DD Forms 1391), Enclosure (4).

The agreed-to invalid requirement (a portion of the scope of the Physical Fitness Center), will not be funded and the associated funding will be reprogrammed to cover other deficiencies in the Marine Corps BRAC Military Construction program.

DODIG

"A.2. We recommend that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics):

"a. Submit revised DD Forms 1391, "Military Construction Project Data," for the following projects to reflect valid BRAC requirements and costs. The revised DD Forms 1391 should be reduced to reflect the A&E cost estimates (including contingency and other related costs) and should be fully supported by the required military construction planning documents. Further reduction should be made to reflect valid Defense base realignment and closure requirements and costs as discussed in the finding.

"1) Project P-027T, "Training and Administrative Facility."

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'(2) Project P-028T, 'Bachelor Enlisted Quarters and Physical Fitness Center.'

'(3) Project P-031T, 'Maintenance Facilities.'

'(4) Project P-518S, 'Aircraft Maintenance Facilities.'

'b. Submit a revised DD Form 1391, "Military Construction Project Data," project P-029T, "Warehouse and Special Storage Facilities," that reflect valid Defense base realignment and closure requirements and costs. The revised DD Form 1391 should reflect requirements and costs that are fully supported by the required military construction planning documents.

'c. Reduce the budget estimates for the following projects in the amounts shown.

'(1) Project P-027T, $1.064 million.

'(2) Project P-028T, $2.461 million.

'(3) Project P-031T, $3.907 million.

'(4) Project P-518S, $6.014 million.

'd. Increase the budget estimate for project P-029T by $1.170 million.'

DON Response

Do not concur. The response for A.1. above applies to A.2.

Recommendations for Corrective Action (Finding B)

DODIG

'B.1. We recommend that the Under Secretary of Defense (Comptroller) place funds for project P-026T, "Aircraft Parking Apron," on administrative withhold until management submits a revised DD Form 1391, "Military Construction Project Data," to accurately reflect requirements and costs.

'B.2. We recommend that the Deputy Chief of Staff of the Marine Corps (Installations and Logistics) submit a revised DD Form 1391, "Military
Construction Budget Data," for project P-026T to reflect valid BRAC requirements and costs, fully supported by the required military construction planning documents that are based on the redesign."

DON Response

Do not concur. Project P-026T is currently at 50 percent design and is within the scope and cost limits of the DD Form 1391. At the 50 percent design level our estimated costs validate the project cost estimate shown on the DD Form 1391 (it is within 6 percent). It is important to note that this is only an estimate and it may or may not reflect the actual cost of the project when it is executed. The budget process and Congress recognize this fact.

Current Navy and OSD Comptroller, and Congressional requirements for submission of DD Forms 1391 for budget year projects require that cost estimates contained in the DD Forms 1391 be based on a level of design, usually 35 percent, which ensures estimates are reasonably accurate at the time they are submitted for review. Past experience on facilities costs also contribute to the accuracy of the DD Forms 1391 estimates. There is no requirement that these DD Forms 1391 estimates be based on final design (A&E) documents. There is also no requirement to adjust and resubmit these DD Forms 1391 at a later point in time in the budget process to reflect final design (A&E) costs. As projects are awarded for construction, and subsequent budget reviews are conducted, adjustments are made to account for any "savings" resulting from prior year budgets established by DD Forms 1391 estimates.

Unlike the regular Navy military construction program, in the BRAC construction program, project level "savings", or "overruns" are reflected in subsequent budgets. The current funding required to complete projects is updated in these subsequent budget submits. DD Forms 1391, reflecting these "savings", or "overruns", are not required to be resubmitted, unless necessary to meet Congressional notification requirements (cost increase of $2 million or 25%, whichever is less from the Congressional approved DD Forms 1391), Enclosure (4).

Therefore, the funds for project P-026T should not be put on administrative withhold and a new DD Form 1391 is not required.
Audit Team Members

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