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Acronyms

DLA       Defense Logistics Agency
MILCON    Military Construction
MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Audit of Military Construction Projects of the Defense Logistics Agency
(Project No. 5CG-0055.03)

Introduction

We are providing this report for information and use. It discusses FY 1997 military construction (MILCON) projects sponsored by the Defense Logistics Agency (DLA) to:

- replace hydrant fuel systems at Travis Air Force Base, California, and Andrews Air Force Base, Maryland, and to
- construct a general purpose warehouse at the Defense Distribution Depot San Diego, California.

The estimated cost of the projects is $43.7 million. This is one in a series of reports to validate requirements and costs that Defense agencies used in planning and programming MILCON.

Audit Results

DLA properly planned, programmed, and documented the requirements for the proposed projects to replace the hydrant fuel systems and to construct a general purpose warehouse. Management controls at DLA headquarters and field activities for military construction projects were excellent.

Audit Objectives

The objectives of the audit were to determine whether DLA properly planned and programmed the proposed MILCON projects and whether the decision for MILCON was supported with required documentation, including an economic analysis. We also reviewed the management control program as it applied to the other two audit objectives.

Scope and Methodology

Scope and Methodology. DLA proposed 30 MILCON projects, valued at $258 million, for funding in FYs 1997 and 1998. Included were 12 hydrant fuel system projects, valued at $110.6 million; 8 warehouse projects valued at $70.6 million; and 10 other projects, valued at $76.8 million. We judgmentally
selected three FY 1997 MILCON projects, valued at $43.7 million, for review: two proposed hydrant fuel system projects and one proposed general purpose warehouse project. To determine whether the MILCON projects were properly planned and programmed, we examined the FY 1997 budget request, the impact of existing facilities, FY 1995 facility utilization records, and other supporting documentation for the three projects.

To determine whether DLA supported decisions for MILCON with required documentation, we examined:

- the DD Form 1391, "Military Construction Project Data," for each project;
- economic analyses that requesting organizations prepared to determine whether construction was the most economical alternative;
- cost estimates for the MILCON project; and
- correspondence and coordination between DLA headquarters and field activities.

We did not use computer-processed data to conduct the review.

Audit Period, Standards, and Locations. This economy and efficiency audit was performed from July through October 1995 in accordance with the auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and accordingly included such tests of management controls considered necessary. Enclosure 1 lists the organizations visited or contacted during the audit.

Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that the program is operating as intended and to evaluate the adequacy of those controls.

Scope of Review of Management Control Program. We reviewed the adequacy of DLA headquarters' and field activities' management controls by reviewing the procedures for planning, programming, validating, and documenting the MILCON requirements related to the DLA-sponsored hydrant fuel systems and general purpose warehouse proposed projects.

Adequacy of Management Controls. Management controls applicable to the hydrant fuel systems and the general purpose warehouse projects were excellent.
Prior Audits and Other Reviews

No prior audits or other reviews related to DLA MILCON projects had been done.

Audit Background

On June 14, 1995, DLA submitted the Fiscal Years 1997-2001 Program Objective Memorandum to the Secretary of Defense. In the memorandum, DLA projected a requirement for 30 MILCON projects, valued at $258 million, for FYs 1997 and 1998. Twenty-one of the projects, costing $152.2 million, will be funded in FY 1997; the other nine projects, costing $105.8 million, will be funded in FY 1998.

Discussion

Replace Hydrant Fuel System - Travis Air Force Base, California. DLA projected a requirement to construct a hydrant fuel system with 21 hydrant refueling outlets, involving new construction of 4 hydrant refueling outlets and replacement of 17 hydrant refueling outlets. The projected cost is $16.6 million. The existing system was constructed in the mid 1950's and has required intensive maintenance.

Justification for the Hydrant Fuel System. In planning and programming the project, DLA properly justified the requirement for the proposed hydrant fuel system and hydrant refueling outlets at Travis Air Force Base. We reviewed the DD Form 1391, "FY 1997 Military Construction Project Data," and supporting documents, including program requirements for the hydrant fuel system.

DLA justified the requirement for the project based on Air Force Handbook 32-1084, "Standard Facility Requirements Handbook," March 1, 1995. The Air Force Handbook justifies the requirement for a hydrant fuel system if the total tank capacity for individual aircraft refueled at an Air Force base exceeds 20,000 gallons. The aircraft stationed at Travis Air Force Base exceed a 20,000-gallon fuel tank capacity. The Air Force Handbook further states that where a hydrant fuel system is justified, fueling outlets will be provided at all aircraft parking positions. The Air Force Handbook permits parking positions for 75 percent of the assigned aircraft, except for tanker aircraft, which are permitted parking positions for 100 percent of the assigned aircraft.

The Travis Air Force Base site plan indicated that, upon completion of the proposed project, the base will have 61 refueling outlets, which includes the 21 refueling outlets requested for this project. Travis Air Force Base can justify 74 refueling outlets, based on current and projected aircraft refueling requirements.
The following table lists the type and number of aircraft assigned and refueled at Travis Air Force Base and the number of refueling positions permitted.

### Justification for Hydrant Refueling Outlets

<table>
<thead>
<tr>
<th>Type of Aircraft</th>
<th>Number of Aircraft</th>
<th>Percent Factor for Parking Positions</th>
<th>Parking Positions/Refueling Outlets</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC-10 (Tanker)</td>
<td>27</td>
<td>100</td>
<td>27</td>
</tr>
<tr>
<td>C-5</td>
<td>32</td>
<td>75</td>
<td>24</td>
</tr>
<tr>
<td>C-141</td>
<td>31</td>
<td>75</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>74</strong></td>
</tr>
</tbody>
</table>

The number of refueling outlets proposed is within the number allowed in the Air Force Handbook. Therefore, the DLA requirement for the number of refueling outlets at Travis Air Force Base is justified.

**MILCON Cost Requirement.** The Air Mobility Command, Scott Air Force Base, Illinois, estimated that $16.6 million would be needed to complete the hydrant fuel system project at Travis Air Force Base. The Air Mobility Command used the "Historical Air Force Construction Cost Handbook," March 1994, for estimating the cost of the proposed hydrant fuel system. We reviewed the supporting cost estimate for the hydrant fuel system. The cost estimate was properly computed.

**Replace Hydrant Fuel System - Andrews Air Force Base, Maryland.** Andrews Air Force Base is the home of the 89th Airlift Wing, which is responsible for transporting the President, the Vice-President, members of Congress, and other high-ranking Government officials, as well as foreign dignitaries. Andrews Air Force Base also refuels various DoD, Military Department, and foreign aircraft not assigned to the base. Those aircraft are referred to as transient aircraft. The DLA projected a requirement to construct a hydrant fuel system with 10 hydrant refueling outlets to replace an existing hydrant fuel system. The planned cost of the project is $11.4 million. The existing hydrant fuel system is 40 years old and is inoperative. Andrews Air Force Base is currently using refueling trucks to refuel aircraft.

**Justification for the Hydrant Fuel System.** DLA also based the requirement for the hydrant fuel system on Air Force Handbook 32-1084, which states that a hydrant fuel system is authorized for refueling individual aircraft with a total tank capacity exceeding 20,000 gallons. We verified that Andrews Air Force base regularly refuels aircraft with fuel tank capacities exceeding 20,000 gallons on the flight line where the hydrant fuel system is to be constructed. The Air Force Handbook states that aircraft parking positions are to be provided to transient aircraft based on 100 percent of the average daily number of transient aircraft refueled. The Handbook further states that where hydrant fuel systems are justified, refueling outlets will be provided at all aircraft parking positions. We verified that Andrews Air Force Base provides refueling for a daily average of 12 aircraft requiring parking positions in the area where the hydrant fuel system is to be constructed. Therefore, DLA
complied with the Air Force requirement in planning the proposed 10 refueling outlets at Andrews Air Force Base, and the requirement was properly documented and justified.

**MILCON Cost Requirement.** The Air Mobility Command estimated $11.4 million as the cost of the hydrant fuel system project. The Air Mobility Command also used the "Historical Air Force Construction Cost Handbook," March 1994, for estimating the cost. We reviewed the supporting cost estimate for the proposed hydrant fuel system and determined that the cost estimate was properly computed.

**Replace General Purpose Warehouse, Defense Distribution Depot San Diego.** The DLA projected a requirement to construct a high-bay general purpose warehouse, estimated to cost $15.7 million. The project is required to build a facility that will adequately protect material now being stored in unprotected outdoor areas and in six substandard warehouses.

**Warehouses Occupied by the Defense Distribution Depot.** The Defense Distribution Depot San Diego includes 22 covered storage warehouses, plus open storage warehouses, maintenance facilities, and support facilities. All are located at the Naval Station San Diego, California, and the Naval Air Station North Island, California. The Defense Distribution Depot San Diego also occupies covered warehouses located in downtown San Diego and at the Naval Shipyard, Long Beach, California, but those warehouses are scheduled to close. DLA plans to demolish six World War II substandard warehouses located at the Naval Station San Diego to provide space to construct the new warehouse.

**Justification for the General Purpose Warehouse.** DLA properly justified the requirement for a general purpose warehouse at Defense Distribution Depot San Diego. We reviewed the DD Form 1391, the economic analysis, the cost schedule to rehabilitate the existing warehouses, scheduled maintenance costs of the existing warehouses, the physical condition of all 22 warehouse buildings, available cubic feet of storage capacity in all 22 buildings, and the existing warehouse space at the Naval Station. We also computed the August 1995 ending inventory in cubic feet for all of the covered warehouses and for storage in unprotected outdoor areas and compared the ending inventory with the available storage capacity in cubic feet. We computed that the Defense Distribution Depot San Diego will not have enough storage space after the downtown and Long Beach facilities close, even when fully using all 22 remaining warehouses. We also determined that the cost to rehabilitate the six warehouses scheduled for demolition under the project would exceed the cost of construction of the proposed warehouse. DLA also properly justified space requirements in the warehouse for administrative and maintenance shop functions.

**MILCON Cost Requirement.** DLA properly supported the cost estimate to replace the general purpose warehouse at Defense Distribution Depot San Diego. The Engineering Field Activity, Southwest Division, Naval Facilities Engineering Command, validated the space requirements and cost data and certified the project ready for design in December 1994.
Summary

DLA properly planned and programmed proposed MILCON projects. The decision for MILCON was supported with required documentation and included economic analyses. Management controls for the oversight of MILCON projects were effectively coordinated with engineering elements located at DLA headquarters, its field activities, and the Military Departments. Oversight included the verification of documentation supporting the need for the proposed MILCON projects. The Defense Fuel Supply Center, a primary-level field activity of DLA, provided primary oversight responsibility for the construction of hydrant fuel system projects. The DLA MILCON team coordinated the verification effort for the fuels projects with the Air Mobility Command, Scott Air Force Base, Illinois, and the Engineering Field Activity, Western and Atlantic Divisions, Naval Facilities Engineering Command. The Defense Distribution Region West, a primary-level field activity of DLA, provided primary oversight for the construction of warehouse projects. The DLA MILCON team coordinated the verification effort for the warehouse project with the Defense Distribution Depot San Diego and the Engineering Field Activity, Southwest Division, Naval Facilities Engineering Command. The DLA implemented an excellent management control and oversight process for its MILCON program.

Management Comments

We provided a draft of this report to you on December 8, 1995. Because the report contained no findings or recommendations, comments were not required, and none were received. Therefore, we are publishing this report in final form.

The cooperation and courtesies extended to the audit staff are appreciated. If you have questions on this report, please contact Mr. Wayne K. Million, Audit Program Director, at (703) 604-9312 (DSN 664-9312), or Mr. Nicholas E. Como, Audit Project Manager, at (703) 604-9303 (DSN 664-9303). The audit team members are listed inside the back cover. Enclosure 2 lists the planned report distribution.

David K. Steensma
Deputy Assistant Inspector General
for Auditing

Enclosures
Organizations Visited or Contacted

Office of the Secretary of Defense

Under Secretary of Defense (Comptroller), Washington, DC
Deputy Assistant Secretary of Defense (Installations), Washington, DC

Department of the Navy

Naval Station San Diego, CA
Naval Air Station, North Island, CA
Naval Facilities Engineering Command, Alexandria, VA

   Engineering Field Activity, Southwest Division, San Diego, CA

Department of the Air Force

Air Mobility Command, Scott Air Force Base, IL
89th Airlift Wing, Andrews Air Force Base, MD
60th Air Mobility Wing, Travis Air Force Base, CA

Other Defense Organizations

Defense Logistics Agency, Fort Belvoir, VA
Defense Distribution Region West, Stockton, CA
   Defense Distribution Depot San Diego, CA

Enclosure 1
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Director, Defense Logistics Agency
   Commander, Defense Distribution Region West
   Commander, Defense Distribution Depot San Diego
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Non-Defense Federal Organizations and Individuals

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   Technical Information Center, National Security and International Affairs Division,
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   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
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   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

Enclosure 2
(Page 2 of 2)
Audit Team Members

This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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