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BY THE U.S. GENERAL ACCOUNTING OFFICE

## Report To The Secretary Of Defense

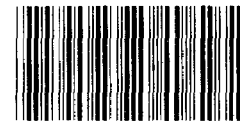
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# Planned Construction Of Some Army Dining Facilities In West Germany Can Be Canceled

In planning for new dining facilities costing \$15.9 million at seven installations in West Germany, the Army did not consider excess capacities in existing facilities and did not use proper planning factors in computing requirements.

GAO is recommending that four dining facility construction projects, costing \$7.5 million, be canceled and that others be validated to insure they are fully justified. GAO is also recommending ways to improve the plans and procedures used by DOD and the Army to justify proposed projects in order to preclude overstating dining facility requirements.

DOD has agreed to cancel or modify three projects which will save \$4 million. Another \$3.5 million in potential savings is being reviewed by Army officials. DOD also agreed to review the planning factors used to determine the requirements for new dining facilities to insure that identified needs are more realistic.



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GAO/PLRD-83-72  
MAY 13, 1983

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UNITED STATES GENERAL ACCOUNTING OFFICE  
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PROCUREMENT, LOGISTICS,  
 AND READINESS DIVISION

B-207912

The Honorable Caspar W. Weinberger  
 The Secretary of Defense

Dear Mr. Secretary:

We have assessed the Army's methods of identifying and justifying the need for construction of new dining facilities in Europe. We reviewed seven dining facility projects initially programed for construction at seven installations at Hanau, Giessen, Fuerth, Kaiserslautern, Erlangen, Vilseck, and Dexheim. We reviewed projects at these installations because they had the largest scope and cost of nine projects programed for construction in Germany.

In summary, we found that unneeded construction was planned because the Army did not properly consider existing excess capacity and did not use proper planning factors in computing new requirements. We believe that if existing facilities were fully used and new ones sized according to Department of Defense (DOD) criteria, four of the seven projects could be canceled at a savings in construction and related costs of over \$7.5 million. Details on the overstatement of requirements for each project are included in appendix I on pages 10 to 12.

<u>Location</u>	<u>Project number</u>	<u>FY</u>	Potential reduction (savings) in new construction	
			<u>Sq. ft.</u>	<u>Cost</u>
(millions)				
Fuerth	029	82	3,600	\$1.2
Kaiserslautern	111	83	11,700	2.7
Erlangen	151	83	6,720	1.8
Dexheim	087	83	8,600	1.8
			<u>30,620</u>	<u>\$7.5</u>

Further, the planned size of the dining facility at Hanau was overstated, and the Army used the wrong planning factor to compute the dining requirement for Vilseck. Because the construction contract for the Hanau project has been awarded, it does not appear that savings can now be realized by reducing its scope. For Vilseck, the Army recomputed the requirements using the correct planning factor and added two barracks projects to justify the dining facility. According to Army officials, construction of the Vilseck project is dependent upon the successful completion and congressional approval of a joint United States-German cost-sharing agreement on the Master Restationing Plan.

At the seventh installation, located at Giessen, we determined and notified installation officials that the planned dining facility was also too large based on DOD space criteria and capacity of existing facilities. The installation's official position is that the existing facilities are in extremely poor condition and that there is a need to go ahead with the planned construction. We stated, however, that at least two existing facilities would become excess after construction of the new facility and suggested that they be closed to save operation and maintenance costs. Installation officials agreed to close the two facilities.

To achieve economical and efficient dining operations, Army guidance encourages consolidating and maximizing the use of existing facilities, including siting new barracks to capitalize on use of existing underused facilities. In evaluating whether existing facilities will be considered in determining the need for and size of new facilities, the Army considers only those existing facilities within 1,200 feet of the planned dining facility.

Justifications prepared by the Army for dining facility projects at the seven locations frequently overstated actual needs because (1) management plans and the initial project justifications were based on inaccurate and incomplete data, (2) required evaluations and studies were not being prepared, and (3) the Army's review process did not insure that projects were being justified in accordance with DOD and Army regulations and guidance.

For example, DOD and Army guidance directs the development of installation food service management plans to maximize the use of existing facilities and to insure that requests for new facilities represent a valid and high priority need. None of the installations visited had developed food service management plans with all the essential information to help commanders evaluate the condition and determine the use of existing facilities. The primary causes for these deficient plans were

(1) no one was responsible for preparing a plan for the entire installation--each dining facility had its own food service advisor, (2) existing plans, property records, and other documents for existing facilities contained many errors and inconsistencies, and (3) much of the information required as part of the plan was not being prepared and submitted to reviewing organizations.

Also, planning factors used to justify new dining facility construction result in an overstatement of the amount of new dining capacity needed to support projected enlisted personnel strengths. For example, considering only existing facilities within 1,200 feet of a planned project site, as prescribed by DOD criteria, in determining the capacities and use of existing facilities will not necessarily result in an installation food service system that maximizes use of both new and existing facilities. Also, compared to actual usage of dining facilities by eligible personnel, only 35 to 51 percent in our test, the use of the standard utilization factors prescribed in DOD criteria may be overstating dining requirements at most installations in Germany. Finally, the use of the "maximum enlisted housing capacity," which is based on the number of 90 square feet of living spaces rather than the number of personnel that will occupy the barracks, may overstate the need for dining capacity.

Also, the guidance in the DOD criteria for measuring the serving capacity of existing facilities differs from the Army's. The DOD criteria provide for a minimum 72-minute serving period and an eating time per person of not more than 18 minutes. This results in a minimum serving capacity of four times the seating capacity. The U.S. Army Troop Support Agency uses a turnover rate of three times seating during a 90-minute meal period. It considers this rate more realistic, primarily because troops are allowed to take longer than 18 minutes to eat their meals.

We visited 13 existing dining facilities, and at 10 facilities only 35 to 51 percent of the personnel authorized to eat there at Government expense actually did. At the other three facilities, the number of personnel eating there exceeded 70 percent. However, at these locations, the number of meals served included personnel not reflected in the number authorized to eat there. The Army uses factors of 70 and 85 percent to determine serving requirements for garrison- and training-type facilities, respectively. Use of these factors overstates serving requirements when compared to rates of actual use.

Also, an installation's serving requirement is computed by using the maximum enlisted housing capacity based on 90-square-foot spaces. Because of different space requirements for different enlisted personnel grades, normal use of a new barracks is substantially less than maximum capacity. For example, the 552-maximum-capacity barracks to be constructed for each PATRIOT battalion is intended to house only 493 persons.

According to Army guidance, barracks should be located not more than 1,250 feet walking distance from dining facilities. The Army, in determining whether a new facility is needed, considers the use of existing facilities that are within 1,200 feet of the planned project, as prescribed by DOD criteria. At Giessen, we found two existing dining facilities within 1,250 feet of the billeting area, but not within 1,200 feet of the planned project. Exclusion of these existing facilities did not insure maximum and efficient use of all existing and planned dining facilities which could support a particular billeting area.

Army officials agreed that there is a need to reassess the planned projects reviewed to insure that requested facilities were adequately justified. At the time of our review, Army officials in Europe agreed with our conclusion that the \$1.2 million project at Fuerth should be deleted from the fiscal year 1982 construction program.

On December 20, 1982, Army officials advised us that contracts have not yet been awarded for the four fiscal year 1983 projects reviewed. For the three fiscal year 1982 projects, construction is underway only at Giessen. The contract has been awarded but construction has not started for the Hanau project and the project at Fuerth has been deleted.

In summary, the Army is requesting dining facility projects without adequately considering unused capacity in existing facilities. Moreover, some requested facilities are larger than allowable under DOD criteria, even if the need for new separate facilities were fully justified. We estimate that the Army, by properly considering actual use of existing facilities and by properly applying DOD planning factors, could avoid as much as \$7.5 million in construction costs on the projects reviewed.

RECOMMENDATIONS

We recommend that you direct the Secretary of the Army to:

- Reassess the need for dining facility projects in Germany that are currently planned, programmed, or funded to insure that they are justified considering the capacity, condition, and use of existing facilities. Besides the project at Fuerth, projects at Dexheim, Erlangen, and Kaiserslautern should be canceled. Also, the Army should validate the actions planned by the Giessen Army officials to insure that the planned actions of closing existing facilities rather than deleting the planned facility project will result in the most economical and efficient alternative to obtaining and maintaining the needed dining capacity.
  
- Reemphasize to Army commands the need to develop up-to-date food service management plans and prepare required studies, evaluations, and planning documents so that needed projects can be properly justified.

We also recommend that you improve the guidance to preclude the overstatement of dining facility needs by instructing the services to use:

1. Existing dining facilities in determining the need for and size of a new facility when the existing facilities are within 1,250 feet of the billeting area.
2. A more realistic utilization factor to determine serving requirements when use of the standardized factor is clearly out of line.
3. The actual number of personnel to occupy the barracks rather than the maximum enlisted barracks capacity when determining the number of personnel to be served.

AGENCY COMMENTS AND OUR EVALUATION

On March 21, 1983, and April 14, 1983, we met with DOD and Army officials to obtain their comments on a draft of this report. They generally concurred in our conclusions and recommendations. The Army has agreed to reassess the requirements supporting the construction of new dining facilities currently programed as well as those proposed for fiscal year 1984. The Army has already canceled two dining facilities programed at Fuerth and Erlangen and agreed to close two existing facilities at Giessen. In addition, the Army has proposed to modify the Kaiserslautern project by expanding and modernizing the existing facility rather than constructing a new one. DOD stated that the final decision to proceed with or cancel the Dexheim project will be based on the reassessment of the requirements supporting the project. Actions taken by the Army to date will save \$4 million. Another \$3.5 million in potential savings is being reviewed by Army officials.

We believe that the actions taken by the Army regarding the facilities at Fuerth, Erlangen, and Giessen are appropriate. However, we believe the proposed expansion of the existing Kaiserslautern facility is unwarranted considering its low use by personnel authorized to eat at Government expense and the deployment of two PATRIOT firing batteries to remote sites who will not be supported by the facility. We believe the existing facility can accommodate the expected dining requirements.

According to DOD, cancellation of the Dexheim project would require troops to walk about 75 to 395 feet more than the criterion of 1,250 feet walking distance from barracks to dining facility. In addition, DOD stated that resiting of the new PATRIOT barracks in Dexheim would cost about \$875,000 and delay PATRIOT deployment 6 months.

Although the walking distance from the proposed site of the PATRIOT barracks to the existing facility exceeds DOD criteria, we do not consider the additional walking distance excessive in view of the low use of the existing facility by personnel authorized to eat at Government expense. In addition, the deployment of two PATRIOT firing batteries to remote sites, as is the case at Kaiserslautern, will further reduce the expected use of the existing facility.

However, if the Army still considers the walking distance excessive, resiting the barracks is another option. Army engineers stated that the PATRIOT barracks could be resited within 1,250 feet of the existing facility. Resiting would



result in more efficient use of the existing facility and make other community support facilities more readily available to the troops in the barracks.

In our draft, we proposed that the projects at Hanau and Vilseck be rescoped. DOD officials agreed that the Hanau project was overscoped and that a wrong planning factor had been used to compute the dining requirements for Vilseck. However, DOD stated that any savings (about \$181,000) from rescoping the Hanau project would be consumed by redesign and inflation costs. The contract for this facility was awarded in September 1982. Army officials intend to use the excess capacity at Hanau by deploying an additional unit in the future. The action proposed by the Army appears to be the best alternative available.

At Vilseck, the Army recomputed the requirements using the correct planning factor and believes the dining facility is fully justified. During our review of the original justification submitted to the Congress, the Army identified only two barracks projects, housing about 872 people, that the proposed facility was to support. Since then, the Army has added two barracks projects which now appear to justify the fiscal year 1983 dining facility at Vilseck.

DOD agreed that the Army needs to insure that up-to-date food service management plans and the required studies, evaluations, and planning documents are prepared to properly justify needed projects. The Army advised its commands in June and August 1982 that future projects will not be processed without all required documentation.

DOD generally agreed that its guidance should be improved to preclude overstatement of dining facility needs by the services. DOD is initiating a review of the planning factors used by the services to determine if revisions are required. We believe the planning factors for new construction or modification should consider the use of existing facilities by only those personnel authorized to eat at Government expense rather than the total use of a facility which may include personnel receiving a basic allowance for subsistence or other cash-paying users. Commanders may authorize other users to eat in a dining facility if it does not impinge upon their ability to properly serve personnel authorized to eat at Government expense. However, we believe that these personnel should not be used to determine the utilization of an existing facility when programming new construction.

DOD disagreed that the actual number of personnel expected to occupy the barracks rather than the maximum enlisted barracks capacity should be used to determine serving requirements.

DOD stated that the actual number of persons housed is not a constant factor over the life of the facility and that the difference between actual and maximum capacity will normally not change the size of a dining facility. We agree. However, in the case of questionable projects, such as Kaiserslautern and Dexheim, which are based on the maximum barracks capacity, the services should consider the actual usage of the proposed facility if any doubt exists whether or not a project is fully justified.

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As you know, 31 U.S.C. § 720 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with an agency's first request for appropriations made more than 60 days after the date of the report. We would appreciate receiving a copy of the statements.

We are sending copies of this report to the chairmen of the four committees mentioned above and the Chairmen of the House and Senate Committees on Armed Services. We are also sending copies to the Director, Office of Management and Budget, and the Secretaries of the Army, the Navy, and the Air Force.

Sincerely yours,



Donald J. Horan  
Director

PLANNED CONSTRUCTION OF SOME ARMY DINING  
FACILITIES IN WEST GERMANY CAN BE CANCELED

OBJECTIVES, SCOPE, AND METHODOLOGY

The report was developed as part of a review to determine if the military services in Germany properly identify and justify the need for new construction of enlisted personnel housing and dining facilities. The U.S. Army, Europe (USAREUR), had at least nine dining facility projects programmed for construction in Germany at an estimated cost of \$18 million. We did not select a random sample of the nine projects. Rather, we reviewed project planning and justification procedures at installations that had projects with the largest scope and cost. We selected dining facility projects from the Army's fiscal years 1982 and 1983 military construction programs planned for construction in West Germany. We visited local Army communities and installations that had programmed or planned construction to compare the project scope with the DOD construction criteria and to verify the data justifying the projects. The installations visited were located at Hanau, Giessen, Fuerth, Kaiserslautern, Erlangen, Vilseck, and Dexheim.

At each installation, we determined the number of existing dining facilities, their seating and serving capacities, and their use over a 6-month period as compared to their serving capacities. We determined use rates for lunch because lunch generally represented the largest meal of the day in terms of number of personnel served. In accordance with the DOD criterion, we excluded cash-paying users, i.e., enlisted personnel receiving a basic allowance for subsistence, officers, and civilians, from our utilization rate.

To verify whether use of a recently constructed enlisted dining facility differed from that of older existing facilities, we reviewed the use of a new facility in the Frankfurt military community. In determining requirements for the number of personnel to be served, we accepted each installation's inventory of the number of existing barracks spaces.

To discuss planning, review, and validation procedures for new dining facilities, we visited the following organizations besides the seven installations:

- Office of the Deputy Chief of Staff for Logistics,  
Headquarters, USAREUR, Federal Republic of Germany  
(FRG).
- Office of the Deputy Chief of Staff for Engineering,  
USAREUR, FRG.
- Headquarters, V Corps, FRG.
- Headquarters, VII Corps, FRG.
- 32d Army Air Defense Command, FRG.
- 7th Army Training Command, FRG.
- Engineering Division, Europe, FRG.
- Office of the Assistant Chief of Engineers,  
Department of the Army, Washington, D.C.
- Office of the Deputy Chief of Staff for Logistics,  
Department of the Army, Washington, D.C.
- U.S. Army Troop Support Agency, Fort Lee, Virginia.
- The DOD Food Service Facilities and Equipment  
Planning Board, Washington, D.C.

We reviewed seven dining facility projects initially programmed for construction at seven installations in West Germany. These projects represent the largest dining facilities in the fiscal years 1982 and 1983 Military Construction Army programs and are valued at about \$15.9 million. The following table identifies the cost, size, and location of each facility and the amount of barracks capacity to be supported as presented to the Congress.

<u>Project number</u>	<u>Location</u>	<u>Fiscal year</u>	<u>Project amount (note a)</u> (millions)	<u>Size of planned facility</u>	<u>Barracks capacity to be supported</u>
961	Hanau	1982	\$ 2.4	401 to 650	552
811	Giessen	1982	2.4	401 to 650	552
029	Fuerth	1982	1.2	81 to 150	172
087	Dexheim	1983	1.8	251 to 400	552
111	Kaiser- slautern	1983	2.7	401 to 650	552
151	Erlangen	1983	1.8	151 to 250	274
100	Vilseck	1983	3.6	651 to 1,000	872

a/In all cases, except Erlangen and Vilseck, the project costs as presented to the Congress were combined with a barracks project. We determined the dining portion of total project amount as the basic cost of the dining facility plus a relative portion of the 5-percent contingency and 6.5-percent supervision, inspection, and overhead costs.

We did our work in accordance with generally accepted Government audit standards.

DINING FACILITY PROJECTS ARE BEING  
PROGRAMED FOR MORE CAPACITY THAN JUSTIFIED

The Army has not correctly followed DOD guidance in determining the need for new enlisted dining facilities at installations in West Germany. Projects have been requested to support additional enlisted personnel to be housed in new barracks without considering unused capacity in existing facilities. In addition, five projects are larger than permitted by DOD criteria, even if the need for new and separate facilities were fully justified. Existing facilities or ones that are smaller than planned could generally serve the additional enlisted personnel.

Criteria for planning new facilities

The DOD criteria for constructing new dining facilities for Army enlisted personnel states:

"New dining facilities shall not be planned solely to support an additional housing (EQ) increment and shall be justified based on an evaluation of existing capacities, relationship to working and living areas, and current utilization of existing dining facilities in the areas to be served."

To achieve economical and efficient dining operations, DOD and Army guidance encourages consolidation. Further, maximum use should be made of existing facilities, including siting new barracks to capitalize on use of existing underused facilities. The DOD criteria provide specific guidance on determining the need for and size of new facilities. To the extent that existing facilities cannot meet the need, the criteria prescribe the maximum size of new or additional capacity to be constructed according to specific ranges of the number of enlisted personnel to be served. These ranges and the corresponding amount of gross square footage authorized by the criteria for fiscal years 1982 and 1983 are as follows:

<u>Number of enlisted personnel to be served</u>	<u>Square footage authorized</u>	
	<u>Fiscal year 1982</u>	<u>Fiscal year 1983</u>
40 to 80	2,800	3,675
81 to 150	3,600	5,250
151 to 250	5,000	6,720
251 to 400	6,500	8,600
401 to 650	9,500	11,700
651 to 1,000	13,900	17,200

The serving requirement is not to include enlisted personnel who receive a separate allowance for meals, officers, or civilians.

Facilities have been planned primarily to support new barracks construction

According to the project justification data, the seven projects reviewed are to support additional personnel to be housed in new barracks. The new facilities at Hanau, Giessen, Dexheim, and Kaiserslautern are to support PATRIOT air defense battalions; the facility at Fuerth is to support the activation of a new missile maintenance company; the Erlangen project is to support personnel deployed as part of the Multiple Launch Rocket System; and the Vilseck facility is to support units to be redeployed as part of the Master Restationing Plan.

Little effort appears to have been made toward consolidation and/or modernization of existing facilities. None of the justifications proposed the closing or disposal of existing facilities, nor were the new facilities identified as needed to support units already at the installations.

Existing facilities can provide much of the needed dining support

Existing underused dining facilities could provide much, if not all, of the necessary troop support at the seven installations visited. In some cases, the existing facilities might have to be modernized first. However we could find no indication that use of existing facilities had been considered.

According to Army guidance, barracks should be located not more than 1,250 feet walking distance from dining facilities. At Giessen, Fuerth, Dexheim, and Kaiserslautern, one or more existing facilities are within this distance. At Hanau, walking distance from the new barracks to the one existing facility may exceed 1,250 feet because of a major German rail line crossing the installation. At Erlangen and Vilseck, the planned new barracks will be 1,400 and 2,500 feet walking distance from existing facilities. However, at Erlangen the Army should consider housing in the new barracks those enlisted personnel who receive a separate allowance for meals and do not require dining facilities. At Vilseck, officials should consider the feasibility of locating new barracks closer to existing underused dining facilities.

Existing capacity often exceeds  
future serving requirements

The DOD criteria direct that the serving requirement for an installation be computed by multiplying the maximum enlisted barracks capacity by a specified planning factor for the type of unit to be served. For example, a planning factor of 70 percent is used for installations with garrison-type missions. In accordance with these criteria, we determined the maximum serving requirement and the capacities of existing dining facilities at each installation. To determine the capacity of existing facilities, we used their rated capacities. We could not, in all instances, verify the validity of the rated capacities because records were old and in some cases nonexistent. We discussed the rated capacities of the facilities with Army dining personnel, and we adjusted the rated capacities by using the best available information, such as a combination of real property records and the current seating arrangements. In reply to our draft, Army officials pointed out that the capacity of a facility used in our report can be constrained by the seating capacity or the rate that personnel can be served. When these constraints are calculated, they can reduce the capacity of the existing facilities. Without using these constraints, the following table shows four installations can satisfy their future serving requirements with existing capacity.



<u>Location</u>	<u>Existing and planned barracks capacity</u>	<u>Serving requirement (note a)</u>	<u>Existing facilities (note b)</u>		<u>Additional capacity needed</u>
			<u>Number</u>	<u>Capacity</u>	
Hanau	679	475	1	600	-
Giessen	1,388	972	3	1,116	-
Fuerth	1,387	971	3	1,146	-
Dexheim	1,306	914	1	780	134
Kaiser-slautern	1,216	851	1	600	251
Erlangen	2,134	1,494	3	1,893	
Vilseck	1,709	1,196	1	969	227

a/The serving requirement is determined as 70 percent of total existing and planned maximum enlisted barracks capacity.

b/In evaluating existing facilities, we did not include a small facility at Giessen used to feed personnel at an air defense site or four facilities at Vilseck used to support personnel temporarily at the installation for field training. These facilities were not considered part of each installation's dining capacity.

Facilities have excess capacity because of low use

Based on actual use over a 6-month period rather than on DOD criteria, all seven installations apparently can satisfy, with existing dining facilities, the serving requirements to be added by new barracks construction. The added requirements, existing dining capacity, average use by eligible personnel (those authorized meals without reimbursement), and average excess capacity are shown in the following table.

<u>Location</u>	Additional serving requirement (note a)	<u>Existing capacity</u>	<u>Average use</u>		<u>Average excess capacity</u>	<u>Additional capacity needed</u>
			<u>Number</u>	<u>Percent</u>		
Hanau	386	600	192	32	408	-
Giessen	386	1,116	313	28	803	-
Fuerth	120	1,146	309	27	837	-
Dexheim	386	780	305	39	475	-
Kaiser- slautern	386	600	116	19	484	-
Erlangen	70	1,893	601	32	1,292	-
Vilseck	610	969	238	25	731	-

a/The serving requirement in this column represents 70 percent of the new barracks capacity which the project is to support.

Other factors may affect feasibility  
of using existing capacity

Existing facilities can handle most, if not all, of the increased serving requirements at the installations visited. However, factors such as location or condition of the existing facilities must be considered on a case-by-case basis.

Where new barracks are more than 1,250 feet walking distance from existing dining facilities, new ones may be necessary. However, at Hanau, Erlangen, and Vilseck, where walking distance would exceed 1,250 feet, all the existing facilities had unused capacity and, particularly at Erlangen, could probably accommodate the additional personnel. The project justifications do not indicate whether planners considered relocating any of the new barracks closer to existing facilities.

Information on the condition of existing facilities was generally inaccurate or not available. Although real property records consistently indicated that existing facilities were in acceptable condition to be used at near their rated capacities, dining facility personnel characterized some existing facilities as old, in poor condition, and unable to support their rated serving capacities without modernization. However, none of the projects proposed construction of consolidated facilities and closure or disposal of existing facilities because of their poor condition and higher maintenance expense.

#### Many requested projects exceed DOD space criteria

Even if the new dining capacity to be added were fully justified considering existing capacity, five projects exceeded the size allowed by the DOD space criterion.

#### Oversized PATRIOT facilities

The planned serving capacity for PATRIOT battalions at Hanau, Giessen, and Kaiserslautern is excessive. According to the DOD planning guidance, the 552-capacity barracks that these projects are to support would increase an installation's serving requirement by 386 people. If no existing capacity were available to support this additional requirement, only facilities to support up to 400 persons should have been programmed rather than the 401- to 650-capacity facilities that were programmed at each of these installations.

Even a 386-person serving requirement overstates the number of eligible PATRIOT personnel that would be expected to eat in a garrison dining facility. The DOD criterion directs that planners, in computing a serving requirement, consider the relationship of a planned dining facility to working and living areas. In the case of each PATRIOT battalion, the personnel from two firing batteries, about 90 personnel per battery plus attached military police, will be deployed at all times to tactical sites. Depending on the locations of these sites, the new dining facilities will not necessarily support troops at the sites. For this reason, the added serving requirement at Dexheim and Kaiserslautern would be further reduced to about 265 persons, a number which existing facilities could reasonably handle.

### Oversized facility at Vilseck

The facility planned here also exceeds DOD's space criterion. Vilseck is a subcommunity of the Grafenwoehr Training Area. An 85-percent planning factor, which is appropriate for training areas, was used to size the project instead of the 70-percent factor for garrisons. However, since the proposed dining facility was to support units to be permanently relocated to Vilseck under the Master Restationing Plan, the 70-percent factor for permanent garrison should have been used rather than the factor for training areas.

### Cancellation of planned barracks construction affects Erlangen project

The planned size of the dining facility here was consistent with the original project justification data. However, a barracks project which provided two-thirds of the justification for the dining project was canceled in August 1981. The remaining 100-person capacity barracks project would justify construction only of a 40- to 80-person dining facility. At the time of our review, the Army had not yet downscoped or canceled this project.

### Dining projects should be brought into line with DOD criteria

If the requested Army dining facility projects reviewed in Germany were programed according to the DOD criteria, some could be eliminated because of existing underused facilities. Those based on an incorrect serving requirement could be reduced substantially in size and would cost less. Seven Army dining facility projects we reviewed in Germany were not properly programed according to DOD criteria. Construction of four of the projects is unnecessary because existing underused dining facilities are available to meet the needs the Army used to justify the four projects. In addition, the sizes of three projects were overstated because they were based on incorrect serving requirements. Following are the problems we noted on each of the seven projects.

#### Hanau

The planned serving capacity for the Hanau facility is excessive according to DOD planning guidance. DOD officials agreed. However, DOD officials stated that any savings (about \$181,000) from rescoping the Hanau project would be consumed by redesign and inflation costs. Army officials at Hanau intend to use the excess capacity at Hanau by deploying an additional unit in the future.

Giessen

The planned facility is too big based on the DOD space criterion and the capacity and use of existing facilities. After we pointed this out to installation officials, they prepared a position paper describing what they considered to be the extremely poor condition of existing facilities. They said that there was a need to continue with construction of the planned PATRIOT facility for use as a consolidated facility but agreed that at least two existing facilities should be closed.

Fuerth

Existing facilities can handle additional personnel to be housed in new barracks. The \$1.2 million dining project should be canceled. Army officials in Europe agreed.

Dexheim

Construction of the planned \$1.8 million facility is not warranted due to low use of the existing facility.

Kaiserslautern

The planned \$2.7 million facility exceeds the DOD space criterion. Also, the existing facility can handle the additional personnel to be located at the installation. We believe the project should be canceled. The Army has proposed to modify the Kaiserslautern project by expanding and modernizing the existing facility rather than constructing a new one.

Erlangen

With the cancellation of a planned 174-person barracks project, the planned \$1.8 million dining facility now greatly exceeds the DOD space criterion. The planned barracks the new facility is to support will be more than 1,250 feet walking distance from the existing underused dining facilities. However, since this installation has no adequate housing for senior enlisted personnel, the Army should consider housing personnel in the new barracks who do not require dining support, particularly senior personnel on separate rations. Construction of a new dining facility is not justified now.

Vilseck

The scope of this project was overstated at the time it was presented to the Congress. The Army used the wrong planning factor which overstated the serving capacity needed for the personnel in the two barracks the dining facility was to support. However, the Army subsequently added the personnel in two additional barracks to be served by the planned dining facility and advised us on March 21, 1983, that the facility is now justified.

IMPROVEMENTS ARE NEEDED IN PLANNING,  
REVIEWING, AND VALIDATING  
DINING FACILITY PROJECTS

Dining facility project justifications presented to the Congress frequently overstate actual needs. Problems have occurred because food service management plans and the initial project justifications are based on inaccurate and incomplete data, required evaluations and studies are not being prepared, and the review process does not insure that dining facility projects are being justified in accordance with DOD and Army regulations and guidance.

Planning guidance is not being implemented

The process of justifying a new dining facility begins with the installation commander determining whether a new facility is in the best interests of the installation, user personnel, and the Government. DOD and Army guidance directs the development of installation food service management plans to maximize the use of existing facilities and to insure that requests for new ones represent a valid and high priority need. In addition, commanders are to evaluate the condition and use of existing facilities and to incorporate such analyses into requests for new facilities. Current planning procedures, however, are not insuring that new facilities are being acquired in accordance with this guidance or in a manner which best meets overall installation requirements.

Food service management plans  
are inaccurate and incomplete

Food service management plans should contain

- a site map indicating all food service facilities;
- an inventory of existing dining assets showing serving capacity, square footage, and condition;
- an analysis of current and future serving requirements, including type of troops to be supported; and
- narrative describing the planned use of existing dining facilities.

None of the installations visited had developed plans with all these elements.

Particular problem areas which contributed to deficient plans are that:

- Each dining facility has its own food service advisor, and no one is responsible for preparing a plan for the entire installation. Efforts to assign food service advisors on a regional or an installation basis have reportedly failed because unit commanders and major subordinate commands object to not having control over "their" dining facilities.
- Existing plans, property records, and other documents for existing facilities contain many inconsistencies. For example, different rated serving and seating capacities are often listed for the same facility, and sometimes it is unclear as to whether the figure given is for seating or serving capacities. At two installations visited, even the number of existing facilities carried on the property records was incorrect.
- Much of the information required as part of the plans is not being prepared or submitted to reviewing organizations. In particular, annotated site plans and narratives describing existing facilities have not been forwarded to reviewing organizations for installations in Germany.

Required studies and evaluations  
are not being prepared

Various studies and evaluations required by DOD to justify projects are not being prepared. The capacity and use of at least those existing facilities within 1,200 feet of a barracks project site are to be evaluated. Other studies should address engineering, economic, and environmental issues.

Project justifications generally stated that existing facilities were fully used and new units could not be fielded without new facilities. We could not find any evaluations of existing facilities to support these statements. Also, while some existing facilities may be in poor condition, the justifications did not address their possible closure, replacement, or consolidation.

In addition, the Army should be able to demonstrate that a planned facility represents the best of available alternatives to meet project requirements in terms of initial construction and life-cycle operating costs. For the seven projects reviewed, Army officials could not demonstrate that the necessary studies had been prepared or what alternatives would cost.

Perceived constraints to the  
planning process

Army officials at the seven locations visited acknowledged the need to improve their planning for new dining facility projects. However, they cited various reasons why they believe construction is occurring on an incremental or a piecemeal basis:

- Frequent stationing action changes and uncertainty of force modernization initiatives frustrate the planning process.
- Military communities lack the personnel for master planning.
- Merging requirements from different fiscal years is considered risky because follow-on projects have not been approved and funded. If merged, there is fear that cancellation of one program's requirements could jeopardize the entire project.



- Requirements are often "top-fed" in that the community is told by a higher Army headquarters the type of facilities needed to support a particular weapons system, such as PATRIOT. Also, the officials felt that the Congress has been more willing to fund facilities if they are directly associated with a new weapons system rather than based on overall long-term community requirements.
- Commanders of using units prefer separate facilities for unit integrity.

To the extent these difficulties exist, they do complicate the planning process but they do not eliminate the need for more and better planning consistent with current DOD and Army policy. Unless required studies, evaluations, and analyses are conducted and the results become part of a coherent long-range installation master plan, project requests and approvals will continue to be inefficiently made as reactions to incremental increases in barracks for enlisted personnel. Also, little progress will be made toward achieving the DOD and Army goal of consolidating dining facility operations.

Project review is inadequate to insure valid justifications

Review and validation of dining facility projects by the U.S. Army Troop Support Agency and the DOD Food Service Facility and Equipment Planning Board is not sufficiently insuring that projects represent valid requirements and comply with the DOD construction criteria. Although the different levels within the Army command are to review and approve projects, the DOD criterion specifically calls for the Board to review planned new construction of dining facilities before formal submission of requests to the Office of the Secretary of Defense. For Army projects, the documentation submitted to the Board is to include validation by the Troop Support Agency.

In reviewing the need for new dining projects, both the Agency and the Board rely on data submitted as part of the project justification. However, this data is frequently incomplete or incorrect, according to Army and DOD criteria. For the seven projects tested, the data presented to the Agency and Board or otherwise available for review by these two activities did not contain required studies, evaluations, and plans; the number, capacity, and use of existing dining facilities had not been correctly reported; and the number of personnel and barracks capacity to be supported was incorrect.

If required information is not available, reviewers cannot adequately validate that requested projects are necessary and properly sized or that the most cost efficient alternative has been selected. When project requests are not accompanied by the requisite analysis of existing facilities, food service management plans, site plans, or other required documents, action should be suspended on the project request until the necessary information is provided.

Also, given the inaccuracies in the data presented for review, some onsite inspections are needed to verify the need for requested projects. According to officials from the Troop Support Agency and the DOD Food Service Facility and Equipment Planning Board, neither activity performs onsite inspections to verify the data presented for review. The Chairman of the Board indicated that he looks to each service to validate its projects and to present them logically. We were told that the Agency has normally relied on phone calls or messages to obtain any necessary additional information on dining facility projects in Europe. Although we did not try to determine which organization, or one of its components, could perform onsite inspections, this task would be an appropriate function for food management assistance teams from the Agency. These teams already are responsible for reviewing the use of facilities, equipment, and other food service resources to obtain valid evaluations of installation food service programs and to identify limitations that hamper accomplishment of activity objectives.

While justifications based on inaccurate and incomplete data make the entire review process questionable, computational errors and the inconsistent or incorrect application of DOD criteria further degrade the process. For example, we found the following errors and inconsistencies in the Troop Support Agency's computation of serving requirements for the seven projects tested:

- In some cases, planning factors were applied to the number of personnel to be housed and in other cases to maximum barracks capacity.
- In some cases, planning factors were applied to the installation's total barracks capacity and in others only to the barracks capacity to be supported by the new facility.
- Existing dining capacity was improperly subtracted from existing barracks capacity before applying the planning factor.

--Incorrect planning factors were applied.

Also, DOD and the Army need to insure that projects are built at the sizes at which they are validated and that projects previously validated are still needed when construction starts. The sizes of projects presented to the Congress for funding and approval occasionally differ from those validated by the Troop Support Agency or recommended by the DOD Food Service Facilities and Equipment Planning Board. Also, as previously discussed, a barracks project at Erlangen which provided two-thirds of the justification for a new dining facility was subsequently canceled. However, no action was taken to downscope or cancel the already approved, but not yet constructed, dining facility. As we recently reported, <sup>1/</sup> a similar problem occurred with construction projects planned for support of the Stand-Off Target Acquisition System and the QUICK FIX weapons system.

DOD-ESTABLISHED PLANNING  
FACTORS NEED ADJUSTMENT

DOD-established planning factors used to determine the need for new dining facilities construction can cause overstatement of the amount of new dining capacity needed. We question (1) the use of the 1,200-foot radius used in determining whether existing dining facilities should be considered in determining whether a new dining facility is needed, (2) the reasonableness of the utilization factors used to determine serving requirements, and (3) the use of barracks capacity based on the number of 90-square-foot spaces barracks contain rather than the number of people that will actually be housed. Also the Army's guidance for measuring the serving capacity of existing facilities differs from DOD's.

Our questioning the factors is based primarily on our work in Germany. However, given the nature of the problems and DOD's use of standardized planning factors, DOD and the Army need to insure that the planning factors are reasonable and result in sizing dining facilities that will economically and efficiently support the number of enlisted personnel that will actually use them.

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<sup>1/</sup>The Army Should Evaluate the Need for Previously Planned Military Facilities (GAO/PLRD-82-91, June 24, 1982.)

Criteria for selecting facilities  
for evaluation may be too restrictive

Evaluation of the capacity and use of only those existing dining facilities within 1,200 feet of a planned dining facility project site will not necessarily insure maximum use of both new and existing facilities. For example, as the chart on page 19 shows, two or more dining facilities may be within 1,250 feet walking distance of a billeting area, but not within 1,200 feet of the site of a planned dining facility. Exclusion of one or more of these existing facilities would not insure maximum and efficient use of all existing and planned facilities which could support a particular billeting area. Moreover, depending on the location and amount of unused capacity in existing facilities, it might be more economical and efficient to redesignate the dining facilities which enlisted personnel from particular units would use.

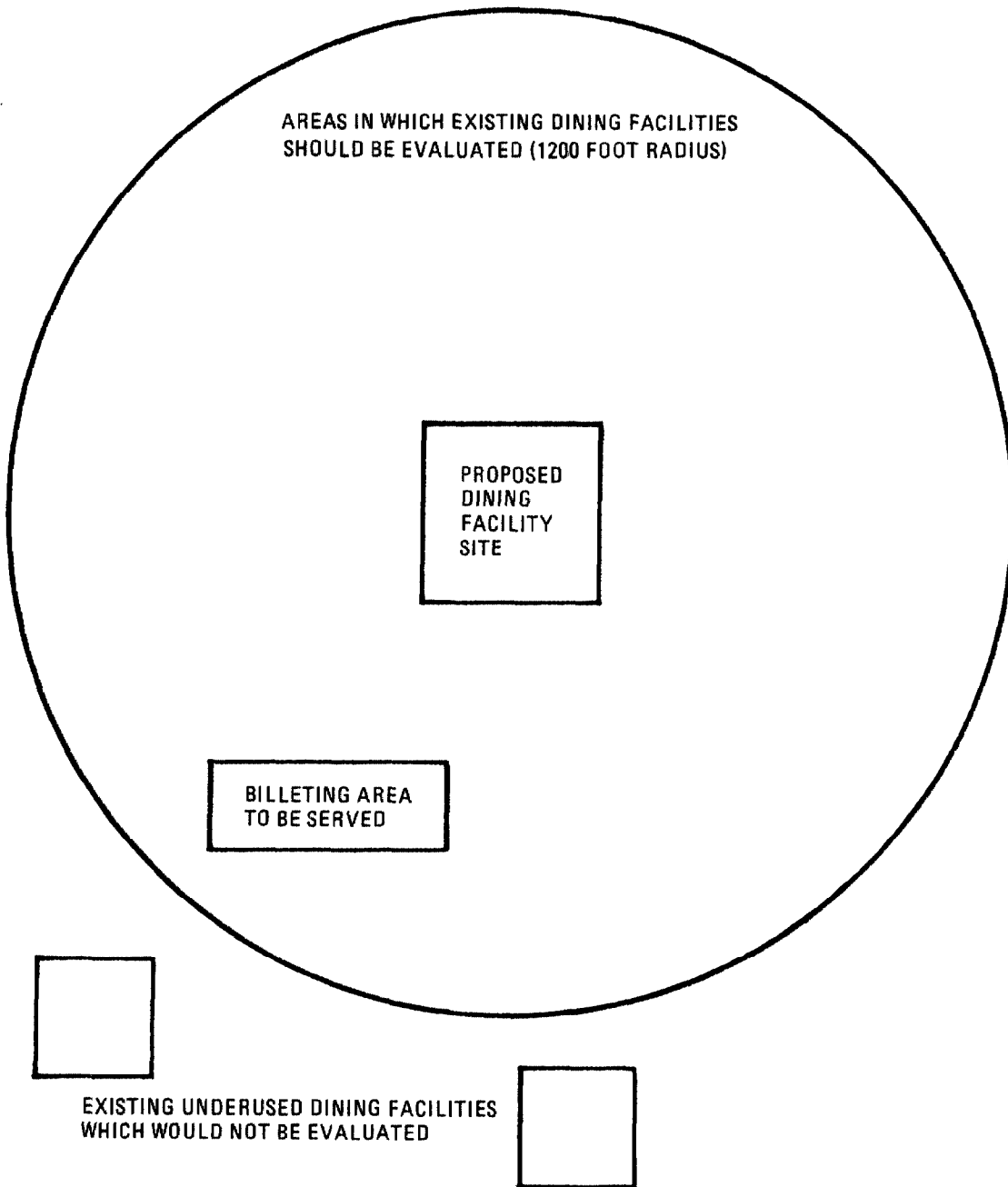
Utilization factors may be high

Use of the standardized utilization factors in the DOD criterion may be causing dining requirements to be overstated. We visited 13 dining facilities in Germany and found that at 10 facilities, only 35 to 51 percent of the personnel eligible to eat there without charge actually did. At the other three facilities, the number of eligible personnel eating in the facilities exceeded 70 percent of the number of personnel authorized to eat in them. However, at these three locations, dining facility personnel told us that the total number of meals served includes meals for enlisted personnel not authorized to eat there. For example, the existing facility at Hanau provided lunch to many enlisted personnel who work there but have living quarters and are designated to eat at another installation.

Based on the rates of use by eligible personnel indicated above, planning factors should be adjusted to reflect actual experience so that the dining facilities can support a more realistic number of personnel rather than a number established arbitrarily.

Use of maximum enlisted housing  
capacity overstates requirements

Another factor which overstates the need for dining capacity is the use of "maximum enlisted housing capacity" as one of the determinants of an installation's serving requirement.



Maximum capacity of new enlisted personnel barracks is based on the number of 90-square-foot living spaces in the barracks. However, under normal use, only personnel in grades E1 through E4 are limited to 90 square feet of space. According to the new construction criteria for barracks, E5s and E6s are allowed 135 square feet and E7s and above are allowed 270 square feet. Thus, normal use of a new barracks is substantially less than maximum capacity. For example, the 552-maximum-capacity barracks to be constructed for each PATRIOT battalion is intended to house only 493 persons.

#### Inconsistency in DOD and Army criteria

Currently, DOD and Army criteria do not agree on how to determine the serving capacity of existing facilities. The DOD criterion provides for a minimum 72-minute serving period and an eating time per person of not more than 18 minutes. This results in a minimum serving capacity of four times the seating capacity. However, the U.S. Army Troop Support Agency uses an eating turnover rate of three times seating during a 90-minute meal period. It considers this rate more realistic, primarily because troops are allowed to take longer than 18 minutes to eat.

In our analyses reflected on pages 7 and 8 of appendix I, we computed serving requirements for installations based on the 70-percent planning factor, maximum enlisted housing capacity, and a maximum dining capacity equal to three times the facilities' seating capacities. Using a percentage factor closer to the rate at which eligible personnel actually use existing dining facilities, actual number of personnel to be housed rather than maximum capacity, and dining capacity based on four times seating capacity would have further reduced the need for new dining capacity.

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