



**INSPECTOR GENERAL**  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-2884

REPORT  
NO. 90-104

August 24, 1990

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

SUBJECT: Final Report on the Audit of DoD Leasing  
of Family Housing at Ellsworth Air Force Base  
(Project No. OCG-0006.01)

Introduction

In October 1989, we announced our audit of DoD Leasing of Family Housing. One of the audit objectives was to determine whether the Services acquire family housing, under build-to-lease and other leasing arrangements, in compliance with Public Law 98-115 and DoD guidance. It is DoD's long standing policy to rely on local private housing markets in communities near Military installations as primary sources of family housing. When the private market cannot support Military family housing, the Services then request funding to either lease or build on or near Military installations.

During the audit we found that a required housing market analysis was not performed to determine the availability of adequate private sector housing to satisfy family housing requirements at Ellsworth Air Force Base (AFB). This condition resulted from a lack of Air Force guidance prescribing the requirement or methodology for conducting a housing market analysis. In June and August 1989, two separate contracts were awarded for the construction of 1,028 family housing units under Section 801, Build-to-Lease Program. Construction of 200 family housing units under one contract, at an estimated cost of about \$24 million over the 20-year life of the lease agreement, was near completion. Construction of an additional 828 family housing units, at a 20-year cost of about \$78 million, was to start in April 1990 with delivery of the final 104 units in September 1991.

A draft report was issued recommending that the Air Force conduct the required market analysis and use the results to satisfy the housing shortage by reducing the 828 unit project accordingly. The recommendations were made at the time so that the Air Force could realize cost avoidance through the reduction of the project size. Subsequently, we learned that the contract for the 828 units projected contained no provisions to reduce the

number of units being built and that any attempt to reduce the size of the project would result in substantial termination costs. As a result, we withdrew the applicable recommendations. The Air Force, however, should issue guidance on the requirement and methodology for performing a housing market analysis.

### Background

The U.S.C., title 8, sec. 801, "Military Family Housing Leasing Program," was established in 1983. Its purpose was to use private capital to provide housing and eliminate the initial Government investment necessary under Military construction funding. This program is available to installations with a valid housing shortage that can be satisfied economically through a 20-year leasing agreement.

DoD 4165.63-M, "DoD Housing Management," dated June 1988, provides policy guidance, procedures, and responsibilities for administering family housing. The requirement for family housing at each DoD installation shall be determined on the basis of current family housing conditions, projected long-range family housing requirements, consultations with Government agencies and other organizations knowledgeable of local housing conditions, and the results of a housing market analysis. DoD 4165.63-M states that the housing market analysis shall be accomplished at all locations where new construction is programmed. At a minimum, the housing market analyses should consider:

- demand for housing, including migration and household formation trends,
- affordability and availability of existing and projected housing in the community by bedroom category,
- the Military demand for housing and projected Military occupancy of acceptable community housing by bedroom category,
- the projected deficit of housing for Military members, and
- summary of supply and demand analysis.

Air Force Regulations 90-1, "Family Housing Management," and 90-2, "Annual Survey and Determination of Family and Bachelor Housing Requirements," state that it is Air Force policy to rely on private community assets as the primary means for housing Military families.

## Discussion

In June 1988, Ellsworth AFB initiated efforts to obtain 200 units of Section 801 family housing. The housing was primarily justified on the basis of an expanding mission and the accompanying increase in Military strength. In June 1989, a 20-year lease was awarded for 200 units of Section 801 family housing. The lease is expected to cost a total of \$24 million, or about \$1.2 million per year. Construction of the Section 801 housing began in August 1989 and is near completion.

In August 1988, Ellsworth AFB initiated additional actions to replace 828 existing base family housing units with Section 801 family housing. Base housing was considered to be inadequate because 368 housing units had been classified as substandard since 1973, 123 housing units could not be used because of extensive structural damage, and 337 housing units were located in an area with unstable soil conditions, which could result in structural problems in the future. In August 1989, a 20-year lease was awarded for 828 units of Section 801 family housing. The lease is expected to cost a total of \$78 million, or about \$3.9 million per year. The housing project will consist of 38 two-family units, 180 four-family units, and 32 single-family housing units built on land adjacent to Ellsworth AFB. The land was donated by the State of South Dakota. The housing project began in April 1990, and the 828 housing units are expected to be delivered between February thru September 1991.

A housing market analysis was not performed to determine the availability of adequate private housing within the Ellsworth AFB housing market area. Officials at Ellsworth AFB told us that a market analysis was not required since Air Force regulations do not prescribe the requirement or methodology. Also, the need to comply with DoD 4165.63-M requirements for a housing market analysis was not raised at various approval levels within the Air Force.

Although a market analysis was not performed, the economic analyses for both the 200 and the 828 units of Section 801 family housing state that "the local communities have not and are not anticipated to respond to the need with affordable housing." In addition to the 1,028 units of Section 801 family housing, Ellsworth AFB also identified a shortage of 464 family housing units. In October 1987, the Department of Housing and Urban Development (HUD) reported that 1,031 rental units were vacant in the Ellsworth AFB housing market area. Through limited survey of the local housing market, we determined that 534 rental units are currently vacant. We recognize that the HUD report and our limited survey do not provide needed information on the adequacy of available rental units by bedroom size as would be presented in a formal housing market analysis. Nevertheless, the data on rental vacancies indicated that private sector housing might be available to satisfy a portion of the Ellsworth AFB family

housing shortage. A potential cost avoidance of as much as \$198,000 could have been realized over a 20-year period for each housing unit in the current 828 unit build-to-lease contract satisfied by private sector housing. To ensure that private sector housing is relied on as the primary means of housing, Air Force guidance should be issued requiring a housing market analysis on all ongoing and future studies of family housing needs.

### Recommendation

We recommend that the Deputy Assistant Secretary of the Air Force (Installations) issue regulatory guidance on the requirement, the process, and the methodology for conducting a housing market analysis.

### Management Comments

A draft of this quick-reaction report was provided to the Assistant Secretary of the Air Force (Financial Management and Comptroller) for comments on April 16, 1990. We received comments from the Principal Deputy Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations and Environment) on May 8, 1990. A complete text of Air Force comments is at Enclosure 1.

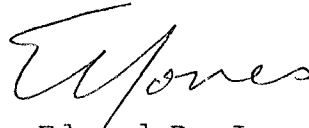
The Principal Deputy Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations and Environment) nonconcurred with our finding and methodology used to estimate potential monetary benefits. Management also nonconcurred with Recommendations 1 and 2 in the draft report to conduct a market analysis to determine the availability of adequate private sector housing within the Ellsworth Air Force Base housing market area, and reduce the 828 units of Section 801 family units under Contract F39601-89-L0002 accordingly. Management stated that family housing requirements at Ellsworth AFB were established by the accepted official housing survey process in effect at the time and that a new housing market analysis was not needed. Moreover, the construction of the 828 units of Section 801 family housing was well underway and the contract contained no provisions to reduce the number of units being built. Any attempt to reduce the scope of the contract would clearly result in significant termination costs. Management also stated that a substantial family housing shortage still remains at Ellsworth AFB. However, a market analysis will be performed to validate needs prior to building additional family housing. Management concurred with the recommendation to issue Air Force guidance for conducting a housing market analysis upon completion of an ongoing study in August 1990.

### Audit Response to Management Comments

The DoD requirement for a housing market analysis was well established prior to contract award in June and August 1989. In a memorandum to the DoD Components, dated May 17, 1987, the Deputy Assistant Secretary of Defense (Installations) outlined the requirement for a housing market analysis, which was subsequently incorporated in DoD 4165-M, "DoD Housing Management." Contrary to Air Force comments concerning efforts to identify all available private sector housing, we were informed by housing personnel at Ellsworth AFB that a formal housing market analysis was not performed since it was not required by Air Force regulations. Efforts that may have been made to consider the local housing market were not documented, and only 41 of the available housing units from the private sector were used to offset the housing deficit.

Notwithstanding the above shortcomings in determining housing requirements at Ellsworth AFB, we have deleted Recommendations 1 and 2 and the associated potential monetary benefits that were included in the draft report. Construction of the 828 units of Section 801 family housing has begun and, since the contract contains no provisions to reduce the number of units being built, we agree that reducing the scope of the contract for the "Convenience of the Government" could be costly. Contract termination costs, as well as the potential number of private sector housing units available to reduce the number of Section 801 housing are unknown. Without this information, a proper decision on the correct course of action cannot be made, and the potential to reduce the number of Section 801 housing units becomes less attractive as time passes. The housing units will be completed between February and September 1991. In essence, it appears that it is too late to alter the current course of action. As part of our ongoing audit, we plan to determine whether Section 801 housing contracts contain contract termination provisions as required by the Federal Acquisition Regulation. We consider Air Force comments to the Recommendation in the draft report on issuing guidance requiring a housing market analysis to be responsive and conform to the provisions of DoD Directive 7650.3. Accordingly, additional management comments on the final report are not required.

Please contact Mr. Michael G. Huston on (202) 694-6281 (AUTOVON) 224-6281 or Mr. Gary R. Padgett on (202) 694-3459 (AUTOVON) 224-3459 if you have any questions concerning this quick-reaction report. The cooperation and courtesies extended to the audit staff are appreciated. The audit team members are listed in Enclosure 4. Copies of this report are being provided to the activities listed in Enclosure 5.



Edward R. Jones  
Deputy Assistant Inspector General  
for Auditing

Enclosures

cc: Secretary of the Air Force



DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC 20330-1000

OFFICE OF THE ASSISTANT SECRETARY

8 MAY 1990

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING  
OFFICE OF THE INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE

SUBJECT: Draft Quick-Reaction Report on the Audit of DOD  
Leasing of Family Housing, 16 April 1990  
(Project No. OCG-0006.01) - INFORMATION MEMORANDUM

This is in reply to your memorandum for Assistant Secretary of the Air Force (Financial Management and Comptroller) requesting comments on the findings and recommendations made in subject report.

Nonconcur with the recommendation that a market analysis be conducted to validate the requirements for the 200 unit and the 828 unit Section 801 housing projects currently under construction at Ellsworth AFB.

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We see absolutely no reason to conduct a market analysis to revalidate housing requirements at Ellsworth AFB. The requirement for these projects was established by the accepted official housing survey process in effect at the time the need was validated. The survey dated 30 Sep 87 indicated a requirement for 1366 housing units. In view of this large deficit and a complicated housing and school problem, a second in-depth survey was directed to insure that all potential housing and requirements were considered. This second survey, which was completed in July 1988, included all the sources of information available: the Military Family Housing listing, FHA/VA listings, the Multiple Listing Service, newspaper advertising and builders' listings. HUD's report on the cost of housing in the Rapid City area and the base waiting list of over 1000 families, which has been above that level now for 29 consecutive months, were also used. Rather than reducing the requirement, the results of the second housing survey indicated a housing deficit of 1950 units. This increase was primarily attributed to a more detailed investigation into the local market which showed that fewer of the existing housing units were affordable than initially anticipated due to a very high real estate tax and relatively high utility costs. Also, the local builders were not responding to the anticipated need for housing as was projected earlier. After review of DOD 4165.63-M "DOD Housing Management", June 1988, the Air Force determined

that the second housing survey, then in progress, utilized all the sources of information which would have been considered in the development of a segmented housing market analysis. Results of segmented market analyses since have shown that the housing survey numbers are in most cases lower than the market analysis. In view of these facts, the Air Force is confident that the decision to build 200 new housing units and replace 828 existing substandard units was totally justified and that all of these housing units are and will continue to be required at Ellsworth AFB. In addition, there is a considerable deficit of housing remaining. However, before any additional housing is built, a market analysis will be done to validate any remaining needs taking into consideration any potential force structure realignments. No program gets more scrutiny than military family housing. The Ellsworth AFB requirements were reviewed at all levels of the Air Force. They were further reviewed and approved by OSD, OMB and the Congressional oversight committees both when the lease ceilings were established and prior to award of the contracts. These build-lease projects are currently under contract and there are no contractual provisions for reduction in the number of units being acquired.

Nonconcur with the recommendation that the 828 unit project be reduced if the results of a DOD recommended segmented market analysis reflect a smaller deficit than the two housing surveys.

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For the reasons discussed above, we do not plan to conduct a market analysis at this time. The contract for the 828 unit replacement project was awarded 1 August 1989, construction is well underway and occupancy of the first units is expected in the fall of 1990. The Air Force entered into a 20 year lease agreement for 828 units of family housing with no provision to reduce the number of units. This project is privately financed and was qualified by the lender based on that 20 year agreement. Any attempt to revise this agreement would breach the contract, and clearly would result in a very costly termination.

Concur with the recommendation to issue regulatory guidance for conducting housing market analysis to estimate the supply of adequate housing assets when new construction is anticipated.

Since the OSD policy change, the Air Force has conducted market analyses on ten projects. Some of the results have been challenged because of differences of opinions as to methodology. OSD and the services have not developed coordinated standardized procedures which satisfies the requirements of all approving agencies. As a result, the Air Force took the lead and contracted a study to develop a

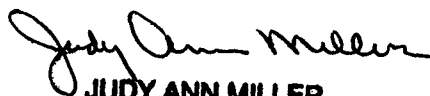
tri-service segmented market analysis process to be used DOD wide. Completion of the methodology is anticipated by August 1990 and will be used in all future housing programs. Interim guidance was provided to bases for conducting market analyses and was updated as experience was gained. These efforts have been shared with OSD and the other services.

Nonconcur with the reported potential cost avoidance based on the suggested cancellation of housing units in the 828 unit project.

As stated previously, the Air Force is confident that all of the houses presently under contract at Ellsworth AFB are required and no further survey to verify that fact is planned. Nevertheless, we feel compelled to comment on the method used to calculate the potential cost avoidance in your report. The suggested cost avoidance, based on monthly rental per unit multiplied by 240 months, overstates the cost of deleting one housing unit in that the infrastructure and off-site utilities, which represent 43% of the project cost, cannot be reduced proportionately. As stated previously, the construction of the 828 units is well under way. The contractor has already performed, or will soon complete, much of the site work to include cut and fill, installation of underground utilities, and provision for roads and streets for all 828 units. Any reduction in the number of units would result in increased cost to the remaining units to pay for this work, in addition to damages for breach of contract.

Additionally, the decisions which resulted in the current housing program are directly linked to the Douglas School District adjacent to the base. The Congress made \$7.25 million of Military Construction funds available to the school district to construct a new middle school which was sized to accommodate students based on the completion of the 828 unit project. Further, the school operating budget is dependent on the impact aid based on the number of dependents of military members in the schools. They comprise 77% of the total student population in the district. The budgetary impact on the school district must also be addressed if there were to be any reduction in the number of students attending the schools.

We appreciate the opportunity to comment on this draft report and are prepared to discuss this matter in more detail should you desire.



**JUDY ANN MILLER**  
Principal Deputy Assistant Secretary of the Air Force  
(Manpower, Reserve Affairs,  
Installations and Environment)



SUMMARY OF POTENTIAL MONETARY AND OTHER  
BENEFITS RESULTING FROM AUDIT

<u>Recommendation Reference</u>	<u>Description of Benefit</u>	<u>Amount and/or Type of Benefit</u>
1.	The economy and efficiency realized by the process to determine family housing requirements will be significantly improved.	Nonmonetary



ACTIVITIES VISITED OR CONTACTED

Office of the Secretary of Defense

Assistant Secretary of Defense (Production and Logistics),  
Washington, DC

Department of the Air Force

Office of the Assistant Secretary (Manpower, Reserve Affairs,  
Installations and Environment), Washington, DC

Office of the Deputy Chief of Staff for Logistics and Engineering,  
Washington, DC

Headquarters, Strategic Air Command, Offutt Air Force Base, NE  
Ellsworth Air Force Base, SD



**AUDIT TEAM MEMBERS**

David K. Steensma, Director, Contract Management Directorate  
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Gary R. Padgett, Project Manager  
Joe E. Richardson, Lead Auditor  
James E. Massey, Auditor  
Laura L. Koschny, Auditor  
Ronald D. Blake, Auditor



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Department of the Air Force

Secretary of the Air Force  
Assistant Secretary of the Air Force (Financial Management and  
Comptroller)  
Deputy Assistant Secretary of the Air Force (Installations)  
Commander, Strategic Air Command  
Commander, 12th Air Division

Other Defense Activities

Defense Contract Audit Agency  
Defense Logistics Studies Information Exchange  
Industrial College of the Armed Forces

Non-DoD Activities

Office of Management and Budget  
U.S. General Accounting Office,  
NSIAD Technical Information Center

Congressional Committees:

Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
Senate Ranking Minority Member, Committee on Armed Services  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Ranking Minority Member, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Government Operations  
House Subcommittee on Legislation and National Security  
Committee on Government Operations

