

Audit



Report

DoD UNACCOMPANIED ENLISTED PERSONNEL HOUSING
REQUIREMENTS DETERMINATION

Report No. 99-239

August 20, 1999

Office of the Inspector General
Department of Defense

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Acronyms

AIT	Advanced Individual Training
ASIP	Army Stationing and Installation Plan
BAQ	Basic Allowance for Quarters
BEQ	Bachelor Enlisted Quarters
CONUS	Continental United States
DEERS	Defense Enrollment and Eligibility Reporting System
DMDC	Defense Manpower Data Center
GPRA	Government Performance and Results Act
HMA	Housing Market Analysis
FSR	Facilities Supporting Requirements
MILCON	Military Construction
O&M	Operations and Maintenance
RPLANS	Real Property Planning and Analysis System
UEPH	Unaccompanied Enlisted Personnel Housing



INSPECTOR GENERAL
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August 20, 1999

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE COMPTROLLER
DEPUTY UNDER SECRETARY OF DEFENSE
(INSTALLATIONS)

SUBJECT: Audit Report on DoD Unaccompanied Enlisted Personnel Housing
Requirements Determination (Report No. 99-239)

We are providing this report for review and comment. This report is the last of a series on DoD unaccompanied enlisted personnel housing requirements. The Deputy Under Secretary of Defense (Installations) did not respond to the draft of this report; however we considered management comments from the Under Secretary of Defense (Comptroller) in preparing the final report.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. The Under Secretary of Defense (Comptroller) comments were responsive. We request that the Deputy Under Secretary of Defense (Installations) provide comments on Recommendations 2.a., 2.b., 2.c., and 2.d. by September 20, 1999.

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 nonconcurrence 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, at (703) 604-9312 (DSN 664-9312) or Mr. Gary R. Padgett, at (703) 604-9243 (DSN 664-9243). See Appendix L for the report distribution. The audit team members are listed inside the back cover.

A handwritten signature in black ink that reads "Robert J. Lieberman".

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 99-239
Project No. 6CG-0072.09

August 20, 1999

DoD Unaccompanied Enlisted Personnel Housing Requirements Determination

Executive Summary

Introduction. This report is the last in a series on DoD unaccompanied enlisted personnel housing (barracks) requirements. This report discusses the process used by DoD to determine requirements for the construction of barracks. In November 1995 the Secretary of Defense 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. The Services are responsible for determining their individual barracks construction needs.

On October 8, 1997, we issued Inspector General, DoD Report No. 98-006, "DoD Family Housing Requirements Determination." That report addressed the inconsistent policies, processes, and procedures used by the Services for family housing requirements determination. The report recommended that the Deputy Under Secretary of Defense (Installations) develop DoD standard processes and procedures to determine family housing requirements. Since that time, the DoD Military Family Housing Requirements Work Group has been established and is still working on developing a standardized process for determining family housing requirements. The challenges related to determining requirements for housing are similar, whether family housing or unaccompanied personnel housing is involved.

Objectives. The overall audit objective was to determine the validity of requirement estimates for DoD unaccompanied enlisted personnel housing. Specifically, we determined whether barracks requirements and cost estimates developed by the Services were appropriately supported. We also announced an objective to review the management control program as it applies to the overall objective.

Results. The Services used inconsistent policies, processes, and procedures to incorporate what they perceived as their particular needs into barracks planning. Those practices varied significantly and did not produce comparable results for determining barracks requirements. As a result, DoD and Congress do not have sufficient assurance the current barracks construction budget submissions address the actual barracks requirements of the Services in an equitable and cost-effective manner. For example, failure to consistently recognize adequate occupied private community housing as an inventory asset will overstate requirements by \$1.7 billion over the life of the DoD barracks replacement program. We were unable to quantify the potential funding reduction on an annual basis because each individual project would be impacted differently. However, avoiding unnecessary construction reduces the risk of underutilized facilities and frees up funds to increase the number of valid projects in the program; thus, maximizing the improvements to the quality of life of the Service member. Also, neither DoD Manual 4165.63-M, "DoD Housing Management Manual"

nor DoD 7000.14R, "Financial Management Regulation," requires a detailed justification, such as the "Military Family Housing Justification" (DD Form 1523 submitted with proposed family housing projects) for proposed unaccompanied personnel housing projects. This hampers oversight and constitutes a material management control weakness as defined by DoD Directive 5010.38.

Summary of Recommendations. We recommend that the Under Secretary of Defense (Comptroller) require requests for proposed barracks construction projects to be supported with justification data similar to the DD Form 1523 required for housing projects. We recommend that the Deputy Under Secretary of Defense (Installations) develop a standard Department of Defense process and standard procedures to determine barracks requirements. We also recommend that the Deputy Under Secretary require standardized sources of data in the barracks requirements determination process. Additionally, we recommend that the Deputy Under Secretary require the Services to ensure that adequate private community housing currently occupied by Service personnel is recognized as housing inventory in the barracks requirements determination process. We also recommend that the Deputy Under Secretary develop a justification documentation form, similar to the DD Form 1523 required for proposed family housing projects.

Management Comments. The Under Secretary of Defense (Comptroller) concurred with the finding and recommendation to require that requests for proposed barracks construction projects be supported with justification data. No comments were received from the Deputy Under Secretary of Defense (Installations). We request that the Deputy Under Secretary of Defense (Installations) comment on this report by September 20, 1999.

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Background

In November of 1995, the Secretary of Defense established a new standard design criterion for design and construction of unaccompanied enlisted personnel housing (barracks). The Military Departments were tasked 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 Services (the Army, the Navy, the Air Force, and the Marine Corps) have estimated a cost of \$15.4 billion to replace existing barracks over a 30-year period using the 1995 standard. Previous audits by the Office of the Inspector General, DoD, and the Army Audit Agency have found numerous problems in the support for individual barracks construction projects. Appendix B provides details of prior audit coverage. Appendix C provides additional background information for the new barracks construction standard and the Military Departments' barracks replacement programs.

The DoD housing program consists of two parts: family housing and unaccompanied personnel housing. On October 8, 1997, we issued Inspector General, DoD Report No. 98-006, "DoD Family Housing Requirements Determination." That report addressed the different policies, processes, and procedures used by the Services for family housing requirements determination. Those practices varied significantly and did not produce comparable results for determining the family housing requirements. The report recommended that the Deputy Under Secretary of Defense (Installations) develop a DoD standard process and procedures to determine family housing requirements. Since that time, the DoD Military Family Housing Requirements Work Group has been established and is working on developing a standardized process for determining family housing requirements.

Objectives

The overall audit objective was to determine the validity of requirement estimates for DoD unaccompanied personnel housing. Specifically, we determined whether barracks requirements and cost estimates developed by the Services were appropriately supported. We also announced an objective to review the management control program as it applies to the overall objective.

This report provides the results of the audit of the various determination processes and procedures for unaccompanied permanent party enlisted personnel requirements within DoD. See Appendix A for a discussion of the scope and methodology.

Standardization of Unaccompanied Enlisted Personnel Housing Policies, Processes, and Procedures

The Services used inconsistent policies, processes, and procedures to determine unaccompanied enlisted personnel housing requirements. This condition existed because each Service implemented DoD guidance separately and developed its own approach to determine unaccompanied enlisted personnel barracks requirements. As a result, DoD and Congress do not have assurances that current unaccompanied enlisted personnel barracks construction budget submissions address the actual unaccompanied enlisted personnel barracks requirements of the Services in an equitable and cost-effective manner. For example, failure to consistently recognize adequate occupied private community housing as an inventory asset will overstate future requirements by \$1.7 billion for the DoD barracks replacement program.

Policy Guidance

DoD Housing Management Manual. DoD Manual 4165.63-M, “DoD Housing Management Manual,” September 1993, (the Housing Manual) establishes policy guidance, procedures, and responsibilities on all matters associated with housing. The manual stipulates that communities near military installations shall be relied on as the primary source of housing for DoD personnel and to meet the need for additional housing. The manual also states that

Military-owned, -leased, or -sponsored housing may be programmed for all grades to meet long-range requirements in areas where the local community cannot support the housing needs of military members, where available housing in the community has been determined to be unacceptable or where personnel must reside on the installation for reasons of military necessity.

Housing projects for new construction, repair, improvement, major renovation, and replacement of housing must be supported with data on projected housing requirements, assets, and deficits. Projected deficits establish the baseline for new construction programming or other housing acquisitions. A deficit (or surplus) is determined by identifying and comparing the projected number of personnel with available acceptable housing assets. Military Departments use long-range personnel strength data (number of personnel) from planning documents to establish a projected number of personnel. Projected available assets to satisfy housing requirements include existing acceptable military assets as well as acceptable private community assets.

Private community assets are to be projected using community housing acceptability and market analysis criteria. Consideration of existing housing includes the following:

- acceptable* private community housing occupied by current permanent party military personnel, and
- currently vacant acceptable rental housing available to permanent party military personnel.

The manual considers permanent party personnel separately from transient personnel because they require different justifications. Permanent party personnel are people assigned on permanent change of station orders, and students assigned to courses lasting 20 or more weeks. Barracks programming considers the housing requirements, both off-base and on-base, of all unaccompanied permanent party personnel assigned to the installation who are eligible for permanent assignment to barracks space. Excluded from barracks programming are members assigned duty in the Continental United States (CONUS), Alaska, or Hawaii, who would be programmable for family housing if they had not elected to be unaccompanied by dependents for reasons other than availability of housing at the permanent duty location. Support for transient personnel barracks is determined by averaging the daily number of temporary duty and other transient personnel eligible for temporary duty quarters on a confirmed reservation basis.

The Housing Manual further requires that for family housing projects, a DD Form 1523, "Military Family Housing Justification," be prepared which provides for a tabular analysis to accumulate and calculate family housing requirements for both the current conditions and the projected conditions 5-years into the future. Although the same type analysis is required for unaccompanied personnel housing, the supporting tabular documentation accumulating and calculating unaccompanied personnel housing requirements is not required.

DoD Financial Management Regulation. DoD 7000.14R, "Financial Management Regulation," May 1994, requires the preparation of a DD1391 "FY__ Military Construction Project Data" for each proposed construction project. The DD 1391 provides a detailed, informative statement as to precisely the requirement for the project. Also, the requirement must establish maximum use of existing facilities and identify alternatives considered, along with reasons for their rejection. For proposed family housing projects, a DD Form 1523 supporting justification must be submitted to the Department of Defense and Congress. The data supplied on the DD Form 1523 should agree with the latest formal housing survey for the location. Supporting justification, such as a DD Form 1523 containing data for family housing requirements and assets, is not available or required to be provided for unaccompanied personnel housing projects.

*The unacceptability of any housing units must be demonstrated case-by-case or by a statistically valid survey.

Service Implementing Guidance for Barracks. The Services have developed different policies and issued their own supplemental guidance to implement the DoD guidance.

- Army Regulation 210-50, "Housing Management," April 21, 1990, outlines the policies, procedures, and responsibilities for determining Army barracks requirements. To ensure consistency and accuracy, the Army uses the Real Property Planning and Analysis System (RPLANS) to determine barracks requirements. The Army computes and programs barracks requirements for personnel in grades E-6 and below at installations with unaccompanied permanent party enlisted personnel requirements of 100 or more. Also, the Army's unaccompanied permanent party barracks requirements computation presumes that 50 percent of E-6 personnel live off post in adequate housing. The Army projects the percentage of bachelor members in grades E-1 to E-5 that are living on the economy onto the future bachelor housing requirement. However, the Army does not determine the military proportion of vacant private sector housing suitable for bachelor members.
- Naval Facilities and Engineering Command (NAVFAC) Note 11101, "Implementation of FY 1999 Base Loading System, Family Housing Requirements System and Bachelor Housing Requirements Survey," January 1997, establishes the required actions for the bachelor housing survey. The guidance considers the bachelor housing survey to be the primary supporting document for justifying acquisition of barracks or modernization of existing barracks. The survey consists of reviewing and validating the "Final Determination of Bachelor Housing Requirements," (R-19 report) and the "Bachelor Personnel Housing Assets," (R-21 report). These two reports are used to identify an organization's current and projected personnel strengths and housing assets, and a surplus or deficit of bachelor housing. The Navy does not project the percentage of bachelor members in grades E-1 to E-4 that are living on the economy onto the future bachelor housing requirement. In addition, the Navy does not determine the military proportion of vacant private sector housing suitable for bachelor members.
- Air Force Policy Directive 32-60, "Housing," outlines procedures for unaccompanied enlisted personnel housing. The Dormitory Master Plan, completed by Air Force personnel, captures data that is used to determine the projected deficit, or surplus, of barracks requirements for E-1 to E-4 personnel. The Dormitory Master Plan assumes that all unaccompanied enlisted personnel in grades E-4 and below will reside on base. Accordingly, community housing currently occupied by personnel in grades E-1 to E-4 is not considered to be future inventory assets. The "Air Force Housing Market Analysis (HMA) Guidance Manual," March, 1997, provides methodology for determining the ability of the private community to house unaccompanied E-5 and above personnel. For purposes of the HMA, unaccompanied enlisted personnel in grades E-5 and above

reside off-base. The Air Force contracts out the housing market analysis. Data from the Dormitory Master Plan and HMA analysis are combined to determine the overall barracks requirements for unaccompanied enlisted personnel that is reported on the Unaccompanied Enlisted Personnel Housing (UEPH) Requirements template (Appendix A of the Dormitory Master Plan Reports).

- 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. Students are categorized as transient personnel when they are in a training status on temporary duty orders for less than 20 weeks. The Marine Corps computes and programs barracks requirements for unaccompanied permanent party enlisted personnel in grades E-1 to E-5. Private community housing currently occupied by all unaccompanied permanent party enlisted marines is used to project the amount of future private community housing that will be occupied. The Marine Corps does not determine the military proportion of vacant private sector housing suitable for bachelor members.

Each Service's supplemental guidance recognizes situations that are perceived as unique to that particular Service. For example, the Army determines barracks requirements only for personnel in grades E-1 to E-6. Fifty percent of personnel in grade E-6 are assumed to be acceptably housed in the private sector. The Air Force determines unaccompanied enlisted personnel barracks requirements for personnel in grades E-1 to E-9. However, unaccompanied enlisted personnel barracks requirements are only programmed for personnel in grades E-1 to E-4. Barracks requirements are programmed for personnel in grades E-5 and above at locations where private community assets are not available.

The Services have the discretion to determine which category of personnel will be included in the computation and programming of unaccompanied enlisted personnel barracks requirements. Once a Service determines which category of unaccompanied enlisted personnel require housing; the requirement is satisfied by the use of existing acceptable barracks, private community housing, or new construction of barracks. New construction of unaccompanied enlisted barracks is programmed when existing acceptable barracks space and private community housing cannot satisfy the barracks requirement, and a deficit exists. A Service overstates barracks requirements when acceptable private community housing currently occupied by Service members is not recognized as an inventory asset that can be used to satisfy the barracks requirement. For example, the Air Force does not recognize private community housing currently occupied by bachelor personnel in grades E-1 to E-4 as a housing asset available to satisfy the barracks requirement for those personnel. The Air Force rationale for not recognizing current private community housing occupied by E-1 to E-4

personnel is that it is Air Force requirements programming policy to house all E-1 to E-4 personnel on base. Therefore, private community housing currently occupied by E-1 to E-4 personnel is not considered a projected community asset in the requirements determination computation by the Air Force. The Air Force currently has 19,684 CONUS personnel in grades E-1 to E-4 that occupy private community housing. Failure to recognize currently occupied private community housing as a projected housing asset in the requirements determination process overstates barracks requirements. The Air Force cost to construct a new barracks is about \$59,000 per space. Recognition of private community assets currently occupied by E-1 to E-4 personnel in the barracks requirements determination process can reduce future construction costs by \$1.2 billion for the Air Force barracks replacement program.

The Navy also does not recognize private community housing currently occupied by bachelor personnel in grades E-1 to E-4 as housing assets available to satisfy the barracks requirement. For example, we found that barracks requirements were being programmed for bachelor personnel in grades E-1 to E-4 who volunteered to reside in private community housing when vacant barracks space existed on base. Inspector General, DoD Report No. 98-080, "Unaccompanied Enlisted Personnel Housing Requirements for Naval Station San Diego, California," February 23, 1998, identified that barracks requirements were being programmed for 515 bachelor personnel in grades E-1 to E-4 who volunteered and were residing in private community housing. Also, the private community housing occupied by E-1 to E-4 bachelor personnel was not considered a projected community asset available to satisfy the barracks deficit in the requirements determination computation. The Navy currently has 8,300 CONUS bachelor personnel in grades E-1 to E-4 that occupy private community housing. Failure to recognize currently occupied private community housing as a projected housing asset in the requirements determination process overstates barracks requirements. Based on \$59K to construct a new barracks space, recognition of private community assets currently occupied by E-1 to E-4 personnel in the barracks requirements determination process can reduce future construction costs by \$490 million for the Navy barracks replacement program.

The Army and the Marine Corps recognize private community housing occupied by bachelor personnel in grades E-1 to E-4 as housing assets available to satisfy the future barracks requirements.

Conclusion. The Housing Manual requires that communities near military installations be relied on as the primary source of housing for DoD personnel as well as being the primary source to meet a need for additional housing. A market analysis is required at all locations where acquisition of military housing is programmed. The market analysis must determine if private sector housing is acceptable. The Housing Manual states the acceptable private community assets shall be projected using those community housing acceptability and market analysis criteria. Consideration of projected housing assets must include acceptable private community housing occupied by permanent party military personnel. As a minimum, we believe the market analysis should count private sector housing currently voluntarily occupied by military personnel as a future housing asset.

Neither the Housing Manual nor the Financial Management Regulation requires a detailed justification, such as the DD Form 1523, to be submitted for proposed unaccompanied personnel housing projects. Submission of a standardized justification with the proposals for unaccompanied personnel housing projects would help ensure that the Housing Manual guidance is consistently followed when computing unaccompanied personnel housing requirements.

Consistent application of DoD policy to use private community housing to satisfy unaccompanied enlisted personnel barracks requirements by the Air Force and the Navy can reduce future costs associated with their barracks replacement programs. Additionally, accurate identification of barracks requirements where valid deficits exist maximizes the needed improvements to the quality of life for the Service member. Also, DoD management would have consistent requirements data to use when evaluating the results of the overall DoD barracks replacement program.

Barracks Requirement Process

The Services used different processes to calculate barracks requirements. The Navy and the Marine Corps use computer systems. Army and the Air Force use a combination of a computer system and private contractors.

The Army Process. The Army identifies three categories of personnel requiring separate justifications for barracks requirements.

- **Permanent Party Enlisted Personnel.** Personnel permanently assigned to an installation and students attending training, whose course of instruction is 20 weeks or more.
- **Trainees.** Personnel attending initial entry or secondary training.
- **Transients.** Personnel in temporary duty status and students attending advanced individual training, whose course of instruction is less than 20 weeks.

The Army uses a centralized approach to consistently identify barracks requirements for each of the three barracks categories. RPLANS is the integrated computer support system that provides data for the Army computation process for barracks requirements. RPLANS identifies separately, barracks requirements for each of the three categories of personnel requiring barracks space. See Appendix D for details of the Army process to determine barracks requirements for unaccompanied permanent party enlisted personnel.

The Navy Process. The Navy uses a bachelor housing survey to identify barracks requirements for unaccompanied permanent party personnel, students, and transient personnel. The survey consists of reviewing and validating the centrally developed “Final Determination of Bachelor Housing Requirements,” (R-19 report) and the “Bachelor Personnel Housing Assets” (R-21 report).

These two reports are used to identify an organization's current and projected personnel strengths and housing assets, and a surplus or deficit of bachelor housing. The Navy uses the R-19 report to determine a total effective barracks deficit or surplus, which includes the total barracks requirements by category; that is, unaccompanied permanent party personnel, students, and transient personnel. The three categories are computed separately; however, the Navy does not report separately the number of adequate permanent party and transient barracks assets used to satisfy the total effective barracks requirements. Therefore, the barracks requirements for either permanent party personnel or transient personnel cannot be isolated.

Inspector General, DoD Report No. 98-080, "Unaccompanied Enlisted Personnel Housing Requirements for Naval Station San Diego, California," February 23, 1998 recommended that the R-19 report calculate and report the inventories and the deficits for unaccompanied permanent party enlisted barracks requirements separately from transient barracks requirements so that the data is available for the two distinct categories of barracks requirements. The Assistant Secretary of the Navy (Installations and Environment) concurred with the recommendation. See Appendix E for details of the process the Navy uses in the R-19 report to determine barracks requirements. See Appendix F for an example of the R-19 report.

The Air Force Process. The Air Force uses the UEPH requirements template to determine the barracks requirements for unaccompanied permanent party enlisted personnel. Data from the Dormitory Master Plan and HMA are the primary sources of data used to analyze the projected unaccompanied enlisted personnel barracks requirements and the number of barracks assets available to satisfy the requirement. The Air Force uses the term "room" on the UEPH requirements template as a unit of measure in lieu of "space." The UEPH requirements template consists of five parts as follows:

- Part 1 – Requirements summary;
- Part 2 – UEPH requirements computation;
- Part 3 – Existing dormitory (Government owned or Government leased) assets;
- Part 4 – UEPH additional rooms funded, but not yet in the inventory; and
- Part 5 – Dormitory construction program synopsis.

The Air Force does not have a specific form for determining barracks requirements for transient personnel. Transient personnel requirements are computed as needed and included in a DD 1391. See Appendix G for details of the process the Air Force uses to develop data reported in the UEPH requirements template. See Appendix H for an example of UEPH requirements template (Parts 1 through 5).

The Marine Corps Process. The Marine Corps uses the BEQ Requirement Worksheet to determine the barracks requirements for unaccompanied

permanent party enlisted personnel. The worksheet is centrally prepared at Headquarters, Marine Corps for installations and is sent out to applicable installations for data validation. The worksheet provides an analysis of the barracks deficit at a base by comparing the personnel loading projection with existing barracks assets. The Marine Corps relies on the Facilities Supporting Requirements document to determine its total long-range planning personnel needs. Students are removed from the personnel loading project when determining the total number of projected unaccompanied permanent party enlisted personnel. However, the worksheet used at the time of the audit did not remove Marine Expeditionary Units that deploy on a cycle. Also, projected transient personnel reported in the Facilities Supporting Requirements are included in the BEQ Requirements Worksheets as permanent party personnel. The Marine Corps does not currently compute barracks requirements for transient or student personnel because the Marine Corps does not plan to program or construct barracks for transient or student personnel.

Inspector General, DoD Report No. 98-003, "Unaccompanied Enlisted Personnel Housing Requirements for Marine Corps Base Camp Lejeune, North Carolina," October 3, 1997, recommended that the Commanding General, Marine Corps Base Camp Lejeune remove transient personnel, deployed personnel and student personnel whose training is less than 20 weeks from data used in determining permanent party enlisted personnel barracks requirements. The Marine Corps agreed with the recommendations to revise guidance for computing barracks requirements and to remove transient personnel, deployed personnel and student personnel whose training is less than 20 weeks from data used to determine permanent party barracks requirements. A similar condition was also identified and reported in Inspector General, DoD Report No. 97-142, "Unaccompanied Enlisted Personnel Housing Requirements for Marine Corps Base Camp Pendleton, California," May 9, 1997. See Appendix I for details of the process the Marine Corps uses to develop data reported in the BEQ Requirement Worksheet. See Appendix J for an example of the BEQ Requirement Worksheet that contains the formulas used to calculate a barracks requirement.

Conclusion. The Services use inconsistent processes to determine barracks requirements for unaccompanied permanent party enlisted personnel and those processes generate significantly different results. Each process has been developed to recognize what the Services perceive as unique circumstances associated with developing unaccompanied permanent party enlisted personnel requirements. For example, the Navy's R-19 report has a section that identifies the number of personnel deployed on a rotational basis and removes these individuals from the unaccompanied permanent party enlisted personnel requirements determination calculation. Although personnel strengths are computed for both unaccompanied permanent party enlisted personnel and transient personnel, housing assets used to satisfy each requirement are combined making the identification of barracks requirement for each category of personnel impossible. Also, the Marine Corps BEQ Requirement Worksheet included transient personnel and deployed personnel in personnel loading project data that is used to determine the total number of projected unaccompanied permanent party enlisted personnel. Because the Services use different policies and processes, they do not provide consistent results for determining unaccompanied permanent party enlisted personnel barracks requirements. If a

standard barracks requirements process was used to develop unaccompanied permanent party enlisted personnel barracks requirements, the Services could ensure that permanent party and transient personnel barracks requirements are computed properly and based on separate justifications as required by the Housing Manual.

Permanent Party Enlisted Personnel Requirements Procedures

Both the Housing Manual and Financial Management Regulation require the Services to provide data regarding requirements that justify a barracks deficit that supports the need for resulting military construction projects. The Housing Manual provides a general process for evaluating current and projected unaccompanied enlisted personnel barracks requirements, Government and local housing assets, and the resulting unaccompanied enlisted personnel barracks deficit or surplus. Even though the Housing Manual provides the same instructions to the Services for evaluating unaccompanied enlisted personnel barracks requirements, the information used by the Services is obtained from different sources, and in some instances, each Service applies different policy assumptions to the data.

Source of Data. Table 1 provides a comparison of the sources of barracks information used by the Services to compute unaccompanied enlisted personnel barracks requirements. The discussion following the table breaks down sources and applications of information by each Service to determine its barracks requirements.

<u>Description</u>	<u>Army</u>	<u>Navy</u>	<u>Air Force</u>	<u>Marine Corps</u>
1. Total Personnel Strength	Army-Level Database	Navy-Level Database	Air Force-Level Database	Marine Corps Level Database
2. Permanent Party Personnel	Army-Level Database	Navy-Level Database	Air Force-Level Database	Marine Corps Level Database
3. Percent of Bachelors	Military Wide Database	Navy-Level Database	Air Force-Level Database	Base Level Database
4. Effective Unaccompanied Personnel Housing Requirement	Line 1 x Line 3	Line 1 x Line 3	Line 1 x Line 3	Line 1 x Line 3
5. Housing Assets (a+b)				
5a1. DoD Owned/Controlled Assets	Army and Base-Level Database	Navy and Base-Level Database	Air Force and Base-Level Database	Marine Corps and Base-Level Database
5a2. Under Contract/Approved	Army and Base Level Database	Navy and Base Level Database	Air Force and Base Level Database	Marine Corps and Base-Level Database
5b1. Projected Source of Private Housing for E1 to E4	Army Level Database. Uses Current Percentage	Current Source Ignored Considered to be Zero	Current Source Ignored Considered to be Zero	Marine Corps Level Database Uses Current Percentage
5.b2 Military Fair Share of Projected Vacant Housing	Not Reviewed. None Reported	Not Reviewed. None Reported	Not Reviewed. None Reported	Not Reviewed. None Reported
6. Barracks Deficit/Surplus	Difference of Line 4 and Line 5	Difference of Line 4 and Line 5	Difference of Line 4 and Line 5	Difference of Line 4 and Line 5

Total Personnel Strength. Projected total personnel strength levels are the total personnel strength levels anticipated 6 years into the future, regardless of temporary increases or decreases from that level. Personnel strength levels are based on the latest Service-approved personnel planning documents. Each Service obtains current total personnel strength information from different sources. Table 2 shows the primary source of current personnel strength data used to determine grade distributions and individual assignment status (permanent party, transient, or student).

<u>Service</u>	<u>Source of Current Total Personnel Strength</u>
Army	Facility Planning System
Navy	Bureau of Naval Personnel, Base Loading System
Air Force	Headquarters Atlas Database
Marine Corps	Headquarters, Marine Corps Manpower Office

The Army uses the Facilities Planning System to determine the grade distribution for each programmed unit reported in the Army Stationing and Installation Plan (ASIP). The ASIP reports total projected personnel strength data for each programmed unit. The number of projected permanent party

enlisted personnel by grade for a unit is determined by multiplying the total projected ASIP personnel strength number reported for a programmed unit by the grade percentages obtained from the Facilities Planning System. The Marine Corps uses an installation's bachelor housing billeting data to determine the grade distribution for each programmed unit reported in the Facilities Supporting Requirements document. The Facilities Supporting Requirements reports total long range personnel strength data for each Marine Corps programmed unit.

The Navy and Air Force obtain personnel data from either Service headquarters' or installations' databases to determine the number of projected permanent party personnel. Projected personnel strength data used by the Navy and Air Force is provided by individual grades E-1 to E-9 for programmed units.

The Defense Manpower Data Center (DMDC) obtains uniform financial and personnel data for Service personnel. The DMDC current personnel data can be obtained for all Service members located at an installation, regardless of Service, by using a unit identification code. Using the DMDC current personnel data to determine grade distributions and permanent party status provides the most consistent and complete information for the Services. Also, the data required for other Service personnel at the installation can be identified in a timely, efficient manner.

Bachelor Factor vs Marriage Factor. The Services express a bachelor factor as the percentage of single personnel in each grade without dependants. The total number of permanent party personnel is multiplied by the bachelor factor for each grade to determine the total number of unaccompanied permanent party personnel in each grade. Each Service obtains current dependent status for military members from different sources. Dependent status is used to determine a Service member's marital status when computing unaccompanied permanent party enlisted personnel barracks requirements. Table 3 provides the source of information used by the Services to determine the marital status for Service members.

<u>Service</u>	<u>Source of Current Marital Status</u>
Army	BAQ and DEERS
Navy	Bureau of Naval Personnel
Air Force	Headquarters Atlas Database
Marine Corps	Installation Billeting Data

The Army uses Basic Allowance for Quarters (BAQ) payment status codes to compute family housing requirements and Defense Enrollment and Eligibility Reporting System (DEERS) data to compute bachelor housing requirements. Not only are family and bachelor housing requirements determined from different databases they are determined at separate times. The Navy primarily uses the Bureau of Naval Personnel database to determine if a member is either a family or bachelor housing requirement. Navy family and bachelor housing

requirements are determined from the same database at the same times. The Air Force uses different databases obtained at different times to determine if a member is either a family or bachelor housing requirement. The Marine Corps uses the installation billeting database to determine if a member is either a family or bachelor housing requirement. Family and bachelor housing requirements are determined from the same database but at different times.

The Services use different data and methods to develop bachelor factors that are used to determine what portion of projected personnel strength data is unaccompanied permanent party enlisted personnel for a grade. Using a standard source of data and a standard method to compute bachelor factors would ensure that consistent and reliable data is being used by DoD management to make unaccompanied permanent party enlisted personnel barracks decisions. Also, if the data and method used to compute a bachelor factor is not compatible with the method used to compute a marriage factor used by a Service's family housing requirements determination process, then the total number of personnel requiring housing will not be properly identified. For example, the Army uses DEERS database to determine grade-specific bachelor factors used in the unaccompanied permanent party enlisted personnel barracks requirements determination process. An installation's bachelor percentages are determined by dividing single personnel without dependents in each grade by the personnel in each grade. The Army's family housing requirements determination process uses BAQ payment status codes to determine an installation's grade-specific marriage factors. Each Service member has a BAQ payment status code in his or her military pay record that shows the payment status for the BAQ being disbursed to the member. Appendix K lists the BAQ payment status codes reported in military pay record data maintained by a DMDC database. For marriage factor computation purposes, the Army divides the number of personnel having BAQ payment status Codes 1, 4, or 5 by the total number of personnel to identify a grade-specific marriage factor. Table 4 shows computed marriage factors and bachelor factors for personnel in grades E-1 to E-6 assigned to units located at Fort Lewis.

Table 4. Marital Factors Data¹

<u>Grade</u>	<u>Marriage Factor²</u>	<u>Bachelor Factor³</u>	<u>Total Marital Factor Identified</u>	<u>Difference</u>
E-1 to E-4	46.8	50.1	96.9	3.1
E-5	76.7	14.7	91.4	8.6
E-6	86.2	5.9	92.1	7.9

¹Marital factors are expressed as a percent.

²Marriage factors computed using Army methodology and BAQ payment status data as of March 1999.

³Bachelor factors are current and were provided by the Army contractor who computed factors using DEERS data as of June 1997.

Failure to use compatible data and a compatible method to compute both a marriage factor and a bachelor factor has underestimated the number of

personnel requiring to be housed by 666 personnel. Table 5 shows the computation of underestimated personnel requiring housing as a result of the use of incompatible data and methods to compute both a marriage factor and a bachelor factor used in the Army's housing requirements determination processes.

Table 5. Computation of Underestimated Personnel Requiring Housing

<u>Grade</u>	<u>Personnel Per ASIP¹</u>	<u>Difference²</u>	<u>Total Underestimated Personnel</u>
E-1 to E-4	8,269	3.1	256
E-5	3,072	8.6	264
E-6	1,854	7.9	<u>146</u>
Total			666

¹ASIP data as of June 1997.

²Marital factors are expressed as a percent.

Conclusion. DMDC personnel data provides the most consistent, timely, and complete information for the Services. DMDC current personnel data is a subset of centralized payroll information from the Defense Finance and Accounting Service. The DMDC current personnel data can also be obtained for all Service members located at each installation, regardless of Service, by using a member's unit identification code. Also, the bachelor status data required for other Service personnel at the installation can be identified in a timely and efficient manner. Therefore, using data from a DMDC centralized database to compute grade distribution and grade-specific bachelor factors for an installation can provide consistent data for the Services' use in the barracks requirements determination processes.

Summary

Each Service uses different policies, processes, and procedures to determine their particular unaccompanied permanent party enlisted personnel barracks needs. DoD can reduce its barracks replacement requirements by \$1.7 billion by accurately identifying private community housing occupied by bachelor personnel in grades E-1 to E-4 as an inventory asset in the unaccompanied permanent party enlisted personnel barracks determination process. We were unable to quantify the potential funding reduction on an annual basis because each individual project would be impacted differently. However, avoiding unnecessary construction reduces the risk of underutilized facilities and frees up funds to increase the number of valid projects in the program. This will maximize the improvements to the military personnel quality of life. Standardizing the Department of Defense process and procedures would:

-
- assure that DoD and Congress are receiving current barracks construction budget submissions that are comparable, and based on standard methodology.
 - provide a source for obtaining current total personnel strength information, such as DMDC, and would provide the Services with the most consistent, complete, and readily available information.
 - ensure that management controls are accurate and valid for the unaccompanied permanent party enlisted personnel requirements determination process.
 - ensure the compatibility of the unaccompanied permanent party enlisted personnel barracks requirements and the family housing requirements determination process to ensure that all personnel requiring housing would be accurately identified.

Inspector General, DoD Report No. 98-006, "DoD Family Housing Requirements Determination," October 8, 1997, states that the Services used different policies, processes, and procedures to incorporate what they perceive as their particular needs into housing planning. Those practices varied significantly in cost and did not produce comparable results for determining family housing requirements. The report recommended that the Deputy Under Secretary of Defense (Industrial Affairs and Installations) develop a DoD standard process and standard procedures to determine family housing requirements. The Deputy Under Secretary of Defense (Industrial Affairs and Installations), the Army, the Navy, the Air Force, and the Marine Corps concurred with the need to develop and standardize the process and sources of data for determining family housing requirements.

Together, the unaccompanied permanent party enlisted personnel barracks requirements determination process and the family housing requirements process identify the total military housing requirement. The same principles of consistent approach and clear criteria are being incorporated into the family housing requirements determination process, and it is only logical that the barracks requirements determination process be reengineered in the same manner. The two processes use similar data when determining personnel requirements and housing assets available to satisfy the housing needs.

Further, the Housing Manual and the Financial Management Regulation should require a detailed justification to the Department of Defense and Congress, such as the DD Form 1523 submitted with proposed family housing projects, for proposed unaccompanied personnel housing projects. Submission of a standardized justification with proposed barracks projects would help ensure that the Housing Manual guidance is consistently followed when computing all housing requirements.

Recommendations and Management Response

1. We recommend the Under Secretary of Defense (Comptroller) require requests for proposed barracks construction projects to be supported with justification data similar to the DD Form 1523 required for housing projects.

Management Comments. The Under Secretary of Defense (Comptroller) concurred with the recommendation.

2. We recommend the Deputy Under Secretary of Defense (Installations):

a. Develop a Department of Defense standardized process for determining unaccompanied enlisted personnel barracks requirements. Specifically, the process would ensure that barracks requirements are separately computed for permanent party personnel, transient personnel and student personnel.

b. Require the Services to use standardized sources of data, such as the Defense Manpower Data Center, in the barracks requirements determination process. Specifically, the data would be used to identify:

- **grade distributions when not provided in projected manpower strength data,**
- **bachelor factors,**
- **personnel data for other Service members located at an installation, and**
- **inventory of community housing currently occupied by Service personnel.**

c. Require the Services to ensure that private community housing currently occupied by Service personnel is recognized as housing inventory in the barracks requirements determination processes.

d. Develop a justification documentation form, similar to the DD Form 1523 required for proposed housing projects, to support barracks project requests to the Department of Defense and Congress.

Management Comments. The Deputy Under Secretary of Defense (Installations) did not comment on a draft of this report. Therefore, we request comments on the final report by September 20, 1999.

Appendix A. Audit Process

Scope

Work Performed and Limitations to Overall Audit Scope. We reviewed the process and supporting documentation used to develop the unaccompanied personnel housing requirements for the Army, Navy, Air Force and Marine Corps. We limited the scope of the audit to personnel housing requirements for unaccompanied permanent party enlisted personnel.

DoD-wide Corporate Level Government Performance and Results Act (GPRA) Goals. In response to the GPRA, the Department of Defense has established 6 DoD-wide corporate level performance objectives and 14 goals for meeting these objectives. This report pertains to achievement of the following objectives and goals:

Objective: Fundamentally reengineer DoD and achieve a 21st century infrastructure.

Goal: Reduce costs while maintaining required military capabilities across all DoD mission areas. (DoD-6)

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

Methodology

We performed the audit using DoD and Service guidance for determining barracks requirements. We relied on computer-processed data when reviewing each Service's data for future manpower estimates and barracks inventory used in the requirements determination process. Each Service's data was uniformly produced and verified within that Service. Because each Service's data was uniformly produced, the organization verified its own data, and we reviewed the adjustment process. The data reliability was considered adequate.

Audit Period, Dates, and Standards. This economy and efficiency audit was performed during November 1998 through March 1999 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD.

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

Management Control Program

DoD Directive 5010.38, "Management Control Program," August 26, 1996, requires DoD managers to implement a comprehensive system of management controls that provides reasonable assurances that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of Review of the Management Control Program. We reviewed the adequacy of management controls over the Services' processes for unaccompanied permanent party enlisted personnel barracks requirements. Specifically, we reviewed controls over the Services' processes to prepare the documentation that supports barracks unaccompanied permanent party enlisted personnel barracks requirements.

Adequacy of Management Controls. We identified a DoD material management control weakness as defined by DoD Instruction 5010.40. Management controls were not effective to ensure the Services' policies, processes, and procedures to determine unaccompanied permanent party enlisted personnel barracks requirements were consistent and valid. The recommendations, if implemented, will improve the reliability of the requirements estimates and the credibility of DoD budget requests, and ensure that \$1.7 billion of construction funds are used for valid barracks projects. A copy of the report will be provided to the senior official responsible for management controls in the Office of the Under Secretary of Defense for Acquisition and Technology.

Self Assessment of Controls. No DoD Component had identified or reported the weaknesses found in this audit. The decentralization of the requirements determination process made it difficult for any Service to recognize inconsistencies between its practices and those of the other Services.

Appendix B. Summary of Prior Coverage

Inspector General, DoD

Inspector General, DoD Report No. 99-018, "Unaccompanied Enlisted Personnel Housing Requirements for Naval Air Station North Island, California," October 21, 1998, states the Naval Facilities Engineering Command overestimated the NAS North Island requirement for unaccompanied permanent party enlisted barracks by 943 barracks spaces. The overstatement occurred because: permanent party personnel and rotational personnel are not reported accurately in the data that was used to compute permanent party barracks requirements; voluntarily separated geographic bachelor family housing requirements are improperly reported as unaccompanied permanent party enlisted barracks requirements; and the inventory of unaccompanied permanent party enlisted barracks spaces and private housing assets used to satisfy the unaccompanied permanent party enlisted personnel requirements are not reported accurately. The report recommended that the Commander, Naval Facilities Engineering Command recompute barracks requirements for unaccompanied permanent party enlisted personnel reported for Naval Air Station North Island. The report also recommended that the Commander, Naval Facilities Engineering Command recompute the inventory of adequate bachelor housing assets used to satisfy unaccompanied permanent party enlisted barracks requirements. The Assistant Secretary of the Navy (Installations and Environment) concurred with the recommendation to recompute barracks requirements for permanent party personnel and the inventory of adequate bachelor housing assets used to satisfy unaccompanied permanent party enlisted barracks requirements. However, the Assistant Secretary of the Navy nonconcurred with including private sector housing occupied by E-1 to E-4 personnel in the inventory of private housing assets. Because the Navy nonconcurred with the recommendations, the condition and recommendations are addressed in this summary report for DoD Unaccompanied Enlisted Personnel Housing Requirements Determination.

Inspector General, DoD Report No. 98-137, "Unaccompanied Enlisted Personnel Housing Requirements for Fort Lewis, Washington," May 26, 1998, states the Army underestimated the Fort Lewis requirement for unaccompanied permanent party enlisted personnel by 471 barracks spaces. The underestimate occurred because bachelor factors used by the Army in the requirements computation process were not an accurate representation of the unaccompanied permanent party personnel barracks requirement. The report recommended the Army Assistant Chief of Staff for Installation Management recompute permanent party barracks requirements for Fort Lewis. Specifically, in computing the requirements, the Army should use closest dependent basic allowance for quarters codes (BAQ dependent codes) to compute bachelor factors and use BAQ dependent codes to compute bachelor factor percentages in the requirements determination process for all Army installations. The report further recommended that the Army request the Defense Finance and Accounting Service, Indianapolis, to provide BAQ dependent codes for all Army personnel from monthly payroll data provided to the Defense Manpower

Data Center. Finally, the report recommended that the Army obtain BAQ dependent codes from the Defense Manpower Data Center for computing bachelor factor percentages for Army installations. The Army Assistant Chief of Staff for Installation Management nonconcurred with the recommendations. The Assistant Chief of Staff believes that the report does not present a convincing argument in favor of using Defense Manpower Data Center data from Defense Finance and Accounting Service in lieu of Defense Enrollment and Eligibility Reporting System data for the computation of UEPH barracks requirements. Because the Army nonconcurred with the recommendations, the condition and recommendations are addressed in this summary report for DoD unaccompanied enlisted personnel housing requirements determination.

Inspector General, DoD Report No. 98-080, "Unaccompanied Enlisted Personnel Housing Requirements for Naval Station San Diego, California," February 23, 1998, states the Naval Facilities Engineering Command underestimated Naval Station San Diego's requirement for permanent party enlisted barracks by 153 barracks spaces. The understatement occurred because the Navy did not accurately identify permanent party personnel and did not accurately report the inventory of unaccompanied permanent party barracks spaces that are used to compute unaccompanied permanent party barracks requirements. The report recommended that the Commander, Naval Facilities Engineering Command recompute barracks requirements for unaccompanied permanent party enlisted personnel reported for Naval Station San Diego, and consistently use the DoD minimum standard of adequacy when counting and reporting the inventory of permanent party barracks spaces for grades E-1 to E-4. The report recommended that Commander, Naval Facilities Engineering Command calculate and report the inventories and the deficits for unaccompanied permanent party enlisted barracks requirements separately from transient barracks requirements so that the data is available for the two distinct categories of barracks requirements. The Assistant Secretary of the Navy (Installations and Environment) concurred with all recommendations.

Inspector General, DoD Report No. 98-003, "Unaccompanied Enlisted Personnel Housing Requirements for Marine Corps Base Camp Lejeune, North Carolina," October 3, 1997, states that Marine Corps Base Camp Lejeune overestimated the number of unaccompanied permanent party enlisted personnel requiring barracks by 6,591 spaces. The overestimate occurred because guidance for barracks requirements did not specify removing ineligible Marines from personnel data used to compute barracks requirements. The report recommended that the commandant of the Marine Corps revise guidance for computing barracks requirements to require that transient, deployed, and student personnel whose training is less than 20 weeks be excluded from personnel strength data used to determine permanent party barracks requirements. Also recommended was that the Commanding General, Marine Corps Base Camp Lejeune remove transient personnel, deployed personnel on a rotational cycle, and student personnel from permanent party personnel data used in determining barracks requirements. The Marine Corps agreed with the recommendations to revise guidance for computing barracks requirements and to remove transient personnel, deployed personnel and student personnel whose training is less than 20 weeks from data used to determine permanent party barracks requirements.

Inspector General, DoD Report No. 97-142, "Unaccompanied Enlisted Personnel Housing Requirements for Marine Corps Base Camp Pendleton, California," May 9, 1997, states that 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. The report recommended that the commandant of the Marine Corps revise guidance for computing barracks requirements to require that transient, deployed, 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. The report also recommended that the Commanding General, Marine Corps Base Camp Pendleton remove transient personnel, deployed personnel on a rotational cycle, and personnel in grades E-6 and above residing in the local community from permanent party personnel data used in determining barracks requirements. The Marine Corps agreed with the recommendations to revise guidance for computing barracks requirements and to remove transient personnel, deployed personnel and E-6 personnel residing in the community from data used to determine permanent party barracks requirements.

Army

U.S. Army Audit Agency Report No. AA 98-59, "Unaccompanied Enlisted Personnel Housing Program," December 29, 1997, states that the Army overstated its barracks requirements for permanent party soldiers in CONUS by about 7,200 spaces at an estimated cost of \$217.7 million. The overestimate occurred because the database used to compute "bachelor factors" for permanent party soldiers included: trainees and students in advanced individual training (AIT), non-Army Service members not housed at Army installations, and students attending AIT whose course of instruction was 20 weeks or longer. Although these students were authorized permanent change of station entitlements and qualified as permanent party personnel, they were still receiving entry-level training and should be excluded from the Army's determination requirement for the "one-plus-one" design standard criterion. The report recommended that the Army recompute barracks requirements for permanent party soldiers, with the necessary adjustments:

- for trainees and students (including students attending AIT instructions 20 weeks or more),
- for soldiers in grade E-6 who are housed off post from the calculations of soldiers adequately housed off post, and
- for enlisted personnel housed off post because of barracks renovation.

Also, the Army should ensure that the "bachelor factor" used in the computation is based only on enlisted soldiers assigned to the units at the installation, and include trainees and students. The Army Assistant Chief of Staff for Installation Management concurred with all the recommendations.

U.S. Army Audit Agency Report No. AA 97-97, "Space Utilization, U.S. Army Infantry Center and Fort Benning, Fort Benning, Georgia," January 6, 1997, found that new construction requirements for barracks to house permanent party soldiers were overstated. Fort Benning overstated barracks requirements for the Ranger regiment by 174 spaces at an estimated cost of \$6.9 million because it included single soldiers with dependents in the requirements determination process (computations). The report recommended that the command recalculate barracks requirements for permanent party soldiers, excluding single soldiers with dependents from the calculations, and obtain the projected strength figures from the most current ASIP. Also, the command should reduce the requirement for construction of permanent party barracks in the installations master plan to accurately reflect the shortage of adequate barrack space, revise the FY 97 barracks construction project for the Ranger regiment and delete the excess requirements included in the project justification. The Command concurred with all the recommendations.

U.S. Army Audit Agency Report No. AA 96-218, "Audit of Barracks Requirements, U.S. Army Signal Center and Fort Gordon, Fort Gordon, Georgia," June 14, 1996, found 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 spaces for its permanent party soldiers, and needed to build a 300-person barracks during FY 1998 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.

Appendix C. 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 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.

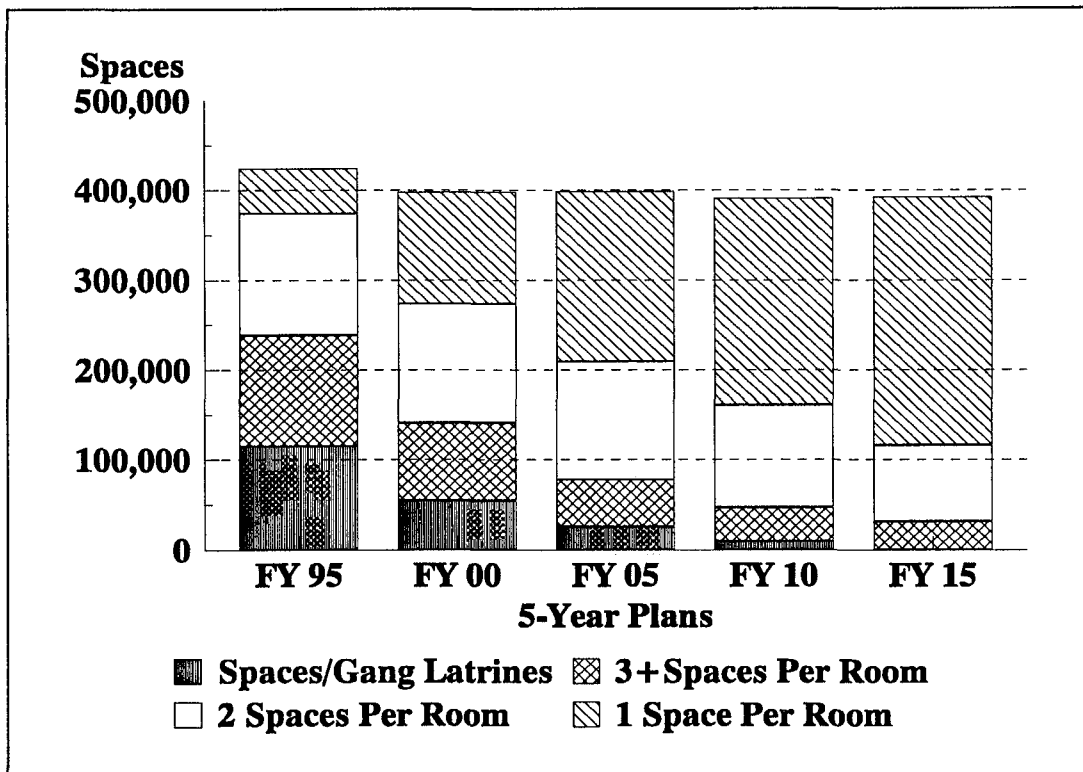
The standard for new construction is to be implemented as soon as practical, taking into consideration that barracks projects are at various stages of design and construction. The standard for new construction may be waived by the Secretary of a Military Department under the following circumstances:

- 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 to 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 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

The table below provides data regarding the Services' estimated barracks requirements, funding required to convert existing barracks to the new construction standard and the timelines for completing the conversions.

Service Barracks Implementation Plans

Service	End State Reached	Permanent Spaces Required	Total Resources Required (\$ In Millions)			
			MILCON	Other	O&M*	Total
Army	2020	199,000	\$6,480	\$1,710	\$1,295	\$9,485
Navy	2013	144,100	2,035	325	299	2,659
Air Force	2019	115,710	799	320	481	1,600
Marine Corps	2035	97,834	1,125	300	270	1,695
Total		556,644	10,439	2,655	2,345	15,439

*The Other category is anticipated foreign government investments (Payment-In-Program, Republic of Korea Program, and Japanese Facilities Improvement Program).

Appendix D. Army Barracks Requirement Determination Process

The Army Process

The Army identifies three categories of personnel requiring separate justifications for barracks requirements.

Permanent Party Enlisted Personnel. Personnel permanently assigned to an installation and students attending training, whose course of instruction is 20 weeks or more.

Trainees. Personnel attending initial entry training, including one station unit training.

Transients. Personnel in temporary duty status and students attending advanced individual training, whose course of instruction is less than 20 weeks.

The Army uses a centralized approach to consistently identify barracks requirements for each of the three barracks categories. RPLANS is the integrated computer support system that provides data for the Army computation process for barracks requirements. For unaccompanied permanent party enlisted personnel, the Army computes requirements for grades E-6 and below at installations with unaccompanied permanent party enlisted personnel requirements of 100 or more barracks spaces. Also, the Army's unaccompanied permanent party barracks requirements computation presumes that 50 percent of E-6 personnel live off post in adequate housing.

Permanent Party Barracks Requirements. The effective permanent party barracks requirement is defined as the number of assigned unaccompanied permanent party personnel entitled to barracks space. To calculate the effective permanent party barracks requirements, the Army integrates existing facility data and determines the number of personnel expected to be assigned to the post 6 years into the future. At this point, a grade distribution and bachelor factor is applied to determine the number of unaccompanied permanent party personnel requiring barracks space. The number of unaccompanied permanent party personnel requiring barracks space is multiplied by the number of spaces each grade is authorized to determine the total space requirements. The Army compares the gross barracks requirements with barracks assets to determine the deficit or surplus.

Permanent Party Personnel. The term "permanent party personnel" is defined as the total number of host and tenant personnel reported on the ASIP that are programmed to be assigned to the installation. The Army relies on the ASIP to determine its long-range planning numbers. The ASIP reports an installation's personnel strength data 6 years into the future.

Grade Distribution. The percentage of personnel by grade for each programmed unit reported in the ASIP is obtained from the Facility Planning System. The ASIP reports total personnel strength for each programmed unit. Therefore, the grade distribution is applied to a unit's total personnel strength reported in the ASIP in order to determine the total personnel by grade.

Bachelor Factors. A bachelor factor is expressed as the percentage of single personnel in each grade without dependents. The percentage is determined by dividing single personnel without dependents in each grade by the personnel in each grade. Another element includes the single parents without custody of dependents. The Army uses data reported in DEERS to calculate the bachelor factor for grades E-1 through E-4, E-5, and E-6. The DEERS report identifies personnel, marital status, number of dependents, and quarters allowance, if received.

Entitled Barracks Space. An entitled barracks space equates to an adequate minimum space standard based on grade. The Army reported barracks spaces based on the new 1 + 1 construction standard (for example, the minimum space standard for grades E-1 through E-4 is 118 square feet). The table below shows barracks space entitlements for each grade.

Barracks Space by Grade	
<u>Grade</u>	<u>Entitled Barracks Spaces</u>
E-1 to E-4	1 (118 sq. ft.)
E-5	2 (236 sq. ft.)
E-6	2 (236 sq. ft.)

Barracks Assets. A post commander has two sources of housing assets to satisfy barracks requirements: on post, and local housing near the post, except in high-cost, remote and overseas locations. Personnel in grades E-7 and above are normally considered to be adequately housed. Also, 50 percent of E-6 personnel are presumed to live off post in adequate housing.

Appendix E. Navy Barracks Requirement Determination Process

The Navy Process

The Navy uses the R-19 report to determine a total effective barracks deficit or surplus, which includes the total barracks requirements for both unaccompanied permanent party personnel and transient personnel. The Navy computes the number of unaccompanied permanent party personnel and transient personnel requirements separately, but reports the number as the total effective barracks requirement. Therefore, net barracks requirements for either permanent party personnel or transient personnel are not identifiable. The projected unaccompanied permanent party personnel data forecasts the number of unaccompanied personnel expected to be assigned to the base 5 years into the future. Transient personnel data averages the number of daily transient personnel located on the base and in local housing near the base, projected personnel assigned to ships in overhaul, and projected personnel assigned to homeported rotational units. See Appendix F for an example of an R-19 report.

Permanent Party Barracks Requirement. The effective permanent party barracks requirement is the number of unaccompanied permanent party personnel assigned to a base who are entitled to a barracks space. To calculate the effective permanent party barracks requirement, the base first determines the total number of permanent party personnel that require housing. That number is then reduced by:

- the number of personnel identified as family housing requirements,
- the number of voluntarily and involuntarily separated geographic bachelors, and
- the number of personnel deployed on a rotational basis.

Permanent Party Personnel. Total permanent party personnel is the number of personnel reported on the Base Loading System data for:

- host and tenant units,
- fleet air squadrons,
- mobile units,
- ships,
- two-crew submarines,
- permanent change of station students (20 weeks or more), and
- key civilian personnel.

The Navy relies on the Base Loading System to determine its long-range planning numbers. The Base Loading System data reports an installation's personnel strength data for the current year and 5 years into the future.

Family Housing Requirement. Permanent party personnel receiving basic allowance for quarters at the with-dependent rate are considered to be a family housing requirement. This data is extracted from the annual family housing survey.

Geographic Bachelors. Geographic bachelors are married permanent party personnel who are voluntarily separated from their families. This data is extracted from responses received on the annual variable housing allowance questionnaire.

Adjustment for Deployment. The number of unaccompanied permanent party personnel assigned to fleet air squadrons, mobile units, and two-crew submarines, as well as the number of personnel below grade E-5 assigned to large ships that are deployed for 90 days or more, are subtracted from total unaccompanied permanent party personnel. The percentage of personnel in fleet air squadrons, mobile units, and two-crew submarines requiring bachelor housing is added as a homeport rotational requirement.

Transient Barracks Requirement. The transient barracks requirement is the number of transient barracks spaces required by transient personnel located on the base and in local housing near the base, the projected number of personnel assigned to ships in overhaul, and the number of personnel projected to be assigned to homeported rotational units.

Transients. Transient personnel includes all temporary duty personnel, students projected to be in school for less than 20 weeks, rotational personnel at the receiving site, and reserve forces.

Ships In Overhaul. Data concerning ships whose personnel require transient barracks spaces while the ship is in overhaul is obtained from the Naval Sea Systems Command. The data contains a schedule for each ship to be overhauled through the next 6 years. Final base loading data provides the latest projected personnel count for each ship projected to be in overhaul.

Homeport Rotational. Homeport rotational personnel refers to a percentage of unaccompanied permanent party personnel reported for fleet air squadrons, mobile units, and two-crew submarines who are not deployed during the survey period. This category of personnel requires permanent party barracks.

Bachelor Housing Assets. A base commander has two sources of housing assets to satisfy barracks requirements: on-base barracks, and local housing near the base. Except in high-cost, remote, and overseas locations, all personnel in grades E-5 and above are normally considered to be adequately housed. Data for existing on-base assets are obtained from the NAVFAC Assets Data Base that reflects each base's barracks maximum capacity. Assets are reported by the facility condition and the number of personnel by grade that can be housed using

the 1995 DoD minimum standards of adequacy for permanent party personnel. Permanent party personnel are entitled to one barracks space, the size of which is determined by grade. The table below shows the size of entitled barracks space by grade.

Barracks Space by Grade	
<u>Grade</u>	<u>Entitled Barracks Space</u>
E-1 to E-4	90 sq. ft. space
E-5 to E-6	135 sq. ft. space
E-7 and above	270 sq. ft. space

The number of local housing assets is obtained from data provided by the Navy Finance Center in Cleveland. The data identifies the average number of personnel receiving basic allowance for quarters and variable housing allowance at the without-dependent rate.

Appendix F. Final Determination of Bachelor Housing Requirements

21 MAY 97

FINAL DETERMINATION OF BACHELOR HOUSING REQUIREMENTS SUB-COMPLEX-13 OF COMPLEX-MF

FACSO RPT SYM/NO 7300/R92OIR9-1

PAGE 1

NAME AND LOCATION OF HOST ACTIVITY NAVSTA SAN DIEGO CA	FAMILY HOUSING COMPLEX NC SAN DIEGO, CA	MAJOR CLAIMANT PACFLT	UIC N00245	EFD SOWESTDV
---	--	--------------------------	---------------	-----------------

1. PROJECTED STRENGTH DATA AS OF FY 2002

	OFFICERS			A		ENLISTED		TOT ENL (E)
	W1-02 (A)	03-010 (B)	TOT OFF (C)	SCHOOL (A)	E1-E4 (B)	E5-E6 (C)	E7-E9 (D)	
2 TOTAL PERMANENT PARTY (SUM OF LINES 3-10)	724	1,173	1,897		12,029	8,406	2,487	22,922
3 HOST/TENANT	76	496	572		1,179	2,186	1,078	4,443
4 FLEET AIR SQUADRONS								
5 MOBILE UNITS	6	134	140		32	90	122	244
6 LARGE SHIPS	634	535	1,169		10,677	6,055	1,280	18,012
7 SMALL SHIPS	8	8	16		31	59	6	96
8 TWO-CREW SUBMARINES								
9 PCS STUDENTS (20 WEEKS OR MORE)					110	16	1	127
10 KEY CIVILIANS								
11 EFF FAMILY HSG REQ (LN 7 DD1378/LN 11 DD1523)	334	873	1,207		3,766	6,217	2,094	12,077
12 GEOGRAPHICAL BACHELORS	6	14	20			191	64	255
13 PERMANENT PARTY BACHELORS (2-11-12)	384	286	670		8,263	1,998	329	10,590
14 PERCENTAGE OF BACHELOR PERSONNEL (LINES 13/2)	53.0	24.4	35.3		68.7	23.8	13.2	46.2
15 ADJUSTMENTS (SUM OF LINES 16-20)	3	33	36		7,357	21	16	7,394
16 FLEET AIR SQUADRONS (LINE 4 X LINE 14)								
17 MOBILE UNITS (LINE 5 X LINE 14)	3	33	36		22	21	16	59
18 LARGE SHIPS (LINE 6 X LINE 14)					7,335			7,335
19 TWO-CREW SUBMARINES (LINE 8 X LINE 14)								
20 OTHER								
21 EFFECTIVE PERMANENT PARTY BH RQMT (LINE 13-15)	381	253	634		906	1,977	313	3,196
22 PROGRAMMING LIMIT (90% LINE 21)	343	228	571		815	1,779	282	2,876
* REMOTE LOCATIONS = 100%								
23 TOTAL TRANSIENTS (SUM OF 24 - 26)	23	110	133	85	1,133	837	313	2,283
24 TRANSIENTS (AVG)	13	34	47	85	817	317	102	1,236
25 SHIPS IN OVERHAUL	8	59	67		305	509	203	1,017
26 HOME PORTED ROTATIONAL	2	17	19		11	11	8	30
27.								
28 TOTAL EFFECTIVE BH RQMT (SUM OF 21 + 23)	404	363	767	85	2,039	2,814	626	5,479
29 TOTAL PROGRAMMING LIMIT (SUM OF 22 + 23)	366	338	704	85	1,948	2,616	595	5,159
30 ADEQUATE BH ASSETS (SUM OF 31 + 36)	369	257	626		2,395	963	343	3,701
31 MILITARY CONTROL (SUM OF LINES 32 - 35)	60	4	64		2,395	579	144	3,118
32 EXISTING ADEQUATE					159			159
33 FUNDED PRIOR YEARS (FY -)								
34 FY 98 PROGRAM TO CONGRESS								
35 SUBSTANDARD (MAY BE MADE ADEQUATE)	60	4	64		2,236	579	144	2,959
36 PRIVATE HOUSING	309	253	562			384	199	583
37 TOTAL EFFECTIVE DEFICIT (LINE 28-30)	35	106	141	85	356	1,851	283	1,778
38 TOTAL PROGRAMMING DEFICIT (LINE 29-30)	0	81	81	85	0	1,653	252	1,905

IF A SURPLUS EXISTS WITHIN THE COL, COL=0

*LINE 22 REMOTE LOCATIONS: AI AK BA DI EB FT FU LB11 LB12 MD11 MR11 MF26 MF27 OA10 OA11 PY RH MF 13 ENCLOSURE (1)

Appendix G. Air Force Barracks Requirement Determination Process

The Air Force Process

The Air Force uses the UEPH requirements template to determine the barracks requirements for unaccompanied permanent party enlisted personnel. Data from the Dormitory Master Plan and HMA are the primary sources of data used to analyze the projected unaccompanied enlisted personnel barracks requirements and the number of barracks assets available to satisfy the requirement. The Air Force uses the term “room” on the UEPH requirements template as a unit of measure in lieu of “space”. The UEPH requirements template consists of five parts. Part 1 is a summary of projected personnel data and barracks inventory data that result in an overall UEPH deficit or surplus for an installation. Part 2 is the computation of projected personnel data and associated barracks requirements. Part 3 is a detailed analysis of existing barracks (Government-owned or Government-leased) assets. Part 4 is a detailed analysis of barracks spaces which, under currently approved programs, are scheduled for or are under construction or acquisition, but are not yet included in the current active barracks inventory. Part 5 provides the installation construction program synopsis and strategy to eliminate any UEPH deficit and the replacement or economical revitalization of any substandard spaces. See Appendix H for an example of a UEPH requirements template Parts 1 through 5.

Part 1: Requirements Summary. Data elements that make up Part 1 are derived from Parts 2, 3, and 4, which must be computed first. Also, data for personnel in grades E-5 to E-9 (Column A1) are obtained from the HMA. Projected unaccompanied enlisted personnel strength data (Column A1), associated barracks requirements, and barracks assets available to satisfy the barracks requirement (Column A2) are reported separately for pay grades E-1 to E-4 and E-5 to E-9. The barracks requirements for the two categories of personnel are added to provide the total unaccompanied enlisted personnel barracks requirement for the installation. The Air Force policy is to house all E-1 to E-4 personnel on base in barracks. Therefore, private sector housing currently occupied by personnel in pay grades E-1 to E-4 is not recognized as an inventory asset to satisfy this category of barracks requirement. Barracks space for unaccompanied enlisted personnel in pay grades E-5 to E-9 is not programmed unless by exception. The exception would be where adequate, affordable, safe private sector housing was not available.

Part 2. UEPH Requirements Computation. UEPH barracks requirements are computed separately for personnel in pay grades E-1 to E-9. Part 2 identifies the total authorized strength, percent of unaccompanied enlisted personnel, projected unaccompanied enlisted personnel strength, authorized barracks space by grade and total the barracks requirements for the grade.

Total Authorized Strength. Total authorized strength data (Column 6) for each grade is obtained from the Air Force manpower data base. The authorized strength data is a projection of total host personnel (Column D) and tenant personnel (Column D3) that are expected to be assigned to the base 5 years into the future.

Percent of Unaccompanied Enlisted Personnel. The percent of unaccompanied enlisted personnel (Column E) identifies the ratio of currently assigned enlisted personnel who are unaccompanied at the installation (bachelors). The percent of unaccompanied enlisted personnel for each grade at a specific installation is computed by dividing the sum of host averaged unaccompanied enlisted personnel (Column D2) and tenant averaged unaccompanied enlisted assigned (Column D5) by the sum of host and tenant personnel assigned (Column D1 and Column D4). The data used in the computation is obtained from the Air Force personnel data base and is an average of the past four quarters.

Projected Unaccompanied Enlisted Personnel Strength. This column represents the projected number of authorized unaccompanied enlisted personnel by grade at the installation. The projected number of unaccompanied enlisted personnel is determined by multiplying the total authorized strengths for host and tenant personnel (Column D6) by the percent of unaccompanied enlisted personnel (Column E). For E-1, E-2, or E-3, divide the average total assigned for that grade by the "E-1 to E-3 average total assigned" then multiply by the "E-1 to E-3 authorized strength" then multiply by the "percent unaccompanied enlisted personnel" for that respective grade. For example, projected unaccompanied enlisted personnel strength for E-1 personnel is computed as follows: $\{[\text{Column D1 (for E-1)}]/[\text{Column D1 (for E-1 to E-3)}]\} \times [\text{Column D6 (for E-1 to E-3)}] \times \text{Column E (for E-1)}$.

Authorized Barracks Space by Grade. Authorized barracks space represent the number of spaces (rooms) authorized by Air Force assignment policy for each enlisted grade. The number of spaces authorized may deviate from Air Force standards at unique or remote overseas installations where severe space shortages or other local hardships exist. An entitled barracks space equates to the new construction standard of 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 table below shows the number of entitled barracks space per grade.

Barracks Space by Grade	
<u>Grade</u>	<u>Entitled Barracks Spaces</u>
E-1 - E-6	1 (118 sq. ft.)
E-7 and above	2 (236 sq. ft.)

Barracks Space Requirement. The barracks space requirement represents the number of total barracks spaces required by grade and is computed by multiplying the projected unaccompanied enlisted personnel grade

strength (Column F) by the number of authorized barrack space(s)(Column G). The barracks spaces requirement does not represent either a specific on- or off-base requirement, but does identify the total unaccompanied enlisted personnel housing requirement.

Part 3. Existing Dormitory (Government-Owned Or Government-Leased) Assets. This part represents an analysis of existing inventory of Government barracks assets that are available to satisfy the unaccompanied enlisted personnel barracks requirements. Barracks assets are evaluated with regard to facility size, year of construction, year of last major upgrade, facility type, number of floors, configuration, room size, number of existing adequate rooms, number of existing substandard rooms, total rooms and future construction adjustments. The number of existing adequate rooms (Column X), substandard rooms (Column Y), and future construction adjustment (the effect of converting current spaces to the new "1 + 1" construction standard)(Column Y2) are reported in Part 1, Column A2, Rows 9B, 9C and 9D.

Part 4. UEPH Additional Rooms Funded, But Not Yet In The Inventory. This part is an analysis of barracks spaces, which under currently approved programs, are scheduled for or are under construction or acquisition, but are not yet included in the current active barracks inventory. Included are approved funded Operations and Maintenance, Military Construction, Base Realignment and Closure, and Host Nation Funding barracks projects. Total rooms summed in Column FF are used in Part 1, Column A2, Row 9a.

Part 5. Dormitory Construction Program Synopsis. This part is a synopsis of the installation's construction program and strategy to eliminate any unaccompanied enlisted personnel housing deficit and the replacement or economical revitalization of any substandard rooms.

Appendix H. UEPH Requirements Template

DETERMINATION OF UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) REQUIREMENTS	
1. INSTALLATION NAME: ANDREWS AFB, MD	3. REPORT DATE: March 21, 1997 (Final)
2. MAJOR COMMAND: AIR MOBILITY COMMAND (AMC)	

PART I. REQUIREMENTS SUMMARY

AL	PERMITS FNU	AM	ROOMS
4	267	318	
5	267		
6	0	0	
7	953	953	
8	953	953	
9		928	
9a		212	
9b		722	
9c		137	
9d		-143	
10		25	

PART 2. UEPH REQUIREMENTS COMPUTATION

B	C	D	D1	D2	D3	D4	D5	D6	E	F	G	H
AE GRADE	AE GRADE REQD	PG. 2004 AE STRENGTH	TOTAL AE ASSIGNED (CP)	AVG AE ASSIGNED (CP)	TENANT AE STRENGTH ASSIGNED	TENANT AE STRENGTH ASSIGNED	TENANT AE STRENGTH ASSIGNED	TENANT AE STRENGTH ASSIGNED	AE STRENGTH 3 UEPH	PROJECT UEPH STRENGTH	AE ROOMS REQD (3 UEPH)	AE ROOMS REQD (3 UEPH)
E-1 - E-3		64	725	474	1	32	25	640	63.87	404		
E-1			23	15		2	2	20	58.76	12	1	12
E-2			164	120		12	10	145	74.14	108	1	108
E-3			539	341		19	13	478	63.59	304	1	304
E-4		1,564	1,135	437	18	15	4	1,382	38.35	530	1	530
E-5		947	1,172	188	47	45	10	994	16.25	161	1	161
E-6		483	515	39	86	68	16	569	9.40	54	1	54
E-7		280	410	31	177	155	23	457	9.52	43	2	86
E-8		56	74	1	60	43	5	116	5.13	6	2	12
E-9		46	43	1	34	33	2	80	2.97	2	2	5
TOTAL		3,818	4,075	1,169	423	389	85	4,241	28.09	1,220		1,271

Note: Column D3 includes personnel in RAF Fdswell

1. TOTAL E-1 TO E-4 UEPH RQMT	953
2. TOTAL E-5 TO E-9 UEPH RQMT	267
3. TOTAL UEPH RQMT (E-1 TO E-9)	1,220

UNIT OF MEASURE				
E-5	E-6	E-7	E-8	E-9
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

DETERMINATION OF UNACCOMPANIED ENLISTED PERSONNEL HOUSING (UEPH) REQUIREMENTS

1. INSTALLATION NAME: ANDREWS AFB, MD
 2. MAJOR COMMAND: AIR MOBILITY COMMAND (AMC)
 3. REPORT DATE: March 21, 1997 (Final)

PART 2: EXISTING DORMITORY (GOV'T OWNED OR GOV'T LEASED) ASSETS

I FAC #	J CMT CODE	K BMS SIZE (SQ. FT.)	K1 BMS SIZE (SQ. FT.)	I BMS CONSTR. FUNCTION	M YRS. BY LAST MAJOR UPDATE	N FACILITY TYPE			P ROOM ENTRANCE FIDORS	O DORM ENTRANCE FIDORS	R DORM ENTRANCE FIDORS	S DORM ENTRANCE FIDORS	T DORM ENTRANCE FIDORS	V DORM ENTRANCE FIDORS	W DORM ENTRANCE FIDORS	X # OF EXISTING ADAPTABLE ROOMS	Y # OF EXISTING SUBST. ROOMS	Y1 # OF TOTAL ROOMS	Y2 WATER CONSTR. ADJUST. MENTS FY97	Y3 NOTES
						N	O	P												
1600	721-312	70,985	7,431	1978	1996	B	B	B	3	RBR(2)	III			174	30	204	204	-6	1,4	
1602	721-312	70,988	6,595	1984	1996	B	B	B	3	RBR(2)	II			200		200	200		1	
1645	721-312	13,432	1,248	1972	N/A	A	B	A	2	CL	I					28	28	-28	2	
1646	721-312	13,432	1,248	1972	N/A	A	B	A	2	CL	I					28	28	-28	2	
1648	721-312	13,432	1,248	1972	N/A	A	B	A	2	CL	I					28	28	-28	3	
1651	721-312	13,432	1,248	1972	N/A	A	B	A	2	CL	I					26	26	-26	3	
1652	721-312	13,432	1,248	1972	N/A	A	B	A	2	CL	I					27	27	-27	2	
1656	721-312	34,503	3,208	1959	1996	B	B	B	3	RBR(2)	II			34	38	72	72			
1657	721-312	48,781	4,332	1995	N/A	B	A	B	3	RBR(2)	N/A			102		102	102			
1660	721-312	34,503	3,206	1959	1986	B	B	B	3	RBR(2)	II			34	38	72	72			
1671	721-312	34,503	3,206	1959	1989	B	A	B	3	RBR(2)	II			34	38	72	72			
11		370,423	34,414											578	144	722	137	859	-143	

TOTAL ACTIVE

Notes:

- Undergoing roof and bedroom renovation
- Scheduled for demolition after FY95 dorm construction is complete in Feb '97.
- Scheduled for demolition after FY96 dorm construction is completed
- Schedule for FY97 \$6.0M MILCON conversion to "1+1"

Key

Facility Type	Roof Type	Room Entrance	Dorm Assessment (CEA)
A - Wood	A - Standing Seam	A - Individual Interior	I - Unsatisfactory
B - Brick	B - Flat/Built Up	B - Individual Exterior	II - Degraded
C - Stucco	C - Flat/Single Ply	C - Other	III - Satisfactory
D - CMU Block	D - Clay Tile		
E - Other	E - Shingles		
F - Other	F - Other		

Appendix I. Marine Corps Barracks Requirement Determination Process

The Marine Corps Process

The Marine Corps Housing Management Manual provides guidance for preparing the BEQ Requirement Worksheet. The worksheet provides an analysis of the barracks deficit at a base by comparing the personnel loading projection with existing barracks assets. See Appendix J for a sample BEQ Requirement Worksheet that contains the formulas used to calculate a barracks requirement.

Current Billeting Report Data. The current billeting report data on the BEQ Requirement Worksheet shows the number of Marines that are housed in barracks. Also identified are the total number of enlisted personnel located onboard the base. Married, geographic bachelors, and personnel housed off base are determined by subtracting the number of Marines housed in barracks from the total number of enlisted Marines located onboard the base.

Billeting Data. To determine the number of Marines billeted on base, the Marine Corps uses the DD Form 2085, Unaccompanied Personnel Housing Inventory and Utilization Data. This form provides data on quantity and adequacy of unaccompanied personnel housing used by officer and enlisted personnel. The total enlisted onboard the base is obtained from a Quarterly Area Population Report. The report provides population statistics for both officer and enlisted personnel.

Personnel Loading Projection. The personnel loading projection on the BEQ Requirement Worksheet is a forecast of the number of Marines that are expected to be assigned to a base 6 years in the future. 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 which is reported separately. The number of projected personnel not requiring barracks space is determined by multiplying the adjusted FSR loading strength by the ratio of current married, geographic bachelors, and off-base personnel divided by the current total enlisted personnel onboard the location. The bachelor housing programming requirement is calculated by reducing the adjusted FSR loading strength data by the number of projected personnel that do not require barracks space, and adding back in the total student population. The bachelor housing programming requirement is multiplied by the current percentage of personnel for each pay grade and by the entitled barracks space for each grade, and these figures are the total projected barracks 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 permanent party personnel, transient personnel and student personnel strengths for a base 6 years out.

Number of Personnel. The base determines the number of bachelor Marines requiring barracks space by multiplying the current percentage of Marines housed in barracks for each pay grade by the bachelor housing programming requirement.

Entitled Barracks Space. An entitled barracks space equates to an adequate minimum space standard based on grade (for example, the minimum space standard for grades E-1 through E-3 is 90 square feet). The table below shows the entitled barracks space by grade.

Barracks Space by Grade	
<u>Grade</u>	<u>Entitled Barracks Spaces</u>
E-1 - E-3	1 (90 sq. ft.)
E-4 - E-5	2 (180 sq. ft.)
E-6 and above	4 (360 sq. ft.)

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.

Appendix J. BEQ Requirement Worksheet with Formulas

	A	B	C	D	E	F	G	H
1	BEQ REQUIREMENT WORKSHEET							
2	Location: Marine Corps Base Camp Lejeune, NC		Project #: None			Special Area: RIFLE RANGE		
3	<u>Requirement Calculation</u>							
4	<u>Current Billing Report Data</u>							
5		<u>Grade</u>	<u># Persons</u>	<u>Manspaces per Person</u>	<u># Manspaces</u>	<u>Notes</u>		
6	10	E-1 - E-3	54	1	+C10*E10			
7	11	E-4	6	2	+C11*E11			
8	12	E-5	5	2	+C12*E12			
9	13	E-6 - E-9	0	4	+C13*E13			
10	14	Total:	@SUM(C10..C13)		@SUM(F10..F13)			
11	15	Married, geographic bachelors, and off-base:	+C16-C14					
12	16	Total Enlisted Aboard Location:	80	Provided by Activity				
13	17	<u>Personnel Loading Projection</u>						
14	18	FSR Loading (Enlisted):	45		FSR SIGNED MARCH 22, 1997			
15	19	Students	0					
16	20	Married, geographic bachelors, and off-base factor:	+C15/C16					
17	21	Projected married, geographic bachelors, and off-base:	+C19*C21					
18	22	Bachelor housing programming requirement:	+C19*(1-C21)+C20					
19	23			<u>Manspaces per Person</u>	<u># Manspaces</u>	<u>Notes</u>		
20	24	<u>Grade</u>	<u># Persons</u>					
21	25	E-1 - E-3	+C10/C14*C23	1	+C26*E26			
22	26	E-4	+C11/C14*C23	2	+C27*E27			
23	27	E-5	+C12/C14*C23	2	+C28*E28			
24	28	E-6 - E-9	+C13/C14*C23	4	+C29*E29			
25	29							
26	30	Total Projections	@SUM(C26..C29)		@SUM(F26..F29)			
27	31	<u>Current Inventory</u>						
28	32	<u>Bldg. No</u>	<u>Configuration</u>	<u>Condition</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Notes</u>	
29	33	Hadnot Point Total			5,317	10,634		
30	34	Courthouse Bay Total			465	930		
31		Montford Point Total			500	1,000		
32		Camp Geiger Total			160	320		
33		Camp Geiger Open Bay Total			44	2,112	NON-ADD	
34		French Creek Total			1,416	2,832		
35		Rifle Range			40	80		
36	35	Total Current Inventory:			7,898	15,796		
37	36	<u>MILCON Requested/Programmed (FY96/97):</u>						
38	37	<u>FY</u>	<u>Project Number</u>	<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>	
39	38	96	None					
40	39	97	P-630 (Geiger)	2x0	100	200	5.2	
41	40							
42	41	Total Requested (Programmed):			100	200		
43	42	Total Deficit:				5,271		
44	43	<u>Proposed MILCON (FY98/99):</u>						
45	44	<u>FY</u>	<u>Project Number</u>	<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>	
46	45	98	None					
47	46	99	None					
48	47							
49	48	Total Proposed Program:			720	1,440		
50	49	Remaining Deficiency:				11,898		
51	50	<u>Proposed MILCON (FY00/01):</u>						
52	51	<u>FY</u>	<u>Project Number</u>	<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>	
53	52	00	P-159 (Courthouse Bay)	2x0	200	400	11.70	2 - 3 story buildings
54	53	00	P-893 (Courthouse Bay)	2x0	160	320	9.60	1 - 3 story building
55	54	00	P-951 (Montford Point)	2x0	240	480	15.00	2 - 3 story buildings
56	55	01	None					
57	56	Total Proposed Program:			600	1,200		
58	57	Remaining Deficiency:				5,071		
59	58	Percent of Requirement Proposed for Construction:				77.2%		
60	59	<i>Planned construction is less than 90% of requirement. No additional justification is required.</i>						

Appendix K. BAQ Payment Status Codes

The following table provides the BAQ payment status codes and a description of each code showing dependency relationship that entitles the member to the housing allowance.

BAQ Payment Status Code	Description
1	Receiving with dependents BAQ
2	Receiving without dependents BAQ
3	Receiving partial BAQ
4	Receiving with dependents BAQ – living in inadequate Government quarters
5	Not receiving BAQ – living in adequate Government quarters

Appendix L. Report Distribution

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House Subcommittee on Military Construction, Committee on Appropriations
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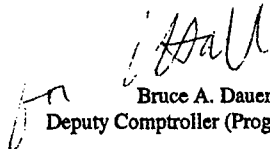


July 30, 1999

MEMORANDUM FOR DIRECTOR, CONTRACT MANAGEMENT, DODIG

SUBJECT: Draft Audit Report of DoD Unaccompanied Enlisted Personnel Housing
Requirements Determinations

We have reviewed the subject draft report and concur with its findings and recommendation #1 which recommends that USD(C) require requests for proposed barracks construction projects be supported with justification data similar to the DD Form 1523 required for family housing projects. It is our understanding that the DUSD(IA&I) is to develop this justification form, as recommended in your recommendation #2d.


Bruce A. Dauer
Deputy Comptroller (Program/Budget)

Audit Team Members

The Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD prepared this report.

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