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UNACCOMPANIED ENLISTED PERSONNEL HOUSING REQUIREMENTS FOR MARINE CORPS BASE CAMP PENDLETON, CALIFORNIA

Report No. 97-142

May 9, 1997

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Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEQ</td>
<td>Bachelor Enlisted Quarters</td>
</tr>
<tr>
<td>FSR</td>
<td>Facilities Supporting Requirements</td>
</tr>
<tr>
<td>MCB</td>
<td>Marine Corps Base</td>
</tr>
<tr>
<td>MILCON</td>
<td>Military Construction</td>
</tr>
<tr>
<td>NAVFAC</td>
<td>Naval Facilities Engineering Command</td>
</tr>
</tbody>
</table>
May 9, 1997

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

SUBJECT: Audit Report on Unaccompanied Enlisted Personnel Housing Requirements For Marine Corps Base Camp Pendleton, California (Report No. 97-142)

We are providing this audit report for your review and comment. This report is the first in a series about DoD unaccompanied enlisted personnel housing requirements.

DoD Directive 7650.3 requires that all recommendations and potential monetary benefits be resolved promptly. Because the Marine Corps did not comment on a draft of this report, we request that the Marine Corps provide comments on the final report by June 13, 1997.

Management comments should indicate concurrence or nonconcurrence with the finding and each applicable recommendation and with potential monetary benefits. Comments must describe actions taken or planned in response to agreed-upon recommendations and provide the completion dates of the actions. State specific reasons for any nonconcurrency and propose alternative actions, if appropriate. If management nonconcurs with the potential monetary benefits, the comments should specify the amount at issue.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Wayne K. Million, Audit Program Director, at (703) 604-9312 (DSN 664-9312) or Mr. Michael Perkins, Audit Project Manager, at (703) 604-9273 (DSN 664-9273). See Appendix D 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. 97-142 (Project No. 6CG-0072.00) May 9, 1997

Unaccompanied Enlisted Personnel Housing Requirements For Marine Corps Base Camp Pendleton, California

Executive Summary

Introduction. This report is the first in a series that discusses the process used to determine requirements to support the construction of new unaccompanied enlisted personnel housing (barracks). The Secretary of Defense has established a new standard design criterion for future barracks construction. The Military Departments have estimated a cost of $15.4 billion to replace existing barracks over a 30-year period to meet new standards. In FY 1997, the Marine Corps Base Camp Pendleton, California, reported the need for a total of 26,540 barracks spaces. The total included 11,818 adequate barracks spaces, 1,284 barracks spaces in approved construction projects, and a deficit of 13,438 barracks spaces.

Audit Objectives. The overall audit objective was to determine the validity of requirement estimates for DoD unaccompanied personnel housing. This report provides the results of the audit of unaccompanied enlisted personnel housing requirements for Marine Corps Base Camp Pendleton, California. Audit objectives announced, but not included in this report, will be addressed in future summary report.

Audit Results. Marine Corps Base Camp Pendleton overestimated the number of permanent party enlisted personnel requiring barracks by 5,184 spaces. The overestimate occurred because guidance for barracks requirements did not specify removing ineligible Marines from personnel data used to compute barracks requirements. Transient personnel, deployed personnel, and enlisted personnel in grades E-6 and above residing in the local community should not be included in the personnel data. As a result, future construction costs of $203.4 million for the Marine Corps Base Camp Pendleton barracks replacement program can be avoided by eliminating barracks for the 5,184 unsupported barracks requirements.

Summary of Recommendations. We recommend that the Commandant of the Marine Corps revise Marine Corps Housing Management Manual, MCO P11000.22. Specifically, the manual should require that transient personnel, deployed personnel, and enlisted personnel in grades E-6 and above residing in the local community be excluded from personnel strength data used to determine permanent party barracks requirements. We also recommend that the Commanding General, Marine Corps Base Camp Pendleton remove transient personnel, deployed personnel on a rotation cycle, and personnel in grades E-6 and above residing in the local community from permanent party personnel data used in the Bachelor Enlisted Quarters Requirement Worksheet.

Management Comments and Audit Response. The Commandant of the Marine Corps and the Commanding General, Camp Pendleton did not respond to a draft of this report. Therefore, we request the Marine Corps to provide comments by June 13, 1997.
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Part I - Audit Results
Audit Results

Audit Background

In November of 1995, the Secretary of Defense signed a memorandum for the Secretaries of the Military Departments for design and construction of unaccompanied enlisted personnel housing (barracks). This memorandum established a new standard design criterion for future permanent party barracks construction. The memorandum challenged each Military Department to implement the new standard as part of an integrated barracks plan that considers optimal use of existing adequate quarters and renovation of quarters that can be made adequate. The plan encouraged use of traditional military construction, and innovative use of private sector solutions. The Military Departments have estimated a cost of $15.4 billion to replace existing barracks over a 30-year period using the new standard. The determination process identifies barracks space deficits that are to be constructed for the replacement program. Appendix B provides additional background information for the new barracks construction standard and the Military Department’s barracks replacement programs.

Policy Guidance. DoD Manual 4165.63-M, "DoD Housing Management," September 1993, establishes policy guidance, procedures, and responsibilities on all matters associated with barracks housing. The manual considers permanent party and transient personnel separately because they require different justifications. Projected deficits establish the base line for new construction programming or other acquisition. A deficit (or surplus) is determined by identifying and comparing projected requirements and assets. Military Department’s use long-range personnel strength data from planning documents to support permanent party barracks construction. Support for transient personnel barracks is determined by averaging the daily number of temporary additional duty and other transient personnel eligible for temporary additional duty quarters on a confirmed reservation basis. Guidance provided by United States Code, title 37, section 403(b), states that permanent party personnel, with no dependents, in grades E-7 and above, may voluntarily occupy acceptable or substandard unaccompanied enlisted personnel housing, except for reasons involving military necessity. Military Departments may extend voluntary occupancy to E-6 personnel with no dependents.

The Marine Corps manual, MCO P11000.22, "Marine Corps Housing Management Manual," February 14, 1991, states that housing accommodations assigned to bachelor personnel shall provide the space, privacy, and furnishings required for comfortable living. To ensure that guidance is followed, a Bachelor Enlisted Quarters (BEQ) Requirement Worksheet will be prepared annually by the Commandant of the Marine Corps and provided to activity commanders for validation. Bachelor sergeants (grade E-5) and below should be assigned to adequate on-base barracks, if available. Staff Sergeants (grade E-6) and above may elect to live in the local community and receive Basic Allowance for Quarters rather than occupy Government quarters. Also, Marines suitably housed in the local community should be accurately reported since on-base construction is directly reduced by the number of Marines residing in off-base housing.
Audit Objectives

The overall audit objective was to determine the validity of requirement estimates for DoD unaccompanied enlisted personnel housing. A specific objective was to determine whether barracks requirements and cost estimates developed by the Military Department was supported with appropriate documentation. We also announced an objective to review the management control program as it applies to the other stated objectives.

This report provides the results of the audit of barracks requirements for permanent party unaccompanied enlisted Marines located at Marine Corps Base (MCB) Camp Pendleton, California. The management control program will be discussed in a future summary report. See Appendix A for a discussion of the scope, methodology, and a summary of prior coverage related to the audit objectives.
Barracks Requirements for Permanent Party Enlisted Marines

MCB Camp Pendleton overestimated the number of permanent party unaccompanied enlisted personnel requiring housing by 5,184 barracks spaces. The overestimate occurred because guidance did not specify removing ineligible Marines from personnel loading data used to compute permanent party barracks requirements. Transient personnel, deployed personnel, and enlisted personnel in grades E-6 and above residing in the local community should not be included in the personnel data. As a result, MCB Camp Pendleton overstated future construction costs by $203.4 million for their barracks replacement program.

Deficit Calculation

DoD Manual 4165.63-M, requires that barracks projects for new construction, repair, improvement, major renovation, and replacement of existing barracks be supported with requirements, asset, and deficit data. The Marine Corps Housing Management Manual provides guidance for preparing the BEQ Requirement Worksheet. The worksheet provides an analyses of the barracks deficit at a base by comparing the personnel loading projection with existing barracks assets.

Personnel Loading Projection. The personnel loading projection on the BEQ Requirement Worksheet is the number of Marines assigned to a base that are eligible for barracks housing. Also identified are the number of barracks spaces for those eligible Marines. A base calculates its personnel loading projection first by determining the facilities supporting requirements (FSR) loading strength, which is the total number of enlisted personnel on the base. The FSR loading strength data are reduced by the number of student personnel. The adjusted FSR loading strength is multiplied by grade distribution percentages and bachelor percentage factors to determine the number of bachelor Marines. The bachelor Marines are multiplied by entitled barracks spaces for each grade and added to give the total projected barracks space requirements.

FSR Loading Strength. The Marine Corps relies on the FSR document to determine its total long-range planning personnel needs. The FSR document projects personnel strength for a base 6 years out.

Grade Distribution. For the number of Marines in a grade, the base uses a grade distribution factor as shown in the Naval Facilities Engineering Command Publication P-80, "Facility Planning Criteria for Navy and Marine Corps Shore Installations," September 1993. The P-80 provides a percentage distribution, by grade, for use throughout the Marine Corps.
Bachelor Personnel. The base determines the number of bachelor Marines by using either a base-developed bachelor percentage factor by grade or the bachelor percentage factor by grade contained in the P-80. MCB Camp Pendleton used a base-developed bachelor percentage for grades.

Entitled Barracks Spaces. An entitled barracks space equates to the minimum space standard for adequacy based on grade (for example, the minimum space standard for grades E-1 through E-3 is 90 square feet). Table 1 shows the number of entitled barracks spaces per grade.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Entitled Barracks Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-1 - E-3</td>
<td>1</td>
</tr>
<tr>
<td>E-4</td>
<td>2</td>
</tr>
<tr>
<td>E-5</td>
<td>2</td>
</tr>
<tr>
<td>E-6 and above</td>
<td>4</td>
</tr>
</tbody>
</table>

Barracks Assets. A base commander has two sources of housing assets to satisfy barracks requirements: on-base barracks and local housing near the base. All personnel in grades E-6 and above living off base in the local community are considered to be adequately housed.

Requirements for Permanent Party Enlisted Barracks

MCB Camp Pendleton's BEQ Requirement Worksheet, October 17, 1996, reported that 31,156 permanent party Marines reside on the base. See Appendix C for a copy of MCB Camp Pendleton's BEQ Requirement Worksheet. The worksheet also reported that there are 20,764 bachelor Marines requiring 26,540 barracks spaces. The current on-base inventory of adequate barracks reported was 11,818 barracks spaces. Military construction projects approved for FY 97 contained 1,284 barracks spaces. The total barracks deficit was 13,438 barracks spaces. Review of the worksheet showed that the number of permanent party bachelor Marines requiring barracks space properly excluded students and married geographic bachelors. The worksheet improperly included transient personnel, deployed personnel, and enlisted personnel in grades E-6 and above housed in the local community. Failure to remove the ineligible Marines from requirements determination personnel data resulted in an overestimate of permanent party barracks requirements of 5,184 barracks spaces. Table 2 shows the number of overestimated barracks spaces for the ineligible Marines.
Barracks Requirements for Permanent Party Enlisted Marines

Table 2. Overestimated Barracks Requirements

<table>
<thead>
<tr>
<th>Description</th>
<th>Number of Bachelor Marines</th>
<th>Number of Barracks Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transients</td>
<td>1,661</td>
<td>2,207</td>
</tr>
<tr>
<td>Deployed Marines</td>
<td>1,338</td>
<td>1,777</td>
</tr>
<tr>
<td>E-6s and above living in the local community</td>
<td>300</td>
<td>1,200</td>
</tr>
<tr>
<td>Total</td>
<td>3,299</td>
<td>5,184</td>
</tr>
</tbody>
</table>

The current inventory of adequate barracks spaces and the barracks spaces reported for approved military construction projects were found to be supported.

Transient Personnel. The 20,764 bachelor Marines reported as permanent party personnel requiring barracks space included transient personnel. The Secretary of Defense specifically excludes using transient personnel statistics for barracks construction planning under the new barracks replacement program. The FSR personnel loading data used in the BEQ Requirement Worksheet does not separate permanent party and transient personnel data. Table 3 shows the total number of transient personnel by base location that were included in the FSR for MCB Camp Pendleton.

Table 3. FSR Transient Personnel Data

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Transient Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headquarters</td>
<td>1,448</td>
</tr>
<tr>
<td>Area 21 (Del Mar)</td>
<td>11</td>
</tr>
<tr>
<td>Area 22 (Chappo)</td>
<td>12</td>
</tr>
<tr>
<td>Area 24</td>
<td>0</td>
</tr>
<tr>
<td>Area 31 (Edson)</td>
<td>86</td>
</tr>
<tr>
<td>Area 33 (Margarita)</td>
<td>1,326</td>
</tr>
<tr>
<td>Area 41 (Las Flores)</td>
<td>7</td>
</tr>
<tr>
<td>Area 43 (Las Pulgas)</td>
<td>12</td>
</tr>
<tr>
<td>Area 52 (San Onofre)</td>
<td>10</td>
</tr>
<tr>
<td>Area 53 (Homo)</td>
<td>16</td>
</tr>
<tr>
<td>Area 62 (San Mateo)</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>2,944</td>
</tr>
</tbody>
</table>

We verified the BEQ Requirement Worksheet personnel loading data with the FSR personnel data to ensure that the permanent party personnel data was reported correctly. As a result, of the 2,944 total transient personnel, we determined that the Marine Corps included 1,661 transient bachelor Marines.
representing 2,207 barracks spaces in the 20,764 bachelor Marines reported as requiring permanent party barracks space. Table 4 shows the computation of bachelor Marines and barracks spaces for the transient Marines.

<table>
<thead>
<tr>
<th>Rank Distribution</th>
<th>Bachelor Percent</th>
<th>Number of Transient Bachelors</th>
<th>Barracks Spaces Per Person</th>
<th>Total Barracks Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>Percent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-1 - E-3</td>
<td>49.8</td>
<td>83</td>
<td>1,217</td>
<td>1</td>
</tr>
<tr>
<td>E-4</td>
<td>18.7</td>
<td>53</td>
<td>292</td>
<td>2</td>
</tr>
<tr>
<td>E-5</td>
<td>14.3</td>
<td>24</td>
<td>101</td>
<td>2</td>
</tr>
<tr>
<td>E-6 - E-9</td>
<td>17.2</td>
<td>10</td>
<td>51</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,661</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1Barracks space for each grade is computed as follows: (2,944 transient personnel) x (rank distribution percent) x (bachelor percent) x (number of transient bachelors) x (barracks spaces per person) = (total barracks spaces) by grade.

Transient Marines are an additional category of personnel that require barracks space. However, transient barracks requirements are calculated differently. Therefore, transient data should be reported separately from permanent party data, if transient barracks requirements are to be included in the total BEQ Requirement Worksheet. Separating permanent party and transient personnel strengths in the worksheet will eliminate overestimating the number of personnel requiring permanent party barracks space, as opposed to transient personnel barracks space, for the two separate and distinct barracks categories.

Deployed Personnel. The Marine Corps included personnel absent because of deployment on a rotational basis in the 20,764 bachelor Marines reported as permanent party personnel requiring barracks space. MCB Camp Pendleton houses Marine Expeditionary Units that deploy on a rotational cycle. These units are normally deployed for 6 months. For example, Camp San Mateo has four Marine battalions. One battalion is always on a 6-month deployment while the remaining three battalions stay at Camp San Mateo. When the deploying battalion departs and vacates barracks space, the returning battalion occupies the vacated barracks. Therefore, barracks space for one of the four battalions is not needed. We identified the total number of Marines always deployed on a rotational cycle by having facilities personnel located at each of the 11 subcamps identify the deployable units on the subcamp's FSR. Table 5 shows the total number of Marines that are always deployed by base location.
### Table 5. Personnel Deployed On A Rotational Cycle

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Deployed Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 24</td>
<td>337</td>
</tr>
<tr>
<td>Area 41 (Las Flores)</td>
<td>121</td>
</tr>
<tr>
<td>Area 43 (Las Pulgas)</td>
<td>263</td>
</tr>
<tr>
<td>Area 53 (Homo)</td>
<td>826</td>
</tr>
<tr>
<td>Area 62 (San Mateo)</td>
<td>826</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,373</strong></td>
</tr>
</tbody>
</table>

We evaluated the BEQ Requirement Worksheet data to ensure that the data reported only permanent party personnel actually located at the base. The Marine Corps included 1,338 bachelor Marines representing 1,777 barracks spaces as permanent party barracks requirements for Marines that are always absent from the installation because of extended rotational deployment. Table 6 shows the calculations of bachelor Marines and barracks spaces for the deployed Marines.

### Table 6. Calculation of Deployed Bachelor Personnel and Barracks Space

<table>
<thead>
<tr>
<th>Grade</th>
<th>Rank Distribution</th>
<th>Bachelor Percent</th>
<th>Bachelor Percent</th>
<th>Number of Bachelors</th>
<th>Barracks Spaces Per Person</th>
<th>Total Barracks Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-1 - E-3</td>
<td>49.8</td>
<td>83</td>
<td></td>
<td>981</td>
<td>1</td>
<td>981</td>
</tr>
<tr>
<td>E-4</td>
<td>18.7</td>
<td>53</td>
<td></td>
<td>235</td>
<td>2</td>
<td>470</td>
</tr>
<tr>
<td>E-5</td>
<td>14.3</td>
<td>24</td>
<td></td>
<td>81</td>
<td>2</td>
<td>162</td>
</tr>
<tr>
<td>E-6 - E-9</td>
<td>17.2</td>
<td>10</td>
<td></td>
<td>41</td>
<td>4</td>
<td>164</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>1,338</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,777</strong></td>
</tr>
</tbody>
</table>

1Barracks space for each grade is computed as follows: (2,373 deployed Marines) x (rank distribution percent) x (bachelor percent) = (number of bachelors) x (barracks spaces per person) = (total barracks spaces) by grade.

The FSR used to determine the personnel loading data for an installation does not provide a unit's deployment status. The number of Marines always absent from the base, because of deployment, should be identified during the FSR verification process, and removed from the personnel loading data used to determine requirements for permanent party barracks space.
Barracks Requirements for Permanent Party Enlisted Marines

E-6 and Above Personnel. The Marine Corps included personnel in grades E-6 and above, residing in the local community, in the 20,764 bachelor Marines reported as permanent party barracks requirements. We evaluated Basic Allowance for Quarters and Variable Housing Allowance data located at the Manpower Information Systems Support Office, for bachelor Marines in the grades E-6 and above. We identified 300 bachelor Marines representing 1,200 barracks spaces (4 spaces per grades E-6 and above) who were reported as requiring permanent party barracks spaces when those Marines were drawing single Basic Allowance for Quarters and Variable Housing Allowance for residing in the local community. DoD and Marine Corps guidance authorizes E-6 and above personnel to elect to reside off base, even when adequate on-base barracks space is available. It is not mandatory for bachelor Marines in grades E-6 and above to reside on base unless directed by Marine Corps management. Since bachelor Marines in grades E-6 and above are not mandated to reside in the barracks, those personnel should not be included in the permanent party bachelor Marines requiring barracks space requirements. We also identified 360 bachelor Marines in grades E-6 and above who were housed in barracks. The Marine Corps should recognize only those bachelor Marines who have elected to reside in the barracks. Our calculation of bachelor Marines requiring permanent party barracks space did include those Marines in the grades E-6 and above who elected to reside in the barracks.

Cost of Overestimate

The Marine Corps can reduce future barracks replacement construction costs by $203.4 million by accurately identifying bachelor Marines requiring permanent party barracks. The estimated cost to construct a barracks space at MCB Camp Pendleton is $39,250. By removing the 3,299 reported bachelor Marines that are improperly included in the 20,764 requiring permanent party barracks, replacement costs can be reduced as follows:

- Deleting 2,944 transient Marines reduces barracks requirements by 1,661, representing 2,207 barracks spaces costing $86.6 million.
- Deleting 2,373 deployed Marines reduces barracks requirements by 1,338, representing 1,777 barracks spaces costing $69.7 million.
- Deleting 300 bachelor Marines in grades E-6 and above residing in the local community reduces barracks requirements by 1,200 barracks spaces costing $47.1 million.

Summary

The Marine Corps has overestimated the number of permanent party personnel requiring barracks space. Personnel loading data obtained from the FSR and used in the BEQ Requirement Worksheet to calculate the number of bachelor Marines requiring permanent party barracks space improperly included:
Barracks Requirements for Permanent Party Enlisted Marines

- Transient personnel
- Deployed personnel always absent from the base because of rotational assignment
- Personnel in grades E-6 and above residing in the local community.

Accurate identification of bachelor Marines requiring permanent party barracks space is an essential part of the barracks requirements determination process. The Marine Corps' barracks replacement program focuses on reducing the barracks deficit for permanent party bachelor Marines. The Marine Corps' reported deficit of 13,438 permanent party barracks spaces at MCB Camp Pendleton can be reduced to 8,254 barracks spaces by removing 5,184 barracks spaces for inaccurate requirements data.

Proper identification of bachelor Marines requiring permanent party barracks space is needed to ensure that future barracks construction projects are limited to authorized requirements.

Recommendations for Corrective Actions

1. We recommend the Commandant of the Marine Corps:
   a. Update guidance for determining bachelor housing requirements contained in Marine Corps Housing Management Manual. Specifically, the guidance should require that personnel loading data used to determine permanent party barracks requirements exclude:

      (1) Transient personnel
      (2) Personnel always deployed on a rotational cycle
      (3) Personnel in grades E-6 and above residing in the local community.

   b. Determine whether transient barracks requirements are to be included in the Bachelor Enlisted Quarters Requirement Worksheet, and if included, separate transient personnel from permanent party personnel data reported in the facilities supporting requirements loading data.

2. We recommend the Commanding General, Marine Corps Base Camp Pendleton remove transient personnel, personnel deployed on a rotation cycle, and personnel in the grades E-6 and above residing in the local community from permanent party personnel strength data used in the Bachelor Enlisted Quarters Requirement Worksheet.
Management Comments Required

The Commandant of the Marine Corps and the Commanding General, Marine Corps Base Camp Pendleton did not respond to the draft of this report in time for comments to be incorporated into the final report. If comments are received, we will consider them as comments on the final report.
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Part II - Additional Information
Appendix A. Audit Process

Scope

We reviewed the process and supporting documentation used to develop the unaccompanied personnel housing requirements for Marine Corps Base Camp Pendleton. We limited the scope of the audit to personnel housing requirements for unaccompanied permanent party enlisted personnel. Also, the scope of the audit is limited in that we did not review the management control program. The management control program will be discussed in a separate summary report.

Methodology

We performed the audit using DoD and Marine Corps guidance for developing barracks requirements. We relied on computer-processed data when reviewing the Facilities Supporting Requirements document, November 6, 1996, data for future manpower estimates used in the requirements determination process. However, because the organization's data was uniformly produced, the organization verified its own data, and we reviewed the adjustments. The data reliability was considered adequate.

Audit Period and Standards

This economy and efficiency audit was made from August 1996 through February, 1997 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD.

Summary of Prior Audits and Other Reviews

U.S. Army Audit Agency report (Audit Report: AA 96-218) "Audit of Barracks Requirements, U.S. Army Signal Center and Fort Gordon, Fort Gordon, Georgia," June 14, 1996. The report stated that barracks requirements for permanent party soldiers at Fort Gordon were significantly overstated. Fort Gordon overstated barracks requirements because it incorrectly computed the number of unaccompanied enlisted soldiers authorized barracks space. Specifically, single soldiers with dependents were counted as bachelors and included in the computation of barracks requirements. By overstating requirements, Fort Gordon incorrectly concluded that there was a shortage of
adequate barracks space for its permanent party soldiers, and needed to build a 300-person barracks during FY 98 at an estimated cost of $17.5 million. The report recommended that the command cancel construction of the 300-person barracks project. The Army nonconcurred with the recommendation and stated that a deficit still exists to support the 300-person barracks because of the new "1 + 1" construction standard. However, the Army agreed to reevaluate barracks requirements because of the new construction standard and have the results validated. Army Audit considered the comments to be responsive.

Contacts During the Audit

We visited or contacted individuals and organizations within the DoD. Further details are available on request.
Appendix B. Background For The Barracks Replacement Program

New Design and Construction of Barracks Housing

On November 6, 1995, Secretary of Defense memorandum "Design and Construction of Unaccompanied Enlisted Personnel Housing (Barracks)," established a new maximum allowable area per occupant for new, permanent, barracks construction. The memorandum complies with United States Code, Title 10, Section 2856 to establish a new standard design criterion for future permanent party barracks construction. The standard for new construction does not apply to barracks constructed for transients, recruits, or members receiving entry-level skill training. The standard for new construction is optional for barracks outside CONUS funded by other than the United States or constrained by site conditions, and for barracks to house other than the full-time active duty Service members.

New barracks construction will be based on a module consisting of two individual living/sleeping rooms with closets and a shared bath and service area. The standard for new construction is referred to as "1 + 1." Designs should be developed to produce 11m² (118 square feet) of net living area per living/sleeping room, measured from the inside face of the walls to include all clear floor areas.

The standard for new construction is to be implemented as soon as practical, taking into consideration that barracks projects are at various stages of design and construction. The standard for new construction may be waived by the Secretary of a Military Department under the following circumstances:

- Wherever the Secretary determines that unique mission requirements or operational commitments are better served by congregated living (for example, Seal Teams, Force Reconnaissance Marines, Special Forces).

- Wherever the Secretary determines that the collective quality of life for members of a Military Department would be enhanced by a lesser construction standard; but providing new quarters to a larger number of members.

Existing barracks will not be considered inadequate for assignment because of the new construction standard. The Secretary challenged each Military Department to implement the new standard as part of an integrated barracks plan that considers optimal use of existing adequate quarters, renovation of those that can be made adequate through traditional military construction, and innovative use of private sector solutions.
Implementation Plans

Each of the Military Departments submitted the Secretary of Defense a plan to implement the new construction standard service wide. The plans contain each Military Department's projected number of permanent party space requirements, existing permanent party barracks configuration, resources required and projected schedules for converting existing barracks to the new 1+1 construction standard. The following figure shows the collective impact of these plans over a 20-year period. During that period, the number of spaces served by gang latrines would be reduced from 115,520 to 700. Spaces occupied by three or more persons would fall from 123,316 to 30,978.

![Composite Barracks Configuration Diagram]

Composite Barracks Configuration
The table below provides data regarding the Military Department's estimated barracks requirements, funding required to convert existing barracks to the new construction standard and the timelines for the completing the conversions.

### Military Department Barracks Implementation Plans

<table>
<thead>
<tr>
<th>Military Department</th>
<th>End State Reached</th>
<th>Total Spaces Required</th>
<th>MILCON</th>
<th>O&amp;M</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>2020</td>
<td>199,000</td>
<td>$6,480</td>
<td>$1,710</td>
<td>$1,295</td>
<td>$9,485</td>
</tr>
<tr>
<td>Navy</td>
<td>2013</td>
<td>144,100</td>
<td>2,035</td>
<td>325</td>
<td>299</td>
<td>2,659</td>
</tr>
<tr>
<td>Air Force</td>
<td>2019</td>
<td>115,710</td>
<td>799</td>
<td>320</td>
<td>481</td>
<td>1,600</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>2035</td>
<td>.97,834</td>
<td>1,125</td>
<td>300</td>
<td>270</td>
<td>1,695</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>556,644</td>
<td>10,439</td>
<td>2,655</td>
<td>2,345</td>
<td>15,439</td>
</tr>
</tbody>
</table>

1The Other category is anticipated foreign government investments (Payment-In-Program, Republic of Korea Program, and Japanese Facilities Improvement Program).
## Appendix C. BEQ Requirement Worksheet

### BEQ REQUIREMENT WORKSHEET

**Location:** MCB CAMP PENDLETON - SUMMARY  
**Project #:** BASEWIDE  
**Special Area:** SUMMARY

---

### Requirement Calculation

**Current Billing Report Data**

<table>
<thead>
<tr>
<th>Grade</th>
<th># Persons</th>
<th># Manspaces per Person</th>
<th># Manspaces</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1 - E3</td>
<td>10,208</td>
<td>1</td>
<td>10,208</td>
<td></td>
</tr>
<tr>
<td>E4</td>
<td>2,863</td>
<td>2</td>
<td>5,726</td>
<td></td>
</tr>
<tr>
<td>E5</td>
<td>888</td>
<td>2</td>
<td>1,776</td>
<td></td>
</tr>
<tr>
<td>E6 - E9</td>
<td>128</td>
<td>4</td>
<td>512</td>
<td></td>
</tr>
</tbody>
</table>

**Total:** 13,787  
**Married, geographic bachelors, and off-base:** 12,858  
**Total Enlisted Aboard Location:** 26,645 Estimate Only.

**Personnel Loading Projection**

**FSR Loading (Enlisted):**  
**Students:** 31,156 DRAFT FSR, TO BE SIGNED OCT 1996  
**Married, geographic bachelors, and off-base factor:** 48.6%  
**Projected married, geographic bachelors, and off-base:** 14,036  
**Bachelors housing programming requirement:** 20,764

<table>
<thead>
<tr>
<th>Grade</th>
<th>Distribution</th>
<th># Persons</th>
<th>Manspaces per Person</th>
<th># Manspaces</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1 - E3</td>
<td>Bachelors</td>
<td>49.80%</td>
<td>15,374</td>
<td>1</td>
<td>15,374</td>
</tr>
<tr>
<td>E4</td>
<td>18.70%</td>
<td>3.00%</td>
<td>4,312</td>
<td>2</td>
<td>8,624</td>
</tr>
<tr>
<td>E5</td>
<td>14.30%</td>
<td>24.00%</td>
<td>886</td>
<td>2</td>
<td>1,771</td>
</tr>
<tr>
<td>E6 - E9</td>
<td>17.20%</td>
<td>10.00%</td>
<td>183</td>
<td>4</td>
<td>771</td>
</tr>
</tbody>
</table>

**Total Projections:** 180.69%  
**20,764**  
**26,640**

---

### Current Inventory

<table>
<thead>
<tr>
<th>Bld No</th>
<th>Configuration</th>
<th>Condition</th>
<th># Manspaces</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HG</td>
<td></td>
<td></td>
<td>1,114</td>
<td></td>
</tr>
<tr>
<td>Del Mar (21 Area)</td>
<td></td>
<td></td>
<td>605</td>
<td>1,310</td>
</tr>
<tr>
<td>Chappo (22 Area)</td>
<td></td>
<td></td>
<td>488</td>
<td>976</td>
</tr>
<tr>
<td>24 Area</td>
<td></td>
<td></td>
<td>411</td>
<td>622</td>
</tr>
<tr>
<td>Edson (31A, 31B, 31C Area)</td>
<td></td>
<td></td>
<td>91</td>
<td>182</td>
</tr>
<tr>
<td>Margarita (33 Area)</td>
<td></td>
<td></td>
<td>456</td>
<td>912</td>
</tr>
<tr>
<td>Las Flores (41 Area)</td>
<td></td>
<td></td>
<td>451</td>
<td>902</td>
</tr>
<tr>
<td>Las Pulgas (43 Area)</td>
<td></td>
<td></td>
<td>498</td>
<td>996</td>
</tr>
<tr>
<td>San Onofre (52 Area)</td>
<td></td>
<td></td>
<td>644</td>
<td>1,396</td>
</tr>
<tr>
<td>San Mateo (62 Area)</td>
<td></td>
<td></td>
<td>511</td>
<td>1,022</td>
</tr>
</tbody>
</table>

**Total Current Inventory:** 5,660  
**11,818**

### Total Requested (Programmed)

**Milion Requested/Programmed (FY98/99):**

<table>
<thead>
<tr>
<th>FY</th>
<th>Pro. #</th>
<th>Configuration</th>
<th># Rooms</th>
<th># Manspaces</th>
<th>Cost ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>P-027</td>
<td>2x0</td>
<td>124</td>
<td>248</td>
<td>9.00</td>
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<td>96</td>
<td>P-889</td>
<td>2x0</td>
<td>138</td>
<td>276</td>
<td>12.00</td>
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<td>97</td>
<td>P-070</td>
<td>2x0</td>
<td>160</td>
<td>320</td>
<td>12.00</td>
</tr>
<tr>
<td>97</td>
<td>P-016</td>
<td>2x0</td>
<td>160</td>
<td>320</td>
<td>12.00</td>
</tr>
</tbody>
</table>

**Total Requested:** 642  
**1,264**

### Total Deficit

**Proposed Milion (FY98/99):** 13,438

### Total Proposed Program

720  
1,440

### Remaining Deficiency

**11,598**

---

### Proposed Milion (FY00/01):

<table>
<thead>
<tr>
<th>FY</th>
<th>Pro. #</th>
<th>Configuration</th>
<th># Rooms</th>
<th># Manspaces</th>
<th>Cost ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>P-073</td>
<td>2x0</td>
<td>200</td>
<td>400</td>
<td>18.10</td>
</tr>
<tr>
<td>97</td>
<td>P-074</td>
<td>2x0</td>
<td>200</td>
<td>401</td>
<td>18.20</td>
</tr>
<tr>
<td>97</td>
<td>P-095</td>
<td>2x0</td>
<td>200</td>
<td>401</td>
<td>18.30</td>
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<td>97</td>
<td>P-025</td>
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<td>200</td>
<td>400</td>
<td>18.70</td>
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<td>97</td>
<td>P-026</td>
<td>2x0</td>
<td>200</td>
<td>400</td>
<td>18.60</td>
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<td>97</td>
<td>P-017</td>
<td>2x0</td>
<td>200</td>
<td>400</td>
<td>18.90</td>
</tr>
</tbody>
</table>

**Total Proposed Program:** 1,200  
**2,002**

**Percent of Requirement Proposed for Construction:** 62.3%

Planned construction is less than 30% of requirement. No additional justification is required.

10/17/96
Appendix D. Report Distribution

Office of the Secretary of Defense

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

Department of the Army

Auditor General, Department of the Army

Department of the Navy

Commandant of the Marine Corps
   Commanding General, Marine Corps Base Camp Pendleton
Assistant Secretary of the Navy (Financial Management and Comptroller)
Deputy Chief of Naval Operations (Logistics)
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
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Director, National Security Agency
   Inspector General, National Security Agency
Inspector 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 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 Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
- House Committee on National Security
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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