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In its family housing program, the Department of Defense (DOD) tries to assure married members of the armed services and their families adequate quarters. DOD's policy is to rely on communities near military installations as the primary source for housing, and housing should be constructed on a military installation only as a last resort.

Findings/Conclusions: DOD's system for assessing available community housing is based on the military installations' annual survey. The Department uses questionnaire responses combined with information on community rental units currently vacant or planned to project housing deficits or surpluses. The services have justified housing construction at installations on the basis of sampling techniques that were erroneous. The services have generally understated the availability of community housing by such actions as limiting the areas considered below policy requirements, excluding houses for sale, and making improper allocations between military and civilian demand. Congress is not kept fully informed on housing shortages revealed by surveys. Also, families are assigned to onbase housing on the basis of service members' rank rather than family need. In 1975 and 1976, more than 35% of all military families lived in Government-owned housing with more bedrooms than DOD had authorized. Recommendations: The Secretary of Defense should require that the military services: use proper sampling techniques; observe the 60-minute commuting criteria; count as adequate community housing vacant houses for sale; consider the future growth of a community; make other changes to identify accurately housing available to military families in a community; and assign separately onbase family housing to officer and enlisted families based on family need. The Secretary should also: include in DOD's construction fund requests housing deficits by each bedroom category and eligible pay grade group, as shown by surveys; and inform the Congress that DOD and service headquarters officials have verified survey deficits. (Author/HTW)

04605



REPORT TO THE CONGRESS

*BY THE COMPTROLLER GENERAL
OF THE UNITED STATES*

The Military Services Are Constructing Unneeded Family Housing

The military services have not complied with Department of Defense policy, and congressional guidance, providing that onbase family housing should be constructed only when local communities cannot meet the requirements of military installations. Deficiencies in housing surveys for determining family housing requirements and the services' practice of assigning families to onbase housing on the grounds of rank rather than family entitlement have magnified the need for, and construction of, unnecessary housing on military installations.



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

D-133316

To the President of the Senate and the
Speaker of the House of Representatives

This report shows that because the military services use improper sampling techniques and housing survey procedures to determine family housing needs and because housing onbase is assigned by rank rather than by need, unneeded family housing onbase has been constructed.

We reviewed this area because the construction and operation of onbase family housing constitutes a large portion of the Department of Defense budget and because communities with adequate housing for military families have questioned the Department's need to build more onbase housing.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Acting Director, Office of Management and Budget, the Secretary of Defense, and the Secretaries of the Army, Navy, and Air Force.

A handwritten signature in black ink, reading "Luther B. Steele".

Comptroller General
of the United States

D I G E S T

In its family housing program, the Department of Defense tries to assure married members of the armed services and their families adequate quarters. The Department's policy is to rely on communities near military installations as the primary source for housing, and the Congress has indicated to the Department that housing should be constructed on a military installation only as a last resort.

The services, however, have not complied with the Department or congressional policy; unneeded Government-owned housing has been constructed.

The Department's system for assessing available community housing is based on the military installations' annual survey. A basic premise is that a sample of families at an installation is selected randomly to answer questions about their housing needs and the adequacy of currently occupied housing. The Department uses questionnaire responses combined with information on community rental units currently vacant or planned to project housing deficits or surpluses.

The services have justified housing construction at installations on the basis of sampling techniques that were erroneous. (See p. 3.) The services also generally understated available community housing by the following actions:

- Limiting community areas considered as a source of housing to a smaller geographic area than the Department policy requires, and not counting all units in that area. (See p. 7.)
- Excluding vacant houses for sale as adequate community housing for military families. (See p. 9.)

- Allocating improperly vacant units for rent between military and civilian demand. (See p. 8.)
- Considering only the current rental market and not the future growth of the communities. (See p. 11.)
- Identifying community housing occupied by military families on the basis of the number of bedrooms the family is entitled to occupy onbase rather than by the actual number of bedrooms in a unit. (See p. 14.)

GAO found that military installations have not made local communities aware of their housing needs notwithstanding a Department requirement to do so. (See p. 14.) At the same time, the Department, aware of the housing survey limitations and the need that it make its own reviews at bases to verify housing shortages, has not done this. (See p. 20.)

Further, housing shortages the surveys revealed are not disclosed in detail to the Congress when construction fund requests are made. The Congress receives only information on the total housing deficit at an installation and not the deficit by bedroom categories and eligible pay grade groups. GAO noted two instances in which the Department did not need to build 350 three-bedroom units. (See p. 20.)

Finally, housing is not properly used. Families are assigned to onbase housing on a basis of service members' rank rather than what a family needs. In 1975 and 1976 more than 35 percent of all military families lived in Government-owned housing with more bedrooms than the Department had authorized. (See p. 27.)

Accordingly, the Secretary of Defense should require that the military services:

- Use proper sampling techniques.
- Observe the 60-minute commuting criteria.

--Count as adequate community housing vacant houses for sale.

--Consider the future growth of a community.

--Make other changes to identify accurately housing available to military families in a community. (See pp. 15 and 16.)

--Assign separately onbase family housing to officer and enlisted families based on family need. (See p. 29.)

GAO also recommends that the Secretary of Defense:

--Include in the Department's construction fund requests, housing deficits by each bedroom category, and eligible pay grade group, as shown by the survey identifying the housing deficit and the surveys which revalidated the deficit.

--Inform the Congress that Department and service headquarters officials have verified survey deficits. (See p. 25.)

The Department agreed with the recommendations in principle and with most of the conclusions (see app. I), but disagreed with the report's primary conclusion that unneeded housing had been built at the locations identified in the report. A close reading of the Department's explanatory and qualifying comments reveals, however, that the Department's "agreement in principle" seeks merely to rationalize and minimize the deficiencies discussed in the report and promises little substantive action to resolve the deficiencies. (See pp. 16, 25, and 29 for GAO's evaluation of Department of Defense's comments.)

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ABBREVIATIONS

DOD	Department of Defense
GAO	General Accounting Office
HUD	Department of Housing and Urban Development
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense

CHAPTER 1

INTRODUCTION

The objective of the Department of Defense (DOD) Family Housing Program is to assure that married members of the Armed Forces and their families are adequately housed. To achieve this objective, DOD's longstanding policy is to rely on the communities' local housing market near military installations as the primary source of family housing.

DOD's policy is in keeping with congressional intent. Because of significantly rising costs of constructing and maintaining onbase family housing and the need to assist the economies of communities near military installations, the Congress has indicated to DOD that onbase housing should be constructed only as a last resort.

Married personnel are paid a monthly housing allowance to help subsidize the cost of living in the community. When local communities cannot adequately house military families, onbase housing can be constructed.

DOD's policy provides that enlisted personnel in grades E-4 through E-9 and all officers with dependents are eligible for onbase housing, and families living onbase must forfeit their housing allowance. Although personnel in grades E-1 through E-3 with dependents are not generally eligible for onbase family housing, they may be assigned onbase housing if (1) housing designated as "rental housing" under Public Law 92-545 is available or (2) there is more adequate housing available than needed by eligible families.

HOUSING NEEDS STUDIED

Annual family housing surveys are conducted in January at selected military installations to assess available local community housing and to determine whether a need exists to construct new onbase housing. As part of the survey, military families at an installation are statistically sampled and asked to complete a questionnaire to determine their housing needs, which are expressed in the number of bedrooms needed.

More specifically, existing onbase housing, private rental units, and owner-occupant housing will be considered as suitable housing and will be charged against requirements in all cases where the accommodations are classified as satisfactory by the occupant and the units are in an area

60-minutes' driving time from the installation's administrative area. If not classified as satisfactory by the occupant, or if vacant, the units generally will be considered suitable if (1) the distance from the installation's administrative area can be traveled by a privately owned automobile in 60 minutes or less during rush hours, (2) the average total monthly housing costs (including utilities) does not exceed a certain prescribed limit, and (3) the units contain certain prescribed features--such as living area, number of bedrooms, etc.--considered to be minimum standards of suitability for the size family involved.

Responses from completed questionnaires are projected to determine the housing needs of all eligible military families at the installation. Housing firmly planned in the community is also identified during the survey. New onbase housing may be requested if the amount of housing available in the community and onbase is not sufficient to meet the 5-year projected needs of 90 percent of the military families eligible for onbase housing at an installation.

ONBASE HOUSING CONSTRUCTION

Annual housing surveys have been used for years to justify additional onbase housing. Since fiscal year 1973, the Congress has authorized about \$931 million for constructing more than 33,000 military family housing units.

DOD has testified that the military services have turned the corner on the large-scale family housing construction projects of the past. A combination of factors has reduced DOD's need for onbase housing. Recent Federal pay raises have enabled more military families to rent or purchase community housing. About one-third of the Nation's military families own their homes. Reductions in the overall size of the military forces have decreased the total military married population, thereby reducing the pressure for new onbase housing.

However, the annual surveys are vitally important because they help support construction fund requests for family housing, bachelor housing, housing improvement programs, and private community housing leasing. Further, DOD has a large inventory of housing units designated as rental housing under Public Law 92-545 which will either be replaced or demolished in the future. The decision to replace or demolish these units will be based on the housing surveys.

CHAPTER 2

DEFICIENT HOUSING SURVEYS OVERSTATE

THE NEED TO BUILD ONBASE HOUSING

The military services have overstated the need to construct new DOD-owned family housing units because of deficiencies in the annual housing surveys. These deficiencies include

- using improper sampling techniques;
- limiting the community areas considered as a source of housing to a smaller geographical area than DOD policy requires, and not counting all units in that area;
- improperly allocating vacant houses for rent between military and civilian demand;
- excluding vacant houses for sale as potential housing for military families;
- considering only the current rental market and not the future growth of the community;
- identifying community housing occupied by military families on the basis of the number of bedrooms the family is entitled to occupy onbase rather than by the actual number of bedrooms in the occupied community housing unit; and
- not making the local communities aware of the military's housing needs, as DOD requires.

IMPROPER SAMPLING TECHNIQUES USED

The military services use the Navy sampling procedures for making their annual family housing surveys. Questionnaires covering housing needs and preferences are mailed to persons in each grade group at an installation. Each grade group is sampled separately because housing construction is financed by grade group. Grade groups sampled are:

- E-1 to E-3--ineligible enlisted personnel
- E-4 to E-6--junior enlisted personnel
- E-7 to E-9--senior enlisted personnel
- W-1 to O-3--company grade officers
- O-4 to O-5--field grade officers
- O-6 to O-10--general officers

Our review of housing survey methods at 10 installations showed that the military services justified constructing on-base housing on the basis of improper sampling techniques in that:

- Response rates to mailed questionnaires were too low for reliable statistical projections to the entire universe.
- Oversampling was used to assure a specified number of returns.
- In some cases sampling errors were large enough to make projected housing deficits inconclusive for decision purposes.

We found that installations made no attempt to measure the effect of sampling errors on projected deficits despite the use of small sample sizes.

Response rates were too low

The Navy sampling method specifies a response rate of at least 65 percent from each grade group to "assure statistically valid results." Setting the minimum response rate at 65 percent is a questionable subjective judgment, in that it allows an acceptable nonresponse rate of 35 percent. There is no statistical or other basis for assuming that a 65-percent return will guarantee reliable inferences about the universe sampled.

In mail surveys, those who choose not to respond may differ from those who respond. To the extent that nonrespondents do differ, bias may be introduced into survey results. Nonresponse bias can be especially serious, if those receiving questionnaires are more highly motivated to reply. In the housing surveys, it seems likely that those dissatisfied with their current housing are more apt to reply.

The only statistical solution for nonresponse is to stay with the original sample and make every reasonable effort to obtain replies from nonrespondents, including followup mailings, telephone, and/or personal interviews. Since military personnel selected are readily accessible to the housing survey personnel, a response rate close to 100 percent should be easily attainable.

In 35 individual grade group surveys at 6 of the 10 installations surveyed where the information was available, 16, or almost half, of the surveys had response rates of

less than 65 percent, as shown in the table below. Some response rates in this group were so low that the overall rate of response for the 35 surveys was only 62.8 percent.

Oversampling used to assure specified number of returns

Since the inception of the 1974 Privacy Act (Public Law 93-579) the housing questionnaire has stated that its return is voluntary. To compensate for families choosing not to respond, the services increase their samples by one-third for each grade group in an attempt to obtain the minimum specified number of returns.

For example, if the required sample size was 100, the Navy's subjective criteria would be a minimum of 65 returns. The services would mail about 130 questionnaires in trying to obtain the required 65. It is apparent that this practice is self-defeating.

Oversampling to insure a specified number of replies is statistically invalid as it contributes nothing to solving the problem of nonresponse. In the example above, oversampling (mailing 130 instead of 100 to obtain 65 replies) results in an unsatisfactory 50-percent response rate.

Response Rates

<u>Survey</u>	<u>Pay grade categories</u>				
	<u>06-010</u>	<u>04-05</u>	<u>W1-03</u>	<u>E7-E9</u>	<u>E4-E6</u>
1976:					
Norfolk Naval Complex	80	77	62	66	57
MacDill AFB	14	20	20	16	76
Langley AFB	74	73	64	84	76
1975:					
Yorktown Naval Weapons Station	a/100	64	56	49	47
Camp Lejeune	90	85	63	76	62
Cherry Point	81	72	63	68	52
MacDill AFB	97	65	58	78	69

a/Two questionnaires mailed, two received.

Sampling errors were significantly large

A basic premise of statistical sampling is that sample results can be used to make inferences of known reliability

about the universe from which the sample was randomly selected.

Results from a sample will hardly ever agree with what would have been obtained from an analysis of the entire universe. The difference between the two is measurable, and it is called sampling error.

The critical element affecting the magnitude of the sampling error (the difference between the sample estimate and the true universe value) is sample size. In mail surveys, however, sample size is not as important as rate of response. Regardless of how many replies are received, inferences about the universe are not statistically supportable unless the rate of response is close to 100 percent.

Even if we assume that the housing surveys reviewed did not have a problem, sample sizes still resulted in sampling errors that were large enough to raise questions about the number of units being constructed. For example, the 1976 Camp Lejeune survey showed that there would be 3,812 eligible enlisted families assigned to Camp Lejeune in 1981 that would be suitably housed in the community. Our analysis showed a sampling error of plus or minus 302 eligible enlisted families to be suitably housed in the community. This means that the number of families expected to be suitably housed in the community in 1981 could be any number from 3,510 to 4,114. Although the sampling error exceeded the number of units requested, the Camp Lejeune survey was used to justify the construction of 250 housing units at a cost of \$9 million. In view of the significance of the error rate, we believe the Marine Corps should have reassessed the validity of the housing survey.

Similarly, the Norfolk Naval Complex is constructing 600 housing units at a cost of \$14.8 million on the basis of 1971 and 1973 surveys. Data to calculate the sampling errors for these surveys were not available. However, the same survey system was used for the 1976 survey, and the sampling error for that survey was plus or minus 1,480 for its projection of eligible families suitably housed in the community.

SURVEY PROCEDURES UNDERSTATE LOCAL COMMUNITY HOUSING ASSETS

The services' annual housing surveys represent a comparison of housing supply with requirements at each installation to determine housing deficits or surpluses. The total supply of housing available to meet an installation's requirements includes existing onbase assets, a portion of the

local community's rental units which are vacant or firmly planned for construction and meet DOD's suitability criteria, and occupied rental and owned units the military occupants considered suitable.

Survey procedures and installation practices understate the supply of housing available to military families in the local communities, which overstate the need to build additional DOD-owned family housing units.

All vacant rental units not identified

To identify vacant rental units, the family housing survey procedures prescribe that the military installations survey all community areas within a 60-minute drive from the base during rush hour traffic. Installation commanders may apply a lesser time limit where clearly required by military necessity. Housing personnel at five of the eight installations reviewed limited the areas surveyed to less than 60 minutes from the base. None of the installation commanders indicated that a shorter time limit was required for military necessity. For example:

- Fort Bragg, North Carolina, surveyed an area only 30 minutes from the base. The area excluded from survey, although within the 60-minute criteria, included two communities with populations of more than 10,000 and two communities each with populations of more than 5,000. Housing officials at Fort Bragg could not explain why the communities were not surveyed, and revealed that rental complexes from two of them had listed vacant rental units with their housing referral office in past years.
- Cherry Point Marine Corps Air Station, North Carolina, during our visit surveyed an area only 15 minutes from the base. The rental market in New Bern, North Carolina, one of the largest cities on the east coast of the State, and less than 30 minutes from Cherry Point, was not surveyed.

Not surveying all areas within DOD's 60-minute criteria appears to be widespread. In November 1975 the Office of Management and Budget (OMB) and DOD released a joint report of DOD's housing programs for families and bachelors. The study represented a thorough analysis of many housing program issues and, with respect to community surveys by installation housing personnel, stated:

"* * * On-site reviews conducted during this effort confirmed a general underestimate of community support. Surveys of vacant rental housing conducted by installation housing offices did not cover the one-hour commuting area specified in public criteria; there was no military necessity for shorter commuting times being required for the majority of installation personnel."

Even within the geographical areas surveyed, the installations are not identifying all vacant rental units available. For example:

--MacDill Air Force Base, Tampa, Florida, interpreted vacant rental housing units to mean only houses for rent and did not consider vacant apartment units for rent in its area. According to a Tampa newspaper, there were over 5,300 vacant apartment units for rent in the area.

--Camp Lejeune asked 187 realtors for data on the number of vacant rental units they had as of January 31, 1976. Only 104 realtors responded, and the units they identified were the only ones Camp Lejeune reported in that category. Local realtors, builders, and other rental unit owners or managers identified for us 194 additional vacant rental units in the Camp Lejeune area as of January 31, 1976.

Furthermore, DOD procedures state that vacant rental units unavailable to families with children will not be counted. These procedures understate the available community housing by excluding units which could be occupied by military families without children. In November 1975 the Navy Personnel Research and Development Center released the results of a DOD-wide family housing preference survey which revealed that about 22 percent of the families surveyed normally had no dependents living with them.

Vacant rental units improperly allocated between military and civilian demand

DOD recognizes that military and civilian families make up the total demand for rental housing in any community. Therefore, DOD's policy is to apportion the identified vacant rental units between the two demands on a ratio of military households to total households in the area. For example, if military households constitute 25 percent of the total households in a community, 25 percent of the identified vacant rental units would be counted as assets against the military requirements.

This practice erroneously reduces the rental units available to meet the military demand because the calculation includes military and civilian families who own their homes or live onbase. We believe it is more logical and accurate to identify the percent of military renters relative to total renters in an area and apply that percentage to the available rental units.

For example, using 11.6 percent of the identified vacant units as prescribed by DOD policy, the 1976 housing surveys for the military installations in the Hampton-Newport News, Virginia, area indicated 305 available adequate rental units. The Hampton-Newport News, Virginia, Peninsula Apartment Council determined that the ratio of military renters to total renters was 31 percent based on a survey of 42 percent of the peninsula apartment complexes. The Housing Referral Officer from Langley Air Force Base agreed that the percent of military renters was reasonable. Had 31 percent of the identified vacant units been used instead of 11.6 percent, the family housing surveys would have shown 815 more units as being available to military families.

Although we did not identify the percent of military renters to total renters in the Fort Bragg area, Fort Bragg officials, as well as local builders and realtors, said that military renters to total renters would probably range from 75 to 90 percent as opposed to the 22-percent figure Fort Bragg used in its 1976 survey. (The 22-percent figure was based on the ratio of military households to total households.) Using the percent of military households to total households as opposed to military renters to total renters could result in overstating the need to build new onbase housing at Fort Bragg.

Vacant housing for sale is excluded
as adequate community housing

DOD's survey procedures prescribe that vacant housing for sale will not be counted as available community support. Vacant housing for rent, however, is counted. DOD's reason for not counting vacant housing for sale is that military life is transient in nature and, therefore, military families should not be expected to purchase a home. Military families, however, even with the transient nature of military life, are buying homes. Housing surveys for four large installations visited showed that the number of military families owning homes increased since 1971, as shown in the table on the following page.

Military Families Suitably Housed in Owned Homes

	<u>Camp Lejeune</u>		<u>Fort Bragg</u>		<u>Langley Air Force Base</u>		<u>Norfolk Naval Complex</u>	
	<u>1971</u>	<u>1976</u>	<u>1971</u>	<u>1976</u>	<u>1971</u>	<u>1976</u>	<u>1971</u>	<u>1976</u>
Officers:								
Number of families (note a)	1,338	1,861	3,150	3,319	1,423	1,480	6,003	6,595
Number in owned homes	161	825	572	1,510	317	801	2,982	4,511
Percent in owned homes	12	44	18	45	22	54	45	68
Enlisted:								
Number of families (note a)	5,232	7,200	9,692	14,487	2,929	3,634	20,626	23,971
Number in owned homes	1,567	2,160	3,341	4,963	588	1,069	6,436	7,954
Percent in owned homes	30	30	34	34	20	29	31	33

a/Effective housing requirement. (Families requiring housing at an installation less families voluntarily separated.)

Officer families at the four installations showed a major increase in homeownership over the 5-year period, while enlisted families showed a slight increase. The OMB/DOD report issued in November 1975 addressed this rising trend in homeownership. The report said that since about one-third of the military families eligible to live onbase own their housing, vacant housing for sale should be counted as adequate community housing in proportion to the recent experience of military families in the local housing market. An example given in the report was that if 25 percent of the families responding in the latest survey at an installation were homeowners by choice, then 25 percent of the vacant housing for sale could be considered as adequate community housing and used accordingly in the current survey to reduce the need for new onbase housing at that installation.

This suggested policy change parallels a thought expressed in a June 1973 memorandum the Office of the Assistant Secretary of Defense (Installations and Logistics) issued, which stated in part:

"* * * Although current policy does not project future gains in for-sale housing category, experience shows that an installation's deficit can become marginal over the period of one-year due to the continuing trend toward homeownership."

Nevertheless, the sales market for vacant housing is still not counted during the survey. For example, in fiscal year 1974 Camp Lejeune justified to the Congress a need for 250 new onbase housing units, estimated to cost \$9 million. No portion of the sales market for vacant housing at Camp Lejeune was counted as available community housing and therefore, used to reduce the need for the new 250 units. Yet,

nearly 75 percent of all houses sold in the communities surrounding Camp Lejeune during 1973, 1974, and 1975 were to military families. As the Assistant Secretary of Defense concluded in June 1973, to ignore such a situation could result in an overstatement of a need to build onbase housing.

It is reasonable, therefore, to assume that in communities near military installations where the military family's demand for homeownership is significant, such as demonstrated at Camp Lejeune, DOD should consider vacant housing for sale as community support, the same as vacant housing for rent.

The graphs on pages 12 and 13 illustrate homeownership trends at two locations as contrasted with projections made in the housing surveys.

As the OMB/DOD study suggested, the sales market for vacant housing could be counted in proportion to the recent experience of military families in the local housing market. Another method, similar to the one we are suggesting for vacant housing for rent on page 9, would be based on the proportion of military homeowners to total homeowners in the housing market area.

Future community growth not recognized

Housing survey procedures require that the need for housing at an installation be based on the personnel strength expected at an installation 5 years in the future. Vacant housing for rent and any units firmly planned (design complete, construction financing firm, and contract awarded) or under construction at the time of the survey are counted as the amount of housing that will be available 5 years hence. These procedures assume that what is currently available or under contract for construction in a community on January 31, in any year, will be the only available housing on January 31, 5 years later. Housing trends are not recognized in an area near a particular installation. In essence this assumes that additional rental housing units will not be built within the next 5 years.

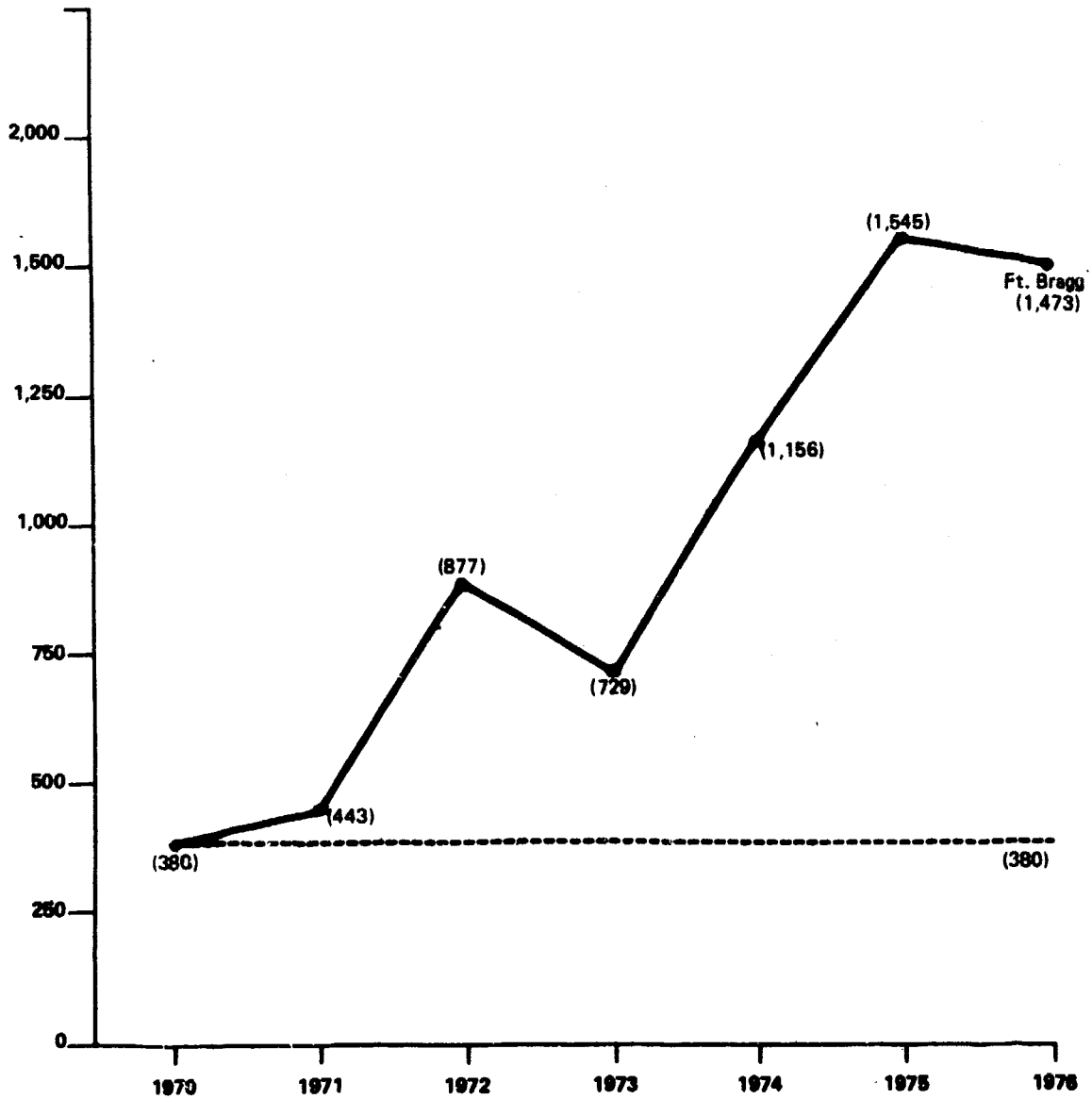
This of course is not the case. We developed information on the growth of community rental housing units in the Langley Air Force Base and Norfolk Naval Complex areas. At Langley available total rental housing increased by about 10,000 units during the period 1971-76; at Norfolk the increase was also about 10,000 units. Consequently, we believe the military services should make a thorough market analysis near military installations to identify expected growth in the housing market. Part of the analysis should include

**COMPARISON OF FORT BRAGG HOMEOWNERSHIP PROJECTION-WITH
ACTUAL NUMBER OF MILITARY HOMEOWNERS (a)
(OFFICERS ONLY)**

LEGEND

- Actual homeownership trends taken from housing survey results
- - - - - Army 5-year projection of homeownership

Number of
Military
Families Own-
ing Homes



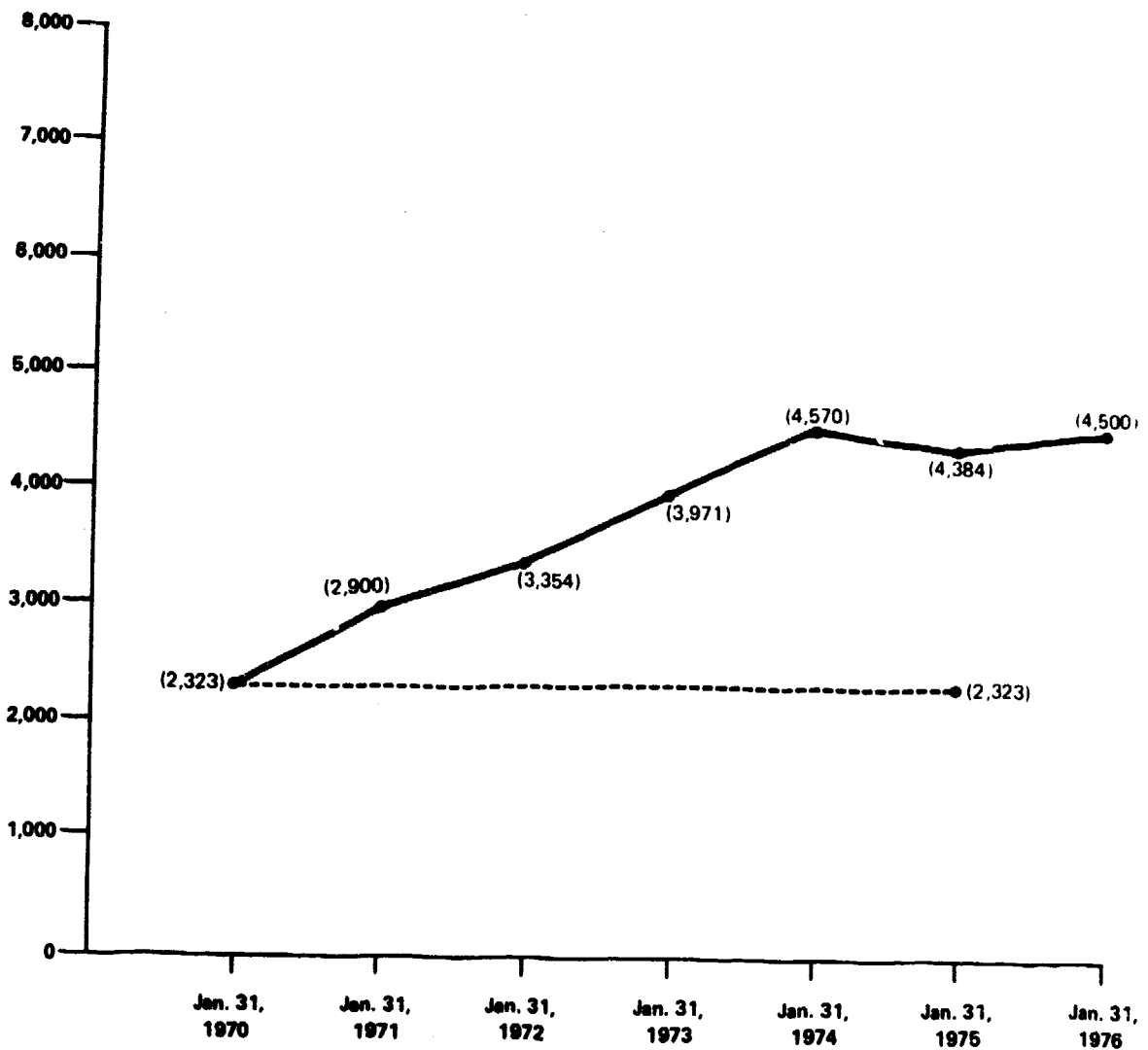
a/ Including mobile homeowners.

**COMPARISON OF NAVY HOMEOWNERSHIP PROJECTIONS WITH ACTUAL NUMBER
OF MILITARY HOMEOWNERS (a) NAVAL COMPLEX, NORFOLK, VIRGINIA
(OFFICERS ONLY)**

LEGEND

- Navy 5 year projection of homeownership
- Actual homeownership by Navy families in the Norfolk, Virginia, area

Number of
Military
Families Own-
ing Homes



a/ Including mobile homeowners.

information available from such sources as local planning commissions, local building associations, and the Department of Housing and Urban Development (HUD).

Adequate housing occupied by
military families understated

Adequate vacant housing in the community, which is allocated to meet the military housing need, is classified by the number of bedrooms in the unit. That is, a four-bedroom unit would be counted against a family needing four bedrooms. Community housing occupied by military families, however, is classified by the number of bedrooms the occupant is entitled to occupy if he were assigned to onbase housing. For example, a four-bedroom unit in the community occupied by a family entitled to only a two-bedroom unit onbase would be counted as a two-bedroom unit. Obviously, this practice does not accurately identify the housing in the community. Furthermore, community housing, which DOD declared unsuitable because of insufficient bedrooms for the current military family, is not counted as a part of the total housing identified in the community. This practice understates available community housing.

The DOD/OMB report recognized the effect of such a practice. The report stated that DOD/OMB's analysis of fiscal year 1974 surveys showed that about 8.2 percent of the units DOD declared as unsuitable were not counted as assets because of insufficient bedrooms. By counting these units DOD could have reduced that year's overall deficit by about 13,000 units.

We believe that housing should be identified by actual number of bedrooms and that units declared inadequate solely because of insufficient bedrooms for the current military family should be counted, to more accurately represent the total community housing inventory.

COMMUNITIES NOT MADE
AWARE OF HOUSING NEEDS

DOD's policy of relying to the fullest extent on community housing implies that local communities will be made aware of military housing needs. We visited six military installations that, since fiscal year 1972, had built, or were building, new onbase family housing projects representing 3,580 units costing about \$98 million. Discussions with local realtors and builders at each installation revealed that in only one case was the community advised of the installation's housing needs before the decision to build the DOD-owned units was announced. In fact, the Headquarters

Supervisor of the Air Force Family Housing Program told us in July 1976 that communities are not made aware of housing deficits.

The community is most often advised of the installation's housing needs when the installation announces that new onbase housing will be constructed. To illustrate, in January 1976 Camp Lejeune announced that 250 family housing units would be built onbase to alleviate deficits shown by its family housing surveys. Local builders asked if there was any way they could have some input in the planning stage for future projects since they felt the community could supply any housing needed. Camp Lejeune informed the builders that since the military uses a 5-year planning cycle, it would be difficult for the builders to provide any input. In essence, Camp Lejeune indicated that the local community could not participate to help meet the military housing needs. After we discussed this matter with installation officials, they established a military family housing committee to discuss, on a regular basis, housing problems in the Camp Lejeune area.

Our discussions with local realtors and builders near all the installations visited indicated that the local communities are willing to build for the military housing needs. Both the realtors and builders said that the major deterrent to helping the installations has been the lack of timely information on long-range military housing needs.

CONCLUSIONS AND RECOMMENDATIONS

The military services have not relied on the local communities to the fullest extent because the surveys have understated community housing available to meet the military's requirements.

To avoid construction of unneeded military family housing, we recommend that the Secretary of Defense correct deficiencies in housing surveys by

- requiring that proper sampling techniques be used when selecting sample size and obtaining the required number of sample responses by requiring followup mailings, telephone, and/or personal interviews;
- requiring that installations comply with the 60-minute driving distance;
- seeing that all vacant rental assets within the 60-minute criteria are identified;

- requiring that vacant rental units be allocated in the ratio of military renters to total renters;
- counting a portion of vacant housing units for sale as available assets based on the ratio of military homeowners to total homeowners;
- analyzing housing trends in the communities to project future housing conditions; and
- requiring that suitable community housing occupied by military families be identified by the actual number of bedrooms and that housing declared unsuitable because of insufficient number of bedrooms be counted in identifying total community housing.

We also recommend that the Secretary of Defense require

- the military service installation commanders to keep local realtors, homebuilders, apartment managers, and lending agencies informed so that the local community can respond adequately and timely to the military's family housing needs.

AGENCY COMMENTS AND OUR EVALUATION

In commenting on our report (see app. I), DOD agreed with our recommendations in principle, and most of our conclusions, but disagreed with the report's primary conclusion that unneeded housing had been built at the locations included in the report. A close reading of DOD's explanatory and qualifying comments reveals, however, that DOD's "agreement in principle" seeks to rationalize and minimize the deficiencies discussed in the report and promises little substantive action to resolve such deficiencies.

DOD said that it is recognized that the housing survey does have its shortcomings and, therefore, other tools--such as Bureau of Labor Statistics reports on building permits and HUD housing survey reports--have been used before the decision was made to construct new onbase housing. We agreed that such data as construction reports and building information issued by the Bureau of Labor Statistics and housing surveys prepared by HUD are helpful in assessing the validity of housing survey deficits. However, as discussed on pages 20 to 23 of the report, onsite visits and detailed analysis of survey results are needed precisely because the surveys do have shortcomings. Despite a DOD/OMB recommendation to supplement the surveys with onsite visits to overcome such shortcomings, DOD has not done so.

DOD made several comments on our recommendation concerning the use of sampling techniques. First DOD said that the Battelle Memorial Institute, that designed the housing survey, specified that overselection should be used to allow for deployments, transfers, leave schedules, illness, or other unavailability of personnel. Accordingly, depending on the type of installation, the sample size was oversampled by as much as 30 to 50 percent.

It is difficult to understand that a military installation would not know the location and disposition of their personnel at all times and select a proper sample without having to resort to oversampling. While it is true that oversampling increases sample size, it is nevertheless an unacceptable method for handling nonresponse.

It is generally accepted that enlarging the sample, or substituting respondents in the same area and of similar characteristics does not solve the problem of nonresponse. The only statistical solution for nonresponse is to make every reasonable effort to obtain replies from nonrespondents by using followup mailings, telephone, and/or personal interviews.

DOD took exception to the above observation saying:

"Privacy Act provisions preclude other than a strictly voluntary approach to information gathering. The few studies that show reasons why persons do not respond to questionnaires, indicate that a majority of cases involve causes other than those suggesting sources of bias, e.g., address changes, personal problem distractions, illness, etc. (as opposed to amount of interest or strength of feelings)."

It is our opinion that the Privacy Act was not intended to preclude the survey design from including a provision for followup mailings or voluntarily obtaining information by telephone and/or personal interviews.

Nonresponse for any reason may be serious as it prevents decisionmaking with known risks. It is the job of the researcher to demonstrate that it is not serious for his specific study. Whether or not it was serious for any other study has no bearing.

DOD also said that the credibility of survey findings is largely a function of response rate. Further, it is recognized that low return rates are presumed to suggest

bias in data. However, several exhaustive studies, with as many different results, have been made on the subject.

We believe that the response rate has a direct bearing on the advisability of making material decisions based on survey results. The statistician does not say that bias exists or does not exist when response rates are low. He merely says that there is no way of knowing and it is this uncertainty that affects the decisionmaking process. That "several exhaustive studies with as many different results have been made on the subject" further supports the statistical position.

DOD quoted a noted Penn State University social science author who said that when surveys are made up of homogenous populations, significant response rate bias is probably unlikely and that researchers surveying issues directly relating to homogenous groups should not be overly concerned about the percentage of questionnaire returns, since representativeness will most likely be excellent. He concluded saying that this, of course, presumes that enough responses are gained to meet statistical assumptions.

We would agree that certain homogenous populations in some places and some times would tend to respond similarly to some questions. However, you cannot use this to state axiomatically that this is always true. The burden of proof is on the researchers. The researcher must show that, for his particular situation, nonresponse did not introduce bias. We agree that enough responses must be obtained to meet statistical assumptions. Even with 100-percent response the sample size could be too small for reliable inferences. On page 6 we cite two instances where small sample sizes resulted in sampling errors large enough to raise doubts about the decisions made. In the two instances cited, we assumed that nonresponse was not a factor.

DOD concurred in principle with our recommendations on allocating vacant rental units and counting a portion of housing for sale. DOD said, however, that both recommendations ignore the presence of other variables, such as industry moving into or out of an area, demolitions, etc.

We recognize that both recommendations, in principle, do discount any variables, such as those DOD mentioned which may occur the next day or in the immediate future. (Even DOD's present method of allocating vacant housing for rent ignores these variables.) The report, however, does not completely overlook the variables. Such variables would be considered in our recommendation that housing trends should be analyzed to project future housing conditions.

DOD concurred in principle with our recommendation that housing trends should be analyzed to project future housing conditions. A quad-service task force will study the feasibility of conducting such market analysis.

DOD concurred in principle with our recommendations that community housing occupied by military families should be identified by actual numbers of bedrooms and that housing declared unsuitable because of insufficient number of bedrooms be counted in identifying total community housing. DOD said, however, that, in the former situation while a true picture of actual housing available would be provided, it would ignore the personal desires of families who choose to occupy larger units than actually needed thereby effectively taking such units out of circulation. Also a quad-service task force will review procedural changes needed to properly account for existing units by actual bedroom compositions.

We recognize that the housing unit in DOD's example is not available. The report demonstrates that by counting the unit by the number of bedrooms the occupant is entitled to occupy onbase, the true picture of housing in the community is distorted. Our recommendation would correct this distortion.

In response to our recommendation that the installation commanders should keep the local community informed, DOD said that current regulations require this and that the military services are expected to follow the regulations. DOD also said that our recommendations concerning the 60-minute criteria and counting all vacant rental housing units in the 60-minute area are covered in DOD regulations and that the military services are expected to comply with the regulations. As our report demonstrates, however, simply expecting the services to comply with DOD policy has been less than effective. Followup reviews to determine whether stated policies are being followed is an accepted management principle, and such reviews by DOD are obviously needed in the family housing program.

CHAPTER 3

QUESTIONABLE NEED FOR NEW ONBASE HOUSING

DOD has stated that new onbase housing requests should be based on (1) housing survey information, (2) DOD and service headquarters visits to installations programed for new housing, and (3) a detailed analysis of the survey information. However, DOD generally relied on survey information, with little attention paid to onsite visits and analysis survey information. Had onsite visits and detailed analyses been made at seven installations, DOD would have found that some new onbase units at these locations were unneeded.

Furthermore, DOD's budget requests for new construction are presented to the Congress based on the total number of housing units needed without identifying the housing by number of bedrooms and eligible pay grade groups. Without this information the Congress is unable to properly determine whether DOD is building units that are too small or too large for the family housing needs at an installation. Using information on number of bedrooms and eligible pay grade groups, we found two instances where DOD did not need to build 350 three-bedroom units.

NEED FOR ANALYSIS OF SURVEY INFORMATION

DOD is aware of the limitations in the housing surveys. During the 1974-76 period, we reviewed the need for housing projects at Fort Eustis, Virginia; Fort Story, Virginia; and Camp Lejeune, North Carolina. The projects consisted of 1,250 housing units costing \$35 million. Our work in all three instances showed that the surveys used to obtain construction funds from the Congress were inaccurate and, in two instances, invalid.

Also, in 1975, a DOD/OMB housing management study stated:

"Confidence levels are impossible to determine for data on vacancies available in the local area and on current bedroom distribution requirements within personnel categories, and the range of error for these two factors can make these data meaningless on an installation basis. Similarly, since the variables of long range strength, vacant and under construction community support, and projections of community support are derived, for the most part,

subjectively, the DD Form 137F (Determination of Housing Requirements and Project Composition) cannot be assigned any confidence limits."

The study recommended that, since analysis and experience indicate projected data can be misleading, the surveys should be supplemented by DOD and service representatives' onsite reviews when new family housing construction exceeding a specified cost is being considered. The study did not identify the cost criteria that should be used.

Since fiscal year 1972, seven of the eight installations visited have had family housing construction funds authorized. Although DOD and service headquarters' personnel believe that onsite reviews should be made, only four installations were visited by DOD or service headquarters personnel to assess the need for construction; and in three cases we were reviewing the need for housing projects before the visits.

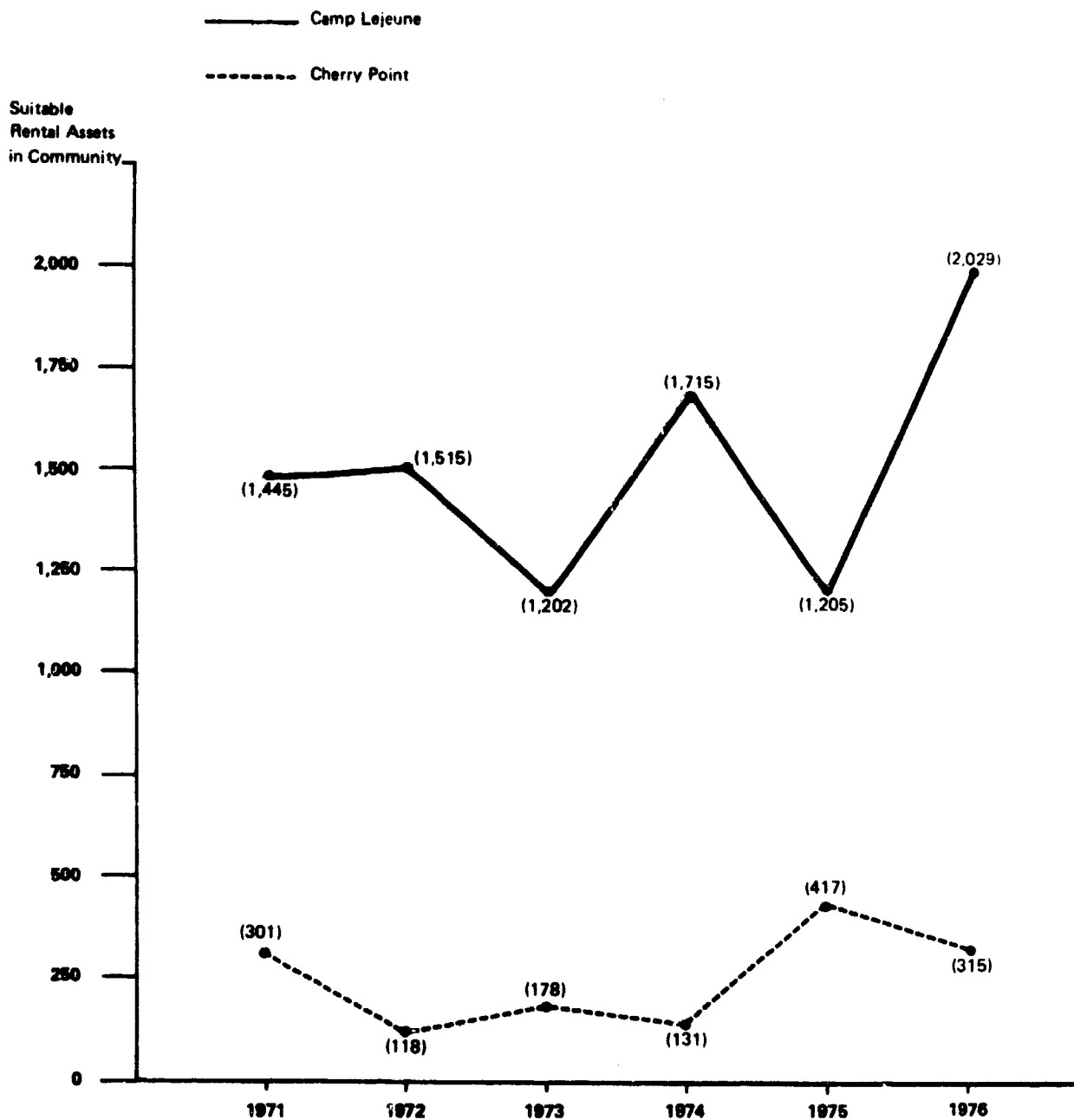
As a result of one visit, DOD canceled a project consisting of 400 units costing \$11.2 million. Although DOD did not refute our findings that the surveys were inaccurate, it did not cancel the other projects we reviewed.

The Director for DOD's Family Housing Programs told us in December 1976 that, in the past, onsite reviews had not been routinely made because of the lack of personnel. He said that the surveys are now being supplemented by such onsite reviews and that most installations requesting housing projects in fiscal years 1978 and 1979 have been visited.

Even without onsite visits, analyses of the surveys can identify illogical and questionable trends in the survey data. For example, our analyses of the 1976 housing survey information for Camp Lejeune and Cherry Point showed that the number of (1) military families in community housing plus (2) vacant rental units DOD considered adequate fluctuated wildly, as shown in the graph on page 22. DOD could not explain the reason for the wild fluctuation, but agreed that the information should have been analyzed.

Because the survey deficits were not verified by field visits or further analysis, DOD relied on narrative comments by installation officials concerning the local housing situation. We noted one instance in which these comments were changed to delete two statements that showed additional onbase housing was unneeded. In January 1976 the Langley Air Force Base housing office included the following in its survey documentation:

**SUITABLE COMMUNITY RENTAL UNITS (a) SHOWN BY CAMP
LEJEUNE AND CHERRY POINT FAMILY HOUSING SURVEYS--1971-1976**



a/ Occupied units classified as suitable plus suitable vacant units identified.

"Community support has been more than adequate in this area as there has been an over-supply of housing. There are approximately 108,000 residential units in this area with approximately 40,000 of these being rental units. Both apartments and houses are included in these figures. Currently there are approximately 2111 vacant units. The over-supply of rental units is being reduced by sharper competitive practices among owners with the greatest number of vacant units (reducing rents; offering short-term leases; rebates of a months rent; cash bonus to tenants bringing in new tenants; reduced rent for early payment; etc). In addition, owners are seeking Norfolk-based Navy tenants inasmuch as the coils were removed on 3 June 1976 from the bridge-tunnel connecting Norfolk with Hampton. It is too early to know the effect these efforts will have on the local housing market. New construction of individual homes for sale continues at a steady pace in this area but no new apartment projects are being built now. It is not anticipated that there will be any shortage of adequate off-base housing in this area in the near future." (Underscoring supplied.)

The first and last sentences (underscored above) were deleted from the final statement submitted to DOD. Housing officials could not explain who made the deletions and why.

DOD JUSTIFICATION FOR NEW HOUSING

In the late 1960s DOD, with congressional consent, imposed a constraint on the military services which required that the total number of two-bedroom units at an installation could not be more than 30 percent of the total number of family units built for enlisted personnel and company grade officers (pay grades O-1 to O-3). The rationale behind the restriction was that local communities would most likely have more one- and two-bedroom rental units rather than three- and four-bedroom units.

The services' annual requests to the Congress for family housing construction funds are based on the total housing deficit (one, two, three, four, and five bedrooms combined) at an installation, as shown by the housing surveys. Housing deficits by bedroom categories are not shown on the authorization requests submitted to the Authorization and Appropriations Committees. Rather, the request only matches total housing requirements at an installation with units identified to meet those requirements. The Congress, using this

information alone, has no basis for determining specific construction needs or the effect of the 30-percent limitations on two-bedroom units. In at least two instances, DOD built housing that its surveys showed were not needed as follows:

--On the basis of its 1973 survey, Cherry Point Marine Corps Air Station requested and received construction authorization in fiscal year 1975 for 300 onbase units. The project included 150 three-bedroom units, 40 for company grade officers (O1 to O3) and 110 for junior enlisted personnel (E4 to E6), even though Cherry Point's 1973 survey showed a surplus of three-bedroom units for company grade officers and junior enlisted personnel. Cherry Point's 1974 survey showed a need for 94 three-bedroom units for junior enlisted personnel but a surplus of three-bedroom units for company grade officers. Cherry Point's 1975 and 1976 surveys showed three-bedroom unit surpluses for company grade officers and junior enlisted personnel (more than 100 surplus both years for company grade officers and more than 600 surplus both years for junior enlisted personnel). Consequently, Cherry Point requested and received permission to construct units which their surveys showed were not needed.

--Langley Air Force Base, using funds appropriated in fiscal year 1973, built 200 three-bedroom units for its enlisted personnel. The need for these units was based on Langley's 1971 through 1973 surveys. Langley's 1971 survey showed a need for 174 three-bedroom units for grades E4 through E6 but no deficit of three-bedroom units for E7 through E9. The 1972 survey showed a surplus of more than 170 three-bedroom units for both enlisted categories. The 1973 survey again showed a surplus of more than 140 three-bedroom units for grades E7 through E9 and a need for only 23 three-bedroom units in the E4 through E6 category. Consequently, the 200-unit, three-bedroom program was not supported by Langley's housing survey. Langley's 1971-73 surveys showed that the one- and two-bedroom units were the real need at this installation.

CONCLUSIONS AND RECOMMENDATIONS

DOD and the service headquarters have not properly analyzed survey results despite known survey limitations and

deficiencies. Further, DOD has not provided the Congress with adequate information to assess the need for new housing construction. Consequently, the services have constructed family housing units that were unneeded.

Therefore, we recommend that the Secretary of Defense:

--Include in DOD construction fund requests, housing deficits by each bedroom category and eligible pay grade groups, as shown by the survey which originally identified the housing deficit and the surveys which revalidated the deficit.

--Inform the Congress that DOD and service headquarter officials have verified survey deficits by onsite reviews and data analysis.

AGENCY COMMENTS AND OUR EVALUATION

DOD said that the report implies that three-bedroom units were unnecessarily built when only two-bedroom units were needed. DOD said also that the congressional committees approved the construction of three-bedroom units for a two-bedroom need when the existing two-bedroom inventory at the particular military installation reached 30 percent of the total enlisted and company grade officer inventory. DOD explained that the procedure was experimental--DOD was attempting to obtain greater flexible use of onbase housing, i.e, families needing two to four bedrooms could use the three-bedroom units--and was abandoned before the period covered in our report.

We recognize that the 30-percent restriction on two-bedroom units was an experiment. However, since DOD did not routinely present to the Congress information on housing deficits by bedroom categories, the Congress had neither a basis for determining specific construction needs nor a way to meaningfully evaluate the impact of the 30-percent restriction. The experiment, in fact, was dropped because DOD had to assign more and more families with a two-bedroom need to three-bedroom units to keep the units occupied.

In response to our recommendation suggesting that DOD include in its construction fund requests information on housing deficits by each bedroom category and by eligible pay grade group, DOD said that the data is provided to congressional committees when requested or otherwise the committees would be overburdened with minutiae. We disagree.

First, the information in itself is not lengthy and is routinely prepared during the housing survey and presented on the second page of DOD Form 1378-Determination of Housing Requirements and Project Composition. Second, we believe that without this information the congressional committees have no real basis for determining specific construction needs. In fact, we have on occasions given this information to the committee staffs who have found it very helpful in considering DOD's request for new housing.

In responding to our recommendation that DOD and service headquarters officials should verify survey results, DOD said that while service headquarters officials should conduct on-site reviews to verify survey deficits, such action is beyond the scope of normal management control exercised by the Office of the Secretary of Defense (OSD). Also, increased operational control by OSD would require concurrent increases to staffing and would be contrary to the preferred decentralization of authority and responsibility to the services.

We disagree. This is not only contrary to the principles of good management but apparently represents a change in DOD management philosophy. DOD testified during the fiscal year 1975 family housing appropriation hearings that the only way to assure that the survey data is accurate is through audit of the actual base data. And, therefore, DOD would continue to do such audits on a case-by-case basis, as in the past. DOD's past audits apparently had been helpful as a means of management, since DOD canceled some projects as a result of their post analysis. We believe that DOD should verify housing survey results and inform the Congress that the results were verified by onsite visits and data analysis.

CHAPTER 4

ASSIGNING HOUSING BY RANK

PRECLUDES EFFECTIVE USE OF ONBASE HOUSING

Military families are assigned to onbase family housing on the basis of rank, or grade of the officer, or enlisted military sponsor rather than, as required by DOD policy, on the number of bedrooms needed. The result is poor use of officer and enlisted family housing units. For example, at three military installations reviewed, more than 800 families with a need for only one- and two-bedroom units were assigned to three- and four-bedroom units because of the high rank or grade of the military sponsor. At the same time, officers and enlisted families, with lower rank or grade, who had a need for three- and four-bedroom units and had expressed a desire to live onbase, lived in two-bedroom units in the community.

DOD ASSIGNMENT POLICY

According to DOD instructions, military families should be assigned to Government housing based on the number of bedrooms to which they are entitled. This bedroom entitlement is determined by grade category or family size and composition. Only officer personnel in pay grade O4 and above are entitled to a bedroom composition based upon grade. All officer personnel below O4 and all enlisted personnel are entitled to a bedroom composition based solely upon family size and composition. The DOD assignment policy is intended to help achieve maximum practicable occupancy and utilization of family housing units.

Generally, adequate family housing is to be occupied by personnel in the grade category for whom it was programed, constructed, or otherwise obtained. Installation commanders may subdivide the enlisted category between senior noncommissioned officer grades and lower grades for housing assignments. On an exception basis, a family can be assigned to housing intended for one grade category above or below the grade category of the sponsor to assure that units are not left vacant. When such assignments become routine, redesignating the housing should be considered, according to DOD criteria.

DOD criteria for determining the number of bedrooms a military family is entitled to occupy is based on the following guidelines: (1) no child should share a bedroom with its parent(s); (2) no more than two children should share a bedroom; (3) a child aged 6 or older should not share a

bedroom with a child of the opposite sex; and (4) a dependent aged 10 or older (excluding wife) is entitled to a separate bedroom.

SERVICE ASSIGNMENT POLICIES

The Air Force and Navy have issued regulations that conflict with DOD's policy. The Air Force permits senior non-commissioned officers of ranks E-8 and E-9 a minimum of three bedrooms, and junior grade officers and other enlisted personnel a minimum of two bedrooms, regardless of their family size and composition. The Navy permits similar minimum bedroom entitlements (the difference being that the Navy also allows E-7s three bedrooms). The Navy regulations specify, however, that three bedrooms will be permitted only if local resources permit.

The Air Force, however, is convinced that it is in the best interest of the service to continue its present policy. It has told DOD that (1) the Air Force has an excess of three-bedroom units relative to actual need, (2) senior NCO's (E-8 and E-9) normally have accumulated too many possessions for a two-bedroom unit, and (3) the policy has been well received by the enlisted personnel as a career incentive.

The Army and Marine Corps assignment instructions agree with DOD's.

ASSIGNMENT POLICY RESULTS IN POOR USE OF HOUSING

In accordance with DOD instructions, all services designate each housing project for a specific military category (such as company grade or field grade officers). However, the installations are assigning families to housing units in those designated projects without regard to the size of the family and the number of bedrooms needed.

Our review of DOD's nationwide housing survey questionnaires for 1975 and 1976 revealed that over 35 percent of more than 50,000 families responding live in onbase housing units with more bedrooms than authorized by DOD criteria (overbedroomed). The percents for each service for 1976 were--Navy and Marine Corps, 37; Army, 35; and Air Force, 36.

We reviewed specific assignment practices at three installations visited and identified more than 1,000 families that were overbedroomed. For example, at Langley Air Force Base, Virginia, we identified 195 senior enlisted families assigned to three-, four-, and five-bedroom houses who were

only entitled to a one- or two-bedroom house, according to DOD's criteria. At the same time, junior and senior enlisted families entitled to these size units, according to DOD criteria, were on waiting lists for onbase housing.

During our visit the community surrounding Langley Air Force Base had 3,075 one- and two-bedroom rental units vacant and suitable for the military but only 536 larger bedroom units. Consequently, families living in onbase housing with three or more bedrooms simply because of their higher rank could be adequately housed in the community. This would free onbase houses for families with a legitimate need for the larger bedroom housing.

A similar situation exists at Fort Bragg, North Carolina. We reviewed 483 three-bedroom units designated for and occupied by senior enlisted personnel. Of this number, over 43 percent (208) were overbedroomed because of rank. At the same time, families entitled to these size units were on waiting lists. The Fort Bragg housing referral officer identified 285 one- and two-bedroom suitable vacant units in the community but only 76 larger bedroom units. This demonstrates that both Government and civilian housing assets in the Fort Bragg area could be more efficiently used if assignments were made on the basis of family size and composition only.

Fort Campbell, Kentucky, identified 719 families overbedroomed, according to DOD criteria. These 719 units represented more than 25 percent of Fort Campbell's total inventory during our analysis.

CONCLUSION AND RECOMMENDATION

The services are assigning families to onbase housing on the basis of rank of the service members rather than need. This results in poor use of onbase housing.

We recommend that the Secretary of Defense require that the military services assign separately onbase family housing to officers and enlisted families based on family need.

AGENCY COMMENT AND OUR EVALUATION

According to DOD, current regulations provided that onbase housing be assigned on the basis of need. It also said that the policy was reaffirmed in 1976 and that the military services are expected to comply with the policy.

As our report demonstrates, simply expecting the services to comply with DOD policy has been less than effective.

Followup reviews to determine whether stated policies are being followed is an accepted management principle, and such reviews by DOD are obviously needed in the family housing program.

CHAPTER 5

SCOPE OF REVIEW

We studied and tested the validity of the family housing survey policies and procedures. We also assessed the effect of family housing assignment practices and obtained community officials' views concerning the housing survey and the local communities willingness to meet the military family housing needs.

We made our review in Washington, D.C., at the Office of the Deputy Assistant Secretary of Defense (Installations and Housing), the Naval Facilities Engineering Command, and the Army, Marine Corps, and Air Force headquarters. We also visited the following military installations:

ARMY:

Fort Bragg, North Carolina
Fort Campbell, Kentucky
Fort Eustis, Virginia

NAVY:

Norfolk Naval Complex, Virginia
Port Hueneme, California

MARINE CORPS:

Camp Lejeune, North Carolina
Cherry Point, North Carolina

AIR FORCE:

Langley Air Force Base, Virginia
MacDill Air Force Base, Florida



MANPOWER,
RESERVE AFFAIRS
AND LOGISTICS

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

2 SEP 1977

Mr. Henry Eschwege
Director, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Eschwege:

This is in response to your letter of June 14, 1977 to the Secretary of Defense which forwarded a copy of your draft report entitled, "The Military Services are Constructing Unneeded Family Housing" (Code 38301, OSD Case No. 4456-A).

The Department of Defense (DoD) agrees with all of your recommendations in principle, and most of your conclusions. However, we disagree with the primary conclusion which is the basis for the title of the draft report, i.e. that unneeded housing has been built by the DoD at the locations included in your review, for two reasons. First, the DoD has recognized the shortcomings of the housing survey process, and has taken these into consideration during the programming process. The survey is but one of several tools used by the DoD to make decisions on new construction. Other data considered are construction reports and building permits issued as reported by the Bureau of Labor Statistics, as well as independent reviews of proposed projects conducted by the Department of Housing and Urban Development.

Second, the implication is made in the draft report that the DoD has been unnecessarily constructing three-bedroom units when only two-bedroom units were needed. As we explained to your staff, the DoD with approval by the Congressional Committees, constructed three-bedroom units for a two-bedroom need, when the existing two-bedroom inventory reached 30 percent of the total enlisted and company grade inventory. This was done on an experimental basis over a period of several years in an attempt to achieve greater flexibility in utilization; a three-bedroom unit can be used by families with a requirement up to and including four bedrooms. This procedure was abandoned during the Fiscal Year (FY) 1977 programming cycle prior to the period covered by the GAO review.

It should be noted that although Congress authorized the construction of 33,556 family housing units for FYs 1973 through 1977, the DoD approved final construction of only 28,820 units or 86 percent, based upon reviews made subsequent to enactment of authorizing legislation.

Several of the recommendations state in effect, that the Office of the Secretary of Defense (OSD) should assure Service compliance with existing policy, and that OSD should conduct on-site reviews to assess the validity of survey results. The OSD is staffed to perform tasks associated with management control such as policy development, review of existing policies, and analysis of alternatives based upon data provided by the Services. Operational control is the responsibility of the individual Services. OSD cannot assume a greater degree of oversight without a much larger staff, and without diluting the authority of the Services.

Representatives of my office are available to discuss the draft report, if you desire. We appreciate the opportunity for comment you have afforded us. Detailed comments on the preliminary recommendations are enclosed.

Sincerely,



ROBERT B. PIRIE, JR.
Principal Deputy Assistant Secretary
of Defense (MRA&L)

Enclosure

Department of Defense Comments on
Recommendations in Draft GAO Report
"The Military Services Are Constructing Unneeded Family Housing"
(Code 38301)

1. Recommendation: Require that proper sampling techniques be used when selecting sample size and obtain the required number of sample responses by requiring follow-up mailings, telephone and/or personal interviews.

Comment: DoD Instruction 4165.45, "Determination of Family Housing Requirements", (paragraph IB, Enclosure 3) specifies use of the sample method survey (SAMS) whenever practicable. To insure uniformity, the Department of the Navy has been delegated responsibility in the refinement and delineation of procedures to be used. The sample method currently used was developed by the Battelle Memorial Institute in 1967 after an intensive study of the family housing survey procedures. The survey was later modified and field tested by the Navy Personnel Research and Development Center to include a modified questionnaire suitable for a mailing system. Battelle specified that over-selection should in fact be accomplished to allow for deployments, transfers, leave schedules, illness or other unavailability. Accordingly, depending on the type of activity, oversampling increases the sampling size by as much as 30-50 percent.

It is noted that the credibility of survey findings is largely a function of response rate. Further, it is recognized that low return rates are presumed to suggest bias in data. However, several exhaustive studies with as many different results have been made on the subject.

The Navy sampling method for conducting annual family housing surveys addresses a basically homogenous population, i.e., group of people having common group identity. Larry L. Lesslie, a noted Penn State University Social Science author, demonstrates in a 1972 Social Science Research article entitled "Are High Response Rates Essential to Valid Survey?", that when surveys are made of homogenous populations, significant response rate bias is probably unlikely. Lesslie, on the evidence his studies uncovered, believes that "researchers surveying issues directly related to homogenous groups should not be overly concerned about the percentage of questionnaire returns. Representativeness will most likely be excellent. This presumes, of course, that enough responses are gained to meet statistical assumptions."

Enclosure

GAO observes that, "since military personnel selected are readily accessible to the housing survey personnel a response rate close to 100 % should be attainable." There are at least two notable exceptions to this observation that must be addressed:

- Privacy Act provisions preclude other than a strictly voluntary approach to information gathering.
- The few studies that show reasons why persons do not respond to questionnaires, indicate that a majority of cases involve causes other than those suggesting sources of bias, e.g., address changes, personal problem distractions, illness, etc. (as opposed to amount of interest or strength of feelings).

2.a. Recommendation: Require that installations comply with the 60 minute driving time.

b. Recommendation: Assure that all vacant rental assets within the 60 minute criteria are identified.

Comment: Both recommendations are provided for in DoD Instruction 4165.45 (paragraph II.B.1, Enclosure 4). All services are expected to comply with this policy.

3.a. Recommendation: Require that vacant rental units be allocated in the ratio of military renters to total renters.

b. Recommendation: Count a portion of vacant for-sale housing units as available assets based on the ratio of military homeowners to total homeowners.

Comment: Concur in principle. Both recommendations, however, ignore the presence of other variables such as industry moving into or out of the area, demolitions, etc. A quad-service task force will be formed to review these and other possible improvements to the present survey system.

4. Recommendation: Analyze housing trends in the communities to project future housing conditions.

Comment: Concur in principle. Forecasting housing construction supply and demand trends beyond the immediate time-frame requires expertise not found at the installation level. Accordingly, the

DoD has relied very heavily upon Department of Housing and Urban Development certification of requirements. However, we recognize the shortcomings of this procedure, and accordingly, a quad-service task force will be established to review the feasibility of conducting market analyses as well as other possible improvements to the present survey system.

5. Recommendation: Require that suitable community housing occupied by military families be identified by the actual number of bedrooms and that housing declared unsuitable because of insufficient number of bedrooms be counted in identifying total community housing.

Comment: Concur in principle. However, in the former situation, while a true picture of actual housing available would be provided, it would ignore the personal desires of families who choose to occupy larger units than that actually needed thereby effectively taking such units out of circulation. A quad-service task force will review procedural changes to accounting for existing units by bedrooms.

6. Recommendation: Require installation commanders to keep local realtors, home builders, apartment managers, and lending agencies informed so that the local community, can respond adequately and timely to the military's family housing needs.

Comment: This is provided for in present policy as covered in DoD Instruction 4165.45 (paragraph IV.B and paragraph I.A.3, Enclosure 3). All services are expected to comply with this policy.

7. Recommendation: Include in DoD construction fund requests, housing deficits by each bedroom category, and eligible pay grade group, as shown by the survey which originally identified the housing deficit and the surveys which revalidated the deficit.

Comment: The data are provided to Congressional Committees when requested. Otherwise, the volume of data is such that we do not routinely provide the breakout in light of present Congressional workload and its desire to reduce rather than increase its review of minutiae.

8. Recommendation: Assure the Congress that OSD and service head-quarter officials have verified survey deficits by onsite reviews and data analysis.

Comment: Concur in principle. However, while service headquarters, officials should conduct on-site reviews to verify survey deficits, such action is beyond the scope of normal management control exercised by OSD. Increased operational control by OSD would require concurrent increases to staffing and would be contrary to the preferred decentralization of authority and responsibility to the services.

9. Recommendation: Assure that on-base family housing is assigned separately to officer and enlisted families based on family need.

Comment: This is provided for by DoD Instruction 4165.44, "Assignment, Utilization, and Inventory of Military Family Housing" (paragraph 5, Enclosure 3). The policy was reaffirmed by DASD(I&H) memorandum dated May 25, 1976. All services are expected to comply with this policy.

PRINCIPAL OFFICIALS RESPONSIBLE
FOR ADMINISTERING ACTIVITIES DISCUSSED
IN THIS REPORT

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
<u>DEPARTMENT OF DEFENSE</u>		
SECRETARY OF DEFENSE:		
Harold Brown	Jan. 1977	Present
Donald Rumsfeld	Nov. 1975	Jan. 1977
DEPUTY SECRETARY OF DEFENSE:		
Charles W. Duncan, Jr.	Jan. 1977	Present
William P. Clements, Jr.	Jan. 1973	Jan. 1977
ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS AND LOGISTICS) (note a):		
Dale Babione (acting)	Jan. 1977	Apr. 1977
Frank A. Shrontz	Feb. 1976	Jan. 1977
Dr. John J. Bennett (acting)	Apr. 1975	Feb. 1976
ASSISTANT SECRETARY OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS) (note a):		
John P. White	May 1977	Present
Carl W. Clewlow (acting)	Jan. 1977	May 1977
<u>DEPARTMENT OF THE ARMY</u>		
SECRETARY OF THE ARMY:		
Clifford L. Alexander	Feb. 1977	Present
Martin R. Hoffman	Aug. 1975	Feb. 1977
ASSISTANT SECRETARY OF THE ARMY (MANPOWER AND RESERVE AFFAIRS):		
Robert L. Nelson	Apr. 1977	Present
Paul D. Phillips (acting)	Feb. 1977	Apr. 1977
Donald Brotzman	Mar. 1975	Feb. 1977
ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS, LOGISTICS AND FINANCIAL MANAGEMENT):		
Alan J. Gibbs	Apr. 1977	Present
Edwin Griener (acting)	Jan. 1977	Apr. 1977
Harold L. Brownman	Oct. 1975	Jan. 1977

<u>Tenure of office</u>		
	<u>From</u>	<u>To</u>

DEPARTMENT OF THE ARMY (cont'd)

CHIEF OF STAFF:

Gen. Bernard W. Rogers	Oct. 1976	Present
Gen. Frederick C. Weyand	Oct. 1974	Oct. 1976

DEPARTMENT OF THE NAVY

SECRETARY OF THE NAVY:

Wm. Graham Claytor, Jr.	Feb. 1977	Present
Gary D. Penisten (acting)	Feb. 1977	Feb. 1977
Joseph T. McCullen, Jr.	Feb. 1977	Feb. 1977
David R. MacDonald	Jan. 1977	Feb. 1977
J. William Middendorf	June 1974	Jan. 1977

ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND LOGISTICS)
(note b):

Vacant	Jan. 1977	Apr. 1977
Jack L. Bowers	June 1973	Jan. 1977

ASSISTANT SECRETARY OF THE NAVY:
(MANPOWER AND RESERVE AFFAIRS)
(note b):

Vacant	Jan. 1977	Apr. 1977
Joseph T. McCullen, Jr.	Sept. 1973	Jan. 1977

ASSISTANT SECRETARY OF THE NAVY:
(MANPOWER, RESERVE AFFAIRS AND
LOGISTICS):

Edward Hidalgo	Apr. 1977	Present
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CHIEF OF NAVAL OPERATIONS:

Adm. James L. Holloway, III	Jul. 1974	Present
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COMMANDANT OF THE MARINE CORPS:

Gen. Louis H. Wilson	July 1975	Present
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DEPARTMENT OF THE AIR FORCE

SECRETARY OF THE AIR FORCE:

John C. Stetson	Apr. 1977	Present
John C. Stetson (acting)	Jan. 1977	Apr. 1977
Thomas C. Reed	Jan. 1976	Jan. 1977

Tenure of office	
From	To

DEPARTMENT OF THE AIR FORCE (cont'd)

ASSISTANT SECRETARY OF THE AIR
FORCE (INSTALLATIONS AND
LOGISTICS):

Vacant	Apr. 1977	Present
Richard J. Keegan (acting)	Feb. 1977	Apr. 1977
J. Gordon Kapp	Mar. 1976	Jan. 1977
Frank A. Shrontz	Oct. 1973	Feb. 1976

ASSISTANT SECRETARY OF THE AIR
FORCE (MANPOWER AND RESERVE
AFFAIRS):

Vacant	Jan. 1977	Present
David P. Taylor	June 1974	Jan. 1977

CHIEF OF STAFF:

Gen. David Jones	Aug. 1974	Present
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a/The position of Assistant Secretary of Defense (Installations and Logistics) was abolished on April 20, 1977, and its functions were divided between the Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs) and the Office of the Director of Defense Research and Engineering.

b/The Office of the Assistant Secretary of the Navy (Installations and Logistics) and (Manpower and Reserve Affairs) were combined into (Manpower, Reserve Affairs and Logistics) on April 25, 1977.

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