

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

1-29-79

J.C. Nick



**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, compiled to assist congressional committees in their review of budget requests for fiscal year 1980. Previous GAO reports brought these matters to the attention of the congressional and departmental officials.

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Chairman, Senate Committee on Appropriations *SEN 00300*  
Chairman, House Committee on Appropriations *HSE 00300*

This annual report summarizes GAO conclusions and recommendations resulting from our audits and other review work in the Department of Defense which we believe will be of interest to your Committees in their review of budget requests for fiscal year 1980. 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 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.

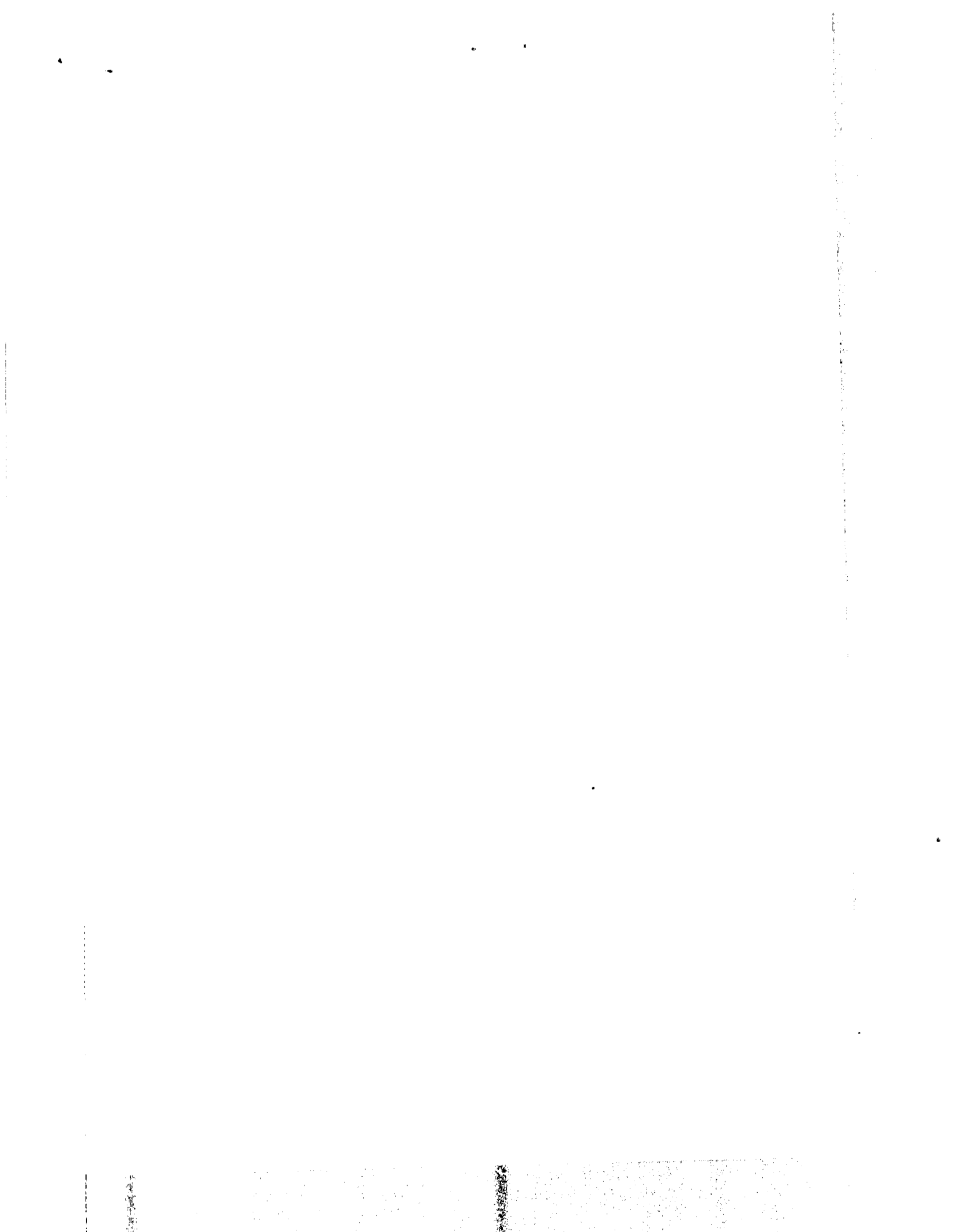
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Comptroller General  
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# DEPARTMENT OF DEFENSE - MILITARY

## ADMINISTRATIVE CONTROL OF FUNDS

### *Army Efforts to Restore Integrity to Its Financial Management Systems*

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

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002).

**Legislative Authority:** Anti-Deficiency Act (31 U.S.C. 665). Budget and Accounting Procedures Act of 1950 (31 U.S.C. 66). 2 GAO 27 2.

In October 1975, the Assistant Secretary of the Army (Financial Management) notified the House Appropriations Committee of a serious breakdown in the financial control over Army procurement appropriations which resulted in violations of the Anti-Deficiency Act totaling more than \$225 million. These violations related to the section of the act that provides that no officer or employee shall make or authorize an expenditure from, or create or authorize an obligation under, any appropriation exceeding the amount therein.

**Findings/Conclusions:** The most serious factors contributing to the Army's overall financial management problems were: failure to design and implement an effective procurement appropriation accounting system; failure to adequately control fund allocations, reprogramings, and transfers; and failure to accurately account for customer orders. The impact of these problems was compounded by the phenomenal growth of the Army's customer order program over several years. Army efforts to correct the financial management problems have been concentrated in: eliminating erroneous balances in its accounting records, primarily in the procurement appropriation accounts; and improving its accounting, reporting, and fund control systems to prevent recurrence of these problems. The Army has recorded over \$1.5 billion in adjustments to its accounting records, but because many of the records are missing or in poor condition, it is unlikely that all errors will ever be found or corrected.

**Recommendations:** The Secretary of Defense should have the Secretary of the Army: make sure the design and implementation of the remaining phase of the Army's new pro-

urement appropriation program and fund control system are accomplished as quickly as possible, develop a plan to implement a standardized procurement appropriation accounting system at the installation level with a single data source, notify him and the Congress of any unreconciled trust fund cash balances for individual countries, have the Army Audit Agency review procedures used to account for and control undistributed disbursements and collections, maintain an adequate and balanced level of internal review and audit within the Army, and periodically report to the Congress on the status of Army efforts to obtain GAO approval of its accounting systems.

The Army agreed with our findings and recommendations and advised us that implementation of the remaining portion of the procurement appropriation program and fund control system is scheduled for completion in March 1979. The Army also stated that it had designed a standard procurement appropriation accounting system, with a single data source, for use by all commands including installation levels and planned for the system to be implemented by the third quarter of FY 1979. (FGMSD-78-28, 4-27-78)

#### **Appropriations**

Army procurement

#### **Appropriations Committee Issues**

The Committee should ask Army officials about their progress in obtaining GAO approval of its accounting systems and about its progress in implementing a standard procurement appropriation accounting systems at the installation level.





## DEPARTMENT OF DEFENSE - MILITARY

### COMMUNICATIONS

#### *Better Management of Defense Communications Would Reduce Costs*

##### **Department of Defense**

**Budget Function:** General Science, Space, and Technology: Telecommunications and Radio Frequency Spectrum Use (258).

**Legislative Authority:** Armed Forces (10 U.S.C. 131 et seq)

Department of Defense programs to reduce communications costs through increased use of shared services in lieu of services restricted or "dedicated" to one or several users have not been effective.

**Findings/Conclusions:** Requests for new communications services and the need for retaining existing services are not adequately reviewed to assure that valid needs are satisfied by the most economical method available. While the Defense Communications Agency (DCA) has been unable to obtain sufficient funds to provide acceptable common-user services, many users are able to obtain funds and procure dedicated services on the basis that common-user services are inadequate. More effective common-user services could be provided with the addition of more funds being spent for dedicated services.

**Recommendations:** The Secretary of Defense should establish criteria to justify establishment or retention of dedicated communications services, permitting dedicated services only where requirements are so unique as to be incompatible with common-user services; establish uniform periodic review and reevaluation procedures to insure that communications are justified and utilized effectively; give DCA the authority and resources to insure that the most effective and economical method of providing new services is determined; direct DCA to

develop a complete and reliable inventory of Defense owned and leased communications facilities and services; and direct DCA to exercise more fully its authority to identify the potential for greater accommodation of dedicated service users, where cost effective, by further improving performance and capabilities of the common-user networks and to consider requirements that are being satisfied by dedicated services when designing new or expanded common-user networks.

The Defense Department has established working groups to address the recommendations but does not believe that the Defense Communications Agency needs additional authority and resources. (LCD-77-106, 12-14-77)

##### **Appropriations**

All requests for funds for dedicated communications equipment, facilities, and services-- Defense Department.

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

Use of appropriations for common-user communications systems rather than for dedicated communications can result in substantial savings while providing better and more reliable service.

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## **Appropriations Committee Issues**

Cost of foreign national employees will continue to be a problem for the foreseeable future.

## DEPARTMENT OF DEFENSE - MILITARY

### CIVILIAN PERSONNEL

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

##### Department of the Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

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.

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

#### **Appropriations**

Operation and Maintenance—Air Force

#### **Appropriations Committee Issues**

Work force productivity gain could produce sizable savings.

- Army and Air Force procurement offices in Japan and Korea were consolidated; the Navy continues to operate separately and separate service offices are maintained in Hawaii.
- The Wheeler Air Force Base automatic digital network facility was closed and its functions taken over by the Schofield Barracks Army terminal; the Navy terminal was eliminated due to closure of the Kunia communications facility.

Defense advised that staffing was greatly reduced at the Army cargo port in Yokosuka, Japan; however, even with reduced workloads, both cargo ports continue to operate.

We are currently processing a follow-up report in which we are recommending that the Secretary of Defense delegate directive authority to the Defense Logistics Agency who in turn

could redelegate such authority to the Unified Commanders. This delegation of directive authority is necessary to maximize the potential of the Department of Defense's Defense Retail Interservice Support program. (LCD-75-217, 8-26-75)

### **Appropriations**

Operation and Maintenance—Army, Navy, and Air Force.

### **Appropriations Committee Issues**

The Committee should consider what is being done to achieve these proposed savings when considering future appropriations requests.

## DEPARTMENT OF DEFENSE - MILITARY

### COMPENSATION

#### *Department of Defense is Overcompensating Its Foreign Employees*

##### Department of Defense

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts)(051).

**Legislative Authority:** Foreign Service Act. H. Rept. 95-68.

As of January 1, 1978, the Department of Defense (DOD) employed about 151,800 foreign nationals at foreign installations, including about 121,200 paid from appropriated funds. Almost 90% of the employees were located in five countries—Germany, Japan, Korea, the Philippines, and Italy. The Foreign Service Act provides that compensation for foreign national employees will be based on locally prevailing rates and practices consistent with the public interest.

**Findings/Conclusions:** Compensation adjustments for foreign national employees are generally determined by two methods: periodic wage surveys as in Korea, Italy, and the Philippines; and government-to-government negotiations as in Japan and Germany. To establish comparability with the private sector, DOD annually adjusts the value of regular pay items but considers and adjusts benefits separately. Combined analysis of pay and benefits would give DOD more flexibility to follow changes in private sector practices. DOD is restricted from paying prevailing rates because: compensation under indirect hire systems is based on government-to-government negotiations rather than the more objective results of wage surveys; outdated labor agreements contain concessions written when labor costs were relatively inexpensive; and political sensitivities and/or influential labor unions limit opportunities for corrective action.

**Recommendations:** DOD should: combine pay and benefits when determining annual comparability adjustments; determine whether

GAO recommendations for wage survey improvements are applicable to other foreign areas and, in the future, monitor the wage setting process more closely to further improve and standardize wage survey procedures; adopt separation pay liquidation plans in areas having separation plans similar to that of U.S. forces in Korea; pursue labor cost sharing opportunities with host governments, particularly where DOD is unable to reduce excess labor costs by other means; review existing foreign national labor agreements and initiate negotiations to revise those containing outdated or overly restrictive provisions; and continue to explore ways of hiring more Americans.

DOD is conducting its own review of foreign national wage setting and plans to implement several of GAO's recommendations. It believes that opportunities to implement certain recommendations may be limited because of host country sensitivities including resistance to the hiring of more Americans in foreign national positions.

In its report on the DOD Appropriation Bill for fiscal year 1979, the House Committee on Appropriations recommended inclusion of section 862 to the bill which would prohibit the payment of salaries, wages and benefits to foreign national employees in excess of locally prevailing wages and practices. The recommended section was eliminated in conference; however, the conferees said they will give this matter close scrutiny in future budget reviews. (FPCD-78-64, 8-2-78)

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

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

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

**Budget Function:** Health: Health Care Services (551).

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.

DOD, VA, and HEW agreed with GAO's recommendation that they develop a coordinated Federal 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 addition, the Federal Health Resources Sharing Committee has established a Computerized Tomography subcommittee to (1) develop and propose guidelines and criteria for assessing and justifying the need for and appropriate locations of

## DEPARTMENT OF DEFENSE - MILITARY

### FACILITIES MANAGEMENT

#### *Millions Could Be Saved Annually and Productivity Increased if Military Support Functions in the Pacific Were Consolidated*

##### Department of Defense

**Budget Function:** Department of Defense - Military (except procurement and contracts)(051)

**Legislative Authority:** Title 10 United States Code

The Department of Defense established the Defense Retail Interservice Support (DRIS) program to promote effective use of interservice support thereby eliminating unnecessary duplication. Although GAO reported in 1972 that improvements were needed in the DRIS program, 3 years later the program was still not effective.

**Findings/Conclusions:** GAO found that in the Pacific (1) overseas coordinating groups responsible for identifying and proposing worthwhile opportunities for consolidation were, for the most part, ineffective, (2) local commands had prevented beneficial consolidations of support functions through parochial objections, and (3) the Secretary of Defense had not authorized the Pacific Commander clear-out authority to direct consolidations of support functions over these narrow objections.

**Recommendations:** GAO reviewed selected military support functions in the Pacific and found that large savings and increased productivity could be realized, without impairing military missions, by consolidating the following support activities:

- The administrative aircraft support operation for the Army at Rankin Army Airfield, Camp Zama, Japan, and the Air Force operation at Yokota Air Base, Yokota, Japan.
- Several of the 25 equipment calibration facilities in Hawaii into a joint facility.
- Separate calibration facilities for each service in Okinawa.
- Separate civilian personnel offices for each service in Hawaii, Japan, and Okinawa into one joint office in each location.

- Two Army industrial gas production plants at Makiminato, Okinawa, and two Air Force gas plants at Kadena Air Base, Okinawa.
- Separate procurement offices for each service in Hawaii, Japan, and Okinawa into one joint office in each location.
- Separate base housing and household furniture management offices for all the services in Okinawa.
- The seven real property maintenance organizations in Hawaii into two organizations and the four organizations in Okinawa into one.
- Three automatic digital network terminals in Hawaii—at Schofield Barracks, Wheeler Air Force Base, and Kunia Navy facility.
- The Army general cargo port at Yokohama, Japan, and the Navy port at Yokosuka, Japan.

Defense disagreed that the Pacific Commander needed directive authority and said that specific procedures were provided to resolve any disagreements on consolidations recommended by the Commander. Defense said the Army was taking the lead in drafting a proposed change to the joint regulation on interservicing that would incorporate any additional procedures deemed appropriate.

Defense also advised that some of the consolidations proposed by GAO had been made and others were being studied.

However, of the consolidations proposed only the following have been undertaken.

- Industrial gas plants in Okinawa were consolidated under the Air Force.



## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

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

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

**Budget Function:** Health: Health Care Services (551).

**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, 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. The 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 the Congress.

DOD, VA and HEW generally agreed with GAO's conclusions and recommendations, expressing their support for the concept of increased sharing of Federal medical resources. They cited several actions that have already

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### *Better Coordination Could Improve the Provision of Federal Health Care in Hawaii*

##### Department of the Army

**Budget Function:** Health: Health Care Services (551).

**Legislative Authority:** National Health Planning and Resources Development Act of 1974 (P.L. 93-641). OMB Circular A-95.

In Hawaii, three Federal agencies—the Department of Defense (DOD) through its military services, the Veterans Administration (VA), and the Public Health Service—provide health care to a beneficiary population of about 230,000 people. Because of location and size, a unique opportunity exists in Hawaii to assure that Federal health care is delivered more economically without sacrificing the quality of care.

**Findings/Conclusions:** The DOD Mid-Pacific Review Committee has not systematically assessed the use of medical and dental facilities in Hawaii, but an interservice assessment of the beneficiary population residing around the various military clinics showed that a more equitable distribution of workload is possible at considerable savings to the Government. The DOD Mid-Pacific Review Committee needs specific guidance concerning how to assess the need for increasing or decreasing health care services in particular areas of the State and whether to include the resources of other Federal and non-Federal agencies in such assessments. The Committee does not have a clear mechanism to resolve differences of opinion and program emphasis among the services, and it has not received feedback from DOD headquarters when it has presented local interservice cooperation proposals for specific health care areas. Of major consequence is the opportunity afforded the Government by the planned renovation and construction project involving Tripler Army Medical Center on Oahu.

**Recommendations:** The Secretary of Defense should make sure that the DOD Health Council provides the direction, guidance, and

feedback needed by the Mid-Pacific Review Committee and directs that Committee to seek VA and Public Health Service representation; establish interagency agreements with VA and the Department of Health, Education, and Welfare to provide dental care in military facilities when this would be advantageous; and make sure that the Army keeps other Federal health care providers and State officials informed of its planning for the Tripler renovation and gives full consideration to their concerns.

DOD and VA agreed with GAO's recommendations. DOD subsequently identified space at Tripler which can be renovated and utilized by 20 additional VA psychiatric patients. In addition, VA stated that it was exploring with DOD the possibility of using a portion of the Tripler facility to provide such additional services as long-term care to veterans. (HRI-78-99, 5-22-78)

#### **Appropriations**

Departments of Defense and Health, Education and Welfare, and the Veterans Administration.

#### **Appropriations Committee Issue**

Tripler Army Medical Center can effectively serve as the only Federal hospital in Hawaii if the Army, in its plan for renovating the facility, keeps other Federal health care providers and Hawaii State Health Planning and Development Agency officials fully apprised of the plans for the facility.

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### *Sharing Cardiac Catheterization Services: A Way to Improve Patient Care and Reduce Costs*

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

**Budget Function:** Health: Health Care Services (551);

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

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 the 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 facilities 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 the 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.

HEW, VA, and DOD generally agreed with GAO's recommendations and have taken prompt action since June 1977 to begin the joint development of uniform Federal cardiac catheterization guidelines. By letter dated January 19, 1978, DOD advised GAO that the three agencies had established an interagency com-

the scanners, (2) develop and propose utilization criteria, and (3) propose geographic areas where opportunities exist to share computed tomography services. (HRD-78-41, 1-30-78)

### **Appropriations**

Department of Defense and Health, Education, and Welfare and the Veterans Administration

### **Appropriations Committee Issues**

Congress should consider limiting the number of scanners that can be purchased until the Federal Health Resources Sharing Committee has developed appropriate guidelines and criteria for purchase and use of the scanners.

## DEPARTMENT OF DEFENSE - MILITARY

### HEALTH MATTERS

#### *The Operations and Financial Needs of the United States Soldiers' and Airmen's Home*

##### Departments of the Army and Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (501). (except procurement & contracts) (051).

**Legislative Authority:** (P.L. 73-473; 48 Stat. 1224; 48 Stat. 1235). (P.L. 94-454; 24 U.S.C. 41).

The expenses of the United States Soldiers' and Airmen's Home have been exceeding its income, and its operations have been financed, in part, with moneys taken from the principal of its permanent fund. In October 1976, the Congress enacted legislation to provide the Home additional income.

**Findings/Conclusions:** Over the last several years, the Home has taken actions to help solve its growing financial problems. These actions did not, however, reverse the Home's financial trend. The legislation passed in 1976 can be expected to enable the Home's permanent fund to grow until about mid-1985, when the Home will again have to use moneys from the fund's principal to support part of its operations, and to extend the life of the fund until early 1999.

**Recommendations:** The Home's Board of Commissioners should: (1) direct that the Home's hospital be reorganized to bring it more closely in line with the health care needs of the Home's members and that the Home no longer seek accreditation as an acute care health facility; and (2) defer, at this time, requests for congressional authorization of additional revenue sources for the Home and closely monitor the Home's financial status to see whether its permanent fund balance declines again. If the fund should decline for some unexpected reason within the next few years, the Board should find out why and recommend to the Armed Services Committees the actions necessary to guarantee that the Home will remain financially healthy.

The United States Soldiers' and Airmen's Home was established to provide a military asylum for the relief and support of invalid and disabled soldiers. The Home's expenses have been exceeding its income, and its operations have been financed, in part, with moneys taken from the principal of its permanent fund. The Congress enacted Public Law 94-454 in October 1976 to provide the Home with additional income.

GAO recommended actions to the Home that would reduce expenses without adversely affecting the level of care provided. The Home is implementing the recommendations.

The additional funding provided under Public Law 94-454 should improve the Home's financial condition to the point where no immediate action is needed to authorize additional revenue sources. GAO recommended that the Home defer requests to the Congress for additional revenue sources until the effects of Public Law 94-454 on the Home's financing can be assessed.

The Home disagrees and believes that additional funds should be authorized immediately for its operations. (HRD-77-123, Aug. 1, 1977.)

### Appropriations

Military Personnel—Army, Air Force.

been taken toward this objective, including the establishment of the Federal Health Resources Sharing Committee.

The Office of Management and Budget, (OMB) agreed that interagency sharing should be improved, but did not agree with some of GAO's recommendations concerning OMB's role in increasing interagency sharing. OMB strongly disagreed with GAO's proposed legislative mandate and the extent to which the legislation would thrust OMB into the direct management of agency health programs. (HRD-78-54, 6-14-78)

## **Appropriations**

Departments of Defense and Health, Education, and Welfare, the Veterans Administration, and the Office of Management and Budget.

## **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

### MAINTENANCE, REPAIR, AND OVERHAUL

#### *Aircraft Depot Maintenance: A Single Manager Is Needed to Stop Waste*

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

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

**Legislative Authority:** 10 U.S.C. 125. OMB Circular A-76. DOD Directive 4151.1.

The Department of Defense (DOD) spends over \$2 billion annually for such aircraft depot maintenance as major overhaul and repair or modification of components, engines, and airframes.

**Findings/Conclusions:** The separate aircraft depot maintenance systems of the three military services waste money, personnel, and materials. Proliferating redundant and underused resources has resulted in such maintenance costing more than necessary.

**Recommendations:** The Secretary of Defense should either designate or establish a single manager over aircraft depot maintenance. This single manager should be responsible for managing resources, workloads input by the military services, and maintenance of workloads performed by the depots. The military services should continue to be responsible for determining their depot maintenance needs. There should be technical interfaces between the services and the single manager such as by service assignments to the depot maintenance organization. The manager should be required to develop a master plan and program as the basis for future actions toward optimum matching of resources with requirements, peacetime and wartime operations, and efficiently sized military depots; implement uniform cost accounting and management information systems for all aspects of air-

craft depot maintenance; and manage aircraft depot maintenance consistent with the master plan.

The Department of Defense agreed that a single manager may benefit aircraft depot maintenance in that it could facilitate further reductions in the unutilized and underutilized capacity identified in 1974 and later, as well as other savings. However, the Department contended that an additional study is required to identify and, where possible, quantify anticipated benefits and penalties that might be accrued from such an assignment. The Department has started planning such a study. (ICD-78-406, 7-12-78)

#### **Appropriations**

Operation and maintenance—Army, Navy, and Air Force.

#### **Appropriations Committee Issues**

Implementation of a single manager over Defense aircraft depot maintenance could significantly reduce operation and maintenance expenses and depot facilities and equipment costs. The Committee should monitor the progress of the Department's study.

mittee to gather baseline information regarding the present extent of interagency sharing among the three agencies. Subcommittees were established to look into the following areas: Cardiac Catheterization Laboratories, Computerized Tomography, Medical Information Systems, and Mobilization Support. VA and DOD established interim guidelines for cardiac catheterization laboratories pending receipt of the interagency committee's recommendations. DOD also advised GAO that the cardiac catheterization laboratories at Malcolm Grow Hospital, Scott Air Base, and Naval Regional Medical Center, Great Lakes would be closed. (HRD-78-14, 11-17-77)

## **Appropriations**

Departments of Defense and Health, Education, and Welfare and the Veterans Administration

### **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 HEW facilities.



**Appropriations Committee Issues**

The Committees should ascertain the status and results of on going Air Force efforts to determine available contractor capabilities to

help satisfy wartime maintenance requirements. Further, the Air Force should advise the Committees of its progress to improve the proficiency of ground crews to get aircraft operational.

**Appropriations Committee Issue**

til the effects of Public Law 94-454 on the Home's financing can be assessed.

Actions should not be taken to authorize additional sources of income for the Home un-

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR, AND OVERHAUL

#### *The Navy Depot Level Aircraft Maintenance Program — Is There a Serious Backlog?*

##### Department of the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The Navy projected a backlog of depot level aircraft maintenance for the end of fiscal years 1976 and 1977 consisting mainly of airframes and repairable components. Essentially, the airframe requirement is not urgent. With improvements in the Navy's maintenance programs, some of which are in progress, this backlog is being reduced as the equipment is needed. The Air Force did not have a depot backlog.

**Findings/Conclusions:** Factors contributing to the difference between the Navy's and the Air Force's aircraft maintenance backlogs are: (1) the Navy schedules airframes into the depots more frequently than the Air Force; and (2) the Navy has not fully funded the depot level aircraft maintenance workload since 1970. The Navy's interval between depot visits is chosen relatively arbitrarily and has remained fairly static. The services' criteria for computing the backlog figures also differ.

**Recommendations:** The Secretary of Defense should: require the Air Force and Navy to establish common criteria for determining when an aircraft should receive depot level maintenance; require that only aircraft actually in need of depot work be reported as an unfunded backlog requirement; require the Navy to resolve the problems contributing to the lengthy order-to-shipment times; and require the Air Force and Navy to eliminate, as much as possible, the differences in terms and acronyms used in their operational readiness reporting systems.

The Navy did not agree that the Air Force and Navy should use common criteria for

scheduling maintenance, although they said that they are implementing an Analytical Maintenance Program to establish new criteria for all operational aircraft.

The Navy concluded that only aircraft in need of rework be reported as an unfunded backlog. In the FY 79 appropriation hearings the Navy called all aircraft an extension on "unfinanced backlog" however they identified those able to fly and perform their mission and those requiring grounding.

The Navy recognized problems in order-to-shipment times, however they cited programs existing and recognized during GAO's review as the significant parts of their efforts to resolve the problems. They are currently still discussing declining operative readiness and rising component backlog in terms of funding levels.

A common operational readiness reporting system was implemented 9/1/78. (ICD-77-432, 9-1-77)

##### Appropriations

Operations and maintenance—Navy.

##### Appropriations Committee Issues

The military services aircraft maintenance and operational readiness data should be developed and presented to the Congress in a similar manner. Standardization of data would aid in comparing the services' operations of their aircraft inventory.

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR, AND OVERHAUL

#### *Air Force Maintenance Depots—The Need for More Responsiveness to Mobilization as well as Peacetime Efficiency*

##### Department of the Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The U.S. Air Force maintains depot repair capability to assure a controlled source of competence to keep aircraft and other equipment ready in peacetime, sustain this hardware in the initial surge of a contingency or war, and provide a base for rapid expansion. Immediate and flexible responsiveness is considered to be a higher priority than the need to obtain efficiency for peacetime operations.

**Findings/Conclusions:** The Air Force has made significant progress in measuring the depot capability and capacity needed to meet mobilization needs. As currently configured, however, maintenance depots cannot support requirements for a surge period for weapon systems. Flying hour estimates for high-surge transport estimates exceed the number possible under present conditions.

**Recommendations:** The Secretary of Defense, together with the Secretary of the Air Force, should: establish more realistic surge data for each weapon system based upon what is achievable rather than what can be achieved under unlikely optimum conditions; define what and how much contractors can support in mobilization; and evaluate its people, facilities and equipment, and repair parts, including production bottlenecks, to achieve better alignment of its resources and more timely response. The Secretary of the Air Force should require the Air Force Logistics Command to: increase methods work significantly; review, upgrade, update, and control labor standards; and make fuller use of various productivity measurement tools. The Air Force Logistics

Command efforts to motivate its people could be enhanced if the command were to: insure first-line supervisors understand and fully exploit the advantages of the appraisal system; develop better means to recognize degrees of individual performance; better recognize the impact of pay scales in motivating employees; increase the use of awards; and accurately monitor training efforts and evaluate the results.

The Air Force was concerned about differences in the report view of wartime requirements planning and the Air Force view. GAO reported that the Air Force could not meet strategic airlift flying hour requirements for the "most demanding" scenario. Air Force believes given sufficient spares and flight crews they could meet these requirements. Concerning peacetime production management they generally agreed with GAO's findings and recommendations. In hearings before the House Appropriations Committee, the Air Force stated that they had initiated a comprehensive action plan that addresses labor standards, material support systems, as well as other facts of depot maintenance management. The Air Force claimed that as a result of these action about \$44 dollars worth of projected FY 79 manpower expenses were avoided. (I.C'D-77-425, 10-21-77 and I.C'D-78-403, 11-23-77)

#### **Appropriations**

Operation and maintenance—Air Force.  
Military construction—Air Force.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *An Evaluation of Department of Defense Comments on a Critical Report; Enlisted Career Force Management Systems.*

#### Department of Defense, Army, Navy and Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** National Defense Act of 1947

A September 1977 report on enlisted career force management pointed out many management improvements that have been made in the military services and the Department of Defense (DOD) to correct enlisted career force imbalances and prevent them from recurring. However, action needs to be taken to bring the career force into balance with enlisted force objectives earlier than the 7 to 10 year time frame planned by the DOD. The report recommended developing ways to measure the effectiveness of enlisted career force objectives on a cost-benefit basis and discussed the use of such measurements.

**Findings/Conclusions:** DOD did not concur with the recommendation that management policies be established to expedite bringing the enlisted career inventory into agreement with the objective force profile. The agency pointed out that each individual has a valid job commensurate with his or her grade and skill level, and none is surplus to the total requirements of the service. DOD also did not agree that the Navy utility model should be used on an interim basis. The utility measures developed by the Navy are not transferable to other services, are only approximate measures of benefits, and possess other shortcomings. The recommendation separately promotes the utility concept and its application and the costing methodolo-

gy developed by the Navy. DOD deferred comment on the recommendation that Congress enact legislation authorizing readjustment pay for enlisted personnel who are involuntarily separated until the President's Commission on Military Compensation makes its final report.

Although formal comments were not received, we were advised that Defense will do little to carry out our recommendation. In its comments to the September 1977 report, Defense disagreed that careerists were excess in certain specialties and that the Office of Secretary of Defense had insufficient staffing assigned to management of enlisted personnel. (FPCD-78-20, 3-13-78)

#### Appropriations

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

#### Appropriations Committee Issues

Failure to maintain our military strength at appropriate levels and not using military personnel effectively will contribute to unnecessary Defense costs.

## DEPARTMENT OF DEFENSE - MILITARY

### MAINTENANCE, REPAIR, AND OVERHAUL

#### *Problems in Supporting Weapons Systems Produced by Other Countries*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

Lessons concerning logistics and maintenance problems arising from the purchase of the British-built Harrier aircraft system can be applied to future procurements of weapons systems.

**Findings/Conclusions:** Maintenance and logistics support problems resulted from inadequate and untimely planning and a lack of experience in purchasing weapons systems from other countries. The Navy could not obtain necessary technical data from the United Kingdom and could not establish a system to repair the aircraft. Supply support in the United Kingdom was hindered by: competition for available spare parts, British vendors not meeting delivery schedules, and poor turn-around time for items repaired by British vendors.

**Recommendations:** In purchasing foreign weapons systems, the Secretary of Defense should promptly make logistic support analyses and develop maintenance plans to support the system, provide for a contractor to support the system until the military service can, and

require that supplemental guideline be issued for integrated logistics support planning.

The Assistant Secretary of Defense, Installations and Logistics, advised GAO that our recommendations would be used in revising existing regulations. DOD has refrained from issuing supplemental directives outlining only foreign-produced system procedures. (ICD-76-450, 1-4-77)

#### **Appropriations**

Procurement—Navy.

Operation and maintenance—Navy.

#### **Appropriations Committee Issues**

The Appropriations Committees in reviewing new weapon system procurements should insure that the Secretary of Defense has taken the lead in providing the services with necessary guidance to deal specifically with supporting systems produced by other countries.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *Management and Use of Army Enlisted Personnel: What Needs to Be Done*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** (88 Stat. 119; Armed Forces Enlisted Personnel Bonus Revision Act of 1974; 37 U.S.C. 308; P.L. 93-277). Army Regulation 600-200. Army Regulation 614-200. Army Regulation 614-6. DOD Directive 1304.21. DOD Directive 1315.7. 10 U.S.C. 3062.

For many years, the Army relied on the draft to acquire a large, continuing supply of new personnel. Since the draft ended, it has pursued an aggressive program to recruit volunteers, paying bonuses to enlistees for critically needed skills. Although the Army has shortages of enlisted personnel in critically needed skills, it has substantial numbers of individuals qualified in those skills. It has had problems in maintaining an inventory of personnel with skills to match its needs. The Army needs a workable system for distributing, assigning, using, and accounting for its personnel.

**Findings/Conclusions:** Army personnel management policies, regulations, and instructions need to be made more specific to guide officials at headquarters and field installations in attaining the most effective distribution, assignment, and use of enlisted personnel practicable. The Army's combat mission capability has priority, but its peacetime role and demands on personnel are important. Headquarters has not officially recognized that its personnel management policies and instructions must also serve peacetime needs. There is little or no peacetime need for some authorized positions in garrison, but some garrison needs that do exist are not always met. The personnel distribution and assignment system often does not get the right people to the right place at the right time. In the absence of standard procedures, each installation manager must, to some extent, ap-

ply his own techniques and judgment to the allocation of skilled personnel.

**Recommendations:** The Secretary of Defense, with the cooperation of the Secretary of the Army, should: designate a single authority to prescribe and enforce policies and regulations and to issue specific instructions to guide officials at all levels; develop techniques for managing enlisted personnel by skill to provide more effective control over the acquisition, distribution, assignment, and use of personnel, determine whether the policy for the payment of enlistment bonuses is administered prudently; clarify criteria to be used in measuring personnel readiness; modify the personnel reporting system to provide realistic data for each individual; and direct audit, inspection, and other evaluation organizations to intensify their examination of and reporting on the effectiveness of personnel management. (RRS)

Defense replied that the Army Deputy Chief of Staff for personnel is the single authority for prescribing personnel policies, and that commanders at all levels have the responsibility to carry out these policies. Army gave no indication of change in this area. Army said it is now testing a completely revised distribution and assignment system, PERDDIMS, which will give personnel managers a central inventory control by skill. Army also said it will adopt revised personnel readiness reporting criteria and

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *A Contributory Retirement System for Military Personnel*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051)

**Legislative Authority:** Uniformed Services retirement are setforth in titles 10, 14, 33, and 42 of the U.S.C.

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 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. We 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.

While the Department of Defense is continuing to study the military compensation system,

no positive actions have been taken to date on the matters discussed in our report. (FPCD-76-43, 3-4-76)

#### **Appropriations**

Military personnel—Army, Navy, and Air Force.

#### **Appropriations Committee Issues**

1. Significant savings may be possible by adopting a contributory retirement system for military personnel. The Department of Defense, in conjunction with the Office of Management and Budget, should\* consider incorporating a contributory feature in proposed legislative reform of the retirement system.
2. Guidance from the Congress should be provided to the Department of Defense and Office of Management and Budget on unresolved issues pertaining to adoption of a contributory retirement system, such as
  - how contributions should be computed.
  - whether a retirement fund should be established,
  - whether pay should be increased to offset contributions,
  - when vesting rights should be granted, and
  - how the military retirement system should be integrated with Social Security.



## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *Military Services Policy of Advancing Leave to Enlisted Personnel*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** 10 U.S.C. 701. 10 U.S.C. 704. DOD Directive 1327.5.

During the first 6 months of 1977, over 21,000 Army, Navy, and Air Force enlisted personnel left the services with unliquidated advance leave, owing the Government over \$3.2 million. About two-thirds of this amount was recouped from the members' final pay, but about one-third became an unsatisfied debt to the Government. Advance leave is chargeable leave which exceeds a member's current leave balance but does not exceed the amount of leave that will be earned during his current enlistment. It provides a means whereby service members with limited accrued leave may be granted leave to resolve emergency and urgent personal or morale problems. 17

**Findings/Conclusions:** A test of 157 randomly selected enlisted members separated in an excess leave status during the first half of 1977 showed that they were advanced 488 periods of leave: 39% were for emergency purpose, 32% for change of duty station, and 27% for ordinary leave. During the latter part of 1977, over 270,000 enlisted personnel on active duty had negative leave balances of about 2.6 million days, representing an estimated value of about \$113 million. Because of the high attrition rate of first-term enlisted personnel, it is

difficult to have great expectations that the leave will be earned by the members during the remaining term of their obligated active duty.

**Recommendations:** The Secretary of Defense should initiate a program to generate an increased understanding and awareness on the part of leave administrators of their responsibilities for prudent use of authority to grant advance leave and to fully inform service members early in their enlistments of their leave rights and the consequences of imprudent or unnecessary use of advance leave.

The DOD generally agreed with our recommendations and is currently revising the policies and practices on advancing leave. (FPCD-78-30, 5-24-78)

#### **Appropriations**

Military Personnel - Army, Air Force and Navy

#### **Appropriations Committee Issues**

Unsatisfied debt to the Government has been incurred through the use of advance leave by military personnel.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *Development and Use of Military Service's Staffing Standards: More Direction, Emphasis, and Consistency Needed.*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** OMB Circular A-11.

Personnel costs represent the largest part of the Department of Defense's budget, with over half of the personnel serving in support rather than combat functions in fiscal year 1977. The military services use a variety of management tools and techniques such as manpower surveys, staffing guides, criteria manuals, and staffing standards in determining support personnel requirements.

**Findings/Conclusions:** With the exception of the Air Force, the services have made little progress in developing and using these techniques. The Office of the Secretary of Defense has not provided adequate leadership in the development and use of staffing standards which would eliminate ambiguity. This ambiguity has led to vast differences in the services' approaches to staffing standards and has limited the Office's ability to evaluate personnel budget requests. Differences exist within and among the services in: policies for and control of staffing standards and programs; assignment and training of personnel for standards development; personnel covered by standards; and use of standards in determining staffing requirements. Unlike the other services, the Air Force has saved money and gathered more accurate work force figures by extensive use of standards for determining staffing requirements. Work measurement is considered to be the most reliable basis for staffing standards.

**Recommendations:** The Secretary of Defense should require greater use of staffing standards by: establishing a comprehensive program that would delineate basic assump-

tions, definitions, and methods; establishing realistic goals for increased coverage by standards and monitoring progress; insuring high priority for proper personnel assignment for standards development; directing the use of civilian rather than enlisted personnel unless otherwise justified; and requiring personnel requests to specify positions supported by standards. The Committee should require the Office to periodically report to Congress on the services' progress in developing staffing standards, the extent to which personnel budgets are based on the standards, and the Office's progress in managing a staffing standards program.

DOD has prepared a plan to establish a comprehensive staffing standards program. DOD believes this is an expensive, long-range program and indicated they may have difficulty obtaining resources to carry it out. (FPC'D-77-72, 10-18-77).

#### **Appropriations**

Operations and Maintenance - Army, Navy, Air Force

Military personnel - Army, Navy, Air Force

#### **Appropriations Committee Issues**

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

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *Observations on the Method of Annually Adjusting Military Pay*

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

**Budget Function:** National Defense: Department of Defense - military (except procurement & contracts) (051).

**Legislative Authority:** Department of Defense Appropriation Authorization Act of 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, these 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 decreasing 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.

The Department of Defense stated that it is currently evaluating the latest study on military compensation and plans to submit legislation to the Congress. (FPC'D-78-45, 6-2-78)

#### **Appropriations**

Personnel-Army, Navy and Air Force

#### **Appropriations Committee Issues**

The question of property recognizing the tax advantage (\$1.5 billion) should continue to be of concern to the Committees.

status. It said that existing audits, inspections, and surveys are the proper means for insuring the accuracy of personnel utilization.

Defense said that it makes a detailed review annually of each skill proposed for payment of a bonus, and was confident that the programs of the Army and the other services comply with the intent of 37 U.S.C. 308a. However, the House Committee on Appropriations was not satisfied and reduced the amount the Army requested for enlistment bonuses for fiscal year 1979 by \$4.4 million. The Senate Committee on Appropriations concurred, and this re-

duction was reflected in the FY 1979 Defense appropriation approved by the Congress. (FPCD-78-6, 2-16-78)

### **Appropriations**

Military personnel—Army

### **Appropriations Committee Issues**

Costs could be reduced and personnel effectiveness increased with improved management and use of Army enlisted personnel.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *The Army Can Improve Peacetime Use of Deployable Enlisted Personnel*

##### Department of the Army

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** Army Regulation 570-4. Army Regulation 600-200.

Although its combat mission has priority, the Army's peacetime role and demands on personnel are important. Army headquarters has not officially recognized its peacetime needs and incorporated them into its personnel management policies and instructions. A study was conducted to determine whether deployable Army enlisted military personnel were or could be used effectively and productively to accomplish work needed to maintain garrisons and, at the same time, enhance proficiency in their basic skills.

**Findings/Conclusions:** Army headquarters does not provide adequately for using combat personnel for meeting peacetime needs. It staffs its deployable units and develops personnel management policies and instructions on the basis of combat requirements, and it gives no substantive recognition of the need to use deployable personnel for garrison work. Commanders' and individuals' perceptions of special duty in the garrison and how to use it effectively need to change. Most of those contacted had negative perceptions of special duty; these perceptions are demoralizing and not conducive to good performance. The Army would benefit from more constructive attitudes toward special duty. Special duty could be used as a reward for good performance and, by using high achievers in special duty, the required work could be accomplished with fewer people.

**Recommendations:** The Secretary of Defense, with the cooperation of the Secretary of the Army, should develop: policy guidelines that recognize the extent of the Army's need to use deployable military personnel to maintain its combat capability and accomplish its garrison responsibilities; plans and issue guidelines that will assist commanders at all levels in assigning deployable personnel from their units to special duty in the garrison that will maintain or enhance individual skill proficiency and unit combat capability; and cost-effective means of recording reliable and realistic data on individuals' skill qualifications and on training and experience needed to maintain skill proficiency. An interim system should be developed and tested for controlled management of garrisoned deployable personnel at installations.

The Commander, 4th Infantry Division (Mechanized), where the study was made, agreed with our findings. He said he would experiment with means of overcoming this situation. (FPCD-78-66, 9-7-78)

##### **Appropriations**

Military personnel—Army.

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

Costs could be reduced and operating effectiveness increased through improved use of enlisted military personnel.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

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

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**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.

In response to our report, the DOD stated that they had not yet reached a decision on whether the base pay and allowances system should be changed to a salary system. DOD is currently evaluating the report of the President's Commission on Military Compensation and intends to submit legislation to the next session of the Congress. (FPC'D-78-27, 7-12-78)

#### **Appropriations**

Military personnel—Army, Navy, and Air Force.

#### **Appropriations Committee Issues**

The Committees should require the DOD to justify why the inefficient and complex pay and allowance system needs to be continued. The system is not only inefficient to administer, but is extremely costly.

## DEPARTMENT OF DEFENSE - MILITARY

### MISSION BUDGETING

#### *Mission Budgeting: Discussion and Illustration of the Concept in Research and Development Programs*

##### Department of Defense

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts)(051).

**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.

The Congress has taken an initial step of requiring a mission informational display in the President's budget but has yet to fund budget requests of the agencies on that basis. A few committees are beginning to experiment with the concept. However, only appropriations committees can ultimately decide how executive agency budget requests are formulated, reviewed and funded.

In its FY 1978 budget, DOD 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 a mission structure and needs are not yet discernable. Mission needs are not traceable upwards to top mission categories or downward to programs and activities. Last summer Defense achieved a breakthrough agreement with the military services on defense-wide mission structure for R & D and intends to start using it in its internal budget process this year. Also, the House Armed Services Committee's R & D Subcommittee may conduct portions of its FY 1980 budget review on a mission basis with a view toward expanding application of the concept in future years. Defense officials believe that the Congressional Funding Process could be shifted to a mission approach for FY 1981. (PSAD-77-124, 7-27-77)

#### **Appropriations**

All Federal agencies—defense and civil

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

#### *Temporary Duty Travel in the Management and Operation of Department of Defense Programs*

##### Department of Defense

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** Supplemental Appropriations Act [of] 1976 (P.L. 94-157). Budget and Accounting Act of 1921. Supplemental Appropriation Act of Fiscal Year 1975, sec. 205. Roth Amendment. Executive Order 11609. OMB Bulletin 76-9.

The Federal Government spends about \$2 billion each year for travel in the management and operation of Federal programs. The Department of Defense (DOD) accounts for about \$1.4 billion of this travel, including about \$870 million for temporary duty travel in fiscal year 1976. Program managers have primary responsibility for insuring the most effective use of their program budgets, including the nature and extent of travel.

**Findings/Conclusions:** There are important differences in the policies that should be set for the Federal Government for the different types of program-related travel. There are diverse reasons for temporary duty travel such as to perform program inspections and evaluations, to participate in meetings or training programs, and to engage in public relations activities. Guidelines that attempt to cover all these categories seem to be too general for day-to-day use by program managers. Management could improve its control over travel by making internal reviews that emphasize the application of travel policies and procedures to reduce unnecessary travel.

**Recommendations:** The Office of Management and Budget (OMB) should: revise its guidelines to focus more specifically on the purpose of travel; require DOD to revise its reporting system and internal review and audit approaches to follow the new guidance; and, after implementing the revised guidelines and

the reporting and review systems, assess the performance at that time to see if further action is needed to improve management of travel funds made available to program managers. The Director of OMB, the Administrator of the General Services Administration (GSA), and the Secretary of Defense should establish procedures to verify the accuracy of reported travel costs.

OMB, GSA and DOD do not believe that travel guidelines would be made more effective by requiring agencies to identify and report travel costs by the specific purposes cited in the GAO report. But GSA and OMB have jointly redesigned travel reporting procedures to make reports more accurate and provide a basis for future improvements in travel management. (FPCD-77-84, 10-28-77)

##### Appropriations

Operation and maintenance—Army, Navy & Air Force. Military personnel—Army, Navy & Air Force.

##### Appropriations Committee Issues

Reducing Federal travel costs. Costs could be reduced by more effective control and monitoring of government travel.



## DEPARTMENT OF DEFENSE - MILITARY

### MOBILIZATION

#### *Challenges to Reducing Government Equipment in Contractor's Plants*

##### Department of Defense

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 484 (e) (3) (G)). A.S.P.R. B-311.

In March 1970, the Department of Defense (DOD) announced a 5-year program to generally phase out the use of in-place Government-owned facilities in the possession of contractors. Although progress has been made, more could be done to phase out this equipment through determined and sustained efforts by DOD and the military services.

**Findings/Conclusions:** Uncertainties about the authority to dispose of Government equipment by negotiated sale to contractors and past lack of incentives for contractors to invest in capital equipment have detracted from the phaseout program's success. As of June 30, 1976, contractors at Government-owned and contractor-operated plants had 12% less Government-owned industrial and other plant equipment than the \$4.5 billion in their possession 5 years earlier.

**Recommendations:** The Secretary of Defense should: obtain visibility of other plant equipment furnished to contractors by maintaining central records on such equipment; put more emphasis on identifying both industrial and other plant equipment essential to supporting either current procurements or wartime production and emphasize removing unneeded equipment; revise DOD procedures to guarantee that all plant equipment needed during

wartime is identified and included in plant equipment packages set up to meet wartime requirements; and reassess DOD's position on authorizing the use of Government-owned equipment for commercial work and require that the contractor maintain records for use of Government-owned equipment on commercial work. The Congress should clarify the authority of the General Services Administration to negotiate sales of Government-owned equipment to the holding contractors.

DOD agreed with our recommendations and advised us that correction actions are planned or underway with estimated completion in late 1978. (LCD-77-417, 9-15-77)

#### **Appropriations**

Operation and Maintenance—Army, Navy, Air Force. Procurement—Army, Navy, Air Force

#### **Appropriations Committee Issues**

The Congress should clarify the authority of the General Services Administration to negotiate sales of nonexcess, Government-owned equipment solely to the holding contractor.

## DEPARTMENT OF DEFENSE - MILITARY

### MILITARY MANPOWER

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

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

**Budget Function:** Veterans Benefits and Services: Income Security for Veterans (701).

**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 careers 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% of the enlisted member retirees and 30% 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:** The 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 performed; 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.

The Department of Defense is currently evaluating the latest Commission study on military compensation and plans to submit legislation to the Congress. (FPCD-77-81, 3-13-78)

#### **Appropriations**

Military personnel—Army, Navy, and Air Force.

#### **Appropriations Committee Issues**

The Committees should insure that DOD does submit legislation to revise the inconsistent and inefficient military retirement system. DOD should justify the continued need for continuing such a costly system.

terial use experience is adequately considered, and insure that excess material on hand is identified and the ordering system is adjusted to allow full use of excess material.

The Department of Defense agrees with most of GAO's evaluations, conclusions, and recommendations. It stated that although progress in identifying mobilization requirements has been less than satisfactory and more needs to be done, the Navy recognizes its weak area in the management of naval shipyards and has initiated many programs to correct them. These improvement actions have not yet been completed. (LCD-77-450, 3-31-78)

### **Appropriations**

Operations and maintenance—Navy  
Military construction—Navy.

### **Appropriations Committee Issues**

The Committees should require the Navy to

1. Establish a baseline average labor and material requirement to repair each type,

class, and major system or piece of equipment of a ship.

2. Justify major deviations from that baseline figure including identification and quantification of specific reasons—that is, reduced productivity, complexity, age of ship, etc. To assure objectivity, the justification prepared by the Navy should be validated by a team not directly associated with shipyard operations.

Since the Navy has not determined what mobilization capacity and capability each shipyard requires, the Committees should also consider postponing those shipyard modernization program expenditures which cannot be related to specific mobilization needs.

## DEPARTMENT OF DEFENSE - MILITARY

### MOBILIZATION

*Naval Shipyards: Better Definition of Mobilization Requirements and Improved Peacetime Operations Are Needed*

## DEPARTMENT OF DEFENSE - MILITARY

### READINESS

*Can the Army Provide Logistic Support for its Troops in a Conventional Defense of Free Europe*

Department of the Army

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

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

Since the U.S. Forces' relocation from France in 1967, the Army has been trying to develop a stable wartime supply line to support its troops in Central Europe. Despite concerted efforts, there is no reasonable assurance that adequate resupply stocks arriving from the United States could be delivered to U.S. combat troops in a crisis.

**Findings/Conclusions:** Plans for shipping material from European ports do not tie in well with U.S. troops and capabilities in Germany; plans are unclear about how shipments will be handled and where they will be forwarded. There are conflicting estimates of the size of the resupply workload to be handled through the wartime supply line, and reasonable assurance is lacking that supply routes will be secure enough to prevent unacceptable disruption. There is also insufficient assurance that host nation support required by allies will not conflict with U.S. requirements. Within the U.S. sector of Germany, shortages of transport and handling capability for distributing war reserve stocks exist at all levels. Assurance is lacking that adequate quantities of war reserves could be distributed and that expected support from host nation civilians would be available.

**Recommendations:** The Secretary of Defense should provide for updating, coordinating, and interfacing all plans affecting the war-

moving supplies from European ports to combat units to increase assurance that adequate material can be delivered.

DOD agrees that wartime supply line planning needs to be improved, and supports substantial action in this area. However, DOD is not able to predict how much support this area will receive from our NATO allies. The Joint Chiefs of Staff are studying the war planning process to strengthen their review procedures and improve coordination. The Army believes the issues raised will be resolved, in part through the Long Term Defense Program and other on-going actions within the Army. (LCD-77-208, 2-16-78)

### Appropriations

Defense Appropriations Act

### Appropriations Committee Issues

The Committee will probably want to ask:

- Has NATO determined what each allies logistic requirements and capabilities are?
- Does NATO have a plan to develop and use multinational supply lines?
- What happens if NATO does not develop a multinational logistics plan?

- What additional improvements are planned?
- What will these improvements cost?
- Do the additional requirements mean the U.S. will supply all NATO logistics support?

Current plans provide for prepositioning additional material and equipment in Europe.

What impact will this have on theatre logistical support?

If there has been any change in the warning and mobilization timeframes, what will be the impact on logistics support requirements for U.S. Forces in Europe?

## DEPARTMENT OF DEFENSE - MILITARY

### READINESS

#### *Planning Host Nation Support for U.S. Forces in Europe*

##### Departments of the Army and Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

Details of report findings, conclusions, and recommendations are classified.

The agency basically agreed with our conclusions and recommendations. (LCD-78-402, 8-9-78)

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

Host Nation support is vital to the readiness of U.S. deployed forces. The Department of Defense should expeditiously address the issues contained in our classified report.

##### **Appropriations**

Operation and Maintenance—Army, Air Force.

## DEPARTMENT OF DEFENSE-MILITARY

### STOCK FUNDS

#### *Army Commissary Accounting for Gains and Losses Needs Improvement*

##### Department of the Army

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002).

**Legislative Authority:** P.L. 93-437, P.L. 94-419, 31 U.S.C. 628, DOD Directive 7420.1, Army Regulation 735-11, Army Regulation 30-19.

Army commissaries are financed from appropriated funds, a revolving stock fund, and revenues from retail sales. Although by law merchandise must be sold at cost, a surcharge may be added to pay certain operating expenses. Money collected in excess of the amount required to reimburse the stock fund for operating expenses is used for commissary construction and improvements. Except for inventory losses and changes in inventory levels, sales receipts should generally equal the cost of purchases paid from the stock fund.

**Findings/Conclusions:** From July 1974 through September 1976, the Army stock fund absorbed \$9.5 million in commissary losses from unidentifiable causes. These losses should be borne by commissary customers. Also, discounts earned by the fund from prompt payment for purchases, which totaled \$1.2 million for the first 9 months of 1977, should have been passed on to the commissary patrons but were not.

**Recommendations:** The Secretary of Defense should require the Secretary of the Army to revise procedures to provide that the Army stock fund be reimbursed for all inventory losses resulting from identifiable causes beginning

with fiscal year 1977; reimburse the Army stock fund for operating losses from unidentifiable causes which were absorbed at the time inventory accountability was transferred to the Troop Support Agency; complete processing of reports of the survey which were initiated before the transfer of accountability; revise procedures to provide that all discounts earned by prompt payment be transferred to the surcharge trust fund; and establish a variance account to separately record the difference between purchase prices and shelf prices.

The Department of Defense agreed with our recommendations and the Army has taken or will take action to implement them. (FGMSD-78-43, 7-17-78)

#### **Appropriations**

21X4991 Army Stock Fund.

#### **Appropriations Committee Issues**

The House and Senate Appropriations Committees may wish to evaluate the actions taken to reimburse the Army Stock Fund for commissary losses from unidentifiable causes.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *Alternatives Available for Reducing Requirements for Spare Aircraft Engines*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051)

**Legislative Authority:** DOD Instruction 4230.4.

The cost of acquiring valid defense needs now and in the foreseeable future far exceeds available funds. To make sure that the limited funds are spent for requirements that are truly critical, the military services must have effective procedures for determining this fact. One area in which computed requirements exceed available funds is the acquisition of spare aircraft engines which are routinely needed by the Air Force and the Navy to replace those engines that periodically undergo necessary maintenance or major overhaul.

**Recommendations:** The Secretary of Defense should revise its Instruction 4230.4 to include criteria to evaluate safety level needs in terms of their contribution to the operational status of the aircraft fleet the spares are to support. The Secretary of Defense should instruct the Air Force and the Navy to use engine removal rates which reflect a reasonable level of performance to be achieved at some future time when the engine matures and, in calculating requirements for the F-16 program, to consider the spare engines purchased for the F-15 and the number that will be available when the engine matures. The Secretary of Defense should have the Navy consider aircraft carriers as overseas bases when computing engine requirements using current published pipeline standards in order to differentiate overseas carrier operations and associated pipelines from shore bases and their limited operations in wartime; exclude support at the land bases for aircraft which will be deployed aboard aircraft carriers; and reduce the wartime flying hour rates by 10% for carrier based aircraft; reasses

The Department of Defense agreed with GAO's recommendations, stating the report was most timely because DOD had been reevaluating spare aircraft engine requirements during the past few years. Navy was tasked with justifying its spare engine requirements and Air Force is studying ways to reduce safety levels for aircraft engines. A DOD decision related to the Navy's need to compute a 30-day supply of spare engines to support aircraft carriers is expected by December 1, 1978 to coincide with the fiscal year 1980 budget submission. According to a DOD official if the 30-day supply of spare engines is listed for procurement in the budget submission, it means that OSD has accepted the Navy concept of spare engine requirements, and in effect rejected GAO's recommendation. As indicated above, spare engine requirements are still under review. (ICD-77-418, 10-12-77)

#### **Appropriations**

Procurement—Navy and Air Force.

#### **Appropriations Committee Issues**

The Committee should focus its attention on the issue of whether the Navy needs a 30 day supply of spare engines aboard carriers when the Navy's standard resupply time for spare engines is 15 days.



## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *Automotive Tire Distribution: Dollars Can Be Saved*

##### Department of the Army

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

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

The Government operates a fleet of more than 420,000 commercial passenger cars and trucks and spends over \$29 million each year for about 716,000 new replacement tires. Because tires represent a significant part of the millions spent to operate and maintain these vehicles, an examination was conducted of the Department of Defense's (DOD's) and the General Services Administration's (GSA's) tire management policies and practices relating to the storage and distribution of new tires.

**Findings/Conclusions:** DOD's central management and distribution of automotive tires has been plagued with problems, including high operating costs and slow response to customer needs. Although current DOD policy encourages military users to reduce operation and support costs by buying more commercially available items and using commercial distribution networks, military activities are still required to use the DOD system for tires centrally managed and distributed through the supply depots. The DOD system of purchasing and centrally stocking and distributing tires that are available commercially on the open market is no longer cost effective and should be discon-

tinued. DOD's requirements for commercial tires can be met through GSA's Federal Supply Schedule System and direct local purchase at less cost to the Government and quicker response to customer needs.

**Recommendations:** DOD should discontinue stocking tires that are available commercially in order to reduce the high cost of distributing tires, provide more timely services, and comply with the policy of generally using commercial supply sources.

Under the Commercial Item Support Program DOD is studying the potential for elimination of wholesale level duplication of commercial distribution systems for the supply of commercial items when it is economically feasible and no adverse impact on military readiness is indicated. (LCD-77-235, 1-4-78).

#### **Appropriations**

Operation and Maintenance—Army

#### **Appropriations Committee Issues**

None

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *Better Management of Spare Equipment Will Improve Maintenance Productivity and Save the Army Millions*

##### Department of the Army

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

Maintenance float is the term used for operating equipment which is stocked at maintenance facilities for use while Army equipment is being repaired. The Army's stated maintenance float requirement is about \$966 million, about \$553 million of which is in operational readiness float.

**Findings/Conclusions:** In 1976, the Army was still using maintenance float factors developed in 1971 and had no way of knowing its true requirements. Since 1971, the Army has been unable to obtain the required data to evaluate its maintenance float requirements. In addition, certain Army activity groups were uncertain about their float responsibilities. At least \$62 million in float requirements was used to support noncombat units such as training battalions and military policy. As a result, unnecessary equipment may have been purchased, and equipment which could have been used to fill Army shortages in active or reserve units was used unnecessarily for maintenance float purposes. If maintenance float support for noncombat units were discontinued, planned procurements for selected tank and automotive equipment, for example, could be reduced by about \$11.5 million, and about \$4.2 million in existing assets could be redistributed.

**Recommendations:** The Army should discontinue the practice of computing maintenance float support for noncombat units except when such support is determined to be essential to the units' missions. The system for estimating requirements should be based on planned overhauls in a wartime environment, realistic performance standards, and improved maintenance concepts. Provisions should be made to

periodically revalidate float requirements and collect the necessary data to do so. Future procurement plans should be revised to show any changed float requirements.

The Army generally agreed with the findings discussed in the report but said that it would await the results of its own studies before making any adjustments to its maintenance float requirements. The Army is currently evaluating its studies to determine whether performance standards for maintenance float are realistic before making any adjustments to combat units' requirements. In addition, the Army plans to estimate, before the end of calendar year 1978, the monetary savings resulting from GAO's recommendations on pooling maintenance float requirements for noncombat and combat units. (I.C'D-76-442, 4-5-77)

#### Appropriations

Procurement—Army.

#### Appropriations Committee Issues

1. Procurement costs could be reduced in those instances where noncombat units can share maintenance float with collocated combat units.
2. Procurement costs could be reduced by making more frequent assessments of maintenance float requirements for combat units and basing such requirements on realistic performance standards rather than on actual production performance.

## DEPARTMENT OF DEFENSE-MILITARY

### SUPPLY MANAGEMENT

#### *Determining Requirements for War Reserve Spares and Repair Parts: Importance of the Wartime Planning Process*

##### Department of the Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** S. Rept. 95-325

Department of Defense (DOD) investments for aircraft logistics cost billions of dollars annually. Logistics support requires adequate numbers and various kinds of maintenance people, facilities, and spare and repair parts to keep aircraft operationally ready in peacetime and capable of meeting wartime needs. The Air Force's total war reserve requirement for secondary item spares and repair parts amounts to about \$2.8 billion—\$1.7 billion in assets and \$1.1 billion to be funded by fiscal year 1983.

**Findings/Conclusions:** In order to determine war reserve parts requirements, proper planning, coordination, and analysis are needed. The Office of the Secretary of Defense needs better coordination within, between, and among the services. The Air Force needs better coordination of wartime planning within its own department, especially among and within the major commands. The Air Force has not conducted comprehensive studies to find out the true wartime capability of the C-5 or other aircraft. Wartime mission planning for noncombatant aircraft should also have more careful analysis. The Air Force has recently changed attrition rates for six tactical fighter aircraft, but overall attrition rates for the fighters seem to be too low based on experience in past wars.

**Recommendations:** The Secretary of Defense should strengthen coordination of wartime planning activities and require the Air Force to reevaluate the ability of all aircraft to meet their wartime mission before committing money for reserve parts, training, and other logistics support items; assess the impact of

the reduced strategic airlift mission on other services which depend on certain aircraft to move combat equipment; take steps to ensure that non-engaged aircraft have specific mission plans during wartime; reevaluate the assumption that aircraft lost by attrition will be immediately replaced by non-engaged aircraft; incorporate the new attrition rates for strategic airlift aircraft, reduce war reserve parts requirements for C-5s and C-141s accordingly, and reassess attrition rates for other combat aircraft; and reassess the feasibility of modifying wartime requirements planning procedures using more realistic approaches for computing needs for war reserve parts and giving consideration to using sorties and type of mission as a basis for requirements. The Congress should require the Air Force to submit detailed plans on future war reserve requests for strategic airlift.

In replying to our report, DOD stated it believes that the Air Force's analysis fully supports the programmed rate for the C-5 provided the necessary parts, equipment, crews, and support personnel are available. DOD feels that continued funding by congress to support logistics requirements for strategic airlift is fully warranted. DOD also concludes that the Air Forces' analysis of requirements for strategic airlift are better represented by use of flying hours and that the investment to convert to a sortie system is not justified at this time. Finally, DOD recognizes the importance of coordinating the services' planning efforts and intends to improve its planning process. The Air Force, specifically, is making a special effort to

insure all major commands are using consistent planning factors drawn from approved defense guidance documents. (LCD-78-407A, 6-6-78 and LCD-78-407, 6-7-78)

### **Appropriations**

Procurement—Air Force  
Operations and maintenance—Air Force

### **Appropriations Committee Issues**

The Committees should require the Air Force to submit detailed plans on future war reserve

requests for strategic airlift. This data should help in deciding which weapons systems need logistics support funding the most. If the committees determine that the Air Force has not realistically defined the capability of strategic airlift from the data presented, it should defer further logistics support funding for these aircraft until the Air Force adequately does so.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *Emergency Power Generators Used and Managed Inefficiently by Department of Defense*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The Department of Defense (DOD) needs to make improvements in the management and use of the emergency power generators, which provide backup power for vital DOD facilities, such as hospitals, if normal power sources fail.

**Findings/Conclusions:** DOD needs to provide standard guidelines to the services on how to best manage and use emergency power generators. More stringent Department and service criteria on the authorization and use of emergency power generators could reduce many of the problems noted at the installations visited, such as generator capacities greater than required, unnecessary and duplicate generators, inconsistencies in generator use, and unnecessary costs to maintain duplicate systems.

**Recommendations:** The Secretary of Defense should: (1) provide criteria for determining which users should have priority access to emergency power and how the needs of these users can best be met; (2) strengthen the process for reviewing and justifying the need for all generators in order to permit the initial need for a generator to be adequately justified, to permit those users which can be serviced by smaller generators to be identified, and to permit generators no longer necessary to be made available to other users; and (3) instruct installations to share generators, when appro-

priate, as an alternative to buying or retaining unnecessary generators.

The Department believed GAO's recommendations merited consideration and is reviewing criteria standardizing the authorization and use of emergency power for specific facilities.

However, the Department indicated that GAO's report should have recognized basic differences between tactical mobile generators and auxiliary electrical power systems, degrees of criticality or reliability of these systems, and readiness requirement during mobilization or national emergencies. (LCD-77-406, 5-20-77)

#### **Appropriations**

Military Construction—Army, Navy, Air Force  
Operations and Maintenance—Army, Navy, Air Force

#### **Appropriations Committee Issues**

1. The Department of Defense needs a management system which guarantees that emergency power needs are justified. It could save large sums of money if such needs were consolidated, as appropriate.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *Essentiality of Air Force War Reserve Items*

##### Department of the Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** S. Rept. 95-325.

In fiscal year 1978, the Air Force estimated its peacetime requirements for reparable (or investment-type) aircraft spare parts at \$586 million and its war reserve requirement at about \$1 billion. Congressional committees have continually questioned the basis for and validity of the Department of Defense's war reserve requirements for spare and repair parts. A review was conducted of 199 randomly selected aircraft spares and repair parts having a war reserve requirement as of June 30, 1977, which the Air Force planned to buy, to determine if the buy requirement was valid, the items were critical to wartime missions, items supported the more important weapons systems, and items with the greatest critical deficiencies were given funding priorities.

**Findings/Conclusions:** An erroneous requirement of more than \$1 million to support a weapons system that was ineligible for that type of support was generated because invalid factors were not deleted from the requirements computation system. Between 194 and 533 of the 2,423 war reserve investment items managed by Warner Robbins Air Logistics Center had an invalid requirement. Essentiality designations were incorrect for 13 of the items sampled. The Air Force's documentation used to justify its essential spare part needs is incomplete and based on erroneous data which causes annual budget submissions to be overstated. The Air Force does not have an effective method of assigning priorities to war reserve items in terms of their importance to wartime missions. It is working on a new system to assign priorities to war reserve items. Deficien-

cies in investment and stock fund items occurred because: data are not checked for accuracy before being used; heavy workloads make checking data difficult; good sources are not readily available for some data needed; personnel are not thoroughly trained in system operations; and policies and procedures are unclear.

**Recommendations:** The Secretary of the Air Force should: make sure that the new system can adequately establish priorities for war reserve items before funds are requested to purchase additional spares and repair parts, require that the highest priority war reserve items are funded first, and provide additional training and guidance to item managers on the importance of using supportable data so that war reserve requirements for spares and repair parts are not overstated and errors are immediately corrected.

GAO discussed the matters in this report with Office of the Secretary of Defense and Air Force officials on June 19, 1978, obtained their oral comments, and considered their comments in preparing it. The officials generally agreed with the recommendations and have taken or planned actions to implement them. However, the officials did not fully concur in the specific findings on investment items. They concurred for the most part in the findings on stock fund items.

Nevertheless, the officials agreed that problems exist in these areas, particularly in the subjectivity of assigning essentiality codes. They gave GAO an impressive briefing, highlighting how the new system would reduce

much of the subjectivity. The system is to be implemented in June 1979. (I.C.D-78-421, 7-25-78)

### **Appropriations**

Operations and Maintenance—Air Force

### **Appropriations Committee Issues**

The Congress should not authorize or appropriate additional funds for the "sustaining"

portion of the war reserve requirement unless the Air Force can demonstrate that it is making satisfactory progress in developing and implementing its new system for identifying mission essential items.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### ***Need to Strengthen Justification and Approval Process for Military Aircraft Used for Training, Replacement, and Overhaul***

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The military services buy extra combat aircraft to train pilots, to replace aircraft lost through peacetime attrition, and to use while other aircraft are being overhauled.

**Findings/Conclusions:** The Air Force and the Navy use inconsistent and imprecise criteria to forecast requirements for aircraft. Training and overhaul aircraft requirements are based on obsolete percentages of combat-assigned aircraft. With tighter management control and closer scrutiny of supporting data, they could reduce their requirements for these three categories of aircraft.

**Recommendations:** The Secretary of Defense, through the Secretaries of the Air Force and Navy, should reevaluate the number of F-14s and F-15s needed for training on the basis of realistic estimates of students to be trained, the training required, and use of the aircraft at an efficient level. In making this reevaluation, projected improvements in course curricula should be considered. The Secretary should also have the two services evaluate the costs and potential benefits of Saturday flying. The Secretary should have the Air Force and Navy revise the methods of estimating requirements for replacement aircraft to fill peacetime attrition; define the purpose of pipeline and nonoperating active aircraft and reassess the services' procurement and production scheduling. The Congress should require the Department of Defense and the military services to specify the requirements for training, replacement, and overhaul aircraft based on realistic and supportable data and not on obsolete and arbitrary percentages of operational combat aircraft.

The Department of Defense did not comment specifically on GAO's recommendations. It agreed, however, that all programs must be based on realistic and supportable data, and stated also that the Department is currently making a special review of support aircraft requirements and would change the procurement objective if the original planning requirements are no longer warranted by the review.

The Defense Audit Service completed a special review of the subject and its report is currently being evaluated by the Program Analysis and Evaluation Office in the Office of the Secretary of Defense and other offices within the Department of Defense. (I.C.D-77-423, 10-28-77)

#### **Appropriations**

Aircraft Procurement—Navy, Air Force  
Military Personnel—Navy, Air Force  
Operations and Maintenance—Navy, Air Force

#### **Appropriations Committee Issues**

Department of Defense action on GAO's recommendations could reduce the total number of combat aircraft requested for support purposes.

The Committees should determine whether the Department has critically examined the services' requests for these aircraft and has included only those aircraft essential for support.



If the services need additional back-up aircraft for wartime contingencies above those required for peacetime operations, the Commit-

tees should have the Department change its policy and request a war reserve requirement for this purpose.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *Operating and Support Costs of New Weapon Systems Compared with Their Predecessors*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The Department of Defense (DOD) emphasizes reliability and maintainability of new weapon systems to reduce operating and support costs. However, it is not clear to what extent reliability and maintainability can reduce the operating and support costs of tactical aircraft systems because the data systems necessary for making such determinations do not exist.

**Findings/Conclusions:** A review of the F-14, F-15, F-16, and F-18 tactical aircraft disclosed that maintainability specifications agreed to by the military services and the contractors for these weapon systems do not reflect reasonable expectations of actual results once the weapon systems are in operation. Some factors impeding comparability between new and old systems are differences in capability, complexity, and technology. Also, systems are in different stages of their life cycles. Major subsystems may not be directly comparable between aircraft because of functional variances.

**Recommendations:** The Secretary of Defense should require the Air Force and the Navy to: make certain that contract maintainability specifications more closely correspond to the actual results expected once the weapon systems are in operation; explore the possibility of developing reasonable criteria and data systems for measuring and evaluating the results of their programs for improving maintain-

ability, reliability, and life cycle costs; and provide congressional committees with estimates of reliability and maintainability improvements the military services expect to see in new weapon systems development.

The Department of Defense generally agreed with our conditions and representations. The Department believed that on going efforts in reliability and maintainability improvements would satisfy the intent of our recommendations. (LCD-77-429, 10-17-77)

#### **Appropriations**

Military personnel—Navy, Air Force  
Operations and maintenance—Navy, Air Force  
Procurement—Navy, Air Force

#### **Appropriation Committee Issue**

The services should provide reliability and maintainability estimates for major weapon systems and important subsystems to reflect the anticipated operational environment to enable the Congress to decide the desirability of acquiring particular systems from a procurement and operations cost point of view.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *The Navy's Multimission Carrier Airwing: Can the Mission Be Accomplished with Fewer Resources?*

##### Department of the Navy

**Budget Function:** National Defense: Department of Defense-Military (except procurement and contracts) (051).

By the early 1980's, the Navy will have changed over to a multimission carrier concept for 12 of its 13 authorized aircraft carriers. In the past, aircraft carriers were classified as being either attack carriers or antisubmarine carriers, and each type had its own respective airwing configuration which was specialized to meet the needs of that particular type of carrier.

**Findings/Conclusions:** With a general reduction in the size of the carrier fleet (now down to 13), the Navy has developed the multimission carrier concept to combine the attack and antisubmarine missions on each carrier so that each carrier will be flexible enough to meet any emergency. This will be expensive. The basic policy and cost-effectiveness consideration is how much flexibility, when all Navy assets are considered, is necessary to meet the potential threat. Each carrier does not need a self-sufficient airwing with sufficient flexibility aircraft to optimize deckloads for both sea control and power projection ashore. The following alternatives could collectively provide this flexibility: exchanging aircraft between operating carriers, using the aircraft of carriers undergoing extensive overhaul, using Marine Corps aircraft, using Navy and Marine reserve airwings in emergencies, establishing a pool of reserve aircraft serving the flexibility needs of all carriers, and using highly capable training resources in emergencies.

**Recommendations:** The Secretary of the Navy should reassess the total aircraft requirements for multimission aircraft carriers and

determine how to best satisfy the mission with the least resources.

The Navy did not agree with GAO's recommendation that it reassess the total aircraft requirements for multimission aircraft carriers and determine the minimum number of aircraft required for each carrier and how to best satisfy the mission with the least resources. (I.C'D-77-409, 9-12-77)

##### Appropriations

Military personnel—Navy.  
Operation and maintenance—Navy.  
Procurement—Navy.

##### Appropriations Committee Issues

In view of the alternatives available to the Navy to provide the flexibility to adjust the carrier deckload, justification for procurement of the additional aircraft comprising the flexibility component is needed.

Should the Congress decide that, notwithstanding the alternatives, each of the multimission aircraft carriers should have its own unique airwing including the flexibility component, then the Congress should defer appropriating funds for aircraft in excess of the basic sea control airwing requirements until the Navy demonstrates to its own and congressional satisfaction that it can efficiently and effectively operate the entire multimission airwing from the carriers under simulated combat conditions.

## DEPARTMENT OF DEFENSE - MILITARY

### SUPPLY MANAGEMENT

#### *The Navy's Programs for Intensified Management of Supply Items Need Improvement*

##### Department of the Navy

**Budget Function:** National Defense: Department of Defense-Military (except procurement & contracts) (051).

The Navy's special programs for intensified management of material in the supply system have the objectives of expediting repairs of equipment components and modules and improving supply readiness.

**Findings/Conclusions:** A study sought to determine if the programs were accomplishing their objectives and were cost effective. The study concentrated on the Closed Loop Aeronautical Management Program (CLAMP), developed by the Aviation Supply Office, which was designed to insure one-for-one exchange of repairable items, improve retrograde control, enforce system discipline, and identify failure causes for designated items. No formal cost-benefit analyses comparing alternative methods of achieving program objectives were made; the Navy had no benefit tracking system for evaluating the programs; and performance indicators did not conclusively demonstrate the programs' effectiveness. Recently, the Fleet Material Support Office was asked to develop a benefit tracking system, but it has not yet been approved.

Service items were sometimes returned erroneously to a repair contractor, and other items were shipped to the wrong repair facility.

**Recommendations:** The Secretary of the Navy should take action to expedite completion of an evaluation system to accurately measure benefits from management programs.

The Navy agreed that an ongoing evaluation system for CLAMP and other intensified management programs was needed (LCD-78-230, 8-9-78)

##### **Appropriations**

Operation and Maintenance—Navy  
Procurement—Navy

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

The Navy must expedite completion of the evaluation system and set firm target dates for implementing the system

## DEPARTMENT OF DEFENSE - MILITARY

### TRANSPORTATION

#### ***Centralized Department of Defense Management of Cargo Shipped in Containers Would Save Millions and Improve Service***

##### **Department of Defense**

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The Military Traffic Management Command (MTMC) and the Military Sealift Command (MSC) divide management responsibilities for selecting containers for cargo going overseas, often preventing the Department of Defense (DOD) from getting the lowest transportation costs. Both Commands make adequate selections for each portion of the movement, considering the information they have and their responsibilities. However, if shippers submitted enough cargo information and responsibility and information were centralized, better selections could be made.

**Findings/Conclusions:** DOD could have saved about \$12.9 million of the more than \$200 spent on overseas cargo shipments in fiscal year 1976 though use of an effective central management system and better use of up-to-date computer technology to select the most economical shipping arrangement. Transportation service to DOD shippers could also have been improved, reducing the shipping times. Less shipping time lowers the inventory costs which the Department estimated could be millions of dollars each year.

**Recommendations:** The Secretary of Defense should designate a central manager for carrier and container selections. The central manager should obtain detailed cargo information from shippers and use available computer technology to make the best selections for ori-

gin-to-destination shipments or cargo sent overseas.

The Department of Defense agreed that more extensive use of applicable computer technology might help to make the most cost-effective selection of containers and can be an excellent tool for managers. DOD also said that the matter of designating a central manager for carrier and container selection was being considered and that the command relationships and responsibilities of MTMC and MSC were among the factors to be taken into account.

On October 5, 1978, GAO was advised that the Charters for the Military Traffic Management Command and the Military Sealift Command had been reviewed by the military services and the issue of a central manager was addressed. However, no decision has been made to date. (LCD-77-227, 11-8-77)

#### **Appropriations**

Department of Defense appropriation

#### **Appropriations Committee Issues**

A defacto designation or a central manager has not taken place. This issue is presently being reviewed by the House Appropriations Committee Surveys and investigations Staff in their review of the feasibility of consolidating MTMC AND MSC.

## MILITARY ASSISTANCE

### ADMINISTRATIVE PERSONNEL COSTS

#### *Inadequate Methods Still Used to Account for and Recover Personnel Costs of the Foreign Military Sales Program*

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

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002).

**Legislative Authority:** International Security Assistance and Arms Export Control Act of 1976 (P.L. 94-329). Foreign Military Sales Act of 1968, as amended (22 U.S.C. 2761). Department of Defense Appropriation Act of 1978. S. Rept. 95-325. DOD Instruction 2140. 1.

Reliable estimates of personnel requirements for Foreign Military Sales Program activities are needed by the Congress so it can establish Department of Defense (DOD) personnel ceilings and assess the impact of personnel used in these activities on the overall capabilities of the armed services. DOD management officials also need reliable estimates of the program's personnel requirements for use in developing a budget.

**Findings/Conclusions:** The Security Assistance Manpower Accounting System which DOD began developing late in 1977 will not provide accurate and reliable data on the number of personnel needed to administer the Foreign Military Sales Program. In fact, the Department has developed no method of manpower accounting for the system. Instead, a new standard personnel-reporting format was used, and personnel data have continued to be developed under practices and procedures previously considered to be inadequate. The Security Assistance Manpower Accounting Report will not produce reliable estimates of personnel needs because: implementing instructions contained no provisions for control over the gathering and assembling of personnel data; instructions for preparing the report did not clearly define administrative personnel; and methods used by the military services to develop data for the report and the budget were inconsistent. DOD has no assurance that the 3% surcharge on the sales price of military

equipment and services sold under the program is sufficient to recover the full cost of administering the program.

**Recommendations:** Administrative personnel estimates in the Security Assistance Manpower Accounting Report and the administrative budget should be improved by: requiring all commands and activities providing administrative personnel data to submit their method of compiling the data to the Assistant Secretary and Director, Defense Security Assistance Agency, for approval; developing a consistent definition of administrative personnel for use in reporting personnel statistics and developing budgets; and requiring that pricing guidelines for Foreign Military Sales items be revised to allow full recovery of the cost of retirement benefits in establishing surcharge rates to recover the program's administrative expenses.

The Defense Department advised that it has issued pricing guidelines for Foreign Military Sales items which increased retirement cost factors included in the administrative budget. (FGMSD-78-47, 7-25-78)

#### Appropriations

Operations and maintenance—Army, Navy, and Air Force.

Military pay and allowances—Army, Navy, and Air Force.

**Appropriations Committee Issue**

Until all commands and activities of the Defense Department develop reasonable estimates of personnel required to administer the Foreign Military Sales program, there can be no assurance that the surcharge on Foreign

Military Sales is adequate to recover the full cost of administering the program. Therefore, the Appropriations Committee may wish to examine the extent to which the Defense Department has implemented GAO's recommendations to improve personnel estimates.

## MILITARY ASSISTANCE

### DEFENSE COST SHARING

#### *The United States and Japan Should Seek More Equitable Defense Cost-Sharing Agreements*

##### Departments of Defense and State

**Budget Function:** National Defense: Military Assistance (052).

**Legislative Authority:** Department of Defense Appropriation Authorization Act, as amended (P.L. 93-155). Treaty of Mutual Cooperation and Security.

It has become increasingly apparent in recent years that Japan is capable of assuming a greater share of the common defense costs, and conditions now exist to seek increased defense contributions from the Government of Japan.

**Findings/Conclusions:** Japan's financial support of the U.S. presence has been limited to paying land rental for areas occupied by U.S. Forces, constructing replacement facilities, and payments to Japanese communities near U.S. bases. The heavy U.S. defense burden in Asia could be made more equitable by cost-sharing of common defense costs, such as increased logistical and operational support, labor cost sharing, and joint use of defense installations.

**Recommendations:** Secretaries of State and Defense should jointly reexamine possible cost-sharing methods, and develop definitive plans for pursuing increased cost-sharing by the Government of Japan; begin negotiations to implement a labor cost-sharing agreement; and arrange for increased joint use of military installations.

The United States has a major role in preserving peace and stability in Northeast Asia. Japan has prospered under the security provided by the U.S. defense umbrella and has developed into an economic superpower capable of assuming a greater share of common defense costs. Japan has made tremendous economic strides during the past decade and is the dominant economic power in Asia. Its impressive economic growth is reflected in its bilateral trade with the United States; while the United

States maintained a favorable balance before 1966, Japan has enjoyed a trade surplus every year since then. Each year from 1968 through 1975, the U.S. trade deficit with Japan exceeded \$1 billion and cumulatively totaled \$15.8 billion during this period.

In comparing the continuously large U.S. bilateral trade deficits with Japan and the multi-billion dollar cost of stationing U.S. forces in Asia with Japan's modest defense expenditures and tremendous economic capabilities, GAO concluded that the United States is justified in seeking increased Japanese support for the common defense costs. There are recognized political constraints on how far Japan can go, but a measurable level of increase should be possible.

A logical first step is to develop comprehensive objectives and priorities that meet U.S. interests. The goals of complementarity appear to offer a realistic approach in this direction. Although mutual cooperation is subject to mutual determination of how it will be achieved, the U.S. Government should establish its own position before holding discussions with Japan. Accordingly, GAO recommended that the Secretaries of State and Defense jointly reexamine possible cost-sharing methods and develop definitive plans for exploring additional cost-sharing opportunities with Japan. Important considerations include the

- missions, functions, or costs Japan can and should assume;
- impact on the U.S. military posture in Japan;



- possible U.S. cost savings or increased United States-Japan military capability; and
- target dates to discuss actions identified.

Positive U.S. action to initiate cost-sharing arrangements could lead to a more equitable sharing of common defense interests. Two potential areas are labor cost-sharing and joint use of defense installations. The recent decision to reconsider labor cost-sharing is encouraging, but no target dates for taking action have been set. GAO recommends that the Secretaries of State and Defense begin negotiations to implement a labor cost-sharing arrangement.

GAO also recommended that the Secretary of Defense review the use of military installations in Japan to identify potential joint-use candidates and then act to establish joint use of installations so identified. Underused Army installations would seem to be obvious joint-use candidates.

The Departments of State and Defense both concurred with these recommendations. In July

1977 the American Ambassador reported that labor cost-sharing negotiations were underway. A 5-year cost-sharing agreement was signed in December 1977 in which the Japanese Government agreed to pay certain indirect labor costs estimated to save the Department of Defense about \$26 million annually. As of October 1978, negotiations are continuing and prospects are high for more positive results in the near future. (ID-77-8, 6-15-77)

### **Appropriations**

Department of Defense:  
Operation and Maintenance—Army, Navy, Air Force, Marine Corps.

### **Appropriations Committee Issues**

Development of burden-sharing plans could ultimately reduce the operations and maintenance expenses of maintaining U.S. troops in Japan.

## MILITARY ASSISTANCE

### MILITARY AGREEMENTS

#### *Observations on U.S. Military Presence and Base Negotiations in the Philippines*

##### Departments of Defense and State

**Budget Function:** National Defense: Military Assistance (052).

The Philippines is a major site of U.S. military deployments in Southeast Asia and the location of critical negotiations for a revised basing agreement.

**Findings/Conclusions:** Similar basing agreements recently negotiated with Spain and Turkey involved sizable compensation packages and various restrictions on U.S. base operations. The Department of State said that the new U.S. administration expected to resume the negotiations initiated April 1976 after it had reviewed the situation and that the outcome of the review and eventual negotiating strategy could not be foreseen.

**Recommendations:** Since the Congress will likely be asked to approve a multiyear assistance program for the Philippines, GAO believes the concerned congressional committees should be given detailed briefings on the negotiations as they proceed so that congressional concerns are considered. The Departments of Defense and State did not comment on their plans to brief the Congress or report the results of a new agreement. We continue to believe our proposal should be adopted. We also recommend that this procedure be followed in

future negotiations on other important foreign basing agreements to improve congressional oversight.

A State Department official informed us that as of October 1978, negotiations were resumed and will continue for the foreseeable future. GAO recommendations are receiving positive consideration during these negotiations. Base construction and improvement projects are being kept to the minimum necessary for base operations. (ID-77-5, 7-1-77)

##### Appropriations

Department of Defense: Operation and Maintenance (Army) (Navy) (Air Force).

Department of State: Foreign Assistance

##### Appropriations Committee Issues

Policy guidance is needed to insure that the base agreement eventually negotiated conforms to the national interest as defined by the Congress.

# MILITARY ASSISTANCE

## MILITARY ASSISTANCE ADVISORY GROUPS

### *Management of Security Assistance Programs Overseas Needs to Be Improved*

#### Departments of Defense and State

**Budget Function:** National Defense: Department of Defense—Procurement and contracts (058)

**Legislative Authority:** International Security Assistance and Arms Export Control Act of 1976 (P.L. 94-329). International Security Assistance Act of 1977 (P.L. 95-92). Foreign Assistance Act of 1961.

Military Assistance Advisory Groups (MAAGs) have operated in foreign countries for many years to provide operational and tactical advisory and training assistance to host-country armed forces and to administer the grant aid program. The International Security Assistance Act of 1977 (Public Law 95-92) specified changes in the operations of the groups to improve the overall management of the programs.

**Findings/Conclusions:** Public Law 95-92 had little, if any, direct effect on the scope and type of MAAG operations or on the direction and supervision provided by the Chiefs of U.S. Diplomatic Missions. The staff levels of certain groups were reduced, but their duties were unchanged. The Departments of State and Defense have not defined the primary functions to be performed by MAAGs under the act or the duties and tasks for each function. Many of the tasks being performed by the MAAGs are procedural in nature and could be assumed by the host country, performed by security assistance program managers in the United States, or performed by teams sent to the country for limited periods. Public Law 95-92 imposed a manpower ceiling on the number of military personnel that could be assigned overseas to security assistance functions. Two of the 15 MAAGs achieved apparent compliance by merely transferring personnel to technical assistance field teams which are not subject to the ceiling.

**Recommendations:** The Secretaries of State and Defense should: define the tasks to be performed for each primary function under the act; make manpower surveys to determine opti-

mal staffing and to identify tasks that must be performed incountry by MAAG personnel; transfer all tasks which do not have to be performed in-country by MAAG personnel to the country personnel or State-side program managers; submit plans for eliminating tasks performed incountry by MAAG personnel to the Congress for its approval; reemphasize to host countries the necessity for establishing procurement offices in the United States; and study the feasibility of using contractors or U.S. civilian personnel to perform advisory and training tasks requiring more than 2 years to complete.

The Department of State commented that some form of security assistance management organization under the direction and control of the Chief of Mission will continue to be needed for coordinating the U.S. effort in some foreign countries. In addition, in submitting the fiscal year 1980 security assistance program justification, State will provide recommendations based on joint State-Defense examination as to the minimum number of personnel required overseas to perform essential security assistance functions. (ID-78-27, 4-21-78 and ID-78-51, 9-1-78)

#### Appropriations

Department of Defense—operation and maintenance (Army) (Navy) (Air Force)  
Department of State—foreign assistance

**Appropriations Committee Issues**

The Committee should consider the actions taken by the Defense Department and the State Department to improve the management of the

Security Assistance Program with particular emphasis on the actions to transfer tasks to host country personnel or stateside managers and to eliminate unneeded staff.

## DEFENSE - RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### *More Direction Needed to Establish a Uniform Depot Maintenance Accounting System*

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

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002).

Over the past 15 years, the Department of Defense (DOD) has made several unsuccessful attempts to establish a uniform depot maintenance cost accounting system.

**Findings/Conclusions:** The most recent attempt to establish such a system, begun in 1975, has met with substantial difficulties in its implementation stage. The scheduled startup date, October 1976 at Air Force depots, has been delayed, and an interim system does not provide for the allocation of actual direct labor. Implementation of this part of the system may take 3 more years. The new system as now used at Army and Navy maintenance depots is not producing uniform cost accounting data because these services are continuing to use diversified approaches in developing such data. A uniform system would enable DOD management officials to assess the effectiveness of depot maintenance operations which cost several billion dollars in fiscal year 1976. Problems identified in implementing a uniform cost accounting system were: lack of sufficiently comprehensive guidelines to preclude the use of widely varying methods of computing and reporting costs, lack of leadership to insure that managers knew the objectives and uses of the system, and failure of depots to follow the DOD handbook.

**Recommendations:** The Secretary of Defense should have Assistant Secretaries: establish a focal point to oversee system implementation and respond decisively to problems which might compromise the comparability of the cost system at different depots; and provide more complete instructions to depots and limit interpretations of the instructions so that

services will follow the same cost accounting procedures.

In August 4, 1978, comments on this report, the Acting Assistant Secretary of Defense (Comptroller) stated that each of the military departments was requested to (1) formalize a monitoring and reporting system to assure that prescribed cost accounting procedures are fully implemented in a cost effective manner, (2) review implementing guidance to assure it is adequate and lower level issuances do not contradict higher level issuances, and (3) establish more specific plans to improve accounting for indirect costs. The Acting Comptroller also stated that a series of changes to expand and clarify uniform cost accounting instructions for the military services were under development. (FGMSD-78-35, 5-22-78)

#### **Appropriations**

Operations and maintenance—Army, Navy, Air Force

Military Pay and Allowances—Army, Navy, Air Force

#### **Appropriations Committee Issues**

The implementation of an effective and truly uniform depot maintenance cost accounting system by each of the military services can provide the Appropriations Committee and the Congress with a means of assessing and comparing the effectiveness of military services depot maintenance operations which cost several billion dollars a year. The Appropriations

Committee should monitor the Defense Department efforts to implement the system and request the Defense Department to provide Con-

gress with information on how it proposes to use data from this system to manage depot maintenance operations.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### *Status, Progress, and Problems in Federal Agency Accounting during Fiscal Year 1977*

##### Department of Defense

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002)

**Legislative Authority:** Accounting and Auditing Act of 1950 (31 U.S.C. 66a). Arms Export Control Act of 1976. P.L. 94-399. P.L. 94-329. H. Rept. 90-1159.

The head of each executive agency is responsible for establishing and maintaining accounting systems that conform to principles and standards prescribed by the Comptroller General. A tentative statement of principles and standards was issued in 1952, and GAO started granting formal approval of accounting systems that conformed to it. Approval is granted in two phases--first of principles and standards adopted by agencies, then of system designs.

**Findings/Conclusions:** On September 30, 1977, principles and standards were approved for 98% of the 330 systems that were subject to approval, and 60% of system designs had been approved. At that time, 132 system designs in 34 agencies remained unapproved. Reports of serious deficiencies in Government accounting usually involved unapproved systems. Reasons that some agencies have not completed accounting efforts include: frequent changes in top management, inability of accountants to convince agency management that better accounting is worthwhile, failure to design systems that comply with approved principles and standards, and the lack of Office of Management and Budget (OMB) support in the past for improvements in accounting systems. Recently, OMB required updates of fund control regulations. In spite of GAO's objective of having all agency accounting systems approved by the end of fiscal year 1980, as of September 30, 1977, about one-fourth of the unapproved systems were not scheduled for approval before the end of 1980. Progress has been made re-

cently in approvals of Department of Defense systems, but some systems must be redesigned to obtain approval.

**Recommendations:** The Director, OMB, and the Congress should make sure that the resources the executive departments and agencies are devoting to accounting systems are sufficient to qualify the systems for approval.

In a memo dated July 11, 1978, OMB asked its staff to consider the adequacy of funding levels in order for agencies to qualify their systems for approval. In a letter dated September 11, 1978, to the Secretary of Defense, the Director of OMB, in approving the regulations for the administrative control of funds, requested that a renewed commitment be made to secure GAO approval of all Defense accounting systems. (FGMSD-78-24, 5-26-78)

#### Appropriations

Department of Defense Appropriations Act.

#### Appropriations Committee Issues

After 27 years, more than half of Defense's accounting systems are still not approved. Better accounting data would make it easier for Defense Management to control costs and would help the Appropriations Committee by providing better information on Defense expenditures and support for its budgets.

## DEFENSE-RELATED ACTIVITIES

### ACCOUNTING SYSTEMS

#### *Uniform Accounting and Workload Measurement Systems Needed for Department of Defense Medical Facilities*

##### Department of Defense

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002).

The military departments do not have uniform procedures for preparing budget estimates, accounting for costs, measuring workload, and staffing medical facilities. Lacking comparable accounting and workload information, the Department of Defense (DOD) has been unable to make cost comparisons and evaluations of the management of military medical resources.

**Findings/Conclusions:** Following an interim report, DOD officials developed and are testing a system based on a uniform chart of accounts for hospitals. DOD plans to develop uniform budgeting and staffing procedures for military medical facilities.

**Recommendations:** The Secretary of Defense should initiate uniform procedures for the accumulation and reporting of the military services' medical facility costs which are to be included in their operations and maintenance budget submissions; develop and issue uniform staffing criteria for military health care facilities; require that responsible Defense managers analyze uniform financial and workload information when it is developed and reported and take the necessary actions to allocate medical resources effectively and efficient-

ly; and require that internal auditors participate in the development of uniform cost and workload systems for military medical facilities in order to assure that sufficient internal controls are included in the systems.

Department of Defense officials had initiated a project to develop and implement the recommendations made by GAO. (FGMSD-77-8, 1-17-78)

#### **Appropriations**

Operation and maintenance—Army, Navy, Air Force

Military pay and allowances—Army, Navy, Air Force

#### **Appropriations Committee Issues**

The progress which Defense makes towards implementing uniform budgeting and accounting systems for hospitals should be of concern to the Appropriations Committees since these systems should effect reductions in hospital operating costs. Defense should be queried as to the status of the new systems.



## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### *Development of Department of Defense's Tri-Service Medical Information System*

##### **Department of Defense**

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The Department of Defense's (DOD's) 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. The Congress should advise the Secretary of Defense that further funding of the TRIMIS Program should be restricted to DOD's: 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 a 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

TRIMIS' life cycle; and designation of the patient administration module as the top priority module for development and implementation.

The Department of Defense took exception to our recommendations by stating that we only considered the long range objectives of the TRIMIS program. While we agree that the short range needs of the military are extremely important, attempting to satisfy those needs without a clear long range plan is a dangerous and costly route to take—one in which the probability for long term success is low. The House and Senate Appropriation Conferees cut \$2 million from the FY1979 TRIMIS budget request of \$23.6 million. (LCD-78-121, 7-19-78)

##### **Appropriations**

Operation and maintenance—Defense Agencies.

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

Continued monitoring of our recommendations as the TRIMIS plan is further developed and executed.

## DEFENSE-RELATED ACTIVITIES

### AUTOMATIC DATA PROCESSING

#### *Implementation of Recommended Improvements by the Defense Logistics Agency*

##### Department of Defense

**Budget Function:** National Defense: Defense-related Activities (054).

A review of the actions taken by the Defense Logistics Agency (DLA) to implement the recommendations contained in the report entitled 'Automated Support of Depot Operations Could Be Improved' showed that DLA has not fully implemented those recommendations that will provide the most substantial improvements in the automated depot system.

**Findings/Conclusions:** DLA can realize substantial savings in materiel shipment costs when it improves consolidation of parcel post shipments with freight shipments. Additional controls and verification procedures are still needed before DLA should rely on its microfiche records for its shipping and transportation data.

**Recommendations:** The Secretary of Defense should direct the Director of the Defense Logistics Agency to revise the automated depot systems to identify those parcel post shipments that can be combined with freight shipments and sent at a reduced cost and to incorporate additional procedures and controls to provide

assurance that all shipping data related to its shipments is included in the microfiche records. In addition, the Office of the Secretary of Defense should provide for evaluation of the process of establishing and maintaining materiel descriptions used by the military services. After the evaluation, the establishment of effective procedures should be assured by the Office so that the freight description of materiel will be consistent and uniform.

Agency advised that actions are being taken to implement our recommendations. (LCD-77-111, 10-14-78)

#### **Appropriations**

Defense Logistics Agency.

#### **Appropriations Committee Issues**

The committee should see that the recommendations are being implemented as agreed.

## DEPARTMENT OF DEFENSE - MILITARY

### AUTOMATIC DATA PROCESSING

#### *Planning for the Bureau of Naval Personnel's Proposed Advance Information System*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

The Department of the Navy is committed to the development of a 'total force' personnel management system which will enable it to more effectively control personnel resources--civilian and military, active and reserve--from recruitment to retirement. The Bureau of Naval Personnel is developing an automated system called the Advanced Information System to assist in this objective. This system is intended to provide a remote, interactive processing capability, which is expected to be a substantial improvement over the current batch-processing-oriented system.

**Findings/Conclusions:** As of September 30, 1977, the system was being developed and implemented without an adequate long-range plan. The proposed upgrading of computer equipment was found to be unwarranted at the present time; and, although consolidation of the Bureau's capabilities appeared sound, locating these capabilities in New Orleans, as proposed, would involve more managerial and technical risks than would locating them at the Bureau's computer center in Washington, D.C., and would be more costly. Bureau officials concurred in these observations and agreed to suspend development of new system modules

until an adequate long-range plan is developed, to continue to operate on its current computers without interim upgrading until competitively procured equipment is available, and to consider consolidating computer facilities in Washington rather than New Orleans. According to Navy data, this revised development effort will cost about \$5.3 million less than the proposed interim upgrading and the consolidation of computer capabilities in New Orleans.

Secretary of the Navy advised the House Appropriations Committee of his concurrence with our recommendations. The Committee reduced the fiscal year 1979 request by \$1.2 million in O & M and \$300,000 in Military Personnel. (LCD-78-103, 11-21-77)

##### **Appropriations**

Department of the Navy

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

The committee should continue to monitor the development of the Navy's personnel management system.

## DEFENSE-RELATED ACTIVITIES

### CASH MANAGEMENT

#### *Cash Management Policy and Procedures Need Improvement*

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

**Budget Function:** Miscellaneous: Financial Management and information Systems (1002).

**Legislative Authority:** 31 U.S.C. 492.

A recent review showed that the Department of Defense's (DOD's) cash-on-hand balances exceeded requirements by about \$50 million. If this money had been returned to the Treasury, Government interest costs could have been reduced by about \$3.2 million annually.

**Findings/Conclusions:** In spite of promised action by DOD, cash-on-hand balances were still unnecessarily large in relation to operating needs. Excess balances could be reduced in the military banking facilities, finance and accounting offices, foreign currency accounts overseas, and aboard ships. Excess cash has been on deposit with military banking facilities overseas, and the central finance office in Europe had foreign currency accounts which were not needed with the military banking facilities. DOD has not developed criteria for the central finance offices to use in determining cash levels to be maintained at these facilities. Reviews showed that 26 military finance and accounting offices were holding about \$15.5 million in excess cash, costing the Government about \$1,075,000 annually in unnecessary interest costs. Excess cash balances continue because there is no incentive for Defense organizations to maintain minimum balances. The President has directed his reorganization staff to study cash management policies.

**Recommendations:** The Secretary of Defense should: issue guidelines for determining the level of cash balances that should be maintained by central finance offices overseas, clarify DOD criteria for determining how frequently cash should be replenished at finance and accounting offices, and have the Secretary of the Navy develop detailed guidelines for determining what cash needs should be for deployed ships and ships in port.

The Department was in agreement with the conclusion and recommendations as stated in the report and the Department indicated that it has initiated action on GAO's recommendations (FGMSD-78-20, 3-17-78)

#### **Appropriations**

None directly

#### **Appropriations Committee Issues**

Reduction of interest expense incurred by the Government can be effected by better cash management in Defense. Defense should be asked how it is improving its management of cash at appropriation hearings.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### *Cost Waivers under the Foreign Military Sales Program: More Attention and Control Needed*

Departments of the Army, Navy, and Air Force.

**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, as amended (22 U.S.C. 2761). DOD Directive 2140.2 DOD Instruction 2140.1.

The Arms Export Control Act provides that charges for non-recurring research, development, and production costs and for the use of Government-owned assets can be waived or reduced if the sale would significantly advance either U.S. interests in North Atlantic Treaty Organization (NATO) standardization or foreign procurement in the United States under co-production arrangements. The Department of Defense (DOD) is not required to obtain congressional approval before authorizing waivers, nor is it required to report to the Congress on the reasons for and amounts of waivers.

**Findings/Conclusions:** In some cases, planned waivers will comply with congressional intent, but in other cases it is difficult to measure whether standardization would be advanced. DOD has not developed specific criteria for granting cost waivers because it believes this would place the Secretary of Defense at a disadvantage in negotiations. However, the Congress should be informed of the amounts being waived and the reasons for granting waivers. DOD authorized the waiver of royalty fees for use of a U.S.-developed technical data package. Although the act does not require that the fees be charged, the waiver results in subsidies to foreign governments which is inconsistent with a purpose of the act. In addition to cost waivers, there were instances in which foreign governments were undercharged, and thus subsidized, by millions of dollars.

**Recommendations:** The Congress should amend the Arms Export Control Act to require

that DOD include the value of and explanation for cost waivers in the required notification reports on foreign military sales and that royalty fees be charged on such sales, with the Congress deciding under what circumstances DOD would be permitted to waive the charges. The Secretary of Defense should, until legislative changes have been considered, include the value of and explanations for cost waivers when he submits notification reports to the Congress and direct the military services make reasonable efforts to recover applicable costs identified as not being charged to foreign governments. He should also direct that the Army take actions to improve its depot accounting systems and determine whether improper cost transfers have taken place and, if so, attempt to bill foreign governments for undercharges.

The Department of Defense has not yet informed us as to what, if, any, action it will take on the recommendations in this report. (FGMSD-78-48A, 10-26-78)

Defense found the report to be objective and factual but did not agree with the recommendation relating to Saudi Arabia's progress in operating and maintaining its aircraft. Also, Defense stated the capability of national guard forces have been adequately considered in recent surveys of coastal defense needs.

The Department of State and the Arms Control and Disarmament Agency generally agreed with the report. (ID-77-19, 10-11-77 and ID-77-19a, 10-26-77)

**Appropriations**

Department of Defense:  
Operation and maintenance: Army, Navy, Air  
Force.

**Appropriations Committee Issues**

The Committee needs to insure that more comprehensive information is provided to Congress concerning the military sales program for Saudi Arabia.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### *Perspectives on Military Sales to Saudi Arabia*

##### **Departments of Defense and State**

**Budget Function:** International Affairs: Conduct of Foreign Affairs (152).

**Legislative Authority:** Arms Export Control Act (P.L. 94-329).

Saudi Arabia is a major U.S. military sales customer. The United States has assisted Saudi Arabia in defining its defense needs, which, in the absence of an imminent threat, appear to be to protect its borders and oil fields. Through sales of construction expertise, equipment, training, and management, the United States is helping to develop Saudi armed forces to meet these needs. Saudi Arabia is vital to the United States for political, economic, and geographical reasons.

**Findings/Conclusions:** From fiscal year 1950 through September 30, 1976, U.S. military sales agreements with Saudi Arabia totaled over \$12.1 billion. Construction represents the largest part, or about 63%, of total foreign military sales to Saudi Arabia. The Corps of Engineers manages military sales construction. Continued involvement can increase U.S. influence in Saudi Arabia and provide increased opportunities to U.S. contractors and businessmen. U.S. involvement in Saudi Arabia's armed forces modernization program will continue for several years and may increase in magnitude. In defining Saudi Arabia's defense requirements, DOD has not explicitly included the capabilities of all Saudi forces. As of March 1977, 912 DOD personnel and approximately 2,961 contractor personnel were involved in providing management, training, and services for Saudi Arabia under military sales agreements or commercial contracts. Increases are planned for the near future. The lack of Saudi personnel has impeded the progress of some modernization programs. The continued U.S. presence could be important to U.S. security objectives.

**Recommendations:** In reviewing any future Saudi Arabian request for additional aircraft, the Congress should request the Secretary of Defense to provide information on the progress the country has made toward self-sufficiency in operating and maintaining its F-5 aircraft. The Secretary of Defense should have the U.S. military services include the national guard forces in future evaluations of Saudi Arabia's military needs. At the time Congress is notified of a proposed sale, the Secretary of Defense should provide the estimated number of U.S. military personnel needed to carry out the sale and the impact on U.S. military preparedness of assigning such personnel. The Secretary of State should inform Congress at the time of a proposed weapons system sale of the level of future munitions support that may be required, such as air-to-air missiles and ammunitions for tank guns. (ID-77-19, 10-11-77)

##### **Appropriations**

Defense procurement; operation and maintenance; and military personnel.

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

This report exemplifies the continuing problems Defense has had in pricing and billing for all costs of the foreign military sales program. The committee should consider the overall cost recovery problem. Of particular concern in this report is replacement pricing for stock fund items and the recovery of normal inventory losses.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### *The Department of Defense Continues to Improperly Subsidize Foreign Military Sales*

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

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002).

**Legislative Authority:** Foreign Military Sales Act of 1968, as amended; International Security Assistance and Arms Export Control Act of 1976 (22 U.S.C. 2151). Arms Export Control Act of 1976. DOD Directive 7420.1 DOD Instruction 2140.1 B-165731 (1976).

Foreign military sales are transacted under the authority of the International Security Assistance and Arms Export Control Act of 1976. The legislative history of this act indicates that the Congress intended that indirect as well as direct costs of goods and services sold to foreign governments should be recovered so that the foreign military sales program would not be subsidized by Department of Defense (DOD) appropriations.

**Findings/Conclusions:** Because of weaknesses in pricing policies and practices, an estimated \$69 million of direct and indirect costs for selected sales cases have not been charged to foreign governments. The military services did not charge replacement costs for items sold from certain inventories; costs of normal inventory operating stock losses (an indirect cost) were not allocated to sales of nonstock funds items; and a breakdown in the Air Force's accounting system led to unrecovered costs on items procured for foreign countries. Not charging the right amount for equipment and spare parts is part of the overall problem DOD has experienced in pricing foreign sales.

**Recommendations:** The Secretary of Defense should take action to revise the method for determining and charging replacement cost for items sold to foreign governments from DOD inventories, revise Defense instruction 2140.1 to require that replacement pricing be used for items sold from the stock fund, and direct the military services to make a reasonable attempt to recover the undercharges in

sales from inventories resulting from the failure to charge replacement pricing. The Secretary should also: require the Air Force to institute necessary controls so that foreign governments are billed replacement costs, requisitions for unauthorized items are not honored, and foreign country requisitions that will deplete critical inventory items will not be filled; require that supply support arrangements are based on a list of specific items and quantities to be needed during the term of the arrangement; and require that Army and Navy internal auditors conduct reviews to determine whether those services have similar problems with supply support arrangements. The Secretary should assign specific responsibility for administering pricing policy and monitoring pricing systems to a new organization or some existing organization that can be sufficiently freed from other work to provide careful surveillance over the pricing function.

The Department of Defense has not yet informed us as to what, if any, action it will take on the recommendations in this report. (FGMSD-78-51, 8-25-78)

##### **Appropriations**

Defense procurement; research, development, test and evaluation; operation and maintenance; and military personnel appropriations.



### **Appropriations Committee Issues**

Defense should be required to provide Congress details on cost waivers. Also, the issue over the recovery of royalty fees should be resolved. Further, the Committee should question

Defense as to those costs which, although required to be recovered by law, were intentionally not charged. Appropriated funds in effect paid for the undercharges.

## DEFENSE-RELATED ACTIVITIES

### FOREIGN MILITARY SALES

#### *The Department of Defense's Continued Failure to Charge for Using Government-Owned Plant and Equipment for Foreign Military Sales Costs Millions*

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

**Budget Function:** Miscellaneous: Financial Management and Information Systems (1002).

**Legislative Authority:** International Security Assistance and Arms Export Control Act of 1976 (P.L. 94-329). Foreign Military Sales Act of 1968; Arms Export Control Act (22 U.S.C. 2761). DOD Instruction 2140. 1. A.S.P.R. 13-406.

During fiscal year 1977, foreign military sales totaled \$11.2 billion; these are sales of military articles and services by the U.S. Government to friendly foreign governments and international organizations. Although Government-owned plant and equipment are used to produce items sold to other countries, these countries generally have not been charged for their use. Failure to charge foreign governments has cost the United States as much as \$107 million.

**Findings/Conclusions:** Of the \$107 million in undercharges identified, \$77 million related to use of Government-owned assets in Government-owned, contractor-operator facilities. Although the Department of Defense (DOD) required that other governments be charged for the use of Government-owned equipment in contractor-operated plants, it has not made sure that these requirements are implemented. The Air Force and the Navy ignored DOD policies on these matters and did not try to resolve uncertainties about how the asset-use charge should be applied. The Air Force and the Navy also took no action on reports by their audit agencies dealing with failure to charge for using Government assets for foreign military sales. While the Army took the necessary action to charge other governments for the use of Government-owned assets, one of its commands had not recovered about \$1 million on three sales cases. The failure to charge other governments is an example of the overall problem DOD has experienced in determining

whether its pricing policies were effectively carried out.

**Recommendations:** The Secretary of Defense should: form a task force, consisting of representatives from DOD and the military services, to evaluate whether commands are computing asset-use charges completely and accurately; require that, in the future, officials make sure that new or revised pricing policies are understood by the services and are properly implemented; and make every reasonable effort to recover undercharges which resulted from omitting charges for the use of Government assets, including amounts identified by GAO and the services' audit agencies and related to the use of assets in contractor-owned, contractor-operated and Government-owned, contractor-operated facilities.

The Department of Defense agreed that substantial effort is needed to keep Defense personnel well informed of changes to pricing policies. Further, the Department said that where their policies were not followed, the military services had been directed to rebill foreign governments.

The House Appropriations Committee in its report on Defense's fiscal year 1979 appropriation request (Report No. 95-1398) expressed concern about the matters in our report and urged Defense to comply with the Arms Export Control Act and bill foreign governments for the use of Government-owned assets. The

Committee said that if it has reason to believe such costs are not being collected when the fiscal year 1980 budget is addressed reductions will be made in direct Defense programs.

A follow-up review of this area has been requested by Rep. Samuel S. Stratton, House Committee on Armed Service, Armed Services Investigations Subcommittee. (FGMSD-77-20, 4-11-78)

### **Appropriations**

Procurement—Army, Navy and Air Force.

### **Appropriations Committee Issues**

The Committee should inquire as to whether asset-use charges, are being recovered by the military services. GAO is presently following up as indicated above and a report should be ready by March 15, 1979.

## DEFENSE - RELATED ACTIVITIES

### GOVERNMENT POLICY OF SELF-INSURANCE

#### *Extending the Government's Policy of Self-Insurance in Certain Instances Could Result in Great Savings*

##### Department of Defense

##### Budget Function: National Defense - Defense Related Activities (054)

GAO reported to the Congress that the Government could have saved \$27 million over the 5-year period ended June 30, 1973, by extending its policy of self-insurance to: (1) certain categories of inventories under negotiated fixed-price contracts and subcontracts thereunder, (2) all Government property in the hands of commercial shipyards under ship repair contracts, and (3) facilities leased to contractors and users.

**Recommendations:** Accordingly, GAO recommended that the Department of Defense (DOD), National Aeronautics and Space Administration (NASA), and the Department of Energy (DOE), extend the self-insurance policy to these areas. GAO also recommended that DOD and DOE jointly study extending self-insurance to special nuclear material held by contractors under fixed-price contracts.

The Office of Management and Budget believes that our recommendations are feasible and is evaluating whether the level of savings would justify the costs involved. GAO believes extending the self-insurance policy would result in significant savings. DOD is awaiting DOE to initiate a study to determine the feasibility of self-insurance nuclear material held by contractors.

The Department of Defense has taken steps to clarify Defense Acquisition Regulations by eliminating the contractor's risk from the Government Property Clause. However, this extension of the policy of Government self-insurance applies only to facilities, special test equipment, and certain special tooling and does not apply to property to which the Government obtained title under the Progress Payment

Clause, such as parts, materials, work-in-process inventories, and technical data.

The National Aeronautics and Space Administration has indicated it would not take any action independent of the Department of Defense.

The Department of Energy has taken the position that it would be unlikely that it would extend the self-insurance policy on an across-the-board, unqualified basis. (PSAD-75-105, 8-26-75)

##### Appropriations

Procurement—Army, Navy, Air Force;  
National Aeronautics and Space Administration, and Department of Energy

##### Appropriations Committee Issues

1. The Committee should pursue the reasons why the Government's policy of self-insurance has not been extended to:

—The categories of inventories under negotiated fixed-price contracts, when similar inventories under cost-type contracts are self-insured, and in some instances, located in the same production facility.

—All Government property in the hands of commercial shipyards under ship repair contracts, when the Government self-insures (a) all losses or damages to its property in excess of \$300,000 and (b) all Government property under new ship construction contracts.

—Facilities leased to contractors and users.

2. The Committee should inquire as to the status of studies aimed at determining the feasibility of self-insuring nuclear materials held by contractor's under fixed-price contracts.

## DEFENSE-RELATED ACTIVITIES

### INTERNAL AUDITS

#### *The Air Force Audit Agency Can Be Made More Effective*

##### Department of the Air Force

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** Budget and Accounting Procedures Act of 1950, sec. 113 (31 U.S.C. 66a). National Security Act of 1947, as amended (10 U.S.C. 3014; 10 U.S.C. 5061; 10 U.S.C. 8014). P.L. 93-365. 10 U.S.C. 125. Federal Management Circular 73-2. Air Force Regulation 23-38. Air Force Regulation 175-4. DOD Directive 1100.9.

The Air Force should make its internal audit stronger to keep top management better informed on how operations are conducted and how recommendations for improvements are carried out.

**Findings/Conclusions:** Because internal auditing is not high enough in the Air Force organizational structure, auditors do not have maximum independence in planning and conducting audits. Although Department of Defense policy requires all nonmilitary positions to be filled by civilians, the Audit Agency has about an equal number of military and civilian employees.

**Recommendations:** The Secretary of Defense should use his reorganization authority to relocate the Air Force Audit Agency under the Secretary or Under Secretary of the Air Force and have the audit staff report directly to that official. Also, the Secretary of Defense should direct the Secretary of the Air Force to: eliminate all restrictions on the Audit Agency in selecting activities for audit, determining the scope of work, and reporting results; more clearly define the nature and scope of audits and inspections; fill the position of Auditor General with a qualified civilian; appoint civilians to most auditor positions currently filled by military personnel; and improve organizational structure and management control to use staff more effectively. Alternatives for this

last recommendation include reducing audits on commander-requested and nonappropriated-fund work and reorganizing the Audit Agency by region. In order to assure that the greater audit independence recommended is maintained in the future, the Congress should amend existing legislation to place the internal audit functions of the three military services under the Secretary or Under Secretary of the respective departments to whom the auditors would report directly.

The Air Force has or is in the process of complying with most of the recommendations in the report. Also, they have agreed to study the two recommendations they did not comply with -- appointment of a civilian head for the Audit Agency and organization of the agency along regional lines. (FGMSD-78-4, 11-11-77)

#### Appropriations

Military Personnel—Air Force  
Operation and Maintenance—Air Force.

#### Appropriations Committee Issues

The cost of personnel can be reduced and the independence of the audit group improved if the military positions are replaced by civilian auditors.

## DEFENSE-RELATED ACTIVITIES

### INTERNAL AUDITS

#### *The Naval Audit Service Should Be Strengthened*

##### Department of the Navy

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

**Legislative Authority:** National Security Act of 1947, as amended. Accounting and Auditing Act of 1950, sec. 113. P.L. 93-365. 10 U.S.C. 125. Federal Management Circular 73-2. B-132900 (1970). DOD Directive 1100.4.

By law, the head of each Government agency must set up and maintain systems of accounting and internal control, of which internal audit is an integral part. In the Navy, internal auditing is done by the Naval Audit Service under the direction of the Assistant Secretary of the Navy for Financial Management, who also serves as Comptroller.

**Findings/Conclusions:** The Navy should make its internal audit stronger to keep top management better informed on how operations are conducted and recommendations for improvement are carried out. The internal audit function is not placed high enough in the Navy's organization to grant auditors maximum independence in conducting and reporting on audit work. The current organizational structure is inconsistent with the Comptroller General's audit standards which advocate that the audit function be placed at the highest practical level. The Department of Defense policy requires all nonmilitary positions to be filled by civilians. Contrary to this policy, the Audit Service is headed by a military officer and it employs 34 other military officers. The Naval Audit Service has been unable to meet its audit goals and has a large audit backlog, due in part to the massive workload and the use of audit resources on work not in keeping with its primary mission. The Navy's audit followup system does not provide assurance that all deficiencies identified by audits are promptly corrected. Opportunities for savings are lost and inefficient and ineffective operations continue.

**Recommendations:** The Secretary of Defense should use his reorganization authority to relocate the Naval Audit Service under the Secretary or Under Secretary of the Navy and direct the audit staff to report directly to that official. The Secretary of Defense should direct the Secretary of the Navy to fill all positions, including the Director, with professionally qualified civilians and improve the Audit Service's ability to cover its workload. Alternatives to be considered are to: reduce significantly the use of audit staff on special requested and nonappropriated fund work and bring the audit workload and staff capability into balance; and strengthen the audit function and require the Naval Audit Service to participate more fully in the process.

The Navy has or is in the process of implementing the report recommendations with the exception of appointing civilians to fill the military auditor positions. (FGMSD-78-5, 11-11-77)

#### **Appropriations**

Military Personnel  
Operation and Maintenance—Navy.

#### **Appropriations Committee Issues**

The cost of personnel can be reduced and the independence of the audit group improved if the military positions are converted to civilian auditor positions.

## DEFENSE-RELATED ACTIVITIES

### NATIONAL MAKE-OR-BUY STRATEGY

#### *Development of a National Make-or-Buy Strategy: Progress and Problems.*

##### Department of Defense

**Budget Function:** General Government: Executive Direction and Management (802).

**Legislative Authority:** Department of Defense Appropriation Authorization Act [of] 1978 (P.L. 95-79). Department of Defense Appropriation Act [of] 1978 (P.L. 95-111). Monroney Amendment (P.L. 90-560. 5 U.S.C. 5341). Service Contract Act of 1965, as amended (P.L. 89-286; 79 Stat. 1034). Economy Act. Intergovernmental Cooperation Act. Department of Defense Appropriation Act [of] 1956. Department of Defense Appropriation Authorization Act [of] 1975. P.L. 93-400. P.L. 83-108. P.L. 83-108. P.L. 95-269. P.L. 93-365. P.L. 84-157. 25 Stat. 423. 40 Stat. 1290. 10 U.S.C. 4532. 10 U.S.C. 9532. 31 U.S.C. 686. 42 U.S.C. 4222. 44 U.S.C. 501. 10 U.S.C. 138(c). 33 U.S.C. 622. 33 U.S.C. 624. 31 U.S.C. 686. 15 U.S.C. 631 (a). 5 U.S.C. 2105(a). Executive Order 11491. OMB Circular A-76.

There has been much controversy regarding the question of whether the Government should provide its own needed goods and services or contract for them with private enterprise. The Office of Federal Procurement Policy (OFPP) in the Office of Management and Budget (OMB) provides overall procurement policy direction for executive agencies. OMB Circular A-76 states that no executive agency will start or continue the operation of a Government commercial or industrial activity except as specifically required by law or as provided for in the Circular. During 1976 and 1977, there has been increased emphasis on contracting.

**Findings/Conclusions:** The stated policy has not been perceived as a national policy with full executive and legislative branch approval and support. Policy pronouncements and applications have been controversial; implementation has been inconsistent and relatively ineffective; and make-or-buy decisions have not necessarily been based on sound management principles. Management of the A-76 program needs acceptable management control systems, clarification of basic policy and regulations, clear identification of types of activities subject to the policy, consistent execution of the policy, and development of review and appraisal systems. Implementation has been hampered by confusion, lack of understanding, reluctance to carry out the program which was

not integrated with agencies' main decision-making processes, and budgetary and accounting systems which did not always support the program. Agencies seldom prepared cost comparisons because of such difficulties as when and how to prepare them, determining Government's and contractors' costs, and comparability of pay rates. Agency make-or-buy decisions were significantly influenced by such factors as personnel ceilings, contract issues, labor-management policies, other procurement policies, personnel assignment policies, legislation, and Federal printing policy.

**Recommendations:** The Administrator of the OFPP should: require agency heads to develop a plan for integrating the policies into the mainstream of agencies' management and decisionmaking processes, undertake studies to establish the extent to which budgetary and accounting systems will support the make-or-buy program, and develop the overall policy and requirements for agency heads to institute an independent review process of the A-76 program within each agency. The Director, OMB, should assess the feasibility of incorporating the objectives of the program into the budget review process and develop a method to review how agencies carry out the program. The House Committee on Government Operations and Senate Committee on Governmental Affairs should consider GAO findings and rec-

ommendations of the Commission on Government Procurement during their deliberations on the revised A-76 policy. The Congress should endorse a national policy of reliance on private enterprise for the Government's needs to the maximum extent feasible and consistent with the national interest and procurement at reasonable prices, require executive agencies to report on their progress in supporting that policy, and direct reviews of existing related legislation to identify and eliminate sources of conflicts and inequities.

Agency comments have not yet been sent to the appropriate congressional committees concerning the report's recommendations to OMB

and OFPP. In addition, no significant events have occurred since the report was issued. (PSAD-78-118, 9-25-78)

### **Appropriations**

All Federal agencies—defense and civil

### **Appropriations Committee Issues**

The Committees should determine whether agency requests indicate that appropriate management attention is being given to the A-76 program because of its potential for more economical and effective government.



## DEFENSE-RELATED ACTIVITIES

### NORTH ATLANTIC TREATY ORGANIZATION

#### *Additional U.S. Air Force Airbasing Requirements in Support of NATO*

##### Department of Defense

**Budget Function:** National Defense: Defense-related Activities (054).

Additional airbase capacity is needed because of growing U.S. commitment to the North Atlantic Treaty Organization (NATO). Without allied airbases scheduled for joint wartime use (collocated operating bases), the additional U.S. Forces would overload present U.S. European bases. Collocated bases also provide for dispersal, flexibility, and increased tactical capability.

**Findings/Conclusions:** Under the airbase expansion program, new facilities will be required to support operations and provide airfield protection facilities for the additional U.S. aircraft. Although the cost for these facilities is estimated at several hundred millions of dollars, the NATO allies who benefit from the additional U.S. Forces will contribute little to the construction program or operating costs in peacetime. Most needed facilities are not eligible for NATO common funding. The planned basing arrangements also pose logistics and communications problems.

**Recommendations:** The Department of Defense should make a total logistical systems study and test thoroughly the resupply concept

in all geographical areas. The Congress should consider the total program, including commitments, agreements, and requirements, before approving funds on an annual piecemeal basis for what appears to be a costly, multiyear program. The Congress should also require the Secretary of Defense to report periodically on the status of the program.

The Department of Defense and State generally agreed with our report. Specific details are classified. (11-77-29, 10-19-77)

##### Appropriations

Department of Defense: operation and maintenance—Air Force.

##### Appropriations Committee Issues

The Committee needs to insure that the airbase expansion program is addressed in its total form before annual appropriations are approved.

## DEFENSE-RELATED ACTIVITIES

### PRODUCTIVITY

#### *Full Potential to Achieve Savings by Investing in Fast Payback Productivity Enhancing Capital Equipment not Realized*

##### **Department of Defense**

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (058).

The Department of Defense's (DOD's) fast payback productivity-enhancing capital-investment program was an attempt at: (1) improving the fairness with which relatively low-value productivity-enhancing equipment competes for public funds; and (2) eliminating the long approval leadtime associated with the annual budget review process. The program was begun in 1973 to take advantage of the relatively low-value investment opportunities that were being lost because no provisions were made to fund them as they occurred. Under the program, productivity-enhancing investments are separated from others for special consideration, and qualified investments are to be financed quickly. DOD officials have included \$13.5 million for the program in the 1979 budget request.

**Findings/Conclusions:** The basic concept of the program is sound and should be supported. The program enables DOD to finance productivity-enhancing investment opportunities that may not be funded because they were not provided for in the budget and, if not obtained quickly, could result in a significant loss of savings. The program has not, however, realized its full potential to achieve savings. For the fast payback program to achieve its full potential, management needs to: insure maximum identification of investment opportunities, improve the justification and approval process, and insure adequate postanalysis/followup evaluations. Problems in the program include insufficient assignment of priority to the identification of capital investments; reluctance of managers

to utilize the program because of lack of incentives; invalid and unsupportable justifications due to erroneous, incomplete, and undocumented economic analyses; independent review of investment justifications not conducted prior to approval; and inadequate monitoring and inaccurate reporting of savings.

**Recommendations:** The Congress should reauthorize a fast payback capital investment program, provide the funds requested by DOD, and direct the Secretary of Defense to correct the identified problems. The Secretary of Defense should emphasize the importance of identifying worthwhile fast payback investments and the need for program credibility. He should: assign a higher priority to identifying investment opportunities by instructing military departments to develop a systematic approach to identifying investments, establish an awareness program to provide knowledge of the benefits of productivity improvement, assure sound economic justification of investments by requiring independent reviews prior to approval of investments, assure systematic and independently verified feedback on investment benefits, establish a procedure for rewarding management decisions and employee proposals for capital investments, and include an audited accounting of savings produced by the program in the budget justification. (FGMSD-78-44, 7-25 78)

##### **Appropriations**

Defense Appropriations.

### **Appropriations Committee Issues**

The Appropriation Committee should determine whether (1) the fast payback capital in-

vestment program should be reauthorized, (2) funds requested by DOD should be provided, and (3) the Secretary of Defense should be directed to correct the identified problems.

## DEFENSE-RELATED ACTIVITIES

### RESEARCH AND DEVELOPMENT

#### *The Department of the Army's Food Irradiation Program: Is It Worth Continuing?*

##### Department of the Army

**Budget Function:** National Defense: Defense-Related Activities (054)

**Legislative Authority:** Food Additives Amendment of 1958 (P.L. 85-929; 72 Stat. 1784). Federal Food, Drug and Cosmetic Act.

Food irradiation technology, being developed by the Department of the Army, uses high doses of radiation to sterilize meat and poultry products. In the last 25 years, the Department of Defense has spent about \$51 million on research on this technology. Food irradiation is classified with food additives and requires Food and Drug Administration (FDA) approval before its public use.

**Findings/Conclusions:** The Army's food irradiation program, while not yet succeeding in obtaining FDA approval of irradiated meats, has made progress in advancing the state of the art. A large portion of work performed in a renewed effort to obtain data to meet FDA requirements was wasted because the Army did not adequately review the contractor's work which was later found to be unacceptable. Although default by the contractor hampered progress toward obtaining FDA approval, the Army believes that, with continued satisfactory studies, it could obtain approval of irradiated chicken by September 1983 at an additional cost of about \$10 million. Cost estimates for restarting other animal feeding studies to obtain FDA approval and for completing the study on irradiated chicken range from \$28 million to \$47 million. Some food irradiation proponents believe that classifying food irradiation as a process rather than as an additive would facilitate its commercial adoption, but GAO found no basis for this belief. A potential benefit of irradiated meats for use in military rations is that no refrigeration would be required during storage. However, irradiation of foods may be

economically unfeasible because of its lack of acceptance in the commercial market.

**Recommendations:** The Secretary of Defense should have the Secretary of the Army develop a plan to complete the food irradiation program. The plan should: restrict animal feeding studies to those needed to obtain approval of irradiated chicken; evaluate the need for continuing food irradiation research at the \$3-million-a-year level; and determine, using irradiated chicken as a test case, the desirability of further Government investment in high-dose sterilization of meats and the potential for successfully transferring the technology to industry.

Defense and Army officials agreed with our recommendations and plan to implement them. (PSAD-78-146, 9-29-78)

##### **Appropriations**

Research, development, test and evaluation—Army.

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

The funds required to complete the Army's food irradiation program will depend on the chance of success in obtaining FDA approval and the probability that the technology would be useful to private industry. The Committees should monitor the Army's implementation of the plan to complete this program.

## DEFENSE-RELATED ACTIVITIES

### WITHDRAWAL PLANNING

#### *Withdrawal of U.S. Forces from Thailand: Ways to Improve Future Withdrawal Operations*

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

**Budget Function:** National Defense: Department of Defense - Military (except procurement & contracts) (051).

Because of changing conditions in Southeast Asia, the Royal Thailand Government asked the United States to withdraw its combat forces from Thailand. At that time, March 1975, 27,000 military personnel were authorized for six bases and other facilities throughout the country. The phasedown resulted in U.S. force levels being reduced to less than 250 as of July 20, 1976.

**Findings/Conclusions:** Agreements authorizing U.S. military force presence and construction of facilities were minimal. One of the objectives of the phasedown was to maintain the best possible relations with Thailand, which controlled the bases and the transportation facilities used by U.S. forces. This objective was to be achieved in part by leaving operable facilities and by withdrawing only those items for which a valid U.S. need existed. At five of the Royal Thailand Air Force bases major items transferred were valued at over \$112.6 million, and secondary items transferred were valued at over \$19 million. These items were excess to U.S. requirements and could not be economically removed. Over \$204 million (acquisition value) in real property improvements was left at these five bases. Some of the communications equipment left in Thailand was not excess to U.S. needs. However, the Thai Government needs these items. Components of the communications system not excess to U.S. needs were left at no cost to Thailand under a 3-year bailment agreement; Thailand, in turn, will provide the United States communications services to their country at no cost. Thailand agreed to purchase ammunition left in the country over a 3-year period.

**Recommendations:** To effectively apply some of the lessons learned from the Thailand withdrawal and prior withdrawals, the Secretary of Defense should direct that definite criteria for the peacetime withdrawal of U.S. forces from foreign countries be established. These criteria should include policies and procedures for scaled as well as complete withdrawals. In negotiating future basing agreements, the Secretary of Defense, in cooperation with the Secretary of State, should include provisions for protecting U.S. investments, either through their return or appropriate compensation, and for moving retrograde material without hindrance. A single manager responsible for coordinating retrograde operations should be designated, and, at each closing base, there should be a retrograde team under a retrograde manager with knowledge of overall Defense requirements. This team should be given authority to immediately retrograde or dispose of assets.

DOD concurred with our recommendations but has not yet developed criteria for peacetime withdrawals. (ICD-77-446, 11-1-77)

#### **Appropriations**

Operation and Maintenance—Air Force

#### **Appropriations Committee Issues**

Withdrawal plans should be developed based on definite criteria which can be used in either emergency situations or for gradual withdrawals such as that proposed for Korea.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Assessment of Testing of EF-111A Tactical Jamming System*

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

**Budget Function:** National Defense: Weapon Systems (057).

Development test and evaluation of major weapons systems should demonstrate that engineering is reasonable complete; all significant design problems have been identified; and solutions to the problems are in hand. Initial operational test and evaluation should demonstrate the system's operational effectiveness and suitability to support a production decision.

**Findings/Conclusions:** A review of available test data and information on the EF-111A indicated that development test and evaluation was incomplete and that operational testing was too limited to provide a realistic threat environment for evaluating operational effectiveness and suitability.

**Recommendation:** Defer pending production decision until the development phase has been completed.

As of November 6, 1978, the Secretary of Defense had not responded to the June 30 report. Since the issuance of the report, final reports on testing of the EF-111A were obtained. These reports strengthened and confirmed the findings and recommendation in the June 30 report. Because the test report recommended production and because the production decision was eminent, another report based on final test reports was issued on November 6, 1978 (PSAD 795, B-163058).

The Subcommittee on Legislation and National Security of the House Committee on Government Operations is investigating the access to records problems encountered in this review and the lateness of the Department of Defense response to the June 30 report.

On November 8, 1978, we received a reply from the Under Secretary of Defense Research and Engineering, on the June 30 report (PSAD-78-130)—130 days following issuance of the

report. The Under Secretary stated that his staff had begun an intensive review of the EF111A development program results to determine whether the work completed in August 1978 demonstrates the system's mission effectiveness, etc. He added that the EF-111A DSARC III, scheduled for early November, would not be held if the staff's review indicates the meeting would be premature.

DSARC II was subsequently deferred until December 12, 1978. Although held on that date, the DSARC meeting has not produced a decision for or against production as of December 14, 1978. In a meeting with OSD/AF personnel on December 8, 1978, the staff of the Subcommittee on Legislation and National Security, House Committee on Government Operations, informed the OSD/AF representatives that Congressman Jack Brooks expects an answer to the November 6 report (PSAD-79-5) prior to a DSARC decision. If the Department of Defense decides to execute a contract for the EF-111A prior to satisfactory resolution of the issues raised in that report, Congressman Brooks would have his staff watch very closely further developments on the EF-111A program, particularly future cost increases. (PSAD-78-130, 6-30-78)

#### **Appropriations**

Defense Procurement

#### **Appropriations Committee Issues**

The Appropriation Committee should consider the desirability of conditioning the use of funds appropriated for production of the EF-111A until the Air Force can demonstrate through testing that the system is ready for production.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Assessment of the Navy's Undersea Surveillance System and Planned Improvements*

Department of the Navy

**Budget Function:** National Defense: Weapon Systems (057).

Details of report findings, conclusions, and recommendations are classified.

The Department of Defense agreed with one of the recommendations and no additional action appears to be needed. Defense disagrees with the recommendation to terminate the Surveillance Towed Array Sensor System (SUR-TASS) should be terminated unless it can be demonstrated to be cost-effective. (PSAD-78-142, 9-13-78)

#### **Appropriations**

Ship Construction—Navy

#### **Appropriations Committee Issues**

The Committee should require the Department of Defense to demonstrate that the SUR-TASS system is cost-effective.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Can the Army's \$2.8 Billion Program to Modernize the CH-47 Helicopter Be Improved?*

##### Department of the Army

**Budget Function:** National Defense: Weapon Systems (057).

The Army has begun a program to modernize the CH-47 helicopter fleet to sustain its medium life helicopter capability through the 1990's. Program objectives are to significantly improve the reliability, availability, and maintainability of the aircraft which will result in lower operating and support cost, to increase the lift capability of the aircraft, and to standardize the configuration of the fleet.

**Findings/Conclusions:** The Army plans to modernize 361 aircraft and acquire about 190 new ones at a total estimated costs of \$2.8 billion. While the Army plans to study alternative sources for accomplishing modernization, current plans call for the initial modernization contract to be awarded to the Vertol Division of Boeing Company without the benefit of competition. Estimated program costs have remained constant except for the application of inflation indices and a \$3.4 million increase attributed to Boeing Vertol's reduced business base. The proposed modernization rate of three aircraft per month is not the most economical rate and will result in a lengthy (12-year) modernization rate. Development work is on schedule except for minor slippage relating to the engine and hydraulic systems. The Army's plan allows start-up of modernization without demonstrating that interim reliability goals have been achieved.

**Recommendations:** The Secretary of Defense should determine whether competition

at the prime contractor level can be incorporated into the program, withhold approval to initiate modernization until interim reliability goals have been achieved, evaluate the proposed modernization rate of three aircraft per month.

The Department of Defense stated that (1) competition will be applied if, after considering several factors, it will yield an equally capable and supportable aircraft at less total cost; (2) the Army will ensure that the interim reliability values are demonstrated prior to recommending a production decision; and (3) the proposed modernization rate will be reviewed during the Defense System Acquisition Review Council process. (PSAD-78-18, 2-24-78)

##### **Appropriations**

Research, Development, Test and Evaluation—Defense—Army.

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

Obtain Department of Defense assurance that the CH-47 modernization program is the most cost-effective means of providing the additional capability needed before providing procurement funds.



## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Issues to Be Resolved before Committing the Army's Roland Missile System to Production*

##### **Department Of the Army**

**Budget Function:** National Defense: Weapon Systems (057).

The Army will accomplish a limited number of tests of the U.S.-built Roland in 1978 preparatory to commencing U.S. production of the missile system.

**Findings/Conclusions:** Previous Army tests of European-built Roland disclosed several performance limitations. The Army will initiate production before these limitations and other performance problems are resolved.

**Recommendations:** GAO recommended the Congress require the Secretary of Defense to provide satisfactory evidence that Roland's performance has been adequately evaluated and that it meets Army requirements before allowing the Army to commit itself to procurement.

Defense replied that the report was misleading particularly regarding the adequacy and amount of testing to be completed prior to the production decision. (PSAD-78-16, 3-10-78)

##### **Appropriations**

Research and Development, Procurement—  
DOD, Army

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

The Appropriations Committees should ensure that adequate performance has been demonstrated prior to procurement.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Issues to Be Resolved before Continuing the Air Force's GBU-15 Program*

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

**Budget Function:** National Defense: Weapon Systems (057).

Details of report findings, conclusions, and recommendations are classified.

On September 5, 1978, a Defense Systems Acquisition Review Council concluded that the GBU-15 was more cost effective than other currently available weapons against certain targets. The Council recommended, and the Secretary of Defense approved, initial procurement of the weapon system. In its Conference report of October 11, 1978, the Appropriations Committees agreed to provide no production funds for the GBU-15 since further testing is required. This action prevented the reprogramming of \$20 million of fiscal year 1976 production funds, now deleted since the amount was not obligated by the end of fiscal year 1978. Defense and Air Force are currently reviewing the GBU-15 program to determine action need-

ed to comply with Congressional direction. (PSAD-78-49, 8-24-78)

##### **Appropriations**

Research and Development (Defense) (Air Force); Procurement (Defense) (Air Force)

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

The Appropriation Committees and the Armed Services Committees should not approve production funds for the GBU-15 program until further testing is completed and the Secretary of Defense has determined it is ready for production.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Status of the Army's Advanced Attack Helicopter Program*

##### Department of the Army

**Budget Function:** National Defense: Weapon Systems (057).

The Army's advanced attack helicopter (AAH) is designed to provide heavier and more accurate fire support, increased agility, greater lift capability, and decreased vulnerability to enemy fire than existing attack helicopters. It is currently under development and is to become the primary attack helicopter in mid-1980's.

**Findings/Conclusions:** Until a new scout helicopter is available to laser designate targets, the attack helicopter may normally operate autonomously which requires the greatest exposure time to enemy weapons. Developing and integrating several subsystems into the airframe such as the Hellfire missile, the target acquisition and designation system/pilot night vision system, 30 millimeter gun and ammunition, and integrated helmet and display sighting system, is essential to a successful program. These subsystems' operational capabilities have yet to be demonstrated and GAO believes the timely concurrent development and integration of all subsystems as a whole represents potentially high risks. Under the current program plan, most of the operational testing is scheduled to be conducted after the production decision. The Army's determinations that the AAH will be survivable and effective in the European environment is based on assumed capabilities that have not been demonstrated. Success in overcoming operational problems depends not only on the successful completion of ongoing development, but requires some development of communications equipment

and the availability of remote target designation devices.

**Recommendations:** The Secretary of Defense should determine whether the amount of operational testing planned before the production decision is adequate to demonstrate both individual subsystem and total weapon system performance; and direct the Army to continue its evaluation of the AAH's survivability and effectiveness to assure that all assumed capabilities are validated through operational tests.

The Department of Defense stated that the test plan is in the review process to assure its adequacy and completeness; that operational testing will be structured to address the concerns expressed in the report; and that it is committed to ensuring that the AAH demonstrates its design suitability and operational survivability/effectiveness prior to any production decision. (PSAD-78-17, 3-16-78)

#### **Appropriations**

Research and Development - Defense

#### **Appropriations Committee Issues**

Obtain Department of Defense assurance that the AAH will be operationally tested to the fullest extent before providing procurement funds.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Status of the Army's Copperhead and the Navy's 5-Inch and 8-Inch Guided Projectile Programs*

##### Departments of the Army and Navy

**Budget Function:** National Defense: Weapon Systems (057).

The Army is developing the laser guided 155 millimeter Copperhead artillery projectile to defeat hard-point targets such as tanks, and the Navy is developing 5-inch and 8-inch laser-guided projectiles for Amphibian assault, shore strike, and antiship missions.

**Findings /Conclusions:** The technical feasibility of laser-guided weapons has been demonstrated, but several battlefield conditions will deny the opportunity to use these weapons or will degrade or defeat them. The conditions include suppressive fire against the laser designator operator or launch platform; interruption of line-of-sight between the target, and either the munition or the laser designator by terrain, adverse weather, smoke, or dust; false targets generated when sufficient laser energy hits objects other than the target; and enemy countermeasures against the laser designator, the weapon's laser seeker, or the required communications capability.

**Recommendations:** The Secretary of Defense should make sure that the services fully address system limitations and that data on

system limitations is considered when production decisions are made on laser-guided projectiles.

The Department of Defense stated that since laser weapons represent a substantial segment of our future arsenal, it will stress increasingly thorough analyses be conducted of the specific limitations of these programs as production decisions are made. (PSAD-78-38, 5-1-78)

#### **Appropriations**

Research and Development - Defense, Army, Navy

#### **Appropriations Committee Issues**

Obtain assurance from the Department of Defense that the operational issues in employing laser-guided projectiles have been resolved prior to providing procurement funds.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Status of the FFG-7 Guided Missile Frigate Shipbuilding Program*

##### Department of the Navy

**Budget Function:** National Defense: Weapon Systems (057).

The Secretary of Defense should ensure that the survivability characteristics of FFG-7 class frigates are upgraded to the extent feasible within design, cost, weight, and technological limitations. In addition, the Secretary should ensure that problems with the ships hull-mounted sonar, propulsion system, service diesel generator, and central control station are resolved before they can already affect cost, schedule, and performance of follow-on ships.

Survivability improvements are being identified by Defense. In May 1978 Defense officials stated that changes have been made to the various systems to resolve the problems identified and that they do not expect these deficiencies

to adversely affect this class of ships. Additional testing, however, is necessary before it is possible to firmly reach such a conclusion. GAO has done no further monitoring of this situation. (PSAD-78-28, 3-15-78)

#### **Appropriations**

Ship Construction—Navy

#### **Appropriations Committee Issues**

The Congress should request Defense to provide current information on the survivability improvements and whether these problems have been resolved.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *Status of the Navy's CAPTOR Ocean Warfare Mining System*

Department of Defense and the Navy

**Budget Function:** National Defense: Weapon Systems (057).

GAO recommended (1) the CAPTOR system not be approved for full-scale production until it has fully demonstrated at an acceptable level of statistical confidence that it would function as required, (2) the detection and control unit be provided as government-furnished property, and (3) the Navy's plan to develop a second source for the detection and control unit be reassessed for appropriateness and cost effectiveness.

A third minefield test has been added to the program. The results of this test along with long term reliability testing will be the basis for a Defense Systems Acquisition Review Council decision in March 1979 regarding proceeding

into full-scale production. Two Defense studies regarding the detection and control unit procurement issues are expected to be completed in January 1979. (PSAD-78-23, 4-10-78)

#### **Appropriations**

Procurement—Navy

#### **Appropriations Committee Issues**

Determine if Defense and Navy actions are consistent with test results before funding production.

## **WEAPON SYSTEMS**

### **INDIVIDUAL SYSTEM STUDIES**

#### ***Status of the Navy's Ocean Mine Countermeasures Program***

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

**Budget Function:** National Defense: Weapon Systems (057).

GAO recommended that the Congress and the Secretary of Defense jointly review the funding being provided the mine countermeasures program, considering its projected capabilities, limitations and potential impact.

The Department of Defense disagreed with the need to jointly review the program with the Congress, asserting that its ongoing program was adequate to meet its needs. (PSAD-78-22, 3-21-78)

#### **Appropriations**

Ship Construction—Navy

#### **Appropriations Committee Issues**

Determine if an adequate funding level is being provided for the mine countermeasures program.

## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *The Army's Proposed Close Combat Armored Vehicle Team*

##### Department of the Army

**Budget Function:** National Defense: Weapon Systems (057)

Several versions of a new main battle tank and infantry combat vehicle have been under development since the early 1960's. Because of the need for compatibility in a combined arms team, the Army is developing a new main battle tank (XM-1) and an infantry fighting vehicle and intends to operate these vehicles as close to each other as battlefield conditions permit.

**Findings/Conclusions:** Differences in mobility and survivability between the XM-1 and the infantry fighting vehicle could reduce their combat effectiveness as a team. A comparison of the two vehicles showed that: the infantry fighting vehicle has slower acceleration and less cross-country speed than the XM-1, subjecting it to greater exposure; the fighting vehicle is 2 feet higher than the XM-1, making it easier to see; the fighting vehicle's armor is inferior to that of the XM-1, making it easier to destroy, the fighting vehicle's main gunsight is easier to destroy, making it more susceptible to a firepower kill, and the fighting vehicle's diesel engine is noisier and more smokey, which could give away battlefield positions. While some differences may be unavoidable, a question remains whether the tactical doctrine covering use in combat can accommodate all the differences in the two vehicles and still maintain the combat effectiveness of both. Test results revealed that the operation of the fighting vehicle's main gun, its firing port weapons, and a swim barrier added to enable it to swim add considerably to the vehicle's complexity. Elements of the vehicle need redesigning in order for it to perform effectively.

**Recommendations:** The Secretary of Defense should determine: whether, considering its advanced stage of development, the indicated design changes needed to make the infantry fighting vehicle effective can still be practicably made at an acceptable cost; and whether a tactical doctrine can be developed that can accommodate the incompatibilities between the fighting vehicle and the XM-1 and still provide the effectiveness anticipated from both. If the design changes and tactical doctrine are unattainable, the Secretary should direct the Army to find alternatives to the infantry fighting vehicle.

A redesigned vehicle will overcome the vehicle's slower speed, gunsight armor shortcoming. DOD is working on solving the problem of engine smoke and excessive vehicle height. The Senate Armed Services Committee authorized the Army to proceed with developing a reconfigured vehicle. (PSAD-78-11, 12-12-77)

#### **Appropriations**

Research and Development - DOD, Army  
Procurement - DOD, Army

#### **Appropriations Committee Issues**

The Appropriation Committees should ascertain whether design shortcomings have been resolved before committing procurement funds to the infantry fighting vehicle.



## WEAPON SYSTEMS

### INDIVIDUAL SYSTEM STUDIES

#### *The Navy's TRIDENT Fleet: Some Success but Several Major Problems*

##### Department of the Navy

**Budget Function:** National Defense: Weapon Systems (057).

The TRIDENT submarine and missile fleet is a sea-based weapons system designed to deter nuclear attack. The Electric Boat Division of the General Dynamics Corporation was awarded the construction contract for the first submarine in July 1974. The Navy exercised its option for three more submarines; a contract for a fifth submarine, with options for up to two more, was awarded to Electric Boat in June 1977. The Lockheed Missiles and Space Company was awarded the prime contract for full-scale development and production of 52 TRIDENT I missiles in August 1974; the missile was approved for production through May 1977. After initial successful flight tests, further production was authorized.

**Findings/Conclusions:** The program faces serious schedule delays because of low productivity, a shortage of skilled workers, and late receipt of materials. The continuing cash drain at Electric Boat may become a more serious overriding problem. At the time of the review, the Navy was reporting a cost estimate of \$22.2 billion for a 13-ship program. As of December 31, 1977, the Navy reported a 14-ship program at a cost of \$25.1 billion. The Navy now estimates that the first submarine delivery date may not be until April 1980, a year behind the contract delivery date. It is too soon to determine whether the October 1977 reorganization at Electric Boat will overcome production problems and have a favorable effect on its financial position. Lockheed has indicated that unplanned costs for the design, development, and

production of 52 TRIDENT I missiles could reach \$50 million and has stated that the extra cost will be offset by reducing labor costs. Navy officials do not know whether Lockheed can recover this overrun.

**Recommendations:** The Secretary of Defense should provide the Congress with detailed cost estimates of the alternative force levels being considered by the Navy. Because of the financial situation at Electric Boat, the Secretary of Defense should periodically provide a special report to the principal congressional committees on the financial status of Electric Boat.

The Department of Defense said that because of the many unresolved issues, the importance to national security, and uncertainties during the construction period, a determination of the ultimate force size cannot be made at this time. The Department of Defense also said that they have provided, and will continue to provide, the Congress with opportune information by letter, briefings, and testimony but felt that a need for special reports was not discernible. (PSAD-78-81, 4-7-78)

##### **Appropriations**

Procurement—Navy

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

Trident force size and cost.

## WEAPON SYSTEMS

### TESTING

#### ***Close Air Support Test Objectives Should Be Reexamined***

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

**Budget Function:** National Defense: Weapon Systems (057).

The joint Army and Air Force operational test on tactical aircraft effectiveness and survivability in close air support and antiarmor operations (TASVAL) will be delayed 1 year, until the Spring of 1979, because of environmental impact constraints, test instrument limitations, and the scarcity of threat simulators. Although the problems causing the delay are expected to be resolved, the current test plans do not adequately address a principal purpose of the test—to reduce the uncertainties associated with decisions on acquiring new weapons systems for use in close air support. The test objectives are primarily directed toward collecting data on losses of existing air and ground weapons, but, by themselves, these results will not be useful for extrapolation to future aircraft, threats, or different combat environments. The objectives do not examine the target acquisition contribution to the effectiveness and survivability of the attack aircraft. An evaluation plan has not been prepared to show how the test data will be analyzed. The test and evaluation plans should provide for extrapolating the test results to future aircraft and future threats to comply with the purpose of supporting acquisition decisions. Test and evaluation plans should also place greater emphasis on

collecting target acquisition and exposure time data with and without current helicopter and air controller aircraft support.

The Department of Defense agreed with the thrust of the GAO comments, but stated that collection of the recommended information would necessitate a major revision of the test, resulting in an increase in scope, length, and cost. It stated that an evaluation plan has now been prepared, and that an investigation of the feasibility of obtaining target acquisition and exposure time data is being pursued. (PSAD-78-119, 6-6-78)

#### **Appropriations**

Research and Development, Director, Test and Evaluation - Defense

#### **Appropriations Committee Issues**

Obtain Department of Defense assurance that the test will provide data that can be directly extrapolated to future aircraft, threat, and other environments to reduce uncertainties in acquiring new systems, or require that the test not be conducted.

## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### CONTRACTS

#### *Contractor Pension Plan Costs: More Control Could Save Department of Defense Millions*

##### Department of Defense

**Budget Function:** National Defense: Department of Defense—Procurement & Contracts (058).

**Legislative Authority:** Employee Retirement Income Security Act of 1974, P.L. 91-379. Internal Revenue Code of 1954, as amended.

The Government incurred pension plan costs that were inequitable and too high because the Department of Defense permitted actuarial assumptions or unjustified changes in actuarial cost methods.

**Findings/Conclusions:** Government controls and surveillance over contractors' pension plan practices were not adequate considering the costs involved. Establishing effective controls and surveillance over these practices could save the Government millions of dollars. Department of Defense auditing and contracting activities also lacked personnel with actuarial skills to evaluate pension plan costs. Properly implementing the existing requirements of the Cost Accounting Standards Board and the proposed standard on pension plan costs should prevent the increased costs.

**Recommendations:** The Secretary of Defense should have the Armed Services Procurement Regulation (ASPR) revised to require that pension plan costs charged to the Government (1) are equitably distributed between Government and commercial work when different actuarial cost methods are used, (2) reflect allocation of pension fund assets in proportion to contributions, and (3) are allocated by using assumptions based on division or cost center experience instead of company-wide experience. The ASPR should also be revised to require that any changes in the policies and procedures affecting allocation of pension plan costs be completely disclosed.

The Department of Defense has promised some action to help prevent overpayments of

pension plan costs. However, we do not believe the action promised is enough. We recommended additional staffing with actuarial skills and more in-depth reviews of pension plan costs if other overpayments are to be detected and recovered. In a letter of August 2, 1977 to the Chairman, Senate Committee on Government Operations, Defense stated that, in its opinion, the problems stated in the report were unlikely to reoccur since development of the Employee Retirement Income Security Act (ERISA) of 1974 and Cost Accounting Standards 412 and 413 of the Cost Accounting Standard Board. Moreover, the Armed Services Procurement Regulation (now Defense Acquisition Regulation) is continually modified and incorporates these standards. We believe that the enactment of ERISA and the promulgation of Cost Accounting Standards dealing with contractor pension plan accounting practices will not prevent all the problems noted in the report. (PSAD-77-100, 5-19-77)

#### Appropriations

Procurement—Army, Navy, Air Force  
Operations and Maintenance—Army, Navy, Air Force

#### Appropriations Committee Issues

Some type of surveillance by Government representatives with specialized knowledge is needed to assure that the Government is not allocated excessive pension costs.

## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### CONTRACTS

#### ***Federal Agencies Should be Given General Multiyear Contracting Authority for Supplies and Services***

**Budget Function:** General Government: Other General Government (806).

**Legislative Authority:** Federal Property and Administrative Services Act, as amended (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 multi-year appropriations.

**Findings/Conclusions:** Federal agencies with either funding or statutory authority for multi-year 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 multi-year 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 ap-

propriate 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.

The agencies commented that the advantages of multiyear procurement outweigh the disadvantages and that it would be an advantageous procurement method. They concurred in GAO's 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. (PSAD-78-54, 1-10-78)

#### **Appropriations**

No specific appropriations are involved. The subject covers all appropriations involving funds for contracts for needs which will occur beyond the year for which the appropriation is made.

#### **Appropriations Committee Issues**

GAO believes the 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

### *Payment of Kickbacks by Subcontractors and Purchasing System Weakness at Raytheon Company's Microwave and Tube Division, Waltham, Massachusetts*

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

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (058).  
**Legislative Authority:** Anti-Kickback Act, sec. 3, as amended (41 U.S.C. 51-54).

Three subcontractors admitted paying an estimated \$125,000 in kickbacks to the buyer for the Raytheon Company, Microwave and Power Tube Division, Microwave Tube Operation, in return for purchase orders placed in support of negotiated Defense contracts awarded to Raytheon. The three subcontractors admitted paying kickbacks to the Raytheon buyer from about 1962, 1970, and 1971, respectively, until April 1975.

**Findings/Conclusions:** About \$46,000 of the \$125,000 paid to the Raytheon buyer by the subcontractors may be recoverable on behalf of the United States. This is the amount which can be documented as kickbacks paid from 1970 through April 1975 related to negotiated Government prime contracts. Much of the documentation for the period prior to 1970 was destroyed by the time of the review of the case. Inadequacies in some company procurement policies and procedures, failure to follow others, and general inattention by Raytheon's management to its purchasing operation contributed to the creation of an environment in which the kickbacks were paid for 13 years.

**Recommendations:** The Secretary of Defense should initiate action to recover the \$46,000 in kickbacks which has been documented. The Secretary should also circulate this case to all Defense contract administration offices as an illustration of serious internal control and procurement problems. There is a need for an anti-kickback contract clause prohibiting gifts and gratuities to serve as a means of fostering public policy against giving kickbacks, gifts, and gratuities.

The Department of Defense (DOD) concurred with our recommendation and referred the case to the Military Departments for recovery action.

With respect to a contract clause prohibiting the giving of gifts and gratuities as GAO previously recommended, DOD will await the completion of the Office of Federal Procurement Policy, OMB evaluation of a model clause. OMB is still evaluating the clause.

DOD agreed to have the Defense Logistics Agency perform a procurement system review at Raytheon in view of the noted deficiencies. DOD also agreed to circulate the GAO report to all contract administration offices as an illustration of a serious internal control and procurement program. DOD to maintain surveillance of contractors' purchasing activities. (PSAD-77-166, 10-6-77)

#### Appropriations

Procurement - Army, Navy, Air Force

#### Appropriations Committee Issues

GAO believes the Committee should insist that the Department of Defense establish a contract clause prohibiting gifts and gratuities. Such an antikickback clause is needed as a means of implementing public policy against giving kickbacks, gifts and gratuities. The Government has no legal authority to seek recovery from the prime contractor to protect the Government's interests as well as to serve as a

deterrent to kickback activities by prime contractor employees. GAO's suggestions for a contract clause would strengthen the deterrent factor by adding contract termination and/or civil money penalties as possible Government

actions where gratuities were offered or accepted in the performance of Government sub-contracts.

## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### CONTRACTS

#### *Review of Compliance with Labor Standards for Service Contracts by Defense and Labor Departments*

##### Departments of Defense and Labor

**Budget Function:** Income Security (600).

**Legislative Authority:** Service Contract Act of 1965 (41 U.S.C. 351). Fair Labor Standards Act of 1938, as amended (29 U.S.C. 201).-29 C.F.R. 4. A.S.P.R. 12-10. A.S.P.R. 10-104.2. A.S.P.R. 10-104.3.

The Service Contract Act of 1965 requires service employees working under Federal contracts worth over \$2,500 to be paid the minimum wages and fringe benefits earned by similar employees in the locality.

**Findings/Conclusions:** Most of 14 selected Department of Defense (DOD) procurement offices were not fully complying with the act and requirements in the Armed Services Procurement Regulation for obtaining wage determinations. Several offices did not request the determinations, some did not include them in contracts, many failed to make requests within the required time period, and some failed to give the Department of Labor (DOL) the required notices of contract award. Other DOD problems noted were: lack of personnel awareness of regulations for requesting wage determinations, minimal training related to the act, and little monitoring of compliance. DOL has had difficulty in enforcing compliance with the act and restoring employees' back wages. It does not have a direct enforcement program to review contractors or adequate staff to ensure compliance. The lack of a requirement for performance and payment bonds did not seriously affect contractors' work but did hurt DOL efforts to restore back wages.

DOD officials agreed that the act and implementing regulations were not being fully complied with, and that corrective actions would be considered and taken. DOL officials stated that DOL does not have enough compliance officers to fully enforce the act, but a limited enforcement program has been started, including the training of field compliance personnel. (HRD-78-136, 1-19-78)

#### Appropriations

Departments of the Air Force, Army, and Navy.

Department of Labor, Employment Standards Administration—salaries and expenses.

#### Appropriations Committee Issues

DOL's enforcement of the labor standards provisions of the Service Contract Act is limited by staff shortage. Consideration should be given to DOL's need for additional staff resources for increased enforcement of the act.

## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### CONTRACTS

#### *Special Procurement Procedures Helped Prevent Wage Busting under Federal Service Contracts in the Cape Canaveral Area*

##### Department of the Air Force

**Budget Function:** National Defense: Department of Defense-Procurement & Contracts (806).

**Legislative Authority:** Service Contract Act of 1965, as amended (41 U.S.C. 351; P.L. 94-489). Classification Act (5 U.S.C. 5102(c)). Fair Labor Standards Act, as amended (29 U.S.C. 201). H. Rept. 89-948. H.R. 314 (95th Cong.). H.R. 4276 (95th Cong.). H.R. 4393 (95th Cong.). H.R. 4873 (95th Cong.). H. R. 5375 (95th Cong.). H. R. 5514 (95th Cong.). H. R. 7388 (95th Cong.). S. Rept. 89-798. S. 969 (95th Cong.). P. L. 92-473.

The Service Contract Act of 1965 protects all employees of service contractors from wage busting (lowering of wages and benefits by contractors in efforts to become low bidders) except bona fide executive, administrative, and professional employees. To discourage wage busting for professional employees, the National Aeronautics and Space Administration (NASA) and the Air Force designed special procurement procedures which were used for recompetition on three major contracts.

**Findings/Conclusions:** In a review of wages and fringe benefits of 881 of 1,034 employees not covered by the act, no cases of wage busting were found on two of the three contracts, and only two cases were identified on the remaining contract. In the two cases, the contractor paid salaries requested on job applications, and there was no indication of intent by the contractor to wage bust. The procurement procedures influenced contractors to submit proposals based on paying wages and fringe benefits comparable to those paid under the prior contracts, and these factors affected the proposal evaluations. The special procurement procedures demonstrate that a policy directed towards discouraging wage busting is a viable alternative to proposed legislation that would include professional employees under the act.

**Recommendations:** The Administrator for Federal Procurement Policy should establish a Government-wide policy to discourage wage busting of professional employees not covered by the act and require Federal agencies to in-

clude appropriate implementing language in their procurement regulations and service contracts. The Secretary of Defense and the Administrator of NASA should amend their procurement regulations to discourage wage busting of employees not covered by the act on recompetition of service contracts without waiting for a Government-wide policy.

Office of Federal Procurement Policy officials agreed with GAO's recommendation and issued a Government-wide policy directive in March 1978 requiring agencies to issue regulations to prevent wage busting during procurements under service contracts. Defense and NASA officials also agreed with GAO's recommendation and said appropriate corrective actions would be considered and taken. (HRD-78-49, 2-28-78)

### Appropriations

Department of Defense; National Aeronautics and Space Administration; and Office of Federal Procurement Policy—salaries and expenses.

### Appropriations Committee Issues

Administratively implemented special procurement procedures are an effective alternative to proposed legislation dealing with the wage busting issue such as H.R. 314 which was introduced in the 95th Congress.



## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### PROCUREMENT

#### *Air Force Requirements for Electronic Warfare Operational Test and Training Equipment*

##### Department of the Air Force

**Budget Function:** National Defense; Department of Defense-Procurement & Contracts (058).

The fiscal year 1978 Air Force budget estimate included \$16.5 million for procurement of threat simulators and related equipment to upgrade its operational test, evaluation and training equipment and ranges. These improvements were intended to provide a realistic training environment in which to train aircrews.

**Findings/Conclusions:** There is no question of the overall need to improve Air Force operational ranges or the attempt to achieve greater realism in training aircrews. However, the Air Force should improve the information it presents to congressional decisionmakers who must act on appropriations request for the program. In the case of threat simulators and related equipment, much more is involved than just the procurement of specific pieces of equipment. Documents indicate a 5-year total program cost estimated at \$694 million, but because the Air Force followed the traditional budget approach which fragments the program into segments financed by multiple appropriations, its presentation to the Appropriations Committee may not have focused attention on the magnitude of the total program.

**Recommendations:** The Secretary of the Air Force, in presenting future fund requests for operational range improvement, should give congressional decisionmakers a comprehensive picture of what the moneys are for, why they are needed, and how they are to be spent.

The Department of the Air Force agreed with the report's recommendations and promised to provide the necessary information in whatever format the congressional decisionmakers require. However, the Air Force did not develop requirements documentation that addressed the long range needs of all Air Force components. Furthermore, the Air Force was not able to put in priority order the various pieces of equipment budgeted in fiscal year 1979. For these reasons, the House Committee on Appropriations believed that further procurement should be deferred until the Air Force develops a firm long range plan which addresses the requirements of all Air Force components. Accordingly, the Committee recommended a reduction of \$50,800,000 from the Air Force budget estimate. However, the amount was restored in conference. (PSAD-78-83, 3-1-78)

#### **Appropriations**

Other Procurement—Air Force

#### **Appropriations Committee Issues**

There is a potential for evaluating even relatively small other procurement items under a "mission" and "needs" approach.

# DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

## PROCUREMENT

### *Analysis of Department of Defense Unobligated Budget Authority*

#### Department of Defense and Office of Management and Budget

**Budget Function:** National Defense: Department of Defense-Procurement & Contracts (058).

**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 1972-76.

**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's 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% 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, reserves, funds withheld from program managers, congressional actions, better contract prices than budgeted for, staffing deficiencies, and invalid obligations. Through the 1972-76 period, the executive branch consistently underestimated DOD's 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 should monitor the obligation rates reflected in DOD's 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.*

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 and the basic reason—an issue raised in our report. (PAD-78-34, 1-13-78)

#### **Appropriations**

—DOD procurement accounts—Army, Navy, Air Force, Other.

#### **Appropriations Committee Issues**

—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

### ***Budget Authority for Foreign Military Sales is Substantially Understated***

#### **Department of Defense and Office of Management and Budget**

**Budget Function:** International Affairs: International Financial Programs (155).

**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 result 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.

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. (PAD-78-72, 7-27-78)

#### **Appropriations**

- "Advances, Foreign Military Sales"
- All DOD accounts involved in FMS activities, primarily the procurement and military construction accounts (all services).

#### **Appropriations Committee Issues**

- The budget's totals for budget authority continue to mis-state the true amount of authority because of OMB's treatment of FMS budget authority.

## DEPARTMENT OF DEFENSE - PROCUREMENT AND CONTRACTS

### PROCUREMENT

#### *Department of Defense Value Engineering Program Needs Top Management Support*

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

**Budget Function:** National Defense: Department of Defense - Procurement & Contracts (058).

The Department of Defense (DOD) value engineering program for contractors was set up to stimulate contractors to develop and propose cost saving changes to contracts requiring unnecessary expense. Although savings on some major programs have been impressive and show that costs for major Defense weapon systems can be cut down considerably, few systems have active value engineering programs.

**Findings/Conclusions:** The program has already saved over \$700 million, but savings have declined sharply since 1971, and the program has fallen far short of its potential. Savings for 1975 and 1976 were the lowest since 1967. Most major programs being developed and produced during 1976. Most major programs being developed and produced during 1976 had no savings at all, including many with very high price tags. The lack of Defense management acceptance and support has been the basic and most critical factor impeding the performance of the value evaluation program, and correction of this weakness is the most essential need of the program. The lack of management support has been the most pronounced in the Navy and the Air Force. Savings of \$1 billion in the next 4 years can be achieved if DOD's assessment of the program's minimum savings potential is realized.

**Recommendations:** The Secretary of Defense should take steps to guarantee aggressive support and active promotion of the value engineering program by service secretaries and managers and, in conjunction with Congression-

al Appropriations Committee hearings on major weapon systems, inform the Congress of value engineering program savings on those systems.

DOD agreed with the recommendation that it should institute measures to insure support by service secretaries and managers and said actions were being taken to do this. Value engineering program savings have not yet approached their potential but they did increase by nearly 50 percent in fiscal year 1977.

DOD did not disagree with GAO's second recommendation that it should inform the Congress on value engineering program savings on individual major weapon systems, but it has taken no action since, according to OSD, the Congressional Armed Service and Appropriations Committees have shown no interest in receiving the information. (PSAD-78-5, 11-16-77)

#### **Appropriations**

Procurement—Army, Navy, Air Force

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

GAO believes that significant improvements in DOD top management support of the DOD value engineering program will not be achieved without House and Senate Appropriations Committees' interest in and attention to the cost saving results of this program in connection with the Committees' hearings on major weapon systems.

## ATOMIC ENERGY DEFENSE ACTIVITIES

### WEAPON SYSTEMS

#### *Reporting of Nuclear Weapons Projects Can be Improved*

Department of Defense

**Budget Function:** National Defense: Atomic Energy Defense Activities (053).

The need for comprehensive periodic status reports on the Department of Energy's weapons projects is pointed out. In relation to such reports, discussions are presented of the Department of Energy's Nuclear Weapons Program, weapons information, and congressional information needs. Recommendations are made as to the content of the needed semi-annual, comprehensive status report, including: program description, mission, and relationship to the Department of Defense delivery system(s); a program highlights section; original cost, schedule, and performance estimates (baseline); cost, schedule, and performance progress information to date; estimates to complete; and a variance analysis to explain major changes.

Energy agreed that program information reporting is essential to insure Congress is fully and currently informed. They believe, howev-

er, that the reporting techniques presently used for this purpose are sufficient. Energy agreed to consider modifying its comprehensive acquisition cost report to include variance analysis explaining major changes. (PSAD-78-80, 3-10-78)

#### **Appropriations**

Department of Energy—operating expenses and Plant and Capital Equipment, National Security Programs.

#### **Appropriations Committee Issues**

Status reports would provide the Appropriation Committees improved visibility over weapons projects in assessing Energy's progress in meeting Defense's weapons priorities as well as being alerted to any interface issues between Energy and Defense.

# ATOMIC ENERGY DEFENSE ACTIVITIES

## WEAPON SYSTEMS

### *The Nuclear Weapons Joint Flight Test Program Needs Stronger Management Controls*

**Budget Function:** National Defense: Atomic Energy Defense Activities (053).

Joint flight tests play a key role in determining the combat readiness of deployed nuclear weapons and have been instrumental in identifying and correcting serious problems that were found only under operational flight conditions. The Joint Flight Test Program verifies that nuclear weapon systems function correctly in the flight environment, confirms the continued compatibility of Department of Defense (DOD) and Department of Energy (DOE)-designed systems and procedures, and provides input to the reliability assessment of the system. The tests permit system components to be tested in an operational environment, except those which would lead to radiation releases or a nuclear detonation.

**Findings/Conclusions:** DOE and DOD are not realizing maximum benefits from the program because management controls are not clearly defined. DOD has not always cooperated with DOE in providing carrier systems, missiles, or aircraft when required for joint flight tests. Consequently, fewer tests were performed than the minimum required by DOE to accurately assess the combat readiness of the remaining weapons in the stockpile. Serious reliability problems may continue to go undetected because some nuclear warhead components are not tested, weapons tested are not selected from the total population, and some test weapons and environments are not representative. DOE's weapons reliability assessments are not as meaningful as possible because large amounts of nonjoint flight test data dilute recent test results. Memoranda of understanding, which were formulated by the Departments to guide program operations, do not place responsibility for the timely and proper performance of program operations or provide

adequate criteria to insure uniformity in testing and reliability assessments.

**Recommendations:** The Secretaries of DOD and DOE should enter into a new agreement which: assigns responsibilities and priorities for scheduling and timely performance of tests, specifies procedures for selecting and preparing weapons for tests and for conducting tests to ensure that they are representative of the stockpile and operational environments, and prescribes uniform criteria for evaluating test results used in making weapon reliability assessments. The Congress should require the Departments to provide assurance that they have taken action to improve interdepartmental agreements and guidance for the program.

Defense recognizes the importance of the nuclear weapons joint flight test program. Defense believes it prudent to strengthen management within the existing framework. Defense plans a meeting with Energy representatives to review the overall joint nuclear weapons quality evaluation program. Strengthening the management of the joint flight test program will be emphasized, sample selection criteria will be evaluated for conformity and a common assessment methodology will be sought. Defense does not believe that assignment of priorities for operational support of each specific test program would increase effectiveness. (PSAD-78-98, 5-30-78)

### **Appropriations**

Operations and Maintenance—Defense-wide

**Appropriations Committee Issue**

In view of the importance of joint flight tests in determining the combat readiness of de-

ployed nuclear weapons and identifying and correcting operational problems, the Committee should determine what actions are being taken to improve the test program.



## GENERAL SCIENCE, SPACE, AND TECHNOLOGY

### NAVIGATION SYSTEMS

#### *Navigation Planning: Need for a New Direction*

**Departments of Defense, the Army, Navy, and Air Force; Department of Commerce; Department of Transportation; and National Aeronautics and Space Administration**

**Budget Function:** General Science, Space, and Technology: Telecommunications and Radio Frequency Spectrum Use (258).

**Legislative Authority:** Federal Aviation Act of 1958 (49 U.S.C. 1301). 14 U.S.C. 81.

Two general classes of navigation systems are radio-navigation systems which consist of transmitters and receivers and self-contained systems which depend on internally generated radio signals or other means. A review covered 13 major enroute navigation systems, 11 radio-navigation and 2 self-contained, used by civilian and military travelers and by the military to improve the accuracy of weapons delivery.

**Findings/Conclusions:** Overlapping navigation systems have proliferated because it has been costly to abandon older systems as new ones are developed. Of the 13 systems (1 was terminated after the review), only 4 and parts of a 5th may be required in the future because the military NAVSTAR satellite development has the potential for meeting the navigation needs of nearly all users. Departments and agencies plan to spend \$277 million over the next 3 or 4 years for equipment or development of potentially unneeded systems. A Government-wide navigation plan is needed to reduce the proliferation and overlap of navigation systems, and a strong management focus is also needed. The Congress may have to decide whether a civil or military agency should manage the NAVSTAR navigation satellite system, recognizing that civil operation may encourage earlier civil and international use but that military operation may be needed to deny high accuracy signals to hostile forces during a war or national emergency.

**Recommendations:** The Congress should question future requests for expenditures on navigation systems which may not be needed

in later years and allow funds only when they are cost effective or on the basis of safety or combat readiness. The President should assign to a single manager the responsibility and authority to direct the prompt development and implementation of a Government-wide navigation plan along with the budgetary controls to implement those decisions. The plan should provide for its orderly and cost effective execution and be continually updated to fully recognize NAVSTAR development progress. The Secretaries of Defense and Transportation should defer unnecessary spending for unneeded navigation systems as long as NAVSTAR remains their potential replacement. The Secretary of Transportation should become an active participant in the NAVSTAR program to ensure that civil needs are considered.

OMB, Defense, Maritime Administration (Commerce) and NASA generally agreed with the need to reduce the proliferation of navigation systems and OMB is chairing an inter agency team tasked with developing a Federal navigation plan and proposals for its management structure for the President's approval. An earlier date for completion of these efforts has slipped and no new date has yet been established. DOT (FAA and Coast Guard) are strongly opposed to any consolidation of systems which would affect those they now operate and most of the agencies oppose the concept of an authoritative manager (at the Executive level) of navigation matters as an incursion upon their existing authorities. In our opinion this OMB

effort may not succeed unless that office is willing to strongly assert the management prerogatives of its title. The House Subcommittee on Transportation, Aviation and Weather, Committee on Science and Technology held hearings on September 27 and 28 on the NAVSTAR and other aviation developments. Witnesses from FAA, DOD, The National Telecommunications and Information Administration (Commerce), and the civil aviation testified. Nearly all the agencies have disagreed with GAO's recommendation that the spending be deferred for the modernization or expansion of systems which NAVSTAR can replace. Most have argued that a transition to NAVSTAR cannot be made before 1995 or later and that the age and deterioration of much existing equipment demand its early replacement in the interest of either safety or maintenance cost savings. To a substantial degree, GAO agrees with these premises and so advised the House Subcommittee on Transportation, Committee on Appropriations on June 27, 1978 concerning FAA's FY 79 budget request for its VORTAC modernization program. (I.C.D)-77-109, 3-21-78)

## **Appropriations**

Defense appropriations; Army, Navy, Air Force—(procurement, RDT & E)

Transportation appropriations; FAA & Coast Guard—procurement, R & E

## **Appropriations Committee Issues**

The Subcommittees should question agencies' request for funds for the following navigation system transmitters: LORAN-C (Coast Guard), LORAN-D (Air Force), VOR/DME & VORTAC (FAA), TACAN (Air Force and Navy) and Transit (Navy) and allow funds only if they can be cost-benefit justified (i.e. maintenance savings off-setting new equipment costs by 1995 for FAA and Coast Guard and by 1992 for the Air Force and Navy. These are dates by which a transition to NAVSTAR-GPS could be made unless the latter program itself slips).

# NATURAL RESOURCES, ENVIRONMENT, AND ENERGY

## BENEFIT COST ANALYSIS

### *An Overview of Benefit Cost Analysis for Water Resources Projects*

#### Department of the Army (Corps of Engineers)

**Budget Function:** Natural Resources, Environment, and Energy: Water Resources and Power (301).

**Legislative Authority:** Flood Control Act of 1936 (49 Stat. 1570). Water Resources Planning Act of 1965 (42 U.S.C. 1962). BOB Circular A-47. Senate Document 97. H.R. 10004 (95th Cong.). H.R. 8060 (95th Cong.). B-177442 (1974). B-167941 (1973). B-136280 (1972). B-167712 (1972). B-164844 (1969). B-125042 (1967).

Federal water resources projects are seldom authorized unless their estimated benefits exceed their estimated costs. The Water Resources Council (WRC) established principles and standards for planning water resources projects which were to help establish uniform procedures for more accurate benefit-cost analysis.

**Findings/Conclusions:** In spite of the importance of cost-benefit analyses, Federal water resources agencies have had a continuing problem preparing accurate, uniform, logically developed benefit-cost ratios. Present standards and criteria are not specific enough to provide guidance for developing procedures for benefit-cost analysis. Lack of Uniformity in methods of computing benefits has resulted in inconsistent and questionable computations, especially in areas such as recreation, area redevelopment, and navigation benefits. In some instances, agency regulations were not being followed, and questionable assumptions and inaccurate computations were made. Also, objective analysis is hampered by agency self-interest and outside influence. Alternatives for achieving more objective and reliable analyses would be to establish a focal point within the existing organizational structure or to establish an independent group to either prepare or review benefit-cost analysis.

**Recommendations:** The WRC should: review principles and standards and provide specific guidance and criteria to insure uniform benefit computations, request the agencies, if they have not done so, to submit their procedures

for implementing the principles and standards for approval, and review implementing procedures which have been approved for uniformity. The Secretaries of Agriculture, the Army, and the Interior should agree upon uniform methods and revise implementing procedures to insure consistency. These Secretaries should insure that internal regulations for benefit computations are specific enough to insure logical and consistent development and that they are developed for all authorized benefits used in agency calculations. They should also have their agencies strengthen their internal management review procedures for benefit-cost analyses to prevent mathematical errors, resolve inappropriate assumptions, and insure that adequate studies and supporting documentation are provided. (CED-78-127, 8-7-78)

#### Appropriations

Corps of Engineers—General Civil Construction

Department of Agriculture, Soil Conservation Service—watershed and flood prevention operation

Department of the Interior, Bureau of Reclamation—construction and rehabilitation.

#### Appropriations Committee Issues

The adequacy of the corrective actions to be taken by the Council, and the agencies should be considered when reviewing appropriation requests for Federal water resource projects.

## NATURAL RESOURCES, ENVIRONMENT, AND ENERGY

### BENEFIT COST ANALYSIS

#### *Better Analysis of Uncertainty Needed for Water Resource Projects*

Department of the Army (Corps of Engineers)

**Budget Function:** Natural Resources, Environment, and Energy: Water Resources and Power (301).

When the Corps of Engineers estimates costs and benefits of proposed water resource projects, it encounters uncertainty. The two basic probability approaches to analyzing uncertainty are the "relative frequency" approach which relies on past events and the "subjective interpretation" approach which depends on whether an event will occur at all.

**Findings/Conclusions:** The Corps is more successful in analyses of costs and benefits which depend on the "relative frequency" approach. For example, if floods have occurred at a certain frequency in the past, they can be expected to occur at similar frequencies in the future. However, predictions or events such as future development in a flood-prone area are subjective. The Corps' treatment of this type of uncertainty could be improved. For example, when an estimate of future events is based on the judgment of a panel of experts, it should reflect the degree of agreement in the panel, not just the "average" opinion.

**Recommendations:** *The Corps should: explicitly recognize intangible benefits and costs and show what effect they have on judgments about a project, indicate the level of confidence surrounding estimates which involve uncertainty, make increased use of sensitivity analysis to show the potential impact of uncertainty on expected costs and benefits, adjust estimates to account for uncertainty, incorporate an "option" value in its analysis to reflect the fact that an irreversible action may preclude some other action whose future value could be greater than expected, and consider*

devoting more analysis to factors that are the greatest sources of uncertainty.

The agency agreed that there was some room for improvement in uncertainty analysis, but that implementing new procedures will take time. It is suggested that some of our recommended actions are already being performed, while others should not be implemented due to the impossibility of precision in the analysis. The agency also states that too much uncertainty analysis will lead to uncertain recommendations, rather than the clear cut positive or negative recommendations that the agency is supposed to give Congress. (PAD-78-67, 6-2-78)

#### **Appropriations**

None directly

#### **Appropriations Committee Issues**

The primary issue of concern to the appropriation committee is that benefit-cost analyses are presented with only expected values of costs and benefits. The possible range of alternative outcomes is not emphasized, so that decisions are based on the expected outcomes. Unless Congress is neutral toward risk taking, the possibility of net benefits not attaining their expected level should be taken into consideration in deciding upon the desirability of a proposed project. This information should be given greater weight in the agency's feasibility studies.

## NATURAL RESOURCES, ENVIRONMENT, AND ENERGY

### DAM SAFETY

#### *Slow Progress in Developing and Implementing a National Dam Safety Program*

Department of the Army (Corps of Engineers)

**Budget Function:** Natural Resources, Environment, and Energy: Water Resources and Power (301).

**Legislative Authority:** National Dam Inspection Act of 1972 (P.L. 92-367). Federal Power Act.

The National Dam Inspection Act directed that the Secretary of the Army, through the Corps of Engineers, inspect most of the Nation's dams and report inspection results and inventory all dams meeting the law's criteria. In addition, a comprehensive national program for dam safety was to be recommended to Congress.

**Findings/Conclusions:** Five years after the authorizing legislation was passed, the inspection of all dams has not been carried out; an inventory of dams has been prepared but has not been verified; and the national program for dam safety proposed by the Secretary of the Army is lacking in scope, depth, and alternatives. The Army has never requested sufficient funding from Congress to design or implement a comprehensive program. The Corps program emphasizes voluntary participation by the States, even though many of them maintain they need Federal funding for the program.

**Recommendations:** The Corps should obtain and verify inventory data on all dams that the law covers; make at least a statistical sample of dam inspections; determine whether Federal participation is needed for a program to be effective, and, if so, the nature of involvement; and present possible alternatives to the Congress.

Corps officials did not object to the general message of the report or to making required dam inspections if the Congress appropriated funds for these inspections. Funds of \$18 million and \$25 million were appropriated in FY 78 and 79, respectively. Although inspections on high risk dams have been started, many of the problems mentioned in our report continue to exist. A follow-up review has identified additional concerns such as, whether dam owners will take appropriate actions to correct deficiencies noted during Corps inspections, and whether the States will maintain adequate dam safety programs in the absence of Federal funding. (CED-77-94, 6-29-77)

#### **Appropriations**

Corps of Engineers—general investigations.

#### **Appropriations Committee Issues**

The adequacy of the actions being taken by the Corps should be assessed when considering appropriation requests for Federal Water resources projects.

## NATURAL RESOURCES, ENVIRONMENT, AND ENERGY

### FEDERAL HYDROELECTRIC SYSTEMS

#### *Power Production at Federal Dams Could Be Increased by Modernizing Turbines and Generators*

Department of the Army (Corps of Engineers)

**Budget Function:** Natural Resources, Environment, and Energy: Water Resources and Power (301).

Existing Federal hydroelectric plants could increase power production by modernizing turbines to increase efficiencies and capacities and by modernizing generators to increase capacities.

**Findings/Conclusions:** Increasing hydroelectric power production will increase the Nation's energy supply, displace consumption of nonrenewable fuels by fossil-fuel powerplants, reduce pollution, increase Federal revenues, and displace or delay construction of alternate power sources. Detailed analysis at each powerplant is needed to determine what modernization improvements might be made and if they would be cost effective. At present, the agencies do not have a system to make sure that opportunities are identified and acted upon.

**Recommendations:** The Secretaries of the Interior and the Army and the Chairman of the Board of the Tennessee Valley Authority should: identify opportunities to improve hydropower production through equipment modernization, implement those that are economically justified, and consider making changes before the end of the equipment's useful life; include in the economic analysis the value of oil or coal consumption displaced and, either directly or indirectly, the value of maintenance costs reduced by installing new equipment; include feasible turbine and generator modernization in their overall hydroelectric power expansion plans; and develop systems to make sure that future technological improvements

are recognized and considered for implementation in existing systems.

The Bureau, Corps, and TVA agreed in concept that efficiencies and capacities may be increased at some plants. TVA officials agreed that it would be worthwhile to make preliminary studies to identify potentials. The Bureau has conducted a preliminary study which showed the potential for 584 megawatts of increased capacity. The Corps believes that opportunities for improvements are slight at its dams. (EMD-77-22, 3-16-77)

#### **Appropriations**

Department of the Interior, Bureau of Reclamation—General Investigations and Construction and Rehabilitation

Tennessee Valley Authority—Power Program  
Corps of Engineers—General Investigation

#### **Appropriations Committee Issues**

The extent of equipment modernization has not yet been identified by TVA or the Corps. The Bureau has identified potential increases in a preliminary study and is studying this in detail to support authorization for funding. In addition, the Corps is doing a three-year National hydro study to identify total hydro potential including modernization. The potential cost of modernization cannot be made until the potentials have been identified.

# NATURAL RESOURCES, ENVIRONMENT, AND ENERGY

## WATER RESOURCES AND POWER

### *Improvements Needed in the Corps of Engineer's Regulatory Programs for Protecting the Nation's Waters*

#### Department of the Army (Corps of Engineers)

**Budget Function:** Natural Resources, Environment, and Energy: Water Resources and Power (301).

**Legislative Authority:** Clean Water Act of 1977; H.R. 3199 (95th Cong.). River and Harbors Act of 1899, sec. 10. Federal Water Pollution and Control Act Amendments of 1972, sec. 404.

The Army Corps of Engineers has a broad mandate to protect and conserve the Nation's waters by approving only those activities such as dredging, filling, and construction that are in the public interest. While some elements of local discretion are necessary in a program of this nature, inconsistencies and variances between the operations of the Corps' districts have been of such magnitude as to hamper the establishment of an effective nationwide program.

**Findings/Conclusions:** The Corp's regulatory program is difficult to manage and evaluate because of its ambiguity, size, diversity, and the variety of approaches the Corps districts use in carrying it out. The headquarters and districts will have management and evaluation difficulties until the Corps: (1) defines the geographical boundaries of the regulatory program; and (2) provides guidelines to the districts to aid in achieving expected program results and interpreting and applying regulations and guidelines.

**Recommendations:** The Secretary of the Army should: provide for improved management and control of the Corp's regulatory program by directing the Corps headquarters office to take a more aggressive posture in ensuring that regulatory boundaries are de-

finied and in providing additional guidance for districts to use in defining geographic boundaries; provide additional guidance to the districts for evaluating permit applications that involve wetlands, making cumulative impact assessments, using general and blanket permits, handling violations, and providing information to the public on proposed projects; provide additional guidance to the districts as to the methods to be used to achieve expected program results; and establish a requirement for and specific guidance to conduct periodic program evaluations.

Agency generally concurred with our findings and specified actions planned to improve management and control of the program. (CED-78-17, 12-23-77)

#### **Appropriations**

Corps of Engineers—Operation and Maintenance

#### **Appropriations Committee Issues**

The Committee should ascertain the reasonableness of the Corps' plans for satisfying the concerns expressed in the GAO report

## COMMERCE AND TRANSPORTATION

### INLAND WATERWAYS

#### *Dredging America's Waterways and Harbors: More Information Needed on Environmental and Economic Issues*

##### Department of the Army (Corps of Engineers)

**Budget Function:** Commerce and Transportation: Water Transportation (406).

**Legislative Authority:** National Environmental Policy Act of 1969, § 102 (P.L. 91-190). River and Harbor Act of 1970, § 123 (P.L. 91-611). Federal Water Pollution Control Act Amendments of 1972, § 404 (P.L. 92-500). Marine Protection, Research and Sanctuaries Act of 1972; Ocean Dumping Act (P.L. 92-532).

The effects that dredging and disposing of dredged material will have on the environment have come into sharper focus within the last decade. As a result, the Army Corps of Engineers has been required by legislation, litigation, and regulations to modify its practices.

**Findings/Conclusions:** The Corps has undertaken a research program and changed its dredging practices at certain locations, but at much higher costs. The research is still incomplete, and the cause-and-effect relationships between materials considered contaminated and significant damage, especially long-term damage, have not been determined. Before appropriating funds for channel maintenance projects, the Congress needs adequate information on the tradeoffs between economic and environmental values.

**Recommendations:** The Corps should advise the Congress of how a follow-up research program can be expedited to develop and obtain information not provided by the original program. Even though the current program is almost complete, the Environmental Protection Agency (EPA) should participate in the final stages of the program by assigning staff to work full time with the Corps' researchers in interpreting research results and developing

final conclusions for the program. EPA should participate fully in any follow-up program from the beginning. The Corps, in coordination with EPA, should prepare and provide appropriate information to the Congress when EPA objects to methods or location of the Corps' disposal activities.

Agency officials agreed in principle with GAO's recommendation, but questioned how they would be implemented. (CED-77-74, 6-28-77).

#### **Appropriations**

Corps of Engineers—operation and maintenance.

#### **Appropriations Committee Issues**

The Committee should obtain information concerning the cost of, and bans for, alternatives to those proposed Corps dredging projects where EPA objects to the disposal method of location so that the Committee can evaluate the tradeoffs between economic and environmental values.



## COMMERCE AND TRANSPORTATION

### INLAND WATERWAYS

#### *Federal Efforts to Extend Winter Navigation on the Great Lakes and St. Lawrence Seaway: Status and Problems to be Resolved*

Department of the Army (Corps of Engineers)

**Budget Function:** Commerce and Transportation: Water Transportation (406).

In 1970, the Congress authorized the Corps of Engineers to demonstrate the feasibility of winter navigation on the Great Lakes and St. Lawrence Seaway system. Commerce on these waterways traditionally was suspended for about 3-1/2 months during the winter because of severe weather.

**Findings/Conclusions:** During the 4 years of the program the winter traffic has been extended in some of the Great Lakes. Much of the traffic, however, is not a direct result of the program.

GAO reported to the Congress that major problems had to be resolved before conclusive judgments could be made on the practicability of a permanently extended navigation system on the Great Lakes and the St. Lawrence Seaway. The major problems are (1) the competing use of the waterways during the winter season by power and navigation interests, (2) a lack of a coordinated plan of action with Canada, and (3) potential environmental damage. In addition, the program's preliminary economic analysis does not realistically portray the potential benefits and costs of a permanently extended navigation season program.

**Recommendations:** GAO recommended that the Secretary of the Army;

- direct the Corps to reevaluate its procedures for determining traffic claimed for the demonstration program;
- require the Corps to include information in its funding requests and reports to the

Congress on all participating agencies' use of their regular appropriations for the demonstration program;

- direct the Corps to (1) resolve the problem between power and navigation interests, (2) work toward an agreement with Canada, and (3) complete the overall assessment of the expected environmental impacts; and
- require the Corps to resolve questions on the preliminary benefit-cost analysis.

The agencies concerned generally agreed with GAO's conclusions and recommendations and indicated that corrective action would be taken.

At the request of the ranking minority member, committee on Merchant Marine and Fisheries, House of Representatives, GAO conducted a follow-up review and presented an oral briefing on April 20, 1978. There were no additional conclusions or recommendations. (RED-76-76, 4-20-76)

#### **Appropriations**

Corps of Engineers—General Investigations.

#### **Appropriations Committee Issues**

Major problems need to be resolved before the practicability of a permanently extended season can be determined.

## COMMERCE AND TRANSPORTATION

### INLAND WATERWAYS

#### *Opportunities for Large Savings by Altering Some Inland Waterway Operations*

##### **Department of the Army (Corps of Engineers)**

**Budget Function:** Commerce and Transportation: Water Transportation (406).

**Legislative Authority:** Department of Transportation Act of 1966 (49 U.S.C. 1651). River and Harbor Act of 1909 (P.L. 60-317). 33 U.S.C. 541. 33 U.S.C. 499.

Many Federal, State, and private drawbridges or locks are operated 24 hours a day despite little or no boat traffic during predictable periods. The U.S. Coast Guard regulates operations of drawbridges along navigable waterways, and the Army Corps of Engineers operates and maintains some inland waterway routes and owns and operates some bridges and locks. In many instances the cost to maintain unobstructed navigation at all times is enormous, and considerable savings could be realized with little impact on navigation if such services were reduced or eliminated.

**Findings/Conclusions:** Reducing drawbridge operations when justified by traffic patterns could save millions of dollars. In Florida, Georgia, North Carolina, South Carolina, and Virginia, 62% of the bridges analyzed were manned 24-hours a day, although 45% had less than one boat in an 8-hour period. The costs and other maintenance problems associated with the Dismal Swamp Canal outweigh its benefits. The current annual cost of keeping the canal open is \$435,000.

**Recommendations:** The Secretary of the Army should direct the Corps of Engineers to: analyze vessel usage of its bridges and locks, consult with users as to their ability to adjust to new operating hours, consider various alternatives for reducing hours and costs, and request Coast Guard approval for adjusting operations where the savings from reducing such operations are more than the benefits of operating

continually. The Corps of Engineers should also: determine whether States or local communities would assume the costs to maintain the Dismal Swamp Canal for through navigation, hold meetings to obtain public views regarding closure of the canal, and determine the environmental impacts of such closure. The Secretary of Transportation should require the Coast Guard to develop and disseminate to drawbridge owners criteria for evaluating requests for reducing bridge operating hours during periods of low vessel usage.

Corps officials generally agreed with the report and identified actions taken to implement our recommendations. Department of Transportation officials disagreed with our recommendations and corrective actions have been taken. (CED-78-12, 12-12-77)

##### **Appropriations**

Corps of Engineers—Operation and Maintenance

Department of Transportation.

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

The Committee should require the Department of Transportation to provide it with information outlining the advantages and disadvantages of developing and disseminating drawbridge criteria so that the Committee can independently evaluate the need for such criteria.

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