

*Report to the House  
and Senate Committees  
on Appropriations by the  
Comptroller General of  
the United States*

114146



114146

**SUMMARIES OF  
CONCLUSIONS AND  
RECOMMENDATIONS ON  
DEPARTMENT OF DEFENSE  
OPERATIONS**

This is a summary of GAO's conclusions and recommendations resulting from its audits and other review work in the Department of Defense on which satisfactory legislative or administrative actions have not been taken. These summaries are compiled to assist congressional committees in their review of budget requests for fiscal year 1982. Previous GAO reports brought these matters to the attention of the congressional and departmental officials.

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Committee on Appropriations  
House of Representatives

Chairman  
Committee on Appropriations  
United States Senate

This is our annual report of summaries of GAO conclusions and recommendations resulting from our audits and other review work in the Department of Defense on which satisfactory legislative or administrative actions have not been taken. We believe the summaries will be of interest to your Committees in their review of budget requests for fiscal year 1982. Our reports have previously brought these matters to the attention of the Congress and departmental officials. We have not included suggested questions to be asked in appropriations hearings; however, we will suggest specific questions on the items summarized if you desire.

A report of conclusions and recommendations concerning the Federal civil departments and agencies (OISS-81-4) is being submitted separately.

We are sending copies of this report to the Department of Defense and the military departments, so they may be in a position to answer any inquiries made on these issues during the appropriations hearings.

Sincerely yours,

A handwritten signature in black ink that reads "Thomas B. Atate".

Comptroller General  
of the United States





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# DEPARTMENT OF DEFENSE - MILITARY

## ADMINISTRATIVE CONTROL OF FUNDS

### **Improvements Needed in Processing and Collecting Separation Debts** (FOD, 4-23-80)

#### **Department of the Air Force**

**Budget Function:** Financial Management and Information Systems (1100)

A review was made of the procedures for handling separation indebtedness at the Air Force Accounting and Finance Center.

**Findings/Conclusions:** The Claims Division's adjudication of debt cases is often unnecessary and causes undue delay in initiating debt collection efforts. The process is also quite costly. A poor collection rate is the logical conclusion of the Air Force's leniency towards debtors. Of the approximately \$13 million in fiscal year 1978 debts available for Center collection, only about \$2.6 million was actually collected, with writeoffs constituting about \$2.9 million.

**Recommendations:** In order to hasten the adjudication process, the Air Force should correct the Joint Uniform Military Pay System's (JUMPS) programming problems to properly handle withholding tax, fines, and forfeitures. Until program corrections are effected, flags should be built into the system to signal cases requiring review, and possibly adjustment. Debt case information should be electronically transferred from the JUMPS to the Receivables Branch and adequate safeguarding of all debt information should be assured. Separated members' pay accounts should be shut down automatically when other authorizing documentation is missing by the use of separation travel pay or other positive Accounting and Finance Office input. To accomplish greater collection success, the Air Force should: (1) make

arrangements with the credit bureau network for reporting delinquent debts; (2) revise collection letters to inform debtors that if debts are not paid on time, interest will be assessed and the credit bureau network will be notified; (3) offer waivers only when appropriate; (4) offer debt compromise only when responding debtors can demonstrate limited repayment ability, or when litigative risks or costs dictate such action; and (5) use credit reports and debtor locator services more extensively.

#### **Agency Comments/Action**

The Commander, Air Force Accounting and Finance Center, generally agreed with the thrust of the recommendations. Interim manual review procedures were established and target dates for instituting computer program changes have been set.

#### **Appropriations**

Military personnel - Air Force

#### **Appropriations Committee Issues**

Improved collection policies and procedures could reduce writeoffs of separation indebtedness.

# DEPARTMENT OF DEFENSE - MILITARY

## ADMINISTRATIVE CONTROL OF FUNDS

### **Review of Federal Agencies' Gift Funds**

(FGMSD-80-77, 9-24-80)

**Departments of Defense, State, and Health and Human Services, Office of Management and Budget, and Library of Congress**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** 46 Comp. Gen. 689.

GAO was requested to review the larger gift funds managed by Federal agencies, including fund balances, sources of income, and purposes of expenditures with particular emphasis on travel and entertainment.

**Findings/Conclusions:** During fiscal year 1979, 41 Government agencies received a total of \$21,631,000 classified as gift revenue. The revenue was derived from a variety of sources, including private individuals, corporations, and nonprofit organizations. In addition to donations, income such as honoraria, travel reimbursements, and funds received under agreements between Federal agencies and nongovernmental organizations is also classified as gift revenue. The agencies have great flexibility in using gift funds depending on their needs. GAO evaluated selected gift fund disbursements in light of this broad discretion, and found that the funds were generally used to further agency goals. Because gift funds are financed by private sources, they do not go through the appropriation process as would other agency funds. Thus, Congress is not involved in setting funding limits or priorities for gift fund activities. In addition, Congress receives only minimal information about gift fund activities.

**Recommendations:** In view of the lack of gift fund information available to Congress, the Office of Management and

Budget should: (1) require Federal agencies to more fully disclose gift fund operations in their budget submissions; (2) review agency budget submissions to assure that reporting requirements are met; and (3) develop Government-wide criteria for the solicitation, receipt, and use of gift funds.

### **Agency Comments/Action**

No agency comments were received as of October 15, 1980.

### **Appropriations**

All Federal agencies

### **Appropriations Committee Issues**

The Committees should determine whether any gift funds are being used to supplement appropriated fund activities and, if so, establish the amount. The Committees should also include restrictions in appropriation language to preclude the use of gift funds to supplement areas in which budget restrictions are specifically requested.

# DEPARTMENT OF DEFENSE - MILITARY

## CIVILIAN PERSONNEL MILITARY MANPOWER

### ***Military and Civilian Managers of Defense Manpower: Improvements Possible in Their Experience, Training, and Rewards***

*(FPCD-79-1, 2-16-79)*

**Departments of Defense, the Navy, the Army, and the Air Force, and Office of Personnel Management**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Legislative Reorganization Act of 1970. B-125037 (1978). DOD Instruction 1430.1.

Volume 1 of this report addresses the effect of service staffing policies and practices on the qualifications of defense manpower and personnel managers; both military officers and civilians. Needed improvements in defense management of the manpower and personnel functions have been pointed out in many past GAO reports. In addition, recent passage of the Civil Service Reform Act delegates more personnel management responsibility to the Department. Volume 2 of the report consists of appendixes dealing with: (1) the objectives and results of a questionnaire on manpower development; (2) perceptions of training value; (3) professional activities; and (4) special analyses of organizational effectiveness and training strengths and weaknesses.

**Findings/Conclusions:** Varying service practices in many cases preclude the development of manpower and personnel management expertise, while, at the same time, those managers having such qualifications are not always rewarded for them by their organizations. Department of Defense (DOD) manpower and personnel organizations should be staffed with knowledgeable and experienced officers who are allowed to stay in one assignment for an appropriate time. When career management systems are successful, both the organization and the individual benefit.

**Recommendations:** The Secretary of Defense should make sure that all services have established both a manpower officer career field and a personnel management officer career field to attract, develop, retain, and reward professional managers. The career fields should have established standards of background, education, required training, prior experience, and tenure. In addition, the services should specify certain manpower and personnel positions as the equivalent of command and operational experience and instruct promotion boards to consider such assignments as meaningful equivalent experience for advancement. The Secretary of Defense should also make sure that all services

establish viable, complete, and timely career management systems for civilians in both the personnel and manpower functions and include employees working in the military personnel function. The programs should emphasize individual development and career progression equally with management information and control.

#### **Agency Comments/Action**

Defense generally agreed with the recommendations. It said the study provides a good summary of the attitudes, opinions, and developments of military and civilian managers of manpower and personnel, and provides an additional base for continuing to improve these important programs. It took exception to some of the report's conclusions.

#### **Appropriations**

Military personnel - Department of Defense, Air Force, Army, Navy

Operation and maintenance - Department of Defense, Air Force, Army, Navy

#### **Appropriations Committee Issues**

Defense manpower and its associated problems (as repeatedly pointed out in past GAO reports) demand fully trained, full-time, and motivated military and civilian manpower and personnel managers. Service practices, however, make the development of such professionals unlikely. Traditional officer assignment practices and existing civilian career programs hinder the development of manpower and personnel expertise. Managers having the expertise are not rewarded.

## DEPARTMENT OF DEFENSE - MILITARY

### CIVILIAN PERSONNEL

#### **Review of the Job Enrichment Program at Ogden Air Logistics Center**

(FPCD-78-77, 9-6-78)

**Department of the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (0051)

The job enrichment program at the Ogden Air Logistics Center, Utah, was initiated in January 1974 under contract to Herzberg and Associates to increase workforce productivity by restructuring jobs to provide workers with increased accountability, responsibility, communication, and feedback on the acceptability of their performance. The program was also designed to increase job satisfaction and quality of working life. Because of sizable reported savings and productivity gains, the program is being implemented throughout the Air Force Logistics Command (AFLC).

**Findings/Conclusions:** A review of the program revealed that, at the inception of the program, there was no definitive plan to systematically evaluate its impact. Little evaluation was accomplished and, where it was attempted, evaluation was not adequate to show overall program impact. The program costs tended to be understated and reported savings overstated. A plan for a 3-year systematic evaluation of program costs and benefits was delayed because of resistance from union officials to one of the data collection devices. It appears that AFLC does not know the extent to which the program is achieving the goals for which it was designed.

**Recommendations:** Further expansion of job enrichment within the AFLC and the Department of Defense should be limited to demonstration-type projects which are subject to sound evaluation procedures until favorable program results can be documented.

#### **Agency Comments/Action**

The Commander, AFLC, has directed continuation of the evaluation program, including validation of evaluation methodology and data collection activities by the Air Force Audit Agency. During fiscal year 1980, the Air Force completed two reports evaluating its experience with the job enrichment concept.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

Work force productivity gain could produce sizable savings.

# DEPARTMENT OF DEFENSE - MILITARY

## COMPENSATION

### ***Army Guard and Reserve Pay and Personnel Systems Are Unreliable and Susceptible to Waste and Abuse (FPCD-80-30, 1-28-80)***

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Military Pay (0060)

**Legislative Authority:** 37 U.S.C. 204, 10 U.S.C. 683.

The Army Guard and Reserve payroll is about \$1.3 billion. The Reserve drill pay system operates on an exception basis, with Guard and Reserve personnel being automatically paid for scheduled drills unless the unit reports them absent. Many Guard and Reserve units have abused attendance reporting by recording absent members as present at drill assemblies to show high attendance levels. Aside from erroneous payments made for drills not attended, reservists and guardsmen are also being paid by both the Active Army pay system and the Reserve pay system. Duplicate and overlapping payments occur when more than one claim is submitted for the same period of active duty for training and when reservists are counted present and paid for unit drill assemblies when they are away on active duty for training.

**Findings/Conclusions:** It is estimated that between 5,500 to 6,000 reservists and guardsmen who are discharged each year may be indebted as much as \$744,000 for payment for drills they did not attend. Furthermore, the Army has detected over a half million dollars in duplicate payments to 3,678 members during the last 2 years. Management controls over the payroll and related personnel systems are not adequate to prevent the erroneous payments. In addition, vital personnel strength information maintained in the pay and personnel systems is frequently inconsistent, inaccurate, and can adversely impact budget and mobilization plans. The reliability of the information in the pay and personnel systems is questionable primarily because data are not updated in a timely manner or information is lost, rejected, or erroneously changed.

**Recommendations:** The Secretary of the Army should: direct the U.S. Army Finance and Accounting Center (USAFAC) to automatically assign members to a nonpay status after they have been absent from drills for 3 consecutive months; require USAFAC to establish responsibility and procedures for eliminating conditions which allow Reserve and Guard members to be paid by both the Joint Uniform Military Pay System-Reserve Components and the Active Army pay system; direct USAFAC to upgrade its computer program edits to detect errors identified in this report and develop methods to prevent pay transactions from bypassing program edits except in unusual circumstances and with high level approval; insure that Army Guard unit technicians do not have control over all processing functions with no feedback to unit commanders on changes made in the pay records; direct USAFAC to develop management reports for unit commanders and major Army

commands that will provide timely and useful feedback on drill participation and pay transactions processed for unit members; develop an educational program for unit personnel on the importance of accurate attendance reporting and the consequences to expect for submitting erroneous reports; require the pay system to be redesigned to provide for positive reporting and processing; clarify regulations specifying the disbursing station for each unit; direct USAFAC to study the possibility of incorporating additional information in its tax data file from the disbursing offices to detect duplicate and overlapping payments for active duty for training and drill assemblies; direct the U.S. Army Forces Command to instruct all disbursing stations to institute a card system to prevent duplicate payments; direct the three accounting stations to refer any suspect duplicate payments to the Army's Criminal Investigation Division for possible fraudulent submissions; review and modify existing procedures to improve the timeliness, flow, and accuracy of source data needed for entering and deleting members from the pay and personnel systems; initiate actions to remove members from the rolls who do not meet established Army attendance standards; develop programs to readily verify or correct data in the systems as the need arises; and reconcile on a regular basis the pay and personnel data vital to management needs for the National Guard and Reserve.

#### **Agency Comments/Action**

The Army agreed with the findings and the vast majority of the recommendations. It advised GAO that corrective action will be taken, including: (1) establishing an automated interface between the active Army and Reserve pay systems to prevent payments to the same individual by both systems (to be completed by early 1981); (2) redesigning the reserve drill pay system to a positive reporting system (full implementation expected by June 1981); (3) incorporating additional computer edits (to be completed by September 1980); (4) upgrading tax data files for use in detecting duplicate and overlapping payments (to be completed by December 1980); and (5) removing members from the payroll who do not meet established Army attendance standards (to be accomplished by June 1980 and on a regular basis thereafter).

#### **Appropriations**

Military personnel - Army

**Appropriations Committee Issues**

The Appropriations Committees should monitor the Army's progress in improving the National Guard and Reserve pay and personnel systems.



# DEPARTMENT OF DEFENSE - MILITARY

## COMPENSATION

### **Military Exchange Systems: How They Can Provide More Benefits for Military Personnel** (FPCD-80-50, 7-18-80)

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Department of Defense Appropriation Acts, 1980.

Difficulties in recruiting and retaining personnel in the all-volunteer Armed Forces are causing Department of Defense (DOD) officials to seek ways to increase benefits to service personnel and make military life more attractive. Military exchanges provide authorized customers with articles and services at the lowest practicable prices and are a source of funds for other types of morale, welfare, and recreation (MWR) activities. The exchanges are organized into three separate worldwide systems. Consolidation and centralization of these systems and alternative funding practices could reduce costs and improve benefits. DOD did not follow up on previous agency reports which recommended consolidation because they were not convinced that large savings would occur. It believed the consolidated system would be unmanageable and unsupported by Congress, and other matters took higher priority. Some consolidation has taken place by the integration of the Army and Air Force exchange systems and consolidation of the services' catalog business. If DOD did not require exchange systems to help fund other MWR activities, these systems could operate without appropriated-fund support and focus on providing goods and services to military personnel at the lowest practicable prices. This would establish customer-savings goals rather than profit goals. If the exchanges paid all of their expenses now charged to appropriated funds rather than providing funds for other activities, they would have more than enough to be self sufficient. Unless specifically asked, DOD does not inform Congress of the amount of exchange profits, how these funds are distributed, and the use of exchange dividends by the services. DOD officials oppose changing current funding practices primarily because they believe Congress would not fund MWR activities at their current levels. GAO believes Congress would have provided a lesser amount to fully fund activities had DOD justified them for the morale and welfare of service personnel and had it explained that alternative funding was more costly.

**Findings/Conclusions:** The financial advantages and the desirability of consolidating exchange functions have been

identified in three other independent studies. In view of the potential for substantial benefits to military personnel, GAO believes it is time for DOD to take a strong leadership role in assessing the benefits of consolidating and centralizing exchange functions in whole or in part. The Coordinating Committee or a similar study group could assess this on a function-by-function basis, followed by promptly identifying the benefits without waiting for the entire exchange system to be reviewed. GAO believes that by changing the funding practices MWR activities could improve benefits to military personnel. Without the requirement to provide funds for other MWR activities, the exchanges could concentrate on their primary mission of providing goods and services to military personnel at the lowest practicable prices.

**Recommendations:** To reach a decision on consolidation, the Secretary of Defense should direct the Armed Forces Exchange Coordinating Committee or a similar study group to identify the potential cost savings, the improved benefits to service personnel, and the feasibility of consolidating the three Defense exchange systems in whole or in part. The analyses should include quantifying attainable savings and improved benefits to service personnel, and assessing Defense and service officials' concerns about consolidation and the most appropriate method for addressing them. The Secretary of Defense should eliminate the requirement to distribute exchange profits as a source of funds for other MWR activities; require the exchange systems to reimburse appropriations for costs incurred in support of exchange operations; and budget for and justify to Congress the full cost of activities now partially funded with exchange profits.

### **Appropriations**

Military personnel - Army, Navy, Air Force

### **Appropriations Committee Issues**

Savings in personnel and transportation can be achieved through consolidation of exchange functions.

## DEPARTMENT OF DEFENSE - MILITARY

### DEFENSE DECISION MAKING PROCESS

***Models, Data, and War: A Critique of the Foundation for Defense Analyses***  
(PAD-80-21, 3-12-80)

**Departments of Defense, the Army, the Air Force, and the United States Marine Corps**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The executive branch of the Government has institutionalized quantitative methodology as a tool for budgeting and logistical decisionmaking. While quantitative analysis has considerable potential in both objective and subjective applications, the recognition of whether a specific application is based on scientific fact or "quantified judgment" is of great importance in the context of decisionmaking. GAO examined the nature of quantitative methods such as cost-effectiveness analysis, defense logistics, and computer modeling, and some of the problems involved in their use for the analysis of public policy issues. The study focused on efforts by the Department of Defense (DOD) to analyze conventional ground and tactical air force requirements by mathematical-statistical means through combat models, expert judgment, empirical data, and a quantitative theory of combat.

**Findings/Conclusions:** From a scientific point of view, the present understanding of war is in a relatively primitive state. While basic research aimed at understanding the fundamentals of combat is needed, quantitative or numerical techniques have not been systematically applied toward this end. Thus, the full potential of quantitative analysis for the improvement of DOD decisionmaking has not been realized. To realize this potential, DOD decisionmakers must act on the premises that (1) quantitative decisionmaking is beneficial only when it embodies, rather than replaces, expert judgment and objective fact; (2) analyses may give the appearance of scientific work but may not have been subjected to the normal evaluative standards of science; (3) the theory and supporting data employed in a particular study may not equal the quality of the analytic tool; and (4) the assumptions and limitations of the analysis must be made a part of any study report.

**Recommendations:** The Secretary of Defense should reassess the adequacy of current practices in the management and use of policy-assisting models employed in DOD decisionmaking. This should include identifying needed corrective measures and insuring that such models are used to enhance and extend decisionmakers' judgments. The Secretary should also develop procedures to enhance the contribution of policy-assisting models to open explicit analysis in key areas of policy, strategy, and force planning. Further, the Secretary should require the Chairman of the Joint Chiefs of Staff to review current procedures for safeguarding and strengthening the empirical/theoretical foundation underlying the representation of combat in DOD studies. As warranted by that review, the Chairman should be required to prepare plans and recommendations which

would enable the Joint Chiefs of Staff to serve as the defense establishment's principal analytic adviser on matters pertaining to the phenomenology of combat. The findings of this study pertain to mission budgeting, risk assessment, the evaluation of social programs, and related issues, as well as defense decisionmaking. When reviewing quantitative studies or exercising its oversight authority, the Congress should require an open, explicit understanding of the assumptions underlying a study's conclusions or knowledge of the identity of the decisionmaker(s) involved in the study and their background experience and institutional affiliation(s) and should determine the extent to which the model(s) used in the study have been appraised. Agencies and departments should be required to report on how current decisionmaking tools are being managed and what is being done to improve the tools and provide better answers to difficult public policy questions in the future. When considering defense acquisition requests and cost-effectiveness analyses, the Congress should inquire how a particular program or weapon system contributes to the overall force level analyses.

#### **Agency Comments/Action**

The Department of Defense has reaffirmed its belief that the present procedures ensure proper management of Defense studies.

#### **Appropriations**

Studies and analyses - Department of Defense: Office of the Secretary of Defense, Joint Chiefs of Staff, and the Army, Air Force, and Marine Corps

#### **Appropriations Committee Issues**

Quantitative techniques have considerable potential to aid in the analysis of public policy issues, but that potential is impaired by the current design and management of the quantitative tools. The report's recommendations are intended to strengthen what GAO believes to be a continuing weakness in the design for high-echelon Defense decisionmaking. (The need for management improvements in this area has also been noted in later reports. See, for example, "Need for a DOD Focal Point for the Studies and Analyses Program," LCD-80-79, August 12, 1980.) While much good work is done by DOD, increased vigilance is required to protect against the arbitrary acceptance of studies and analyses as "objective" tools of science and mathematics.

This report offers recommendations designed to improve the methodological efficiency of the analytic structure supporting Defense decisions. GAO believes that achieving needed improvements both requires and deserves high-level management involvement.

# DEPARTMENT OF DEFENSE - MILITARY

## FACILITIES MANAGEMENT

### **Assessment of DOD's Pollution Control Progress and Future Cost**

(LCD-79-303, 1-26-79)

**Departments of Defense, the Air Force, the Army, and the Navy, and Environmental Protection Agency**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Clean Water Act Amendments of 1977. Clean Air Act Amendments of 1977. H. Rept. 95-294. H. Rept. 95-1246.

GAO reviewed the progress made by the Department of Defense in correcting pollution at military bases and the cost to strengthen their pollution control programs. It is expected that half of the \$972 million allocated through 1984 for pollution control will be used for abatement programs already identified. The remaining sum will cover costs for complying with future upgrading and new environmental standards.

**Findings/Conclusions:** The military services were asked to include in the 5-year Defense plan the amount needed for specific projects and for anticipated environmental standards. Since the Environmental Protection Agency (EPA) has not yet published these standards in their final form, DOD has no firm basis to estimate its future needs. Consequently, GAO was unable to evaluate the adequacy of the estimates. The study of projects already proposed or underway has allowed GAO to reach some conclusions on the DOD pollution control reporting system. The program does not provide a full and reliable description of its future needs. The cost for the programs cannot be estimated accurately due to unpublished environmental standards and the effect that current litigation might have on the programs.

**Recommendations:** The Secretary of Defense should require that the military services improve the reliability of their pollution control reporting system by providing for more timely inclusion of needed projects and revisions in project status and costs.

### **Agency Comments/Action**

DOD, in April 1979, said it was working with OMB and EPA to improve the reporting system. A DOD official told us in July 1980 that EPA and DOD have issued guidance on coordination between EPA regions and Defense installations to improve pollution control project reporting.

### **Appropriations**

Military construction - Army, Navy, Air Force

### **Appropriations Committee Issues**

The Committees should continue to monitor the DOD program to assure that firm estimates of future needs are incorporated when the EPA standards are published.

# DEPARTMENT OF DEFENSE - MILITARY

## FACILITIES MANAGEMENT

### ***DOD Energy Monitoring and Control Systems: Potential for Nonenergy Savings; Better Planning and Guidance Needed***

*(LCD-80-81, 8-14-80)*

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

To help energy conservation goals for federally owned buildings, the Department of Defense (DOD) is installing Energy Monitoring and Control Systems (EMCS) at military installations. EMCS provided central control over heating, ventilating, and air conditioning systems to maintain temperatures at predetermined levels. Personnel requirements can be reduced through the use of EMCS for centralized monitoring of boiler plants, water treatment, and sewage disposal systems. Since the fiscal year 1976, Congress has appropriated about \$144 million for 131 projects at 115 locations of the Energy Conservation Investment Program under DOD. Although energy systems can contribute to economical and efficient operation of facilities; present *funding criteria, which require projects to be justified on the basis of energy savings, do not permit DOD to take full advantage of other savings, such as reductions in staffing needs.*

**Findings/Conclusions:** A review of 16 projects at 14 Army, Navy, and Air Force bases disclosed the following problems: (1) thirteen bases programmed systems without the benefit of master plans; (2) nine installations did not consider all buildings which might be serviced by the system, or included buildings (due to cursory evaluations) which were demolished or were not suitable for an energy system; (3) the services did not know if they had selected the most cost-effective buildings; (4) insufficient planning and poor cost estimating resulted in reduced scopes for six projects; (5) inaccurate savings or cost estimates were used by the services to justify 10 projects; and (6) programmed savings for nine projects will not be achieved because of reduced scopes, inaccurate savings assumptions, or failure to offset savings with recurring costs. Generally, systems have been installed to service a single installation. Except for the Air Force, the services lack guidance on providing staff to manage energy systems. Adequate and timely staffing is necessary if an installation expects to achieve efficient and

full use of its system. DOD has adopted tri-service specifications to provide competitive procurement. DOD does not have access to manufactures' information about how the systems work or how they may be made compatible with other systems. Although the Army and the Air Force have flexible policies for expanding proprietary systems, the Navy insists on using the tri-service specifications. Tri-service specifications, if used properly, can be an effective tool to obtain competition on new systems.

**Recommendations:** The Secretary of Defense should: (1) assure that energy system projects with substantial nonenergy cost reduction potential be given full consideration for inclusion in the military construction program; (2) issue guidelines requiring the services to prepare energy system master plans that would evaluate, by building, the cost and savings for energy, as well as nonenergy features, and be revised periodically to reflect updated costs; (3) oversee and evaluate the services' efforts in carrying out economic analysis policy of DOD and closely review energy system projects; and (4) establish policy on joint use of energy systems which will require consideration when planning and evaluating systems.

#### **Agency Comments/Action**

Comments had not been received as of the date that this report was prepared.

#### **Appropriations**

Military construction - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should continue to require the military services to plan for and request money for projects that have substantial cost reduction potential.

# DEPARTMENT OF DEFENSE - MILITARY

## FACILITIES MANAGEMENT

### **Improvements Needed in Army's Determination of Manpower Requirements for Support and Administrative Functions**

(FPCD-79-32, 5-21-79)

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** A.R. 5-4.

Army manpower survey teams make onsite appraisals and recommend the number of people needed for support and administrative functions at Army installations. The recommendations of the survey team are also the basis for the garrison staffing guide, which provides criteria for subsequent surveys. The surveys, although useful for some installation and major command management decisions, are not coordinated with the major manpower activities of planning, programming, and budgeting; of allocating human resources to installations and work centers; and of evaluating manpower use. Consequently, the Army supports its garrison budget by adjusting prior year budgets. However, the Army cannot quantify the effect of not receiving the personnel which survey teams say are needed for garrison work and cannot accurately predict manpower needs.

**Findings/Conclusions:** In order to improve its justifications for budget requests, the Army needs to overcome various problems. The Army's manpower survey program is not designed to provide input to the budget. Since the survey teams determine garrison needs by organizational element, and the Army budgets by activity; the survey team recommendations cannot be summarized into the activity used for budgeting. Survey team recommendations have exceeded Congressional authorizations; in fiscal year 1978 the shortage was 20 percent. Survey teams and work measurement staff make recommendations without regard to the source of labor, even though garrison labor is funded by four appropriations and can be managed under about nine different programs. Installation commanders have been given a great deal of flexibility in distributing available resources, organizing activities, and using other labor sources, but this decentralized management contributes to a number of problems. Commands have been directed to develop work measurement standards for total programs or missions, but the Army headquarters has not provided the top level management direction on selecting the appropriate technique, how to relate work center requirements to program changes in the budget, how to develop standards to com-

pare similar activities, the extent methods studies should be conducted to improve and standardize operations before setting standards, and collecting reliable labor and workload data.

**Recommendations:** The Secretary of Defense should identify the type of information the Army needs to prepare and support its manpower budget. The Secretary should require the Army headquarters to use personnel experienced in budgeting, manpower, workload planning and control, data processing, and work measurement to design a manpower management system. This system should have the following characteristics: (1) an organizational structure that combines the manpower-related responsibilities and staffing into one organization at all levels; (2) a methodology for determining manpower needs based on work measurement where it is feasible and cost effective, using onsite reviews only to review methods, procedures, and organizational efficiency in connection with the development and validation of staffing standards; (3) a management information system which uses a common data base for work center needs, garrison costs, budget requests, allocations, and evaluations of manpower use; and (4) a determination of the spaces needed to implement the system and an allocation of these manpower resources to the program.

#### **Agency Comments/Action**

Defense said it supports and will implement the basic thrust of these recommendations.

#### **Appropriations**

Military personnel - Army

Operation and maintenance - Army

#### **Appropriations Committee Issues**

Agency workforce planning should identify the numbers of employees needed to effectively and efficiently accomplish the Government's essential work.

## DEPARTMENT OF DEFENSE - MILITARY

### FACILITIES MANAGEMENT

#### *Reserves' Reported Facilities Backlog Now Exceeds \$2 Billion; Acquisition Planning Questioned*

(LCD-80-45, 5-19-80)

#### Departments of Transportation, Defense, the Navy, the Army, and the Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** National Defense Facilities Act of 1950 (10 U.S.C. 2231 et seq.). DOD Directive 1225.5. DOD Directive 4165.6. DOD Directive 5126.24. H. Rept. 96-246.

In 1970, Defense Reserve components reported a \$1.2 billion backlog of facility needs. Between fiscal years 1970 and 1979, Congress provided over \$1 billion to meet these needs. As a result of the increasing demand for facilities, a review was undertaken on the feasibility of Reserve Forces sharing or solely using regular force facilities which are either vacant or underused. The Department of Defense (DOD) has instructed the Reserve Forces to use the most cost-effective method when acquiring new facilities or expanding, repairing, and replacing existing facilities. The construction approval process by DOD starts each year with the Reserve units and programming offices of the Reserves' intermediate headquarters identifying facility deficiencies. Lists of construction projects needed to correct the deficiencies are forwarded through command channels. Eventually, each Reserve component includes all known requirements into a long-range program (backlog program). On the basis of the supporting documents submitted with the projects and minutes of the State board meetings, the Assistant Secretary of Defense or his designee approves or disapproves the projects included in each Reserve component's annual program. DOD has a single individual overseeing the entire Reserve construction program and seldom disapproves projects programmed by the Reserves. Congress then authorizes and appropriates funds for Reserves' facility construction in lump-sum amounts. However, Congress is furnished advance notification concerning the location, nature, and estimated cost of specific projects to be undertaken within the authorized amount provided for each Reserve component when the projects' estimated cost exceeds \$175,000.

**Findings/Conclusions:** Of the backlog construction projects reviewed, approximately 38 percent were invalid. Additionally, other projects were questionable because the construction would correct deficiencies that have little, if any, impact on Reserve unit readiness. Although DOD has recently established State Reserve Force facility boards to assist in reviewing Reserve construction projects, the boards, as presently constituted, are ineffective. The members, who are part time, are responsible for providing objective recommendations to DOD. But in the five States visited, they most often perceived their roles as representing the interests and supporting the project recommendations of their respective components. Additionally, the procedural changes enacted by DOD to improve performance of the State boards have not ensured that the boards will objectively consider all vi-

able alternatives in their analysis. Thus, unless DOD improves its review procedures for Reserve construction projects, not only will it fail to provide the information Congress needs to make sound decisions on authorization and appropriation requests for Reserve facilities, but it will also decrease the likelihood that facility needs will be met in the most cost-effective manner.

**Recommendations:** The Secretary of Defense should: (1) ensure that future backlog data reported to Congress identify that portion that has not been validated and could not be constructed even if Congress appropriated the funds; (2) revise review procedures to effectively identify invalid and questionable projects before submitting them to Congress; (3) reevaluate invalid and other questionable projects and take appropriate action; (4) enhance the effectiveness of the State boards by adding one additional member to each board who would report to the DOD office responsible for approving Reserve facility projects; (5) assign Reserve component facility program officials the task of identifying and presenting to State boards the most economical methods to meet specific facility requirements and hold these officials accountable for their decisions; (6) direct programming agencies to use underused and vacant military facilities to the maximum extent possible; (7) direct programming agencies to exchange information on the use of their Reserve facilities; (8) adopt formal policies to encourage collocating Reserve and Active Force units and sharing facilities to the extent feasible; (9) direct the state Boards to consider whether those Reserve components requesting new or expanded facilities could use augmentation or associate program concepts and thereby reduce their facility requirements; (10) direct military services to address, in their impact statements on the disposal of excess property, the feasibility of satisfying outstanding Reserve requirements within a 25-mile radius; (11) clarify and/or expand the State boards' responsibilities to identify opportunities for building consolidated facilities; (12) consider consolidation of each military department's Reserve construction appropriation; and (13) impose a moratorium on the construction of armory and Reserve facilities within 25 miles of completed unilaterally constructed armory and Reserve facilities. Additionally, the Secretary of Defense should direct the military departments to issue policy guidance on programming construction projects to emphasize that facility requirements are justified on need rather than what is authorized by published criteria.

### **Agency Comments/Action**

The Reserve components generally agreed with most of the recommendations. The Army and Air Force Reserve components disagreed with the recommendation to consolidate Reserve construction appropriations by military departments. All of the Department's Reserve components disagreed with the recommendation that construction moratoriums be imposed on the construction of armory and Reserve facilities for a specified period of time, within 25 miles of completed unilaterally constructed armory and Reserve facilities, as a method of getting the Reserve components to more closely evaluate joint construction opportunities.

### **Appropriations**

Military construction - Army National Guard, Army Reserve, Air National Guard, Air Force Reserve, Naval Reserve

### **Appropriations Committee Issues**

The Committee should encourage the Department of Defense to strengthen the State Reserve Force Facility boards in order to satisfy facility needs in a more timely manner and at less cost by making greater use of existing facilities and consolidating requirements into fewer, but larger facilities.



# DEPARTMENT OF DEFENSE - MILITARY

## FACILITIES MANAGEMENT

### **Review of the Procedures Used To Value Air Force Plant No. 3, Tulsa, Oklahoma.** (LCD-79-317, 6-20-79)

#### **Department of the Air Force and General Services Administration**

**Budget Function:** General Government: General Property and Records Management (0804)

**Legislative Authority:** National Industrial Reserve Act of 1948.

An evaluation by the General Services Administration (GSA) and the Tulsa Airport Authority of Plant No. 3, located at Tulsa, Oklahoma, showed a large discrepancy in values. GAO was requested to review the procedures used to estimate the value of the plant. The plant consists of over 300 acres of land and 79 structures totaling more than 2.7 million square feet. The Government-owned plant is currently operated by McDonnell-Douglas Corporation. The Air Force reported the plant excess in October 1972 with the condition that GSA negotiate a sale to McDonnell-Douglas for continued use as an aircraft fabrication and assembly facility. The Air Force specified that, as a condition of sale, the plant's existing capability for defense production be preserved for 5 years from the date that the title to the property is transferred to the contractor.

**Findings/Conclusions:** In February 1973, GSA contracted with an independent appraisal firm to provide a valuation of the plant and all related Government-owned personal property. In September 1977 and September 1978, the firm provided GSA with the value of the plant, which was to be used as a basis for negotiated sale to McDonnell-Douglas. The Airport Authority's estimate of the value of the plant and special tooling was almost \$100 million greater than the independent appraisal. GAO examined the procedures used by the Tulsa Airport Authority and by the GSA appraiser to identify the reasons for the major differences in the estimated values for the plant and to evaluate the reasonableness of the procedures as a basis for valuing the plant. Some is-

ssues were noted concerning the value of the property which GSA and the Air Force need to consider further. GAO believed the procedures used by the appraiser for GSA were more appropriate.

**Recommendations:** The Administrator of GSA and the Secretary of the Air Force should make sure that the Government receives adequate compensation for: the value of equipment furnished by the Government since 1974, because this equipment was excluded from the appraiser's valuation at the request of GSA; the value of all capital rehabilitation improvements to plant facilities not previously included in the appraiser's valuation; and the value of parking aprons. In addition, the Administrator of GSA and the Secretary of the Air Force should establish the appropriate acreage to be sold, in view of the differences reported by the Airport Authority, the GSA appraiser, and the Tulsa County Assessor's Office. The appropriateness of the bulk discount taken on equipment due to its subjective nature should also be reevaluated.

#### **Appropriations**

Operating expenses - General Services Administration

#### **Appropriations Committee Issues**

The Committees should query the agency on the status of the sale and the action taken to ensure the Government receives adequate compensation for the plant.

# DEPARTMENT OF DEFENSE - MILITARY

## FACILITIES MANAGEMENT

### **Transfers of Excess and Surplus Federal Personal Property--Impact of Public Law 94-519** (LCD-80-101, 9-30-80)

#### Department of Defense

**Budget Function:** General Government: General Property and Records Management (0804)

**Legislative Authority:** Foreign Assistance Act of 1961. Department of Agriculture Organic Act of 1944. National Science Foundation Act of 1950. Property and Administrative Services Act. Public Works and Economic Development Act of 1965. Indian Financing Act of 1974. P.L. 94-519. P.L. 95-224. F.P.M.R. 101-43. 40 U.S.C. 493.

Public Law 94-519 significantly changed various Government policies and procedures on the transfer of excess and surplus Federal personal property to non-Federal organizations. The Law's objectives included restricting the transfer to non-Federal organizations of excess property that might be needed within the Federal Government, and encouraging the fair and equitable donation of surplus property to meet the needs of a wide range of eligible non-Federal organizations.

**Findings/Conclusions:** Much less excess property is now being transferred to non-Federal organizations and a greater portion is being transferred to Federal agencies for their use. There is a greater flow of surplus property to eligible donees. The General Services Administration (GSA) and the responsible State agencies appear to be reasonably effective in their efforts to distribute property fairly and equitably. However, improvements are needed to ensure that the property is managed and used as required by implementing regulations. In the management of the surplus property Donation Program, GAO found instances of failure of States to submit permanent, legislatively developed Donation Program plans of operation, as required by law. There were inconsistent and possibly excessive service charges assessed by State agencies, inadequate inventory control procedures, nonuse or improper use of property by donees, and insufficient audit and review of the Donation Program. The Law's provision concerning the return of excess property located overseas may restrict the Agency for International Development's (AID) access to domestic property and property in Europe. The Law did not change the priorities of voluntary organizations regarding domestic or other foreign excesses. Recent congressional action will require the Department of Defense to recover greater costs for its surplus property. GAO believes that the imposition of a care and handling surcharge will result in reduced donee participation in the program.

**Recommendations:** The Administrator of General Services should require GSA personnel to review proposed transfers of excess property to Federal grantees thoroughly and to return, without approval, those which do not appear proper. These include any nonreimbursable transfers of common-use items to National Science Foundation grantees and any transfers to grantees whose eligibility apparently has expired or soon will. He should improve GSA procedures for allocating donable property among the States by requiring the GSA allocating regional offices to accumulate and use in-

formation on past allocation of highly desirable reportable items of property. This information should include for each type of item the quantity, acquisition cost, and condition of property previously allocated to each State. He should take the necessary actions, including establishment of timetables and penalties, to require all States to comply with the provisions of the Law, including: (1) submission of permanent, legislatively developed State plans of operation; (2) accomplishment of biennial external audits which include reviews of State Agency for Surplus Property compliance with the State plans of operation and applicable sections of the Federal Procurement Manual Regulations; (3) establishment of equitable service charges; (4) proper accountability for Federal property; and (5) proper use of property by donees. The heads of all Federal agencies which transfer excess personal property to their grantees should review their plans, policies, and procedures on such transfers and ensure that they fully comply with the applicable provisions of the Law and the implementing Federal Procurement Manual Regulations. Congress should clarify what costs relating to donated property it wants recovered so that the costs will be handled consistently for Department of Defense and civil agency property.

#### **Agency Comments/Action**

Agency comments on the final report had not been received as of October 30, 1980.

#### **Appropriations**

Appropriations for property management - Various agencies

#### **Appropriations Committee Issues**

The Committees should inquire into GSA progress in bringing about needed improvements in the Federal personal property Donation Program. The Committees should inquire into the progress of all Federal agencies which transfer excess personal property to their grantees in ensuring that their plans, policies, and procedures on such transfers comply with the applicable provisions of law and the implementing Federal Property Management Regulations. Congress should clarify what costs it deems should be recovered under section 203(j)(1) of the Federal Property and Administrative Services Act of 1949.

## DEPARTMENT OF DEFENSE - MILITARY

### FAMILY HOUSING

#### **Navy Has Housing Problems at Virginia Beach and Scrap Metal Disposal Problems at Sewells Point** (PSAD-80-73, 9-19-80)

Departments of Defense and the Navy, and Defense Logistics Agency

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** P.L. 96-226. DOD Disposal Manual 4160.21-M. DOD Directive 4165.60.

Although it is less than 2 years old, Carper housing complex has had numerous maintenance problems. The total amount of maintenance costs could not be validated because of errors in the Navy's cost accounting systems. At Sewells Point, the Navy is violating Department of Defense (DOD) regulations by letting a contractor keep valuable scrap metal. Excess personal property, including scrap metal, should be turned into the Defense Property Disposal Office.

**Findings/Conclusions:** The Navy is not turning the scrap metal in because it believes it is more cost effective to contract for disposal. Lack of information on the amount and value of scrap metal makes it impossible for the Navy to ensure that the Government is getting fair value on its disposal. Regulations clearly state that it is the agency's responsibility to segregate scrap and waste to the maximum extent feasible and to turn the scrap metal into the Defense Property Disposal Office. Navy officials state they are now requiring the scrap contractor to keep a log and will use that data to make another economic study of the costs. The scrap metal contractor told GAO that it will be impossible for the Navy to assess the value of the scrap metal from the data being collected. Although construction standards exist for many of the major problem areas at Carper, they are not always adequate to ensure quality housing. Standards existed for some problem areas, and none existed for others. Even when standards were specific, they were not always sufficient or enforced. The system for evaluating proposals encourages contractors to include amenities rather than raise construction quality above the minimum standards. At Carper, inspection was inadequate. Inspectors from other Navy housing projects noted inadequacies with the construction standards and with the contractors' inspection program. GAO concluded that the Navy's experience at Carper was not unique. GAO believes that the Navy should contact manufacturers to repair products under warranty or insist that the construction contractor do so.

**Recommendations:** When planning new housing projects, the Secretary of the Navy should identify, based on past experience and expected use, those items likely to require considerable maintenance if only the minimum standards are met. Within funding constraints, he should specify higher requirements in requesting contract proposals for

those items whose expected maintenance costs over the life of the project exceed the additional cost of the more durable items. He should summarize for the Department of Defense (DOD) the problems experienced with marginal construction standards, the bid evaluation system, and the contractor quality control programs, including Carper, and suggest to DOD that it determine whether these problems are widespread and need correction. The Secretary should require that inspectors and maintenance personnel contact manufacturers before paying for problems which should have been covered by warranty, but which the contractor refuses to do. He should require construction personnel to provide maintenance personnel with a complete list of applicable warranties at the time of occupancy to reduce the likelihood of paying for work which should be covered by warranty. He should require maintenance personnel to keep records of all work paid for which should have been covered by warranty so that claims or counterclaims can be instituted by the Government. The Secretary of the Navy should direct the Commander of the Atlantic Division, Naval Facilities Engineering Command, to use either Navy personnel or to pay a contractor to collect, sort, and deliver the scrap metal from Sewells Point to the Defense Property Disposal Office, or request an exemption to the DOD regulations for a contractor to keep the scrap metal only if the Public Works Center (1) collects adequate data to show the cost effectiveness of doing so, and (2) establishes an adequate system to monitor the contract and assess the value of scrap metal being collected.

#### **Agency Comments/Action**

The agency concurred with the GAO recommendations.

#### **Appropriations**

Military construction - Navy  
Operation and maintenance - Navy

#### **Appropriations Committee Issues**

DOD needs to ensure that fair and equitable construction standards are enforced, and that the Navy complies with scrap metal disposal directives.

# DEPARTMENT OF DEFENSE - MILITARY

## HEALTH MATTERS

### ***Analysis of Potential Alternative Sites for the Proposed New San Diego Naval Hospital*** *(HRD-80-37, 1-2-80)*

#### **Departments of Defense and the Navy**

**Budget Function:** Health: Health Planning and Construction (0554)

**Legislative Authority:** Military Construction Authorization Act, 1978 (P.L. 95-82). Military Construction Authorization Act, 1980 (P.L. 96-125). B-183256 (1976).

A request was made for an evaluation of the advantages and disadvantages of the sites the Navy is considering for the new Naval Regional Medical Center in San Diego, California. The three primary site alternatives are Florida Canyon, Helix Heights, and Balboa Park. The Secretary of the Navy approved the decision to acquire, through condemnation, the Florida Canyon property.

**Findings/Conclusions:** The question of ownership of the property on which the hospital is to be located is of utmost importance. With the Navy having a major presence in terms of military facilities and personnel in San Diego, there is every reason to expect that there will be an indefinite, continuing need for a Naval hospital to serve the area. Also, given the magnitude of the required capital investment for the project and the probable need for continued additional capital investments over the life of the medical center, fee-simple ownership should be a basic requirement. Therefore, while the Florida Canyon site has the most advantages and fewest disadvantages of the three alternatives, if the terms of final land acquisition call for the Navy to accept a lease, rather than ownership, as contemplated by the Navy and the city of San Diego, the Navy should reconsider its present opposition to the Balboa Park site.

**Recommendations:** The Secretary of the Navy should proceed with condemnation action to acquire fee-simple ownership of the Florida Canyon property needed for construction of the new Naval Medical Center. As a first step in the action, the Secretary should begin negotiations with the city of San Diego to acquire the property under a friendly condemnation through payment or land exchange, but not under a leasing arrangement as contemplated in the Navy's earlier memorandum of understanding with the city. If fee-

simple ownership cannot be acquired, construction at the southern end of the Balboa Park site should be considered.

#### **Agency Comments/Action**

After many years of planning and study, there still remains a question on the proper site selection for the proposed facility. The Navy has been unable to coordinate the site selection process in a manner which satisfies the best interests of both the City of San Diego and the Federal Government. The House Appropriations Committee has directed that the following requirements be met in selecting a specific location. In this regard, the hospital complex must be constructed (1) on fee-simple land owned by the Government, (2) within the fiscal year 1981 estimate of \$293 million and within the original timeframe, and (3) in a manner which will not sacrifice the project's scope because of the site selected. The Secretary of the Navy has been directed to identify a final site which meets these criteria.

#### **Appropriations**

Military construction - Navy

#### **Appropriations Committee Issues**

Budget requests for the construction of a new San Diego Naval Regional Medical Center have continued to escalate over the years while the proper facility size and its location have been debated. The prompt resolution of issues involving the facility's proper site selection should contribute significantly to ending further increases caused by delays in constructing the medical center.

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### **Computed Tomography Scanners: Opportunity for Coordinated Federal Planning Before Substantial Acquisitions**

(HRD-78-41, 1-30-78)

#### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** Health: Health Care Services (0551)

Computed tomography scanning is a new diagnostic technique using X-rays. It is of little risk to patients, causes minimal discomfort compared to other diagnostic procedures, and eliminates some shortcomings of conventional X-ray methods. Scanners cost from \$300,000 to \$700,000 each; operation and maintenance expenses are estimated at several hundred thousand dollars a year. As many as 2,500 scanners may be operating in the United States by 1980. In an effort to control the acquisition of scanners, some States have imposed moratoria on their purchases. Criteria for planning and using scanners are limited.

**Findings/Conclusions:** The Federal Government has 16 scanners in operation and plans to purchase an additional 29, 16 for the Department of Defense (DOD) and 13 for the Veterans Administration (VA). These 45 scanners will cost about \$21 million. VA has 11 scanners in operation, and DOD is installing scanners at three of its major hospitals. Only limited criteria and information were available to justify the need for or locations of these scanners. No coordination took place between VA and DOD in planning for these scanners, and neither department made sure that there will be enough people to operate the scanners as planned. Delays are anticipated in getting staff or authorization for the positions. It will be difficult to fully use the equipment, and staff relocations from other hospitals will be necessary for operation of the scanners. The Federal Government has purchased only a limited number of scanners; excess acquisition has not yet occurred. However, because of the large number that DOD and VA plan to acquire over the next few years, criteria should be developed quickly or the Federal health care system may have too many.

**Recommendations:** The Secretaries of Defense and Health, Education, and Welfare (HEW) and the Administrator of the VA should develop a coordinated approach for planning and using scanners. This approach should include: specific criteria for assessing and justifying the need for the equipment and determining the most appropriate location; a policy requiring that, where possible, Federal agencies share scanners; and a mechanism for determining if it would be feasible and economical for Federal agencies to use those scanners located in the private sector. The Director of the Office of Management and Budget should ensure that DOD, VA, and HEW promptly develop this approach. Congress should consider limiting the number of scanners that can be purchased until the coordinated Federal approach is developed.

#### **Agency Comments/Action**

DOD, VA, and HEW agreed with the recommendation that they develop a coordinated approach for planning and using computed tomography scanners. National Guidelines for Health Planning, published in the Federal Register on March 28, 1978, contain a standard for the acquisition and use of computed tomography scanners in the civilian sector. To date no standard for the Federal sector has been established. The Federal Health Resources Sharing Committee established a Computerized Tomography subcommittee to (1) develop and propose guidelines and criteria for assessing and justifying the need for and appropriate locations of the scanners, (2) develop and propose utilization criteria, and (3) propose geographic areas where opportunities exist to share computed tomography. The Federal Health Resources Sharing Committee's Subcommittee on Computerized Tomography presented its final report at the November 1, 1978, meeting of the Sharing Committee. The report consisted of guidelines and criteria to be used for determination of the need and justification for such equipment in the Federal sector and in the identification of geographical areas of the country where shared services are feasible. The report findings and recommendations were approved by the Sharing Committee and sent to DOD, HHS, and VA for their consideration. The report was subsequently modified to reflect certain changes proposed in agency responses to the report. No uniform criteria or guidelines have yet been adopted by the agencies. Neither Congress nor OMB have initiated the recommendations suggested in the report.

#### **Appropriations**

Medical care - Veterans Administration  
Operation and maintenance - Army, Navy, Air Force, Department of Health and Human Services  
Military construction - Army, Navy, Air Force, Department of Health and Human Services  
Military personnel - Army, Navy, Air Force, Department of Health and Human Services

#### **Appropriations Committee Issues**

The demand for computed tomography scanners by more and more Federal health care facilities continues. The lack of a coordinated plan for the effective and efficient use of this equipment may result in the unnecessary expenditures of Federal funds.

# DEPARTMENT OF DEFENSE - MILITARY

## HEALTH MATTERS

### ***The Congress Should Mandate Formation of a Military-VA-Civilian Contingency Hospital System*** (HRD-80-76, 6-26-80)

**Departments of Defense and Health and Human Services, Veterans Administration, and Federal Emergency Management Agency**

**Budget Function:** Health: Health Planning and Construction (0554)

In response to a request, GAO reviewed the Department of Defense (DOD) plans to use nonmilitary hospitals to treat battlefield casualties in the event of war or conflict. The need for developing a contingency hospital system consisting of DOD, Veterans Administration (VA), and civilian medical resources is discussed. The primary emphasis is that the VA role should be greater than currently planned by DOD. The extent of support VA will provide DOD in treating returning battlefield casualties is the most important issue in developing a civilian-military contingency hospital system for medical treatment of wartime casualties. DOD has looked primarily to civilian medical resources to meet anticipated shortfalls should the United States become involved in war. Only recently has specific consideration been given to VA medical capability. DOD officials said that civilian resources would still be needed to treat battlefield casualties, even if DOD and VA resources were fully used for that purpose.

**Findings/Conclusions:** DOD recently revised several aspects of its original system. Major changes appear to be: (1) elimination of a new, possibly duplicative administrative structure as originally proposed; and (2) reliance on the military services for patient administration responsibilities. GAO agreed with these revisions. DOD revised plans are still unclear about how civilian beds and staff would be made available. Available beds and staff should be identified assuming patients are discharged early whenever possible and nonemergency admissions are restricted during the war surge period. Failure to resolve issues regarding civilian physician and hospital reimbursement and liability could limit implementation of the planned system. VA should be much more involved in planning and caring for battlefield casualties than it would be in caring only for those who will not return to duty. Just how much VA can participate is questionable. DOD has not told VA what its needs are, nor has VA told DOD what its capabilities are. GAO believes that the Nation should prepare for a possible conflict by planning to appropriately use Federal medical resources before calling on civilian resources. A strong peacetime medical resources sharing program could provide a more effective relationship between VA and DOD that could prove invaluable in war.

**Recommendations:** The Secretary of Defense and the Administrator of Veterans Affairs should jointly: (1) develop and establish the framework for a military-VA-civilian contingency hospital system; (2) analyze DOD and VA medical care resources to determine the Federal patient treatment

capability on a time-phased basis; and (3) identify Federal and civilian capability that could be provided assuming that patients are discharged early whenever possible and nonemergency admissions are restricted during the war surge period. In addition, the Secretary should: (1) compare the medical care requirements calculated under various wartime scenarios with available Federal medical resources to determine how much and what type of civilian medical care capability would be needed to augment Federal capability; (2) determine the optimal number and placement of U.S. aeromedical staging facilities with emphasis on locations near concentrations of military and VA medical resources; and (3) in concert with other agencies having contingency planning responsibilities, assume overall coordinating responsibility for plans jointly developed by DOD and VA using Federal medical resources and necessary civilian medical capability under the military-VA-civilian contingency hospital system. The Administrator should: (1) provide estimates to DOD concerning VA potential facility and staffing capabilities to treat returning battlefield casualties regardless of whether those casualties would be expected to return to duty, and these estimates should be developed through the joint DOD-VA planning effort to establish a system; and (2) ascertain the extent to which VA affiliated hospitals would be able to assist VA in treating battlefield casualties. Congress should enact legislation which provides that both DOD and VA fully participate in Federal medical planning for and care of returning wartime casualties. Such legislation should: (1) give VA the mission of providing direct medical support to DOD for treating battlefield casualties; (2) place battlefield casualties above veterans with non-service-connected, nonemergency conditions in priority for care; and (3) remove numerous obstacles to interagency sharing, as GAO previously recommended, so that VA and DOD may establish a strong peacetime medical resources sharing program to serve as an effective foundation for a military-VA-civilian contingency hospital system.

#### **Agency Comments/Action**

DOD is in general agreement with the report's recommendations and has initiated actions necessary to implement those recommendations made to the Secretary of Defense. VA believes the recommendations are not inconsistent with its interests and past efforts, including working with DOD officials on wartime contingency arrangements. However,

VA believes the full implementation of the recommendation made to it is contingent upon appropriate legislation being enacted. The Federal Emergency Management Agency agrees with the report recommendations. It is concerned, however, that it and the Department of Health and Human Services were excluded from participation in the development of the civilian-military contingency hospital system.

### **Appropriations**

Operation and maintenance - Army, Navy, Air Force  
Operation and maintenance - Veterans Administration, Department of Medicine and Surgery  
Operation and maintenance - Federal Emergency Management Agency

### **Appropriations Committee Issues**

A plan to use nonmilitary resources for medical treatment of returning wartime casualties is needed. The Committees should monitor the progress and problems involved in fully implementing this plan and its impact on the requested funding levels by the affected Federal agencies.

# DEPARTMENT OF DEFENSE - MILITARY

## HEALTH MATTERS

### **DOD's Practices Pertaining to Construction of Light Care Medical Units** (HRD-79-53, 2-28-79)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** Health: Health Planning and Construction (0554)

The Department of Defense (DOD) decided to postpone replacement of a hospital at Ft. Lewis, Washington, because Congress approved a modification of the existing hospital in the fiscal year 1979 appropriation. To aid DOD in planning future hospitals, GAO has incorporated improvements in the DOD hospital sizing model that will allow DOD to calculate the appropriate total bed size and the appropriate size of each medical specialty service within a hospital. GAO requested information from DOD concerning the status of its efforts to develop a planning methodology and construction policy for light care beds. DOD replied that 30 light care beds are being contemplated as part of the new Army hospital at Ft. Stewart, Georgia, but questions involving sizing, constructing, and operating light care units have not yet been resolved.

**Recommendations:** The House Subcommittee on Military Construction should: direct DOD to give high priority to fully resolving the light care issues raised, and withhold approval of future hospital construction projects until a policy on light care units has been developed and implemented.

### **Agency Comments/Action**

In its report on the Military Construction Bill for fiscal year 1981, the Appropriations Committee did not recommend any funding for light care beds. The Committee informed DOD that this policy will continue in fiscal year 1982 unless a firm policy is established.

### **Appropriations**

Military construction - Army, Navy, Air Force

### **Appropriations Committee Issues**

The DOD policy concerning the construction of light care beds in its health facilities warrants continued close scrutiny by the Committees before funds are approved for additional light care capability.



## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### **Implementation of a Civilian-Military Contingency Hospital System Should Be Suspended** (HRD-80-21, 10-25-79)

Departments of Health and Human Services, Defense, the Army, the Air Force, and the Navy, Selective Services Administration, and Federal Emergency Management Agency

**Budget Function:** Health: Health Planning and Construction (0554)

Department of Defense (DOD) plans to use non-military hospitals to provide medical care to wartime casualties were reviewed. Several basic problems were found with the report that DOD planned to use as the foundation for this Civilian-Military Contingency Hospital System (CMCHS).

**Findings/Conclusions:** The report identified excess acute care beds in several metropolitan areas, but visits were not made to the hospitals identified and there was no assurance that the beds were actually vacant. The impact of rapid population growth in some areas was not considered in the bed count. No analysis was made of the impact of divesting non-active-duty patients from military to civilian hospitals during mobilization. The report concentrated on acute care beds, when convalescent care beds would also be necessary. The report did not determine whether civilian hospitals in general would participate. Several issues concerning the use of civilian medical resources by Federal agencies during wartime were not resolved. CMCHS might duplicate some functions already being carried out by existing military organizations. The full extent of Federal resources was not considered. Because many basic questions had not been resolved, GAO believed it was premature to establish the new organization.

**Recommendations:** The Secretary of Defense should

suspend actions to establish CMCHS until the Subcommittee Chairmen have held their planned hearings.

#### **Agency Comments/Action**

DOD did not agree with the recommendation that implementation of CMCHS be suspended. DOD believes CMCHS should proceed and that the unresolved issues which GAO identified will be addressed during the system's implementation. DOD has revised some of the original concepts proposed for this system, and implementation of CMCHS is now underway.

#### **Appropriations**

Department of Defense  
Department of Health and Human Services  
Veterans Administration

#### **Appropriations Committee Issues**

A plan to use nonmilitary resources for treatment of returning wartime casualties is needed. However, several issues discussed in this report must be considered and resolved as soon as possible to help assure its overall success.

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### ***Inpatient Care at Quantico Naval Hospital Should Not Be Resumed*** (HRD-80-26, 11-29-79)

**Departments of Defense, the Army, and the Navy**

**Budget Function:** Health: Consumer and Occupational Health and Safety National Defense: Defense-Related Activities (0559)

GAO was requested to determine the cost effectiveness of discontinuing inpatient care at Quantico Naval Hospital, Quantico, Virginia, and to determine the adequacy of emergency facilities at Quantico. A Navy feasibility study predicted a savings of \$439,000 to the Government from discontinuing inpatient care at the facility. However, a GAO review of this study identified deficiencies in the methods used to calculate the gross savings from the discontinuance and the cost of providing care at other military and civilian facilities. Many of these deficiencies resulted in an understatement of the potential cost savings. By overstating the cost to the Government of providing care at other facilities for those past users of Quantico, the Navy underestimated savings to the Government from the discontinued service at Quantico. Inpatient care is available to Quantico beneficiaries at Dewitt Army Hospital, Fort Belvoir, Virginia, and the National Naval Medical Center, Bethesda, Maryland. Although the emergency room at Quantico has been closed, emergency care is available at Dewitt Army Hospital and three civilian hospitals within a 25-mile radius of the former Quantico hospital: Potomac Hospital, Woodbridge, Virginia; Mary Washington Hospital, Fredricksburg, Virginia; and Prince William Hospital, Manassas, Virginia. Ambulances and helicopters are available to transport, and a direct telephone line has been installed between the Quantico clinic and the emergency room at Dewitt. Because of

the continuing decline of inpatient workload at Quantico and the availability of care for Quantico beneficiaries at Dewitt, GAO believes resuming inpatient care at Quantico would not be cost effective.

#### **Agency Comments/Action**

Department of Defense and Navy officials agreed with the report's findings. Inpatient care has not been resumed at the Quantico Naval Hospital.

#### **Appropriations**

Department of Defense, Army, Navy

#### **Appropriations Committee Issues**

The continued provisions of inpatient care to Navy beneficiaries at the Quantico Naval Hospital would not be cost effective. The actions initiated by the commanding officers at Dewitt Army Hospital and the Naval Regional Medical Clinic, Quantico, following the discontinuance of inpatient care at Quantico provided for the availability of adequate care to Quantico beneficiaries while minimizing the inconvenience in obtaining care. Such actions are commendable in the light of recent attempts to make better use of Federal medical resources.

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### **Legislation Needed To Encourage Better Use of Federal Medical Resources and Remove Obstacles to Interagency Sharing**

(HRD-78-54, 6-14-78)

#### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** Health: Health Care Services (0551)

**Legislative Authority:** Heart Disease, Cancer, and Stroke Amendments of 1965 (42 U.S.C. 299). Comprehensive Health Planning and Public Health Service Amendments of 1966 (42 U.S.C. 246). National Health Planning and Resources Development Act of 1974 (P.L. 93-641; 42 U.S.C. 300). Economy Act (31 U.S.C. 686). 38 U.S.C. 5003. 38 U.S.C. 5053. 42 U.S.C. 254a. 10 U.S.C. 2301. 10 U.S.C. 1079. 10 U.S.C. 1074. 38 U.S.C. 213. 38 U.S.C. 628. 38 U.S.C. 613. H.R. Conf. Rept. 94-1314. Army Regulation 40-3. OMB Circular A-95.

Concern has been expressed about the increasing costs of medical care in the Nation. The Department of Defense (DOD), the Veterans Administration (VA), and the Department of Health, Education and Welfare (HEW) have the major responsibility for providing health care directly to beneficiaries. Several laws have been enacted to encourage regional cooperation in health care.

**Findings/Conclusions:** Federal agencies' participation in regional health planning groups has been, for the most part, only advisory. In fiscal year 1977, the responsible agencies spent over \$6 billion to provide medical care to Federal beneficiaries and over \$700 million for care in the non-Federal sector. Increased interagency sharing is being planned, and an interagency Federal Health Resources Sharing Committee has been established. However, there are obstacles to interagency sharing such as the absence of a specific legislative mandate or guidance for this purpose, restrictive regulations and policies, and inconsistent methods for reimbursing agencies for services provided to beneficiaries of other agencies.

**Recommendations:** The Secretaries of Defense and HEW and the Administrator of VA should direct the committee to seek solutions to obstacles within agencies which impede sharing, and report annually to congressional appropriations committees on progress. The Director, Office of Management and Budget (OMB), should establish a management group to work with agencies to better coordinate the development of an effective Federal sharing program. Congress should enact legislation to establish an expanded and cost-effective interagency sharing program. The legislation should establish a policy that directs interagency sharing, authorize Federal direct health care providers to accept all categories of beneficiaries on a referral basis when advantageous, eliminate restrictions on medical services which can be shared, authorize sharing arrangements by Federal field hospital managers, authorize expansion of services for cost effectiveness, establish a policy requiring fullest use of nearby Federal medical resources, authorize a method of reimbursement for Federal hospitals in which revenues would offset expenses, and assign to OMB responsibilities for coordinating interagency sharing and reporting to Congress.

#### **Agency Comments/Action**

DOD, VA, and HEW generally agreed with the conclusions and recommendations, expressing their support for the concept of increased sharing of Federal medical resources. They cited several actions that have already been taken toward this objective, including the establishment of the Federal Health Resources Sharing Committee. OMB agreed that interagency sharing should be improved, but did not agree with some of the recommendations concerning its role in increasing interagency sharing. OMB strongly disagreed with the proposed legislative mandate and the extent to which the legislation would thrust OMB into the direct management of agency health programs. None of the administrative obstacles identified in the report have been resolved. However, the major obstacle to interagency sharing, the issue of inconsistent and unequal methods for reimbursing agencies for services rendered to other agencies' beneficiaries, were considered by the Federal Health Resources Sharing Committee. No resolution of this matter has been achieved. OMB has not established a management group to work with DOD, HEW, and VA to coordinate the development of an effective interagency sharing program. Legislation was introduced in the second session of the 96th Congress to establish an effective interagency medical resource sharing program. This legislation focuses primarily on the operation of the DOD and VA direct health care systems.

#### **Appropriations**

Medical care - Veterans Administration  
Operation and maintenance - Army, Navy, Air Force  
Military construction - Army, Navy, Air Force  
Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Eliminating legislative and administrative obstacles and implementing a structured Federal interagency sharing program would be advantageous to both the Federal Government and its health care beneficiaries.

# DEPARTMENT OF DEFENSE - MILITARY

## HEALTH MATTERS

### ***Military Medicine Is in Trouble: Complete Reassessment Needed***

(HRD-79-107, 8-16-79)

Departments of Defense, the Air Force, the Army, and the Navy

**Budget Function:** National Defense: Defense-related Activities (0054)

**Legislative Authority:** 10 U.S.C. 1074 . 10 U.S.C. 1076 .

Since the end of the draft in 1973, the military's direct medical care system has experienced a gap between the number of military physicians it has available and the number needed to provide medical care, thereby seriously impairing the system's ability to meet peacetime medical needs efficiently and effectively. Hospital operations have been hampered by the lack of physicians, as has the ability of active-duty members to obtain medical care.

**Findings/Conclusions:** The military service medical departments project substandard professional staffing levels past 1984, with no foreseeable increase in the supply of military physicians. Department of Defense data showed widespread closings and reductions of medical services in fiscal year 1978 due to the shortage, affecting all beneficiaries. GAO visited seven military hospitals and found services closing and reopening, depending on physician availability, patients sent elsewhere or moved long distances for specialized services; greater dependence on civilian services; longer waits by patients; occasional denial of services; and temporary assignments of physicians to short-handed nonmedical functions. GAO recognizes the physician shortage but sees additional reasons for the system's shortcomings, including shortages among other medical service personnel. GAO surveyed beneficiaries living within 30 miles of military hospitals and found that most families of retired members had tried to obtain medical care during an 8-month period; about one-third of them could not do so. GAO estimated that in the survey period, 104,000 active-duty members and 157,000 retirees failed to obtain care. A followup questionnaire from GAO showed that most patients sought medical care elsewhere because of physician shortages or long waits for appointments; they compared civilian care favorably to that of military hospitals and experienced only slight difficulty in paying for these services.

**Recommendations:** Congress should reevaluate the role and structure of the military medical care system and direct DOD to improve its abilities to serve beneficiaries in peacetime, including clarification and recognition of the system's mission and role as a peacetime health care delivery sys-

tem. Clear policies should be adopted as to the system's peacetime clients and how those not adequately served can best obtain medical care from other sources. Congress should consider three alternative proposals: adequate staffing of military facilities to provide care for all beneficiaries; providing care in military hospitals and financing care in civilian hospitals while limiting military hospital access under service capacity restrictions or eliminating service entitlement for certain beneficiary groups; or continuing to offer military hospital care and civilian hospital financing but reducing the number of operational military hospitals to a number that could be adequately staffed by existing and projected levels of physicians and staff personnel. GAO made several specific recommendations to DOD for improving the direct care system's ability to serve beneficiaries.

### **Agency Comments/Action**

DOD agreed with the basic findings and with the need for Congress to reevaluate the role and structure of the military's direct medical care system in peacetime. DOD believes, however, that some of the alternatives GAO proposed could reduce wartime contingency capability. Concerning the recommendations to DOD for improving the direct care system's capability to serve beneficiaries, DOD said the problems addressed by GAO were recognized and that efforts were being made to alleviate them.

### **Appropriations**

Operation and maintenance - Army, Navy, Air Force  
Military construction - Army, Navy, Air Force  
Military personnel - Army, Navy, Air Force

### **Appropriations Committee Issues**

The adoption of any proposal to alter the present makeup of the military health care system will have significant funding implications, which must be considered by the Appropriations Committees.

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### **Sharing Cardiac Catheterization Services: A Way To Improve Patient Care and Reduce Costs** (HRD-78-14, 11-17-77)

##### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** Health: Health Care Services (0551); Health: Health Planning and Construction (0554)

**Legislative Authority:** Economy Act (31 U.S.C. 686). P.L. 89-785.

Cardiac catheterization is a procedure used to diagnose possible heart conditions. It is performed in 90 Federal hospitals: 66 Veterans' Administration (VA) facilities; 20 Department of Defense (DOD) facilities; 3 Public Health Service hospitals; and the National Institutes of Health clinical center in Bethesda, Maryland. Several medical professional organizations, as well as VA, have developed guidelines for cardiac catheterization laboratories. These guidelines are intended to keep physicians' skills high and to minimize risk to patients. DOD and the Public Health Service have no such guidelines.

**Findings/Conclusions:** The number of cardiac catheterizations being performed in DOD and VA laboratories varied considerably. For fiscal year 1976, catheterizations performed at the Federal hospitals reviewed ranged from 574 at Walter Reed in Washington, D.C., to 60 procedures at Wright Patterson in Dayton, Ohio. Also, there was no correlation between the number of catheterizations performed and the number of physicians performing them. In addition, physicians at the hospitals had differing views of the number of catheterizations that should be performed to maintain their proficiency. In each of four geographic areas visited, there were opportunities to provide cardiac catheterization on a shared basis which could increase patient safety and reduce costs to the Government. The sharing opportunities could be accomplished within the framework of present laws governing DOD and VA operations.

**Recommendations:** The Secretaries of Defense and Health, Education, and Welfare (HEW) and the Administrator of Veterans Affairs should: (1) jointly develop uniform Federal guidelines for the planning and use of Federal cardiac catheterization laboratories which associate the number of catheterization procedures to be performed with the number of physicians that should perform them; (2) consider what variances from those guidelines might be appropriate; (3) jointly analyze the use levels at the laboratories and adjust the manner in which this diagnostic service is provided, and, where feasible, provide cardiac catheterization on a joint or shared basis in a single Federal facility; and (4) consider discontinuing the procedure in Federal fa-

cilities in geographic areas where the Federal guidelines cannot be met and obtaining this service from nearby civilian hospitals. The Director of the Office of Management and Budget should oversee the offers of DOD, HEW, and VA in developing uniform Federal guidelines for the planning and use of Federal cardiac catheterization laboratories to insure it is accomplished in an appropriate and timely manner.

#### **Agency Comments/Action**

HEW, VA, and DOD generally agreed with the recommendations and have been trying since June 1977 to develop uniform Federal cardiac catheterization guidelines. A Cardiac Catheterization Laboratories Subcommittee report was presented to the Federal Health Resources Sharing Committee at the January 10, 1979, meeting and completed at the April 6, 1979, meeting. The subcommittee report contains 16 findings and 14 general program recommendations. However, no uniform guidelines and criteria have yet been adopted by the affected agencies. OMB has taken no action to specifically oversee the development of cardiac catheterization guidelines or to insure that it is accomplished in an appropriate and timely manner.

#### **Appropriations**

Medical care - Veterans Administration  
Operation and maintenance - Army, Navy, Air Force, Department of Health and Human Services  
Military personnel - Army, Navy, Air Force, Department of Health and Human Services  
Military construction - Army, Navy, Air Force, Department of Health and Human Services

#### **Appropriations Committee Issues**

Budget requests for funds for cardiac catheterization laboratories or similar specialized services should include justifications as to the need for the services. These justifications should adequately assess the patient demand and the possibility of using other DOD, VA, or HHS facilities.

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### **Workplace Safety and Health Hazards at DOD Installations** (HRD-80-20, 12-12-79)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** Health: Consumer and Occupational Health and Safety (0559)

**Legislative Authority:** Occupational Safety and Health Act of 1970 (29 U.S.C. 651).

A review was conducted of the efforts made to identify and correct workplace safety and health hazards at Department of Defense (DOD) installations.

**Findings/Conclusions:** DOD has identified and corrected many hazards as part of its safety and health programs. However, many serious hazards have remained uncorrected for long periods of time. The primary reason why hazards remain uncorrected is a lack of funds; many hazards would be costly to correct. The DOD cost estimate of \$500 million to correct all serious hazards is significantly understated. However, many corrections could be made at little cost. In such cases, greater management attention is needed to assure compliance with existing safety and health standards. Since the Occupational Safety and Health Administration cannot require DOD installations to correct the hazards, DOD must enforce standards itself. An effective program to correct existing safety and health hazards requires a realistic estimate of how many hazards exist in the workplace and how much it would cost to correct them. Although DOD Instructions provide for such estimates for each installation, it does not require the consolidation of these estimates into a DOD-wide estimate.

**Recommendations:** The Secretary of Defense should annually advise the House and Senate Appropriations Committees in its budget justification of the funds needed to eliminate workplace hazards and what DOD has done to eliminate workplace hazards. For those hazards which can be

corrected or minimized at a relatively small cost, the Secretary should require that installations: correct such identified hazards with available funds; provide appropriate personal protective equipment until engineering controls can be implemented, or for work situations where engineering controls are not feasible; and provide additional training as needed to workers and supervisors regarding the importance and proper use of personal protective equipment.

#### **Agency Comments/Action**

DOD provided a report on occupational safety and health hazards to the House Committee on Appropriations. DOD also requested about \$125 million for abatement of hazards in fiscal year 1981 and stated that future programs and budget requests will reflect the increased requirement for progressive prioritized abatement of serious hazards.

#### **Appropriations**

Department of Defense

#### **Appropriations Committee Issues**

Continued attention is needed to assure that DOD funding needs for correcting safety and health hazards are clearly identified in budget submissions so that such needs receive appropriate consideration by the Committees.

## DEPARTMENT OF DEFENSE - MILITARY

### LOGISTICS SUPPORT PLANNING

#### **Modernizing the Air Reserve Forces--More Emphasis on Logistics Support Needed** (LCD-80-11, 11-6-79)

##### **Departments of Defense and the Air Force**

**Budget Function:** National Defense (0050)

**Legislative Authority:** A.F.R. 800-8. A.F.R. 28-40.

Air Force plans to modernize the Air Reserve Forces need to match logistics support more effectively with operational needs.

**Findings/Conclusions:** Neither the Department of Defense nor the Air Force required integrated support plans from the Reserves in order to ensure that logistics support met operational needs. The Reserves were structured, based, and supported quite differently from the Active Forces, often causing severe support problems when aircraft were transferred. The decentralized structure of the Reserves was more costly to operate than the centralized Active Forces. When mobilized, the Reserves would be reconfigured like the Active forces, so peacetime support should mirror this configuration. That it did not resulted in peacetime support that far exceeded wartime need. The Air Force could greatly reduce costs and increase Reserves' effectiveness by considering support alternatives such as centralizing logistics support activities, collocating common aircraft, using Active Air Force bases to a greater extent, and expanding the Air Force Associate Program to include the Air National Guard.

**Recommendations:** The Secretary of the Air Force should reconsider present modernization plans with emphasis on reducing support requirements. Integrated logistics support planning should be used to determine the logistics impact of transferring aircraft to the Air Reserve Forces. The Secretary of Defense should require the Secretary of the Air Force and the Chief of the National Guard Bureau to: operate and support the peacetime Air Reserve Forces structure as it will be in wartime; collocate common type aircraft and centralize support functions to a greater extent; locate Air Reserve Forces on Active Air Force bases to a greater extent; and expand the Air Force Associate Program to other mission areas and include the Air National Guard.

##### **Agency Comments/Action**

DOD and the Air Force agreed that improved planning could result in better logistics support of the Air Reserve Forces, but the complex issues involved require long-term study. Although the peacetime support structure of the Air Reserve Forces should be as similar as possible to the wartime needs, flexibility is gained from excess logistics support dictated by the peacetime structure. Collocation of common type aircraft, use of active Air Force bases, and centralization of support functions could result in significant savings, but costs and other disadvantages need to be studied before such changes are made. Further, local recruiting potential is a vital consideration in collocating Reserve units, particularly those not located near major metropolitan areas.

##### **Appropriations**

Operation and maintenance - Air Force  
Procurement - Air Force

##### **Appropriations Committee Issues**

Flexibility gained from excess peacetime logistics support must be evaluated against the additional costs. Other costs associated with collocating Reserve units on active bases, or centralizing support functions, must be considered to determine realizable long-range savings and other benefits. While recruiting potential is an important consideration in collocating, many Reserve units are near each other and draw on the same recruiting potential but remain as separately supported units.

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR AND OVERHAUL

#### *Comparison of Air Force and Navy Aircraft Engine Parts Reparability Coding (LCD-80-85, 7-8-80)*

##### Departments of Defense, the Air Force, and the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

A survey was undertaken of depot overhaul and repair procedures for aircraft engines and their associated costs. In the survey, GAO noted that some aircraft engine parts, which both the Air Force and the Navy repair, are coded as repairable by the Air Force and nonrepairable by the Navy. This is possible since both the Air Force and Navy consider in their coding of engine parts the purchase price, cost to repair, and the number of parts in each inventory.

**Findings/Conclusions:** In its review, GAO found that all the potential savings to be gained from repairing a part are not being realized. An estimated 700 out of a total of 1,300 parts, being repaired by each service and coded differently, are parts which could be condemned at maintenance levels below the depot level. The potential savings from their repair could total \$1.3 million. Additionally, GAO found that the difference in coding hinders the Department of Defense's efforts to integrate the management of parts used by two or more services. According to Air Force officials, a part repaired by two services will never be integrated beyond Phase I if each service codes the parts differently. Parts coded repairable and nonrepairable are funded separately and have different requirement computations for new purchases. These differences are such that it is impractical for one service to effectively manage the parts of another service unless both code the parts the same.

**Recommendations:** The Secretary of Defense should require the Navy to review its coding of aircraft engine parts now coded nonrepairable and to recode these parts appropriately if they can be economically repaired by either the Navy or the Air Force.

##### Agency Comments/Action

Agency comments had not been received as of the date that this report was prepared.

##### Appropriations

Operation and maintenance - Air Force  
Operation and maintenance - Navy

##### Appropriations Committee Issues

An estimated 700 out of a total of 1,300 parts, being repaired by each service and coded differently, are parts which could be condemned at maintenance levels below the depot level. The potential savings from their repair could total \$1.3 million.



## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR AND OVERHAUL

#### ***The Navy Does Not Know if It Has Too Much Electronic/Electrical Depot Maintenance Capability, Too Little, or the Right Kind***

(LCD-80-3, 11-2-79)

Departments of Defense and the Navy, and Office of Management and Budget

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The management of depot maintenance of electronic/electrical items at Navy shipyards, naval air rework facilities, and naval electronic systems engineering centers was reviewed at 18 locations. Equipment is maintained at depots or contractor plants when it needs maintenance which requires more extensive facilities and equipment and more skilled personnel than are available at lower maintenance levels. The objective of depot maintenance is to sustain weapon and end-item systems in a state of operational readiness, consistent with the mission requirements of the operating or tactical elements, and at the least cost.

**Findings/Conclusions:** The Navy's in-house depot maintenance of electronic/electrical equipment costs more than \$275 million per year. While it has made broad wartime planning assumptions to identify projected gross operating levels for its industrial complex, the Navy has not determined its mobilization requirements in terms of specific resources needed. This failure to equate projected wartime usage with the need for specific facilities, equipment, and skills has resulted in the development of electronic/electrical capacity far in excess of peacetime requirements. Insufficient information concerning requirements and resources, inadequate long-range planning, and an inclination towards self-sufficiency and autonomy at the installation level have hindered proper depot sizing.

**Recommendations:** The Secretary of the Navy should identify mobilization maintenance workload requirements and translate them into specific maintenance resources, such as facilities, equipment, and skills; distribute this workload among Navy, commercial, and other military service facilities; and develop a master plan to properly size the available resources. This plan should include a timetable for phasing out excesses, consolidating underused capabilities, and spending available funds to alleviate shortages and to renovate or upgrade those facilities which are needed. The Secretary of the Navy should instruct the Naval Air Systems Command (NAVAIR) to examine the justification for the already approved \$1.9 million worth of equipment and consider existing equipment at North Island and other Department of Defense depots when evaluating future procurement of equipment at North Island. The Secretary of the Navy should direct the Naval Sea Systems Command to evaluate alternatives to completing the top two floors of Philadelphia's Building 1000. He should also direct the Commander, Alameda Naval Air Rework Facility, to disapprove the creation of a printed circuit board manufacturing capability at Alameda, unless Alameda can demonstrate

that the other capabilities (in-house and contractor) cannot satisfy Alameda's requirements. The Secretary of the Navy should direct the Commander of NAVAIR, to the extent consistent with mission requirements, to: transfer the balance of the Air Identification Marks System (AIMS) program from Alameda to Pensacola and require that Alameda obtain its AIMS instruments through the supply system; require Alameda to transfer its AIMS equipment to Pensacola; and require that Pensacola delete the \$518,000 AIMS automatic test system from its requirements list and use Alameda's.

#### **Agency Comments/Action**

Navy officials concur in the need to strengthen the planning effort for identifying mobilization maintenance workload requirements. They mentioned several recent Navy initiatives aimed at improving this area. NAVAIR has been developing an annual depot maintenance mobilization plan for avionics equipment since 1976. The plan assesses the capability of NAVAIR resources to support mobilization contingencies. The plan also details total depot requirements in terms of direct labor hours and identifies shortfalls in staffing, equipment, and facilities to the productive shop level. The Joint Logistics Commanders panel has chartered a Tri-Service group to analyze aeronautical depot maintenance capacity to meet mobilization needs to recommend depot configuration and maintenance management alternatives. The study results are due in April 1981. NAVSEA is currently working on identifying mobilization requirements for nonaviation commodities required to be serviced in the shipyards. Navy officials also state that their actions are constrained by differences in resources necessary to overhaul a ship from those needed to overhaul an aircraft. Because of this, aviation requirements, as a general method of planning, are separated from nonaviation requirements.

#### **Appropriations**

Operation and maintenance - Navy  
Military construction - Navy

#### **Appropriations Committee Issues**

The Committees should monitor the Navy's actions to assure that its Electronic/Electrical Depot Maintenance Mobilization requirements in terms of specific resources, such as facilities, equipment, skills, and technologies, are better quantified.

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR AND OVERHAUL

#### **Navy Has Opportunities To Reduce Ship Overhaul Costs** (LCD-80-70, 6-17-80)

##### **Department of the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The Navy can reduce ship overhaul costs by sending damaged parts to a central point and either repairing them in batches or scrapping them. The remove-and-replace concept avoids unnecessary repair of items that are available in the supply system and increases shipyard efficiency. The Navy uses the concurrent rework concept which entails components being repaired simultaneously with the ship's overhaul. This method is less efficient than the remove-and-replace concept, which is not followed because implementing procedures were never issued. In the last 6 years, costs per overhaul have increased almost threefold. Components which were available in the supply system could have been overhauled at a lower cost through batch processing. Navy policy is to ensure that all material is readily available before starting ship overhauls to avoid production stoppages, but in practice, not all of this material is used during overhauls. Shipyards have accumulated sizable inventories of leftover material. Excess items in shipyard inventories occurred because the supply system did not have visibility over the material, and the shipyard did not report the excesses to the supply system in a timely manner. Items which are in excess when individual job orders are complete are not reported as excess until ship overhaul is complete. This interval can vary from a few months to over a year.

**Findings/Conclusions:** The Navy could reduce overhaul costs for electronic components by several million dollars a year by taking advantage of the remove-and-replace concept. The Navy should establish procedures to ensure that assets available in the system are adequately considered before initiating any concurrent rework. It should also periodically monitor and evaluate shipyards' implementation of established procedures and policy. Greater efficiency and effectiveness is possible through better supply system visibility of shipyard inventories. During the interval between job order completion and ship overhaul completion, the supply system does not have visibility over the excess material and identical items may be procured or repaired by inventory managers to satisfy the needs of other users.

**Recommendations:** The Secretary of Defense should direct the Navy to discontinue routine concurrent rework except

for those items where replacements are not available; develop and implement operating procedures that require shipyards to use the remove-and-replace concept during ship overhauls when replacement items are available in the supply system; periodically monitor and evaluate shipyard efforts in carrying out the Navy policy of using available supply system assets; require shipyards to promptly review and report unneeded materials to the supply system after job orders are closed; and develop procedures to provide the supply system managers with visibility over all assets, including those earmarked for specific projects. Such procedures would allow the supply system managers to (1) compare shipyard assets with unfilled customer orders, and (2) release assets to the highest priority customers when warranted.

#### **Agency Comments/Action**

In a letter dated August 18, 1980, DOD stated that it generally agreed with the first three recommendations and is taking appropriate action on them. It objects to the fourth recommendation relating to the timeframe when unneeded shipyard materials are to be reported to the supply system. DOD supports the concept of the fifth recommendation and is conducting a test to determine benefits and costs of providing visibility of shipyard assets to the Navy Inventory Control Point.

#### **Appropriations**

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

The Committee should investigate the following areas: (1) the amount of advance funding could be reduced if the Navy made greater use of material and equipment available in the supply system; (2) the Navy can reduce ship overhaul costs and increase shipyard efficiency by taking advantage of opportunities to use the remove-and-replace concept; and (3) greater efficiency and effectiveness is possible through better supply system visibility of shipyard inventories.

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR AND OVERHAUL

#### ***Navy Missile Maintenance Can Be Done Cheaper by Improving Productivity***

*(LCD-80-43, 4-9-80)*

#### **Departments of Defense and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and Contracts) (0051)

The Navy has not tailored its intermediate missile maintenance resources to effectively meet its needs. To achieve an effective and economic match of maintenance resources with its needs, the Navy must be able to compare the facilities' capacity with projected requirements. However, the Navy has neither determined its facilities' capacity nor the private sector's capacity to meet its missile maintenance requirements.

**Findings/Conclusions:** Navy officials recognize that its missile maintenance resources are greater than needed, but they do not know to what extent. An analysis indicated that the Navy's missile maintenance capacity should be reduced. Weapons stations are not using their work force efficiently because of fluctuating or insufficient workloads. As a result, there is excessive idle time and skilled workers are assigned to nonskilled jobs. The underused missile maintenance capacity is costing millions of dollars annually, but this information has not been provided to the Secretary of Defense. Furthermore, the customers of the maintenance facilities are paying for the unused capacity. The Navy lacks assurance that missile maintenance production is accomplished efficiently because the maintenance facilities are without effective work measurement systems. Consequently, actual performance standards cannot be evaluated or compared to performance standards or to other work at similar facilities.

**Recommendations:** The Secretary of the Navy should (1) determine the private sector's and the Navy's available capacity for intermediate maintenance of air and surface launched missiles; (2) properly size the Navy's maintenance capacity to meet the air and surface launched missile requirements; (3) develop and implement a plan to systemati-

cally eliminate unneeded capacity; (4) report to the Secretary of Defense costs to retain or sustain unused or underused maintenance facilities in a readiness-for-mobilization position; (5) delay planned facility improvements that will not adversely affect mission effectiveness until capacity determinations have been completed and the improvements can be justified; (6) provide greater management support and reinforcement of work measurement concepts and principles at all management levels; (7) critically examine workloads at each maintenance facility to determine on which tasks labor standards should be developed; (8) direct missile maintenance managers to compare operating costs among facilities as a tool to increase missile maintenance productivity; and (9) closely monitor these actions and establish a realistic target date for estimating labor requirements based on labor standards rather than on historical data.

#### **Agency Comments/Action**

The Secretary of the Navy generally agreed with the recommendations outlined in the report. However, the Navy is unconvinced that unneeded maintenance capability/capacity exists and, in fact, indicated that more may be needed.

#### **Appropriations**

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

The Navy should have sufficient, but not excessive, intermediate level maintenance capacity for guided missiles to meet its requirements.

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR AND OVERHAUL

#### **Observations on the Fleet Support Provided by the Navy's Shore Installations in the Western Pacific and Indian Ocean**

(LCD-78-426A, 1-26-79)

#### **Departments of Defense and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The U.S. Seventh Fleet consisted of about 160 ships during peak operations in Southeast Asia. Today the fleet consists of about 50 ships. In spite of this reduction, the Navy continues to maintain an extensive shore establishment to provide the reduced fleet logistics support. The fleet reduction has led to idle capacities and has increased costs at the ship repair facilities. Positive action has been taken, however, to reduce overhead costs as much as possible. But Navy officials believe the primary contributors to increased costs are worldwide inflation and a reduction in the value of the U.S. dollar. GAO believes these developments provide even more reasons why the Navy should review its ship maintenance practices to assure that key economical approaches have been considered. Department of Defense (DOD) officials stated that the primary justification for retaining the depot maintenance capacity is that it meets contingency requirements. Although the Navy had computed wartime requirements for these activities, their determinations were not current, nor were they systematically developed.

**Findings/Conclusions:** Possible contingencies in the Pacific and Indian Ocean could include a worldwide war with the Soviets, a conflict in Korea, or a smaller brush fire conflict. According to the Congressional Budget Office, Navy forces currently deployed in the Pacific appear to exceed the requirements of either a conflict in Korea or the threat from the Soviet Pacific Fleet. GAO is concerned with the level of U.S. Navy forces because it is the primary factor in determining wartime ship maintenance requirements. The size of the Pacific Theater Navy deployment for these scenarios has been questioned. Since the definition of peacetime ship maintenance support requirements should include consideration of wartime deployment requirements, the level of ship maintenance resources also needs to be questioned. The Navy believes that its forces must be as self-sufficient as possible. However, the self-sufficiency concept can duplicate support activities, increase costs, and cause inadequate consideration of alternatives. The Navy has planned for an increase in activity and staffing at the Western Pacific

ship repair activities during war. However, this increase in activity has not been systematically developed from a detailed analysis of the probable workload from modern war conditions.

**Recommendations:** The Secretary of Defense should reassess the requirements for ship maintenance in the Pacific and Indian Oceans and should direct the Navy to: quantify total wartime and peacetime ship maintenance requirements for Western Pacific and Indian Ocean operations; define specifically how much maintenance should be performed by ships' forces, intermediate maintenance activities, depot level activities, and commercial contractors; and match these refined wartime ship maintenance requirements with refined peacetime needs to determine what peacetime capacity should be retained and modernized.

#### **Agency Comments/Action**

DOD agreed with the recommendations that wartime ship maintenance requirements should be better quantified. Further, the Navy is currently studying wartime and peacetime maintenance requirements to determine what level of maintenance capability should be retained and modernized. However, the study will take some time to complete. GAO will continue to monitor the Navy's action to provide a systematic approach to determine wartime ship maintenance requirements and the peacetime capability that should be retained and modernized.

#### **Appropriations**

Military construction - Navy

#### **Appropriations Committee Issue**

The Committees should monitor the Navy's actions to assure that wartime ship maintenance requirements are better quantified.

# DEPARTMENT OF DEFENSE - MILITARY

## MAINTENANCE, REPAIR AND OVERHAUL

### *Retention of FRAM Destroyers May Be Impractical* (LCD-80-76, 7-3-80)

#### Department of the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

GAO was asked to review the Navy's reasons for retiring Fleet Rehabilitation and Modernization (FRAM) destroyers in the Naval Reserve Force. Specifically, it was requested to: (1) evaluate the material condition of the ships; (2) determine if these ships could be provided with mission essential equipment to enable them to perform a useful mission through 1985; and (3) determine if these ships could be overhauled and upgraded at a reasonable cost to extend their useful life. Also, the habitability of the ships was reviewed. The Senate and House Committees on Appropriations agreed in conference that the Navy should retain 12 of the 20 Naval Reserve Force destroyers programmed for decommissioning in fiscal year 1980, while a careful review of the practicality of retaining the remaining ships was conducted. As an interim measure the Committees provided funds and directed the overhaul of three destroyers in fiscal year 1979 and two in fiscal year 1980. The fiscal year 1980 appropriation for these overhauls amounted to \$34 million. These overhauls have not yet begun. The House Committee on Appropriations, on several occasions, expressed concern about the Navy's decision to decommission the reserve destroyers in light of the fact that a severe shortage of escort ships exists through 1985. However, the Navy has recently reexamined force level objectives and has determined that the number of escort ships is sufficient to meet minimum escort force level objectives.

**Findings/Conclusions:** The method that the Navy used to calculate minimum escort force levels was reviewed. The Navy contended that the need for major combatants is far greater than the need for less capable escorts; therefore, it believed that the limited funds available should be used to improve the major combatants' capability. GAO visited six FRAM destroyers and found that four appeared structurally sound. However, it should be noted that three of the four

ships had recently been overhauled. Of the remaining ships, one appeared to be in fair condition and the other in poor material condition. Because of incomplete overhauls in the past, the FRAM destroyers would now require more extensive overhauls to operate an additional 3 to 5 years. Each overhaul is estimated to cost \$24 million. Such an overhaul would require approximately 3 years to perform. This does not seem practical since the FRAM destroyers are being considered for extended operations only through 1985. It is believed that it would cost an estimated \$115 million to upgrade the FRAM destroyers to be comparable to ships of the Knox or Perry class. Habitability aboard the FRAM destroyers does not meet Navy standards as the destroyers lack many conveniences found on newer ships. It was concluded that the retention of the FRAM destroyers is not warranted or practical. Therefore, the House and Senate Committees on Appropriations may want to reconsider their direction to the Navy to retain the ships and to proceed with the overhaul of two FRAM destroyers at a cost of \$34 million.

#### **Agency Comments/Action**

The Navy generally concurred with the findings and conclusions.

#### **Appropriations**

Operation and Maintenance - Navy

#### **Appropriations Committee Issues**

The Committees should reconsider their direction to the Navy to retain the ships and to proceed with the overhaul of two FRAM destroyers at a cost of \$34 million.

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR AND OVERHAUL MOBILIZATION

#### **Significant Savings Possible Through More Efficient Depot Maintenance of Army Combat Vehicles** (LCD-80-82, 8-7-80)

##### Departments of Defense and the Army

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

For years, Congress has expressed concern about the low productivity level and increasing maintenance costs at Defense depots. During the fiscal year 1979, the Army spent about \$688 million on depot maintenance in the continental United States and in Europe, of which about \$263 million was spent to overhaul and repair combat vehicles and associated components at three depots in the United States, and one in Mainz, West Germany.

**Findings/Conclusions:** It was found that productivity could be improved and maintenance costs could be reduced if the Army: (1) operated its three U.S. depots as effectively as the the one in Mainz; (2) overhauled vehicles only when needed based on mileage and vehicle condition; and (3) eliminated work at the depot level that could be accomplished at a lower level. Good estimating techniques, based on reliable work measurement data, were not used to identify and control labor requirements for combat vehicle overhauls and repairs. Instead, the depots used historical averages of prior work which perpetuate the mistakes and inefficiencies of prior estimates. The methods and standards program, which is the key to workloading and effective production control, lacked management emphasis, quality, and quantity. The labor and production reporting system did not contain reliable data for making decisions and analyzing variances between actual and expected results. Questionable rework and nonproductive time charges contributed to this lack of reliable data. Work methods emphasized overhaul rather than less costly repairs of major vehicle assemblies.

**Recommendations:** The Secretary of Defense should direct the Army to: (1) determine total combat vehicle maintenance requirements for Europe and the quantities to be satisfied by the Mainz Army Depot and other maintenance sources; (2) establish more realistic wartime maintenance workloads for combat vehicle depots in the U.S.; (3) determine contractor potential for doing more combat vehicle depot maintenance work so that the Army can effectively match requirements with available resources; (4) identify the extent of repair parts shortages and make sure the im-

pact of such shortages on depot maintenance capacities and capabilities is appropriately considered in mobilization planning; (5) discontinue the practice of selecting combat vehicles for overhaul on the basis of accumulated mileage; (6) periodically monitor and evaluate the progress made in implementing the reliability centered maintenance program for combat vehicles; (7) identify and assign work to the appropriate maintenance level so as to maintain expertise and capability at all maintenance levels; (8) estimate labor requirements on the basis of valid labor standards rather than on fixed prices or historical averages; (9) fully implement an effective work measurement system at U.S. depots; (10) require system discipline and integrity to overcome existing inadequacies and errors in the U.S. depots' and Mainz's present management information systems; (11) initiate a formal information exchange of work methods and practices between the U.S. depots and Mainz, and make the most cost effective practices the standards for all depots to follow; and (12) discontinue the practice of routinely overhauling vehicles and major assemblies at U.S. depots without prior inspection to determine if the condition of the vehicles or assemblies actually warrants such overhaul.

##### **Agency Comments/Action**

The Army generally concurred with all the findings and recommendations and initiated a series of actions to overcome reported deficiencies.

##### **Appropriations**

Operation and maintenance - Army

##### **Appropriations Committee Issues**

Army's future operations and maintenance budget requests should include information on actions taken to improve (1) the reliability of its workload forecasts, and (2) the productivity of the Army combat vehicle depots, especially the three in the continental United States.

# DEPARTMENT OF DEFENSE - MILITARY

## MAINTENANCE, REPAIR AND OVERHAUL

### **Followup on the Navy's Efforts To Improve Productivity at Navy Aircraft Overhaul Depots** (LCD-80-23, 12-5-79)

#### **Departments of Defense and the Navy**

**Budget Function:** National Defense: Defense-Related Activities (0054)

**Legislative Authority:** DOD Directive 4151.1.

A 1975 GAO report to the Congress recommended ways to improve productivity of Navy aircraft overhaul depots and suggested the possibility of consolidating facilities. The report concluded that excess capacity existed and recommended that the Secretary of Defense consolidate, eliminate, or place in reserve status, as appropriate, all excess or redundant depot capacity. About 4 years ago, Navy officials said that if organic workload was reduced by 4.5 million direct labor hours, a rework facility would probably need to be closed. The fiscal year 1976 actual organic workload was 25.8 million direct labor hours. The expected fiscal year 1981 organic workload is 19 million direct labor hours or almost 7 million less than fiscal year 1976.

**Findings/Conclusions:** Recent Navy management efficiency studies have shown that both peacetime economies and mobilization responsiveness can be enhanced by operating with less than the current six rework facilities. However, no consolidation decision has been made. The failure to restructure the existing rework facilities has created inefficiencies such as low shop usage. Furthermore, the uncertainty of consolidation efforts may have hindered facilities' modernization, thereby reducing opportunities for increased productivity. The 1975 report also stated that opportunities for productivity gains through economic-lot batch processing are lost because aircraft components are removed and reworked simultaneously with the aircraft. Although the Navy recognized the need to limit concurrent rework, several recent Navy audit reports have indicated that concurrent rework of components continues at some rework facilities.

**Recommendations:** The Secretary of Defense should consolidate, eliminate, or place in reserve status, any excess depot capacity that cannot be economically justified to satisfy peacetime and mobilization needs. The Secretary of Defense should require the Navy to: establish controls which would keep concurrent component rework to a minimum; take maximum advantage of opportunities to

batch process components; and improve the productivity of the rework facilities through added management attention to the work standards and methods program.

#### **Agency Comments/Action**

Since the original report in 1975 (Navy Aircraft Overhaul Depots Could Be More Productive), several actions have been taken by the Navy to improve the efficiency and effectiveness of aircraft overhaul depots. Among these are specific steps to improve controls over depot workloads, improve productivity through added management attention to the work standards and methods program, and special actions to reduce concurrent component rework. In addition, the Joint Logistic Commanders are examining the total DOD aeronautical depot maintenance program with the primary objective of determining the most economical peacetime aeronautical depot configuration that will satisfy mobilization requirements. This study is not limited to Navy facilities, but will include all DOD aeronautical depots. Much of the necessary preliminary effort has been completed and the next step is to specifically identify future peacetime and mobilization workloads for depot maintenance under selected assumptions. This detailed visibility of both capacity and workload is necessary as a basis for any major realignment of facilities.

#### **Appropriations**

Operation and maintenance - Navy  
Military construction - Navy

#### **Appropriations Committee Issues**

The Committees should monitor the actions taken by the Navy and DOD to improve the efficiency and effectiveness of aircraft overhaul depots.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### **Actions Needed To Improve Military Chain of Command and Inspectors General Grievance Procedures** (FPCD-79-23, 6-11-79)

#### Department of Defense

**Budget Function:** General Government: Central Personnel Management (0805)

Surveys have shown that many members of the U.S. military services do not have confidence that the grievance procedures available to them are effective in resolving their problems.

**Findings/Conclusions:** The services believe that resolution of members' problems is a command responsibility and should be accomplished at the lowest possible level in the chain of command. The two principal systems available to service members, chain of command and Inspectors General (IG), fall short of meeting the criteria which personnel experts consider necessary for a workable grievance system. The Army and Air Force permit their members to initiate grievances with the IG without first attempting resolution through the chain of command. This often results in a duplication of effort, delays in resolution, and preclusion of supervisors from fulfilling a basic command responsibility. The Navy and Marine Corps do not provide such a degree of access to the IG; and, as a result, grievances can be buried in an ineffective command chain or members may feel compelled to go outside the services to government or congressional officials. The independence of the IG is questionable since they are responsible to and evaluated by the commanders on whose staffs they serve. Data on grievances are either nonexistent, incomplete, or inaccurate.

**Recommendations:** The Secretary of Defense should direct the services to adopt a grievance system composed of the chain of command and IG, with particular emphasis on us-

ing the strength of the command chain as the primary source for initial problem resolution, and using the IG only for third-party review of disputed decisions or chain of command inaction. The IG, or an impartial adjudicator if necessary, should be sufficiently isolated from command control so that decisions will be creditable. Time limits should be established for each stage of processing and appeals. Data on formal cases processed and their outcomes should be developed and evaluated, along with periodic organizational performance assessments and members' attitude surveys. Members' awareness and confidence in the grievance system must be increased through well-documented and publicized procedures and reports of system success.

#### **Agency Comments/Action**

DOD generally agreed with most of GAO's recommendations and stated that the issues raised in the report merit attention at all levels within DOD.

#### **Appropriations**

Operation and maintenance - Department of Defense

#### **Appropriations Committee Issues**

DOD needs to assure a fair and equitable grievance system for military service members.



# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### **The Air Force Can Reduce Its Stated Requirements for Strategic Airlift Crews** (LCD-79-411, 9-19-79)

Department of the Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

Maintaining more crews than necessary to fly the C-5 and C-141 strategic airlift planes is costly and unjustified. The Air Force has determined that it needs four crews for each of these aircraft, but due to efforts to preserve the service life of the C-5 by limiting the flying hours of the fleet, only 3.25 aircrews are presently authorized for each C-5. The Air Force has developed and uses a computer model simulating the operations of the strategic airlift system under wartime conditions to determine crew needs. However, a number of factors the Air Force uses are unrealistic and tend to overstate crew needs.

**Findings/Conclusions:** GAO analyzed model simulations made by the Air Force and noted that during the first 45 days of an emergency, the period of highest demand, the utilization rate attained with a crew ratio of 3 to 1, with no flying hour limits imposed, was comparable to the rate attained with a 4 to 1 crew ratio with flying hour limits imposed. Where no flying hour limits were imposed, certain aircrews exceeded the 125 hours within 30 days' limit. This indicated that a reduced crew ratio warrants serious consideration. A reduction of the aircrew ratio from the currently authorized 3.25:1 to 3:1 for the C-5, and from 4:1 to 3:1 for the C-141, would lower the Air Force's annual funding requirement by as much as \$105 million for the strategic airlift operational fleet if only active duty personnel were reduced. The Air Force omitted the effects of aircraft attrition in estimating required crews. At least three extra crews become available when each plane is lost. The Air Force indicates the extent of fatigue varies among aircrew positions; does not consider ground times at home stations to perform aircraft maintenance in its latest model simulations; assumes that all required crewmembers are fully qualified, onboard, and available for flying duties; and assumes, in its computer model, that crews must perform staff duties as well as flying airlift missions.

**Recommendations:** To improve the process of determining strategic airlift crew requirements and achieve more valid ratios, the Secretary of Defense should require the Secretary of the Air Force to: revise the airlift simulation model

program to reflect a peacetime to wartime transition and achievable aircraft utilization rates which do not exceed those established by the Secretary of Defense; reassess the established flying hour limits for aircrews to determine the feasibility of increasing them, especially the 125-hour/30 day limit; include attrition rates for strategic airlift aircraft and assess the impact such attrition would have on the number of aircrews required; evaluate the feasibility of establishing different aircrew ratios for each crew position based upon differing fatigue rates for the various positions; reassess the need for airlift crews to perform staff duties during wartime to the detriment of flying operations; recognize, in aircrew requirements' estimates, that all crews will not be fully qualified and available at any point in time; and include ground times at home stations in estimating the hours planes are available for flying.

#### **Agency Comments/Action**

The Air Force has initiated a study, not yet completed, involving changes in the strategic airlift simulation model which incorporates many of GAO's recommendations. However, the Air Force disagreed that aircraft attrition should be included because the remaining crews would be needed to operate fewer aircraft longer. The Air Force also did not agree that different crew ratios should be established for each crew position because the extent of fatigue varies between positions. The Air Force felt that mission demands for flexibility to perform a variety of missions in a fast-moving conflict would require that a uniform crew ratio be maintained for all crew positions.

#### **Appropriations**

Military personnel - Air Force

#### **Appropriations Committee Issues**

Changes to the process for determining crew ratio requirements could reduce the number of crews which must be trained and maintained to meet airlift requirements.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### ***The Congress Should Act To Establish Military Compensation Principles*** (FPCD-79-11, 5-9-79)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)  
**Legislative Authority:** 37 U.S.C. 203. P.L. 89-132. P.L. 90-207. 37 U.S.C. 1008(b). 5 U.S.C. 5301.

The military compensation system costs about \$40 billion a year. No overall guiding policy or principle for compensating military personnel has been established. The private sector is the standard for setting and adjusting Federal civilian pay. In order to attract, retain, and motivate the quality and quantity of military members necessary to maintain the desired level of national security at a minimum cost to the Government, a decision must be reached on the method of implementation for military pay principles. Two alternative approaches have been suggested: comparability and competitiveness. Comparability approaches use wage surveys of other workers as a guide to setting and adjusting pay based on age-earnings profiles and job difficulty. Competitive approaches are based on the principle that compensation should be adequate to attract and retain the desired quantity and quality of personnel, but should not be more than necessary for this purpose.

**Findings/Conclusions:** Comparability approaches provide stability and security to service members, but lack flexibility to adjust to changing manpower needs. Competitive approaches provide the flexibility necessary to adjust compensation to changing military manpower needs; however, they lack a clearly defined level of stability to assure members that their pay will remain roughly comparable to pay for Federal civilians and private sector employees. A combination of the best qualities of both comparability and competitiveness may be necessary to satisfy the need for stability and flexibility in the military compensation system. The Department of Defense, the services, and the Office of Management and Budget are subjected to competing pressures which make any future agreement on military pay principles unlikely. A permanent, independent compensation board would be better able to reach an agreement on military pay principles.

**Recommendations:** Congress should establish a permanent independent military compensation board and direct the board to: evaluate the alternatives, and recommend in legislation to Congress which military pay principles should be established; see that pay principles are appropriately implemented; and continuously monitor and make recommendations for changing the military compensation system consistent with established principles.

#### **Agency Comments/Action**

DOD stated that creation of an independent military compensation board would represent another "headless fourth branch" of Government, accountable neither to the Executive nor Legislative branches, but exercising executive functions over the procurement and maintenance of DOD manpower. Also, DOD stated that it has long accepted a combination of comparability and competitiveness as an appropriate principle to guide in setting levels of military compensation. The Defense Authorization Bill of 1981 requires the President to recommend to Congress, by April 1, 1981, improvements in the method of adjusting military pay and allowances.

#### **Appropriations**

Military personnel - Army, Air Force, Navy

#### **Appropriations Committee Issues**

Failure to establish and maintain appropriate military pay principles could unnecessarily increase Defense personnel costs, because it will not be known whether military pay levels are too high or too low.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### **A Contributory Retirement System for Military Personnel** (FPCD-76-43, 3-4-76)

##### **Departments of Defense, the Army, the Navy, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (0051)

Military retirement costs are increasing sharply. In fiscal year 1976 the retired military population reached 1.1 million members who received an estimated \$6.9 billion in payments (estimated to be \$9 billion in fiscal year 1978). Partly because of this cost increase, the Department of Defense (DOD) proposed legislative reform of the military retirement system. The proposal, which did not include a contributory feature, would allow Defense managers to closely control the number of military personnel who become eligible for retired pay. This would eventually reduce retirement costs. No action was taken by the Congress on this proposal (H.R. 7769). Defense is currently evaluating the Commission on Military Compensation study and intends to submit legislation to the next session of the Congress revising the current military compensation system. GAO reported to the Defense Task Force, Senate Budget Committee, on the issue of a contributory retirement system for military personnel. The report identified the advantages and disadvantages, cost implications, and the issues to be resolved. GAO estimated that about \$1 billion could be saved the first year under such a system, assuming the same benefits as the present system and no retirement fund, if military personnel were to contribute 7 percent of their basic pay toward retirement costs. Varying the factors and assumptions can result

in lesser savings or even increased costs.

#### **Agency Comments/Action**

While DOD submitted legislation to revise the military retirement system, it did not address the contributory retirement issue.

#### **Appropriations**

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Significant savings may be possible by adopting a contributory retirement system for military personnel. DOD, in conjunction with the Office of Management and Budget (OMB), should consider incorporating a contributory feature in proposed legislative reform of the retirement system. Guidance from Congress should be provided to the DOD and OMB on unresolved issues pertaining to adoption of a contributory retirement system, such as: how contributions should be computed; whether pay should be increased to offset contributions; and how the military retirement system should be integrated with Social Security.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### ***The Department of Defense Should Adopt New Clothing Allowances***

*(FPCD-79-42, 4-20-79)*

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Military Pay (0060)

**Legislative Authority:** Career Compensation Act of 1949 (P.L. 81-351). Executive Order 10113.

The current method of paying the clothing maintenance allowance to enlisted military personnel provides reimbursement before clothing expenses are actually incurred, and for clothing replacement that will not occur under normal conditions. An alternative would be to provide an annual allowance for each year of service equal to the cost of all clothing items requiring replacement during that year, based on reasonable estimates of clothing wear-out rates under normal conditions.

**Findings/Conclusions:** The alternative would reduce clothing allowance expenditures by approximately \$10 million in the first year and could be implemented with minimal cost and effort. Career enlisted members would benefit because the allowance would more closely reflect replacement costs. Special allowances for Navy chief petty officers have not been fully substantiated and appear to be significantly overstated.

**Recommendations:** The suggested alternative, or another acceptable method, should be adopted by the Department of Defense (DOD). The Secretary of Defense should revise the special clothing allowances for chief petty officers and the DOD clothing regulation to indicate that the allowance

is for replacement only. The Senate Appropriations Committee should adjust the DOD appropriations request to reflect the savings that would occur under the alternative method, and should require the Navy to justify special clothing allowance expenditures for chief petty officers.

#### **Agency Comments/Action**

DOD opposed the recommendation on the grounds that useful life rates for clothing are only rough estimates, and that therefore a more precise allowance based on the estimated time of replacement of a clothing item is not reasonable. DOD did agree to review the special allowance for Navy chief petty officers.

#### **Appropriations**

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Military uniform allowances include payments for items that will never be replaced.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### ***The Federal Government's Severance Pay Programs Need Reform***

*(FPCD-78-68, 12-7-78)*

#### **Departments of the Army, the Air Force, and the Navy**

**Budget Function:** General Government: Central Personnel Management (0805)

**Legislative Authority:** 5 U.S.C. 5595. 42 U.S.C. 501. 29 U.S.C. 49. Unemployment Compensation Amendments of 1976. P.L. 94-556. 26 U.S.C. 3304. 10 U.S.C. 687. 10 U.S.C. 679. 10 U.S.C. 680. 5 C.F.R. 550.

Severance pay for Federal personnel was legislated to provide involuntarily terminated employees with recognition for their service, compensation for the lost job and its consequences, and help in the transition to a new career. The Federal Government's severance pay programs are divided into two major categories: for Federal civilian employees and for uniformed services personnel.

**Findings/Conclusions:** The armed services nondisability severance program is sometimes viewed as a substitute for vesting for officers who are separated with less than 20 years of service. There are inequities in severance pay entitlements of military and civilian personnel and in benefits available to members of the uniformed services. For example: military nondisability severance pay is available only to officers, not enlisted members; Army and Air Force officers separated for substandard performance sometimes receive more severance pay than officers separated for nonpromotion; basic pay used in calculating military severance pay does not fully reflect a member's compensation; most military officers are limited to a maximum severance pay of \$15,000 unlike civilians who are not limited to a fixed dollar amount; military officers can receive severance pay if separated for unsatisfactory performance while civilian employees are eligible only if they are not at fault; and payments for civilian employees cease if they are rehired while this limitation does not apply to military members. Legislation enacted in 1976 could affect employees' entitlement to the concurrent receipt of severance pay and unemployment insurance.

**Recommendations:** The Congress should: revise the uniformed services' severance pay programs so that separa-

tion pay will be calculated and applied uniformly for all services, provide a severance pay program for enlisted personnel, base the military severance pay formula on the average regular military compensation of the grade of the separated member and bring eligibility criteria in line with the civilian severance program, eliminate the practice of providing severance pay to members separated for unsatisfactory performance, and provide uniform severance pay limitations for all Federal personnel reemployed by the Government. It should also clarify the Unemployment Compensation Amendments of 1976 as they relate to the concurrent receipt of severance pay and unemployment insurance.

#### **Agency Comments/Action**

The Civil Service Commission (now the Office of Personnel Management) and the Department of Labor generally agreed with the recommendations that affected their areas of responsibilities. The Department of Defense has substituted legislation that would change several aspects of the military severance pay program. Senate Bill 1918, stemming from the DOD proposal, is aimed at eliminating some of its inequity.

#### **Appropriations**

Military personnel - Army, Air Force, Navy

#### **Appropriations Committee Issues**

Military compensation/retirement costs could be reduced by more effectively using severance/readjustment pays in attaining the proper mix of military personnel.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### ***Flexible Management: A Must for Effective Armed Services Recruiting*** (FPCD-80-64, 9-18-80)

#### **Departments of Defense, the Air Force, and the Army, and Selective Service System**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The effectiveness and integrity of recruiting programs in the armed services are influenced to a very large degree by policy and resource allocation decisions made within the Office of the Secretary of Defense (OSD) and the service headquarters. If recruiting managers and other involved officials have increased flexibility to appropriately adapt policy and resources to ever-changing conditions of market supply and demand, recruiting goals can be accomplished and malpractice and other irregularities reduced. A GAO review critiqued five management factors in decisionmaking processes involving OSD and service staff relationships.

**Findings/Conclusions:** Perhaps the greatest stumbling block to achieving recruiting goals is the inflexibility inherent in the management of service recruiting programs. This inflexibility is particularly evident in: (1) the absence of readily available nonmonetary policy-change alternatives which can be used as management tools within existing funding levels; and (2) the insistence that the recruiting objectives be fixed well in advance, although properly matching recruiting resources and nonmonetary policies to these goals is generally not possible because of the uncertainties of congressional action and the recruiting marketplace. In addition, the requirement for all services to obtain congressional committee approval for spending additional recruiting funds through reprogramming, no matter how small the amount, hinders management's ability to quickly adjust its recruiting program to developing problems.

**Recommendations:** The Secretary of Defense should: (1) monitor the services' implementation of the recruiting objectives as stated in the Consolidated Guidance, related do-

cuments, and service program objective memorandums to determine that the guidances are being interpreted with reasonable flexibility; (2) improve the recruiting data monitoring and analysis within OSD by obtaining more staff and more funds for such activities, including long-range analyses; (3) direct each service to develop a formal plan concerning nonmonetary, standby enlistment initiatives which recruiting managers can use to quickly adjust to changes in the recruiting marketplace; (4) direct the Army to improve recruiting data gathering and analysis in the National Guard and Reserve; and (5) direct the Army and the Air Force to further integrate their active, Reserve, and National Guard decisionmaking activities.

#### **Appropriations**

Operation and maintenance - Air Force, Army

#### **Appropriations Committee Issues**

The Committees should consider whether to establish a threshold level for requiring approval of reprogramming actions involving the recruiting budget. This should include both the overall recruiting budget as well as the specific line items within the budget. Reprogramming requests concerning advertising funds should remain as congressional interest items because of the unique characteristics of the services' and the Department's advertising program and the controversies concerning appropriate levels of expenditures.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### ***Fundamental Changes Needed To Improve the Independence and Efficiency of the Military Justice System (FPCD-78-16, 10-31-78)***

#### **Departments of Defense, the Army, the Navy, and the Air Force, and U.S. Marine Corps**

**Budget Function:** National Defense: Defense-related Activities (0054)

**Legislative Authority:** Military Justice Act of 1968 (P.L. 90-632; 80 Stat. 1335). 10 U.S.C. 801. 64 Stat. 108. H.R. 866 (94th Cong.). H.R. 3999 (95th Cong.). H.R. 12613 (95th Cong.). DOD Directive 4000.19. Army Regulation 27-10. *United States v. Newcomb*, 5 M.J. 4 (1978). *United States v. Hedges*, 11 USCMA 642, 29 CMR 458 (1960). *United States v. McLaughlin*, 18 USCMA 61, 39 CMR 61 (1968). *United States v. Wright*, 17 USCMA 110, 37 CMR 374 (1967). *United States v. Broynx*, 45 CMR 911 (1972) *United States v. Carpenter*, 1 MJ 384 (CMA 1976). *United States v. Ledbetter*, 2 JM 37 (CMA 1976). *United States v. Willis*, 3 MJ 94 (CMA 1977). *Parker, Warden v. Levy*, 417 U.S. 733 (1974).

The military justice system encompasses the processes for imposing punishment on military personnel and for challenging the punishment imposed. The system operates separately from the civilian justice system under constitutional and legislative authority. The military justice system has been criticized as being inequitable because it deprives military service members of many due processes of law.

**Findings/Conclusions:** Many problems were found in defense and trial counsel organizations in the four military services that lead to perceptions that military justice is uneven, unfair, and of low priority. In the Army and Marine Corps, defense counsels work directly for convening authorities who are also commanding officers. In the Army, Navy, and Marine Corps, inadequate staffing criteria and personnel assignment practices have resulted in significant differences in the number of cases per counsel. Procedures to assign counsel based on experience, complexity, and current workload are the exception rather than the rule. The number of support staff is generally inadequate, and procedures for selection of witnesses generally favor the prosecution. Counsel effectiveness is frequently hampered by inadequate facilities, equipment, and courtrooms and by a lack of privacy. Under current organizational modes, the costs of military justice are unknown. There should be a single defense and trial counsel organization within the Department of Defense.

**Recommendations:** The Secretary of Defense should: consolidate defense and trial counsel organizations at single bases and proximate bases where feasible and cost-effective, establish budgeting processes allowing for the development of total costs of military justice and for comparison of costs between services, and study and report on methods to enhance the independence of counsel. He

should also: direct the services to establish uniform criteria and methods for identifying numbers of counsel and support staff needed and make assignments consistent with the counsel's experience, workload, and case complexity; propose changes to the Manual for Courts Martial; and direct the services to establish systems to fund logistical support to counsel. The Congress should revise the Uniform Code of Military Justice to remove convening authorities' responsibility for administering and funding the justice system and earmark specific amounts in defense appropriations for the operation and maintenance of military justice facilities and equipment.

#### **Agency Comments/Action**

DOD stated that all but one recommendation has merit and it is considering them. DOD did not concur in the recommendation to study and report on the possibility of establishing a single DOD defense and trial counsel organization. The Army is implementing an independent defense counsel organization.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force, Marine Corps

Pay and allowances - Army, Navy, Air Force, Marine Corps

#### **Appropriations Committee Issues**

The Committees should earmark specific amounts in DOD organizations for the operation and maintenance of military justice facilities and equipment.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### ***Military Overseas Housing Allowances Should Be More Realistic*** *(FPCD-80-33, 3-5-80)*

Departments of Defense, the Army, the Navy, and the Air Force

**Budget Function:** National Defense: Military Pay (0060)

**Legislative Authority:** P.L. 91-486. 37 U.S.C. 405.

In 1970, Congress amended authorizing legislation to permit the station housing allowance to be set at the difference between basic allowance for quarters (BAQ) and overseas housing costs. The following year Congress also set BAQ at amounts that could be reasonably related to housing costs in the United States. Because of the large increased costs since the authorizing legislation was passed, a review of military housing allowances overseas was undertaken. The review focused on: (1) determining how BAQ rates have been affected by adjustments to military compensation since 1971; (2) reviewing the legislative history and regulations pertaining to station housing allowances; (3) identifying and comparing several indicators of housing costs in the United States with BAQ; (4) reviewing the detailed Per Diem, Travel, and Transportation Allowance Committee's calculation of station housing allowances; (5) evaluating a Committee proposal to revise station housing allowances, and (6) discussing these matters with knowledgeable Department officials.

**Findings/Conclusions:** BAQ is no longer representative of housing costs in the continental United States, and its use significantly increases station housing allowances by over-compensating members for extra housing costs. At many locations where the allowance is paid, housing costs are less than what military personnel experience in the United States. Payment of the allowance under these circumstances creates perceived windfalls for persons transferring to station allowance localities and penalties for those leaving the allowance areas. Thus, it is an unwarranted Government and taxpayers' expense. Presently, there are several sources of information on housing costs in the United States which could be used as a reasonable basis for computing the extra costs of overseas housing. Use of these standards could result in savings of about \$50 million to nearly \$150 million annually. Savings could be offset by a

revised and more equitable method of computing the allowance. The proposed rent-plus method offers several advantages over the current procedures. It would reduce errors and inconsistencies in processing data and do away with a large and time-consuming questionnaire system. More importantly, it would remedy an inequity inherent in the current calculation procedures whereby junior officers and junior enlisted personnel are penalized relative to senior personnel. Because improvement to the overall system is being considered, now is the appropriate time to also adopt a new standard of housing cost in lieu of BAQ.

**Recommendations:** The Secretary of Defense should adopt the rent-plus method for determining station housing allowances and under the rent-plus method, replace BAQ as a standard for measuring excess housing costs with one that is more realistic.

#### **Agency Comments/Action**

DOD agreed to examine the feasibility of several rent-plus methods, but did not agree to replace BAQ with a different standard for measuring excess housing costs. Although agreeing that BAQ is below housing costs in the States, DOD felt such a change would be for the sake of Government cost reduction only, and not in the interest of its service members.

#### **Appropriations**

Military personnel - Army, Air Force, Navy

#### **Appropriations Committee Issues**

Military overseas housing allowance payments exceed the costs that members incur.



# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### **Military Personnel Cuts Have Not Impaired Most Morale, Welfare, and Recreation Activities** (FPCD-79-54, 7-11-79)

Departments of the Army, the Air Force, and the Navy

**Budget Function:** National Defense: Defense-related Activities (0054)

**Legislative Authority:** Defense Appropriations Act, 1978. Defense Appropriations Act, 1979. Civil Service Reform Act of 1978. P.L. 95-454. B-146890 (1974).

Morale, welfare, and recreation (MWR) activities in the military services receive subsidies of more than \$600 million in appropriated funds annually. Military resale activities such as exchanges, clubs, sports, and hobby shops take in more than \$5 billion each year. In fiscal year 1978 and again in 1979, Congress limited the number of military personnel assigned to these programs. The 1978 ceiling was set at 10,201 (an expected reduction of 1,750 military slots); the 1979 limit was 9,901. The ceilings were intended to reduce the appropriated funds supporting these activities and make more military personnel available for combat-related assignments. The services did not have to make any reductions to meet the 1978 ceiling of 10,201 because at the beginning of the year only 10,017 military personnel were assigned. However, the services did reassign 923 military personnel during the year.

**Findings/Conclusions:** On the basis of a survey of 519 military installations, GAO concluded that fiscal year 1978 reductions had little impact on MWR activities. The military services could save \$5,700 annually for each civilian appropriated-fund employee substituted for a service member assigned to MWR activities. Substituting civilians

for all military positions would save up to \$57 million annually. While most of the 9,901 military positions can and should be filled by civilians, some factors could limit the extent of substitution, such as: congressional limits on Federal civilian employment; labor agreements with other countries; rotation base requirements; and assignments in deployable combat and combat support units.

**Recommendations:** The Secretary of Defense should direct the services to: identify those MWR activity positions which must be reserved for military personnel; convert the remaining positions to appropriated-fund civilian, or where possible, to nonappropriated-fund civilian; and reduce military staffing in Navy and Marine Corps exchanges to the levels authorized in the other services.

#### **Appropriations**

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Military positions in MWR activities should be converted to civilian, and military strengths reduced accordingly.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### **Need To Better Inform Military Personnel of Compensation Changes**

(FPCD-78-27, 7-12-78)

#### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (0051)

**Legislative Authority:** Aviation Career Incentive Act of 1974 (P.L. 93-274). Rivers Amendment (P.L. 90-207). Dependents Medical Care Act of 1956 (P.L. 84-569). Military Medical Benefit Amendments of 1966 (P.L. 89-614), P.L. 93-277. P.L. 93-419. P.L. 94-212. P.L. 94-361. P.L. 94-502. 37 U.S.C.101.

Recent legislative changes to military compensation do not generally represent erosions of benefits or reductions in total military compensation. Changes to the military compensation system generally represent management actions to eliminate inefficient practices, institute management efficiencies, and provide for more effective use of resources.

**Findings/Conclusions:** Military personnel believe their compensation is being unjustifiably reduced, and they consistently underestimate their regular and total military compensation. Although the Department of Defense provides information to service members on benefit issues and changes to compensation elements, service members apparently do not rely as heavily on this information as on compensation items appearing in the news media.

**Recommendations:** The Secretary of Defense should direct that service leaders assume a more active role in correcting service members' misperceptions of compensation changes and develop more effective methods of communicating compensation changes by providing members with a periodic overview of their compensation package and by demonstrating how pay legislation, inflation, and other change factors affect pay. The Congress should initiate action to create a more visible and equitable military compensation system by requiring the executive branch to draft and

submit proposals to convert the base pay and allowances system to a salary system.

#### **Agency Comments/Action**

In response to the report, DOD stated that it had not reached a decision on whether the base pay and allowances system should be changed to a salary system. The Defense Authorization Bill of 1981 requires the President to recommend to the Congress, by April 1, 1981, improvements in the method of adjusting military pay and allowances.

#### **Appropriations**

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should require DOD to (1) justify why the inefficient and complex pay and allowance system needs to be continued, and (2) develop an information system to provide members an overview on the value of each member's compensation. The system is not only inefficient to administer, but is extremely costly.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### ***Noncontributory Social Security Wage Credits for Military Service Should Be Eliminated*** (FPCD-79-57, 8-8-79)

Departments of Defense, the Army, the Navy, and the Air Force, and Department of Health, Education, and Welfare

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** 42 U.S.C. 429.

Military service was brought under contributing Social Security coverage in 1957. Both military members and the Department of Defense (DOD), as their employer, pay Social Security taxes on basic pay.

**Findings/Conclusions:** Members whose basic pay is less than the Social Security taxable earnings ceiling are credited with additional covered earnings of up to \$1,200 a year in excess of basic pay. Neither the member nor DOD pays taxes on these credits. The Social Security trust funds are reimbursed annually from the general fund of the Treasury for additional costs attributable to the noncontributory credits. GAO reviewed the rationale for providing noncontributory credits for service performed after 1956, examined their effects on current benefits, and estimated unforeseen costs that will result. The noncontributory Social Security wage credits were primarily intended to provide adequate disability and survivor protection for first-term military members. GAO estimates of disability benefits provided to first-term personnel show that the combination of benefits available from the Social Security system, the Veterans Administration, and DOD generally equals or exceeds pay and allowances received while on active duty, even if Social Security benefits are based on current contributory coverage alone. The additional survivor protection provided by the credits is negligible. In addition, the pay and allowances replaced by the combination of benefits are considerably higher than the depressed wages of the draft era existing when the credits were authorized. In view of these considerations, GAO believes that the noncontributory credits are unnecessary. While it may be argued that the provision of noncontributory credits recognizes the Nation's special obligation to members who are disabled or die in the line of duty, GAO believes that the provision of additional "non-

contributory" benefits from the Veterans Administration acknowledges that obligation. The noncontributory credits will also provide additional Social Security old-age benefits for military retirees, a result neither foreseen nor intended by the Congress when it authorized the credits. GAO estimates that the cost (in terms of Social Security outlays) of the Social Security old-age benefits attributable to the noncontributory credits will exceed \$100 million annually as retirees who entered the force after 1956 become eligible for Social Security old-age benefits. Widespread criticism of the generosity of retirement benefits attributable to military service already exists because of the additive nature of military retired pay and benefits arising from contributory Social Security coverage. GAO sees no justification for providing additional old-age benefits resulting from the noncontributory wage credits.

**Recommendations:** Congress should terminate noncontributory Social Security wage credits for future military service. This result may be achieved by amending legislation to limit noncontributory credits to service performed before 1980.

#### **Appropriations**

Military personnel - Army, Air Force, Navy  
Social Security Administration

#### **Appropriations Committee Issues**

The Committees should continue to work towards developing, integrating, and coordinating benefits available from all Federal retirement systems which could reduce Federal expenditures by eliminating the overlap and sometimes duplicate benefit payments.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### **Observations on the Method of Annually Adjusting Military Pay** (FPCD-78-45, 6-2-78)

#### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (0051)

**Legislative Authority:** Department of Defense Appropriation Authorization Act, 1977 (37 U.S.C. 1009). (P.L. 89-132; 79 Stat. 545; 79 Stat. 546; 37 U.S.C. 1008(b)). P.L. 93-419.

In 1967, the principle of providing automatic adjustments in military pay based on increases in Federal civilian salaries was established. Since that time, automatic increases in military pay have been indexed to the average percentage increase in General Schedule salaries.

**Findings/Conclusions:** In the military, the automatic adjustment mechanisms result in: understatement of regular military compensation costs in the Department of Defense (DOD) budget; increasing portions of regular military compensation taking the form of tax advantages such as housing, potentially further increasing the visibility of pay to military members; and increasing pay inequalities due to marital status. Portions of regular military compensation are not reflected in the DOD budget, and this absence impedes identification and evaluation of military compensation costs. Because the forms of military compensation are difficult to identify, members often undervalue their regular military compensation. Regular military salary, considered equivalent to civilian salaries, is greater for members with dependents than for single members of the same grade and length of service.

**Recommendations:** The House and Senate Armed Services Committees should initiate action to require that military

personnel accounts in the DOD budget and individual service budgets reflect the Federal income tax advantage of regular military compensation. The military base pay and allowances system should be replaced by a salary system.

#### **Agency Comments/Action**

The Defense Authorization Bill of 1981 requires the President to recommend to the Congress, by April 1, 1981, improvements in the method of adjusting military pay and allowances.

#### **Appropriations**

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The question of properly recognizing the tax advantage as military compensation costs and the visibility of military compensation should continue to be of concern to the Committees.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### ***Payment of Basic Allowance for Subsistence to All Enlisted Members at Three Military Installations Should Be Discontinued***

*(FPCD-80-18, 12-5-79)*

**Departments of Defense, the Air Force, and the Navy**

**Budget Function:** National Defense: Military Pay (0060)

**Legislative Authority:** 37 U.S.C. 402.

The administration of basic allowance for subsistence (BAS) by the Department of Defense (DOD) was reviewed. Recently, actions were taken by DOD and the military services to improve food services and the administration of BAS. These actions, stemming from recent studies and tests, gave rise to concern over the continuing BAS expenses incurred at three military installations after the tests were completed (Shaw Air Force Base, South Carolina, Loring Air Force Base, Maine, and Alameda Naval Air Station, California). Normally, enlisted military members receive BAS only when they do not eat in Government dining facilities for certain authorized reasons. At the three test installations, all enlisted personnel were paid BAS and required to purchase their meals. Dining facilities were converted to a-la-carte style with individual item pricing.

**Findings/Conclusions:** Test results showed that various cost and management benefits resulted from the a-la-carte and all-BAS concepts: the need for meal cards and related control and security were eliminated; food economy was encouraged; feeding costs were significantly reduced; and enlisted personnel showed a preference for both the a-la-carte concept and the combination all BAS/a-la-carte concept. Additional costs were incurred because the enlisted personnel did not always eat in the dining hall. It was the Air Force position that the payment of all cash BAS to enlisted personnel was the ultimate goal for a majority of the airmen. Defense officials concluded that the increased costs prohibited the adoption of the all-BAS concept on a DOD-wide basis, but that the a-la-carte concept provided many benefits without a large increase in expenditures. It was recommended that all services adopt the a-la-carte system, where

feasible. GAO believed the a-la-carte concept appeared to be a reasonable alternative to the existing system and could improve food service operations, reduce food costs, and improve morale. However, the practice of paying cash BAS to all enlisted personnel at the three former test sites should be discontinued because the benefits derived cannot be quantified in relation to the substantial increase in annual cost, and it is not fair and equitable to other members.

**Recommendations:** The Air Force should reassess its goal if the increased costs prohibit adoption of the all-BAS concept on a DOD-wide basis. The Secretary of Defense should direct the Departments of the Air Force and Navy to provide him with their proposals for discontinuing BAS payments to enlisted personnel, who would otherwise receive subsistence-in-kind, at the three installations involved.

#### **Agency Comments/Action**

DOD concurred with the recommendation. DOD instructed the Navy and Air Force to discontinue blanket BAS payments at the three cited installations.

#### **Appropriations**

Military personnel - Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should determine if the Navy and Air Force are following new instructions for paying cash BAS to enlisted members at the three installations.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### ***Problems in Administering the Servicemen's Group Life Insurance Program in the Ready Reserve*** (FPCD-80-45, 5-1-80)

Departments of Defense, Transportation, the Army, the Navy, and the Air Force, Veterans Administration, and U.S. Coast Guard

**Budget Function:** Income Security (0600)

**Legislative Authority:** Veterans' Insurance Act of 1974.

The Veterans Administration (VA) and the uniformed services have had problems administering the Servicemen's Group Life Insurance Program and determining the eligibility of some reservists since the Veterans' Insurance Act extended the coverage to members of the Ready Reserve. A large number of reservists are receiving free insurance coverage at the expense of other members because the law has no provision to cancel coverage for members who do not pay their premiums.

**Findings/Conclusions:** Although the program is financially sound, some of the services are not forwarding premiums to the VA for members who are not making payments as they are legally required to do. The law requires the services to deduct sufficient funds from their appropriations to pay the premiums for all participating Ready Reservists and forward the fund to VA. The Army, Navy, and Air Force are not complying with this provision of the law. Although the present program has been in effect for 6 years, there is still some doubt and confusion in determining eligibility for some members in the Ready Reserve drilling for retirement points only and for new enlistees awaiting basic training. The law does not stipulate whether members in a nonpay status are required to perform scheduled periods of inactive duty training. The services have expressed concern about the lack of an obligation by these members to perform the scheduled training.

**Recommendations:** The Administrator of Veterans Affairs should submit to the House Committee on Veterans' Affairs his recommendations concerning: an appropriate grace period for paying premiums before insurance coverage is canceled; the possibility of raising the insurance benefits ceiling; the clarification of whether new enlistees awaiting basic training should be eligible for Servicemen's Group Life Insurance and the clarification of whether individuals scheduled to perform inactive duty training should also be

obligated to perform and complete the training to maintain eligibility. The secretaries of the military departments and the Secretary of Transportation should evaluate the adequacy of their accounting and administrative procedures for billing and collecting premiums from nonpay-status reservists participating in the program. Congress should revise the Veterans Insurance Act to terminate insurance coverage for members that fail to pay their premiums and delete the provision of the law requiring the services to forward funds from their appropriations to cover all reservists participating in the program.

#### **Agency Comments/Action**

The Department of Defense and the military services agreed with the findings and recommendations. Both the Department of Defense and Veterans Administration told the Subcommittee on Compensation, Pension, Insurance, and Memorial Affairs of the House Committee on Veterans' Affairs during hearings on May 20, 1980, that they would work together to develop proposals for the Committee to consider on implementing the recommendations.

#### **Appropriations**

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Until Congress deletes the provision of the Veterans Insurance Act of 1974 requiring the services to forward funds from their appropriations to cover all Ready Reservists participating in the program, the services are required to establish accounts receivable and transfer from their appropriations an amount sufficient to cover all participating reservists.

# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY MANPOWER

### **Some Criminal Offenses Committed Overseas by DOD Civilians Are Not Being Prosecuted: Legislation Is Needed**

(FPCD-79-45, 9-11-79)

Departments of Defense, the Air Force, the Navy, the Army, and the Marine Corps

**Budget Function:** National Defense: Defense-related Activities (0054)

**Legislative Authority:** Reid v. Covert, 354 U.S. 1 (1960). Kinsella v. Singleton, 361 U.S. 234 (1960). Grisham v. Hagan, 361 United States 278 (1960). United States v. Catlow, 23 C.M.A. 142, 48 C.M.R. 758. United States v. Russo, 23 C.M.A. 511.50 C.M.R. 630. 18 U.S.C. 7.

International law recognizes that a host country has criminal jurisdiction over U.S. military personnel stationed in that country. Negotiated agreements allowing the United States to exercise jurisdiction over service members stationed overseas give it criminal jurisdiction over many offenses committed by service members that otherwise would have been prosecuted by the foreign country or not prosecuted at all. The United States has virtually no criminal jurisdiction over the 343,000 civilian personnel and dependents accompanying the armed forces overseas. These civilians are subject to foreign criminal jurisdiction which is not always exercised.

**Findings/Conclusions:** GAO analyses indicate that the actions taken by the Department of Defense (DOD) in the military cases may be inadequate. Military officials believe that the civilians' knowledge that the United States does not have criminal jurisdiction is an encouragement to offenders. Many military commanders dispose of these offenses through administrative sanctions which are inadequate in terms of punishment and deterrence and safeguarding an individual's rights. The strongest administrative sanctions are often directed against the military member/sponsor, and not the civilian offender.

**Recommendations:** The Secretary of DOD and the Attorney General should prepare provisions for implementing the extraterritorial extension of laws and report their findings to the Congress by September 1980. They should consider provisions for: apprehending, restraining, and delivering these civilians to trial; bringing offenders back to the United States for trial; and establishing courts and/or magistrates overseas. The Secretary of DOD should direct the services

to provide more information to the Congress about the number, type, and disposition of criminal offenses committed by civilians accompanying the military forces overseas. Further, the Secretary of DOD should improve the present reporting system to accumulate and track information on the disposition of all overseas cases involving service members released to U.S. authorities and include it in the annual report to the Senate Committee on Armed Services. Legislation should be enacted to extend criminal jurisdiction over U.S. citizen civilians accompanying the military forces overseas. The extraterritorial jurisdiction should extend to petty as well as serious offenses, because the less serious offenses appear to be the greatest disciplinary problem.

### **Agency Comments/Action**

DOD recognized the need to account for cases released to U.S. military authorities for disposition, but they state nothing has been brought to their attention to indicate they are not already meeting requests for information by host countries.

### **Appropriations**

Operation and maintenance - Army, Navy, Air Force, Marine Corps

### **Appropriations Committee Issues**

U.S. criminal jurisdiction should be extended overseas to U.S. civilians accompanying the Armed Forces.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### **The 20-Year Military Retirement System Needs Reform**

(FPCD-77-81, 3-13-78)

#### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** Veterans Benefits and Services: Income Security for Veterans (0701)

**Legislative Authority:** 10 U.S.C. 6330.

Members of the Armed Forces can retire at any age after 20 years of service. The Department of Defense (DOD) justifies this length of service as necessary to retain a young and vigorous force and attract and retain servicemen. DOD uses a competitive promotion system which precludes most military members from serving full careers and must, by law, retire officers who have been passed over for promotion or who reach a certain age. Since their career could end in the middle of their potential worklife, DOD believes military members need the assurance of early retirement benefits.

**Findings/Conclusions:** In fiscal year 1975, officers retired at an average age of 46 after about 24 years of service, and enlisted personnel retired at an average age of 41 after approximately 21 years of service. Most fiscal year 1975 retirees' career time was spent in occupations not demanding exceptional youth and vigor. In fact, 81 percent of the enlisted member retirees and 30 percent of the officers spent their entire careers in non-combat-related occupations. The 20-year retirement provision should be discontinued for many military personnel in occupations not demanding exceptional youth and vigor. Twenty-year retirement, in conjunction with present personnel management policies, is an inefficient means of attracting new members, causes the services to retain more members than are needed up to the 20-year point, provides too strong an incentive for experienced personnel to leave after serving 20 years, and makes it impossible for the vast majority of members to serve full careers.

**Recommendations:** Congress should: revise the military retirement system length-of-service criterion, based on the type of duty performed; revise the retired pay system to encourage appropriate career lengths, based on duties per-

formed; and provide some form of vesting for members who do not complete full careers. Congress should charge DOD with the responsibility for determining what specific occupational skills require youth and vigor, a more cost-effective force profile that considers longer careers for skills not requiring youth and vigor, and a more efficient method of retaining required personnel. In computing retired pay, Congress should revise the military retirement system to eliminate the use of constructive service and rounding to the nearest year of service; rounding to the nearest month should be used.

#### **Agency Comments/Action**

Legislation to substantially revise the military retirement system was proposed by DOD but has not been considered. The DOD 1981 authorization bill provides that for new members, military retired pay will be based on a high three rather than final active duty pay.

#### **Appropriations**

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should insure that the DOD proposal represents (1) an effective and economical retirement system that is fair to both the Government and the members, (2) a cost effective system to retain required personnel, and (3) a system that will insure more appropriate careers for military personnel.



# DEPARTMENT OF DEFENSE - MILITARY

## MILITARY SUPPORT

### ***The Direct Commissary Support System Should Be Expanded To Include More Army Commissaries in Europe (LCD-80-55, 5-20-80)***

**Departments of Defense, the Army, and the Air Force, and Defense Logistics Agency**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The Direct Commissary Support System was developed in 1971 to fill routine requisitions from Army and Air Force commissaries overseas. The system eliminates the need for maintaining large inventories in overseas depots by supplying nonperishable, brand-name, resale items directly from vendors and depots in the United States. It has streamlined the flow of these items to Europe and has resulted in cost savings and other benefits not available under the in-theater depot system. System benefits include reduced prices from volume procurement, reduced order-ship time for moving items from the United States to Europe, reduced local transportation costs, increased fill rates and timely deliveries; increased product selection, and fresher products.

**Findings/Conclusions:** Despite the System's benefits, GAO found that the Army was not taking full advantage of the direct support system since 17 Army commissaries in Europe were receiving support from an in-theater depot. The System's expansion during 1971 to 1978 demonstrated that Army and Air Force commissary officials were committed to the System. However, expansion ceased in 1978 because the Army believed that continued conversion would aggravate a perceived shortfall of in-theater subsistence items by reducing brand-name, resale subsistence levels below those needed to meet the Army's war reserve requirements. GAO found that the Army's wartime subsistence requirements were overstated because they reflected required troop strength levels rather than those currently in the force structure and those able to arrive in Europe when required. Also, all available in-theater subsistence assets were not identified nor appropriately applied against the requirements. Therefore, based on sales volume, warehouse space, container deliveries, and other conversion criteria, GAO believes that 4 of the 17 commissaries should be con-

verted immediately to the System. The remaining commissaries could be converted either independently or through a satelliting arrangement.

**Recommendations:** To maximize the System's benefits, the Secretary of the Army should direct the Troop Support Agency to convert the Kitzingen, Erlangen, Illesheim, and Schwaebisch Gmuend commissaries to the System, and assess the potential for converting the remaining Army commissaries to direct support either directly or through a satelliting arrangement. In order to properly assess the war reserve issue, the Secretary should direct a coordinated approach by the U.S. Army, Europe, and the Defense Logistics Agency and its subordinate activities to (1) establish the B-ration rotation base stock level at the depot based on the ability to rotate the stock within a reasonable timeframe, and (2) properly consider the availability of in-theater subsistence assets at the troop issue points, commissaries, and exchange system facilities as a source for meeting the war reserve requirements.

#### **Agency Comments/Action**

Army officials reviewed this report and said that they agreed with the recommendations. As a result, action was taken to expand the number of commissaries serviced by DICOMSS.

#### **Appropriations**

Operation and maintenance - Army

#### **Appropriations Committee Issues**

Cost savings and other benefits can result from further expansion of DICOMSS.

# DEPARTMENT OF DEFENSE - MILITARY

## MISSION BUDGETING

### ***The Congress Should Require Better Justifications of Aircraft for Noncombat Missions*** (LCD-80-83, 7-22-80)

Departments of Defense, the Navy, and the Air Force, and Defense Audit Service

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** P.L. 95-79.

Since 1976, GAO has issued several reports questioning the Department of Defense's justifications for aircraft intended for noncombat missions, such as training, peacetime attrition, and backup during depot maintenance. The aircraft were justified based on unrealistic data and without adequate consideration of more economical alternatives.

**Findings/Conclusions:** GAO observed virtually no change in the quantities of noncombat aircraft to be procured and little improvement in the requirements justification for such aircraft. Congress has an excellent opportunity to save as much as \$6.9 billion by limiting the number of noncombat aircraft to those that can be adequately justified.

**Recommendations:** Congress should require the Secretary of Defense to provide justifications for the planned procurement of noncombat aircraft that: (1) are based on current and realistic data; (2) recognize the impact of the procurement on readiness; and (3) consider the modern aircraft design and improved maintenance techniques. In addition, Congress should withhold approval of appropriations requested to procure these aircraft until these justifications

are provided.

#### **Agency Comments/Action**

Since this report is generally a reiteration of the other reports, GAO did not ask for comments from the Department of Defense.

#### **Appropriations**

Operation and maintenance - Air Force

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

The House and Senate Appropriations Committees should question the justification for the planned procurement of noncombat aircraft. This justification should: (1) be based on current and realistic data; (2) recognize the impact of the procurement on readiness; and (3) consider the modern aircraft design and improved maintenance techniques.

# DEPARTMENT OF DEFENSE - MILITARY

## MISSION BUDGETING

### **Mission Budgeting: Discussion and Illustration of the Concept** (PSAD-77-124, 7-27-77)

#### Department of Defense

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (0051)

**Legislative Authority:** Energy Reorganization Act of 1974 (P.L. 93-438). Congressional Budget Act of 1974 (88 Stat. 297). Sunshine Act of 1977; S. 2 (95th Cong.). Budget and Accounting Procedures Act of 1950. H. Rept. 94-1231. S. Rept. 95-164. S. Rept., 95-129. OMB Circular A-109. DOD Directive 5000.2.

The mission budget concept offers significant potential for alleviating problems with the way the Federal budget is currently presented and the limitations it imposes on congressional review. The common complaint with the present system is that Congress gets a great mass of detail but not a coherent picture of what the money is for and why it is needed. A mission budget structure links an agency's basic responsibilities, or "missions," to its activities and their proposed funding. Descending levels of the structure then focus more sharply on specific purposes, needs, and programs to satisfy them. The new concept also illuminates the early (front end) decisions that control the purpose and direction of all programs.

**Recommendations:** Congress should begin to experiment with mission budgeting in carrying out its budget review, authorization, and appropriation functions because the concept has significant potential for: helping the President and Federal agencies formulate budgets according to end purposes, needs, and priorities; strengthening congressional policy review and program oversight; achieving greater public accountability in the use of Federal funds; providing one budget system oriented to both executive and congressional needs; clarifying mission responsibilities of the Federal agencies and keeping them relevant to national policies and needs; and serving as a structural foundation for "zero-base" and "sunset" reviews as well as for governmental reorganization.

#### Agency Comments/Action

Congress requires mission informational displays in Presidential budgets but has yet to fund budget requests of the agencies on that basis. A few committees are beginning to experiment with the concept. For example, Agriculture is working with the Senate Appropriations Committee.

Defense took a first step by reclassifying its Research and Development (R&D) budget structure from product orientation to broad strategic and tactical programs. At lower tiers, however, product classification still exists, so that mission areas and needs are not discernible. The House Armed Services Committee's R & D Subcommittee conducted portions of its FY1980 budget review on a mission basis.

#### Appropriations

All Federal agencies

#### Appropriations Committee Issues

It is difficult for Congress to absorb great masses of input activities and adjust up or down (or cancel out) the "right kinds" of activities in any precise way. Since congressional members are not technical specialists, would it not be better for them to focus more on regular mission reviews, policy, and early key program decisions? Appropriation subcommittees get only "slices" of agency missions and are not aware of mission funding from year to year nor of what mission results are achieved with this money. The Committees should consider how budget requests should be modified or subcommittee jurisdictions realigned to deal with agency missions. Mission budgeting clarifies the end purposes of tax dollars to Congress and the general public. Questionable mission purposes and priorities can be revised and funding levels can be raised or lowered with congressional guidance provided in specific areas. The Committees should consider whether they should set up a joint program with the executive branch to more fully test and evaluate the mission concept. In a more recent followup report, GAO illustrates one approach to to such an executive/congressional program (PSAD-78-100, 7-31-78).

## DEPARTMENT OF DEFENSE - MILITARY

### MISSION BUDGETING

#### **Opportunities To Streamline the Air Force Headquarters Structure in the Pacific** (FPCD-79-27, 2-8-79)

##### **Department of the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

In 1974, following House Appropriations Committee recommendations to reduce the Air Force command structure in the Pacific, the Secretary of Defense announced that Headquarters, Pacific Air Forces, would be disestablished and other reductions would be made in Hawaii. The Air Force estimated that this decision would save \$34 million annually plus one-time cost savings of \$32 million.

**Findings/Conclusions:** Although some reductions were made, the Air Force did not disestablish the Headquarters. Opportunities exist for the Air Force to further reduce its management headquarters and related staffs in the Pacific. These reductions would achieve manpower economies consistent with a reduced force level and streamline the Air Force command and control structure in the Pacific.

**Recommendations:** The House Appropriations Committee should explore with the Secretary of Defense ways to achieve savings discussed in this report. The Air Force should: (1) eliminate its headquarters in Japan and the Phil-

ippines; (2) reduce the staff at Headquarters, Pacific Air Forces; and (3) consolidate, cut back, and/or transfer their functions and responsibilities to other commands as originally envisioned.

##### **Agency Actions/Comment**

Defense disagreed with the recommendations.

##### **Appropriations**

Military personnel - Air Force  
Operation and maintenance - Air Force

##### **Appropriations Committee Issues**

Agency workforce planning should identify the numbers of employees needed to effectively and efficiently accomplish the Government's essential work.

## DEPARTMENT OF DEFENSE - MILITARY

### MOBILIZATION

#### **Adjustments Recommended in Army's Ammunition Procurement and Modernization Programs** (LCD-80-62, 6-12-80)

#### **Departments of Defense, the Army, and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

In response to a congressional request, GAO evaluated the Army's fiscal year 1981 requests for ammunition end-items involving the largest dollar amounts; ammunition end-items being bought for the first time; and projects for establishing, modernizing, and expanding the ammunition production base.

**Findings/Conclusions:** GAO concluded that \$87.5 million requested by the Army for fiscal year 1981 should not be appropriated, including funding for improved 81-mm high explosive cartridges, M456 antitank cartridges, additional ground-emplaced mine scattering system mines, and additional M739 point detonating fuses. Twenty-eight other items were identified that should be funded at levels other than the amounts requested by the Army. After reviewing 14 modernization and expansion projects with estimated costs of \$251.2 million, GAO concluded that: (1) it was premature for Congress to provide funding to expand the production capacity for the Bushmaster ammunition, or for the application of radar to ballistics acceptance testing; and (2) less funding was needed for repairing the nitrocellulose line and for modernizing the smoke mix facility for M18 grenades because both include equipment which is not needed during fiscal year 1981.

**Recommendations:** The Secretary of the Army should reassess the use of existing buildings at ammunition pro-

duction plants for future modernization and expansion projects as alternatives to constructing new buildings, and develop a means for comparing operating cost data for the three former Navy plants with the data at the Army's other ammunition production plants. The House Committee on Appropriations should reduce the Army's conventional ammunition request for 13 items by \$134.1 million, increase the Army's conventional ammunition request for 19 other items by \$26.8 million, and reduce the Army's request for the modernization and expansion program by \$16.7 million.

#### **Agency Comments/Action**

Agency comments had not been received as of the date that this report was prepared.

#### **Appropriations**

Procurement of ammunition - Army

#### **Appropriations Committee Issues**

The Committees should consider the recommendations made above.

## DEPARTMENT OF DEFENSE - MILITARY

### MOBILIZATION

#### **Army Plans To Modernize the Rock Island Arsenal May Be Inappropriate**

(LCD-79-418, 6-6-79)

#### **Department of the Army**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Legislative Reorganization Act of 1970. A.R. 235-5.

The Army's Rock Island Arsenal, Illinois, is burdened with old and obsolete facilities and equipment and an insufficient capacity to meet projected mobilization production requirements responsively. The Army consequently decided to begin modernizing the arsenal's manufacturing equipment and facilities. The Army approved a 2-year planning project submitted by the Arsenal in January 1977 to analyze existing facilities and recommend improvements. This project is scheduled for completion in August 1979. Preliminary estimates indicate that modernization may cost \$101 million for fiscal years 1981-1985, but actual costs may be substantially higher.

**Findings/Conclusions:** Although the Army's modernization plan for the Arsenal is credible, its production requirements are questionable because there were flaws in the calculation of combat consumption rates of major end items; the computation of mobilization requirements for secondary items was based partly on unsupported assumptions; and wartime overhaul and rebuild requirements were unfounded. In response to 1975 and 1976 recommendations by GAO, the Army Armament Materiel Readiness Command determined private industry's willingness to satisfy the Arsenal's mobilization requirements, but failed to establish its capability or capacity. GAO could not identify the impact these conditions might have on the Arsenal's modernization needs, which might be substantial.

**Recommendations:** The Secretary of the Army should defer

extensive modernization plans for the Arsenal, except for completing the current project, until mobilization requirements are reexamined to insure the consideration of only valid requirements and, private industry's ability to do work now assigned to the Arsenal has been clearly established.

#### **Agency Comments/Action**

The Department of the Army agreed that private production facilities should be used whenever feasible to satisfy mobilization needs. However, they added that Rock Island Arsenal capabilities were not only needed to satisfy mobilization needs but also peacetime production of small, uneconomical but essential quantities. They agreed to review proposed modernization plans as they relate to the overall requirement necessary to insure an adequate defense posture during peacetime as well as mobilization. This review has not yet been completed.

#### **Appropriations**

Military construction - Army

Operation and maintenance - Army

#### **Appropriations Committee Issues**

Reasonably accurate mobilization requirements and increased reliance on private sector capability could reduce mobilization expenditures for the Rock Island Arsenal.

## DEPARTMENT OF DEFENSE - MILITARY

### MOBILIZATION

#### ***Followup on Use of Numerically Controlled Equipment To Improve Defense Plant Productivity*** (LCD-78-427, 1-17-79)

#### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The Department of Defense (DOD) owns \$336 million worth of numerically controlled equipment, such as drills, lathes, and machining centers. This equipment, controlled automatically by computers or punched tape, is particularly expensive and complex. Although conventional equipment is more appropriate for many applications, numerically controlled equipment offers increases in productivity and savings, particularly for a small lot production. Also, depending on its management and application, numerically controlled equipment can improve Defense plant surge capability for emergencies. On the other hand, unless management closely monitors this capability, it may not function as intended during a mobilization buildup. Two prior GAO audits analyzed Defense-owned numerically controlled equipment. This followup report was made to assess what DOD had done to improve its use and management of numerically controlled equipment.

**Findings/Conclusions:** GAO briefly examined selected subjects covered in its earlier reports at several activities. Standardization continues to be a problem and is approached differently by different commands and activities. Work interchange between activities has not occurred except for a few work orders. Air Force activities employ formal work-mix study techniques to identify equipment needs, whereas others buy equipment because of production bottlenecks or deteriorated machines, sometimes without critically evaluating numerically controlled machines. Management information systems are extremely diverse in terms of usage categories recorded, and some systems are inaccurate and inadequate. Systems for workloading parts onto conventional or numerically controlled machines need improvements. Most shops have given priority to numerically controlled machine repair part acquisition. However, procedures could still be more streamlined.

**Recommendations:** The Secretary of Defense should activate a DOD or combined-service group or assign to an existing group the responsibility to provide overall technical and policy direction and coordination for numerically controlled equipment. The group should periodically provide status reports of its progress and problems. The Secretary should require the group to address the areas suggested in the GAO 1974 and 1975 reports.

#### **Agency Comments/Action**

Initially, military service officials agreed there is a need to have some type of interservice group or function to share ideas, reduce duplication, and work on mutual problems. However, in a later response, DOD stated that the current policy statements are adequate and that a formal interservice group is not needed. DOD felt that service participation in Defense Industrial Plant Equipment Center seminars would provide the needed technical assistance and idea interchange to challenge numerically controlled equipment problems. However, DOD now recognizes the need for centralized direction to tackle many numerical control problems within the DOD. Proposed DOD actions on a number of the problems now focus on the need for central authority over these issues.

#### **Appropriations**

Procurement - Army, Navy, Air Force  
Operation and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Central management of numerical control will result in more effective use of such equipment with the potential for greatly increasing productivity and reducing costs.

## DEPARTMENT OF DEFENSE - MILITARY

### MOBILIZATION

#### **Host Nation Support**

(LCD-79-413, 5-11-79)

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

Since 1960 the United States has attempted to rely on host countries for assistance to provide needed rear area support in case of a North Atlantic Treaty Organization (NATO) conflict. The concept has been mostly applied to base maintenance, but not weather support functions. Weather support is generally provided by Air Weather Service personnel on U.S. bases.

**Findings/Conclusions:** The Air Weather Service has not studied the feasibility of host nation weather support to U.S. installations. The Air Force has a positive attitude toward increasing host nation support even though it has voiced concern about such support. Current operations tend to indicate that, with some exceptions, host nations can provide weather support at the central guidance center and base level. The Air Force is concerned over the following issues: economies derived from host nation services, classified material, contingencies, differences in operating requirements, and control over civilians. These issues must be closely examined before a final conclusion can be reached. On the other hand, the Air Force reliance on host nations tends to downgrade concern over some of these potential problem areas.

**Recommendations:** The Secretary of Defense should direct the Air Force to increase weather-related host nation support where appropriate, or use contract services; and inten-

sify U.S. efforts within the NATO community to establish military analysis centers in all NATO regions. These centers should operate fully not only during the war, but also in peacetime to alleviate the need for separate guidance centers and improve interoperational capability.

#### **Agency Comments/Action**

Air Force officials stated that they are now placing greater emphasis on host nation support. A complete assessment of the host nation support concept, including U.S. requirements and allied capabilities, is currently in progress. Weather support will be one of the functions included in this new approach. As a result of this greater emphasis, the Air Force will continue to examine all opportunities for use of contractor or host nation weather support.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

The Committees should monitor Air Force actions to increase weather-related host nation support.



# DEPARTMENT OF DEFENSE - MILITARY

## READINESS

### ***DOD's Materiel Readiness Report to the Congress--Improvements Needed To Better Show the Link Between Funding and Readiness***

*(LCD-80-5, 10-12-79)*

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense (0050)

In April 1979, a discussion paper provided Congress with comments on the Department of Defense's (DOD) annual materiel readiness report. A report amplified and expanded on the information given to Congress in the discussion paper. DOD had made little progress in linking funding and materiel readiness and had not achieved an adequate materiel readiness report for Congress. DOD attributed this to the size and complexity of the task. In 1977, DOD established a Readiness Management Steering Group (RMSG) to guide, coordinate, and plan funding and readiness link studies in the armed services. Because RMSG did not adequately perform its function, the studies completed in the following 2 years were done independently, employed varying standards of measurement, were not related to one another, and were therefore unproductive.

**Findings/Conclusions:** There were several problems in the second DOD materiel readiness report which had to be resolved before DOD could provide Congress with reliable projections. These arose from failure by DOD to determine the link between readiness and funding, to show the trade-off between funding for maintenance and supply, and to establish reporting criteria. It was therefore determined that the DOD materiel readiness report did not adequately meet the objectives of providing Congress with reliable projected readiness data based on funds requested to enable better funding decisions for readiness.

**Recommendations:** The Secretary of Defense should require RMSG to: (1) coordinate with the Senate and House Committees on Armed Services to better understand the

type of report needed by the Committees, specific limitations in prior reports, and how future reports can be improved; (2) provide the services with detailed guidance for better measuring overall readiness and for improving future materiel readiness reports; and (3) provide criteria for the services to use in future materiel readiness reports.

### **Agency Comments/Action**

Officials from the Office of the Secretary of Defense, the Joint Chiefs of Staff, the Army, the Navy, and the Air Force generally agreed with the factual information in the report. However, they said it should place more emphasis on the difficulty and complexity of relating resources to readiness and to the progress which is being made. They said it should also recognize that DOD has not held back information and that the materiel readiness reports provided to the Congress have contained the best information currently available.

### **Appropriations**

Operation and maintenance - Army, Navy, Air Force

### **Appropriations Committee Issues**

The Committees should monitor closely the Service's efforts to link funding exercises to improvements in the materiel readiness of the U.S. Armed Forces.

## DEPARTMENT OF DEFENSE - MILITARY

### READINESS

#### ***Improving the Effectiveness of Joint Military Exercises--An Important Tool for Military Readiness*** (LCD-80-2, 12-11-79)

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** P.L. 95-79.

Joint Chiefs of Staff exercises are important to the readiness of U.S. forces. They are a primary means for achieving interservice and U.S. and allied forces training. Their importance and cost dictate effective planning and execution. After preliminary research indicated that improvements were needed in the management of the program, GAO reviewed the planning, execution, and evaluation of the exercises, including an analysis of two major Joint Chiefs of Staff exercises conducted in Europe, REFORGER and CRESTED CAP.

**Findings/Conclusions:** Current development procedures for the Joint Chiefs of Staff Exercise Program did not assure that the Program was achieving its full potential or that the exercises were being conducted in the most cost-effective manner. Program planning was not supported by comprehensive annual program evaluations, alternatives analyses, or comprehensive justifications. Instead, it was based on the inherent value of the exercises, the types and number of exercises conducted in the past, and the expected availability of funds. The services requested funds for the exercises in their individual budget submissions. The budget submissions included little exercise justification data, thereby placing Congress at a disadvantage in trying to determine optimal funding levels. Methods for measuring readiness were not developed to the point that readiness funding levels could be determined. Improvements to the exercises gained from lessons learned were not fully realized because systematic procedures for dealing with them were lacking. For example, problems previously identified in the CRESTED CAP exercise were recurring regularly in subsequent versions of that exercise. Reassessment of the problem areas in the REFORGER and CRESTED CAP exercises would result in more effective and economical exercises. Although the exercises should be as realistic as possible, the realism of those held in the United States was significantly constrained by wildlife and environmental considerations. Realism of those held in Europe could be improved through better planning.

**Recommendations:** The Secretary of Defense should direct the Joint Chiefs of Staff to assume a stronger role in developing and managing the Joint Chiefs of Staff Exercise

Program. This expanded role should include: (1) providing the unified and specified commands expanded procedural guidance for developing their 5-year exercise programs; (2) critically evaluating the commands' 5-year exercise program submissions; (3) greater coordination with the services in budgeting for Joint Chiefs exercises; (4) greater emphasis on exercise realism; and (5) assuring establishment of adequate systems for dealing with exercise lessons learned. The Secretary should also direct the Joint Chiefs of Staff to reevaluate current REFORGER and CRESTED CAP scenarios, considering the problems and questions discussed in this review.

#### **Agency Comments/Action**

Defense generally agreed with the report's recommendations. Joint Chiefs of Staff officials have since said progress has been made in management of the Major Joint Exercises Program. But expanded Joint Chiefs procedural guidance for developing the 5-year exercise program has not yet been completed. The Joint Chiefs said they are working closely with the services in justifying joint exercise program budget requests, although the services continue to have both the prerogative and responsibility for justifying and defending joint exercise program budget requests. The Joint Chiefs have initiated, in response to the recommendation, a computerized Worldwide Exercise Lessons Learned Program for evaluating and disseminating lessons learned data.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Expanded Joint Chiefs procedural guidance for developing the 5-year major joint program should be developed and implemented, and the Defense Budget should include more comprehensive justification data on the need for and benefits to be derived from joint exercises.

## DEPARTMENT OF DEFENSE - MILITARY

### READINESS

#### **Late Fire Control System Deliveries for Army's M-60A3 Tanks Jeopardize Combat Readiness Improvements** (LCD-80-79, 6-30-80)

##### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** International Security Assistance and Arms Export Control Act of 1976 (P.L. 94-329).

GAO reviewed the impact of late deliveries of fire control systems on the Army's M60A3 tank production and conversion program. Late deliveries have delayed improvements in the combat readiness of U.S. forces, caused the Army to store hundred of tanks at additional costs, and reduced the workload of Army depots, especially Anniston Army depot. The Army has taken actions to minimize the impact of delivery problems. It produces new tanks according to schedule and stores them, to the extent necessary, until the fire control systems become available. Also, it delayed the start of the M60A3 conversion program at the depots and substituted another conversion program in its place. Some uncertainty on future deliveries of fire control systems still remains. If deliveries are to be delayed further, Army depots could experience further decreases in their workloads. In allocating future fire control systems, the Army gave foreign governments a higher priority than it did to its own depot conversion program. This was done to preserve the Army's production base and allow the Army to retain two fire control system producers. However, the higher priority given to foreign sales, coupled with late deliveries, resulted in delaying the start of the depot conversion program by about 15 months. To minimize the impact of such workload decreases, the Army could consider giving higher priority to the M60A3 depot conversion program than to deliveries of new tanks to foreign governments, or providing foreign governments with an earlier version of the M60 tank series. Both options require renegotiation of the foreign sales agreements. Congress should obtain the views of the

Departments of Defense and the Army concerning: the impact of the M60A3 tank sales to foreign governments on the combat readiness of the U.S. forces and the short- and long-term impact on Army workloads; and the feasibility of (1) delaying the delivery of the M60A3 tanks to foreign governments until sufficient fire control systems are available to satisfy the depot conversion program, and (2) furnishing foreign governments with earlier versions of the M60 tank series.

##### **Agency Comments/Action**

Agency comments were not requested.

##### **Appropriations**

Operation and maintenance - Army  
Procurement - Army

##### **Appropriations Committee Issues**

The Committees should obtain the views of the Departments of Defense and the Army concerning (1) the impact of M-60A3 tank sales to foreign governments on the combat readiness of the U.S. forces and the short- and long-term impact on Army depot workloads and (2) the feasibility of delaying the delivery of M-60A3 tanks to foreign governments until sufficient fire control systems are available to satisfy the depot conversion program, or furnishing foreign governments with an earlier version of the M60 tank series.

## DEPARTMENT OF DEFENSE - MILITARY

### READINESS

#### **Survey of the Readiness of Minuteman Missiles** (LCD-80-102, 9-16-80)

#### **Department of the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

In April 1980, GAO began a survey of the readiness of Minuteman strategic missiles. The principle objectives were to examine: (1) the adequacy of readiness reporting procedures; (2) the crews' status and training; (3) impacts of planned modifications and modernization programs on the missiles' capabilities; and (4) the efficiency of logistics support systems. However, because of severe constraints on GAO audit resources, and because limited tests indicated that reported high levels of readiness appeared accurate, the audit was suspended. During the survey, though, several situations were found to warrant management attention.

**Findings/Conclusions:** First, the Air Force may be able to use 30 currently unused magnetic drum memory units as spares. This would eliminate the need to purchase additional units as spares and reduce the need for a planned repair program for such units. Second, the Air Force has stopped assigning rated pilots and navigators to missile launch crews and plans to reassign, over the next 3 years, those currently serving as launch crewmembers. The Air Force, however, has no plans for achieving the significant savings

possible through accelerating reassignment of these personnel to flying duties whenever practical. Third, there is disagreement over the necessity for an extended emergency survivable power source for Minuteman missiles. Many matters warrant consideration in reaching a final decision on this issue.

**Recommendations:** The Secretary of the Air Force should direct the Air Force to: (1) use the magnetic drum memory units installed at the two Minuteman II wings as spare parts for the other sites; and (2) reassign qualified pilots and navigators to flying as soon as possible and practical.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

Substantial sums could be saved if the Air Force used the magnetic drum units as spare parts for other sites and re-assigned qualified pilots and navigators to flight status.

## DEPARTMENT OF DEFENSE - MILITARY

### READINESS

#### **Transportation Vehicles Available in Europe for Medical Evacuations** (LCD-80-71, 6-10-80)

#### **Departments of Defense, the Army, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

GAO reviewed Army and Air Force medical transportation vehicles available in Europe to meet wartime medical evacuation needs. The review was directed primarily at evaluating the physical condition of those air and ground vehicles with a dedicated wartime mission of evacuating casualties from the battle area to and among treatment locations in-theater. Also included in the review were selected activities in the continental United States with medical transportation vehicles that may be used to augment in-theater vehicles during contingencies.

**Findings/Conclusions:** Although the Army and Air Force have numerous air and ground vehicles which could be used for medical evacuation purposes, most of these vehicles have other primary wartime missions; thus, they may not be available for casualty evacuation when needed. It is essential that vehicles with a dedicated evacuation mission be maintained at a high state of readiness. Many medical units were experiencing difficulty in maintaining the onhand vehicles. The medical units were apprehensive about the capability of their vehicles to perform wartime missions because of operational difficulties which limit their use in a tactical environment. Officials cited inordinate downtime due to lack of needed repair parts. Many of the vehicles are old, have high mileage, and require intensive maintenance. The annual operational readiness rate of Army helicopters is 76 percent. The number of ambulance conversion kits is limited. Several vehicles have damaged doors that can only be opened from the inside. Upper litter assemblies on ambulances bow when used to transport patients. Ambulances are too noisy and ride too rough to be used to transport seriously wounded patients. There is a lack of onboard radio communication means in ambulances, and helicopters have poor radio communications. Ambulances have mechanical problems with their steering mechanisms, jacks, lifting or towing shackles, electrical systems, ventilation, brake drums, canvas tops, differentials, and transmissions. They do not contain blackout lights; thus, they could not operate in wartime without being detected.

**Recommendations:** The Secretary of Defense should direct the Army to take action to modify the existing M-886 ambulances to correct the deficiencies noted; reassess the need for onboard communication means to facilitate wartime command and controls of medical evacuation air and ground vehicles; and ensure, in developing future procurement plans for medical evacuation vehicles, that the deficiencies noted with the M-886 and M-792 ground ambulances are adequately considered. He should direct the Army and Air Force to take appropriate action to ensure that needed repair parts are made available to units in Europe and in the continental United States in a more timely manner to reduce the inordinate downtime cited by Army and Air Force officials and assess the potential for increasing evacuation capability by acquiring ambulance conversion kits for the existing and planned procurement of school and general-purpose buses.

#### **Agency Comments/Action**

Defense officials agreed with the recommendations and described corrective actions planned and taken. The Army plans to phase out the M-886 and M-792 with a high mobility multipurpose wheeled vehicle in its Division areas, and with a commercial ambulance in Corps areas. Problems with bowed litter assemblies are being investigated. Army plans for reorganization under "Division 86," if implemented, include a position locating and reporting system for ground ambulances and new buses with ambulance conversion kits.

#### **Appropriations**

Operation and maintenance - Army and Air Force

#### **Appropriations Committee Issues**

Medical evacuation vehicles' poor condition and lack of parts hamper evacuation capability in Europe. Efforts to improve readiness include plans over at least the next 5 years.

## DEPARTMENT OF DEFENSE - MILITARY

### READINESS

#### **The World Wide Military Command and Control System--Evaluation of Vendor and Department of Defense Comments**

(LCD-80-22A, 6-30-80)

#### **Departments of Defense, the Army, the Navy, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

A December 14, 1979, GAO report criticized the World Wide Military Command and Control System Automated Data Processing Program (ADP) for lacking effective management and for being unresponsive to operational needs. The report recommended that Congress consider withholding current and future funding for the program. The vendor generally agreed with the contents of the 1979 report and offered some suggestions for resolving computer and software problems through field modifications of the computers and revised versions of the vendor-supplied software. They indicated that the original procurement specifications may have exceeded the state-of-the-art existing then. GAO objected to making field modifications, as such action would have the effect of a sole-source procurement. As a result, alternative and perhaps more economical and efficient system designs by other vendors would not be considered. GAO does not agree that the original procurement specifications exceeded the state-of-the-art. The Department of Defense (DOD) characterized the GAO report as being inaccurate and misleading, containing inappropriate conclusions, and presenting inapplicable recommendations. GAO evaluated each DOD comment and pointed out the inconsistency of the comments with known conditions, comments previously made to GAO, and recent DOD comments to Congress. DOD has still not clearly defined the functional (informational) requirements of the military commanders who must use and rely on the ADP program capabilities for their operational needs. It is time to begin designing a system that, when placed into operation, will provide needed support capabilities to military commanders, partic-

ularly during a time of crisis. DOD selected a computer configuration and related software that were not suited for the environment in which they were to operate. DOD seemed reluctant to recognize the need for change. The program management structure was so fragmented that no one individual or organization had responsibility for its budgeting, funding, or management. Due to a combination of all of these conditions, the current program does not support the operational needs of military commanders, particularly during a time of crisis.

#### **Agency Comments/Action**

The Office of the Joint Chiefs of Staff has been assigned the responsibility for policy guidance, and the Defense Communications Agency the responsibility for technical support. Additional management changes are being considered as a part of the WIS modernization planning. Updated planning information will be provided to Congress with the 1982 budget submission.

#### **Appropriations**

Research and development - Army, Navy, Air Force  
Operations and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Continued funding should be contingent upon the approval of a World Wide Military Command and Control System (WWMCCS) modernization plan.

# DEPARTMENT OF DEFENSE - MILITARY

## REQUIREMENTS

### ***The Army Continues To Have Serious Problems Identifying Its Resource Requirements***

(LCD-80-67, 6-30-80)

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Department of Defense Appropriations Authorization Act, 1978 (P.L. 95-79).

The Army's systems for identifying, monitoring, and reporting the needs of its combat units for people and equipment are not compiling accurate information. As a result, inaccurate information is being used in critical management processes that ultimately determine whether the Army can efficiently and effectively accomplish its mission. Resource requirements are based on the requirements that major field commands report for individual combat units. Without accurate information on these requirements, millions of dollars may be wasted in buying and maintaining the wrong equipment, recruiting and training programs may be aimed at providing the wrong job skills, crucial resources may be distributed to the wrong locations, and the Army may not be organized and equipped to accomplish its mission. These conditions may not be apparent through the Army's readiness reporting system. To identify resource needs the Training and Doctrine Command first translates approved plans into model organizations and requirements for prototype units. The major field commands pattern their actual units and requirements after the models, with modifications to reflect the needs of units with unusual missions or operating environments. The models must be periodically reviewed and revised and the major field commands must pattern their units after current models. To a large extent, neither of these conditions is being met and invalid requirements are being used in many critical management processes. Major field commands often fail to reorganize their units and revise their requirements as prescribed by changes in the Army's models; this affects the accuracy of their units' readiness reports.

**Findings/Conclusions:** With these weaknesses in its systems, the Army cannot ensure that requirements reported by major commands accurately reflect the resources combat units need to accomplish their missions, that requirements data used in critical management processes are valid, or combat units are actually organized and equipped in accordance with current plans. The Army must make additional personnel available to conduct more thorough reviews of its requirements. Some major field commands give more emphasis on their readiness ratings than they do to the Army's actual readiness condition. The Army's efficiency and effectiveness depend on compliance with the models developed by its experts. Army headquarters re-

cently adopted a policy that permits field commanders to forego changes unless they have the resources available, thus Army headquarters has lost an essential element of control over the requirements reported for individual combat units. In some cases, reported requirements unjustifiably deviate from approved models because of human error. As the GAO review was limited to an analysis of the system and did not include the Army's need for specific resources, or the quality of resource management, GAO does not know the full extent to which the Army's reported requirements are invalid or the full effect invalid requirement reports are having on critical management decisions. GAO believes that the Army does not know either.

**Recommendations:** The Secretary of Defense should direct the Army to thoroughly and frequently review the model requirements established through the table of organization and equipment system and ensure that major field commands base their reported requirements on the latest approved models.

#### **Agency Comments/Action**

Department of Defense officials agreed that deficiencies exist in the Army's requirements system, and they informed GAO that the Army had begun trying to correct them. They also pointed out that the continuing study by the Army's Concepts and Analysis Agency is aimed at some of the problems cited in this report, and, in at least one instance, is expected to result in similar recommendations.

#### **Appropriations**

Operation and maintenance - Army

#### **Appropriations Committee Issues**

The Army has serious weaknesses in its system for identifying the resources needed by its combat units. These weaknesses are: (1) defeating the Army's attempts to create a standardized force structure; (2) encouraging units to report higher readiness than they should; and (3) feeding inaccurate data into budgeting, acquisition, and planning processes.

## DEPARTMENT OF DEFENSE - MILITARY

### REQUIREMENTS

#### **Better Planning and Management of Army Watercraft Could Improve Mission Capability While Reducing Excess Numbers and Costs**

(LCD-79-419, 8-2-79)

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** A.R. 310-34.

During a contingency, Army troops will need to be resupplied with ammunition, fuel, spare parts, food, and the like, to sustain their operations. The Army has acquired watercraft to resupply its combat troops and to carry out terminal services at U.S. and foreign seaports. The Army is spending \$23 million a year to operate, maintain, and store its watercraft. It has also established an \$80 million program to improve watercraft, some of which are in excess of requirements.

**Findings/Conclusions:** The Army's watercraft requirements are questionable because adequate supporting documentation is not available, some assets are seldom used, and other assets have been recognized by the Army as excess. Although the Army has a current inventory of 840 watercraft, it has determined that its requirements total 500. The need for 93 watercraft assigned to an operational project in Europe has also been questioned. The European Command advised the Army that these watercraft were not needed in view of available fixed ports and host nation agreements and asked that they be transferred to another command. The decision to procure new watercraft for container-handling capability appears to be premature since some Army officials believe vessels already in inventory can satisfy the need for container capability and testing has not been adequate to determine the vessels' true performance or fuel costs.

**Recommendations:** The Secretary of Defense should direct the Army to: review watercraft requirements to ensure that they can be adequately justified; dispose of unneeded watercraft; expedite the signing of host nation support agreements so that watercraft stored in Europe could be used to satisfy other needs or declared excess; establish criteria for authorizing watercraft to table of distribution and allowance units; make sure that product improvement procurement program funds will not be spent on unneeded watercraft; establish, with the Joint Chiefs of Staff and the Military Sea-

lift Command, priorities to take maximum advantage of available transportation and to ensure that Army watercraft are transported to the area of operations needed; and not commit any procurement funds for a new air cushion vehicle until it makes a cost and economic evaluation analysis to determine its cost effectiveness and utility in a realistic military environment.

#### **Agency Comments/Action**

The Army agreed with all but one of the report's recommendations. Since the report, actions have been taken to eliminate over 200 watercraft from army inventories. Plans call for the reduction of additional vessels. The one recommendation that was not concurred with was to delay commitment of procurement funds for the air cushion vehicle (LACV-30) until a cost and economic analysis is done. The Army has since contracted to procure 12 LACV-30's. There was a procurement of 4 vessels in FY 1979 with the option to buy 8 more, 4 each in FY 80 and FY 81. The FY 80 option has been funded and exercised, however, the FY 81 option has not been funded or exercised. GAO is attempting to determine if this indicates a weakening of the Army position to procure LACV-30's.

#### **Appropriations**

Procurement - Army

Operation and maintenance - Army

#### **Appropriations Committee Issues**

Accurate watercraft requirements should be established to eliminate expenditures on watercraft excess to requirements. The procurement of the air cushion vehicle should be delayed in light of current watercraft requirements, the availability of on-hand watercraft to meet the need, and the performance of the air cushion vehicle during testing.



## DEPARTMENT OF DEFENSE - MILITARY

### REQUIREMENTS

#### **Increased Standardization Would Reduce Costs of Ground Support Equipment for Military Aircraft** (LCD-80-30, 2-7-80)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

Military aircraft ground support equipment was reviewed to determine whether more commonality of support equipment was feasible and whether earlier planning during the aircraft design phase could reduce the number and kinds of this equipment entering military inventories. Each new aircraft developed for the military services results in the development of thousands of ground support equipment items, much of which performs the same function as equipment already in service.

**Findings/Conclusions:** Substantial cost savings could be realized in research and development, procurement, and logistics if ground support equipment could service more than one type of aircraft. The Department of Defense (DOD) has no organization responsible for issuing policy and guidance to the services on managing and standardizing support equipment or coordinating its development. Most support equipment research and development is geared to meeting program schedules and performance requirements for one type of aircraft. Currently, data systems contain inaccurate or outdated information on the description, reliability, capability, and application of items already in military inventories. Some data sources do not include large quantities of support equipment available in Air Force and Navy inventories; others include a wide range of equipment items, but do not list all their characteristics. Thus, no single source gives decisionmakers all the information needed to decide whether inventories already have similar equipment. Service officials believe that the large volume of items recommended by contractors at one time, insufficient staff to review them, and the complexity of the review and approval process all contribute to hasty reviews. According to service officials, the greatest drawback to more standardization is the procurement regulation requirement that procurements be competitive whenever possible. Because the services use performance standards instead of design specifications, subsequent procurements may contain items having different subsystems and components than the original.

**Recommendations:** The Secretary of Defense should: vigorously pursue a policy supporting standardizing aircraft ground support equipment; establish a focal point in the Office of the Secretary of DOD to guide and direct the services in carrying out the policy; systematically review the services' activities in implementing the policy; and develop and implement incentives to contractors to use existing aircraft support equipment in the design of new weapon systems. The Air Force and the Navy should: stress the need for program managers and contractors to give more consideration

to standardization during the early design and development stages of aircraft weapon systems; direct that the information provided to contractors and service decisionmakers on equipment already in the inventories be accurate, complete, up-to-date, and readily available; develop specific instructions to guide reviewers through the review and approval of contractor-recommended items and clearly define reviewers' roles and responsibilities so that unnecessary items can be identified more quickly; and increase management's awareness of support equipment planned or in use so it can better assess whether new items duplicate functions of existing items and whether more standard equipment can be developed.

#### **Agency Comments/Action**

The Office of the Under Secretary of Defense (Research and Engineering), commenting on the report, agreed that increased efforts were needed to standardize aircraft ground support equipment; and an ad hoc DOD standardization working group was established in November 1979 to address the report's recommendations. The group agreed with all but one recommendation, but outlined a series of study tasks to actively pursue the others. The actions are in line with the improvements GAO believes are necessary to increase standardization of ground support equipment.

#### **Appropriations**

Research development, testing, and evaluation - Army, Navy, Air Force

Procurement - Army Navy, Air Force

Operation and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should consider: (1) how OSD and the services plan to play a more active role in emphasizing standardizing criteria to reduce aircraft ground support equipment costs; (2) what improvements the services feel are needed to include all necessary aircraft support equipment items in their data systems; (3) how the services plan to simplify and streamline the current review process so that delays in reviewing and appraising ground support equipment items are avoided; and (4) what specific actions the services can take from learning and evaluating aircraft support equipment acquisition practices in the airline industry which limit items and costs.

## DEPARTMENT OF DEFENSE - MILITARY

### REQUIREMENTS

#### ***The Services Can Further Refine Management of Flying Hour Programs*** (LCD-79-401, 3-27-79)

**Departments of Defense, the Army, the Navy, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

In 1976 a review of the flying hour programs of the Army, Navy, and Air Force presented recommendations for improving those programs. Substantial progress has been made since that review; however, recommendations for further improvement are presented.

**Findings/Conclusions:** Although progress has been made by the services in establishing better management systems, some areas require further attention, that is: (1) assuring that flying hour requirements are based on assigned pilots and operational constraints, (2) establishing systems to monitor pilot progress for multipiloted aircraft without relying on minimum flying hour criteria, (3) identifying tasks and events to be performed with simulators and giving priority to those which do the most in reducing flying hours, and (4) defining who should or should not fly.

**Recommendations:** The Secretary of Defense should develop and implement improved guidance for managing the services' flying hour programs with particular emphasis on: (1) identifying the skills and qualities needed by commanders of multipiloted aircraft and establishing systems to monitor pilot progress without relying on minimum flying hour criteria; (2) using full flying training requirements of the baseline for readiness measurement; (3) assuring that flying hour requirements are based on assigned pilots, operational constraints are considered, and operational

support flying is limited to training requirements; (4) identifying tasks and events to be done in simulators and doing them in simulators to the extent possible, giving priority to events reducing the number of flying hours the most; and (5) providing a better definition of who should not fly.

#### **Agency Comments/Action**

The Department of Defense (DOD) agreed stating that several of the recommendations have already resulted in refinements in flying hour program requirements. DOD plans to use the report in reviewing service flying hour program requests and evaluating overall guidance for the management of flying hour programs. Subsequently, revisions to programming methodology and flying hour standards have resulted in over \$28 million reduction in flying hour costs.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should monitor DOD actions to develop and implement improved guidance for managing the service's flying hour programs.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPLY MANAGEMENT

### ***Air Force Watercraft Program Needs Increased Management Attention***

*(LCD-80-60, 5-19-80)*

#### **Department of the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** A.F.R. 75-58.

The Air Force watercraft inventory, valued at \$31 million, includes 14 types of watercraft at 24 locations worldwide, ranging from a 20-foot personnel boat to dredges, barges, and a 310-foot tanker. The watercraft support such missions as resupply operations, sea survival training, and rescue and recovery training. The Directorate of Transportation at Air Force headquarters has the responsibility for establishing basic management policies, major commands have the various oversight functions, and the San Antonio Air Logistics Center is responsible for managing logistics and depot-level maintenance functions.

**Findings/Conclusions:** A GAO study of the Air Force Watercraft Program showed that increased management attention is needed over program operations. Specifically, the study revealed that the headquarters office responsible for overall program management was providing insufficient guidance and control; major commands were not carrying out their oversight responsibilities; and the logistics center for watercraft was inadequately monitoring the inventory and maintenance functions.

**Recommendations:** The Secretary of the Air Force should

(1) have the major commands clearly identify whether the transportation or mission organization is responsible for watercraft management, and (2) ensure that sufficient personnel resources are available at all management levels to the extent necessary to provide adequate surveillance and enforcement over watercraft operations.

#### **Agency Comments/Action**

Official agency comments had not been received as of the date that this report was prepared.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

Improvements in program management are needed to eliminate inefficient and uneconomical conditions that contribute to excess, inoperable, and unaccounted for watercraft.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### **Alternatives for Care of Material Stored Outside** (LCD-80-35, 2-5-80)

##### **Departments of Defense and the Army**

##### **Budget Function: National Defense (0050)**

The Army has accumulated a vast inventory of equipment and spare parts to ensure it can sustain a wartime effort should the need arise. As of June 1979, the Army had about 2.6 million tons of material occupying about 46 million square feet of storage space at 20 depots and other locations. Of this amount, 489,000 tons, or 19 percent, were stored outside. In addition, the Army stored about 3.5 million tons for other agencies. Generally, the material consists of larger items, such as trucks and tanks and enclosed mobile shelters which contain electronics or medical equipment. The decision to store this equipment outside can be attributed to (1) a decline in the material issue rate as the Southeast Asia conflict drew to a close; (2) implementation by the Army of an area-oriented depot concept, under which material has been consolidated at fewer depots; and (3) the impracticality of inside storage of some items (such as large inoperable items awaiting disposal or overhaul or vehicles scheduled to be issued within a short period). A review was made of Army practices for storing material outside at depots. The scope of the review was limited to examining the range of possibilities for caring for the material stored outside.

**Findings/Conclusions:** According to Army sources, outside storage generally results from a lack of inside storage capacity where it is needed. Material stored outside deteriorates about four times faster than material stored inside. Thus, there is a tradeoff between the recurring cost of providing extra care for the outside material, costs pertaining to restoration and replacement, degraded material readiness, and additional inside storage capacity. Army logistics officials stated that approval of pending storage facility construction proposals is uncertain because storage facilities have a low priority. Contrary to Army regulations, various alternatives, or combinations of alternatives, are available for caring for the material stored outside, besides constructing additional warehouse space. The Army could (1) store the material outside without providing recurring care, thereby possibly paying later for restoration of the material at the time of issue; (2) regularly care for the material to minimize future potential restoration and replacement costs; (3) consolidate inside stock more frequently to make more warehouse space available; (4) transfer stock levels that are beyond peacetime requirements to available storage capacity at other Defense installations; and/or (5) construct temporary shelters to provide limited protection from the weather.

**Recommendations:** The Secretary of Defense should direct the Secretary of the Army to evaluate the Army's practice of storing material outside without adequately caring for it. This evaluation should recognize (1) the cost of restoring

needed material and loss of material readiness, and (2) the cost tradeoffs of alternatives, including those in the instant report, for improving the material care without constructing new facilities.

##### **Agency Comments/Action**

Examination of material in open storage is a continuing process designed to identify that material requiring limited care in the open and that which must be afforded a higher level of protection consistent with its required use. This stratification of material permits an evaluation of the cost tradeoffs between the alternatives identified. Several alternatives have been assessed. Storage of material in the open without minimal recurring care has been examined. Economics and loss in readiness argues against this alternative. Regular care of material in the open is an element of the Army's Care of Supplies in Storage (COSIS) program. COSIS funding for fiscal year 1980 has been increased by Congress from \$5.2 to \$11.2 million. While sizeable unfinanced requirements exist, judicious application of available funds will minimize the impact of favorable storage on readiness and material restoration cost. Space can be generated by aggressive rewarehousing and stock consolidation, purification of the inventory by means of disposal actions or identification/removal of stocks that are potentially excess to needs, and through a comprehensive COSIS program to restore material to issuable/shippable condition. The ability to make a significant improvement through these actions is directly related to the funds and personnel available to perform them. The Army will continue to examine both material relocation possibilities to other defense activities as well as the use of temporary storage facilities at existing locations. However, to date the Army has been unable to justify moving major items to storage facilities other than those located at the repair activity solely to occupy vacant space that may exist elsewhere.

##### **Appropriations**

Military construction - Army  
Operation and maintenance - Army

##### **Appropriations Committee Issues**

Funding for additional storage facilities or for alternative care for material stored outside should be balanced against the increase in readiness and costs for restoration of the material. Chosen alternatives should have full costing analyses to support the choices. Unfinanced requirements also affect the real range of choices, in many cases.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### ***The Army Can Save Millions Annually by Properly Considering Serviceable Returns in Its Requirements Computations***

*(LCD-80-64, 5-15-80)*

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** A.R. 710-I.

A review was undertaken of the way the Army removes invalid demands, representing unsuccessful attempts by customers to cancel orders, from its demand data base. Currently, the Army's wholesale supply system's procedures reduce demands in the database by crediting the amount of serviceable materiel customers return. However, the automated system at each inventory control point can be set to limit or prevent serviceable returns from initiating demand reductions in the system's database. Moreover, the U.S. Army Materiel Development and Readiness Command (DARCOM) has given the inventory control points blanket authority to use these limitations without prior notice or approval.

**Findings/Conclusions:** On the basis of an analysis of 115,000 returns of serviceable materiel from the field to DARCOM inventory control points, GAO estimated that in 1978 the Army wholesale inventory managers received \$106.2 million of serviceable returns for demand-supported items. However, because four of the five inventory control points imposed limitations on the use of serviceable returns to offset demands, serviceable returns worth millions of dollars were not used to reduce the demand base. Moreover, if the returned materiel had been used to offset past demands

the Army could have avoided inventory procurement and repair costs estimated at tens of millions of dollars.

**Recommendations:** The Secretary of Defense should direct the Army to reduce the projected requirements for materiel by the full amount of forecasted returns of serviceable materiel from customers.

#### **Agency Comments/Action**

The Department of Defense concurred with the recommendation, and the Army initiated action directing each inventory control point to use 100 percent serviceable returns as an offset to projected requirements.

#### **Appropriations**

Operation and maintenance - Army

#### **Appropriations Committee Issues**

Improved supply management results in fewer requirements for procurement or rework of demand-supported items.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPLY MANAGEMENT

### **Army Needs To Improve Its Management and Inventory Control of Small Arms** (LCD-80-41, 3-24-80)

Departments of Defense, the Army, the Navy, and the Air Force

**Budget Function:** National Defense: Weapons Systems (0057)

Because of their cost, vital role in defense missions, and sensitivity to theft, military small arms require careful management and control. In response to a congressional request, GAO investigated certain aspects of Department of Defense (DOD) procurement, management, and disposition of small arms including the M2 machine gun. The M2 machine gun has been used by all U.S. military components since the end of World War I. The Army, which owns more than 75 percent of all M2 guns in DOD inventories, is designated the single procuring agent for all of DOD. Further, the Army is responsible for maintaining a central registry of the serial numbers of all DOD small arms.

**Findings/Conclusions:** The Army has not established or maintained accurate inventory information needed to effectively manage its M2 machine gun program. Army inventory control systems do not provide reliable information on either the quantity or the condition of M2 assets. The Army does not have adequate procedures for obtaining information on the status of other services' inventories. As a result, the Army cannot determine whether decisions on procurement, distribution, or disposal of M2's are appropriate. For example, the Army initiated a \$10.2 million dollar procurement of M2 machine guns when unreported assets were available in the Army's inventories and excess assets were available in other services' inventories. Deficiencies in the DOD program for keeping serial number control of M2 machine guns and other small arms have prevented the achievement of expected asset visibility and physical controls over small arms inventories. These inventory control problems were not new to the Army or DOD. For many years, Army stocks of M2 machine guns far exceeded estimated requirements, so they were sold or given to foreign countries or disassembled for needed repair parts. The resulting depletion and a rapid increase in M2 requirements have caused a shortage of the weapons. GAO found that the Army was contemplating additional disassembly of almost 2,000 guns to obtain repair parts. In view of the current shortage, GAO believed that further disassembly was not justified.

**Recommendations:** The Secretary of Defense should issue specific guidance on the economic retention levels for principal items in DOD inventories similar to those procedures now followed for secondary items. Also, he should direct the Secretary of the Army to: (1) require that the light barrel M2 machine guns in storage at Anniston Army Depot be converted to meet current Army M2 machine gun requirements rather than disassembled for repair parts; (2) ensure that discrepancies between physical inventories and inventory

records for M2 machine guns and other small arms are investigated, and accurate inventory balances are established and maintained in the Continuing Balance System; (3) improve the Army's implementation and maintenance of the DOD Small Arms Serialization Program by ensuring that all serial numbered small arms are registered and that the Small Arms Registry is maintained in an accurate and timely manner; and (4) establish improved procedures for obtaining information on the status of inventories of other DOD components prior to procurements by assuring that the communications regarding asset availability spell out both the quantities of assets onhand and the quantities required by each component queried and requiring that item managers ascertain asset availability of each DOD component immediately prior to each procurement date.

#### **Agency Comments/Action**

After GAO identified that M2 assets were available in Army as well as Navy and Air Force inventories of which the Army was unaware, the Army canceled a planned \$10.2 million purchase of M2's. The Department of Defense generally concurred with the recommendations in the final report and initiated the following corrective action: (1) to investigate discrepancies in M2 machine gun physical inventories and inventory balances and make appropriate adjustments, (2) to establish the Small Arms Serialization Upgrade Project to resolve problems with the overall implementation and operation of the serialization program, and (3) to make appropriate revisions to logistics directives to require that each service identifies and obtains excess assets from other DOD components prior to initiating new procurements. DOD did not concur with the recommendation to convert light barrel M2 machine guns in inventory to heavy barrel configuration. Its intent is to use light barrel M2 machine gun receivers to replace receivers washed out during overhaul. GAO will follow up to ensure that proper inventory accountability is established for the light barrel machine guns in question. At a later date, GAO will follow up to review the effectiveness of the corrective actions initiated. DOD did not comment on the recommendation regarding the need for more definitive guidance on the computation of economic retention levels for principal items in DOD inventories. GAO will follow up on this issue in the near future.

#### **Appropriations**

Procurement - Army, Navy, Air Force  
Operation and maintenance - Army

### **Appropriations Committee Issues**

To preclude unnecessary procurements in one service when excess assets are available elsewhere, the Committees should monitor DOD efforts to improve cooperation among the services in exchanging asset and requirements data and justifying retention of excess inventories. Additionally, Army efforts to improve its own inventory records are crucial to adequately identifying available assets before procurement actions are initiated. The policy of prematurely disposing of equipment has resulted in the need for future procurement of the same equipment. The Committees should encourage DOD to establish more definitive guidance regarding the computation of economic retention levels for principal items of equipment.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPLY MANAGEMENT

### **The Army Should Increase Its Efforts To Provide Government-Furnished Material to Contractors** (LCD-80-94, 8-11-80)

#### Departments of Defense and the Army

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** DOD Instruction 4140.41. DARCOM Reg. 700-42.

GAO reviewed operations at the five Army commands which function as inventory control points. Four of the five Army inventory control points are not doing enough to use the material in their long supply inventories as Government-furnished material on major end-item contracts. Often, onhand quantities of secondary items, including parts, components, and assemblies, exceed the estimated amount of material needed to support U.S. and allied forces during peacetime and from the beginning of a war until industry can produce the material at a rate equal to expected wartime usage. This material is classified as being in long supply and, to the extent it does not exceed authorized retention levels, is retained for possible future use. Department of Defense regulations require that this material be screened and furnished, when practicable, as Government-furnished material to contractors for use on major systems and equipment production contracts, thereby reducing the amounts paid to contractors. This should be done whenever substantial net savings are attainable with acceptable risks. Each of the five Army control points are required to implement these procedures and have substantial amounts of long supply material on hand which have potential use as Government-furnished material. Only one control point had instituted a required screening procedure to ensure that material was provided to contractors when practicable. They had devised a computer program for use with each impending end-item procurement, which produces a list of long supply items which are part of the end items to be procured. Contractor representatives inspect and approve the material to avoid the problem of the contractor not being satisfied with the quality or condition of the Government-furnished material.

**Findings/Conclusions:** Officials, interviewed at the four commands which do not implement a screening procedure for long supply material as required, felt that the current potential for using long supply material as Government-furnished material was limited and the results of such procedures, if implemented, would not justify their efforts. They did not have a computer software program to identify items in long supply which might be used in end item contracts. They felt that the manual performance of this identification process would be too time consuming to be practical and advanced other reasons for not attempting to institute the

screening procedure, all of which GAO found to be unacceptable reasons for not implementing the required procedures. By not screening long supply inventories for possible use as Government-furnished material on production contracts, these control points may be losing the opportunity to achieve significant savings or may lose such opportunities in the future. Such screening has been used by one Army control point with beneficial results. Officials of the Army's Materiel Development and Readiness Command (DARCOM) have not adequately exercised their oversight responsibility to ensure compliance with this policy.

**Recommendations:** The Secretary of the Army should direct the Commanding General, DARCOM, to take prompt action to develop procedures to ensure that all Army inventory control points make maximum and economical use of long supply inventories as Government-furnished material on production contracts. These procedures should provide for the screening of all long supply inventories which have a potential use as Government-furnished material, including those managed by a control point other than that which awards the production contracts. Reasonable timeframes should be established to develop and implement these procedures and DARCOM progress should be monitored to avoid further delay.

#### Agency Comments/Action

Army officials indicated that actions would be taken to require that long supply inventories at all Army inventory control points be screened for use as Government-furnished material on weapons systems and other production contracts.

#### Appropriations

Stock fund - Army  
Procurement - Army

#### Appropriations Committee Issues

By not screening their long supply inventories for use as Government-furnished material on production contracts, four of five Army Inventory Control Points may be losing opportunities to achieve significant savings or may lose such opportunities in the future.



# DEPARTMENT OF DEFENSE - MILITARY

## SUPPLY MANAGEMENT

### **Better Controls and Data Needed To Distribute Defense Medical Supplies**

(LCD-80-77, 6-25-80)

Department of Defense and the Defense Logistics Agency

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The Department of Defense's (DOD) multiple systems for distributing medical supplies to the military services were evaluated regarding medical supply purchasing, inventory control and distribution, and possible duplication among systems. The Surgeons General of the Army, Air Force, and Navy were among the officials consulted. Field medical activities in the United States, Japan, Korea, and the Philippines were visited to examine the distribution methods used and to analyze the data provided by these activities on supply distribution effectiveness.

**Findings/Conclusions:** Distribution was hindered by excessive and old inventories, limited monitoring by the Defense Logistics Agency (DLA) of the diverse DOD purchasing and delivery systems, and weaknesses in the DLA centralized supply system. High medical supply inventories throughout the system increased cost and handicapped control over perishable items. The DLA personnel support center disposed of \$12 million of its fiscal year 1978 medical inventory because the supplies were either outdated or no longer needed. Overseas depots stocked up to two and three times the authorized levels. These high inventories and inventory control weaknesses contributed to the high rates of loss for perishable supplies. During the first quarter of FY 1979, \$10 million worth of perishable medical supplies were unusable or were of limited use because shelf lives would expire soon. Field activities experienced unnecessary losses when they received outdated supplies or did not properly store perishable items. Reporting on disposals was inadequate. DLA depots shipped too many supplies out of their assigned regions. Only Air Force requisitions regularly reached DLA within the DOD 2-day standard. The timeliness of Army and Navy orders was reduced by sequential edits and reviews by intermediate organizations. DLA experienced serious difficulty in meeting its goal of delivering nonstocked medical items within 30 days after receiving the requisition. Consolidating medical support functions in Japan, Korea, and Hawaii could reduce cost and improve control.

**Recommendations:** The Secretary of Defense should direct DLA and each military service to eliminate excess medical supply inventories and maintain future inventories more in line with authorized levels, and review and improve inventory management practices and controls over perishable medical supplies. To improve DLA management of locally purchased nonstandard items, the Secretary should instruct the Director, DLA, to take the following actions and require the military departments to cooperate in the DLA efforts: establish a uniform numbering system for locally purchased

nonstandard medical supplies; develop uniform criteria for reporting such supplies; prepare a DOD-wide directory of nonstandard medical supplies; and expand monitoring of local purchases to include all medical supplies shown on triservice reports, so that all possible candidates for central management can be considered. To reduce transportation costs, the Director, DLA, should prepare and approve a plan to reduce unnecessary out-of-area shipments by DLA depots and set a specific timetable to carry out the plan. To improve timely processing of requisitions for medical items, the Secretary should direct the military departments to reconsider the need for sequential edits of such requisitions being sent to the Defense Personnel Support Center. Further, the Director, DLA, should increase current efforts to improve timeliness of service by carrying out interim changes now, even where changes to the automated system are planned for the future. The Secretary should direct Defense Retail Interservice Program managers to prepare implementation plans to consolidate medical supply support in Japan, Korea, and Hawaii. Where the plans show opportunities to reduce medical support costs and to increase supply effectiveness, the Secretary should direct the military services to consolidate these functions.

### **Agency Comments/Action**

DOD deferred the suggested inventory reductions pending the results of a retention and disposal study. Although officials believe a uniform numbering system and DOD-wide catalog may be too expensive, they agreed to take a closer look at the possibility of implementing the recommendation. DOD will analyze out of area medical shipments to determine the savings possible. The Army and the Navy have agreed to end their practice of sequentially editing overseas requisitions. DOD officials agreed that the recommended consolidations have potential, but disagreed on immediate implementation plans, because they wish to complete and consider feasibility studies first.

### **Appropriations**

Operation and maintenance - All military services

### **Appropriations Committee Issues**

Management of Defense medical supply distribution can be improved through better control over the diverse systems used within DOD, and through consolidation of some of the organizations.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### **Centralized Ammunition Management--A Goal Not Yet Achieved** (LCD-80-1, 11-26-79)

**Departments of Defense, the Army, the Air Force, and the Navy, and Office of Management and Budget**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

To streamline conventional ammunition management, the Department of Defense (DOD) designated the Secretary of the Army as single manager. GAO examined records and interviewed officials involved in ammunition management at various military locations to determine the managerial and organizational changes needed to enhance further implementation of the single manager concept.

**Findings/Conclusions:** If the Secretary of the Army had more control and a stronger position, millions of dollars could be saved and a system capable of providing the intensive management essential during a war would result. Currently, control over ammunition management is fragmented between the single manager and the services. Attempts to eliminate this fragmentation have encountered stiff resistance from the services. In addition to more control, the single manager's position needs to be strengthened. Joint service participation needs to be increased, communication channels need improvement, and the organization needs to be elevated with its responsibility limited to ammunition. The matter of funding single manager programs must also be resolved.

**Recommendations:** To provide the single manager more control over management, the Secretary of Defense should: assign all conventional ammunition items to the single manager; make the single manager responsible for procuring and/or producing all conventional ammunition items which have passed from research and development into production, regardless of the production quantity; make the single manager responsible for establishing, modifying, maintaining, modernizing, and disposing of all conventional ammunition production capacity, including initial production facilities; require the services to transfer all funds appropriated for ammunition procurement to the single manager upon receipt from the Office of the Secretary of Defense; authorize the single manager to review and approve the services' 5-year defense programs to achieve procurement economies and optimum use of the ammunition

production base; require the single manager to review and approve all funding requests for enhancing ammunition production facilities retained by the services; assign responsibility to the single manager for operating a single national inventory control point and a national maintenance point to provide DOD-wide integrated inventory and maintenance management; designate the single manager as owner of the ammunition in the wholesale inventory; require the single manager to apply the principles of vertical stock management for inventory management; and direct the Secretary of the Army to assign the project manager for production base modernization and expansion to the single manager, after the single manager's organization is strengthened. To strengthen the single manager organization, the Secretary of Defense should direct the Secretary of the Army to establish a Department of the Army level activity to manage ammunition. The Secretary of Defense should also provide the Army with sufficient funds to cover the additional costs in carrying out the single manager functions.

#### **Agency Comments/Action**

DOD officials stated that considerable agreement with the GAO recommendations has been achieved, but a uniform position has not been reached by DOD.

#### **Appropriations**

Procurement - Department of Defense, Army  
Operation and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The House Committee on Appropriations discussed this issue in its hearings on DOD appropriations for 1980. In its report, the Committee expressed the desire that the single manager for conventional ammunition concept succeed.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

**DOD Automated Materials Handling Systems--Need To Standardize and Follow GSA ADPE Approval Process**  
(LCD-80-49, 4-24-80)

**Departments of Defense, the Army, the Air Force, and the Navy, General Services Administration, and Defense Logistics Agency**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** P.L. 89-306.

Improvements are needed in the Department of Defense's (DOD) acquisition and management of automated materials handling systems for its supply distribution depots. DOD activities are procuring and planning to procure automated systems without adequately exploring the potential for standardizing the software used in these systems. Duplication of software is costly in both in terms of initial investment and in continuing costs of maintaining a variety of unique systems.

**Findings/Conclusions:** Congress has directed DOD to eliminate overlapping and duplicating functions whenever and wherever possible, particularly in the areas of supply and automated data processing. DOD activities continue to buy computers as components of automated materials handling systems without complying with the General Services Administration's (GSA) approval process. Several million dollars could be saved by standardizing software. DOD took a first step toward standardization in a 1978 task order which established a program to develop and maintain a standard warehousing and shipping automated system for its distribution depots. This standard system would automate certain functions that take place in the depots but would not control materials handling equipment. GAO believes that including the automated materials handling systems in the standard system, thereby making them subject to the review and approval process described in the task order, would be one way of achieving the desired standardization.

**Recommendations:** The Secretary of Defense should instruct activities that general purpose computers acquired as integral components of automated materials systems must be procured in accordance with the GSA approval process established under P.L. 89-306. Also, he should modify the 1978 task order to specifically include automated materials handling systems at supply distribution depots as part of the DOD standard warehousing and shipping automated system, or require that all such systems not under contract be submitted to one central DOD focal point for review and approval to assure that maximum standardization of the systems' software is achieved.

#### **Agency Comments/Action**

DOD has agreed to implement the recommendations contained in the GAO report.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force, Defense Logistics Agency

#### **Appropriations Committee Issues**

Failure to standardize software used in DOD Supply Depot Automated Materials Handling Systems can cause excessive defense costs.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### **DOD Can Save Millions of Dollars by Improving the Management of Air Force Inventories** (LCD-80-6, 10-25-79)

Departments of Defense and the Air Force, and General Services Administration

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Legislative Reorganization Act of 1970. A.F.R. 67-87.

An examination was made of the policies, procedures, and practices of the Department of Defense and the Air Force for identification and cancellation of excess stocks due-in, and for making small dollar issues from depot stocks. The examination took place at Headquarters, Air Force Logistics Command, and at two air logistics centers.

**Findings/Conclusions:** The Air Force can reduce investments in inventories by tens of millions of dollars annually by improving its system for controlling stock excesses and by placing greater management emphasis on the need for timely cancellation or deferral of procurements for items in excess of normal system requirements. Air Force depots filled many individual requisitions for low-value amounts, which were repetitive, and incurred processing costs which exceeded their sales value. The large volume of these issues made yearly by Air Force depots could be substantially reduced and significant savings in warehouse handling costs could be realized by establishing more economical units of issue.

**Recommendations:** The Secretary of Defense should direct the Air Force to eliminate permissive overstockage from its computations of excess stocks on order, revise computer programs so that duplicate requirements are not included in the buy computations, and provide for more timely identification and effective cancellation of excess on-order stocks. The identification and cancellation of the stocks could be done by: (1) improving the timeliness of the notices of quantities on order exceeding requirement objectives; (2) placing greater emphasis on the need for cancellation of procurements in excess supply; (3) systematically monitoring and measuring item managers' performance in canceling excess on-order stock; and (4) requiring that air logistics centers submit to the Air Force Logistics Command a report showing quarterly average overstock and the average value of overstock canceled along with their annual

report for stock fund apportionment of obligation authority. The Secretary should also direct the Air Force to fill war readiness and foreign sales requirements from available stocks to the maximum extent practicable. In addition, the Secretary should, in coordination with the Administrator of General Services, revise the unit of issue of low-cost items to: (1) increase the unit of issue quantities in the supply catalog to minimum standard packs, wherever feasible; (2) require that unit pack quantities be determined in accordance with prescribed standards; and (3) emphasize the need to establish more economical units of issue when new items are entered in the supply system.

#### **Agency Comments/Action**

DOD concurred with part of the recommendations and initiated corrective action. DOD did not fully concur with the recommendation that the Air Force eliminate its permissive overstockage policy. DOD stated that an additional level is justified in order to avoid a repetitive series of procurement and cutback actions caused by fluctuations in demand. DOD agreed, however, that there is no specific justification for the 6-month level used by the Air Force, and directed it to review the procedures of the other services as an initial step in implementing a more justifiable approach for handling procurement cutbacks.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

Improved supply management practices can reduce investments in inventories of supplies and spare parts.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### **Regulations on War Reserve Material Not Followed** (LCD-80-40, 2-28-80)

##### Departments of Defense and the Army

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** A.R. 710-1. DARCOM Reg. 710-3.

Various Defense, Army, and command regulations authorize the use of war reserve assets to satisfy urgent peacetime operating requirements providing such use is for high-priority requirements. GAO studied use of the secondary war reserve material at the Army Troop Support and Aviation Materiel Readiness Command (TSARCOM).

**Findings/Conclusions:** GAO identified three areas where regulations were not followed. About 25 percent of the requisitions filled with war reserve assets were for low-priority, peacetime requirements. War reserve stocks used to fill peacetime requisitions were not always replaced in a timely manner. It took an average of at least 167 days to replace the stock, well over the Army's goal of 120 days. The peacetime operating funds saved by using war reserve assets were not always reinvested in war reserve requirements. As a result, war reserve stock was used to supplement TSARCOM peacetime obligational authority. The manual blotter records which were to be used to record funds conserved by using war reserve assets were not properly maintained. GAO felt that the weaknesses identified in its study demonstrated the need to strengthen management controls. TSARCOM officials initiated corrective actions, but GAO was concerned that the problems might recur since there was no ready means of monitoring war reserve use on a continuing basis.

**Recommendations:** The Commanding General of the Army Materiel Development and Readiness Command (DAR-

COM) should: (1) require TSARCOM to either continue to prepare war reserve utilization reports or adopt alternative measures which will ensure that the weaknesses have been corrected; (2) bring the GAO findings to the attention of the other DARCOM commodity commands and have them determine if similar problems exist; and (3) continually monitor the use of war reserve assets at all commodity commands to ensure that such usage is only for urgent requirements and is stringently controlled.

#### **Agency Comments/Action**

The Army concurred with the recommendations. It will (1) prepare war reserve utilization reports, (2) bring the report's findings to the attention of all commodity commands, and (3) monitor the use of war reserve assets on a recurring basis.

#### **Appropriations**

Operation and maintenance - Army

#### **Appropriations Committee Issues**

Regulations on war reserve material are not followed in using the material to satisfy peacetime operating requirements.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPLY MANAGEMENT

### ***Replacement and Usage Plans for Switching Locomotives Should Be Reevaluated***

*(LCD-80-58, 5-12-80)*

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

Various Department of Defense (DOD) components own, operate, and manage 431 switching locomotives at 139 locations. The locomotives are at bases, depots, and contractor's plants to move material within the installations or between the interchange tracks of commercial carriers. The locomotives, manufactured by 13 different manufacturers during World War II and the Korean conflict, include 10 sizes ranging from 44 tons to 120 tons. Annual operating costs and track maintenance costs have been estimated at over \$30 million for all locations. In its study of the management of these locomotives, GAO visited 27 installations where a total of 73 locomotives were located.

**Findings/Conclusions:** Despite the fact that retention of the locomotives at many installations could not be justified, some military services are planning to replace or overhaul many of them. This situation has resulted from weaknesses in management related to the lack of (1) usage and replacement criteria, (2) asset visibility, and (3) central direction and control. The military services' own studies have also questioned the need for many of the locomotives. The millions of dollars spent each year to operate the locomotives and the high cost of purchasing new locomotives or remanufacturing existing ones make it imperative that management be improved.

**Recommendations:** The Secretary of DOD should (1) issue a DOD instruction setting standards against which to measure actual usage of, and criteria for, deciding to replace locomotives; (2) have the services give each inventory

manager decisionmaking authority; (3) assign the manager the responsibility for maintaining indepth knowledge about all the locomotives, determining overall locomotive needs, developing replacement plans, questioning retention of underused locomotives, and directing redistribution to locations needing locomotives; (3) establish a system for reporting usage to the inventory managers; (4) discontinue rail operations at locations where usage is low and where more economical alternatives, such as trucks, can satisfy operating needs; (5) designate one of the inventory managers as the DOD focal point for locomotives; and (6) develop a DOD-wide replacement plan.

#### **Agency Comments/Action**

Official agency comments had not been received as of the date that this report was prepared.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force  
Procurement - Army, Navy, Air Force

#### **Appropriations Committee Issues**

Retention of locomotives at many installations cannot be justified on the basis of usage. Better management skills could avoid unnecessary expenditures for operating the locomotives or replacing or overhauling them.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### **Material Handling Equipment--A Weak Link in the Defense Logistics Chain** (LCD-79-212, 8-10-79)

##### **Departments of the Army and the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

Although material handling equipment is vital to moving cargo efficiently, it has apparently remained low on the Department of Defense's (DOD) list of priorities when competing for resources. This is evidenced by the fact that the material handling equipment fleet has not kept pace with the shift from break-bulk to containerized shipping practices, and problems identified years ago still have not been resolved.

**Findings/Conclusions:** Much of the material handling equipment used overseas is old and will soon exceed its life expectancy, if it has not already. Maintenance of material handling equipment has been adversely affected because of its age and lengthy delays in obtaining repair parts. There are shortages of material handling equipment needed to efficiently handle and process cargo shipments. In terms of efficiency, material handling equipment used overseas is marginally adequate for peacetime operations. More importantly, problems with material handling equipment could result in units being unable to meet surge requirements of a wartime contingency.

**Recommendations:** The Secretary of Defense should establish a realistic and timely schedule for: replacing the over-aged and hard-to-maintain equipment; acquiring new and specialized items, including support equipment, needed to efficiently handle containers and containerized cargo; and adding needed items to claimant stocks and war reserves. The Secretary should also make sure that material handling equipment needs get the priority they deserve in competing for funds, and he should direct the services to survey their material handling operations to ensure that: equipment operators properly maintain their equipment, docking facilities are capable of receiving containerized shipments of supplies, containers are loaded so that they can be easily emptied, and parts needed to repair equipment are provided in a timely manner.

##### **Agency Comments/Action**

Although no one took exception to the findings, both Army and Air Force representatives were quick to point out that actions have been taken, or are planned, to correct many of

the material handling equipment problems highlighted in the report. Regarding the recommendation that material handling equipment needs receive a higher funding priority, Army and Air Force officials stated that current budget plans are giving material handling equipment one of the highest priorities it has received in several years. Air Force representatives stated that they have a 5-year/\$240 million program planned for material handling equipment procurement. They stated further, however, that procurements to increase war reserve assets in Europe are being postponed pending negotiations with foreign countries for host nation support. They stated that Pacific theatre war stocks are now at authorized levels. Concerning solutions to the material handling equipment repair parts problems, Air Force representatives said they were planning to purchase some material handling equipment from the country where it would be used; i.e., German-made forklifts for use in Germany. They said this would help eliminate the long supply pipeline from the continental United States. The Army representative said that the Army was also planning to explore the procurement of foreign-made material handling equipment items. In addition, an effort is underway to stock more repair parts in the theatre for American-made equipment. DOD concurred with the recommendations and has taken the following action: the Army's fiscal year 1980 through fiscal year 1985 program calls for procurement of \$143.5 million worth of material handling equipment; and the Air Force budget contains over \$3.1 million for the procurement of new MHE.

##### **Appropriations**

Operation and maintenance - Army, Air Force

##### **Appropriations Committee Issues**

Appropriations required for operation and maintenance and equipment procurement should be reviewed to determine if the Department of Defense is adequately addressing the recommendations made by GAO.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### **Millions of Dollars Can Be Saved by Storing Air Force Inventories Nearer the User and Improving Distribution Practices**

(LCD-80-105, 8-22-80)

#### **Department of the Air Force**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** A.F. Manual 67-1. A.F. Logistics Command Reg. 500-35.

The Air Force Logistics Command (AFLC) has not positioned its spare parts inventories at the air logistics centers which could best serve customers while still minimizing distribution cost. Most of this inventory is first stored at an air logistics center with item management responsibility and then shipped long distances to using activities located at or near other air logistics centers. The Air Force can save money on inventory investment costs and in handling, transportation, and inventory holding costs by storing spare parts at the air logistics center located nearest the ultimate user. More can be saved by eliminating reshipments of repairable items to repair centers.

**Findings/Conclusions:** Air Force Logistics Command managers already have data at hand to aid in correcting the problems which GAO noted. The key is management emphasis to assure continual attention to the problems of positioning and routing. Positioning all stocks at the center nearest the customer may not be practical because of varying use rates, and increased transportation and handling costs when prorating some shipments. However, future investments in inventory can be substantially reduced and supply responsiveness improved by better positioning of stocks. Misrouting the shipment of items needing repair results equally from the lack of instructions and from lack of

compliance where instructions are provided.

**Recommendations:** The Commander of the Air Force Logistics Command should stress the importance of proper positioning of spare parts and monitor air logistics center progress in implementing the latest regulations. He should increase efforts to insure that users are provided accurate shipping instructions, establish procedures for isolating misrouted items so the items can be quickly identified and resolved, and issue shipping instructions to users who do not have them.

#### **Agency Comments/Action**

No formal official comments had been received as of the date that this report was prepared.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

Better placement and routing of supplies can significantly reduce inventory cost and the cost of storing, handling, and transporting.



## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### ***Navy Material Handling Equipment Costs Can Be Reduced*** (LCD-80-31, 1-30-80)

Departments of Defense and the Navy, and Defense Logistics Agency

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Legislative Reorganization Act of 1970.

The Navy has long recognized that material handling equipment (MHE) can increase productivity in operations involving the physical handling of materials. However, because of the high initial investment costs for MHE, as well as repair and maintenance costs, activities should acquire and maintain only that equipment which is actually needed.

**Findings/Conclusions:** Underutilization of, and excessive allowances for, MHE appear to be widespread throughout the Navy. The basic causes of the excessive MHE are: allowances for MHE have not been updated to reflect current requirements, identified excess MHE has not been disposed of or redistributed, and recommendations made by internal auditors to improve MHE utilization and management have not been carried out. At the five Navy activities reviewed, it was estimated that elimination of unneeded MHE, establishment of reasonable equipment allowances, and efficient use of needed equipment would save \$5.3 million in future replacement costs and would substantially reduce annual maintenance and repair costs. Many Navy installations have excessive quantities of MHE onhand, and as a result: much of the MHE is greatly underused, almost all MHE qualifies for disposal based on age before it has provided the amount of service anticipated when it was bought, Navy activities are incurring millions of dollars to replace and repair unneeded MHE, and imbalances exist in the distribution of MHE among Navy activities with some having excess MHE while others need identical equipment.

**Recommendations:** The Secretary of Defense should emphasize the need for maximum utilization of MHE and direct the Navy to: (1) establish realistic usage standards for MHE and, on the basis of these standards, update authorized MHE allowances; (2) redistribute within the Navy, or transfer

to the Defense Property Disposal Service for reutilization screening or disposal, all equipment that exceeds the updated MHE allowances; (3) require commanders of all activities which are authorized MHE to make one component of their activities responsible for control of all MHE and for its efficient use; and (4) establish controls at a high enough management level to ensure all recommendations made by the Naval Audit Service and concurred in by the affected activities are promptly and effectively carried out. The Secretary should direct the Navy to report to him on the implementation of these recommendations. The report should include, according to activity and type of equipment, the quantities and dollar value of MHE: (1) authorized under allowances, (2) onhand, (3) under or over allowances, (4) redistributed within the Navy, and (5) transferred to the Defense Property Disposal Service. The Navy should also be directed to base its 1982 and future years' budget requests for funds to purchase or lease MHE on updated allowances that represent actual need..

#### **Agency Comments/Action**

Department of Defense and Navy officials have agreed to implement the recommendations in the GAO report.

#### **Appropriations**

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

Determination of realistic requirements for Navy materials handling equipment and redistribution of unneeded equipment can reduce Defense procurement and repair costs.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPLY MANAGEMENT

### **Opportunities To Improve the Navy's Retrograde Materials Program**

(LCD-80-99, 8-14-80)

#### **Department of the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** NAVAVNLOGEN 4400.1.

A review was undertaken of the Navy's retrograde distribution program. Specifically, GAO evaluated the retrograde of reparable items to determine if components were being returned by the most economical mode of transportation and if these components were being repaired in a timely manner.

**Findings/Conclusions:** In its review, GAO found that the Naval Air Forces, U.S. Atlantic Fleet, had not reported about \$44 million of excess reparable and consumable material to the Aviation Supply Office, the cognizant inventory manager for these items. Additionally, GAO found that: (1) a lack of discipline on the part of item managers in the Aviation Supply Office to follow established policies and procedures contributed to the backlog of items awaiting repair parts; (2) about \$2 million of the combined \$17 million in inventory carried in Naval Industrial Fund Inventory Record store accounts, which provide support to the repair shops, has not been reported for disposition even though it is classified as excess; (3) identical items were stocked in several stores; (4) some stores were exceeding their authorized stock levels and storing stocks which were not authorized; (5) unauthorized supplies held by some stores were needed and on-order at stores authorized to carry the items; (6) management reports of the total time needed to repair an item did not include time awaiting parts for that item which exceeded 30 days; and (7) the computer system at the Aviation Supply Office could not match the various segments of data received to arrive at a breakdown for total repair cycle time.

**Recommendations:** The Chief of Naval Operations should direct the Commander in Chief, Atlantic Fleet, to issue guid-

ance and procedures to ensure that excess aviation materials are reported to national inventory managers for Navy-wide redistribution and use. Additionally, the Chief of Naval Operations should direct the Commander, Naval Materiel Command to take action to: (1) reduce the backlog of items awaiting repair parts at the rework facility in Norfolk; (2) improve the management of the Navy industrial fund stores inventories; and (3) assure that accurate repair cycle time is reported to item managers in the Aviation Supply Office and to the Naval Air Logistics Center. Further, the Chief of Naval Operations should check to see if similar problems exist at the other Naval Air Rework Facilities and Fleet Commands.

#### **Agency Comments/Action**

The Naval Air Forces, U.S. Atlantic Fleet, reported its excess reparable and consumable items to the national inventory manager. No official comments as of September 22, 1980.

#### **Appropriations**

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

Although unneeded reparable items have been reported as excess, preventing recurrence of that and other problems cited in the report requires system changes and continuous management attention.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPORT FUNCTIONS

### **Consolidating Military Base Support Services Could Save Billions**

(LCD-80-92, 9-5-80)

#### **Department of Defense**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

Military base support services, such as payroll and administrative activities, base supply and transportation, maintenance and construction of buildings and roads, trash and sewage disposal, and personnel management, cost the Department of Defense (DOD) about 10 percent of the total Defense budget in fiscal year 1978. Studies have shown that the elimination of duplicate base support services through consolidation can achieve large savings without impairing mission effectiveness. In order to reduce costs, DOD established the following programs: (1) the Defense Retail Interservicing Support (DRIS) program; (2) the military services' programs to consolidate support services within each service; and (3) Commercial and Industrial-Type Activities, a program to contract for support services from private industry.

**Findings/Conclusions:** Progress in the reduction of costs has been constrained because DOD is reluctant to force consolidations on the military services and because military personnel are reluctant to let someone else provide their base support services. Strong top-level leadership is needed to ensure that local interests will not be allowed to frustrate proposed consolidations and to convince the military services that consolidations can improve efficiency. In addition, the following problems need management attention: (1) the three programs sometimes nullify each other because they are managed separately; (2) DOD has not set specific cost reduction goals; (3) the DRIS program does not have sufficient staff resources; (4) the DRIS program's data bank does not provide the visibility needed to ensure that the most productive areas for reducing costs are studied; and (5) the services' intraservice support programs do not systematically assess the potential for consolidation savings and do not maintain data on their successes or failures. The DRIS program is a logical organizational framework to provide DOD visibility over the full range of cost reduction opportunities and to coordinate all cost reduction efforts. To

improve coordination, a single manager for military base support could be established.

**Recommendations:** The Secretary of Defense should strongly endorse a coordinated DOD-wide effort to eliminate unnecessary duplication of base support services whenever mission effectiveness will not be impaired. Specifically, the Secretary should: (1) establish a focal point, preferably the DRIS program, to coordinate the interservicing, intraservicing, and contracting out of base support, as well as to guide and monitor DOD-wide efforts; (2) set specific yearly cost reduction goals for each military service and require each service to set a goal for its subordinate commands; (3) reduce base support funds for components that consistently fail to reach the above-mentioned goals; and (4) assign additional full-time staffing to the Joint Interservice Resource Study Groups. In addition, the Secretary should broaden the scope of the DRIS program's data bank to include: an inventory of the base support services each installation provides by functions and organizations; data on the cost and number of personnel at the supervisory, administrative, and worker levels involved with each of the support services by installation; and geographical data showing the relative distances between installations. Finally, the Secretary should direct the military services to clearly state their objectives of reducing costs through interservice support and maintain cost data on the success or failure of intraservice consolidations.

#### **Appropriations**

Operation and maintenance - Department of Defense

#### **Appropriations Committee Issues**

Billions could be saved through consolidating military base support functions.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPORT FUNCTIONS

### ***Eliminating Marine Corps Logistics Overlap Saves Millions; Further Savings Possible***

*(LCD-80-74, 6-30-80)*

**Departments of Defense, the Army, and the Navy, and U.S. Marine Corps, Defense Logistics Agency, and General Services Administration**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Legislative Reorganization Act of 1970.

In 1975, GAO reported that the Marine Corps' logistics system either duplicated or performed certain logistics functions similar to those being carried out by other Department of Defense (DOD) activities. Substantial reductions in the Marine Corps' logistics system were possible through greater reliance on other DOD logistics activities and the General Services Administration (GSA). GAO recommended that the Secretary of Defense require that the Marine Corps operating forces receive supply support from other DOD-integrated managers and GSA, ammunition be subject to DOD-wide management, equipment be overhauled by the cognizant military service, war reserve materiel be stored by appropriate DOD activities, and all principle items of equipment be purchased and provisioned by the military service which uses the items the most. In response to these recommendations, the Marine Corps eliminated some of the logistics overlap by discontinuing duplicate management of many items and no longer stocking them in wholesale quantities for peacetime use. It has also closed two small storage activities. DOD has designated the Secretary of the Army as single logistics manager for all conventional ammunition and transferred a small workload of Marine Corps equipment to other services for depot maintenance. These changes have saved an estimated \$65 million, and recurring savings are estimated at \$2.9 million annually.

**Findings/Conclusions:** GAO found that other needed changes they had suggested have not been made. GAO believes the Defense Logistics Agency could provide supply support for the 34,000 consumable items still managed by the Marine Corps for about \$7.5 million less and provide better support. Other services could provide support for about 800 remaining items requiring active management. Duplication in maintenance effort and facilities could be reduced by scheduling selected items of equipment into depots which could do the most cost-effective overhaul work on combined service requirements, and other services could purchase and provision more of the Marine Corps' equipment at lower costs. Reductions in warehouse storage operations are possible through shifting consumable item stocks to Defense Logistics Agency depots and war reserve stocks to appropriate integrated manager depots. These changes have not been made because of Marine Corps concern that the changes would affect its ability to perform

its mission. However, past experience shows that other services can provide service equal to or better than the Marine Corps now gets in house.

**Recommendations:** Unless the Marine Corps can demonstrate that its mission will be adversely affected, the Secretary of Defense should require these additional changes to further reduce Marine Corps logistics activities: (1) transfer consumable item management to the Defense Logistics Agency and management of the remaining supply support items to others who are responsible for similar items; (2) reduce duplication of maintenance effort and facilities by shifting selected items of equipment into service depots which can do the most cost-effective overhaul work on combined service requirements considering all significant elements of cost (if it is necessary to retain technical competence in support of readiness, Marine Corps personnel can assist with work in other service maintenance depots); (3) store war reserve materiel at appropriate integrated managers' depots and consumable items at Defense Logistics Agency warehouses; and (4) transfer procurement and provisioning of Marine Corps principal equipment items to other services if consumables are transferred to the Defense Logistics Agency.

### **Agency Comments/Action**

DOD stated that it is nearing a decision on the entire aspect of consumable item management for all the military services and that it will consider all four GAO recommendations in light of that decision.

### **Appropriations**

Operation and maintenance - Army, Navy

### **Appropriations Committee Issues**

GAO believes the Defense Logistics Agency could provide supply support for the 34,000 consumable items still managed by the Marine Corps for about \$7.5 million less and provide better support. Further, other services could provide support for about 800 remaining items requiring active management.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPORT FUNCTIONS

### **F-16 Integrated Logistics Support: Still Time To Consider Economical Alternatives** (LCD-80-89, 8-20-80)

Departments of Defense and the Air Force

**Budget Function:** National Defense: Weapons Systems (0057)

The F-16 aircraft is being developed in a cooperative undertaking between the United States and four European North Atlantic Treaty Organization countries. The current program provides for coproduction of 1,113 aircraft. An integrated logistics support (ILS) plan was developed to coordinate and control the logistics tasks necessary to support the aircraft, but the plan has had little influence on subsystem selections and support because: (1) the F-16 was a prototype program and integrated logistics support was not included in the prototype contract; and (2) the first ILS plan was not final until 10 months after the aircraft entered full-scale development.

**Findings/Conclusions:** GAO found that the Air Force could save \$56 million in avionics equipment by centralizing intermediate maintenance in Europe and the United States. Centralization would also reduce requirements for personnel, equipment, and facilities. A Memorandum of Understanding (MOU) with the European participating governments (EPG) commits the United States to having Europeans do depot repair for the F-16 aircraft in Europe. The Air Force provides a 10 percent backup aircraft inventory for depot maintenance and modification. However, GAO questions the need for this number of backup aircraft because the F-16 was designed to eliminate planned depot maintenance and overhaul. Reducing the inventory could save up to \$1.4 billion. Although the Air Force researched the benefits of simulation over conventional hardware before deciding to buy the simulated aircraft maintenance trainer (SAMT), it did not adequately consider training alternatives in the event the delivery of the simulator was delayed. Portions of the pilot training equipment of the F-16 are still being developed, and as a result, the Air Force planners did not know exactly how often these trainers would be used. Many F-16 technical orders, which explain how to install, operate, and repair aircraft and related equipment before the maintenance work can be done, were not usable. The F-16 ILS plan did not include the time needed to design and fabricate mobile shelters to deploy avionics test equipment and had not been updated to show the new leadtimes needed.

**Recommendations:** The Secretary of Defense should direct the Air Force to: (1) centralize F-16 intermediate maintenance; (2) accelerate negotiations with the EPG's to determine if and how much U.S. depot repair will be done in Europe to meet the MOU commitments; (3) reexamine the potential value, volume, and availability of EPG depot support

before purchasing additional test equipment; (4) reexamine the need for backup aircraft inventory; (5) promptly resolve the operational uncertainties of the SAMT program; (6) provide contingency plans in case delivery of the SAMT is delayed further; (7) assess the cost/benefit of buying a weapon system trainer for every F-16 base; (8) provide sufficient resources to the validation and verification of technical orders to eliminate problems created by lateness and poor quality; (9) improve current systems of quality assurance by requiring more frequent comprehensive inspections and in-process reviews before delivering technical orders to the Air Force for verification; (10) establish a timetable for F-16's to get war readiness spares into the system for deployment; (11) accelerate completion of the mobile shelters as necessary to ensure protection of maintenance equipment when the F-16's are deployed; and (12) update the ILS plan to reorganize leadtimes required to ensure availability of facilities to support aircraft.

#### **Agency Comments/Action**

DOD disagreed with the recommendations that the Air Force (1) centralize F-16 intermediate maintenance; (2) reexamine the need for backup aircraft inventory; (3) assess the cost/benefit of buying a weapon system trainer for every F-16 base; and (4) establish a timetable for F-16's to get war readiness spares into the system for deployment. DOD made no specific comments on the other recommendations other than to say that the Air Force previously has identified the F-16 logistics areas discussed as requiring management attention.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

The Committees should consider: (1) possible reduction in the number of weapon system trainers needed--unit cost of \$65 million; (2) potential for savings in facilities if intermediate repair is centralized--\$5.3 million savings if only three aircraft wings are consolidated; (3) questionable need for a 10-percent backup aircraft inventory amounting to 110 F-16's--savings could be as much as \$1.4 billion; and (4) potential for saving \$56 million in avionics equipment if intermediate maintenance is centralized.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPORT FUNCTIONS

#### **Information on Military, Civilian, and Contract Employees Who Provide Physical Security at Military Installations** (LCD-80-112, 9-30-80)

##### **Department of Defense**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** OMB Circular A-76.

GAO was requested to review 10 questions relating to military, civilian, and contract employees who provide physical security at military facilities. The questions were as follows: (1) what criteria are used to determine the personnel requirements for the physical security at military facilities; (2) what criteria are used to determine whether security should be provided by military or nonmilitary personnel; (3) can additional security requirements be assumed by nonmilitary personnel, thus freeing military personnel; (4) how many staff-years of physical security are provided by military personnel in the Department of Defense (DOD); (5) how many staff-years of physical security are provided by civilian Federal employees; (6) how many staff-years of physical security are provided by contract employees; (7) how do the three methods of delivery vary in terms of quality of service, training for employees, and accountability; (8) are cost comparisons consistently performed to justify the choice for the method of delivery; (9) how does the contracting of nonsecurity functions on facilities affect security; and (10) is security coverage a line item in the budget and/or appropriation for DOD or other agencies.

**Findings/Conclusions:** GAO found the answers to the foregoing questions as follows: (1) there were no clear-cut criteria for determining security personnel requirements for military facilities; (2) the policy of DOD requires military people to protect nuclear assets, however, the Government now requires case-by-case determinations of whether guard and protective services will be provided by military, civil

service, or contract; (3) many similar security functions are performed by different types of people which include the military, civil service, and contractors; (4) the total authorized position understates the number of military people involved in security because many military people perform security functions on a part-time basis; (5) there are 2,600 civilian staff-years authorized for security duties at Army and Air Force facilities; (6) the information could not be determined because the contractor estimates and provides its own personnel; (7) the quality, training, and accountability varied at the different military facilities; (8) cost comparisons are not required to justify the choice for the method of delivery; (9) there were no problems in contracting for non-security functions that would adversely affect facility security; and (10) under current budget and appropriation processes, security coverage is not a separate line item for DOD or any of the services.

#### **Appropriations**

Operation and maintenance - Department of Defense

#### **Appropriations Committee Issues**

The Committees should require that cost comparisons are required to justify the choice of the method of delivery. The use of military instead of civilian or contractor personnel has staffing and budgetary implications.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPORT FUNCTIONS

#### **Operational and Support Costs of the Navy's F/A-18 Can Be Substantially Reduced** (LCD-80-65, 6-6-80)

##### **Departments of Defense and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The Navy is planning to buy 1,366 F/A-18 Aircraft which are being developed to replace the Navy F-4 and A-7 aircraft, the Marine F-4 aircraft, and possibly the Marine A-4 and AV-8A aircraft. In response to broad congressional interest in reducing life cycle costs of major weapon systems, a review was made of the Navy's logistics support planning for the F/A-18 and how substantial reductions in its ownership costs can be achieved.

**Findings/Conclusions:** The Navy's logistics support planning for the F/A-18 is comprehensive and should provide adequate support. However, like any new weapon system, there are still unknowns which could affect the system's readiness and logistics support costs. Introduction of the system and logistics support costs are highly dependent on the Navy receiving peculiar automatic test equipment on schedule; any delays will cause costs to rise. Operational and support costs will be higher than expected and alternative concepts should be considered to reduce them. GAO identified several alternatives which could potentially reduce the F/A-18 operational and maintenance costs by as much as \$4 billion.

**Recommendations:** The Secretary of the Navy should: adopt the McDonnell-Douglas proposal to use dual or multiport automatic test equipment for testing F/A-18 avionics components and use multiport radar test equipment if proven feasible; review the need for 96 VAST stations and use components from any excess units to satisfy the Government-furnished equipment requirement for the F/A-18 avionics tester; determine if it is still in the Government's interest to accept the high development risks now present in the contract for the F/A-18 automatic test equipment; consolidate all F/A-18 avionics component repairs for Navy and Marine Corps units at Lemoore and Cecil Air Stations and establish overseas repair facilities to support deployed Navy carriers and Marine Corps units; combine fleet readiness and proficiency training requirements and use the pilot trainers 6 days per week; use the OFT in place of the more expensive WTT for proficiency training at El Toro and Beaufort; cancel the planned purchase of an OFT for the

overseas base of Iwakuni; reconsider using OFT's for proficiency training if WTT unit costs increase; reassess present deployment plans for the F/A-18 and evaluate the merits of consolidation as a means to overcome small-scale inefficiencies and reduce ownership costs; require the full implementation of the RCM concept for the F/A-18 and cancel plans for depot overhauls on a cyclical basis; reassess the need for pipeline aircraft considering the expected higher operational-available time of the F/A-18 and reduce depot turnarounds; review planned depot expansion and modifications at North Island; determine the number of acoustical enclosures and engine test cells needed for the Lemoore Naval Air Station, considering the higher reliability and maintainability aspects of the F/A-18; and reevaluate the number of mobile maintenance van pads planned for El Toro Marine Corps Air Station. The Secretary of Defense should reevaluate the present Department of Defense policy of not allowing long-lead funding for initial spares given the Navy problem of using SAIP. The Navy should be allowed to use long-lead funding so that it can buy initial spares and aircraft installed parts concurrently and reduce the F/A-18 initial provisioning cost.

##### **Agency Comments/Action**

DOD commented that several of the recommendations (using multiport test equipment, consolidating avionics repair activities, and increasing the size of squadrons) were potentially beneficial and were under review by the Navy. DOD took exception to the remaining recommendations.

##### **Appropriations**

Operation and maintenance - Navy

##### **Appropriations Committee Issues**

Reducing operating and logistic support costs of military weapons systems is a key issue for both House and Senate Appropriations Committees.

# DEPARTMENT OF DEFENSE - MILITARY

## SUPPORT FUNCTIONS

### ***Opportunities for Further Improvement of Government Logistics Management*** *(LCD-80-78, 8-21-80)*

Departments of Energy, Defense, the Army, the Air Force, and the Navy, and the General Services Administration

**Budget Function:** National Defense (0050)

**Legislative Authority:**

To help Federal agencies improve their operations and save money, many recommendations have been made over the years for improving logistics management policies, planning, and practices.

**Findings/Conclusions:** Logistics management areas examined over the past 5 years are discussed. The areas include: (1) using less costly alternative logistics concepts; (2) making logistics support system decisions earlier; (3) ordering and stocking the proper amount and kind of material; (4) distributing material efficiently; (5) using equipment more efficiently; (6) maintaining equipment better; (7) improving logistics management information systems; (8) disposing of unneeded property; (9) improving cataloging and standardization; and (10) protecting inventories.

**Recommendations:** The Secretary of Defense; the Secretaries of the Air Force, Army, and Navy; the Administrator of General Services; and the Secretary of Energy should reconsider those recommendations which have not been fully implemented. During future hearings, the Senate

Committee on Appropriations, the Senate Committee on Armed Services, the House Committee on Appropriations, and the House Committee on Armed Services should follow up on agency actions to reconsider and implement those recommendations not fully implemented.

#### **Agency Comments/Action**

No comments had been received as of the date that this report was prepared.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

During future Committee hearings, agencies should be questioned on the efforts of the prior recommendations.



## DEPARTMENT OF DEFENSE - MILITARY

### SUPPORT FUNCTIONS

#### **Progress and Problems in Consolidating Military Support Functions in the Pacific** (LCD-78-223, 4-12-79)

#### **Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** B-160683 (1972). B-164217 (1968). DOD Directive 4000.19.

An examination of Department of Defense (DOD) consolidation of military functions in the Pacific was made to determine what effort is needed under the Pacific area Defense Retail Interservice Support (DRIS) program to eliminate duplication of military support functions.

**Findings/Conclusions:** The services have consolidated some functions suggested in a prior GAO report or identified by the services, and these actions have saved an estimated \$1.1 million. Recurring savings are estimated at \$8.4 million annually. All needed consolidations have not been achieved, however. Examples include real property maintenance near Pearl Harbor and on Okinawa, civilian personnel offices in Hawaii and Japan, family housing management in Hawaii, and administrative aircraft support in Japan. A key cause of this is DOD disagreement with the previous GAO recommendation to the Secretary of Defense to delegate clear-cut authority below the Department level to direct, not just recommend, interservice arrangements for support activities.

**Recommendations:** The Secretary of Defense should direct the program administrator to develop procedures which will insure that disputed studies and unresolved proposed consolidations are promptly submitted for review and arbitra-

tion to an organization with directive authority. This can best be done by delegating clear-cut directive authority to responsible commands within the Defense Retail Interservice Support program. The Secretary should direct completion of several consolidation plans where progress has stalled or where new functions are shown to be duplicative.

#### **Agency Comments/Action**

The Defense Logistics Agency has worked with the military departments to develop procedures that are substantially in line with the GAO recommendations.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should determine if DOD has made further consolidations, what savings have resulted, and if disputed studies are being submitted to higher authorities for resolution.

## DEPARTMENT OF DEFENSE - MILITARY

### TRAINING

#### ***Increased Oversight and Interservice Use of Military Aviation Training Ranges Can Reduce Costs*** (LCD-80-14, 11-26-79)

Departments of Defense, the Air Force, and the Navy, and U.S. Marine Corps

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The Air Force and Navy (including the Marine Corps) spent an estimated \$39.3 million in fiscal year 1978 to operate and maintain aviation training ranges. These ranges, which are necessary for practicing maneuvers and weapons delivery, enable aircrews to maintain readiness to perform their combat missions. An evaluation was made of the effectiveness and economy of the services' operation and management of aviation and training ranges, and opportunities for improvements were identified.

**Findings/Conclusions:** Aviation range management was highly decentralized, usually down to the operating base level. Top management levels exercised little oversight control, reviewed only limited range management information, and failed to emphasize maximum interservice use of ranges consistently. Neither the Department of Defense (DOD) nor the services were required to make assessments of aviation range requirements or assets. Each service developed ranges for its own use without giving adequate consideration to possibilities for maximum interservice use, as required by DOD instructions. As a result, the services' total range requirements and assets appeared to be imbalanced; similar range complexes existed in some geographic areas, each exhibiting low utilization rates; and range modernization programs appeared to contain some unnecessary duplication and some weakly supported items. Maximum efficiency in range operation can be achieved only if ranges are used at or near their normal capacities. While the services recognized this fact, maximum or acceptable use levels had not been clearly defined. The services established range modernization programs to duplicate more closely combat environments, to accommodate new training requirements, and to take advantage of technological advances in equipment. The high costs of these programs require that improvements be carefully planned and justified. At the time of the evaluation, the services had not issued criteria on need-

ed range improvements that should be identified, or guidelines to be considered.

**Recommendations:** The Secretary of Defense should: (1) direct the services to emphasize compliance with instructions requiring interservice cooperation in the development and use of aviation training ranges; (2) require that the services develop detailed guidance for identifying and justifying aviation training range improvements; (3) include a thorough consideration of interservice sharing possibilities in the justification for and subsequent review of proposed modernization projects; and (4) direct the services to work jointly to determine the appropriate system for providing electronic warfare training in the future, as well as how many systems are really needed in a given geographic area.

#### **Agency Comments/Action**

DOD comments generally agreed with GAO conclusions and recommendations but disagreed with a portion of the range utilization statistics and with the GAO opinion that increased interservice use of certain ranges is feasible and cost effective. GAO recomputed the questioned statistics using the revised DOD figures throughout the report. The effect of the change was to increase the utilization for overland ranges by 1 percent.

#### **Appropriations**

Operation and maintenance - Air Force, Navy

#### **Appropriations Committee Issues**

With increased sharing of training ranges and better coordination in range use and modernization, significant cost savings can be achieved.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### ***Air Force Civil Engineer Cost Accounting System Reports Should Be Used More Effectively*** (FGMSD-80-12, 1-16-80)

Departments of Defense and the Air Force

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

GAO reviewed the Air Force Civil Engineer Cost Accounting System at three installations and found that personnel management could be enhanced if several cost reports produced by the system were effectively used.

**Findings/Conclusions:** GAO found that base civil engineer officials were not analyzing the civil engineer cost reports in depth. Air Force regulations did not require analyses of staff-hour variances, and base civil engineers did not feel that formal post analyses of projects were necessary. They believed their continuous monitoring of projects enabled them to identify problems as they occurred and to correct them. Yet, the reports of planned and actual labor-hours on base projects continually showed significant differences between planned and actual hours. The engineers felt they had little or no control over the reasons they believed were causing the labor-hour overruns.

**Recommendations:** The Secretary of Defense should instruct the Secretary of the Air Force to: revise civil engineering regulations to require base level civil engineer officials to systematically analyze labor-hour variances and take corrective action; clarify the regulations to preclude change orders being processed merely to eliminate labor-hour variances from cost reports; and require Air Force Headquarters civil engineer officials to periodically review results of

base level labor-hour variance analyses to determine if there are Air Force-wide problems and to take appropriate corrective action.

#### **Agency Comments/Action**

Air Force officials stated that the airmen assigned to them often did not have the necessary skills to do the work efficiently, and that the grade level of planners was too low to attract qualified persons. The officials could not document these as the primary causes of the variance. GAO felt that better use of the reports could lead to more realistic work schedules and increased work force efficiency. This, in turn, could aid in reducing the large and growing backlog of civil engineer projects.

#### **Appropriations**

Cost accounting system - Air Force

#### **Appropriations Committee Issues**

The Committees should insure that the Air Force begins to use the Civil Engineers Cost Accounting System in managing its projects and work force.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### ***Continuing and Widespread Weaknesses in Internal Controls Result in Losses Through Fraud, Waste, and Abuse***

(FGMSD-80-65, 8-28-80)

#### **Department of Defense and Office of Management and Budget**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** Accounting and Auditing Act (31 U.S.C. 66a). Claims Collection Act. Anti-Deficiency Act (31 U.S.C. 665). S. 3026 (96th Cong.).

Most Federal agencies are operating accounting systems that are vulnerable to physical losses and waste of Federal money as well as fraudulent and otherwise improper uses. These conditions, noted in a series of GAO reports issued between December 1976 and October 1979 covering financial operations in 11 major Federal organizations, are summarized.

**Findings/Conclusions:** System vulnerability results from a series of longstanding, undetected weaknesses. While agencies usually correct specified deficiencies, they are generally slow to correct systemwide deficiencies in collection, disbursement, obligation, and imprest fund activities. Inadequate controls over collection could not ensure that amounts owed the Government were recorded as accounts receivable or that overdue accounts were identified and collected. Often, accounts receivable were so poorly controlled and safeguarded that the potential for theft, loss, or other misuse was high. Controls over disbursement activities were found to be deficient. Disregard for basic control procedures prescribed in manuals resulted in waste and overpayments. About half of the offices reviewed had serious weaknesses in controls over obligations that could result in improper or illegal payments. The most widespread deficiencies were noted in imprest fund activities. Weak controls, together with the susceptibility of imprest funds to misuse, allowed substantial losses to the Government. It

was concluded that adequate internal audit coverage could have detected most of the deficiencies found. Legislation under consideration would place greater responsibilities on the heads of Federal agencies for improving their agencies' financial systems. Under this legislation, agencies would be required to undertake evaluations of their organizations' systems of internal control and report annually to Congress and to the President the results of such evaluations.

**Recommendations:** Congress should enact the legislation to place greater responsibility upon the heads of Federal agencies for the soundness of their organizations' systems of internal financial control.

#### **Appropriations**

All Federal agencies

#### **Appropriations Committee Issues**

The Committees should question agencies to determine whether their systems of internal financial and accounting controls provide adequate assurance for certifying expenditures. The questioning should develop information on the adequacy of resources agencies devote to the development and maintenance of their financial control systems and to correct weaknesses which would permit fraudulent or other improper uses of funds.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### ***Defense's Accounting for Its Contracts Has Too Many Errors--Standardized Accounting Procedures Are Needed*** (FGMSD-80-10, 1-9-80)

Departments of Defense, the Army, the Navy, and the Air Force

**Budget Function:** Financial Management and Information Systems (1100)

**Legislative Authority:** Antideficiency Act (31 U.S.C. 665). Budget and Accounting Procedures Act of 1950 (31 U.S.C. 66). Arms Export Control Act (22 U.S.C. 2762).

The Department of Defense (DOD) devised the Military Standard Contract Administration Procedures in 1966 to facilitate uniform contract administration of DOD contracts by exchanging contract administration data in automated form among the military services and Defense Contract Administration Services regions. It is the responsibility of these regions to administer most DOD contracts and to ensure that the unnecessary duplication of contract management functions are eliminated. As of March 30, 1979, the regions were acting as this middle manager between the Government buyer and DOD contractor for 250,000 contracts valued at \$73 billion. A review of 8 of the 48 DOD organizations heavily involved with contract management focused on the Standard Procedures which required uniform coding and processing of financial data.

**Findings/Conclusions:** Although the Administration Procedures were to have been implemented by 1970, this goal has still not been fully achieved, thus resulting in numerous clerical errors in interpreting a variety of nonstandard forms, codes, and financial transactions. Nonstandard contract accounting procedures used by Defense components cause substantial errors in reporting, recording, and controlling contract financial data, at a cost of millions of dollars in unnecessary personnel and other costs due to duplication of accounting functions. While DOD officials have resisted implementation of the Procedures, GAO estimated that their full implementation and elimination of duplicate operations at the eight locations alone could reduce DOD costs by up to \$2.7 million annually. Accounting errors of over \$90 million were identified on 286 of the 856 transactions reviewed for 26 contracts.

**Recommendations:** The Secretary of Defense should require the Defense Contract Administration Services regions to assure the accuracy of the financial transactions processed and sent to the military services. He should also require the implementation of the Military Standard Contract Administration Procedures in all Defense systems involved with contract accounting and management, and direct the Assistant Secretary of Defense (Comptroller) to require specific timetables from the military services on implementation dates for the Military Standard Contract Administration Procedures. The Comptroller also should actively monitor the implementation and require corrective action, when necessary, to ensure timely, effective implementation.

#### **Agency Comments/Action**

Defense agreed with the recommendations and will (1) request the Defense Contract Administration Services regions to assure the accuracy of the financial transactions processed, and (2) implement the Military Standard Contract Administration Procedures.

#### **Appropriations**

Contract accounting and administration - Army, Navy, Air Force, Defense Contract Administration Services

#### **Appropriations Committee Issues**

The Committees should determine if DOD has taken action to reduce duplicate operations and prevent millions of dollars in accounting errors.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### **Federal Budget Outlay Estimates: A Growing Problem**

(PAD-79-20, 2-9-79)

#### **Department of Defense**

**Budget Function:** Impoundment Control Act of 1974 (1005)

**Legislative Authority:** Congressional Budget and Impoundment Control Act of 1974.

Federal budget outlay estimates generally swing between longfalls, or underestimates in the budget year, and shortfalls, or overestimates in the current year. The budget year estimates reflect the administration's concern about the growing deficit and the need to hold down spending. The shift to a shortfall, or overestimate in the current year's estimates (12 months later), reflects the administration's assessment of actual financial needs to carry out legislation enacted by Congress. The estimating process is flexible and changing and can be influenced by a number of variables. Many of these variables are uncontrollable, such as historic upward bias (the past tendency to overestimate). Budget data must be accurate to be useful and controllable factors should be of concern to improve outlay estimates.

**Findings/Conclusions:** As a result of increased interest in outlay estimates, both the Office of Management and Budget (OMB) and the Congressional Budget Office are striving to achieve more accurate estimates. GAO found that \$76.4 billion in outlays was not included in fiscal year 1977 Government-wide net outlays of \$402.8 billion. These outlays included both offsets from collections and receipts from business transactions with the public and outlays of off-budget Federal entities. Estimates of offsetting collections and offsetting receipts have not been reliable. The current method of presenting these transactions as offsets against budget authority and outlays distorts budget numbers and makes the budget unnecessarily complex.

**Recommendations:** The Director of OMB should make further efforts to improve outlay estimates by: establishing criteria for acceptable levels of accuracy for estimates, to be used as a guide in defining significant variances to be pursued; comparing actual outlays to estimates and providing a detailed explanation annually concerning those accounts in which there were significant variances; identifying corrective action to improve estimates in future years when such action is feasible; making information on variances and related corrective action available to congressional users and including it in budget justifications where appropriate; applying early efforts in goal setting and variance analysis toward accounts with the largest outlays; and requiring each

agency to document the procedures used to develop outlay estimates, including documenting assumptions and subjective modifications made by reviewing officials. The Director should also: change the presentation of offsetting collections from non-Federal sources and offsetting receipts from the public by including them in revenue totals and by not subtracting them from budget authority and outlays; include offsetting collections and offsetting receipts from off-budget agencies under revenues and not subtract them from budget authority and outlays; and apply the recommendations set forth to improve outlay estimates to estimates of offsetting collections and offsetting receipts.

#### **Agency Comments/Action**

The Office of Management and Budget response to this report agreed that problems on outlay estimating have existed and stated that OMB will continue to work toward the further improvement of outlay estimates. However, OMB was very negative in its response to the report and stated that it "makes recommendations that, if adopted, would do nothing to improve our ability to estimate outlays." In contrast, OMB stated in the enclosure to its letter that it is already taking the recommended action in some form or to some extent in responding to five of the nine recommendations. Two of our recommendations related to changing the presentation of offsetting collections and offsetting receipts from the public and to the treatment of off-budget agencies. OMB has resisted these recommendations directed toward elimination of undesirable distortions and complexity in the budget presentation for some time.

#### **Appropriations**

Federal budget outlay estimates - Government-wide

#### **Appropriations Committee Issues**

The continuing need to improve the accuracy of outlay estimates and to provide a more complete and accurate reporting of Federal budgetary information.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### **Major Deficiencies in Army's Washington, D.C. Finance and Accounting Operation** (FGMSD-80-53, 6-5-80)

##### **Departments of Defense and the Army**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** Antideficiency Act.

The Military District of Washington's Finance and Accounting Office disburses about \$1.5 billion annually and provides finance and accounting services to many Army and Defense organizations in the Washington, D.C., area. The adequacy of the Finance and Accounting Office's internal controls and procedures for the processing of disbursements and for transactions involving accounting and civilian payroll were reviewed and analyzed as part of an effort to determine whether executive departments and agencies have accounting control over funds and assets.

**Findings/Conclusions:** Despite numerous internal management and audit reports and a prior GAO report, conditions at the Office remained unsatisfactory. The disbursing and payroll operation was inadequate for preventing erroneous payments and for deterring fraud. The Office has also failed to provide adequate accounting services to Army and Defense organizations. Inadequate systems, procedures, and internal controls contributed to this ineffectiveness. However, the most pressing problem was in retaining enough competent people to handle the very large workload.

**Recommendations:** The Secretary of Defense should direct the Secretary of the Army to: develop a plan with specific objectives and timeframes for reducing personnel turnover and retaining competent staff at the Military District of Washington Finance and Accounting Office; assign experts on a temporary basis from the Army Finance and Accounting Center and/or other Army finance and accounting offices to help the Military District of Washington develop and implement adequate internal procedures and controls; implement the Standard Army Civilian Payroll System design, as approved, and develop and implement additional automated edits, if feasible, to help prevent duplicate and erroneous payments; assure that legal and regulatory requirements for reporting fraudulent actions are followed; consid-

er increasing the number of days allotted to payroll preparation and processing to allow sufficient time for supervisory review of work before check processing; seek to minimize the differences between Army and Defense organizations' accounting requirements; and require that the Military District of Washington make a reasonable attempt to determine whether the adjustment to the General Ledger for over \$500 million made in 1977 and the adjustment for \$31 million made in 1978 can be adequately supported. The Secretary of Defense and the Secretary of the Army should also consider reducing the workload of the Military District of Washington Finance and Accounting Office if the Army cannot, within a reasonable period of time, adequately reduce the Office's personnel turnover and begin to retain competent personnel. If a decision is made to reassign the workload, the capability of another Defense or Army organization to provide adequate finance and accounting services must be considered.

##### **Agency Comments/Action**

Defense concurred with the GAO recommendations which were designed to improve the Office's work force, accounting systems, and related internal controls.

##### **Appropriations**

Operation and maintenance - Army, Defense agencies

##### **Appropriations Committee Issues**

The Committees should determine that Defense has implemented GAO recommendations to preclude the continuation of unsatisfactory controls over \$1.5 billion of disbursements.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### ***The Marine Corps Military Pay System: Too Many Errors and Inefficiencies*** (FGMSD-80-49, 6-10-80)

##### **Department of Defense and the United States Marine Corps**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** Accounting and Auditing Act. DOD Instruction 7330.3. DOD Instruction 7330.4.

As part of an effort to determine whether executive departments and agencies have adequate accounting control over payroll systems, a review was made of the Joint Uniform Military Pay System/Manpower Management System. The System is the combination of the former Marine Corps Joint Uniform Military Pay System and the Manpower Management System. The primary purposes of the automated system were to provide: adequate service to members; the maximum practicable uniformity between the services; centralized and computerized pay account maintenance; and optimum support of planning, programming, and budgeting systems.

**Findings/Conclusions:** The Marine Corps spent millions of dollars in developing, implementing, and operating the system. However, records of these costs were not kept and procedures for measuring system effectiveness were never established. Therefore, Marine Corps and Defense management do not know how much has been spent, what economic benefits have been gained, or to what extent system goals and objectives have been met. Since the system is not reliable enough to centrally compute pay accurately, extensive and inefficient manual procedures are necessary to verify the accuracy of pay. As a result, manual procedures, rather than the automated system, constitute the real pay system. There are basic system weaknesses on the part of management which need to be corrected.

**Recommendations:** The Secretary of Defense should direct the Commandant of the Marine Corps to: (1) establish a single manager who will be clearly responsible for the system's performance; (2) establish measurable goals and objectives for improving timeliness and accuracy of the system; (3) require that internal auditors periodically report to top management on the progress being made toward meeting system goals and objectives; (4) identify, through improvement of reporting procedures, those organizations

which submit untimely and erroneous pay data, and take corrective action; (5) identify, document, and correct software deficiencies; (6) establish a task force to determine how best to improve staffing of the system's computer processing activities, system documentation, programming language and logic, and testing for and correction of computer errors; (7) establish a realistic timetable for eliminating the redundant and inefficient manual procedures; and (8) direct that the problems in the existing pay system be carefully considered in the design, development, and implementation of the new one. The Secretary should also direct the Assistant Secretary of Defense (Comptroller) to monitor the progress of the Marine Corps in complying with Department memorandums, directives, and instructions calling for (1) development and implementation of a reliable central pay system, (2) goals and objectives expressed in measurable terms, and (3) an analysis of costs versus benefits of system development. Compliance with this guidance should be required.

##### **Agency Comments/Action**

Defense substantially agreed with all the report's recommendations except for the establishment of a single manager for the system.

##### **Appropriations**

Military personnel - Marine Corps

##### **Appropriations Committee Issues**

In funding a new system, the Committees should determine what efforts are being made to overcome problems in the present system which could be carried over into the new system.



## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

**Status, Progress, and Problems in Federal Agency Accounting During Fiscal 1979**  
(FGMSD-80-52, 6-20-80)

#### Department of Defense

**Budget Function:** Financial Management and Information Systems (1100)

**Legislative Authority:** Government Corporation Control Act (31 U.S.C. 841). Legislative Reorganization Act of 1970. Accounting and Auditing Act. H. Rept. 90-1159. 31 U.S.C. 66a. 31 U.S.C. 66(c).

As of September 30, 1979, 62 percent of the executive agencies' accounting systems had been approved as required by the Accounting and Auditing Act. The remaining 38 percent have not been approved because they do not meet GAO requirements for approval, the agencies have not requested approval, or the agencies are developing new systems to take the place of those now in operation. The remaining unapproved systems comprise some of the largest and most important systems. More than half of the Federal budget was accounted for by the unapproved systems of only two departments: Defense and Health, Education, and Welfare. The GAO goal is to have all the accounting systems approved by March 1, 1981. Congress declared that the Government's accounting should provide full disclosure of the results of financial operations; adequate financial information needed in the management of operations and the formulation and execution of the budget; and effective control over income, expenditures, funds, property, and other assets. Not until GAO has evaluated an accounting system for approval can Congress be assured that its policy has been adhered to. Only by such an evaluation can GAO determine that the agency is in compliance with the principles, standards, and related requirements for accounting which GAO is mandated by Congress to prescribe. GAO

approval is the best indication that an agency has accounting systems which will minimize the opportunity for fraud, abuse, and error.

**Findings/Conclusions:** Approval of most of these systems is long overdue. Every year millions of dollars are spent to improve agency accounting systems. GAO tries to persuade the agencies to get approval on their designs and redesigns before they implement them. In most cases, however, the agency installs and commences to operate the system without GAO approval. Frequently, it is found that the system does not meet GAO requirements.

**Recommendations:** Congress should ensure that agencies have adequate resources to improve and qualify their systems for approval, but that no funds be used to implement the designs or redesigns of accounting systems that have not been approved by the Comptroller General.

#### Appropriations

All Federal agencies

#### Appropriations Committee Issues

The Committees should consider the recommendations to Congress.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### **Weaknesses in Accounting for Government-Furnished Materials at Defense Contractors' Plants Lead to Excesses**

(FGMSD-80-67, 8-7-80)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Department of Defense Appropriation Act, 1980. National Security Act of 1947. Property and Administrative Services Act. P.L. 84-863.

The military services, for the most part, do not account for the estimated billions of dollars in Government-furnished material provided to Department of Defense (DOD) production contractors. Even when the services attempt to account for material, the data is incomplete and inaccurate. This has led to furnishing material to contractors in excess of contract allowances. It is DOD policy to rely almost solely on the contractor's property records to account for and control Government-furnished material. The policy is not effective. GAO undertook a review of this matter because of (1) congressional interest in prior audits of material provided to overhaul, maintenance, and repair contractors, (2) the estimated value of the Government's investment, and (3) GAO responsibility for approval of executive agency accounting systems. GAO principles and standards for executive agency accounting systems require that Government property be under accounting control from the time it is acquired until it is disposed of or consumed.

**Findings/Conclusions:** Review of four production contractors showed that the lack of accounting controls led to DOD providing or initiating shipments of \$1.3 million in material above contract allowances. This problem was also noted in reports on overhaul and repair contracts. Providing excess material was caused by clerical/arithmetical errors, lack of coordination among procuring activity personnel, and failure to modify contracts to show changes in Government-furnished material authorizations. An effective accounting system would have helped to disclose these errors and identify or prevent excess material from being shipped. In prior reports on weaknesses in accounting for materials furnished to overhaul, maintenance, production, and repair contractors, it was noted that contractors were oversupplied with materials, contractors were given access to DOD supply systems without DOD accounting control over materials obtained, and contractors' property control records were unreliable. The Secretary of Defense should halt the DOD policy of almost total reliance on contractors' property control records and instead establish systems which, together with contractors' records, will provide accounting control over Defense material from receipt to consumption or disposal.

**Recommendations:** The Secretary of Defense should instruct the military services to develop accounting systems that establish a means of determining the quantity and value of Government-furnished material (1) contractually allowed to contractors, (2) actually provided to contractors, (3) reported as received by contractors, (4) reported as used by contractors, and (5) reported as on hand by contractors. The systems should include adequate accounting for DOD materials that are obtained by production contractors directly from DOD supply systems. They should identify production contracts which have significant amounts of Government-furnished material and determine whether such material is authorized and required. The services should coordinate with GAO during the development of these systems to assure that they will comply with the Comptroller General's principles and standards. They should provide developed accounting system data to property administrators so that they have independent data that they can use to pinpoint differences between Government and contractor records. Where differences exist, reconciliations should be made.

#### **Agency Comments/Action**

Defense has devised a Management Control Activities (MCA) system for maintenance contracts which will create control mechanisms over government furnished material. Defense will consider expanding the scope of MCA to production contracts, and feels these actions will satisfy the GAO recommendations.

#### **Appropriations**

All procurement appropriations - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should ensure that Defense acts promptly to develop accounting systems to adequately account for and control material furnished by the Government to Defense contractors.

## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### ***The Air Force Should Cancel Plans To Acquire Two Computer Systems at Most Bases*** (FGMSD-80-15, 10-26-79)

Office of Management and Budget, General Services Administration, and Departments of Defense and the Air Force

**Budget Function:** Automatic Data Processing (1001)

**Legislative Authority:** Automatic Data Processing Equipment Act (P.L. 89-306).

The report described how the Government could save hundreds of millions of dollars if the Air Force redirected its computer system acquisition program. Air Force requirements, vendor competition, and the handling of unsolicited proposals were reviewed.

**Findings/Conclusions:** The Air Force's stated requirements for a minimum of two new computer systems capable of running the same programs had never been justified and were established without defined base-level user requirements. A single computer system could be acquired that would provide effective support for all base-level data processing requirements. Current base-level computer systems have been reliable and generally available when needed. No base-level computer system hardware problem has been severe enough to require extensive backup capability at each base. The risks associated with software conversion were being minimized by the current acquisition approach, and any further risk reduction possible by installing two computer systems at most bases was considered too small to justify the considerable added costs of such installation.

**Recommendations:** The Air Force should replace the current requests for proposals with requests for proposals developed around a more functional and performance-oriented set of requirements that would represent actual base-level operations and needs.

#### **Agency Comments/Action**

The Secretary of the Air Force ordered a redirection of the Phase IV program. The redirection included a reduction in

the number of bases planned to receive two computer systems, consolidation of a substantial number of bases on regional data processing centers, early purchase of equipment to minimize lease costs, and substantial reduction of personnel both immediately and upon reexamination after equipment installation. The Secretary ordered a reopening of the competition and a functional requirements study leading to modernization of existing standard systems. The Air Force estimates cost savings of over \$800 million.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

The Committees may wish to request a revised budget and life cycle cost estimate reflecting the Air Force's reduction of the program and the initial contract award (slated for September 1980). The Committee may also wish to inquire: (1) if more personnel savings can be accomplished; (2) if the Air Force truly requires two computer systems at most overseas bases (some of which are relatively small); and (3) why more consolidation (as suggested by the Blue Ribbon Defense Panel in 1970) cannot occur for administrative applications in the Air Force.

## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### *The Department of Defense's Standardization Program for Military Computers-- A More Unified Effort Is Needed (LCD-80-69, 6-18-80)*

##### Department of Defense

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** Military Standard 1750.

A review was made of the Department of Defense's (DOD) efforts to standardize military computers and software used in combat support and weapon systems. DOD has increasingly become dependent on automation to assist in accomplishing its mission. Associated with this huge computer growth has been a proliferation of many different kinds of computers with wide ranges of speed, size, power, and weight. This widespread proliferation has adversely affected DOD in terms of increased logistical support costs and operational difficulties. The overall cost to develop, operate, and maintain automated systems has increased dramatically because systems using different computers require unique system interfaces, logistics support, software development, maintenance, and training. Moreover, as the requirements for automated systems increase, problems and costs continue to grow. As a result, DOD has been forced to examine different techniques to lessen these adverse impacts so that it can deploy and maintain more cost affordable and operable automated systems in the future. Each military service has placed increased emphasis on computer standardization and is pursuing its own program to provide for standardization in future tactical systems. Although the services have many common functional requirements, they continue to spend funds on separate standardization programs.

**Findings/Conclusions:** GAO questioned the need for separate standardization programs, especially in view of studies which indicate that a Defense-wide standardization base could be the most cost advantageous for DOD. It is believed that DOD has an opportunity to maximize standardization of military computers and software for combat support and weapon systems use. The lack of a standard programming language is a major contributor to the high cost of development and maintenance for automated systems military applications, and DOD is to be commended for its initiative to fill that void by developing a common high-order programming language called Ada, which is expected to be ready for use in 1983. However, it is believed that DOD is rapidly losing an opportunity to achieve maximum Defense-wide standardization of military computers and software used for combat support and weapon systems automation. GAO is concerned that economic and operational benefits of standardization will be lost unless DOD

controls the standardization program. Control should be centralized with periodic reviews.

**Recommendations:** The Secretary of Defense should establish a high-level steering committee with decision-making authority and a triservice program office with responsibility for maximizing standardization of military computers and software in a manner that will promote and ensure the use of new technology, reduce software and acquisition costs, simplify logistics, and realize economies of scale. This responsibility should include implementing Ada as the standard programming language and managing its implementation and use, determining with the military services the computer architecture(s) that should be standardized and level of standardization to be achieved, and establishing the appropriate standardization policies. The triservice program office should be responsible to the steering committee for planning and controlling the implementation of those policies and DOD standardization efforts. These actions should be expedited so that the various independent efforts can be conformed to the new policies before long-term commitments are made.

##### Agency Comments/Action

OSD agreed with the findings and is acting to implement the recommendations. The Office has established a high level steering committee with decision making authority to provide central policy direction relative to embedded computer resources and to oversee computer standardization defense-wide. Also, it is establishing a Tri-Service Program Office to implement Ada as the Department's standard programming language and plans to study the practicality of adding computer architecture standardization responsibilities to that office.

##### Appropriations

Research and development - Department of Defense  
Procurement - Department of Defense

##### Appropriations Committee Issues

The Committees should monitor DOD acquisition of military computers.

## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### **Development of Department of Defense's Tri-Service Medical Information System** (LCD-78-121, 7-19-78)

##### **Department of Defense**

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (0051)

The Department of Defense's (DOD) Tri-Service Medical Information System (TRIMIS) should provide automated data processing support for patient care in military hospitals. Its potential benefits involve minimizing duplication in systems development by the services, money savings, and improved hospital patient care. However, little progress has been made toward achieving these objectives despite expenditures of about \$50 million. Problems identified were: lack of unified support from services in the design and development effort, little management continuity, lack of definition of organizational responsibilities, inadequate planning, and lack of emphasis on system standardization. Congress should advise the Secretary of Defense that further funding of the TRIMIS Program should be restricted to DOD: *preparation and presentation of a long-range plan for the development, implementation, and operation of TRIMIS within budgetary and time limitations; preparation of a series of short-range plans that provide DOD firm commitment for implementing the long-range plan; identification of the uniform data elements, codes, and communication protocols that are to be used by the services throughout the*

TRIMIS life cycle; and designation of the patient administration module as the top priority module for development and implementation.

##### **Agency Comments/Action**

The Appropriations Committees reduced the 1980 budget of \$41.6 million by \$12.5 million and directed DOD to economically justify those TRIMIS systems now fielded.

##### **Appropriations**

Automatic data processing - Department of Defense  
Operation and maintenance - Defense agencies

##### **Appropriations Committee Issues**

The GAO recommendations should be continually monitored as the TRIMIS plan is further developed and executed, and various TRIMIS systems' cost/benefit analyses should be examined.

## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### **Duplication in the Navy's Management Information Systems Is Costly**

(LCD-79-113, 10-15-79)

#### **Departments of Defense and the Navy**

**Budget Function:** National Defense (0050)

During fiscal year 1978, the Navy spent \$481 million to operate and maintain automated management information systems (MIS) that support many similar management functions. These different computerized systems produce essentially the same kinds of management reports; have approximately the same automated procedures and processes; and accumulate, process, and store much of the same data.

**Findings/Conclusions:** The Navy does not need separate systems for each of its major commands, and effective use of the systems does not depend on organizational structures or command lines. The Navy does not have the personnel resources to maintain the numerous systems it operates, and when changes in functional procedures are mandated, the scarce personnel must implement the changes in all of the systems. There are a few differences among the systems, but these occur because the systems are designed and developed independently of any uniform standard which, if implemented, could serve all of the needs. The establishment of the Naval Data Automation Command (NDAC) is a step in the right direction to better control and use of the automated data processing (ADP) resources. However, it cannot be completely effective until the determination is made whether the resources should be organized to support separate commands or functional programs.

**Recommendations:** The Secretary of the Navy should: (1) direct the NDAC, in conjunction with the offices, commands, and bureaus (the functional managers) to identify the common functions which are incorporated into the 44 MISs the Navy currently operates; (2) direct the NDAC, in

conjunction with the functional managers, to define information requirements on a Navywide basis; (3) direct the NDAC, in conjunction with the Assistant Secretary of the Navy (Financial Management) and the functional managers, to develop a long-range ADP plan that provides for the phased design, development, implementation, and operation of standard or uniform MISs that provide functional managers the information they need to accomplish assigned missions and conduct day-to-day operations, and the plan should provide for the efficient, effective, and economical organization and use of current and planned ADP resources on a functional rather than commandwide basis; and (4) direct the functional managers to realine the workloads of the central design activity so that a single activity will be responsible for a single functional area on a Navy-wide basis.

#### **Agency Comments/Action**

The Navy officials with whom GAO discussed this report agreed that greater use should be made of standard systems for similar functions, and they cited a number of steps being taken to accomplish this goal.

#### **Appropriations**

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

The Committees should direct the Navy to describe action taken and savings achieved.

## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### ***The Navy's Computerized Pay System Is Unreliable and Inefficient--What Went Wrong?*** (FGMSD-80-71, 9-26-80)

##### **Departments of Defense and the Navy**

**Budget Function:** Financial Management and Information Systems (1100)

**Legislative Authority:** 2 GAO 31.

Over the last 12 years, the Navy has spent more than \$150 million to develop and operate a central automated military pay system that is largely unreliable and inefficient. Although GAO approved the system design, it is not working as designed because it was not implemented as designed.

**Findings/Conclusions:** Two studies conducted in 1978 revealed that 42 percent of 291 selected pay accounts reviewed were inaccurate and 52,200 accounts remained in an overpaid status for more than 90 days. In 1979, GAO found that 34 of the accounts were in error in amounts ranging from \$5 to over \$1,800. The major problems with the system stem from the lack of timely and accurate input data from field organizations to the central computer. Field units average 12 days to prepare input as opposed to the 3 days required by the system design. The approved system design required an automated control over rejects, but management does not rely on it for control purposes because the automated system was not properly implemented. Navy management did not establish overall goals and objectives to measure pay system performance as required by the Assistant Secretary of Defense (Comptroller). The Assistant Secretary's office did not provide the necessary guidance and monitoring of the Navy's pay system development and implementation, or require the Navy to comply with the Department of Defense requirements for managing the automated pay system. It has not determined whether the Navy implemented the pay system design as approved by GAO. Changes made in creating a parallel manual system would not have been approved by GAO if the changes had been submitted to GAO as required. The quality of the input was also very poor. Despite costly efforts to overcome system inefficiencies, the system continues to operate inadequately.

**Recommendations:** The Secretary of Defense should require the Secretary of the Navy to improve the reliability, efficiency, and effectiveness of the Navy's military pay system by: requiring commanding officers, disbursing officers, and

administrative officers to operate the pay system as designed and as approved by GAO; identifying those organizations which submit untimely and erroneous pay data and taking corrective action where indicated; expediting the Navy's plans to transmit input data to the Finance Center electronically rather than by mail; setting a standard for when an override of computer-produced Leave and Earnings Statements by all local disbursing officers can take place; and strengthening supervisory controls over pay technicians' resolution of the system rejections. Further, the Secretary of Defense should specifically require the Secretary of the Navy to: establish procedures to measure system effectiveness; insure that internal auditors periodically report to top management on the progress responsible officials are making toward operating the system as designed and in meeting the established goals and objectives; and comply with all Defense policies and procedures in future work now planned to correct the problems with the automated pay system. Finally, the Secretary of Defense should monitor the Navy's compliance with Defense requirements more closely to improve its military pay system.

##### **Agency Comments/Action**

Agency comments were not received as of October 15, 1980.

##### **Appropriations**

Military personnel - Navy

##### **Appropriations Committee Issues**

The Committees should determine the status of corrective action for implementing the payroll system in accordance with the system design approved by GAO. The Committees should also determine the progress toward developing procedures for measuring system effectiveness and the basis for these procedures.

## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### **Need for Improved Management and Increased Sharing of Computer Resources at the San Antonio Data Services Center**

(FGMSD-80-82, 9-2-80)

**Department of the Air Force and General Services Administration**

**Budget Function:** National Defense: Defense-Related Activities (0054)

The Air Force Data Services Center in San Antonio, Texas, was established to test the economic and operational feasibility of a regional data processing center. With four Air Force bases, a large Army installation, and several other Government activities in the San Antonio area, the Center serves a large automatic data processing user community. The Center operates on a fee-for-services basis with users reimbursing a large portion of the operating costs. A review of the Center was directed towards determining how cost effective the Center is, whether it has met its original goals, and how it might be improved as a regional processing center.

**Findings/Conclusions:** For fiscal year 1979, computer support was provided at a favorable cost to a small number of highly satisfied users. The operating costs compared favorably to commercial computer centers and similar Air Force installations in the area. Because neither the Air Force nor other Federal users have taken full advantage of opportunities to consolidate facilities, share resources, and reduce computer hardware and personnel costs, many additional economies that could be expected from a regional data processing center have not been realized. Air Force management failed to take actions and allowed situations to occur which prohibited achievement of the Center's goals. These included not consolidating any base level processing workload other than at one Air Force base, alienating customers by indicating several times the imminent closure of the Center, not actively pursuing new customers, and allow-

ing other San Antonio area Air Force organizations to acquire six major computer systems.

**Recommendations:** To most effectively address the Government's automatic data processing needs in the San Antonio area, the Secretary of the Air Force should: prepare, in cooperation with the General Services Administration (GSA), a long-range plan for meeting those needs; develop a formal management policy encouraging the effective use and sharing of the Center's computer resources across service and command lines; develop cost accounting procedures and user rates that provide for full cost recovery; determine future equipment needs based on current and projected user requirements; and obtain authorization from GSA to augment existing capabilities to best meet future needs.

#### **Agency Comments/Action**

No agency comments have been received as of October 15, 1980.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

The Committees should monitor the Air Force's plans and policies to adequately address ADP needs in the San Antonio area.



## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### **Wider Use of Better Computer Software Technology Can Improve Management Control and Reduce Costs** (FGMSD-80-38, 4-29-80)

##### Department of Defense

**Budget Function:** Automatic Data Processing (1001)

**Legislative Authority:** OMB Circular A-54. OMB Circular A-71. OMB Circular A-109. 08 OMB Circular A-113. F.P.M.R. 101-35.206. F.P.M.R. 101-35.206(a)(3). F.P.M.R. 101-36.16.

Computer software is the most important part of automatic data processing systems today. It is expensive to develop and maintain, and errors and omissions in software can seriously disrupt automated systems. Because the Federal Government spends billions of dollars annually on computer programs, GAO undertook a review to assess current practices by Federal agencies in using software tools and techniques to maintain computer programs.

**Findings/Conclusions:** GAO found that many opportunities exist for greater use of software tools and techniques. Many Federal installations have not exploited the benefits of modern software tools and techniques as well as they could have. Computer specialists at many agencies were unaware of the newer, better methods; others were reluctant to change to them. Additionally, GAO found that the Federal use of software tools and techniques can be improved by providing better guidance to agencies, more emphasis on software by management, and effective Government-wide coordination and sharing of tools. However, the agencies' adoption of the newer technology should be based on a careful study of all costs and benefits. Also, unless Federal automatic data processing management makes more use of such technology, Federal computer software will continue to cost millions more than is necessary.

**Recommendations:** The Director of the Office of Management and Budget should: (1) require heads of Federal agencies to establish software quality assurance functions in their agencies; (2) more clearly define the responsibilities of agency heads and automatic data processing managers for the acquisition, management, and use of software tools and techniques; and (3) direct the establishment of coordinated Government-wide research and development for

software tools and techniques which will include provision for disseminating information to all potential Federal users. Additionally, the Administrator of General Services should: (1) modify Federal Procurement Management Regulation 101-35.206 to incorporate actions agencies should take to improve their applications software; (2) establish a set of standard tools for solving operational problems and promoting efficiency and economy; (3) require that certain standard inspections, using software tools, be done on contractor-developed software; and (4) establish a software tools category in the Federal Software Exchange Center and provide technical aid for the sharing of tools. Moreover, the National Bureau of Standards (NBS) should develop or adopt standards or guidelines for using software tools.

#### **Agency Comments/Action**

The General Services Administration (GSA) said that the Federal Computer Testing Center has begun a project for validating contractor-developed software as recommended, and that it will add a software tools category to its software exchange catalog as recommended. NBS said that it is now developing guidelines for tools and techniques, and working with GSA as recommended.

#### **Appropriations**

All Federal agencies

#### **Appropriations Committee Issues**

The Committees should monitor agencies' compliance with the recommendations.

## DEFENSE-RELATED ACTIVITIES

### CASH MANAGEMENT

#### **Purchase Price of Strategic Petroleum Reserve Oil Fair But Payment Timing Is Costly** (PSAD-80-30, 4-3-80)

##### **Department of Defense and Defense Logistics Agency**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

The Defense Fuel Supply Center (DFSC) is responsible for buying oil for the Strategic Petroleum Reserve. According to Department of Energy expectations, the reserve will ultimately contain 1 billion barrels of oil at a cost of \$22.6 billion for the first 750 million barrels. A review was made of the cost of the 113 million barrels of oil purchased through June 30, 1979.

**Findings/Conclusions:** The prices paid were competitive with prices in commercial markets during the period reviewed. However, the Defense Logistics Agency (DLA), which pays the DFSC bills, had not complied with Department of the Treasury regulations which require Federal agencies to refuse prompt payment discounts offering a rate of return below 9 percent per annum and to pay no bills sooner than due. This policy was designed to prevent agencies from accepting discounts whenever the discount offered is less than the Government's cost of financing the payments. DLA continued to take the uneconomical discounts and to pay invoices before they were due because DLA officials improperly calculated the rate of return offered, erroneously believed they were required to take uneconomical discounts in certain circumstances, and did not have established procedures to deliberately forgo uneconomical discounts. Following current Treasury policies could save the Government as much as \$17.7 million over the remaining life of the Strategic Petroleum Reserve Program. An additional \$18.5 million could be saved in crude oil costs if policies were instituted to require all agencies to consider the Government's cost of money while evaluating bids and if the Treasury were to develop and periodically revise an estimate of the cost of money to be used during offer and payment evaluations.

**Recommendations:** The Director of the Office of Management and Budget (OMB), in connection with the Secretaries of Defense and the Treasury and the Administrator of the General Services Administration (GSA), should (1) establish, as a matter of policy, that agencies must consider the time value of money as part of their bid evaluation procedures, and (2) establish and periodically update an index reflecting the Government's current cost of money to be

used when evaluating prompt payment discounts and contract offers. The Secretary of Defense should direct the Director of DLA to establish regulations and procedures which assure that bills are not paid until due and uneconomical discounts are not taken.

##### **Agency Comments/Action**

DOD and GSA generally agreed with the recommendations. However, OMB saw some difficulties in including the "time value of money" as bid evaluation factor. Treasury noted that, although it is in favor of measures taken by the agencies to give consideration to the time value of money in financial transactions, it generally opposes the use of current rates by agencies to evaluate competitive bids involving different terms for future payments. Instead, it prefers that consideration be given to the time value of money in procurement arrangements through the establishment of payment terms. It believes that by indicating the payment terms in the solicitation of bids, all bidders will be on the same basis with respect to the time value of funds and may submit their bids accordingly.

##### **Appropriations**

Strategic Petroleum Reserve - Department of Energy and various civil and defense agencies' appropriations

##### **Appropriations Committee Issues**

Agency actions are needed to (1) assure that bills are not paid until due and uneconomical discounts are not taken, (2) establish that the time value of money is considered in bid evaluation procedures, (3) establish and periodically update an index reflecting the Government's cost of money when evaluating prompt-payment discounts and contract offers. Prior to appropriating monies for the agencies, particularly Treasury, OMB, Defense, Energy, and GSA, the Committees should evaluate the efforts being made to achieve these economies.

## DEFENSE-RELATED ACTIVITIES

### COMMERCIAL ARMS SALES

#### ***What Would Be the Impact of Raising or Repealing the Commercial Arms Sales Ceiling?***

*(ID-80-9, 1-4-80)*

**Departments of State and Defense, Arms Control and Disarmament Agency, and Defense Security Assistance Agency**

**Budget Function:** International Affairs: Foreign Information and Exchange Activities (0153)

**Legislative Authority:** Arms Export Control Act.

The ceiling on commercial arms sales was raised in 1979. The rationale for imposing the ceiling was to gain greater control and influence over arms sales to all but the closest allies of the United States. However, although the ceiling has complicated firms' marketing and sales activities, its impact on sales has been limited and it has directly effected only a few manufacturers. Traditionally, significant sales have been on a Foreign Military Sales (FMS) basis keeping such sales in the government-to-government channel. Some State and Defense Department officials felt that the ceiling was important because it provided the Government with an opportunity for greater involvement in arms sales and deterred significant sales to nonexempt countries from the commercial channel. Others disagreed that FMS controls were better or that the ceiling was forcing sales into the FMS channel.

**Findings/Conclusions:** GAO felt that Government influence over the sales process was greater when the Government was involved in the sale from the beginning, but did not believe that the ceiling guaranteed such involvement. FMS is essentially a contracting method under which foreign governments negotiate with the U.S. Government rather than a commercial firm for price and delivery. The record shows that most exempt and nonexempt sales have been made on this basis. In addition, all significant commercial sales reviewed were split sales involving both FMS and commercial contracts. They were made with Government approval and often encouraged. Controls over arms sales generally did not distinguish between FMS and commercial sales, so the same officials reviewed both and the same cri-

teria applied to both. A control added in 1977 required firms to seek approval before promoting significant defense equipment. This should provide the Government with an opportunity to either prevent a sale or to stipulate that the sale be negotiated on an FMS basis. Alternatives to the current ceiling include (1) raising it substantially or eliminating some equipment from the limitation; or (2) eliminating the ceiling but subjecting significant commercial sales to congressional review. Language could be added stating a preference for, but not requiring, FMS sales of major defense equipment.

#### **Agency Comments/Action**

Informal comments were obtained from the Departments of State and Defense and various U.S. companies concerned with commercial arms sales. Both the executive agencies and industry representatives characterized the report as objective and comprehensive.

#### **Appropriations**

No direct appropriations

#### **Appropriations Committee Issues**

The Committees should consider whether Congress should raise or eliminate the 1979 ceiling requiring weapon exports to go through foreign military sales channels if the sale is more than \$35 million.

## DEFENSE-RELATED ACTIVITIES

### COMMISSARIES AND EXCHANGES

#### ***Military Commissaries: Justification as Fringe Benefit Needed; Consolidation Can Reduce Dependence on Appropriations***

*(FPCD-80-1, 1-9-80)*

Departments of Defense and the Air Force, and Office of Management and Budget

**Budget Function:** National Defense: Defense-Related Activities (0054)

Military commissaries, particularly the appropriated fund support for their operations, have been the subject of controversy for years. Questions have been raised concerning their justification, appropriated fund support, and management.

**Findings/Conclusions:** Although the Congress originally intended that commissaries be operated only where food is not conveniently available at reasonable prices, in 1977 at least 109 of the 265 U.S. commissaries were in metropolitan areas. The services have not sufficiently justified the need for the existing magnitude of commissaries, nor have they substantiated their claims that they are needed as recruitment and retention benefits. For fiscal year 1978, commissaries received an estimated \$544 million in direct and indirect subsidies, and it is apparent that they are capable of assuming more of their costs, thereby reducing the taxpayers' burden. The Congress has repeatedly requested improvements in commissary management and operations, and studies have concluded that costs can be reduced and still result in improved service to commissary patrons. Eliminating the subsidies would give commissaries an incentive to operate much more economically and could result in savings in excess of those previously projected. Also, the Air Force is not complying with the requirement to partially offset appropriated civilian personnel costs with income from cents-off coupons since, it is not depositing the income in the correct Treasury account.

**Recommendations:** The Secretary of Defense should: (1) determine whether a need exists to provide commissary benefits; (2) develop adequate data to support that need; (3) identify alternative programs that would meet that need; (4) perform a cost-benefit analysis to determine which alternative would best meet the need; (5) develop realistic criteria to justify stores consistent with the demonstrated need, if a need is identified and commissaries are determined to be the most cost-effective means for meeting it; (6) develop and report to the Congress the justification for continuing commissary operations in consonance with revised criteria based on the demonstrated need and include the impact of requiring commissaries not meeting the revised criteria to be self-sustaining; (7) direct the timely consolidation of the four separate commissary systems into one single agency; and (8) direct the Air Force Commissary Service to deposit income from redemption of cents-off coupons in the Treasury as miscellaneous receipts as required by law. The

Congress should: redefine the conditions under which commissaries may be operated, recognizing, if appropriate, any needs demonstrated by DOD; enact specific legislation expressing those conditions; and require conversion to a self-sustaining operation of all stores not meeting the new criteria.

#### **Agency Comments/Action**

DOD believes that it has developed sufficient justification for commissaries and the criteria it uses to authorize individual stores is consistent with its current demonstrated need. DOD will continue to use the criteria, despite the GAO critical evaluation contained in the report, because it also believes that it owes the active duty and retired personnel a commissary benefit of the current magnitude, and it further believes military personnel are underpaid and are economically in need of the discount the commissaries provide. DOD disagreed that it has not reduced the level of appropriated funding of commissaries below that of 1975, because it has made many management improvements. It does agree that the appropriated fund subsidy has grown by 3.5 percent, but attributes the rise of specific activities not under its control such as foreign base operating contracts and foreign national personnel hiring and pay constraints. DOD states it continues to study the advisability of commissary consolidation and other management improvements.

#### **Appropriations**

Operation and maintenance - Army, Navy, Air Force  
Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The general provision requiring the Secretary of Defense to certify that commissaries are needed because goods are not otherwise available at a reasonable price and distance should be deleted in favor of authorizing legislation based on a demonstrated need for commissaries. DOD has not decreased the level of appropriated fund support for commissaries (inflation recognized), despite strong direction from Appropriations and Appropriations Conference Committees and its own efforts to improve commissary management.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### **Centralization: Best Long-Range Solution to Financial Management Problems of the Foreign Military Sales Program**

(FGMSD-79-33, 5-17-79)

#### **Departments of Defense and the Army, Navy, and Air Force**

**Budget Function:** Financial Management and Information Systems: Review and Approval of Accounting Systems (1102)

**Legislative Authority:** International Security Assistance and Arms Export Control Act of 1976. (22 U.S.C. 2751 et seq.).

For many years, the Department of Defense (DOD) has experienced serious financial management problems with regard to accounting, billing, and collecting for its foreign military sales program. Those problems have resulted in the failure to charge other governments hundreds of millions of dollars, and in the inability to properly account for what has been done with billions of their dollars.

**Findings/Conclusions:** DOD has not had an adequate program-wide financial management plan since the program's inception. Each military department and the Security Assistance Accounting Center designed their own systems, which have not provided accurate or timely data. As a result, DOD is unable to provide foreign governments with a proper accounting of how their money was spent. Policy implementation has been inconsistent and attempts at standardization have failed. Although some improvements have been made, progress has been slow and many longstanding problems remain uncorrected.

**Recommendations:** The Secretary should strengthen the existing steering committee by designating the Assistant Secretary of Defense (Comptroller) as head and by requiring that military department comptrollers and other responsible managers of the program be represented. This committee should be capable of monitoring the implementation of any new or improved systems. Congress should require the Secretary of Defense to produce a plan for centralizing the accounting and financial management of the foreign military sales program to assure that all costs properly chargeable to the program are fully recovered. The plan should include: obligation and expenditure accounting and disbursing of funds; specification of the central organization's responsibilities, as well as support required from other organizations; establishment of detailed policies and procedures; definition of systems requirements; identification of personnel needs; establishment of milestones for development, testing and implementation; and provi-

sions for oversight by the Comptroller General.

#### **Agency Comments/Action**

Defense supported the basic objective of the report that the financial management of the foreign military sales program needs strengthening. They believe, however, that present Department actions to improve its systems will result in the improvements envisioned by the GAO recommendation to centralize accounting and financial management for the program. The Department said that a long-range objective is to have the Security Assistance Accounting Center assume accounting and disbursing for most foreign military sales transactions, an action in line with the GAO recommendation on centralization. The Department did not specifically comment on the GAO recommendation to strengthen the existing foreign military sales steering committee.

#### **Appropriations**

Foreign military sales - Department of Defense, the Army, Navy, Air Force

Procurement, operation and maintenance, military personnel, research and development, test and evaluation - Department of Defense

#### **Appropriations Committee Issues**

The House Appropriations Committee in its report (H.R. Report 96-450, September 20, 1979) on the Defense Department's fiscal 1980 appropriation bill agreed with the GAO recommendation on centralization. The Committee mandated that Defense submit a plan to the Committee for centralizing the accounting and financial management for foreign military sales. The Security Assistance Accounting Center is now testing the centralization concept.

# DEFENSE-RELATED ACTIVITIES

## FOREIGN MILITARY SALES

### **Correct Balance of Defense's Foreign Military Sales Trust Fund Unknown** (FGMSD-80-47, 6-3-80)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** DOD Instruction 2140.3.

A report was undertaken on the accounting differences between cash balances reported to foreign customers by the Department of Defense (DOD), and cash balances carried in those customers' trust fund accounts for all services, and on financial management problems DOD experienced in the administration of the Foreign Military Sales Program.

**Findings/Conclusions:** Specifically, GAO found that as of September 30, 1979, detailed accounting records for foreign military sales customers differed by \$1.5 billion from trust fund records showing cash on hand. After considering normal processing delays, system deficiencies, and identifiable accounting errors, unexplained differences were still about \$390 million. GAO was unable to determine the cause of these differences because DOD activities have not routinely reconciled all key accounting records. Unless and until these differences are explained, the correct cash balances held in trust for 97 foreign customers cannot be determined.

**Recommendations:** In the short range, the Secretary, DOD, should direct the military departments and the Security Assistance Accounting Center to establish adequate control over customer trust funds by: (1) identifying and correcting existing differences in trust funds and supporting detailed sales records; and (2) enforcing DOD policies requiring

reconciliation of key accounting records so that unexplained differences will not arise in the future. In the long range, the Secretary, DOD, should continue actions to centralize foreign military sales accounting and disbursing as the most viable alternative to finally resolve DOD foreign military sales accounting and financial management problems.

#### **Agency Comments/Action**

DOD agreed with the short range recommendations. It deferred making a decision on the long-range recommendations of centralizing accounting and disbursing while it tests the degree to which centralization is feasible.

#### **Appropriations**

Foreign military sales - Air Force, Army, Navy

#### **Appropriations Committee Issues**

DOD is keeping the Committees informed of its progress in testing the degree to which centralized accounting and disbursing are feasible.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### **The Defense Department Continues To Subsidize the Foreign Military Sales Program by Not Charging for Normal Inventory Losses**

(FGMSD-79-31, 5-15-79)

#### **Departments of Defense, the Army, the Navy, and the Air Force**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** International Security Assistance and Arms Control Act of 1976 (P.L. 94-329). DOD Instruction 2140.1.

In 8 years, Department of Defense (DOD) sales of military items to foreign countries have risen from \$953 million to \$13.5 billion. DOD has included the following provisions in its standard sales contract: item prices set at their total cost to the Government; price increases of 10 percent or more announced in advance to purchasing countries; and agreement by foreign governments to reimburse the United States for costs exceeding estimates in sales agreements. Besides major articles, such as tanks and planes, DOD sells secondary items to foreign governments. These are either stock fund items (low-cost, expendable articles) or non-stock fund items (generally reparable and nonexpendable), which may be purchased by foreign governments through the supply support arrangements by which nations invest in DOD inventories, or other sales agreements. DOD incurs normal inventory losses in secondary item inventories due to damage, deterioration, pilferage, disposal of excess items, and obsolescence. Normal inventory losses in articles stored for purchase are charged against the purchasing country, but surcharges have only been assessed for this purpose on stock fund sales.

**Findings/Conclusions:** As of February 1979, the Army and Navy had made little effort to identify or recover inventory losses and DOD is consequently losing millions of dollars. The Air Force is not yet charging foreign governments for inventory losses, but it identified over \$480 million of such losses in fiscal year 1978 and has developed two alternatives for assessing foreign governments for their fair share of these losses: pro-rata charges for each country's share of the total loss and surcharges placed on items withdrawn from inventory. DOD has consistently failed to recover all costs because of a lack of effort to insure proper implementation of pricing policies. Nearly 10 years have elapsed since DOD first issued instructions that these costs be recovered, with a notable lack of response from the military services. Surcharges and adjustments to undercharges are possible means of recovering the value of lost items, and action must be taken before losses continue to grow. Many foreign governments purchase nonstock fund items through sales agreements not covered by supply support arrangements, although inventory losses from these sales are not legally recoverable and the purchasing nations are the only beneficiaries of the arrangement.

**Recommendations:** The Secretary of Defense should direct that DOD prescribe uniform procedures for charging

foreign governments for normal inventory losses based on the use of inventory and the military services should implement them without delay. The Secretary should also direct the military services to make a reasonable attempt to identify and recover undercharges resulting from costs of normal inventory losses that are not recovered. Congress should amend the Arms Export Control Act to require that normal inventory losses be recovered on all sales to foreign governments from DOD inventories.

#### **Agency Comments/Action**

The Department of Defense agreed that additional internal controls are needed to enforce compliance with established Department pricing requirements for foreign military sales and indicated they are revising their internal procedures. They agreed to attempt to identify and recover undercharges resulting from costs of normal inventory losses that were not recovered retroactive to fiscal year 1977. They did not agree with the recommendation to charge for normal inventory losses based on the use of inventory. Instead, they held to their position that such losses should be recovered based on the estimated on-hand portion of supply support arrangement nonstock fund items. Further, the Department disagreed with the recommendation to Congress to revise the Arms Export Control Act to require that normal inventory losses be recovered on all sales to foreign governments from defense inventories.

#### **Appropriations**

Foreign military sales - Department of Defense, Army, Navy, Air Force

Procurement - Department of Defense

Operation and maintenance - Department of Defense, Army, Navy, Air Force

#### **Appropriations Committee Issues**

This report is another example of the continuing problems Defense has had in pricing and billing for all costs of the foreign military sales program. The House Appropriations Committee discussed the problem in its report on Defense's 1980 appropriation request.

# DEFENSE-RELATED ACTIVITIES

## FOREIGN MILITARY SALES

### **Financial and Legal Implications of Iran's Cancellation of Arms Purchase Agreements** (FGMSD-79-47, 7-25-79)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** Arms Export Control Act (22 U.S.C. 2762). 22 U.S.C. 2791. 31 U.S.C. 724a.

Questions were raised by members of Congress concerning the recent cancellation of foreign military sales contracts by the Iranian government, the legal requirements of the foreign military sales program, and the fiscal responsibility and liability of the United States for canceled contracts. The report responds to these questions and provides financial information from the accounting records of the Department of Defense (DOD) concerning the sales program.

**Findings/Conclusions:** On February 3, 1979, the Iranian government cancelled \$6.6 billion of its \$12.6 billion of undelivered military sales orders. The Arms Control Act and Defense regulations permit foreign governments to purchase Defense articles and services if they agree to pay the full amount of all contracts entered into on their behalf. They must agree to meet progress payments required by the contractor and to cover any damages and costs arising from the cancellation of a contract entered into for them. However, foreign countries are only required to make such payments at the time they are due, as opposed to making them at the time they accrue. These funds are placed in a trust fund, which, in the case of Iran, was estimated at \$640 million when the sales orders were cancelled. By June 30, 1979, this amount was estimated at \$112 million, with the current disbursement rate being about \$125 million a month. Controls do exist in the contract administration process of DOD to insure that payments from the trust fund are made only for justifiable contractor costs. However, for years DOD has experienced serious accounting and financial management problems with regard to the foreign military sales program. Some of the production contracts have not been entered into and some that have, have been diverted to second buyers, thus avoiding potential termination costs estimated at \$245 million. However, if DOD stops making payments to defense contractors, the likely result would be the filing of lawsuits against the United States for

the unpaid amounts, and the liability of the United States would have to be resolved in the courts.

**Recommendations:** The Congress should consider legislation to assure that liability does not fall on the United States in the case of future cancellations of foreign sales agreements. Until Congress has had an opportunity to consider legislative changes, the Secretary of Defense should assure that adequate termination costs are included in foreign government payment schedules, as Defense now requires, and direct that amounts collected for potential contract termination be segregated in the trust fund.

#### **Agency Comments/Action**

The Department of Defense is not maintaining separate accounts for termination costs as recommended. Defense has reemphasized to the military departments the need to include termination costs in payment schedules. However, Defense does not agree that legislation is required to assure calculation and identification of termination liability funds in the trust fund accounts as recommended.

#### **Appropriations**

Foreign military sales - Department of Defense, Army, Navy, Air Force  
Procurement - Department of Defense  
Operation and maintenance - Department of Defense  
Military personnel - Department of Defense

#### **Appropriations Committee Issues**

The Committees need to insure that Defense follows through with its action to include potential termination costs within the foreign government payment schedule to assure that financial liability does not fall on the United States in the case of future cancellations of foreign sales agreements.



## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### **How Military Sales Trust Funds Operate: Saudi Arabian and Iranian Funds Compared** (FGMSD-80-26, 1-28-80)

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** Arms Export Control Act.

The Department of Defense (DOD) is requiring the military departments to estimate potential termination liability reserves for foreign military sales agreements. A report discussed the Saudi Arabian, Iranian, and other military sales trust funds and the need for a central clearinghouse controlling disbursements from military sales trust funds.

**Findings/Conclusions:** Since 1970, DOD has normally required foreign customers to pay, in advance, an amount sufficient to cover, at all times, all costs and damages associated with a sales agreement including potential termination costs. The military services have not uniformly implemented that policy. Information gathered in 1979 will determine the amount of funds necessary to protect the financial interests of the United States should future cancellations occur. Until such funds are collected, the financial interests of the United States will not be fully protected.

**Recommendations:** The Secretary of Defense should ensure that: (1) the military departments uniformly implement DOD procedures for computing termination liability reserves; (2) payment schedules include adequate termination liability reserves and foreign governments are promptly

billed; and (3) collections for possible contract termination be segregated in the trust fund and not used for routine contractor payments.

#### **Agency Comments/Action**

Defense agreed to ensure that military services correctly compute termination liabilities and include the amounts in billings, but Defense did not agree to segregate these collections in trust fund accounts.

#### **Appropriations**

Foreign military sales - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should determine that DOD has implemented the GAO recommendations in order to prevent the United States from having to pay for cancellations of foreign military sales agreements.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### ***Improperly Subsidizing the Foreign Military Sales Program--A Continuing Problem*** (FGMSD-79-16, 3-22-79)

##### **Departments of Defense and the Army, Navy, Air Force, and Defense Logistics Agency**

**Budget Function:** Miscellaneous Financial Management and Information Systems (1002)

**Legislative Authority:** International Security Assistance and Arms Export Control Act of 1976 (22 U.S.C. 2151). Foreign Military Sales Act of 1968 (22 U.S.C. 2761). DOD Instruction 2140.1. DOD Instruction 2140.3.

Over the past decade, GAO has issued numerous reports on the Department of Defense's continued failure to recover all costs incurred for foreign military sales. The primary causes of this failure have been inadequate implementation of Defense's pricing policies by the military departments and Defense agencies, and insufficient followup or monitoring of actual cost recovery practices by Defense policymakers. As a result, the foreign military sales program has been subsidized by hundreds of millions of dollars, a practice which the Congress wants the Defense Department to avoid.

**Findings/Conclusions:** Defense failed to recover, as required, up to an estimated \$370 million during the last 6 fiscal years for quality assurance services performed by U.S. Government employees on items sold to foreign governments. Congress, in passing the Arms Export Control Act of 1976, intended that indirect as well as direct costs of goods and services sold to foreign governments be recovered so that the foreign military sales program would not be subsidized by Defense appropriations. Further, since 1973, the Government-provided quality assurance services have been specifically identified in Defense pricing instructions as a recurring support cost to be recovered. Since at least 1970, Defense pricing instructions have required that items sold to foreign governments be priced to recover the full Defense contract costs. Defense Department officials indicated that full Defense contract costs should include Government-provided quality assurance services. Until the Department expands its efforts to insure that its pricing policies are effectively implemented, the full recovery of costs cannot be assured, and the foreign military sales program will continue to be subsidized.

**Recommendations:** Congress should require the Secretary of Defense to provide a plan for overcoming the foreign military sales pricing problems. The plan should specify any organizational changes that will be made and set forth the number of additional personnel to be assigned to these ac-

tivities. If the Secretary determines that the expanded staff cannot be provided from present resources, then he should request an increase in the Department's personnel ceiling. The Secretary of Defense should: assign specific responsibility for ensuring effective and consistent implementation of foreign military sales pricing policies to a new or existing organization that can be sufficiently freed from other work to carefully follow up or monitor implementation of the policies in pricing systems; develop and implement practical procedures to recover the cost of Government-provided quality assurance; and direct responsible organizations to make a reasonable attempt to identify and recover undercharges on foreign sales resulting from nonrecovery of the costs of Government-provided quality assurance services.

##### **Agency Comments/Action**

The Department of Defense did not agree with the recommendation relating to a new or existing organization to follow up or monitor implementation of policies in pricing systems. Defense indicated that corrective actions have been initiated relating to the other recommendations. A report to the Secretary of Defense was issued rebutting Defense's position on the former recommendation and commenting on the corrective actions relating to the other recommendations. The Committee reduced the fiscal year 1980 request by \$32 million in operation and maintenance.

##### **Appropriations**

Operation and maintenance - Department of Defense, Army, Navy, Air Force, Defense Logistics Agency

##### **Appropriations Committee Issues**

The Committee needs to insure that Defense is taking effective action to recover all costs incurred on foreign military sales.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### **Improvements Needed in Accounting for Foreign Student Participation in Defense Training Programs** (FGMSD-80-58, 5-7-80)

**Departments of Defense, the Air Force, the Army, and the Navy, and Defense Security Assistance Agency**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

**Legislative Authority:** Arms Export Control Act.

Due to the concern that increases in the cost of military training for foreign nationals may have been discouraging them from participating in Department of Defense (DOD) training programs, a comparison was made of trends for participating students and countries, and the tuition rates charged. While data for the Foreign Military Sales Training Program were only available for the years 1976-1979, the review compared trends over the past decade of enrollment and costs under the International Military Education and Training Program. A previous report contained the statistics developed during the review, and this final response to the request discusses the deficiencies disclosed.

**Findings/Conclusions:** DOD does not have an adequate system to record and report the number of foreign students trained. The DOD system maintains data on the number of foreign students programmed for training and is not always adjusted to reflect the actual number of students trained. Because of this deficiency, Defense is not reporting accurate information on the actual number of students trained. Neither Congress nor DOD is aware of the total cost of operating DOD programs for the training of foreign military personnel. DOD does not have an accounting system to accumulate and report the amount of costs incurred but not charged in the training of foreign military students in the

International Military Education and Training Program. Until DOD accumulates these costs, the reported value of training provided under these programs will be understated. To give Congress a better idea of the total program costs, all costs not charged should be reported.

**Recommendations:** The Secretary of Defense should establish procedures requiring the military services to promptly report to the Defense Security Assistance Agency accurate data on the actual number of students trained. He should also establish an accounting system to enable the Agency to determine the amount of costs incurred but not charged by DOD in training foreign students under the International Military Education and Training Program.

#### **Appropriations**

Foreign student training - Air Force, Army, Navy, Defense Security Assistance Agency

#### **Appropriations Committee Issues**

The Committees should determine the extent to which the Defense Department has implemented the recommendations and thus will be aware of the total cost of operating Defense programs for training foreign military personnel.

# DEFENSE-RELATED ACTIVITIES

## FOREIGN MILITARY SALES

### **Rebuttal of Defense Comptroller's Reply to Quality Assurance Cost Report** (FGMSD-80-2, 12-3-79)

#### **Departments of Defense, the Army, the Air Force, and the Navy, and Defense Logistics Agency**

**Budget Function:** Financial Management and Information Systems: Accounting Systems in Operation (1101)

In a report dated March 22, 1979, GAO disclosed that during the past 6 fiscal years the Department of Defense (DOD) had not charged an estimated \$370 million for quality assurance services provided on items sold to foreign countries, even though recovery of costs for these services had been required since 1970. Failure to recover the costs resulted from inadequate implementation of pricing policies by the military departments and Defense agencies, and insufficient followup or monitoring of the departments' and agencies' actions by DOD policymakers. GAO recommended in its report that responsibility for insuring effective and consistent implementation of foreign military sales pricing policies should be assigned to an organization which could follow up and monitor implementation of foreign military sales pricing policies. The Assistant Secretary of Defense did not accept this recommendation because: (1) followup to assure compliance with Defense policies should be the responsibility of internal audit staffs, inspector general teams, and financial quality assurance organizations, and (2) he believed that a new foreign military sales "audit/inspection" organization would not be the most efficient use of available personnel. Further, he questioned the estimate of up to \$370 million in costs not recovered for quality assurance services, but advised that corrective action had been initiated to recover those costs and to avoid incurring future deficits. Cumulative foreign military sales since 1972 have totaled about \$70.2 billion, and during that time GAO has issued 30 reports on deficient accounting, billing, and collecting on foreign military sales. Since 1976 over \$1 billion in unrecovered costs on selected sales cases have been identified. GAO believes that corrective action is long overdue, and that DOD should provide sufficient resources to ensure that its pricing policies are effectively implemented.

**Findings/Conclusions:** The Assistant Secretary of Defense believes that the GAO estimate of \$370 million in un-

recovered quality assurance services costs may be overstated. However, DOD has no statistics to show the amount of quality assurance spent on foreign military sales items, and this lack of information strongly indicates a deficient accounting system. To obtain a rough approximation of the quality assurance costs incurred, GAO determined the ratio of the dollar values of foreign military sales acceptances to Defense procurement appropriations and multiplied that by the cost of the regions' quality assurance for fiscal years 1973 through 1978. The resulting estimate of \$370 million represented an average of 57 cents for each sales dollar. DOD examined a random sample of 100 contracts and estimated quality assurance costs at 48 cents per sales dollar; thus, the GAO estimate and the results of the DOD estimate were not appreciably different. There is no doubt that the amount of the underrecoupment for quality assurance is substantial. Since fiscal year 1976, the Defense Logistics Agency (DLA) has identified \$16 million in quality assurance costs on foreign military sales items, but this amount represents only 2 percent of the DLA's quality assurance efforts. Since the military services are responsible for quality assurance at only 36 of about 20,000 Defense contractor plants, the services were notified to honor the DLA billings for quality assurance provided on foreign military sales items.

#### **Appropriations**

Foreign military sales - Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Committees should insure that Defense is taking effective action to recover all costs incurred on foreign military sales.

# DEFENSE-RELATED ACTIVITIES

## INTERNAL AUDITS

### **The Army Inspector General's Inspections--Changing From a Compliance to a Systems Emphasis** (FGMSD-80-1, 10-30-79)

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Defense-Related Activities (0054)

GAO reviewed the Army's inspector general operations and found several ways of strengthening its inspection system.

**Findings/Conclusions:** The thrust of inspections by Army personnel at lower organizational levels should be changed. Inspection reports below the headquarters level contained many nonmission related, insignificant findings. Causes of problems were often not developed because the inspections superficially covered many broad subjects in a very short time. The thrust of the inspections should be shifted from a compliance approach to one which would identify problems by tracing them through the system. Some lower level inspector general offices relied heavily on temporary inspectors who took part in the inspections and returned to their regular jobs. This resulted in reduced objectivity. More use of civilian personnel in professional positions is needed. Overinspection and duplication are problems. The Department of Defense policy regarding the release of Inspector General reports as implemented by the Army for this review seemed a workable method for reviewing and obtaining copies of closed Army inspection reports.

**Recommendations:** The Secretary of the Army should issue directives to lower level inspectors general: on the systemic approach to inspections, the need to identify causes of problems, the inadvisability of reporting minor deficiencies, and the need to allow adequate time for a thorough inspection. The Secretary should require that before temporary inspectors conduct inspections: they be provided guidance and training on their role as inspectors, that their work be monitored to promote objectivity, and that they be selected

from activities that do not have routine working relationships with the unit to be inspected. The Secretary should also require that more civilians be placed in professional positions as much as possible; and clearly define the functions of inspection, internal review, and internal audit, and eliminate duplication and overlap. Where duplication and overlap are deemed necessary, the Secretary should, require that the group performing an evaluation review and consider the work of any group. Also, inspections should be conducted on a no-notice or limited notice basis to the greatest extent possible.

#### **Agency Comments/Action**

The Department of the Army generally concurred with the conclusions and recommendations. The House Government Appropriations Committee is using this report to help determine whether to create an overall Inspector General for the Department of Defense.

#### **Appropriations**

Military personnel - Department of the Army

#### **Appropriations Committee Issues**

Substantial resources could be saved or redirected if the Army reduced overinspection and duplication, used more civilian inspectors, and improved the training and oversight of temporary inspectors.

## DEFENSE-RELATED ACTIVITIES

### INTERNAL AUDITS

#### ***Defense Logistics Agency Inspector General Inspections Should Change From a Compliance to a Systems Approach***

*(FGMSD-80-24, 12-27-79)*

#### **Defense Logistics Agency and Defense Audit Service**

**Budget Function:** National Defense: Defense-Related Activities (0054)

**Legislative Authority:** Inspector General Act of 1978 (P.L. 95-452).

A review was made of the inspector general operations in the Air Force, Army, Navy, Marine Corps, and the Defense Logistics Agency (DLA). The DLA has no audit capability of its own and receives only limited audit coverage from the Defense Audit Service. This lack of audit coverage increases the need for a strong inspection system. Inspection reports provide some valuable information; however, the majority of them are compliance oriented and contain many minor findings.

**Findings/Conclusions:** Inspections can be improved by directing them more toward identifying significant systems problems. Duplication between the Inspector General, the Defense Audit Service, and other review groups is not a problem. However, the Inspector General does not have an adequate feedback system for determining the Service's responsiveness to audit requests submitted by the Inspector General. The Defense Logistics Agency inspection system is totally centralized with all inspection personnel reporting to the Inspector General. Temporary inspectors represent less than 2 percent of the total inspection staff-days charged. Using more temporaries could allow for more frequent inspection coverage and provide other advantages. The Department of Defense has implemented a new policy for releasing Inspector General reports and records to GAO, and the new method has proven to be satisfactory.

**Recommendations:** The Director of DLA should direct his Inspector General to: (1) modify his inspections by concentrating more on systems problems, developing causes of these problems, and reducing reporting of minor deficiencies; (2) establish a system for identifying which audit requests submitted to the Defense Audit Service are not being

addressed, so the Inspector General can identify areas which he or other Agency activities should inspect; and (3) increase the use of temporary inspectors as a means of providing more frequent inspection coverage. Temporary inspectors should be provided guidance and training on their role as inspectors, their work should be monitored to promote objectivity, and they should not have a routine working relationship with the inspected unit.

#### **Agency Comments/Action**

The Defense Logistics Agency generally concurred with the conclusions and recommendations. The House Government Appropriations Committee is using this report to help determine whether to create an overall Inspector General for the Department of Defense.

#### **Appropriations**

Military personnel - Defense Logistics Agency

#### **Appropriations Committee Issues**

Substantial resources could be saved or redirected if the Defense Logistics Agency (DLA) reduced reporting of minor deficiencies and shifted inspection emphasis to identifying and reporting causes of significant problems. The potential for fraud, waste, and abuse at DLA functions, coupled with the decrease of audit coverage of these activities, further dictates the need for the Inspector General to modify his inspection approach.

# DEFENSE-RELATED ACTIVITIES

## INTERNAL AUDITS

### **GAO Findings on Federal Internal Audit--A Summary** (FGMSD-80-39, 5-27-80)

#### **Department of Defense**

**Budget Function:** Financial Management and Information Systems: Internal Audit (1103)

Federal internal audit organizations save the Government billions of dollars each year. However, not all of their work is as effective as it could be, and internal audit problems have kept the Government from realizing the full benefit of their work.

**Findings/Conclusions:** Problems in Federal audit organizations include: low priority on preventing and detecting fraud, insufficient financial auditing, inadequate and insufficient audits of grants and contracts, a need for more computer auditing, poor followup on findings, and insufficient staff. The establishment of the Inspector General Offices and other recent improvements have the potential to strengthen Government auditing, but it is too early to say whether their efforts will correct all deficiencies. GAO will continue to work with internal audit and Inspector General organizations and will advise Congress of any further actions needed to solve these problems.

#### **Agency Comments/Action**

To date, the Office of Personnel Management has com-

mented that it is using the report to improve its internal audit activities, specifically in the areas of financial auditing, grant and contract auditing, and computer auditing.

#### **Appropriations**

Internal audit activities - All Federal departments and agencies

#### **Appropriations Committee Issues**

Although Federal internal audit organizations save the Government billions of dollars each year, not all of their work is as effective as it could be, and internal audit problems have kept the Government from realizing the full benefit from their work. Although many actions have been initiated to solve these problems, their ultimate success cannot be predicted. GAO will continue to work with internal audit and Inspector General offices and will advise the Congress of any further actions needed to solve the problems discussed in this report.

## DEFENSE-RELATED ACTIVITIES

### INTERNAL AUDITS

#### ***The Marine Corps Inspection System Should Use Resources More Efficiently*** (FGMSD-80-20, 12-20-79)

Departments of the Army, the Air Force, and the Navy, U.S. Marine Corps, and Defense Logistics Agency

**Budget Function:** National Defense: Defense-Related Activities (0054)

**Legislative Authority:** Inspector General Act of 1978 (P.L. 95-452).

The Inspector General of the Marine Corps conducts inspections and investigations as directed by the Commandant, and audits all Marine Corps nonappropriated fund activities except exchanges. The objectives of the inspection program are to evaluate: leadership and the use of resources; welfare, morale, and discipline; compliance with Marine Corps policies and procedures; work practices and safety and health conditions; and local inspection procedures. The Inspector General inspected 271 activities in fiscal year 1978 using the 11 full-time inspectors heavily aided by temporary inspectors from other Marine Corps activities. Also, the Inspector General's Field Audit Service audited the accounting practices of 146 nonappropriated fund activities with a total revenue of about \$94 million.

**Findings/Conclusions:** The Marine Corps Inspector General's Field Audit Service can save about \$1 million annually by eliminating overstaffing; GAO identified 42 of 122 positions that could be cut or reassigned without hurting operating capability. The thrust of reports are compliance oriented, contain insignificant findings, and usually do not develop the causes of problems disclosed during inspections. Staff could be used more effectively by reducing the frequency of noncombat force inspections which are twice as frequent as the combat force inspections. The extensive use of temporary inspectors just invites problems. The Field Audit Service should consist primarily of qualified civilians, thereby bringing the Marine Corps more in line with the Department of Defense policy of filling each position with a civilian unless it can be proven that a military person is required. This could also save money since civilian personnel cost less than military personnel. Overinspection and duplication are additional problems.

**Recommendations:** The Secretary of the Navy should direct the Commandant of the Marine Corps to: reduce the authorized staffing level of the Field Audit Service by 42 positions; analyze the structure of the Field Audit Service with the intent of further reducing authorized staff; revise the Field Audit Service staffing criteria so that individual positions, not teams of auditors, are authorized commensurate with the workload; modify the Inspector General's approach

to inspections so that causes of significant problems are determined by tracing them throughout the system, including headquarters levels, with the Inspector General considering an inspection approach similar to that of the Army Inspector General; reduce the frequency of noncombat unit inspections; require that temporary inspectors' work be monitored to promote objectivity and that temporaries come from units that do not have a routine working relationship with the unit to be inspected; require that some of the inspection and most of the Field Audit Service positions be staffed with qualified civilians to the greatest extent possible; coordinate the work of the Inspector General and other review groups to eliminate duplication and require that the various review groups use each other's work to reduce the scope of their efforts; and consider conducting no-notice or limited notice inspections which might give a more accurate picture of the units' status.

#### **Agency Comments/Action**

The U.S. Marine Corps generally concurred with the conclusions and recommendations. The House Government Appropriations Committee is using this report to help determine whether to create an overall Inspector General for the Department of Defense.

#### **Appropriations**

Military personnel - U.S. Marine Corps

#### **Appropriations Committee Issues**

Substantial resources could be saved or redirected if the Marine Corps Inspector General's Field Audit Service abolished one-third of its positions. Further improvements could be made if the Marine Corps made fewer noncombat activity inspections, reduced overinspection and duplication, used more civilians, and developed causes of problems rather than reporting on compliance with rules and regulations.



## DEFENSE-RELATED ACTIVITIES

### INTERNAL AUDITS

#### ***The Navy's Inspection System Could Be Improved*** (FGMSD-80-23, 12-26-79)

#### **Department of the Navy**

**Budget Function:** National Defense: Defense-Related Activities (0054)

The Naval Inspector General inspection system is much smaller than the Air Force or Army systems and covers only about 20 percent of the Navy's activities; the other activities are inspected by individual commanders. Both groups rely extensively on temporary inspectors who normally are taken from the headquarters staff offices of the activity conducting the inspection.

**Findings/Conclusions:** The Naval inspection system differs from the Air Force and Army systems whose headquarters and command-level inspection staffs inspect the lower levels of their organizations. The Navy relies on each level within the chain of command to inspect its immediate subordinates. Generally the Inspector General does not receive copies of lower level inspection reports, and significant problems these inspections disclose are not referred to him. While this highly decentralized system provides some formal oversight of Naval activities and prevents duplication of inspections by different levels, it could be more effective. If the headquarters Inspector General expanded his inspections to include lower level Navy activities, the Secretary of the Navy and the Chief of Naval Operations would get an independent assessment of the units' condition and a better overall picture of the state of the command. Additional full-time staff would probably be required, but the benefits of their work should justify the investment. Additional professional positions could be filled by civilians.

**Recommendations:** The Secretary of the Navy should ensure compliance with existing directives requiring that com-

mand inspection reports: identify causes of problems, do not address minor deficiencies, and refer significant problems disclosed by lower level inspections to the Naval headquarters Inspector General. The Secretary should also expand inspections of lower level activities to allow more in-depth observations and require that civilians be used in professional positions whenever possible.

#### **Agency Comments/Action**

The Department of the Navy generally concurred with the conclusions and recommendations. The House Government Appropriations Committee is using this report to help determine whether to create an overall Inspector General for the Department of Defense.

#### **Appropriations**

Military personnel - Department of the Navy

#### **Appropriations Committee Issues**

Substantial resources could be saved or redirected if the Department of the Navy developed more information on the underlying causes of problems disclosed during inspections and eliminated reports of minor, non-mission-related deficiencies. Also, if headquarters expanded its inspections and used civilians more often to fill professional positions, the system would be stronger.

## DEFENSE-RELATED ACTIVITIES

### INTERNAL AUDITS

#### **Need for DOD Focal Point for the Studies and Analyses Program** (LCD-80-97, 8-12-80)

##### **Department of Defense**

**Budget Function:** National Defense: Defense-Related Activities (0054)

GAO reviewed the progress of the Department of Defense (DOD) in improving its overall management of the studies and analyses program and in strengthening program weaknesses identified during earlier reviews. GAO found that current program weaknesses are basically the same as those identified during earlier reviews, and DOD has taken little or no action to correct these weaknesses. DOD is not centrally managing its studies and analyses program, and has no assurance that program results are effectively used.

**Recommendations:** DOD should establish a steering group to monitor the program and determine its responsiveness to needs. In addition to the specific duties outlined in DOD Directive 5010.22, the group should be responsible for providing additional guidance as to the specific types of studies on which the DOD components are to report cost data

to the DOD level and include the study results in the data bank; a more uniform basis for determining cost data on in-house studies; and more effective procedures for assuring that DOD components evaluate the usefulness and overall effect of study efforts.

#### **Appropriations**

Operation and maintenance - All military services

#### **Appropriations Committee Issues**

DOD cannot assure Congress that funds identified for studies and analyses are reasonable estimates of the cost of the program.

## DEFENSE-RELATED ACTIVITIES

### NORTH ATLANTIC TREATY ORGANIZATION

#### **Equitable Cost Sharing Questioned on NATO's Airborne Early Warning and Control Program**

(ID-80-47, 7-1-80)

#### **Departments of State, Defense, and the Air Force, and North Atlantic Treaty Organization**

**Budget Function:** National Defense: Military Assistance (0052)

**Legislative Authority:** Department of Defense Supplemental Appropriation Authorization Act, 1979 (07 P.L. 96-29). Department of Defense Authorization Act, 1980 (P.L. 96-107). Arms Export Control Act. Buy American Act (41 U.S.C. 10a-10d).

A \$1.8 billion airborne early warning and control program funded by the North Atlantic Treaty Organization (NATO) has been placed on a cooperative basis wherein the costs will be shared by participating countries. The United States will pay about 42 percent of the acquisition costs and the recurring operations and support costs of the program. The Department of Defense (DOD) estimates that when the cost of the United Kingdom's contribution of aircraft is included the United States share of the program will not exceed 33 percent. Factors which are delaying the successful negotiation of a production contract or otherwise contributing to potential funding shortfalls include: the prime contractor's not-to-exceed estimate is approximately \$147 million over the agreement figure; non-participation by Belgium or other nations, expenses associated with British aircraft interoperability; termination of the planned sale of aircraft to Iran; failure of participants to pay an agreed fair share of inflation on the base year costs; and any reduction in Air Force aircraft buy. The program currently faces substantial potential funding shortfalls and the United States could be faced with absorbing these costs. Several countries qualified their program commitments in the agreement expressing reservations relating to financial issues, force employment issues, need for national approval, and refusal to pay more than their stated fair share of all acquisition, operations, and support costs. The linkage to several separate offset arrangements to the aircraft program could affect its successful completion. GAO believes that the United States has not put great enough emphasis on obtaining commitments from participating NATO allies to equitably share in any program cost increases over and above the amounts provided for in the basic agreement. Congress may wish to require a full reporting from DOD on the status of the overall NATO program. It might require DOD to identify any conditions or caveats placed upon the aircraft purchase by participating countries; total U.S. program costs including waivers and

other identifiable concessions; unresolved program issues, and any potential funding shortfall with an explanation on how the shortfall is expected to be absorbed.

#### **Agency Comments/Action**

DOD, while taking no substantive exceptions to the information in the report, did not totally agree with the GAO analyses and conclusions. The basic concern centered on the fact that DOD does not consider the U.S. share of the NATO program inequitable. DOD said the cost sharing formula for this program, like all NATO cost sharing formulae, was negotiated on the equally relevant basis of ability to pay (measured by relative economic strength) and economic benefits received. Thus, for example, the U.S. percentage share of the NATO infrastructure budget is nowhere near our relative economic strength in the Alliance (somewhat over half of the aggregate gross domestic product of infrastructure contributors), because most of the military installations and their attendant economic benefits are in Europe.

#### **Appropriations**

Procurement - Air Force

#### **Appropriations Committee Issues**

Some areas of program cost growth or funding shortfall may be resolved by program modification, and national priorities may lead to amendments by some of the Members. Realistically, however, the United States may ultimately choose to shoulder the bulk of added program costs or funding shortfall, especially when considering the positive attitude of DOD towards the demand made by NATO members thus far, and the major role in burden sharing that the United States has played in past alliance efforts.

# DEFENSE-RELATED ACTIVITIES

## PRODUCTIVITY

### **Improving the Productivity of Federal Payment Centers Could Save Millions**

(FGMSD-80-13, 2-12-80)

#### **Office of Management and Budget**

**Budget Function:** General Government: Other General Government (0806)

**Legislative Authority:** Civil Service Reform Act of 1978. 20 U.S.C. 2307. 31 U.S.C. 529. 41 U.S.C. 255.

Inefficiencies in processing payments to vendors for goods and services cost the Federal Government millions annually. For example, productivity rates achieved by Federal payment centers in the vendor bill-payment function varied by about 600 percent. Although the bill-payment function is a readily measurable, repetitive process, most payment centers GAO examined did not have productivity measures. Thus, GAO constructed many of the measures on which the performance data was based. GAO determined three primary reasons for the large variance: (1) the degree of management concern for, and use of, efficiency measures; (2) the volume of workload processed by the centers; and (3) the degree to which automation or improved processes and procedures were used in the payment process.

**Findings/Conclusions:** According to payment center managers, the major cause of low productivity were the disincentives to be efficient. These disincentives included: (1) across-the-board budget cuts, which encouraged managers to keep staff above minimum levels in order to absorb the cuts and still perform the work; (2) tying grade levels to number of staff supervised; and (3) inability of managers to discipline employees who do not perform. Alternatively, the managers of payment centers with high productivity showed a high degree of concern about productivity and had reasonably good systems designed to identify expected performance and measure against it. However, one nonprocedural factor that affected productivity was workload volume. Payment centers with large workloads normally achieved higher productivity rates than centers with low volumes. High volume allowed economies of scale and assembly-line techniques to be used. Just as automation and statistical sampling contributed to high productivity rates, duplication of effort, problems in timely submission of receiving reports, and limited sharing of knowledge on processing rates and methods used to improve efficiency contributed to the low processing rates. Newly enacted legislation should help make managers more acutely aware of the need for emphasizing productivity. However, GAO does not feel that legislation alone would result in a significant increase in productivity measurement. The Office of Personnel Management (OPM) needs to take an active role in supporting productivity measurements.

**Recommendations:** The heads of individual departments and agencies should develop systematic measures of productivity covering their payment centers. In addition, these departments and agencies in order to improve productivity should: (1) eliminate or consolidate payment centers which, due to low volume, cannot be made efficient; (2) use alternatives to receiving reports such as fast-pay procedures, where possible; (3) analyze the processes and procedures used in examining payment transactions to identify and eliminate unnecessary or redundant steps; (4) use statistical sampling techniques in auditing payment transactions in accord with GAO requirements; and (5) initiate periodic exchange of information on methods and procedures between payment centers that are within the same agency and with other agencies. Additionally, for payment centers and related financial management functions, the Joint Financial Management Improvement Program has a role which OPM should consider drawing upon. GAO further recommends that the Executive Director, Joint Financial Management Improvement Program, request that agencies report the progress made in measuring and improving productivity within their payment centers as part of the agency's annual financial management improvement report.

#### **Agency Comments/Action**

The recommendations were strongly supported by most Federal agencies. OPM is planning a workshop for Federal agencies on the subject and most agencies are planning to implement the recommendations.

#### **Appropriations**

All Federal agencies

#### **Appropriations Committee Issues**

The Committees should determine if agencies are taking actions to improve the productivity of the payment process. They should also determine whether OPM and the Office of Management and Budget have taken actions to encourage productivity improvement in the payment process by developing standards and measures and using them in the budget process.

## DEFENSE-RELATED ACTIVITIES

### PRODUCTIVITY

#### ***Productivity Measurement in the Defense Logistics Agency Must Be Supported, Improved, and Used*** (FGMSD-80-41, 4-18-80)

Department of Defense, Defense Logistics Agency, and Office of Management and Budget

**Budget Function:** National Defense: Defense-Related Activities (0054)

**Legislative Authority:** Civil Service Reform Act of 1978. OMB Circular A-11.

Tight budgets and high inflation make it essential that Government agencies obtain the greatest output possible from their resources. In order to achieve productivity improvement, agencies need an effective productivity measurement system. The Defense Logistics Agency (DLA) has one of the best-designed measurement systems in the Government. Thus, a study was undertaken concerning the adequacy of efforts by DLA to use productivity and work measurement data in budgeting and staff management.

**Findings/Conclusions:** In reviewing the productivity measurement system of DLA, GAO found that DLA does not derive full benefits from the system because it fails to use data based on productivity and work measures in budgeting. Moreover, DLA barely uses such data for other management purposes. Additionally, limited management attention to the system has caused deficiencies which affect its credibility and use. Further, GAO found that budget review authorities are not requesting or using productivity data where such measurements were possible. Although some of the problems that DLA has which affect the productivity measurement system's usage could be corrected by the new work standards program of DLA, the program currently has serious management weaknesses which affect data credibility.

**Recommendations:** The Director of DLA should ensure that the productivity measurement system is effectively used by managers at all levels by: (1) improving the measurement system methodology for providing summary and program standards and establishing controls over the accuracy and validity of reported data to ensure that correct data is available for performance evaluation and resource determinations; (2) assessing the status of the new work performance standards program with a view toward more timely implementation and assuring better planning and controls for its proper development and maintenance; (3) requiring that data from the system be integrated into the programming and budgeting systems and routinely used for those purposes as well as for making other staff management decisions; (4) assuring that supervisors and managers are trained for their roles in work measurement data usage; (5) supporting the use of work measurement data by incorporating the Civil Service Reform Act's provisions on appraisals and rewards into the measurement system and re-

quiring that other actions be taken to encourage supervisors and managers to use measurement data; (6) providing sufficient guidance and encouragement to the field activities' measurement system staffs and clarifying those staffs' roles and functions, and (7) requiring that measurement system managers establish adequate monitoring and control mechanisms to assure that measurement system personnel are appropriately utilized and that the measurement system is used continuously. Additionally, the Secretary of Defense and the Director of the Office of Management and Budget should require their budget examiners to formally request and utilize such work-measurement-based productivity data, as can be developed in their budget reviews. To assure improvement in the productivity measurement system of DLA, the Subcommittee on Defense, House Appropriations Committee, should require DLA to: (1) provide the Subcommittee with definitive plans for timely implementation of the new work performance standards program; and (2) submit, as part of its budget package, information on the progress in implementing the program and on the extent to which budgeted resource requirements are based on valid work measurement data.

#### **Agency Comments/Action**

The Office of Management and Budget, Department of Defense, and DLA agreed with the need to increase the use of work-measurement-based productivity data in the budget process. Further, the Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) informed GAO on June 20, 1980, that a chapter on productivity considerations is being incorporated in the forthcoming revision of DOD-70-1017 "DOD Budget Guidance Manual."

#### **Appropriations**

Defense Logistics Agency

#### **Appropriations Committee Issues**

The Committees should emphasize the need to use work-measurement-based productivity data to the maximum degree in supporting budgets.

## DEFENSE-RELATED ACTIVITIES

### RESEARCH AND DEVELOPMENT

#### *Are Management Problems in the Acquisition of Aircraft Gas Turbine Engines Being Corrected?*

(PSAD-80-72, 9-30-80)

#### Departments of Defense, the Navy, and the Air Force

**Budget Function:** National Defense: Defense-Related Activities (0054)

GAO examined the Department of Defense's management approach to the acquisition of gas turbine engines for fighter/attack aircraft.

**Findings/Conclusions:** GAO found that recent problems with fighter/attack aircraft engines have been primarily due to development concepts, procedures, and practices that did not provide the time and money to adequately develop the engines before production and use, and did not bring promising technology to the point that it was ready for applications in new engines. Other major factors that adversely affected engine development were: (1) an inadequate definition of the engines' usage and, consequently, the inability to design engines to their expected usage and to verify the design by testing to that usage; (2) emphasis on performance requirements with a resulting lack of standards, data base, and analytical procedures to achieve a balance among performance, operability, reliability, durability, and costs; and (3) inadequate flight testing of engines. Incomplete development has resulted in extensive Component Improvement Programs, increased spare parts costs, reduced operational readiness, and expensive retrofits.

**Recommendations:** The Secretary of Defense should delegate specific responsibility to an organization within his Office to direct and supervise the Air Force and the Navy efforts to establish an organized and disciplined approach to the structural design, analysis, development, production, and life management of aircraft gas turbine engines. The designated organization should require the services to: (1) complete the formulation of the services' new policies, principles, and procedures for engine acquisition management by way of regulations and other appropriate documents; (2) establish a master plan for developing the standards, sup-

porting methodology, data base, and analytical procedures needed to fully implement the policies and principles and make the development process more rational and analytical; (3) realign funding priorities to expand and improve advanced development programs in general, and structural testing and development in particular; and (4) coordinate the improvement efforts to enhance and encourage joint acquisition programs. The designated organization should closely monitor the F101 Derivative Fighter Engine and Advanced Technology Engine joint programs and report to Congress the progress and the problems in developing an organized and disciplined approach to the life management of aircraft gas turbines.

#### Agency Comments/Action

The Department of Defense generally agreed with the facts and conclusions, but disagreed with the recommendation for periodic reporting to Congress. Specific actions have yet to be determined.

#### Appropriations

Research and development, test and evaluation (RDT&E) - Air Force, Navy  
Procurement - Air Force, Navy  
Operation and maintenance - Air Force, Navy

#### Appropriations Committee Issues

The report is expected to provide information that Congress needs to better determine the adequacy of the RDT&E effort prior to the procurement of gas turbine engines.

## DEFENSE-RELATED ACTIVITIES

### RESEARCH AND DEVELOPMENT

#### **Coordination of Federal Arms Control Research Program To Be Improved** (ID-80-6, 3-17-80)

#### **Arms Control and Disarmament Agency, and Departments of Defense, Energy, and State**

**Budget Function:** International Affairs: Conduct of Foreign Affairs (0152)

**Legislative Authority:** Arms Control and Disarmament Act (22 U.S.C. 2551 et seq.). Executive Order 11044.

The efforts of the Arms Control and Disarmament Agency (ACDA) to coordinate arms control research sponsored by other Federal agencies and the management of ACDA external research program were studied. The Director of ACDA is the principal advisor to the Secretary of State, the National Security Council, and the President on arms control and disarmament matters. Congress clearly intended that ACDA spearhead the Government's arms control research program through conducting and coordinating research and providing advice relating to arms control and disarmament policy formulation; managing U.S. participation in international arms control negotiations; disseminating and coordinating public information about arms control and disarmament; and directing, as needed, U.S. participation in international control systems that may result from U.S. arms control or disarmament activities. The ACDA external research program is designed to advance U.S. arms control objectives by focusing on issues under active or imminent negotiation and by providing a base for policy planning.

**Findings/Conclusions:** The ACDA has not carried out its coordination function as mandated by law. During the past 5 years, ACDA has not: (1) developed a Governmentwide comprehensive, balanced plan or program of research on arms control and disarmament; (2) advised other agencies as to their roles in arms control research; (3) maintained a comprehensive inventory of arms control research performed or sponsored by other Federal agencies; (4) sought agencies' assessments of their arms control research programs; and (5) evaluated arms control research done by or for other Government agencies. Agency officials contend that there are mitigating circumstances in the failure to perform the required coordination. They reason that frequent interactions with other agencies are sufficient to keep abreast of other research and to keep others informed of ACDA research. They believe their ability to realistically accomplish the required coordination is questionable, and that compliance with the law would be very expensive and time-consuming beyond ACDA capabilities. They also doubt whether all Federal research with arms control implications should be coordinated by ACDA. Recently, ACDA has been withholding substantial portions of its research funds in reserve to meet potential shortfalls in operating funds. ACDA personnel were not systematically identifying research relevant to proposed projects, disseminating research results, or evaluating research products.

**Recommendations:** The Director, ACDA, should coordinate all Federal arms control research in compliance with the Arms Control and Disarmament Act and Executive Order 11044. If such coordination is not feasible or appropriate, the Director should urge the Congress to amend the Act and seek to have the Executive Order revised or rescinded.

#### **Agency Comments/Action**

The Director of ACDA commented that coordination of arms control research as intended by the Congress and mandated in the Act did exist by virtue of interactions and communications with other agencies. According to the Agency, while amending the Act is not necessary, some of the Executive Order requirements did envisage a more prominent role for the Agency than has proven necessary. To the extent adequate coordination may be lacking, the Director said a remedy would be sought. He stated that the affected agencies and the Office of Management and Budget would meet to ensure that the ACDA legislated coordination requirements would be met in a practical and workable manner. Concerning the Agency's own research program, the Director generally agreed that problems did exist in the areas that GAO noted. He reiterated that a new External Research Council had been established to improve the management and direction of the Agency's research program and that certain corrective actions were being initiated.

#### **Appropriations**

Arms control and disarmament activities - Arms Control and Disarmament Agency

#### **Appropriations Committee Issues**

To adequately fulfill its mandated coordination responsibilities, ACDA must first work with the other agencies involved to establish a consensus as to the scope of research to be coordinated. In addition, the Agency should seek relief from those coordination requirements it believes to be unnecessary. Without knowing the scope of research to be coordinated, the effort needed to fulfill this responsibility cannot be adequately determined. In recent years, large portions of ACDA own funds allocated for research have been held in reserve to meet potential shortfalls in operating funds and

then made available late in the fiscal year, resulting in a flurry of yearend research contract activities. ACDA commented that the new External Research Council will instill more order into the process and will assure in the future that there will not be a substantial obligation near the end of the budget year.



## DEFENSE-RELATED ACTIVITIES

### RESEARCH AND DEVELOPMENT

#### ***DOD Should Determine Cost and Operational Effectiveness of Helicopter In-Flight Escape Systems***

*(PSAD-80-65, 7-14-80)*

**Departments of Defense, the Army and the Navy**

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

**Legislative Authority:** B-177166 (1973).

The efforts of the Department of Defense to develop helicopter in-flight escape systems were reviewed to determine what actions were taken on GAO recommendations for development in a June 1973 report to Congress. Primarily, GAO assessed the bases for subsequent decisions not to develop the escape systems, especially the one for the AH-1 Cobra attack helicopter.

**Findings/Conclusions:** The in-flight escape issue is complex and emotional. Studies by the services before 1973 supported the need for escape systems. GAO found, however, that virtually all development efforts stopped in 1974, even though interest in the systems resurfaced from time to time and still exists today. More recent studies generally supported a continuing need for the Cobra in-flight escape system. GAO also found that decisions against development were based on subjective appraisals rather than quantitative analyses which would have provided the best decision base. An Army organization recommended such an analysis as far back as 1973. Because of the potential for saving lives, the complexity of the issue, and the lack of quantitative bases for a proper decision to develop or not to develop the system, a cost and operational effectiveness study is needed to settle the issue.

**Recommendations:** The Secretary of Defense should require a thorough and quantitative cost and operational effectiveness study of the Cobra attack helicopter escape system. Included should be such factors as: (1) the number of pilots that would be saved both in peacetime and during combat; (2) benefits to be derived from increased pilot morale and military readiness; (3) savings from eliminating

death payments and reducing training costs; (4) the percentage of time spent flying in the nap-of-the-earth environment; (5) the effect of the system's added weight on the operational mission; (6) costs to develop and retrofit the system on existing Cobras and install it on newly produced helicopters; and (7) the concept's application to other service helicopters.

#### **Agency Comments/Action**

The Principal Deputy Under Secretary of Defense wrote that the report reflects fairly and accurately the Service disagreements which have resulted in the lack of a basis for a decision on development of an in-flight escape system. As GAO recommended, he is requesting the Army and the Navy to jointly undertake a definitive cost and operational effectiveness study on the Cobra helicopter, with the work to be done under the auspices of his office.

#### **Appropriations**

Research, development, test, and evaluation - Army, Navy

#### **Appropriations Committee Issues**

The Committees should determine whether DOD has demonstrated the feasibility of developing a helicopter escape system, including a quantitative cost and operational effectiveness study, and what decision has been made on the need to install the system in the Cobra and other service helicopters.

## DEFENSE-RELATED ACTIVITIES

### RESEARCH AND DEVELOPMENT

#### **Federal Agency Roles and Responsibilities for Emergency Communications Need Clarification** (LCD-80-91, 8-8-80)

**Department of Transportation, Office of Management and Budget, Federal Emergency Management Agency, and Defense Civil Preparedness Agency**

**Budget Function:** General Science, Space, and Technology: Telecommunications and Radio Frequency Spectrum Use (0258)

GAO reviewed the June 1979 report of the Interagency Committee on Search and Rescue which proposed a national Emergency Response Communications Program to determine the Federal agencies' and offices' responsibilities for emergency communications and determine plans for following up on the report findings. The Committee envisioned a satellite system which would provide voice, data, and video coverage to mobile and fixed station users in all 50 States, Puerto Rico, and the Virgin Islands. Because the satellite system envisioned is beyond state-of-the-art technology, it will require substantial research and development effort.

**Findings/Conclusions:** The report is not a reliable basis for decisionmaking because the Committee did not establish the need for the program, examine alternatives, or adequately consider the program's cost and funding. In developing the program, the Committee did not follow the Office of Management and Budget (OMB) guidelines intended to ensure that system development will not begin until a need has been verified. Because the Committee assumed the need existed and the system should be developed to meet the need, the Committee failed to examine alternative systems. A number of potential users advised the Committee that they could not fund the program. As a result, the Committee chose to omit a discussion of the cost, even though the program is expected to cost as much as \$1 billion. The Committee believes the Government should fund the research and development, first launch, and testing of the system, and once operational, the users would pay to operate and maintain the system. This is not consistent with Presidential directives which look to private industry rather than the Government to provide the needed services. The same services are already provided by the Dispersed Users Satellite Program, and two other efforts

have been initiated to improve emergency communications. These activities are duplicative and inconsistent. Confusion of Federal agencies' responsibilities for emergency communications have existed since the Office of Telecommunications Policy was abolished. A clear understanding of the lines of authority and responsibility for telecommunications at all levels of Government is needed.

**Recommendations:** The Director of OMB, in coordination with other Federal agencies and offices involved, should clarify roles and responsibilities for emergency communications so that duplications and inconsistencies can be eliminated. Pending the clarification of roles and responsibilities, no further action should be taken on the Interagency Committee's Emergency Response Communications Program, and further efforts to develop a national emergency communications system should be consistent with existing laws, policies, and regulations.

#### **Agency Comments/Action**

The great majority of the civil and military agencies commenting agreed with the GAO findings, conclusions, and recommendations. OMB said it would reserve detailed comment until it had received the final report.

#### **Appropriations**

Various appropriations - Various civil and military agencies

#### **Appropriations Committee Issues**

Oversight of the Appropriations Committees should assure that duplications and inconsistencies noted in this report are eliminated.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## CONTRACTS

### ***Air Force Should Recover Excess Costs of Prior F-15 Contracts and Take Action To Save Costs on Future F-15 Contracts***

*(PSAD-80-4, 10-24-79)*

**Departments of Defense and the Air Force, and Defense Contract Audit Agency**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** P.L. 87-653.

A review was made to determine the reasonableness of the production material costs accepted by the Air Force Aeronautical Systems Division for the production of 108 F-15 and TF-15 aircraft. The fixed-price incentive contract was awarded in 1977 to McDonnell Douglas Corporation at a negotiated target price of \$789,053,670.

**Findings/Conclusions:** The target cost for the F-15 contract was overstated by about \$2.4 million because the contractor did not use current, accurate, and complete cost or pricing data for negotiated production material cost. Also, because the contractor's profit was added to this overstatement, it will result in about \$2.7 million excess cost to the Government, depending on whether the target is underrun or overrun.

**Recommendations:** The Secretary of Defense should take action to determine whether the Government is entitled to a price adjustment.

### **Agency Comments/Action**

The Air Force has initiated a review of the fiscal year 1978 buy of F-15's.

### **Appropriations**

Procurement - Air Force

### **Appropriations Committee Issues**

The Committees should determine if contracts for F-15's are reasonably priced.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## CONTRACTS

### **Better Management Needed in DOD To Prevent Fraudulent and Erroneous Contract Payments and To Reduce Real Property Maintenance Costs**

(PSAD-80-14, 1-9-80)

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** Budget and Accounting Act, 1921. Accounting and Auditing Act of 1950.

The Department of Defense (DOD) says it is providing the maximum maintenance, repair, and minor construction of its real property possible with the resources available; about half of the work is accomplished through contracts. Valid maintenance requirements have been identified faster than funds become available. As a result, the backlog of work not done was due to a lack of resources.

**Findings/Conclusions:** At 10 Army, Navy, and Air Force installations, GAO found that some contractors had been substantially overpaid. Because the installations' inspection and payment verification procedures were inadequate, they paid for work not done, for inferior quality work, and for the same work more than once. Effective inspection procedures and internal control could have prevented or provided early detection of these overpayments. Most overpayments occurred on unit price contracts. Since these contracts often require physically measuring the quantity of work done, they are more difficult to administer and more susceptible to intentional or unintentional overcharges than lump-sum contracts which provide fixed prices for specific jobs. Military installations could further reduce maintenance and repair costs by improving their contracting methods and procedures.

**Recommendations:** The Secretary of Defense should see that the Secretaries of the Army, Navy, and Air Force strengthen controls over the procurement of maintenance and repair services. Each service should: (1) encourage the use of lump-sum contracts whenever practicable and economically advantageous; (2) ensure that sufficient numbers of adequately trained personnel are assigned to the inspection and contract administration functions; (3) require that detailed inspection records, including measurements and calculations, be maintained in support of contract payments; (4) require routine, independent tests of each inspector's work; (5) ensure that proposed work is adequately planned before contract award and that specifications are clear and appropriate; (6) strive to eliminate unbalanced bidding by improving requirements forecasts and/or by utilizing contracting methods or bid evaluation techniques which are not susceptible to unbalanced bid-

ding; and (7) continue to devote a portion of internal audit effort to local procurement activities. Also, action should be taken to collect past charges identified in this review and the DOD audits.

### **Agency Comments/Action**

DOD generally concurred with the findings and recommendations. DOD indicated that the deficiencies were, in general, a result of a failure to follow existing policy and guidance as published by the Secretary of Defense and Service Secretaries. In most cases, when apprised of conditions through exit interviews, corrective actions had already been taken; were being taken; or were planned to be taken. DOD advised that it has taken action to increase the use of performance oriented firm fixed-price contracts, re-evaluate personnel resources for inspection and contract administration functions, restress the need for documentation of inspections of contract work and supervisory review of inspector's work, re-emphasize the need for adequate planning before contract award, strive to eliminate unbalanced bidding, continue to devote a portion on internal audit effort to local procurement, and collect past overcharges identified in this review and Defense audits.

### **Appropriations**

Operation and maintenance - Army, Navy, Air Force

### **Appropriations Committee Issues**

The Committees should ensure that DOD and the military services make significant improvements in planning, estimating, and coordinating contract work; develop clear and appropriate contract specifications; negotiate fair prices; and inspect the work performed to ensure that the Government pays only for work it receives. Also, the Committee should assure itself that the military service procurement offices obtain adequate refunds for contract overcharges identified in this report and the sixty DOD internal audit reports initiated as a result of the GAO work.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## CONTRACTS

### **Delays in Definitizing Letter Contracts Can Be Costly to the Government**

(PSAD-80-10, 11-16-79)

Departments of Defense, the Army, and the Navy, and Office of Management and Budget

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

A review of the use of letter contracts by the Army and the Navy was made to determine whether such contracts were being definitized in a timely manner and the impact of any untimely definitizations. Frequent delays in definitizations which exceeded the time limits set forth in Department of Defense regulations sometimes compromised the Government's negotiating position and thus increased costs. In addition, neither the Army nor the Navy exercised the unilateral determination clause which provides the authority for the contracting officer to unilaterally set the price when agreement cannot be reached in definitization negotiations. Selected letter contract data from specific Army and Navy operations were analyzed, and a detailed examination was made of procurement records for 87 of the 389 letter contracts awarded between July 1, 1973, and March 30, 1979, that had not been definitized within the time period set out in Defense regulations. Letter contracts are the least desirable method of contracting for supplies and services and can be costly to the Government, because under a letter contract, the contractor has little incentive to control costs. Delays in definitization usually allow the contractor to accumulate more actual costs, which gives the advantage in the negotiations to the contractor. Thus, timely definitization is necessary to assure that the Government obtains a fair and reasonable price.

**Findings/Conclusions:** In many instances, the time taken to definitize letter contracts greatly exceeded that set forth in Defense regulations. In the case of many Navy letter contracts, the Navy did not reflect this situation by negotiating lower profit rates commensurate with the decrease in cost risk. In other instances, the delays caused the Government to incur costs that the contractor would normally bear. Despite Navy promises to take corrective action, the situation had not improved since the Naval Audit Service began periodic reports on delays in December 1968. GAO determined that judicious use of the unilateral determination clause could lessen the time period for definitizing letter contracts. Procurement officials indicated several reasons for their reluctance to use this clause when negotiations become stalemated. Among these were the belief that it might cause sole-source contractors to become difficult to negotiate with in the future; the infeasibility of making price

determinations based on estimates or judgments in certain types of procurements; the questionable timeliness, cost, and feasibility of making and litigating such actions; and the timeliness of a decision under the contract disputes procedures. GAO viewed these arguments as conjectural and suggested that they be tested in some actual cases to determine the long-term benefits and costs. The possible long-term benefits of demonstrating the Government's willingness to use its unilateral determination authority when contractors delay negotiations may easily justify any cost and delay involved in litigating a few cases.

**Recommendations:** The Secretary of Defense should establish specific guidelines for contracting officers to use in determining when to unilaterally definitize letter contracts instead of leaving this determination to the discretion of the contracting officer. The regulations should trigger such unilateral action when the contractor has incurred some specified percentage of the total estimated cost of the procurement. In addition, military departments should be required to recognize significant cost reimbursements enjoyed by contractors under letter contracts when negotiating profit.

#### **Agency Comments/Action**

DOD stated that, although it believes that flexibility and individual judgment are required in determining when to unilaterally definitize letter contracts, it will initiate a case for the Defense Acquisition Regulatory Council to consider the feasibility and appropriateness of establishing guidelines as suggested in the GAO report. DOD will also immediately request the Services to place increased emphasis on the timely definitization of letter contracts and the possible use of unilateral determinations of contract price or fee to meet this end.

#### **Appropriations**

Procurement - Army, Navy

#### **Appropriations Committee Issues**

The Committees should monitor the Services' progress in implementing these corrective actions.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## CONTRACTS

### **Federal Agencies Should Be Given Multiyear Contracting Authority for Supplies and Services**

(PSAD-78-54, 1-10-78)

#### **Departments of the Army, the Navy, and the Air Force**

**Budget Function:** General Government: Other General Government (0806)

**Legislative Authority:** Federal Property and Administrative Services Act (40 U.S.C. 481). Adequacy of Appropriations Act (41 U.S.C. 11). Anti-Deficiency Act (31 U.S.C. 665). (P.L. 90-378; 10 U.S.C. 2306(g)). Small Business Act. 15 U.S.C. 631(a). 10 U.S.C. 712a. 20 Comp. Gen. 437. 33 Comp. Gen. 57. 33 Comp. Gen. 90. 42 Comp. Gen. 272. 43 Comp. Gen. 657. S. 2309 (94th Cong.). S. 3005 (94th Cong.) S. 1264 (95th Cong.). S. 1491 (95th Cong.).

Federal agencies operating under annual appropriations generally are prohibited from entering into contracts for needs occurring beyond the year for which the appropriation is made. Multiyear contracts entitle the Government to purchase services or supplies from contractors for more than 1 year. The Commission on Government Procurement has recommended that Congress enact legislation to permit multiyear contracting of supplies and services using annual or multiyear appropriations.

**Findings/Conclusions:** Federal agencies with either funding or statutory authority for multiyear procurement benefit from reduced contract prices and other advantages. Annual savings of \$3 million resulting from multiyear procurement were identified on 26 contracts having an annual cost of \$14 million. The benefits of multiyear procurement include: contract prices may be reduced for agency service and supply needs, Federal agencies' administrative costs can be reduced, the quality of performance and service could increase, and competition could increase for the initial award of a government contract. Generally, the advantages of multiyear procurement outweigh the disadvantages.

**Recommendations:** Congress should enact legislation authorizing multiyear procurement for Federal agencies and provide for the Office of Federal Procurement Policy to

develop appropriate criteria for use of the procurement method, require responsible agency officials to determine when the criteria are met, and provide for the payment of cancellation costs.

#### **Agency Comments/Action**

The agencies commented that the advantages of multiyear procurement outweigh the disadvantages and that it would be an advantageous procurement method. They concurred with the recommendations regarding the need for multiyear contracting authority and the development of criteria for its use. No significant events have happened since the report was issued.

#### **Appropriations**

Procurement - Army, Navy, Air Force

#### **Appropriations Committee Issues**

GAO believes Congress should enact legislation authorizing general multiyear contracting authority for Federal agencies and provide for the Office of Federal Procurement Policy to develop appropriate criteria to guide the agencies in its use.

## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### CONTRACTS

#### ***Inadequate Contract Administration on Housing Renovation Project at Malmstrom Air Force Base*** (PSAD-80-32, 3-11-80)

##### **Department of the Air Force**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** Budget and Accounting Act, 1921. Accounting and Auditing Act of 1950.

GAO was requested to investigate the renovation work performed on a housing project at Malmstrom Air Force Base near Great Falls, Montana. The renovation was to provide more modern kitchens and bathrooms, larger dining areas, and improvements to the exterior privacy on about 490 housing units originally constructed in the early 1950's. Scheduled for completion in October 1978, the work is still not fully finished and many work discrepancies remain. As of November 1979, there were 41 contract modifications adding about \$263,000 to the original contract price. Estimates to correct the remaining discrepancies and complete the project range from \$1.2 million to \$1.9 million or from 8 to 12 times the amount the Air Force retained to cover inadequate or complete contractor work. The contractor, Praxis Limited, claimed the Air Force still owed it about \$1.9 million because of Air Force caused delays and work it performed outside the scope of the contract.

**Findings/Conclusions:** The Air Force did not follow sound procurement and contract administration practices and procedures or see that they were in place at the Air Force Base when the contract was awarded. Air Force officials compressed the time required for completion of the architect-engineer contract and the award of the Praxis contract in order to use Operation and Maintenance funds that would become unavailable at the end of the fiscal year. The lack of a good, cohesive contract management organization and inadequate staffing of key officials at Malmstrom precluded successful administration of the contract. Contract management also suffered because of poor working relationships between Malmstrom's civil engineering and procurement organizations. Although the project is over 1 year beyond the scheduled completion date, the Government still has not obtained an adequate end product or assurance that it has received appropriate consideration for

the money it has spent on the project.

**Recommendations:** The Secretary of the Air Force should see that: an adequately staffed contract management organization is established at base level to administer major housing renovation construction projects such as the Malmstrom contract; projects are properly planned to eliminate any yearend rush to obligate funds; and proper procedures and regulations are followed and contract decisions are well supported and documented with higher headquarters monitoring.

##### **Agency Comments/Action**

The Air Force has initiated action to review ongoing and recently completed family housing renovation projects at six other Air Force bases. An assessment of the types of problems encountered, their causes, and the manner in which field activities identified and responded to these problems and headquarters guidance and support effectiveness will be accomplished. Also, action has been taken to ensure that the handling of all claims on the Malmstrom contract is in the best interest of the Government.

##### **Appropriations**

Operations and maintenance - Air Force

##### **Appropriations Committee Issues**

The Committees should ensure that the Air Force reviews at the other bases effectively evaluate those projects and any problems disclosed are corrected. Also, the Committees should be sure that the claims under the Malmstrom contract are settled in the best interest of the Government.

## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### CONTRACTS

#### **Opportunity To Reduce Cost of the Navy's Contract for Patrol Hydrofoil Missile Ships** (PSAD-80-3, 10-18-79)

Departments of Defense and the Navy, and Defense Contract Audit Agency

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** P.L. 87-653.

A review of a Navy fixed-price contract found a contract price overstatement due to use of the ceiling price for a subcontract rather than the target price. The examination was part of a contract pricing review of contracts awarded to major Department of Defense (DOD) contractors with the objective of determining the reasonableness of contract price as it relates to pricing data available to the contractor at the time of contract negotiation.

**Findings/Conclusions:** The prime contractor used the established ceiling price for a sole-source, fixed-price, incentive-type subcontract rather than the target price as normally included on proposals. The project officer's representative felt that circumstances might warrant the use of a price other than the target price, and that in this case it was a prudent management decision as costs later approximated the ceiling price. GAO felt that the use of the ceiling price protects the contractor from sharing the cost overruns of its subcontractors, and removes incentives to manage subcontractors in a manner that assures cost minimization. Further, the contract requirements were reduced without a corresponding reduction in contract price. According to the contracting officer's representative, the items that will not be delivered were proposed as needed for testing, and delivery was not specifically required. While this is true, it is felt that the Navy should seek a price adjustment for parts no longer

required.

**Recommendations:** The Secretary of Defense should direct the contracting officer to consider the information presented and take appropriate action to adjust the contract targets for: (1) the cost overstatement resulting from Boeing's failure to obtain and furnish to the Government accurate, current, and complete cost of pricing data; and (2) an equitable credit resulting from the deletion of spare items that the contractor will not be required to deliver to the Navy. Also, DOD guidance should be issued on how incentive-type subcontract prices are to be included in incentive-type prime contracts.

#### **Agency Comments/Action**

The Navy is considering what action is warranted based on the report.

#### **Appropriations**

Ship construction - Navy

#### **Appropriations Committee Issues**

The Committee should determine how incentive-type subcontracts prices are to be included in incentive-type prime contracts.



# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## CONTRACTS

### **Potential Savings by Streamlining Grumman's Computer Operations Supporting Navy Contracts** (PSAD-79-111, 10-5-79)

**Department of the Navy and Defense Contract Audit Agency**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

Grumman Aerospace Corporation buys data processing services from Grumman Data Systems Corporation to support manufacturing and testing operations performed in fulfillment of Navy contracts. Both corporations are subsidiaries of the Grumman Corporation. The cost and storage capacity of the system used was compared to the capacity required for storage and processing of the necessary information. The methods used for computing charges to the Navy were also evaluated.

**Findings/Conclusions:** It was determined that the Navy could save approximately \$335,000 if the excess capacity in the data processing and computer operations were eliminated. Since the Navy paid the cost of data processing through the overhead accounts of Grumman Aerospace Corporation, any system capacity not utilized for other accounts was paid for by the Navy. Recommendations were made to the contractor for equipment changes, substitution of less expensive but adequate materials, and reduction of computer capacity. In addition, a review of the methods used for computing charges to the Navy showed the potential for inaccurate allocation of costs to government work. In one case it was revealed that the Navy was undercharged and in another case maintenance work was charged to the Navy that GAO felt should have been charged to a commercial account.

**Recommendations:** The Secretary of the Navy should: (1) declare as unallowable for Navy work any cost incurred by

Grumman Aerospace as a result of excess data storage and computer capacity maintained by Grumman Data; and (2) request the Defense Contract Audit Agency to determine whether Grumman Data's cost allocation methods used to distribute the Calverton computer center costs to projects are equitable.

#### **Agency Comments/Action**

DOD advised that since the time period covered by the GAO report, the contractor has reduced unused capacity and current estimates indicate data storage and computer capacity utilization to be close to 70 percent. As GAO recommended, the resident defense contract audit agency staff has been requested to perform a detailed review of the allocation of costs associated with the Calverton facility.

#### **Appropriations**

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

The Committees should ensure that the Defence Contract Audit Agency did review the allocation of costs at the Calverton facility and equitable adjustments were made for any improperly allocated costs.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## CONTRACTS

### **Stronger Procurement Controls in the Far East Would Minimize Fraud and Abuse**

(PSAD-80-2, 11-7-79)

**Departments of State, Defense, the Army, and the Navy, and Veterans Administration**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** Budget and Accounting Act, 1921 Accounting and Auditing Act of 1950

A review of U.S. Government procurement offices in the Far East found gaps in purchasing controls and reports of widespread collusion and bribery. At some locations, where controls were almost totally lacking, collusion and bribery were not even necessary to defraud the Government.

**Findings/Conclusions:** Prohibited and questionable purchases, questionable payments, purchases exceeding authority, inadequate competition, and bribery and collusion were found at most locations visited. Procuring organizations varied widely in their ways of buying and in their success at minimizing abuse. Offices with highly centralized authority and frequent, thorough internal reviews experienced fewer abuses. Also, aggressive corrective action where improprieties were identified helped to minimize abuse. Increased U.S. citizen control helped improve the enforcement of the controls on abuse.

**Recommendations:** The Secretaries of State, Defense, the Army, and the Navy, and the Administrator of Veterans Affairs should: designate a single office to monitor and assist all Navy procurement activities in the Far East; transfer Veterans Administration procurement authority in Manila, Philippines, to the American Embassy; assure that purchasing activities are periodically reviewed and that problems are corrected; provide Army and Navy enlisted personnel positions for procurement and greater Navy use of U.S. citizens for key civilian procurement positions; and provide emphasis to assure that military departments' procurements are necessary to their missions and guidelines to identify prohibited and questionable items.

#### **Agency Comments/Action**

The Department of Defense generally concurred with the conclusions and recommendations. The Naval Supply

Depot, Yokoska, will be established as a Navy Regional Contracting Management activity with responsibility for all Navy contracting activity in the Far East except for the Military Sealift Command, Naval Facilities Engineering Command, and two Marine Corps bases. The Navy has taken and will continue to take action to assure problems at purchasing activities are disclosed and corrected. Enlisted personnel positions for procurement activities overseas are being evaluated and within constraints the Navy will try to increase its use of U.S. civilian personnel for procurement overseas. The Secretary of Defense believes that existing guidance is adequate. However, DOD will reemphasize guidance concerning procurements necessary to military department missions and the identity of requisitions for prohibited or questionable items. The Veterans Administration is willing to consider making the transfer of procurement authority to the American Embassy but sees several problems in doing so and questions the cost effectiveness of this action.

#### **Appropriations**

Operation and maintenance - Army, Navy  
Procurement - Department of State, Veterans Administration

#### **Appropriations Committee Issues**

The Committees should be sure that DOD improves its procurement operations in the Far East and that these operations are periodically evaluated in an effective manner. Also, the Committees should ensure that the Veterans Administration gives more than cursory consideration to transferring its procurement authority to the American Embassy for a more effective and efficient operation.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Air Force Procurements of Spare and Repair Parts for the ARC-164 Radio** (PSAD-80-59, 7-14-80)

#### **Department of the Air Force**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

The ARC-164 radio is used in Air Force, Army, and foreign military aircraft. The initial production contract and subsequent contracts awarded to Magnavox since 1974 have totaled about \$99 million, and 20,000 radios have been produced as of April 1980. In 1977, the Air Force purchased a procurement data package under an option in the initial production contract, which should have provided sufficient detail for other firms to produce the radio and parts and compete for ARC-164 requirements. GAO was requested to determine why certain ARC-164 components and parts are procured from the prime contractor instead of competitively.

**Findings/Conclusions:** Certain ARC-164 components and parts are procured noncompetitively on the grounds that procurement from Magnavox insures reliability and maintainability. Since the procurement data package should provide sufficient detail for other firms to produce identical components and parts, as well as radios, GAO believes that the Air Force should have acquired the procurement data package and competed ARC-164 requirements when the final order for radios was issued under the initial

production contract and before the second contract was awarded to Magnavox.

**Recommendations:** The Secretary of the Air Force should direct that (1) savings attributable to competing for the remaining ARC-164 requirements and costs associated with establishing other production sources be computed; and (2) future ARC-164 procurements of either the radios or the main components and parts, or both, be made competitively if warranted by a potential cost reduction.

#### **Agency Comments/Action**

The Air Force had not responded as of the date that this report was prepared.

#### **Appropriations**

Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

The Committees should determine whether the Air Force found that competitive procurements of ARC-164 requirements were warranted by a potential cost reduction.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Analysis of Department of Defense Unobligated Budget Authority**

(PAD-78-34, 1-13-78)

**Departments of Defense, the Army, the Navy, and the Air Force, and Office of Management and Budget**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** Department of Defense Appropriation Act of 1978 (P.L. 95-111).

Budget authority is the authority provided by law to enter into obligations which will result in outlays of Government funds. In the Department of Defense (DOD), budget authority is used to enter into contracts with defense contractors. DOD unobligated balances of budget authority for military activities grew from \$12.8 billion to \$34.5 billion during fiscal years 1972-1976.

**Findings/Conclusions:** There was no evidence that the buildup in unobligated balances for DOD procurements represented an inability to perform functions. Excess obligational authority in DOD procurement programs could possibly be reprogrammed or used to fund future requirements. Despite the existence of excess funds, DOD has not implemented a process for systematic and regular reporting on the availability of excess funds. Over 90 percent of the \$5.5 billion increase in the unobligated total was due to program growth rather than an obligation rate decline. Among the reasons for the decline in obligation rates were: delays in awarding contracts; planning and production problems, reserve funds withheld from program managers, congressional actions, better contract prices than budgeted for, staffing deficiencies, and invalid obligations. Through the 1972-1976 period, the executive branch consistently underestimated DOD unobligated balances.

**Recommendations:** The Secretary of Defense should make certain that improvements in internal reporting provide for the systematic identification of amounts which have become excess to program funding requirements and that new policies and procedures provide for closer monitoring of obligation projections. The Office of Management and Budget (OMB) should monitor the obligation rates reflected in DOD obligation projections with a view toward identifying possible mis-estimates, getting changes made, and developing guidelines concerning estimating procedures. Congress should: require that DOD provide historical and projected obligation rates and analyses of variances between estimated and actual rates in its budget requests, give greater attention to the significant balances of budget

authority carried over from year to year, review the Office of Management and Budget's plans to strengthen analysis of DOD's obligations estimates, and monitor the implementation of the practice of treating extensions of unobligated balances as new budget authority.

### **Agency Comments/Action**

OMB stated that it currently is monitoring DOD obligation rates and projections through identification of programs no longer requiring the full amount of funds originally appropriated, and through review of outlays. OMB expects that its intensified review of outlays during the past year will improve the obligation projections for DOD activities. DOD stated that it uses two formal reporting and reviewing processes concerning amounts that have become excess to program funding requirements; its monthly "Report of Direct Programs by Appropriation and Subaccount," and its semi-annual "Report of Programs." The House Committee on the Budget endorsed the GAO recommendation to DOD in its report on the First Concurrent Resolution on the Budget, Fiscal Year 1979. The Congress appropriated \$38.8 million less than the executive request for the M-60A3 tank procurement program, fiscal year 1979, citing the production backlog and contractor difficulties as the basic reason, an issue raised in our report.

### **Appropriations**

Procurement - Department of Defense, Army, Navy, Air Force

### **Appropriations Committee Issues**

There is a seeming OMB and DOD lack of significant concern about mis-estimates of obligations. OMB needs to instruct DOD to develop "best" estimates rather than (as currently done) "target" estimates.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Army Procurement of 10kw, 60Hz Gas Turbine Generators Is Becoming Even More Questionable Due to Rising Fuel Costs**

(PSAD-80-54, 6-2-80)

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

A previous report on the Army's intended procurement of the 10-kilowatt (KW), 60-hertz (Hz) gas turbine generator disclosed that it did not meet the Army's requirements. The generator's reliability was too low, fuel consumption was too high, and life-cycle costs were excessive. The Department of Defense (DOD) subsequently stated that it would consider all pertinent factors before making a decision at the development and acceptance review. Since the Army still has not decided whether to buy gas turbines or diesels, this serves as an update of information covered in the previous report.

**Findings/Conclusions:** The life-cycle costs of the 10kw, 60Hz gas turbine generator have increased greatly since the original report. At that time the estimated savings of buying the diesel generators was between \$275 million and \$1.6 billion. The increases in fuel cost since then have also greatly increased the estimated savings. Assuming \$3 a gallon for fuel cost during the next 20 years, savings could increase to between \$533 million and \$4.2 billion.

**Recommendations:** The Army should be directed to buy 10kw diesel generators instead of 10kw turbine generators to satisfy 10kw power requirements and evaluate using 5kw diesel and gasoline generators before buying 10kw, 60Hz gas turbine generators to satisfy 5kw power requirements.

#### **Agency Comments/Action**

DOD said that no procurement of this item was planned at this time because of funding constraints, but that it has a definite requirement for the 10kw gas turbine generator. DOD further stated that the Army did not intend to replace all 10kw diesel and gasoline generator sets with the gas turbine, but only in special applications. The Army, however, has not revised its basis-of-issue plan which shows a requirement for 5,938 gas turbine generators (see PSAD-79-95).

#### **Appropriations**

Other procurement - Army

#### **Appropriations Committee Issues**

The Committees should review any DOD request for funds to purchase the 10kw gas turbine to ensure that they are for special applications where combat effectiveness advantages outweigh the increased fuel costs.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Army Procurement of 10kW, 60Hz Gas Turbine Generators Is Highly Questionable** (PSAD-79-95, 8-9-79)

#### **Departments of Defense and the Army**

**Budget Function:** National Defense: Department of Defense - Procurement and Contracts (0058)

For the past 13 years the Army Mobility Equipment Research and Development Command has been developing the 10kW, 60Hz gas turbine generator at a cost of \$5.8 million, and plans to begin production in fiscal year 1980. The Army approved a requirement for 5,938 units: 1,387 to satisfy 10kW power requirements, and 4,551 to satisfy 5kW power requirements for field support of water purification equipment, machine and electrical repair shop equipment, and radio teletypewriters.

**Findings/Conclusions:** The 10kW gas turbine generator consumes two to three times more fuel than current diesel or gasoline generators which conflict with the Department of Defense (DOD) policy to reduce fuel consumption. It has also failed to meet reliability requirements and the Army requirement of human portability. According to GAO, the estimated 20-year cost of acquiring and operating 5,938 10kW gas turbine generators is from \$275 million to \$1.6 billion more than diesel generators. The Army could save between \$62 million and \$370 million over 20 years if it bought 1,387 diesel generators instead of gas turbine generators to meet its 10kW power requirements. If the Army purchased 5kW diesel generators to fulfill 5kW power requirements, the estimated life-cycle cost savings would be from \$213 million to \$1.3 billion over 20 years. Not as cost effective as the diesel, the gasoline generator appears to be more cost effective than the 10kW gas turbine since a \$208 million fuel savings could be made over 20 years.

**Recommendations:** The Secretary of DOD should direct the Army to: buy 10kW diesel generators instead of 10kW gas turbine generators to satisfy 10kW power requirements, and evaluate using 5kW diesel and gasoline generators before buying 10kW, 60Hz gas turbine generators to satisfy 5kW power requirements.

#### **Agency Comments/Action**

According to Defense officials, the Army is currently revising its cost and operational effectiveness analysis. Since the report was issued the Army has completed testing. The Army will decide if the gas turbine generator meets the Army's requirements and if it should enter production at an in-process review in August 1980 (see PSAD-80-54, 6-2-80).

#### **Appropriations**

Other procurement - Army

#### **Appropriations Committee Issues**

Unresolved issues are whether the Army will buy 10kW generators instead of 10kW gas turbine generators to satisfy 10kW power requirements, or evaluate using 5kW diesel and gasoline generators before buying 10kW, 60Hz gas turbine generators to satisfy 5kW power requirements.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Better Navy Management of Shipbuilding Contracts Could Save Millions of Dollars** (PSAD-80-18, 1-10-80)

#### Departments of Defense and the Navy

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

The problem of cost and schedule overruns in Navy ship construction due to changes in the shipbuilding program has persisted for 75 years. GAO reviewed changes made to three major shipbuilding programs to evaluate the Navy's effectiveness in managing changes.

**Findings/Conclusions:** Two types of changes were identified and discussed. Formal changes modified contracts in writing and were used only to correct deficiencies or errors in design, meet operational requirements, provide for safety of personnel and equipment, or reduce costs. Although instances of questionable formal changes were noted, generally the Navy managed them effectively. Constructive changes resulted from Navy action or inaction that caused the shipbuilder to do additional or different work than was required by the contract. If the Navy assumed responsibility for the change, a formal change was made in the contract to reflect the additional expense incurred by the contractor. If the Navy disagreed, the changes could form the basis for a contractor's claim. Since assuring GAO in 1971 that they would act to prevent constructive changes, the Navy made limited progress in controlling such changes by allowing 2 years for ship design concepts to stabilize before issuing definitive plans to follow-yards and through the use of contract clauses which put the burden of identifying constructive changes on the contractor. Two other factors were viewed as sources of increased costs under Navy shipbuilding contracts. Escalation provisions in Navy fixed-price contracts sheltered shipbuilders from inflation by paying cost increases beyond the control of the shipbuilder or the Navy and, under a new policy, paid escalation on costs which may not have been significantly affected by inflation. Another new policy allowed escalation payments to continue after the ship delivery date.

**Recommendations:** The Secretary of the Navy should: (1) ensure that enough time will be allowed to correct lead-yard plans before they are used by follow-yards; (2) establish guidelines for use in fixed-price incentive shipbuilding contracts to spread the risk between the contractor and the Navy; (3) direct Navy contracting officers to discontinue negotiating shipbuilding contracts which pay escalation on

costs not affected or affected to a lesser degree by inflation; (4) discontinue paying escalation on costs incurred after the delivery date set in the contract; and (5) continue using Bureau of Labor Statistics indexes of the shipbuilding industry as the basis for escalation and not adopt the Naval Ship Procurement Process Study recommendation to pay shipbuilders' actual labor escalation.

#### Agency Comments/Action

The Navy, in a letter dated May 3, 1980, from the Under Secretary of Defense, stated that it was in general agreement with four of the five GAO recommendations and intended to pursue ongoing management initiatives relative to them. Concerning the GAO recommendation that the Navy discontinue paying escalation on costs incurred after the delivery date set in the contract and provide additional coverage by changing the delivery date (only for delays for which the shipbuilder is not responsible), the Navy believes that it should not be precluded from contracting to pay escalation on costs incurred after contract delivery date when, in its best judgment, it is in the interest of the Government to do so.

#### Appropriations

Acquisition of ships - Department of the Navy, Naval Sea Systems Command

#### Appropriations Committee Issues

The Committees should consider: (1) changes by the Navy in shipbuilding contracts that result in cost and schedule overruns; (2) disagreements as to the responsibility for contract changes that result in claims against the Government by shipbuilders; and (3) ship acquisition strategies by the Navy that may result in fewer claims against the Government, because the Navy is absorbing all of the risk and allowing contractors to recover both contractor-caused and Navy-caused cost increases without having to file claims.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Budget Authority for Foreign Military Sales Is Substantially Understated**

(PAD-78-72, 7-27-78)

Departments of Defense, the Army, the Navy, and the Air Force, and Office of Management and Budget

**Budget Function:** International Affairs: International Financial Programs (0155)

**Legislative Authority:** Congressional Budget Act of 1974 (P.L. 93-344; 31 U.S.C. 1302(a)). Arms Export Control Act (22 U.S.C. 2763). B-159687 (1976). B-171630 (1975). B-114828 (1977).

The Office of Management and Budget (OMB) and the Department of Defense (DOD) recently changed the method of recording budget authority within the foreign military sales (FMS) trust fund. Before fiscal year (FY) 1977, each year's FMS trust fund budget authority corresponded to the dollar total of FMS new acceptances. Under the new procedure, the budget authority for a given year is made to match the portion of acceptances (old and new) which results in FMS trust fund implementing obligations during the year.

**Findings/Conclusions:** The budget authority for FMS for FY 1977 was understated by \$2.6 billion. The change introduced a significant element of inconsistency into FMS trust fund procedures and reporting without achieving offsetting improvements, and it is contrary to the usual meaning of budget authority. The change eliminates, from the budget totals and schedules, reporting on the maximum potential FMS obligations which the executive may incur as a result of the new authority that new acceptances create. It also eliminates standard reporting on FMS unobligated acceptances which is important for evaluating budget and program execution. The budget authority change is contrary to sound budgetary policy and dilutes appropriate congressional budgetary control.

**Recommendations:** The Director of OMB and congressional committees on the budget should require that the calculation of FMS trust fund budget authority be based on total,

new acceptances. The Congress should adopt additional budgetary controls over the FMS trust fund activities. It should reconsider the degree of control it has delegated and enact legislation to limit total, new FMS acceptances for a FY to the amounts specified in annual authorizing and/or appropriation acts.

### **Agency Comments/Action**

OMB stated that it continues to take the position that foreign military sales (FMS) budget authority should be based upon the obligations of the FMS trust fund rather than the new acceptances of the fund. OMB stated that this position reflects "the fact" that the U.S. Government is an "agent" in foreign military sales, thereby incurring a budgetary obligation only at the time an order is placed with a DOD performing account or a private sector supplier.

### **Appropriations**

Foreign military sales - Department of Defense, Army, Navy, Air Force

### **Appropriations Committee Issues**

The budget's totals for budget authority continue to misstate the true amount of authority because of OMB treatment of FMS budget authority.



# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Federal Government Still Striving To Establish Single Drug Procurement System**

*(HRD-80-59, 6-30-80)*

**Departments of Defense, the Army, the Air Force, and the Navy**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** Property and Administrative Services Act. Federal Procurement Policy Act Amendments of 1979. 40 U.S.C. 471.

In a review of the prescription drug procurement activities of the Department of Defense (DOD) and the Veterans Administration (VA), their efforts and those of the Office of Federal Procurement Policy (OFPP) to establish and implement a uniform system for the procurement of drugs among Federal agencies were examined. Such a system would eliminate duplication and reduce costs. Currently, drugs are bought centrally through each agency's depot system, through Federal Supply Schedule drug contracts, or locally from drug suppliers. An OFPP policy, which has guided executive agencies in this effort since December 1977, requires the purchase of commercial off-the-shell products when such products will adequately serve the Government's needs and the Government's use of commercial distribution channels in supplying these products. The commercial products policy relies on comprehensive market research and analysis to develop a suitable and cost effective acquisition strategy.

**Findings/Conclusions:** In June 1978, DOD and VA established a DOD/VA Shared Procurement Program. The incompatibility of the two major supply systems was highlighted when both agencies issued contracts under the program. On the whole, DOD, VA, and OFPP have made only limited progress in fully implementing the program. Consideration of issues related to the commercial products policy would improve the agencies' market research and analysis efforts and result in better acquisition strategies for federally managed medical materiel items. Individually, DOD and VA centralized drug procurement systems have attempted to use competitive means to buy drugs. However, the number of drugs which can be bought competitively has been limited. Several additional supply sources which could have been solicited had been overlooked. Both agencies procured the same prescription drug items at different prices. Additional savings could have been possible by substituting lower priced therapeutically equivalent drugs for other higher cost drugs currently stocked by DOD and VA. As of December 1972, the practice throughout the Government in procuring commercial products was to focus on the price paid for the item rather than on the total costs of procuring, stocking, and distributing the item. Failure to give consideration to total costs could result in a stronger preference for central stockage and issuance than may be justified. DOD and VA have recently given increased consideration to this overall concept in issues involving drug supply decisions.

**Recommendations:** The Director of the Office of Management and Budget should direct the Administrator, OFPP, to: give higher priority to medical materiel-related issues; use the authority provided in the Office of Federal Procurement Policy Act Amendments of 1979 to fully implement the objectives of the DOD/VA Shared Procurement Program for medical materiel; institute actions necessary to assure that all OFPP directed guidance on the implementation of the acquisition and distribution of commercial products (ADCOP) policy principles is fully considered and implemented by agency personnel throughout all Government medical materiel procurement activities; direct the appropriate Federal agencies to develop a single uniform Federal supply catalog for all drug, biological, and chemical reagent items; and initiate a feasibility study to explore procuring, stocking, and distributing all drugs common to the DOD and VA centralized wholesale depot systems. The Secretary, DOD, and the Administrator, VA, should establish an effective market research and analysis program for drugs and medical devices; substitute, to the maximum extent possible, any lower priced therapeutically equivalent drug for a higher priced drug currently procured by the agencies' centralized wholesale drug supply systems. The Secretary, DOD, should instruct DOD supply personnel to: (1) adopt a total cost methodology for use in management decisions concerning all current and proposed drug items to be centrally procured, stocked, and distributed; and (2) eliminate from the Defense Personnel Support Center wholesale depot system management control items which can be more cost effectively supplied through alternative methods. In addition, the Secretary of DOD should reassess the need for placement of the national stock number on each unit of issue in the light of ADCOP policy principles, its effect to date on achieving commonality for the items procured under the DOD/VA Shared Procurement Program, and the inability to exchange or receive credit for drug items returned to suppliers with national stock number markings. The Administrator, VA, should instruct VA marketing center officials to identify duplicative drug items procured and distributed through the Federal depot systems and the Federal Supply Service drug schedules in efforts to adopt a suitable single acquisition strategy to satisfy all Federal users and eliminate those items identified above from availability through the Federal Supply schedules if such means of supply are not the most cost effective.

### **Agency Comments/Action**

OFPP generally agreed with the recommendations. It believed significant progress was being made in issues relative to many of the report's recommendations. DOD endorsed the intent of the recommendations concerning (1) the establishment of an effective market research and analysis program, (2) the use of FDA expertise in substituting lower priced, therapeutically equivalent drugs for higher priced drugs currently procured through the centralized wholesale drug supply system, and (3) adoption of a total cost methodology in drug procurement, stockage, and distribution decisions. In each instance, DOD believed it had already adopted measures to comply with the report's recommendations. However, in an overall sense, DOD believes it can do more in the future to more fully implement these recommendations. DOD disagreed, however, with the recommendation to reassess the need for placement of a national stock number on each unit of issue. VA generally agreed with the recommendations made to the Administrator, VA.

### **Appropriations**

Operation and maintenance, other procurement - Army, Navy, Air Force

Operation and maintenance, procurement - Veterans Administration, Department of Medicine and Surgery

### **Appropriations Committee Issues**

For nearly 2 decades, the Federal Government has tried to establish a single system for procuring and supplying drugs and medical devices in order to eliminate unnecessary duplication and reduce costs. Only recently have OFPP, DOD, and VA begun to make progress in establishing and implementing such a system. A Government-wide system is beginning to take shape. However, much remains to be accomplished.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### ***Impediments To Reducing the Costs of Weapon Systems***

*(PSAD-80-6, 11-8-79)*

**Departments of Defense, the Army, the Air Force, and the Navy, and Office of Management and Budget**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

**Legislative Authority:** OMB Circular A-109. 31 U.S.C. 712a.

The Congress and the Department of Defense (DOD) have been increasingly concerned over the ever-rising costs of weapon systems. The dramatic increase in costs since World War II, coupled with constrained peacetime budgets, has resulted in the production of relatively small quantities of many weapon systems and has seriously affected overall military capabilities.

**Findings/Conclusions:** GAO believes the major effects on the costs have resulted from: (1) attempts to deploy systems with new technology and high performance; (2) low rates of production due to budget constraints and desires to maintain active production bases as long as possible; (3) absence of price competition between contractors; (4) lack of real motivation on the part of contractors to reduce costs; (5) the impact of socioeconomic programs, Government controls, and red tape; and (6) a nationwide problem of reduced research and development expenditures and lessening productivity. Some steps that have been taken by the Department of Defense in attempts to eliminate costs include: (1) revising profit policies to provide incentives for contractors to increase capital investments; (2) providing protection against contract terminations; (3) conducting design-to-cost programs; (4) providing value engineering incentives; (5) conducting a manufacturing technology improvement program; (6) increasing attention to contractors' work measurement systems; (7) performing should-cost analysis of contractors' operations; and (8) supporting contractor independent research and development. While these programs are generally worthwhile, they will not have a major impact on overall costs because of the desire for high technology systems, the budget constraints, and the military and political considerations which may preclude any radical departure from current practices.

**Recommendations:** The Secretary of Defense should make a comprehensive study to identify those aspects of contract administration that can be relaxed or modified in order to reduce costs and paperwork. The Secretary should also take stronger initiatives to accelerate the implementation of management policies for major weapon system acquisitions, as set forth in the Office of Management and Budget (OMB) Circular A-109. The Armed Services and Appropriations Committees should carefully examine lower cost options before approving new weapon programs. In particular,

the committees should explore with senior military officials the pros and cons of larger quantities of alternative weapons versus smaller numbers of highly sophisticated and expensive systems. The Committees also should, after being satisfied that a weapon system is ready for production, consider multiyear funding in order to take advantage of more economical production practices. The Congress should take the initiative in responding to the recommendations of the Commission on Government Procurement to: (1) reexamine the full range of socioeconomic programs applied to the procurement process and the administrative practices followed in their application; and (2) raise the minimum dollar thresholds at which such programs are applied to the procurement process.

### **Agency Comments/Action**

DOD has informed GAO that it is reorganizing its contract administration function and developing new procedures and a unified management information system, all intended to reduce and simplify contract data requirements and other information reporting by contractors. DOD further states that it is completely revising its major systems acquisition directives to make its acquisition process more reflective of the spirit and intent of OMB Circular A-109.

### **Appropriations**

Procurement - Army, Navy, Air Force

### **Appropriations Committee Issues**

The Committee should require that the military demonstrate to the Committees' full satisfaction that adequate consideration has been given to less costly, higher force level, alternative weapon system concepts before authorizing new ultrasophisticated, low quality systems. The Committees should consider the potential cost benefits to the Government through greater use of multiyear funding for weapon systems ready for production, and the need for congressional reexamination of the impact of the growing range of socio-economic programs applied through the procurement process.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### **Review of Navy's Requirements To Buy Contractor Services To Maintain, Support, and Test the C-12 Aircraft** (PSAD-79-108, 10-1-79)

**Departments of Defense, the Navy, the Army, and the Air Force**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (0058)

The Navy's practices for procuring contractor tests and evaluations, data and publications, and logistics support of the C-12 aircraft were reviewed. Although the Navy has developed detailed requirements to be followed by the contractor in providing logistics support, the other two services are obtaining such support on the basis of performance specifications.

**Findings/Conclusions:** The Navy's plan appears to be significantly more costly than those of the other services although no cost breakdowns were available. Under the Army and the Air Force contracts, the contractor is responsible for providing all of the maintenance and supply support needed to sustain specified monthly flying hours at an 80 percent operational readiness rate. The contractor has actually been achieving over a 90 percent readiness rate. The Navy, on the other hand, has imposed a series of detailed requirements on the contractor. Navy officials have emphasized that their added requirements were made in the interest of safety and were based on their previous experience in logistics support contracts for other aircraft. However, the experience the Army and the Air Force gained in using the aircraft for the last several years does not seem to support the Navy's argument. Therefore, the Navy may be overreacting in its maintenance requirements for the C-12 aircraft.

**Recommendations:** The Secretary of Defense should review the differences between services in testing, maintaining,

and supporting the C-12 aircraft to determine whether the Navy is justified in placing these added costly requirements on the contractor. Any additional contract awards should be deferred until this evaluation is completed.

#### **Agency Comments/Action**

The Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) expressed the view that a more detailed comparison of Army, Navy, and Air Force support plans for the C-12 aircraft is necessary in order to arrive at a plan which best satisfies both the common and special requirements of each service. The Secretary advised that the Joint Commanders are conducting such a study which will be reviewed and monitored to assure that adequate and economical maintenance/support programs are established. The Secretary did not agree that the Navy should defer further contract awards, but that the Navy should hold in abeyance commitments on selected areas that warrant further evaluation.

#### **Appropriations**

Operation and maintenance - Navy

#### **Appropriations Committee Issues**

The Appropriations Committees ought to examine the actions of DOD on C-12 logistics requirements.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### ***Should Small Purchases Be Exempt From Complying With Social and Economic Program Requirements?*** (PSAD-80-77, 9-26-80)

Office of Federal Procurement Policy, General Services Administration, and Departments of Defense and Labor

**Budget Function:** Procurement--Other Than Defense (1007)

**Legislative Authority:** Buy American Act. Davis-Bacon Act (Wage Rates). Miller Act (Public Building Contracts). Service Contract Act of 1965. Rehabilitation Act of 1973 (P.L. 93-112). Executive Order 11246. P.L. 93-356. P.L. 95-507. P.L. 95-585. S. Rept. 93-318.

A GAO study involved an evaluation of an Office of Federal Procurement Policy (OFPP) recommendation which advocated raising to \$10,000 the minimum level at which social and economic programs are applied to the procurement process. Inflation has depreciated dollar threshold levels to insignificance. As a result, fewer and fewer purchases are exempt from social and economic provisions, and the relative costs and paperwork requirements of small contracts are pushed higher with the increasing number of provisions to administer. As a result, the full benefit and cost savings potential of small purchase procedures have not been realized.

**Findings/Conclusions:** The agency procurement officials interviewed felt that the small dollar value Government contracts should be exempt from social and economic requirements, that the small purchase threshold should be selected as the minimum threshold for application of these requirements, and would favor a raise in the small purchase threshold and an escalator clause to keep the thresholds current. They would endorse any effort to make simplified small purchase procedures truly simplified. GAO agreed. Higher and more uniform threshold levels would help streamline administration, and the attention now devoted to lower dollar value contracts could be used to provide better enforcement on contracts above the small purchase threshold. A raise in the Davis-Bacon threshold to \$10,000 would still mean protection for the same group of workers to whom Congress originally afforded protection; that is, workers on other than small, relatively insignificant contracts. Programs such as Davis-Bacon impose administrative requirements that are particularly onerous and disproportionately great for contracts under \$10,000. GAO does not feel that the very large number of small contracts should be encumbered by procedures and provisions

designed to afford protection for workers on large dollar value contracts.

**Recommendations:** The Office of Federal Procurement Policy should submit legislation to Congress to establish the small purchase threshold, currently \$10,000, as the minimum threshold for all, not just selected, social and economic programs applied to the procurement process. The legislation should be submitted independent of the proposal for the Uniform Procurement System. The legislation should include provisions to raise the small purchase threshold to a level consistent with the inflationary trend that has occurred since it was established at \$10,000 in 1974. An escalator clause should be included to permit administrative adjustments to prevent the time lag that now occurs between reductions in the value of money and legislative adjustments in thresholds affecting contracts. The legislation should include a procedure for monitoring future legislation to assure that no conflicts exist with the small purchase threshold.

#### **Agency Comments/Action**

OFPP has not yet responded to the report.

#### **Appropriations**

Implementaton of Commission on Government Procurement recommendations - Office of Management and Budget, Office of Federal Procurement Policy

#### **Appropriations Committee Issues**

Without implementation of COGP recommendation 44, the full benefit and cost savings potential of small purchase procedures have not been realized.

# WEAPON SYSTEMS

## INDIVIDUAL SYSTEM STUDIES

### ***F/A-18 Naval Strike Fighter: Its Effectiveness Is Uncertain*** (PSAD-80-24, 2-14-80)

#### **Departments of Defense and the Navy**

**Budget Function:** National Defense: Weapons Systems (0057)

The F/A-18 strike fighter is planned to replace such aircraft as the A-7, A-4, and F-4 presently used by the Navy and Marine Corps for fighter and light attack missions. Views were presented on issues concerning the Navy's F/A-18 strike fighter program.

**Findings/Conclusions:** The flight test of the F/A-18 strike fighter has identified problems in areas critical to performance, including acceleration and range. The aircraft's mission effectiveness is limited by the armaments it carries and by delayed development of its self-protection and all-weather capabilities. Despite delays in testing and correcting performance problems, the Navy is adhering to its tight production schedule. Numerous and costly performance problems occurred in past aircraft programs that developed and produced a system at the same time. Contractors' production problems and problems in areas not controlled by the Navy, such as inflation and fluctuations in the number of aircraft planned for production, have contributed to cost growth, and other factors are expected to contribute to additional cost growth. Also, the need for contractors to purchase long-lead parts and materials in advance of Navy funding authorizations could significantly affect the program's cost. The Departments of Defense and the Navy have been ineffective in developing and monitoring various data important to proper management of the F/A-18 program, and Defense reports have not kept the Congress adequately informed of progress in the program.

**Recommendations:** The Secretary of Defense should: (1) delay increasing the F/A-18 monthly production rate until performance problems have been corrected and adequate testing has been completed for the Navy to assess the aircraft's mission capability; (2) give priority attention to developing the advanced self-protection and all-weather capabilities the F/A-18 will need to fulfill its missions; (3) develop strategies for assuring advance funding when needed to support contractors in their long-lead purchase obligations; (4) reassess the estimated cost of the F/A-18

program in light of identified problems and report this to the Congress; (5) ensure that needed management reporting devices are established and monitored; and (6) revise reporting requirements to ensure reporting of most recent testing data.

#### **Agency Comments/Action**

On May 7, 1980, Defense informed GAO that (1) testing and evaluation would be thoroughly reviewed to ensure that the aircraft demonstrates acceptable mission performance, (2) advanced self-protection features are receiving priority treatment, (3) a strategy for advance funding to meet contractor production schedules is being explored, (4) the program cost estimate had been reassessed and future cost estimates would reflect revisions, (5) the Navy is proposing establishment of a unit production cost goal/threshold which would be developed jointly with the Office of the Secretary of Defense and would be reported to provide congressional visibility, and (6) current and demonstrated estimates of aircraft performance are now being reported where available. Defense takes the position that it would not be prudent to reduce the production rate, unless a major problem is discovered during test and evaluation, because reduction would increase program cost and impair the Navy's ability to reach and sustain the required force level and inventory objectives.

#### **Appropriations**

Research and development - Navy  
Procurement - Navy

#### **Appropriations Committee Issues**

The Committees should consider whether test and evaluation results support continued funding for F/A-18 production at the Navy's requested level.

# WEAPON SYSTEMS

## INDIVIDUAL SYSTEM STUDIES

### *Implications of Highly Sophisticated Weapon Systems on Military Capabilities*

(PSAD-80-61, 6-30-80)

#### Department of Defense

**Budget Function:** National Defense: Weapons Systems (0057)

Many of the weapons systems developed by the United States today are viewed as being too technologically complex to permit a reasonable degree of confidence that they will work properly when needed. Consequently, the Nation's ability to be sufficiently prepared to sustain itself in a major war is of serious concern. Several problems that have resulted from the Department of Defense's (DOD) acquisitions during the 1970's include: (1) few weapons are available due to high unit cost; (2) weapons have reliability, availability, and maintainability problems; (3) small annual procurement quantities are uneconomical; (4) high operating costs tax training resources; and (5) complexity and sophistication aggravate personnel problems. While DOD has tried to reverse this trend, it has not been as successful as desired. The operation and maintenance budget, portions of which are used to support deployed weapon systems, has increased substantially over the past few years; and it is expected to further increase in fiscal year 1981. However, the operations and maintenance budget supports so many activities that it is difficult to determine whether or not the projected increases will be sufficient to significantly improve readiness. The causes of any deficiencies in operations and maintenance funding is not totally clear. However, it seems that the services have chosen to develop a variety of high performance systems in lieu of seriously addressing the problems found in today's deployed systems.

**Findings/Conclusions:** High performance systems are costly. Those responsible for developing and acquiring new weapon systems must be just as concerned with the capability of the equipment when it is deployed as they were with the acquisition. Although some yet-to-be deployed systems designed in the mid-1970's are likely to exhibit many of the

same problems occurring in the high performance weapons deployed today, recently developed systems should benefit from emphasis on reliability, availability, and maintainability, therefore presenting a brighter future. However, a reappraisal of some may be in order. As shown by recent directives, more attention should be paid in the early design of weapons to the best mix of high performance and support characteristics, considering expected force resources and operations. The DOD emphasis on lower cost weapon systems and greater reliability, although well placed, does not appear to have been sufficient. While established inventory objectives for new weapons are high, rapidly rising costs make it unlikely that they can be achieved without major increases in or realignment of the Defense budget.

**Recommendations:** Congress should carefully examine lower cost alternative programs before approving new weapon systems. In particular, the committees should explore with senior military officials the pros and cons of larger quantities of alternative weapons versus smaller numbers of highly sophisticated and expensive systems.

#### Appropriations

Procurement - Department of Defense

#### Appropriations Committee Issues

The Committees should explore with DOD officials the advantages of acquiring larger quantities of alternative systems versus smaller quantities of highly sophisticated and expensive systems.

# WEAPON SYSTEMS

## INDIVIDUAL SYSTEM STUDIES

### *Is the Joint Air Force/Navy Alternate Engine Program Workable? GAO Thinks Not as Presently Structured* (PSAD-80-40, 5-9-80)

Departments of Defense, the Air Force, and the Navy

**Budget Function:** National Defense: Weapons Systems (0057)

**Legislative Authority:** Department of Defense Appropriation Act, 1978 (P.L. 95-457).

The primary objective of the Department of Defense's (DOD) F101 Derivative Fighter Engine (F101DFE) Program is to modify the F101 engine, designed for the B-1 bomber, for use as an alternative for engines in the Navy's F-14 and the Air Force's F-16 front line fighter aircraft should programs to correct problems with those engines fail. GAO questioned whether the Program is a workable alternative to the component improvement programs for the two engines. It believes that there is no assurance that (1) the F101DFE Program can provide a production engine with enhanced operability, reliability, and durability characteristics; (2) the production F101DFE will be available when and if needed; and (3) the F101DFE is an affordable and cost-effective substitute for these engines if the TF30 and F100 engine improvements fail. DOD and the services state that they fully expect the components improvement programs to demonstrate that the TF30 and F100 engine problems can be corrected by 1981, at which time the F101DFE Program would be terminated.

**Findings/Conclusions:** GAO believes that the F101DFE Program is at least as uncertain of producing a production engine with enhanced operability and supportability characteristics as are the TF30 and F100 improvement programs because of the differences in the three engines' stages of development. The F101DFE Program will not have a production engine available in 1981-82 when the services determine whether their improvement programs have been successful. Neither the services nor DOD have determined what constitutes sufficient failure of the improvement programs or at what point the F101DFE would be affordable and cost effective. Risks and costs of concurrent development and production and the question of the engines' availability raise serious questions concerning the worth and affordability of the alternative engines to the Navy and the Air Force.

**Recommendations:** The Secretary of Defense should direct the Air Force, as the lead service, to: (1) assess the need for, worth, and affordability of the F101DFE Program and define its objectives on the basis of the 1981 and 1983 decision points; (2) complete the risk analysis of the trade-offs between time, costs, and performance that will be required to reasonably assure a credible alternative at the major deci-

sion points; (3) formally recognize the increased risks attendant with commencing initial production of the F101DFE in 1982 and full-scale production in 1983 or 1984 if this timing continues to be a program objective; and (4) structure, fund, and manage the program to minimize risks in meeting identifiable program objectives. If the program is not structured, funded, and managed on a reasonably firm basis to assure that it is and will continue to be a competitive alternative to the current component improvements programs, the Secretary should terminate the F101DFE as the alternative engine program. The congressional appropriations committees should reexamine their objectives for the F101DFE Program and determine whether the program, as presently structured, funded, and managed, satisfies their directive. If the program is continued in fiscal year 1981, Congress should reexamine the program before authorizing and appropriating funds for concurrent full-scale development and initial production of the F101DFE in fiscal year 1982.

#### Agency Comments/Action

The DOD responded to the GAO report on July 2, 1980. The response, in effect, stated that DOD believes the program is structured, managed, and funded in such a way as to satisfy the concerns which led to the recommendations. It stated that DOD will continue to reassess the need for and benefits of the program and to take steps to terminate the program when the alternative is no longer necessary.

#### Appropriations

Research and development - Air Force  
Procurement - Air Force

#### Appropriations Committee Issues

The Committees should consider (1) whether the program as currently structured, funded, and managed satisfies the congressional directive to initiate the program; and (2) whether concurrent full-scale development and initial production of the engine is warranted as planned in fiscal year 1982.



# WEAPON SYSTEMS

## INDIVIDUAL SYSTEM STUDIES

### ***The MX Weapon System--A Program With Cost and Schedule Uncertainties*** (PSAD-80-29, 2-29-80)

Departments of Defense, the Air Force, and the Interior, and National Security Council

**Budget Function:** National Defense: Weapons Systems (0057)

**Legislative Authority:** Antiquities Act (P.L. 59-209). Endangered Species Act of 1973 (P.L. 92-305). Engel-Ellis Act (Engineering and Land Surveying) (P.L. 85-337). Federal Land Policy and Management Act of 1976 (P.L. 94-579). Historic Sites Act (P.L. 74-292). Mining Resources Act. National Environmental Policy Act of 1969 (P.L. 91-190). National Historic Preservation Act (P.L. 89-665). Wilderness Act.

The MX weapon system is a new intercontinental ballistic missile system. It was established to provide increased survivability as well as higher damage expectancy. According to the President, development of the MX weapon system will enable the United States to continue with a strategic deterrent force comprised of modernized survivable intercontinental ballistic missiles, submarine-launched ballistic missiles, and heavy bombers. The Ballistic Missile Office was assigned responsibility for managing the MX program. Initial deployment of the system is planned for July 1986, with full deployment to be accomplished by 1989. The Air Force estimates that the MX weapon system will cost about \$33 billion. Inflationary estimates will increase this estimated cost to at least \$56 billion.

**Findings/Conclusions:** With the MX weapon system entering full-scale development, uncertainties exist about the approval of the method of survivable basing selected by the President; the obtainment of the land necessary for deployment; the availability of large amounts of electricity, water, and building materials for construction and operations; and the survivability of the proposed MX system if there is no strategic arms control agreement. Further uncertainties which exist are: (1) the location of the missiles for survivability because of the many signatures that need to be masked and the unknown future threat; (2) the size of the missile force, the required number of warheads, and the design of the weapon system, which make it questionable whether the Air Force can meet its cost, schedule, and performance goals; and (3) the shortage of needed personnel to effectively manage the MX program during the first year of full-scale development.

**Recommendations:** The Secretary of Defense should: (1) identify the potential increases or decreases in program cost due to the many uncertainties which still have to be resolved; (2) assure that the high cost of the MX system is adequately analyzed in the context of the overall DOD budget to determine if it is affordable and whether any other major weapon system programs would have to be terminated or delayed; (3) expedite efforts to establish a memorandum of agreement with the Secretary of the Interior setting forth a time-phased action plan which will allow public land to be withdrawn for the MX weapon system; and (4) identify the changes to the MX weapon system that may be required without arms control agreements.

#### **Agency Comments/Action**

The agency has not responded. GAO has had frequent contacts but has not been successful in getting the response. GAO is currently doing a followup review.

#### **Appropriations**

Military construction - Air Force  
Procurement - Air Force  
Operation and maintenance - Air Force

#### **Appropriations Committee Issues**

Although there are no specific issues, the Appropriations Committees should stay abreast of the DOD management of the program.

# WEAPON SYSTEMS

## INDIVIDUAL SYSTEM STUDIES

### **NAVSTAR Should Improve the Effectiveness of Military Missions--Cost Has Increased** (PSAD-80-21, 2-15-80)

#### **Departments of Defense and the Air Force**

**Budget Function:** National Defense: Weapons Systems (0057)

Recently the NAVSTAR Global Positioning System has demonstrated that it can provide significantly more accurate navigation data than any current navigation system. It is not deterred by adverse weather conditions, and has the potential to improve certain weapons delivery and coordinated operations. NAVSTAR is being developed in three phases: demonstration and validation, full-scale engineering development, and production. The demonstration and validation phase has been completed, and the system was approved for full-scale engineering development. During this phase, new satellites, control segment, and user equipment will be designed, built, and tested to meet operational requirements. This phase will include substantial testing of the system in an operational environment by the Air Force, the Army, and the Navy. The production phase is scheduled to begin in 1981 for satellites and in 1983 for user equipment. Initial operation capability with 18 satellites is planned for September 1986, and the full operational satellite constellation of 24 satellites is planned for September 1987.

**Findings/Conclusions:** Generally, NAVSTAR has met technical performance objectives, but some problems still exist which, if not solved, could have substantial implications. For example, current Soviet testing of an antisatellite system could eventually result in a weapon which could threaten the survivability of our forces. Satellite clock reliability has not been demonstrated in space. The clocks must work well for users to obtain reliable and accurate navigation information. If the problems which caused eight of the clocks to fail or operate abnormally are not solved, alternate solutions could cost millions of dollars. Space Shuttle problems could jeopardize the plan to have NAVSTAR fully operational by 1987. The use of Titan or Atlas boosters in place of

the Space Shuttle to meet launch requirements could cost an additional \$12 million to \$38 million for each satellite launched. The estimated \$8.6 billion cost to acquire and maintain NAVSTAR through the year 2000 includes several items which have not been included in previous estimates such as user equipment procurement, cost of replenishment satellites, and Space Shuttle launch costs. Because the cost of NAVSTAR far exceeds any expected savings from reducing the Department of Defense's use of other systems, the NAVSTAR implementation depends heavily on the benefits provided by its increased navigational accuracy, global coverage, and other characteristics. The services have defined specific mission requirements for improved navigation accuracies not met by any current navigation system which will be satisfied by NAVSTAR.

#### **Agency Comments/Action**

The agencies' comments were incorporated into the draft report as appropriate. DOD did not respond subsequent to the issuance of the report because GAO made no recommendations.

#### **Appropriations**

Procurement - Air Force

#### **Appropriations Committee Issues**

Although there are no specific issues, the Committees should stay abreast of the DOD management of the program. This is especially true since some of the NAVSTAR satellites are scheduled to be launched via the Space Shuttle and the shuttle schedule continues to slip.

# WEAPON SYSTEMS

## INDIVIDUAL SYSTEM STUDIES

**"SAR's"--Defense Department Reports That Should Provide More Information to the Congress**  
(PSAD-80-37, 5-9-80)

**Departments of Defense, the Army, the Navy, and the Air Force**

**Budget Function:** National Defense: Weapons Systems (0057)

**Legislative Authority:** P.L. 94-106. DOD Instruction 7000.3. H.R. 656 (96th Cong.). S. Rept. 93-1104. 10 U.S.C. 139.

Selected acquisition reports (SAR's) have become the key recurring summary reports on the progress of the Department of Defense's (DOD) most costly acquisition programs. SAR's are usually prepared for about 50 major weapon systems and are used by both Congress and top-level DOD managers in making decisions affecting those systems. However, important information which would be useful to management and which is called for by DOD Instructions is not being reported. GAO has continually worked with DOD and with congressional committees to improve SAR's.

**Findings/Conclusions:** GAO believes that SAR's should provide a full and objective disclosure of the status of major systems. DOD must make the SAR's short enough to be usable by people who have little time to review them, and yet the SAR's should present data that is complete, accurate, and not misleading. Although DOD may not want to include some of the information being recommended for inclusion because it detracts from an optimistic presentation of system capabilities, it is the kind of data that Congress needs to have in reviewing and funding programs.

**Recommendations:** The Secretary of Defense should revise the SAR instruction, where necessary, and enforce the instruction so that SAR's include: (1) a mission capability assessment statement, including expected shortcomings and limitations of the system in its operational environment; (2) the status of key subsystems and related systems, including related systems on separate SAR's; (3) planning estimates with a one-time explanation for changes to arrive at the development estimates; (4) ranges of costs for the planning and development cost estimates rather than specific point estimates; (5) more complete explanations for changes to development estimates and, in subsequent SAR's, a reference to the original development estimates; (6) a section on operational and technical risks; (7) logistic support/ additional procurement costs and explanations for changes; (8) a chart showing the impact on the program acquisition cost estimate of using different escalation rates; and (9) a certification of the credibility of SAR's by the Secretary of Defense. In addition, the Secretary of Defense should direct that a periodic review be made of the accuracy and completeness of SAR's and that greater consideration be given

to (1) adding important systems in advanced development to the reporting system, and (2) deleting older systems from the reporting.

### Agency Comments/Action

The DOD response to the GAO report stated that Defense officials are most anxious to provide the information that Congress requires to meet its responsibilities, and that Defense officials concur in some of the observations and will take necessary corrective action. The response stated that (1) SAR's should be periodically reviewed, (2) a review of SAR's for 30 programs will be completed in 1980, (3) SAR preparation and review workshops are planned, (4) SAR's will be reviewed for compliance with instructions regarding the status of key subsystems and related systems, and (5) reporting deficiencies noted for numerous weapon systems will be corrected. However, DOD chose not to accept numerous observations and recommendations which would cause more significant changes in the nature and content of the reports. These recommendations included (1) expansion of the required mission capability statement to better describe expected operational performance capabilities and limitations, (2) SAR reporting on systems in advanced development, (3) reporting of operational and technical tasks, (4) inclusion of logistics support/additional procurement costs, (5) showing the program acquisition cost estimate resulting from different escalation rates, (6) reporting the planning estimate, (7) using a range for planning and development cost estimates, and (8) certifying to the credibility of the SAR's.

### Appropriations

Research and development - Army, Navy, Air Force  
Procurement - Army, Navy, Air Force

### Appropriations Committee Issues

The Appropriations Committees should review the recommendations and the DOD response to determine whether data called for by the rejected recommendations would be useful and, if so, consider whether DOD should be required to provide such data.

# WEAPONS SYSTEMS

## TESTING

### **Evaluation of EF-111A Extended Development and Full-Scale Production Decision** (PSAD-80-71, 8-27-80)

#### **Departments of Defense and the Air Force**

**Budget Function:** National Defense: Weapons Systems (0057)

Results of the monitored progress of the EF-111A Tactical Jamming System phased development test program are summarized. In February 1979, the Department of Defense (DOD) decided to initiate a 12-month effort to define and demonstrate corrections for numerous technical/design deficiencies in the system. Due to an urgent need for the EF-111A, the effort was limited to production of six systems in a manner that would reduce the subsequent risk of expensive redesign and retrofit. This effort was to be successfully completed before the full-scale production decision.

**Findings/Conclusions:** Program monitoring showed that the Air Force had defined and demonstrated corrections for most of the technical and design deficiencies detrimental to the EF-111A's operability, reliability, and maintainability. As of March 1980, only 4 of the 220 deficiencies identified during initial and follow-on tests remained open. Solutions to some significant performance degradations and answers to questions concerning reliability and maintainability of two major subsystems continue to be sought. DOD approved full-scale production of the EF-111A in March 1980. The Air Force plans to procure 33 EF-111A's in fiscal years 1981, 1982, and 1983 and to concurrently pursue the second phase of follow-on testing to correct the remaining technical problems. The estimated program cost is \$1.3 billion, including about \$450 million already spent. The scenario analysis fell short in demonstrating the system's military worth or cost effectiveness that would support spending \$1.3 billion for 42 EF-111A's. At this date, a decision to defer further production until operational effectiveness and military worth can be better demonstrated may be too costly. However, terminating the program at this time may be worse than deferral since the system's effectiveness is not yet adequately known.

**Recommendations:** Before requesting funds for fiscal year 1982 and 1983 EF-111A procurements, the Secretary of Defense should reconcile differing concepts of deployment to assure a realistic basis for additional dedicated effectiveness testing and scenario analysis, and plan dedicated effectiveness tests and evaluations to be undertaken in 1981 when the improved threat radar simulators are in place and another EF-111A becomes available. The Secretary of Defense should also advise the authorization and appropriation committees of the results of the tests and evaluations. Further, the Secretary of Defense should develop proposals for congressional consideration to fund the development and maintenance test facilities and environment suitable for testing electronic warfare systems. To support requests for additional EF-111A's beyond the present program of 42 aircraft, the Secretary should conduct a comprehensive defense suppression analysis, considering all defense suppression alternatives and showing their relative cost effectiveness and affordability.

#### **Agency Comments/Action**

Agency comments were not received as of the date of the preparation of this report.

#### **Appropriations**

Testing - Air Force

#### **Appropriations Committee Issues**

Recommendations have been made to the Secretary of Defense that, before requesting fiscal year 1982 funding, Defense should reconcile operating concepts and plan dedicated effectiveness testing to be undertaken during 1981.

# WEAPON SYSTEMS

## TESTING

### **Review of the Battlefield Exploitation and Target Acquisition System** (LCD-80-38, 3-3-80)

Departments of Defense, the Army, the Air Force, and the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement and contracts) (0051)

The Subcommittee on Defense requested that GAO provide information on the Battlefield Exploitation and Target Acquisition (BETA) project for forthcoming hearings on the Department of Defense's (DOD) fiscal year 1981 budget. The BETA project is a high risk, joint service effort to develop an experimental test bed for automated collection, analysis, correlation, and dissemination of tactical intelligence data. It was established in 1977 to demonstrate the feasibility and combat utility of prompt coupling of data from target acquisition sensors into tactical combat situation displays and firepower systems. In January 1978, the Office of the Secretary of Defense (OSD) established a \$46.5 million funding ceiling through fiscal year 1980 to accomplish project objectives. Costs were estimated at \$88.2 million through fiscal year 1984 to achieve the original objective which includes \$29.4 million for future development after a planned 1980 demonstration. Experience with the BETA test bed is expected to provide technology transfer benefits to service fusion centers, to be developed in the near future. Currently, the contractor has completed a limited demonstration of test bed communications capability. Full system integration tests and an operator training phase are planned prior to the planned demonstration in Europe later this year. Development plans, changes in test bed functional requirements provided to the contractor, and the status of software development have been reviewed to identify problems which might hinder the achievement of project goals. Considerable difficulty has been encountered in developing a BETA test bed with even minimal capability.

**Findings/Conclusions:** Changes in system specifications have shown that the automation level has been reduced in the test bed being developed for the 1980 demonstration. The current test bed configuration, "Bare Bones BETA," is designed for automated correlation of sensor data inputs. However, some of the automated functions needed to use the intelligence data have been eliminated and now must be performed manually. The test bed will not be stressed at

wartime loads during the forthcoming demonstration. While the deletion of the division correlation center is a major loss in planned capability, the project director feels that the Bare Bones configuration is worth testing since it provides a capability not currently existing. Cost growth and schedule slippage were attributed to contractor difficulty in understanding functional requirements initially, obtaining experienced computer programmers, and obtaining hardware and software from subcontractors. Presently, project officials cannot guarantee participation in the planned European demonstration due to high risk problems which remain and uncertainty over the software development schedule. In view of these difficulties, the Subcommittee may wish to consider the following options before authorizing any additional funds for BETA: terminate the BETA project after the Bare Bones system tests are completed; delay the project about 1 year and make additional funding conditional on conducting a more comprehensive field test; and approve no funds for future test bed development until complete test results are available on the Bare Bones configuration.

#### **Agency Comments/Action**

The European demonstration was canceled and the program redirected to production of the engineering development model rather than a research and development test bed, pursuant to congressional directives.

#### **Appropriations**

Research and development - Department of Defense, Army, Air Force, Navy

#### **Appropriations Committee Issues**

Issues include the cost, schedule, and suitability of the test bed.

# ATOMIC ENERGY DEFENSE ACTIVITIES

## WEAPON SYSTEMS

### ***Need To Review Procedures for Safeguarding Nuclear Weapons in Transit*** (EMD-79-92, 8-1-79)

#### **Departments of Defense and Energy**

**Budget Function:** National Defense: Atomic Energy Defense Activities (0053)

**Legislative Authority:** Legislative Reorganization Act of 1970.

The procedures employed by the Department of Defense (DOD) and the Department of Energy (DOE) for protecting nuclear weapons while in transit were recently examined. Nuclear weapons are most vulnerable while in transit, so that security measures taken to protect them outside of their storage locations must be sufficient to dissuade sabotage and theft and to withstand attack. Security procedures are based on transportation mode preferences. DOE prefers overland shipments in special trailers, while DOD prefers shipping by military aircraft.

**Findings/Conclusions:** Although the protection procedures employed by the two departments for weapons in transit appear adequate, neither department has ever compared and balanced the security, public safety, and cost advantages and disadvantages of the transportation modes to determine if one is better than the other. Results of a study conducted to estimate the average probability of a release of nuclear materials to the environment showed that a release will occur every 192,000 years using special trailers, every 3,000 years using C-141 aircraft, and every 2,000 years using C-130 aircraft. A transportation cost comparison for a selected route showed that it costs about \$20,000 to ship by air and \$38,640 to ship by special truck.

**Recommendations:** It is recommended that the Secretaries of Defense and Energy jointly compare the advantages and disadvantages of the overland special trailer and military air-

craft nuclear weapon transportation modes to determine which mode overall provides the highest levels of security and public safety necessary at the least cost; establish joint criteria consistent with the above determination to be used in deciding whether a particular shipment should be moved overland or by air; and review the question of why DOE is involved in transporting assembled nuclear weapons.

#### **Agency Comments/Action**

DOD and DOE stated that the present respective transportation method should be continued, and that the Department of Energy should continue to transport assembled nuclear weapons.

#### **Appropriations**

Operating expenses - Department of Energy  
Operation and maintenance - Department of Defense

#### **Appropriations Committee Issues**

The Departments of Defense and Energy should jointly establish criteria for deciding whether a particular nuclear weapon shipment should be moved over land or by air. The criteria should be based on a determination of which mode, overall, provides the highest levels of security and public safety at the least cost.



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