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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548



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LOGISTICS AND COMMUNICATIONS  
DIVISION

B-163500

JUN 28 1973

The Honorable  
The Secretary of Defense

Dear Mr. Secretary:

On February 10, 1972, we notified you of our plans to review the comparative levels of maintenance of facilities within the Department of Defense (DOD) and to concentrate on examining the management of (1) maintenance and repair funds, (2) the backlog of essential maintenance and repair, and (3) the statutory floor for the maintenance of real property. We interviewed officials and examined reports and records at departmental headquarters and at eight selected military installations.

We found that the floor, defined as the minimum amount of each DOD component's annual operation and maintenance appropriation to be spent for the maintenance of real property facilities, is set so low that, even though actual expenditures consistently exceed the floor, the backlog of essential maintenance and repair is constantly increasing. Therefore, the floor is not an effective management tool for insuring that an adequate portion of the funds appropriated for operation and maintenance are expended to prevent excessive deterioration of real property.

We believe that you may wish to review the current methods of establishing the floor to improve its use as an indicator of facilities' maintenance needs and an aid in managing the maintenance of the real property plant.

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BACKGROUND

CI In an April 13, 1962, report (H. Rept. 1607, 87th Cong., 2d sess.), the House Committee on Appropriations expressed H300 concern that funds justified to the Congress for physical plant maintenance were being diverted to operational requirements. To remedy this situation, a statutory floor of funds available only for maintaining real property was established for each operation and maintenance appropriation in the fiscal year 1963 DOD Appropriation Act (Public Law 87-577, Aug. 9, 1962). The provision has been repeated in subsequent appropriation acts.

Costs to be charged against the floor are maintenance,<sup>1</sup> repair,<sup>2</sup> minor construction, and a share of management and engineering.

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<sup>1</sup>DOD Directive 7040.2 defines maintenance as:

"The recurrent, day-to-day, periodic, or scheduled work, required to preserve or restore a real property facility to such condition that it may be effectively utilized for its designated purpose. Includes work undertaken to prevent damage to a facility which otherwise would be more costly to restore."

<sup>2</sup>DOD Directive 7040.2 defines repair as:

"The restoration of a real property facility to such condition that it may be effectively utilized for its designated purposes, by overhaul, reprocessing or replacement of constituent parts or materials which have deteriorated by action of the elements or wear and tear in use and which have not been corrected through maintenance."

Anticipating the restriction, DOD issued cost accounting and administrative instructions on July 31, 1962, to guide DOD components in carrying out congressional intent; subsequent to enactment DOD issued further guidance. In implementing these guidelines each military service developed procedures, in consonance with its particular accounting and management system, to provide for the floor.

The Army's pertinent fiscal records illustrate the relationships among the floor, the funding of maintenance and repair, and the maintenance backlog. The Army has nine accounts under operation and maintenance funds for base operations. Of these accounts four cover real property maintenance activity (RPMA)

- operation of utilities,
- maintenance (and repair) of real property,
- minor construction, and
- other engineering support.

Three of these accounts--maintenance and repair of real property, minor construction, and a portion of administration and overhead contained in the other engineering support account--contain the floor.

The operation and maintenance appropriations provided about 65 percent of DOD RPMA funds in fiscal year 1972. Other RPMA funds are provided from appropriations for military personnel; family housing; Reserve Forces; research, development, test, and evaluation; and industrial funds.

Generally, maintenance requirements to be funded from the maintenance and repair of real property account, which are not funded during the current fiscal year and which are still valid, become deferred. A portion of this deferred maintenance constitutes the backlog of essential maintenance and repair (BEMAR) which is used as one indicator

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of the effectiveness of the real property maintenance. BEMAR is defined in DOD Instruction 4150.9 as:

"\* \* \* those items of maintenance and repair as defined in DOD Directive 7040.2 \* \* \* over \$10,000 which cannot be accomplished during the current fiscal year due to a lack of resources. An item is considered essential when delay for inclusion in a future program will impair the military readiness and capability, or will cause significant deterioration of real property facilities."

The military departments' budget requests for real property maintenance, including the floor, are constrained under DOD budget guidance. The Comptroller of the Army, for example, forwards this guidance to major Army field commands and other agencies for further dissemination to major subordinate commands and installations.

Installation comptrollers relying on major activity directors, such as post engineers, for input prepare command operating budgets. To establish real property maintenance needs, post engineers prepare annual work plans. The estimated cost of the plan becomes the real property maintenance amount in the command operating budget. After review and revision, the command operating budget becomes a part of the DOD operating budget, the Five-Year Defense Program, and the U.S. budget.

The services propose floors at approximately the amount DOD has approved in their operation and maintenance budget submissions. In the budget submissions to the Congress, DOD, however, has traditionally proposed a floor lower than it intends to spend. Therefore, the proposed floor does not correctly indicate the amount that should be or is intended to be spent. Over the years the Congress has approved

the amounts as proposed by DOD. (See enclosure I for a summary of fiscal year 1972 floor requirements and expenditures.)

INEFFECTIVENESS OF THE STATUTORY FLOOR  
FOR THE MAINTENANCE OF REAL PROPERTY

DOD Directive 4165.2 sets forth the objectives of DOD's Real Property Maintenance Activities Program. One specific objective is:

"\* \* \* to maintain and repair in the most cost effective manner all active real property to a standard which will permit continued use for its designed purpose and inactive facilities to a standard commensurate with reactivation requirements."

Policies implementing this objective, including minimizing the cost to the Government over the life of the facility, seem to agree with the intent of the Congress when it established the maintenance floor. As indicated by the following data, the floor, as currently administered by DOD, is not adequate to insure achievement of this objective or the intent of the Congress.

During fiscal years 1965 through 1972, the maintenance floor financed with operation and maintenance funds averaged about \$673 million per year. Expenditures against this floor during the same period exceeded it by an average of \$152 million per year. Nevertheless, BEMAR, as reported by DOD, increased from \$286 million to \$677 million in the same 8 years.

DOD officials estimated that, by the end of fiscal year 1973, BEMAR to be satisfied by operation and maintenance appropriations will be about \$750 million and said this is more than they consider to be acceptable. They consider

a \$200 million BEMAR to be a level where continuity in maintenance and repair can be maintained in the system. They estimate that it would require a floor of about \$900 million for the next several years to reduce BEMAR to this level. (See enclosure II for a summary of the statutory floor and BEMAR.)

Testimony of military service representatives before a Subcommittee of the House Committee on Appropriations has indicated that both the Committee and the services recognize that the floor proposed to the Congress has been ineffective in reducing the level of deferred maintenance including BEMAR. According to this testimony increased floor amounts have not been proposed because of

- austerity of funds,
- desire for flexibility in case of emergency situations requiring unexpected expenditures of operation and maintenance funds,
- arbitrary budget cuts, and
- restrictions imposed on the services by higher authority.

DOD indicated in February 1970 in its Five-Year Defense Program that total operation and maintenance BEMAR would decline to \$448 million in fiscal year 1973. As shown in enclosure II, however, this BEMAR was estimated at \$722 million in May 1973. BEMAR, therefore, has not been reduced, as planned. A DOD official stated that the services must initiate reductions in BEMAR.

A DOD official said DOD is reluctant to approve increases in the floor because of a lack of confidence in the services' ability to apply these funds to the most essential needs. This opinion appears to be predicated on the

fact that, although obligations have greatly exceeded the assigned floors of the services, no real progress has been made in reducing BEMAR. This argument, however, could equally well support the theory that the floor is not realistic.

The 1969 DOD Real Property Maintenance Management Conference, in considering the effectiveness of backlog reporting, noted that BEMAR does not consider backlogged items under \$10,000.

The conference recommended:

"\* \* \* That the backlog definition as applied to Military Family Housing be adopted for other real property, i.e., 'the summation of all maintenance and repair requirements factually known to exist at the time of reporting \* \* \*'"

"\* \* \* That additional research be sponsored by the Office of the Secretary of Defense to develop facility condition indices which would apply uniformly to the services, and be utilized as a measure of facility condition in addition to BEMAR."

In consonance with the conference recommendations and as a result of a subsequent review of RPMA performance data requirements, DOD issued a June 21, 1971, memorandum instructing the services to compile a report of total requirements for real property maintenance for fiscal year 1971. The purpose of the report was to "\* \* \* identify total requirements for real property maintenance activities based on prescribed policy and relate the costs incurred for the annual financed work with the unfinanced backlog \* \* \*" and to "\* \* \* provide a means for the Defense Components and Office of the Secretary of Defense (OSD) to better correlate RPMA performance to plans, programs and the next annual

budget request." Pending publication of instructions making this reporting an annual requirement, a similar report of total requirements was made for 1972.

Total requirements for RPMA's were reported as about \$4.6 billion in fiscal year 1972. Of this amount about \$3 billion consisted of RPMA requirements for active installations to be funded from operation and maintenance appropriations. This total consisted of \$1.9 billion in financed requirements and \$1.1 billion in unfinanced requirements. The major part of the unfinanced requirements represented BEMAR (projects over \$10,000) as shown below.

	<u>Amount</u>
	(000 omitted)
BEMAR	\$ 676,500
Minor BEMAR (\$1,000 to \$10,000) and all other maintenance and repair	<u>288,600</u>
Total unfinanced maintenance and repair	965,100
Other unfinanced requirements, such as for operation of utilities, minor construction, and other engineering support services	<u>134,900</u>
Total	<u>\$1,100,000</u>

(See enclosure III, for a detailed breakdown of the total RPMA requirements for fiscal year 1972.)

A Navy official said that, beginning with fiscal year 1972, the Navy has discontinued reporting BEMAR as such and now reports total backlog, including projects under \$10,000. This change was made in anticipation of a change in DOD policy and reporting procedures which, however, had failed to materialize as of May 1973.



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In March 1972 a DOD official informed us of goals to (1) redefine BEMAR to eliminate the \$10,000 cost limitation, (2) redefine the floor to delete minor construction as a floor account, and (3) require reporting of unconstrained maintenance requirements. At the completion of our field-work, however, these goals had not been achieved.

### CONCLUSIONS

The annual floor as requested by DOD and enacted by the Congress has been established so far below expected and actual expenditures that it is not an effective management tool for insuring that an adequate portion of the funds appropriated for operation and maintenance are expended to prevent excessive deterioration of real property.

BEMAR significantly understates the actual level of real property deterioration and, therefore, is of limited value as an indicator of real property condition.

BEMAR and other backlog data presented during DOD hearings do not reveal to the Congress the relationship between maintenance floor and maintenance requirements.

### RECOMMENDATIONS

We recommend that the Secretary of Defense make the following changes in procedures relating to the real property maintenance floor.

- Propose to the Congress the floor amounts at the level of intended expenditures for real property maintenance.
- Inform the Congress of the relationship between maintenance floor and unconstrained annual real property maintenance requirements.

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--Base all real property maintenance requirements indicators, including the floor and the backlog, on the same criteria; i.e., they should have a direct relationship in definition, budgeting, and accounting. This may require redefining the floor.

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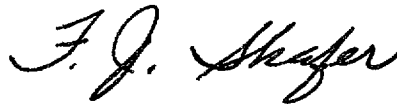
We reviewed a draft of this report with responsible DOD officials who agreed with our observations.

We will appreciate being advised of specific actions taken.

Copies of this letter are being sent to the Chairmen of the Senate and House Committees on Government Operations, Armed Services, and Appropriations; the Director, Office of Management and Budget; and the Secretaries of the Air Force, Army, and Navy.

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Sincerely yours,



for J. K. Fasick  
Director

Enclosures - 3

DEPARTMENT OF DEFENSE  
 REAL PROPERTY MAINTENANCE ACTIVITIES  
 SUMMARY OF FISCAL YEAR 1972  
 REQUIREMENTS AND EXPENDITURES OF  
 OPERATION AND MAINTENANCE FUNDS  
 APPLICABLE TO THE MAINTENANCE FLOOR

	<u>Total</u> <u>requirements</u>	<u>Financed</u>	<u>Unfinanced</u>
	(millions)		
Maintenance and repair of real property	\$1,740.9	\$ 775.8	\$ 965.1
Minor construction	124.1	86.1	38.0
Other engineering sup- port (administration and overhead)	<u>219.5</u>	<u>198.1</u>	<u>21.4</u>
Total	<u>\$2,084.5</u>	<u>\$1,060.0</u>	<u>\$1,024.5</u>
Analysis of expenditures:			
Not applicable to the maintenance floor		\$ 134.4	
Maintenance floor exacted		668.6	
Expenditures in excess of the floor		<u>257.0</u>	
Total		<u>\$1,060.0</u>	
Analysis of unfinanced main- tenance and repair of real property:			
BEMAR (over \$10,000)		\$ 676.5	
Minor BEMAR (\$1,000 to \$10,000) and all other maintenance and repair		<u>288.6</u>	
Total		<u>\$ 965.1</u>	

REAL PROPLRTY MAINTENANCE ACTIVITIES  
 MAINTENANCE FLOOR DATA SUMMARY (OPERATION AND MAINTLNANCE)

	Fiscal year <u>1965</u>	Fiscal year <u>1966</u>	Fiscal year <u>1967</u>	Fiscal year <u>1968</u>	Fiscal year <u>1969</u>	Fiscal year <u>1970</u>	Fiscal year <u>1971</u>	Fiscal year <u>1972</u>	Fiscal year 1973 (note a)	Fiscal year 1974 (note a)
-----millions-----										
Army:										
Maintenance floor	\$236.0	\$225.0	\$264.3	\$280.0	\$280.0	\$225.0	\$220.0	\$240.0	\$240.0	\$246.0
Floor expenditures	261.8	273.7	326.3	389.2	359.5	351.2	308.5	376.1	358.2	-
BEMAR	81.0	63.0	81.0	208.0	232.0	268.1	226.5	222.6	216.0	200.2
Navy:										
Maintenance floor	133.7	141.0	142.7	154.0	155.6	147.5	126.9	124.7	135.0	138.2
Floor expenditures	150.4	157.0	144.2	152.4	166.9	172.0	152.6	155.8	138.9	-
BEMAR	136.0	145.0	155.0	204.5	257.8	280.0	324.0	345.0	384.0	428.0
Marine Corps:										
Maintenance floor	19.3	20.5	20.5	22.2	22.7	22.4	31.0	37.3	38.0	44.5
Floor expenditures	20.6	21.2	21.6	22.6	23.4	24.4	39.3	44.0	39.8	-
BEMAR	8.0	6.0	7.0	5.0	6.0	3.4	14.9	19.7	22.9	20.4
Air Force:										
Maintenance floor	230.0	258.0	250.0	250.0	250.0	250.0	250.0	250.0	220.0	215.0
Floor expenditures	289.5	264.5	289.6	280.4	296.0	315.3	312.7	333.1	262.8	-
BEMAR	60.0	112.0	125.0	139.0	158.2	170.3	92.1	82.0	93.7	94.2
Defense agencies:										
Maintenance floor	11.0	11.4	11.9	11.9	13.7	15.1	14.0	16.6	14.4	17.1
Floor expenditures	11.0	11.4	11.9	11.9	13.7	15.1	14.0	16.6	14.4	-
BEMAR (DSA only) (note b)	1.0	1.0	6.0	9.0	8.8	7.7	5.6	7.2	5.5	3.9
DOD total:										
Maintenance floor	\$629.7	\$655.9	\$689.4	\$718.1	\$722.0	\$660.0	\$641.9	\$668.6	\$647.4	\$660.8
Floor expenditures	733.3	727.8	793.6	856.5	859.5	878.0	827.1	925.6	814.1	-
BEMAR	286.0	327.0	374.0	565.5	662.8	729.5	663.1	676.5	722.1	746.7

<sup>a</sup>Floor expenditures and BEMAR for fiscal year 1973 and BEMAR for 1974 are estimated. Estimate of floor expenditures for fiscal year 1974 not yet available.

<sup>b</sup>Defense Supply Agency.

Source: Department of Defense report dated May 1973

REAL PROPERTY MAINTENANCE ACTIVITIES

SUMMARY REPORT OF FISCAL YEAR 1972 WORLD-WIDE TOTAL REQUIREMENTS

	<u>Army</u>	<u>Navy</u>	<u>Marine Corps</u>	<u>Air Force</u>	<u>DSA (note a)</u>	<u>NSA (note b)</u>	<u>Totals</u>
	(millions)						
<b>ACTIVE INSTALLATIONS:</b>							
Operation of utilities	\$ 324.5	\$ 208.0	\$ 30.1	\$ 192.7	\$ 5.4	\$ 2.3	\$ 763.0
Maintenance and repair of real property	473.9	282.0	54.9	375.9	12.7	3.8	1,203.2
(Utilities)	(89.2)	(50.4)	(7.9)	(110.1)	(1.7)	(-)	(259.3)
(Other real property)	(384.7)	(231.6)	(47.0)	(265.8)	(11.0)	(3.8)	(943.9)
Minor construction	41.9	17.3	3.4	74.7	1.3	.3	138.9
Other engineering support (Services)	264.9	172.8	28.3	338.3	7.2	3.2	814.7
(Administration/Overhead)	(118.7)	(125.1)	(19.5)	(158.9)	(5.0)	(3.2)	(430.4)
	<u>(146.2)</u>	<u>(47.7)</u>	<u>(8.8)</u>	<u>(179.4)</u>	<u>(2.2)</u>	<u>(-)</u>	<u>(384.3)</u>
Subtotal RPMA (active)	1,105.2	680.1	116.7	981.6	26.6	9.6	2,919.8
<b>CONTRACT INSTALLATIONS AND FAMILY HOUSING</b>							
(not included above)	-	-	-	260.9	-	-	260.9
INACTIVE INSTALLATIONS	25.1	2.0	-	2.9	-	-	30.0
TOTAL FINANCED COSTS	<u>1,130.3</u>	<u>682.1</u>	<u>116.7</u>	<u>1,245.4</u>	<u>26.6</u>	<u>9.6</u>	<u>3,210.7</u>
TOTAL UNFINANCED REQUIREMENTS	<u>443.0</u>	<u>553.3</u>	<u>23.8</u>	<u>355.7</u>	<u>8.0</u>	<u>-</u>	<u>1,383.8</u>
(BEMAR--over \$10,000)	(259.7)	(518.0)	(22.5)	(92.1)	(7.2)	(-)	(899.5)
(Minor BEMAR--\$1,000 to \$10,000)	(27.7)	(17.5)	(1.3)	(3.0)	(.8)	(-)	(50.3)
(All other)	(155.6)	(17.8)	-	(260.6)	(-)	(-)	(434.0)
GRAND TOTAL RPMA REQUIREMENTS	<u>\$1,573.3</u>	<u>\$1,235.4</u>	<u>\$140.5</u>	<u>\$1,601.1</u>	<u>\$34.6</u>	<u>\$9.6</u>	<u>\$4,594.5</u>

<sup>a</sup>Defense Supply Agency.

<sup>b</sup>National Security Agency.

Source: Department of Defense report dated May 1973