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STATEMENT OF

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NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION

BEFORE THE

SUBCOMMITTEE ON LEGISLATION AND NATIONAL SECURITY

GOVERNMENT OPERATIONS COMMITTEE

HOUSE OF REPRESENTATIVES

ON

THE DEPARTMENT OF DEFENSE HAS NOT MINIMIZED THE AMOUNT OF EQUIPMENT IT PROVIDES TO CONTRACTORS

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss our review of the extent to which DOD and the services have, implemented government policies relating to the way contractors acquire, use, retain, dispose, and account for equipment the government furnishes to defense contractors. We believe that effective implementation of these policies could result in large cost-savings. (For purposes of this testimony, we define government-furnished equipment (GFE) as industrial plant equipment, other plant equipment, and special test equipment.)

As of September 30, 1984, the most recent available GFE data shows that there was over $8.4 billion worth of equipment in the possession of contractors. The total value of GFE could be even larger than these figures indicate because DOD and the services have no central accountability or visibility over how much GFE is acquired annually, how it is being used, or how much is being discarded.

This overall lack of central accountability and visibility is not unlike the situation in the government-furnished material area, on which we testified before this Subcommittee in 1981 and in 1985. We noted at that time that defense contractors were not held accountable for government-furnished property and that DOD and the services did not have the management systems in place which could independently verify contractor records. This remains unchanged today.

It appears that Defense has not minimized the amount of equipment it provides to contractors for three major reasons. First, the exception clauses of the Federal Acquisition Regulations (FAR) are so broad that they allow Defense to provide any equipment it wants to contractors. Second, contractors lack incentives for furnishing their own equipment. Third, DOD and the services have provided little guidance to their procurement officials on the buying of equipment for service contractors. Two other reasons that appear to have less impact on the amount of GFE in the hands of contractors are (1) Defense has sold few government-owned, contractor-operated plants and little equipment to the private sector, and (2) little DOD oversight exists at the field and headquarters levels.

In our opinion, DOD and the services should provide equipment only under highly unusual and clearly defined circumstances. Without such actions, the amount of GFE and the management problems and costs associated with it are likely to increase.

The Navy has recognized that large cost reductions are possible if contractors are required to provide their own equipment, and has recently issued a policy instruction to that effect. In instances where the Navy has applied this policy, it has avoided potential costs amounting to hundreds of millions of dollars. If DOD and the other services adopted the Navy's policy, large additional cost savings could be realized. In addition, having contractors provide their own equipment would

reduce the government's need to provide and account for such equipment, where the record shows that the government's interests have not been adequately protected.

BACKGROUND

DOD and the services furnish billions of dollars of equipment to contractors for use on defense research and development, production, and service contracts. According to DOD, the work on these contracts is being accomplished at 64 government-owned contractor-operated (GOCO) production plants, over 300 contractor-owned and contractor-operated (COCO) production plants, and several hundred contractor service activities. This service work includes providing services at military installations, as well as technical and engineering consulting services.

GFE includes industrial plant equipment (IPE), other plant equipment (OPE), and special test equipment (STE) used, or capable of being used, in the development and manufacture of products or performance of services. IPE includes equipment with an acquisition cost of $5,000 or more that is used to cut, grind, shape, or form metal or other materials. OPE includes equipment such as vehicles, office furniture, and materials-handling equipment. STE includes either single or multi-purpose integrated test units engineered, designed, fabricated, or modified to accomplish special purpose testing in the performance of a contract.

As of September 30, 1984, the reported value of GFE in possession of contractors was as follows:

	IPE	OPE	STE[a]	Total GFE[b]
	millions			
Air Force	$ 270.0	$1,763.0	$1,064.0	$3,097.0
Army	1,147.0	1,477.0	25.0	2,649.0
Navy	209.0	781.0	519.0	1,509.0
Other DOD activities	4.0	25.0	1,152.0	1,181.0
	$1,630.0	$4,046.0	$2,760.0	$8,436.0

[a]Amount of STE as of September 1981. This figure was compiled by a special Defense task force on GFE and was reported to the House Government Operations Committee.

[b]Equipment value totals do not account for inflation.

Of the $5.7 billion IPE and OPE total, over $2 billion was located in GOCO plants, about $0.4 billion at COCO production plants, and the remainder of about $ 3.3 billion was associated with service, research and development, and non-profit contractors.

GFE used to accomplish the work contracted appears to fall into three categories:

--general purpose equipment, such as office furniture and equipment, vehicles, and IPE designed to do operations on any piece of work suitable for the specific types of equipment;

--general purpose equipment with special features added by the original builder or subsequent user; and

--special purpose (unique application) equipment, which has no commercial application and is used only for the production of specialized defense items.

While nobody knows the exact breakdown, a past Air Force study on GFE and our work at 25 contractor locations between June 1985 and March 1986 indicate that most GFE belongs to the first category.

GFE Policy

The Federal Acquisition Regulations (FAR) set forth requirements for providing GFE to contractors and accounting for such equipment (Part 45, Government Property). The regulations provide that (1) contractors should furnish all facilities, including equipment, required for performing government contracts, and (2) agencies should not furnish IPE and OPE to contractors for any purpose, including restoration, replacement, or modernization, except when:

--the IPE and OPE will be used in a GOCO plant operated on a cost-plus-fee basis;

--the equipment will be used in support of "industrial preparedness" programs;

--the equipment will be used as a component of special tooling or special test equipment acquired or fabricated at government expense;

--as a result of the prospective contractor's written statement asserting inability or unwillingness to obtain the necessary IPE and OPE, the agency head or designee determines that the contract cannot be fulfilled by any other practical means or that it is in the public interest to provide the equipment;

--the contractor's inability to provide IPE and OPE is due to insufficient lead time--in which case, the government may provide existing equipment until the contractor can install his own equipment; and

--Defense's provision of the equipment is otherwise authorized by law or regulation.

The FAR permits the government to provide STE to contractors when it is advantageous to the government and when existing STE is unavailable.

Several methods may be used to provide GFE to contractors:

--The government may procure the equipment and furnish it directly to the contractors.

--The contractor may requisition equipment directly from government supply sources, such as base procurement offices or the General Services Administration (GSA).

--The contractor can buy or lease equipment directly from commercial sources, with the government funding or reimbursing the acquisition.

Evolution of DOD's Equipment Phasedown Policy

The government began furnishing equipment to contractors at the beginning of World War II when the government asked contractors to support requirements for a rapid mobilization. At that time, because contractors were unable or unwilling to make the huge investments required for mobilization, the government provided facilities (plants and equipment) to be operated by contractors. Newer defense firms expected the same treatment, and the procedure became an established way of doing business.

During the 1950s, contractors began investing substantial funds of their own in capital facilities, in addition to the government-owned facilities they already held. By the end of

the early 1960s, the value of contractor-owned facilities exceeded that of government-furnished facilities.

During the 1960s, DOD became increasingly concerned about the large number of facilities provided to defense contractors. Although DOD sold many facilities to the private sector, large amounts of GFE remained in the hands of contractors. A 1969 Rand study on DOD's policies and practices for furnishing GFE to defense contractors concluded that, for a variety of reasons, the total amount of GFE was not decreasing and that new, general purpose equipment was being added to the GFE inventory. The study emphasized that the high level of investment in GFE should be halted and alternatives sought to motivate contractors to acquire equipment before GFE-related problems became unmanageable.[1]

In March 1970, the Assistant Secretary of Defense (Installations and Logistics) issued a policy statement directing the services to come up with plans to phase out, over a 5-year period, all government-owned facilities, including IPE and OPE, in the possession of contractors. The policy exempted nonprofit contractors and wholly government-owned contractor-operated plants not in competition with commercial plants. In February 1971, the Deputy Secretary of Defense permitted deferment of phaseout plans at contractor plants where mobilization base requirements were being developed and where phaseout would be

[1]Edward Greenberg, Government-Owned Plant Equipment Furnished to Contractors: An Analysis of Policy and Practice, Santa Monica, Calif.: Rand Corp., Dec. 1969.

contrary to government interest or would create an economic hardship for the contractor. His memorandum delegated to the service secretaries the authority to approve exemptions and deferrals. This action has been termed the "phasedown policy."

Prior Reports

Since 1971, several reports have addressed issues related to GFE, including the effectiveness of the phaseout-phasedown policy. For example, in 1972, we stated that the criteria permitting phasedown deferment were so general that they permitted many exceptions to the phasedown and would delay much of the activity which may have been anticipated with the phaseout plans.[2]

In 1977, we reported that, while some progress had been made in reducing the amount of plant equipment in the hands of contractors, total phaseout could not be achieved under DOD and service policies and procedures at that time. We recommended, among other things, that DOD (1) obtain visibility of OPE furnished to contractors by maintaining central records on such equipment and (2) put more emphasis on identifying IPE and OPE essential to either current or wartime production and removing unneeded equipment. We also recommended that the Congress clarify GSA's authority to sell GFE to holding contractors, which is one way of reducing GFE inventories.[3]

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[2]Further Improvements Needed in Controls Over Government-Owned Plant Equipment in Custody of Contractors (B-140389, Aug. 29, 1972).

[3]Challenges to Reducing Government Equipment in Contractors' Plants (LCD-77-417, Sept. 15, 1977).

In 1983, the President's Council on Integrity and Efficiency reported that DOD's progress in implementing the phasedown policy had been limited. The study concluded that primary factors contributing to the ineffective implementation of this policy included (1) limited incentives for contractors to invest in new equipment, (2) inadequate guidelines for determining when it is in the best interest for the government to provide equipment, and (3) weak government and contractor controls over the acquisition of equipment.[4]

DOD Initiatives

DOD has taken some actions which have resulted or may result in reductions of GFE. The following are the major actions DOD has taken:

--Since 1971, the services, especially the Air Force, have sold or transferred 17 GOCO plants to contractors and state and local governments. In many of these sales, the transaction included GFE.

--Between January 1984 and February 1986, DOD has reviewed the need for the equipment the Army retains in plant equipment packages--equipment set aside to support mobilization needs. Thus far, these reviews have resulted in the elimination of 2,643 items of equipment, valued at $41.2 million.

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[4]Summary Report on Audits of Government Property in the Possession of Contractors/Grantees (Aug. 1983).

--In May 1982, DOD eliminated obsolete and idle electronic test equipment which used to be classified as IPE. About 3,000 pieces of such equipment valued at $11.5 million was discarded.

--In 1983, DOD provided Defense contract administration offices a supplement to the FAR, which modifies the existing property (including equipment) disposal procedure. This modification, called the "modified plant clearance program," is expected to result in more efficient and effective disposal actions.

--During 1985, DOD implemented a plan to restructure the general reserve of IPE.[5] This action is expected to result in the elimination of about 6,309 pieces of idle and unneeded equipment with an acquisition value of $152 million.

FACTORS IMPEDING EFFECTIVE IMPLEMENTATION OF GFE POLICIES

Overall government policies, which call for placing maximum reliance on contractors to furnish all equipment, have not been effectively implemented.

Currently, Defense does not have a management information system which identifies the quantity of equipment provided to contractors. Therefore, it is not possible to determine whether the amount of GFE has increased or decreased. However,

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[5]DOD's general reserve of IPE exists to retain equipment for immediate use by the armed forces in time of a national emergency. During peacetime, defense contractors can and do use some of the equipment from the general reserve. As of 1984, the general reserve contained 14,500 items, with an acquisition value of $385 million.

contractors do report equipment acquisition values. This data shows that, overall, the value of GFE, unadjusted for inflation, has grown from about $5.3 billion in 1971 to over $8.4 billion in 1984. The largest increases have occurred in the area of other plant equipment and special test equipment. (Industrial plant equipment has remained essentially level, with a slight downward trend.)

The value of other plant equipment has increased from over $1.9 billion to over $4 billion. The value of special test equipment has also increased, but by how much is unclear because DOD has not collected information since 1980 on the value of this equipment. However, we do know that its value doubled between 1970 and 1981--from about $1.4 to $2.8 billion--and data we obtained shows that the government has furnished contractors much additional test equipment since then.(See appendix I for OPE and IPE trends.)

We believe that some of the factors impeding DOD's policy implementation relating to GFE have been the following:

--the vagueness of the FAR provisions, which permit exceptions to become the rule, and the lack of control over these exceptions;

--limited incentives for contractors to finance procurement of required equipment;

--limited sales of government-owned plants and equipment;

--inadequate acquisition guidelines, especially for service contractors;

--weaknesses in Defense oversight of contractor acquisition, use and retention, and disposition of equipment at both the field and headquarters levels.

Vagueness of FAR Provisions and Lack of Control Over FAR Exceptions

Part 45 of the FAR provides overall policy guidance on the acquisition of GFE for the performance of government contracts. In general, these regulations state that contractors are required to furnish all equipment necessary to perform government contracts. However, the regulations provide that the government can provide IPE and OPE under the exceptions discussed on page 5 and can provide STE when it is advantageous to the government.

DOD Directive 4275.5 entitled "Acquisition and Management of Industrial Resources", and various service directives implement the FAR for production contracts. These directives call for minimum government ownership in consonance with the need to ensure economical support of essential peacetime, surge, and mobilization requirements.

According to Defense documents prepared in 1970 pertaining to DOD's phaseout-phasedown policy, service secretaries or assistant secretaries are to document and approve the IPE and OPE exceptions. The Assistant Secretary of Defense (Installations and Logistics), who was in charge of DOD's facilities phasedown program at that time, pointed out that, in his opinion, some exceptions are legitimate. He said, however, that DOD envisioned those exceptions relating to public interest

and contractor unwillingness or inability to finance equipment procurements to be limited to only a few contractors needed to produce critical defense items.

We recognize that some exceptions such as the Army's providing equipment to its 25 ammunition plants are legitimate. Because much of the equipment at these plants was provided to satisfy possible mobilization requirements rather than current production, it would be unreasonable for Defense to expect contractors to provide their own equipment. Similarly, we believe it appropriate for Defense to furnish equipment to contractors who operate overseas missile tracking systems and remote radar sites. In addition, Defense should be able to provide (1) single or special purpose equipment which has no commercial application and which is required for the production of specialized defense items and (2) plant equipment packages. However, these exceptions have not been clearly identified.

Work we performed at service headquarters activities and 25 selected contractor activities disclosed that, over the years, DOD and the services have interpreted the exceptions very loosely and have not adequately documented the basis for any exceptions granted. This has resulted in questionable acquisitions of general purpose equipment. For example:

--At one Army contractor, the government authorized the contractor to purchase about $500,000 worth of OPE, which included office trailers, furniture, equipment, and supplies. While there was no documentation supporting the exception, the program manager said that the

equipment was provided to a small business which, the program office assumed, would not be financially able to provide the equipment. However, discussions with the contractor disclosed that the contractor would have been willing and able to provide the equipment if the contract had called for it.

--At one Air Force contractor performing environmental impact studies for the Air Force's Ballistic Missile Office, the government authorized the contractor to purchase about $875,000 worth of office furniture and automated data processing equipment. Some of these items included a $1,300 oak conference table, three $1,000 oak desks, and 13 $600 bookcases. The rationale for the authorization was that the Air Force needed to have the contractor near the program office and the contractor was unwilling to provide the equipment.

--At another Air Force contractor, a GOCO facility that produces the F-16 fighter aircraft, the government permitted the contractor to acquire 22 pieces of kitchen equipment costing about $100,000 as part of a cafeteria-rehabilitation project. (This equipment included such items as a $1,500 potato peeler, a $2,400 food cutter, and two dishwashers costing about $60,000.) To justify the acquisition of the equipment, the Air Force officials cited a clause in the plant's facilities contract which calls for replacement of equipment. In addition, the property administrator stated that the

contracting officer could have used the public-interest exception clause to support this acquisition. However, since kitchen equipment does not appear to be critical to the mission of the facility, it is difficult to understand why such equipment was provided.

For all of our case studies, we attempted to obtain from government or contractor officials reasons for DOD's and the services' providing equipment to contractors. We were able to obtain only limited written documentation for such actions. Frequently, Defense contract officials told us that providing equipment to contractors would be more economical in the long run. However, they were unable to support such statements.

Contractor Incentives

Traditionally, Defense contracting policies and practices have provided little incentive or motivation for contractors to invest in equipment needed for accomplishing defense contracts. In the past, many contractors have viewed defense work as being subject to substantial risks due to the unstable nature of some of the defense programs and low profits on defense work when compared to commercial work and have, consequently, been reluctant to provide their own equipment.

In this connection, a 1985 study by the Logistics Management Institute concluded that defense work entails no more risk than commercial work.[6] Furthermore, a 1985 Navy study of profits at 22 major defense contractors concluded that the

[6]Myron Meyers et al, Facilities Capital as a Factor in Contract Pricing, Bethesda, Md.: Logistics Management Institute, May 1985.

contractors made considerably more profit on defense work than on their commercial endeavors. For example, the report noted that during 1984 the contractors made more than twice as much profit on government work as on commercial business when their gains were measured against what they had invested in plants and other assets.[7] The validity of this study was supported by Peat, Marwick, Mitchell and Company, a major accounting firm, in a letter to the Assistant Secretary of the Navy for Shipbuilding and Logistics (November 21, 1985).

The government's furnishing equipment to contractors also provides little incentive for contractors to be prudent in acquiring equipment. Some Defense officials believe that, as a result, contractors are procuring excessive quantities of equipment, especially production tooling and special test equipment. The Assistant Secretary of the Navy for Research and Development, Engineering, and Systems said that this belief was one of the reasons for implementing a new policy in November 1985 designed to strengthen and improve the weapon-system acquisition process. Under this policy, he said, contractors are expected to provide production tooling and STE, as well as the facilities, including IPE and OPE, required for program execution once production has been approved. (Also, the policy provides for greater competition and earlier use of fixed-price contracts.)

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[7]Robert R. Gigliotti, Financial Analysis of Major Defense Contractors, RRG Associates, Aug. 20, 1985.

The Assistant Secretary stated that the Navy expected to save billions of dollars by implementing this policy. He said that, when contractors are required to purchase their own tooling and test equipment, they are much more circumspect in acquiring such equipment. For example, he noted that applying the new policy to the Navy's CG-47 (Aegis cruiser) and the V-22 aircraft programs had avoided costs of $728 million and $300 million, respectively. He stated that, while he could not readily identify what portion of the Aegis-cruiser cost avoidance was directly attributable to the equipment provision of the new policy, he believed that this provision had made a major contribution. However, according to the Assistant Secretary's staff, all of the V-22 figure is attributable to the equipment provision. Furthermore, he noted that, when contractors buy new equipment, they generally buy state-of-the-art equipment which, in turn, enhances the quality of their products and improves their productivity.

In addition to the new Navy policy, DOD initiated in 1981 a program to improve the effectiveness of the Defense Acquisition Program for major weapon systems. One of the principal thrusts of this program is to provide contractors with incentives to improve their productivity through increased capital investments. Some of this program's initiatives include multiyear procurement, program stability, and other specific incentives for investment in facilities and equipment. While it is still too early to determine the effectiveness of this program in increasing contractor investments in equipment and

decreasing the amount of GFE, data provided by DOD to this Subcommittee indicates that some progress has been made. For example, the Navy said that $13.5 million worth of IPE has been removed as a direct result of implementing the program. The Army projects that 653 pieces of IPE valued at $21.5 million will be eliminated. The Air Force did not provide information on IPE reductions because such information was not readily available. However, our work at its GOCO plant at Fort Worth, Texas, which is operated by General Dynamics, showed that it may be sizable. At that plant, the quantity and value of government-furnished IPE decreased by 330 pieces valued at about $20 million since 1977. At the same time, the contractor's investment increased by 679 pieces, valued at about $87 million.

Opportunities for Greater Sales of Government-Owned Plants and Equipment

Defense policy is to minimize its ownership of industrial facilities to the maximum extent practicable and still provide assurances that facilities are available to produce essential defense items. One way this can be accomplished is by selling GOCO plants, including equipment, to the private sector. Another way is to sell equipment located at COCO plants. Currently, the services own 64 GOCO plants containing GFE valued at almost $2.7 billion, and plant equipment valued at about $400 million in over 300 COCO plants. (See appendix II for a breakdown of the GOCOs, by service.)

We found that, except for the Air Force, few sales of plants and equipment have been made because of (1) perceived

legal barriers to such sales, and (2) the lack of studies assessing the need for continued government ownership of such plants and equipment.

GOCO Plant Sales

The services have differed in the way they have implemented GOCO plant sales. The Air Force has sold 13 plants since 1971.[8] In contrast, the Army and Navy combined have sold only 2 each. The Air Force has been able to sell more plants by using the concept of "excess to government ownership but not excess to government requirements." Under this concept, the Air Force considers ownership of the facilities to be nonessential if the facilities can still be made available to satisfy DOD production requirements. Only 4 of the Air Force's current 13 GOCO plants do not meet the above concept and thus have to be retained. The remaining 9 plants are being reviewed for potential sale. Regarding the 4 needed plants, Air Force officials commented that only the plants need to be retained--not the plant equipment. The Air Force plans to dispose of this equipment in the future. Air Force officials noted that they have used this procedure once already, at the GOCO plant in Tucson, Arizona, operated by Hughes Aircraft, Inc. In that case, the Air Force sold or excessed over $8 million worth of plant equipment but did not sell the plant.

The Army, on the other hand, does not recognize the excess-to-ownership concept. An Army official stated that the

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[8]Information on the amount of GFE contained in the plants sold was not readily available.

Army retains its GOCO plants if there are some established peacetime or mobilization requirements for them. However, in a limited review of the existing 32 Army GOCO plants, we found several cases where either the peacetime or wartime requirements were questionable. For example, we noted that (1) the Carbonyl Plant in Huntsville, Alabama, performs no defense work, and (2) the Tarheel Missile Plant in Burlington, North Carolina, has no mobilization requirement. Furthermore, this latter plant performs work primarily for the Navy. Army officials stated that they are studying the need to retain the Army's 7 nonammunition GOCO plants.

The Navy has also made only limited efforts to determine which of its remaining 19 plants might be excess to needs. Discussions with one official from the Navy's Strategic Systems Program Office disclosed that 3 plants under the cognizance of the Office, which contained equipment valued at about $191 million, could probably be sold because government ownership of these plants was not critical to the Navy's peacetime or mobilization requirements. An official from the Naval Air Systems Command stated that the Command could not sell its 10 plants because the current contractors operating the plants were uninterested in buying the plants and equipment. He noted, however, that several of the contractors would have been willing to buy the equipment alone.

In a June 1985 memorandum to the Navy's General Counsel, a staff member working for the Assistant Secretary of the Navy (Shipbuilding and Logistics) stated that the Assistant Secretary

is concerned that the Navy is devoting too much management time and resources (money and people) to its 19 GOCOs. In 1984 and 1985, the Navy obligated about $64 million and $56 million, respectively, to improve the GOCO facilities. The staff member also said that, while, in his opinion, it may not be practicable to force all current contractor-operators to buy these facilities and equipment, he believed that a number of these facilities could be sold and that it would make good business sense to do so. In addition, he said, he did not think that selling them would degrade any mobilization plan efforts. Subsequently, we were told that the Assistant Secretary is reviewing a plan to identify potential candidates for sale or transfer.

Equipment Sales at COCO Plants

As in the case of GOCO plants, the Air Force is making greater strides in reducing the amount of equipment it owns at contractor-production plants. Since 1971, it has had GSA negotiate the sale of over $22 million of GFE directly to the holding contractors, using the excess-to-ownership but not excess-to-need rationale.

The Army and Navy have not made such sales because of a 1970 legal opinion, by the Defense General Counsel, which was reiterated in 1975, that no disposal authority exists to adequately support a Defense program which seeks to dispose of nonexcess government-owned industrial equipment on a negotiated basis to contractors in possession of such property at their plants.

GSA, however, believes that it has authority to sell such equipment under the Federal Property and Administration Services Act of 1949, as amended (40 U.S.C. 484[e][3][G]), and has done so. GSA considers each proposed sale individually and negotiates sales only when the agency believes that the sale is within its authority. Independent appraisals to determine the fair market value of the equipment are made, and a selling price approximating that value is negotiated with the contractors. When GSA determines that it does not have sales authority for an individual case, the sale is not made.

A Commission on Government Procurement recognized in the mid-1970s that Defense efforts to divest itself of equipment had been hampered by the lack of clear authority to negotiate sales with the using contractor of equipment which is excess-to-ownership and recommended that legislation be enacted to authorize such sales.

GAO has supported legislation in the past which has attempted to clarify GSA's authority to dispose of nonexcess government equipment and, in 1977, GAO recommended that such legislation be enacted. However, the Congress has not acted on this recommendation. DOD is now again considering asking for legislation that would resolve this issue.

Inadequate Acquisition Guidelines

DOD and the services have developed guidance to implement the FAR provisions. However, the implementing instructions do not provide procurement officials with sufficient guidance to assist them in making a decision on when equipment should be

government- or contractor-financed. Existing guidance does not ensure that all costs and risks are assessed in making a decision as to who should fund the acquisition of equipment. We found that, with only a few exceptions, the government was providing equipment based on past practices or contractor preference, justifying the new equipment generally by the exception provisions previously discussed.

The Air Force and Navy have made provisions to require the acquisition of new plant equipment at GOCO plants under facilities contracts, which allow the government to reimburse the contractor for only the actual cost of the equipment, with no add-ons for profit or fees. However, we found that some local Air Force officials ignored the requirement and permitted contractors to acquire new plant equipment under supply and production contracts, which allow contractors to add profits or fees to the purchase price. For example, one Air Force contractor recently acquired from commercial services 24 general purpose vehicles--like pickup trucks, vans, jeeps, and lift trucks--valued at $630,000 under the B-1B production contract and added a 14-percent profit, or about $88,000, to that total. Air Force contract management division officials provided us with documentation showing that such practice is widespread.

The Air Force and the Navy are attempting to limit the amount of equipment they provide to GOCOs. However, the Army provides practically all the plant equipment needed to sustain its GOCO operations. For example, it provided essentially all

the $87.3 million worth of equipment currently at the Lima, Ohio, tank plant.

There is no guidance for the several hundred contractors performing service work either at military installations or at contractor-owned facilities. While FAR provisions can be applied to service contractors, DOD and service directives implementing FAR are silent on this topic. As a result, equipment-purchase decisions are left to the judgment of program managers and local procurement officials.

We found several problems with this process. For example:

--At one Air Force contractor, local Air Force contracting officials authorized the purchase of 99 vehicles--85 general and 14 special purpose--at a total cost of $1.2 million, even though (1) the contract specified that the contractor was to provide all transportation services, and (2) the contractor had set aside $2 million for vehicle acquisitions. The contracting officials stated that it was always intended that the Air Force would provide the vehicles, notwithstanding what was stated in the contract. They added that the reason for this was an unfavorable experience with the previous contractor which centered around a special purpose tractor-type vehicle that was used to retrieve objects from the salt flats in Utah. The Air Force wanted the current contractor to use the vehicle as well; however, the previous contractor refused to sell it unless the new contractor also

purchased 47 additional general purpose vehicles. The new contractor, with the concurrence of the Air Force, purchased all 48 vehicles for $363,500. Within a year, 17 of the general vehicles were disposed or traded in, at one-fourth of the value paid for them.

--At one Navy contractor, the Navy provided over $300,000 worth of audiovisual equipment, even though such action was not authorized in the contract.

--At one DOD contractor, the contractor acquired a computer, valued at $142,000, which was used for only half a year before DOD told the contractor to replace it with another computer. The computer has been in storage since March 1985 awaiting disposition instructions.

Weaknesses in Defense Oversight at the Field Level

The government exercises little oversight over the equipment it provides to contractors. In 1985, we testified that DOD has experienced, since 1967, recurring problems with the management of and accountability for GFE. We stated that this situation existed because FAR provisions were not adequately enforced and that FAR guidance on recording the use of GFE was inadequate. Our present case studies disclosed that the lack of government oversight continues, contributing to the increasing trends of GFE.

We found that significant weaknesses exist in DOD and service oversight of the acquisition, use and retention, and disposition of GFE. In many cases, Defense procurement

officials delegate their oversight and review responsibilities to the contractors. That is, the contractor determines the quantity and types of equipment to be funded, retained, or disposed of, with little review by Defense officials. Some contractors ignored established controls for the approval of GFE acquisition or bypassed, with Defense officials' concurrence, established acquisition procedures. In summary, Defense oversight was not always of sufficient detail to ensure that only needed equipment was acquired or retained and that costs were kept at a minimum.

Sufficient documentation did not always exist to adequately support GFE-acquisition requests. We experienced difficulties in determining why items were ordered because existing files often contained no basis or support for such acquisitions. Furthermore, we found little evidence that the contractors had considered any alternatives.

The following examples describe some of the oversight weaknesses we found in our case studies.

Acquisition: Disallowed or Unauthorized Procurements

Contractors charged procured items directly to contracts which either the Defense Contract Audit Agency (DCAA) or procurement officials deemed to be either unallowable or unauthorized.

--At one location, a Navy contractor billed items as direct charges against several contracts, although the contracts did not specifically authorize him to do so. For example, the contractor acquired such items as a tripod

stand for $80, a steel cart for $62, and cardboard boxes for $84. We also found two entries, called "food trays," valued at $157. Investigation revealed that the food trays were actually trays of food catered for luncheon meetings between Navy and contractor officials. Subsequent follow-up work disclosed that trays of food were routinely provided. During calendar year 1984, an additional 20 luncheon meetings took place, and food valued at over $1,400 was catered for these meetings. Contractor officials agreed that direct charging of food trays to government contracts was inappropriate, and advised us that they were going to take action which would specifically prohibit such charges in the future.

--An Air Force contractor purchased from commercial sources over $875,000 worth of office furniture and ADPE as a direct charge to an Air Force contract. According to the Air Force Audit Agency, office furniture items alone could have been procured for about $47,000 less by using the services of the base procurement office. In January 1985, a DCAA report recommended that office furniture and ADPE acquisition costs be disallowed because the equipment purchase was in violation of the FAR. However, the program management officials disagreed with DCAA's position; local Air Force contracting officials said that it was the program manager's decision; and DCAA considered the issue closed.

--A DOD contractor charged several items that DCAA determined to be "nonallowable costs" directly to two contracts. These items included a $411 beeper/pager, a $28 dictionary, a $12 appointment book, and two $15 wallets. According to contractor officials, such items have been routinely charged to contracts with the DOD program manager's approval.

Acquisitions Outside Normal Procurement Channels

Normal procurement practices include making certain that purchases of general purpose IPE and OPE under facilities rather than production contracts, screening existing government stocks, using GSA supply schedules where possible, and making lease-versus-purchase determinations. However, we found that contractors were not always following these practices, and the purchases did not receive adequate government review. As a result, extra costs were incurred, and GFE inventories increased. For example:

--One Air Force contractor who builds the F-16 fighter aircraft acquired, with the concurrence of the program manager, over $7 million worth of automated data processing equipment (ADPE) between 1981 and 1985 under production contracts, which allow such add-ons as profits and general administrative expenses, rather than facilities contracts, which do not permit add-ons. According to existing acquisition regulations, such equipment is to be purchased under facilities contracts. In this case, Air Force Plant Representative and DCAA

officials estimate that the Air Force may have paid the contractor an extra 15 to 41.8 percent which may have added $1 million to $3 million more than necessary for this equipment. Air Force program officials explained that one reason for using the production contract to acquire the ADPE from commercial sources rather than through normal government procurement channels was to enable the contractor to make engineering and contract changes more expeditiously in order to "keep the aircraft at the leading edge of technology." They indicated that they planned to continue buying ADPE under production contracts, despite the objections of Defense and Air Force contracting officials, to meet the program's mission objectives. (We did not review whether the program's mission objectives were realistic or whether they could have been met without resorting to the use of production contracts.)

--An Army contractor acquired over $500,000 worth of ADPE and office trailers, furniture, equipment, and supplies from private vendors and charged the government $142,000 for overseeing the acquisition. Before buying the equipment, they did not screen available government inventories or use GSA supply schedules. We found that the contractor could have acquired the furniture items from a local GSA furniture rehabilitation center for 24 to 63 percent less than the commercial rate paid by the contractor. For example, the contractor paid $140 for

filing cabinets that could have been obtained from the GSA center for $58. The Army program manager told us that the equipment was bought from private vendors because government channels would not have been able to respond promptly enough. However, GSA told us that it could have provided the furniture within a week, if necessary.

--Local Air Force contracting officials permitted a contractor to purchase 85 general purpose vehicles valued at about $744,000 without using government supply sources. According to a recent Air Force Audit Agency report, Air Force regulations, which state that all requests for vehicles in support of contractor personnel should be approved at Air Force headquarters, were not followed. As a result, the report questioned the propriety of the vehicle acquisitions. The purchase of the 85 vehicles without using government procurement channels resulted in the contractor's paying about $2,200 more per vehicle than was necessary.

We also found one contractor who, at the Air Force's direction, purchased $61 million worth of equipment during a 3-year period, including pens, television sets, and major computer systems needed to equip and maintain Air Force laboratory and testing facilities. The purchases were made through service contracts which permitted the contractor to add such charges as profit and material-handling to the acquisition costs. For three service contracts, where equipment purchases

totaled over $16 million, we estimate an additional $1.3 million was added for materials-handling and profit. Air Force officials stated that the unavailability of in-house resources and the lack of timeliness of base-procurement channels justified the purchases. We did not assess the availability of in-house resources. However, we question whether purchasing lead times--which the Air Force uses to justify outside procurements--were appreciably different for the contractor and base procurement.

Use and Retention: Excessive Quantities

We found that quantities of GFE at contractor locations were either in excess of that required by active contracts or were being used very little. Much of the excess equipment was in storage and had not been reported to DOD or service officials as excess. The problems with retaining excess equipment are that unnecessary storage costs must be paid, and the equipment is unavailable for use by other contractors.

--At a DOD contractor who does work for all three services, GFE was warehoused at a cost of $79,000 in 1985. This equipment included 1,545 STE items, valued at about $10 million, for use on active contracts. Some of the items had been in the contractor's warehouses for over 15 years. When we brought this matter to the attention of a top contractor official, he issued a directive for a thorough review of all warehoused STE items. This review has so far indicated that much of the equipment may be excess and available for use elsewhere

or for disposal. For example, out of 263 STE items retained for over 15 years, 256 items valued at about $1.8 million were considered excess to the contractor's needs.

--Between 1980 and 1983, an Army contractor acquired 47 pieces of plant equipment valued at over $1.6 million under four contracts. This equipment was provided to develop and manufacture fuzes for the Multiple Launch Rocket System. Work on two of the contracts--which required the use of 42 of the pieces of equipment, valued at about a million dollars--was completed over 2 years ago, and work on all four contracts has been completed for over a year. Contractor use records from January 1984 to November 1985 show that the 47 items had a collective use rate of 1.2 percent. Only 13 of the pieces of equipment have been used for production purposes, and then only 4.4 percent of the time. A government contract administration official said that he believed that most of the equipment was excess to future needs. Three Army commands are currently trying to decide what to do with the equipment.

--At an Air Force contractor, a sample check of 37 OPE items valued at about $27,000 showed that many of the items were being kept even though the items were apparently in excess. For example, a $1,750 video recorder was not being used and, when we questioned it, it was declared excess by the responsible supervisor.

Also, we noted that three cameras priced at $900 were located in a storage cabinet. The contractor official responsible for the equipment said that the cameras were surplus and would be declared excess when he had the time.

--At another Air Force contractor who is involved in the research, development, and production of seismic equipment, equipment valued at about $863,000 had been acquired by the Defense Advanced Research Projects Agency to monitor underground nuclear explosions and other seismic events of interest. The equipment, not used since the late 1970s, when the United States signed the underground nuclear test ban treaty, was placed into storage in 1980. It stayed in storage until May 1985, when the Air Force decided to assemble and refurbish three seismic monitoring systems using equipment stored at the contractor. In February 1986, the contractor estimated that only about $75,000 worth of the stored equipment would be used, leaving a balance of about $788,000 to be excessed.

Use and Retention: Unsupported Need

Contractor and Defense officials often did not adequately evaluate the continued need for particular types of equipment. We found that, at most of the contractors reviewed, equipment was routinely transferred from contract to contract without any documented assessment of needs. The following are some examples:

--One DOD contractor who does work for all three services had retained 817 STE items valued at about $1.2 million

under a no-cost storage contract to support potential spare-parts requirements and future production orders. However, 72 of them had been in the warehouse for 9 years or longer. After we questioned the continued need for these items, a top contractor official agreed to look into the matter. The Navy official responsible for the storage contract with the contractor stated that he was not surprised with our finding since, historically, the contractor had been reluctant to declare equipment excess. In January 1986, he told us that the contractor was taking action to dispose of some of this equipment.

--At one Navy contractor, the amount of OPE has stayed constant at about $2.1 million for many years because it has been rolled forward from one facilities contract to another. Our review of the OPE showed that the government had apparently not required the contractor to make a needs assessment for this equipment. As a matter of fact, we found that about $420,000 worth of OPE could not be located, because the contractor did not maintain adequate control over the equipment. The contractor has requested and received relief from accountability for these items.

--One Navy contractor has routinely transferred equipment used for its torpedo-production contracts from one contract to the next without a needs assessment to justify retention. This contractor said that he does not believe that the contractor is responsible for reporting

excess equipment and, if there is any potential future use, he intends to hold on to equipment until obsolescence. We believe that some of this equipment is probably in excess of the contractor's needs. For example, 36 items, valued at $770,000, had been in storage for an indeterminate length of time. Also, a utilization report identified that 15 of 114 items had not been used in 9 months.

Untimely Disposition

Contractor and Defense officials do not always take timely action to dispose of GFE declared excess to government needs. For example:

--At one Navy contractor, 354 pieces OPE and STE equipment, valued at $4.5 million, had been excess to contract needs since as far back as 1977. The contractor had requested disposition instructions from the prime contractor, but failed to follow up when no disposition instructions were received. The contractor has just now initiated action to dispose of the equipment.

--At an Army contractor, 24 items of OPE, valued at about $45,000, had been in storage for 3 to 15 months. The contractor had not advised government property administration personnel of this situation. However, contractor officials told us that the OPE items were excess to needs and that the contractor now plans to request disposition instructions for all the items.

--A Navy contractor retained 39 OPE items valued at about

$1.4 million in his warehouse for over 4 years. Although the contractor repeatedly asked the Navy for disposition instructions, the Navy did not respond, reportedly because of reorganizations and reassignments of key personnel.

--At an Air Force contractor, equipment valued at about $30,000 was declared excess to government contract needs between September 1983 and July 1984. Although the contractor repeatedly requested disposition instructions from Air Force project managers, such instructions were never provided. In 1985, the government property administrator decided to no longer wait for disposition instructions for this excess equipment and declared it surplus. The equipment is now in the process of being discarded.

Lack of GFE Management at Headquarters

At the present time, there is no centralized management of GFE at the headquarters level. Instead, management is vested in the Defense Government Property Council, supplemented by focal points within each of the services.

In lieu of the central office recommended by the Subcommittee in 1981, Defense established the Council in April 1983. As we pointed out in our 1985 testimony, this Council is understaffed, operates only on an ad hoc basis, and has no authority to direct the services to take corrective action where appropriate. Furthermore, it does not have the information

it needs to manage GFE effectively. For example, it does not know

--how much GFE has been and currently is in the possession of contractors;

--how much new equipment is being acquired by and for contractors each year;

--how much equipment is transferred annually from government to contractor inventories;

--how the equipment is being used--whether for research and development, production, or service work; and

--how much equipment is being disposed of annually.

At the present time, most of this information can be obtained only by contacting each of the contractors individually. Since there are over 900 prime defense contractors, this is a time-consuming process. For example, although the Subcommittee requested information on GFE use and disposal actions in mid-November 1985, the Council did not provide the information until March 1986. Furthermore, the information was not complete, because the Army has not yet furnished all of its input.

DOD has only recently recognized the need to collect and maintain such summary information. It is developing a data base for operation by property managers--the "DOD Industrial Property Management System." DOD expects that parts of this system should be operational by June 1986, with other parts to be phased in as soon as possible.

We endorse DOD's action in this area. However, we believe that the new system will not be totally satisfactory. For example, it will not account for the amount of equipment that is being transferred annually from government to contractor inventories, as work previously done by service personnel is contracted out to the private sector. Our work disclosed that the value of such transfers may be significant, especially on service-contract work. Also, we are concerned that DOD has not established a target completion date for total system implementation. In our opinion, this date should be not later than the projected 1989 completion date for full implementation of DOD's property accounting standards currently under development.

We noted similar problems at the services. Again, information on GFE is lacking, which makes it difficult, for example, to identify what progress has been made to implement DOD's phasedown policy. Furthermore, staffing of the GFE function is minimal. For example, the Army has no full-time staff assigned to it at the headquarters level, and the Navy has not yet replaced the only person who performed this function since his retirement in early January 1986.

In our 1985 testimony, we agreed with the Subcommittee's recommendation for an adequately staffed central office to improve management of and accountability for government-furnished material and recommended that it be extended to GFE. We still believe that the establishment of such a central office at either the Office of the Secretary of Defense (OSD) or at the service headquarters level is desirable.

* * * * *

In summary, DOD and the services have made little progress since 1971 in implementing overall government policies which call for minimizing the amount of equipment the government furnishes to contractors. Major factors impeding progress, in our opinion, include:

--vagueness of FAR provisions, which have allowed government officials to permit contractors to acquire new, general purpose equipment;

--limited Defense efforts to motivate contractors to provide their own equipment;

--lack of sales of government-owned plants;

--uncertainties about the legal authority to sell nonexcess GFE to holding contractors;

--inadequate equipment acquisition guidelines, especially for service contractors; and

--continuing management oversight problems at field and headquarters levels over the acquisition, use and retention, and disposal of GFE.

We believe that greater progress to implement government GFE policies could be made if:

--The FAR were rewritten to allow Defense to provide equipment to contractors only under highly unusual circumstances which are clearly defined, adequately controlled, and properly justified. Accordingly, we believe, Defense should
incorporate the Navy new acquisition policy, which calls for contractor's to furnish equipment to the maximum extent possible.

--the Army and Navy made greater efforts to identify the government-owned plants which could be sold;

--the Congress clearly defined GSA's authority to sell Defense equipment to holding contractors;

--Defense established firm equipment-acquisition guidelines for service contractors;

--Defense better enforced the existing FAR on equipment acquisitions, use and retention, and timely disposition; and

--an adequately staffed central office for government-furnished property, including GFE, were established at either the OSD or service headquarters level.

As our work disclosed, without such actions, the management problems and costs associated with them are likely to increase.

Plant Equipment in Possession of Contractors

Year	Army		Navy		Air Force		DLA		Others		Total		Total Plant Equipment
	OPE	IPE	OPE	IPE	OPE	IPE	OPE	IPE	OPE	IPE	OPE	IPE	
	Billions												
1971	$0.525	$0.700	$0.460	$0.358	$0.906	$0.987	$0.001	$0.006	$0.011	$0.001	$1.903	$2.052	$3.955
1972	0.576	0.692	0.275	0.308	1.448	0.913	0.001	0.003	0.011	0.001	2.311	1.917	4.228
1973	0.550	0.653	0.238	0.304	1.341	0.828	0.004	0.004	0.012	0.001	2.145	1.790	3.935
1974	0.659	0.622	0.258	0.308	1.462	0.765	0.006	0.003	0.013	0.002	2.398	1.700	4.098
1975	0.552	0.617	0.274	0.311	0.975	0.746	0.014	0.003	0.013	0.001	1.828	1.678	3.506
1976	0.619	0.615	0.265	0.307	1.424	0.701	0.003	0.002	0.013	0.002	2.324	1.627	3.951
1977	0.693	0.680	0.248	0.281	0.645	0.633	0.003	0.002	0.011	0.002	1.600	1.598	3.198
1978	0.772	0.861	0.352	0.275	1.383	0.581	0.003	0.002	0.011	0.002	2.521	1.721	4.242
1979	1.143	0.787	0.315	0.248	1.325	0.546	0.003	0.002	0.010	0.002	2.796	1.585	4.381
1980	0.901	0.934	0.293	0.259	1.343	0.511	0.003	0.002	0.010	0.002	2.550	1.708	4.258
1981	0.971	0.935	0.281	0.247	1.281	0.484	0.003	0.003	0.014	0.003	2.550	1.672	4.222
1982	1.124	1.135	0.652	0.232	1.422	0.392	0.003	0.002	0.016	0.002	3.217	1.763	4.980
1983	1.304	1.217	0.741	0.222	1.624	0.324	0.003	0.002	0.017	0.001	3.689	1.766	5.455
1984	1.477	1.147	0.781	0.209	1.763	0.270	0.003	0.003	0.022	0.001	4.046	1.630	5.676

Source: Report of Government (DOD) Facilities in Possession of Contractors (DAR B-311, C311), DOD Summary.

APPENDIX I

APPENDIX II

Listing of Government-Owned, Contractor-Operated Plants and Equipment by Military Service As of September 30, 1984[a]

Plant	Contractor	Plant location	Status	Products produced	IPE and OPE	STE	TOTAL
					millions		
ARMY:							
Scranton Ammo Plant	Chamberlain Mfg. Corp.	Scranton, PA	Active	Ammunition	$ 49.9	$ -	$ 49.9
Lone Star Ammo Plant	Day and Zimmerman	Texarkana, TX	Active	Ammunition	71.4	0.5	71.9
Kansas Ammo Plant	Day and Zimmerman	Parsons, KS	Active	Ammunition	26.0	0.1	26.1
Hawthorne Ammo Plant	Day and Zimmerman	Babbitt, NV	Active	Ammunition	20.3	-	20.3
Radford Ammo Plant	Hercules, Inc.	Radford, VA	Active	Ammunition	94.1	-	94.1
Holston Ammo Plant	Holston Defense Corp.	Kingport, TN	Active	Ammunition	60.8	-	60.8
Indiana Ammo Plant	ICI Americas, Inc.	Charlestown, IN	Active	Ammunition	66.1	.1	66.2
Milan Ammo Plant	Martin-Marietta Alum. Sales, Inc.	Milan, TN	Active	Ammunition	53.2	-	53.2
Mississippi Ammo Plant	Mason-Chamberlain, Inc.	Picayune, MI	Active	Ammunition	101.7	0.8	102.5
Iowa Ammo Plant	Mason-Hanger, Silas-Mason, Inc.	Middletown, IO	Active	Ammunition	35.7	0.3	36.0
Louisiana Ammo Plant	Morton-Thiokol, Inc.	Shreveport, LA	Active	Ammunition	79.0	-	79.0
Lake City Ammo Plant	Olin Corp.	Independence, MO	Active	Ammunition	117.9	1.9	119.8
Longhorn Ammo Plant	Thiokol Corp., Longhorn Division	Marshall, TX	Active	Ammunition	9.3	-	9.3
Sunflower Ammo Plant	Hercules, Inc.	DeSoto, KS	Active	Ammunition	59.1	0.1	59.2
St. Louis Ammo Plant	Donovan Construction	St. Louis, MO	Inactive	Ammunition	32.7	-	32.7
Twin Cities Ammo Plant	Federal Cartridge Corp.	New Brighton, MN	Inactive	Ammunition	55.5	0.2	55.7
Volunteer Ammo Plant	ICI Americas, Inc.	Chattanooga, TN	Inactive	Ammunition	25.7	-	25.7
Cornhusker Ammo Plant	Mason-Hanger, Silas-Mason, Inc.	Grand Island, NE	Inactive	Ammunition	3.6	-	3.6
Riverbank Ammo Plant	NI Ind. Inc. (Norris Ind.)	Riverbank, CA	Inactive	Ammunition	33.2	-	33.2
Badger Ammo Plant	Olin Corp. Winchester GP	Baraboo, WI	Inactive	Ammunition	47.4	0.9	48.3
Hays Ammo Plant	Plant Factory and Engineering	Pittsburgh, PA	Inactive	Ammunition	6.7	0.1	6.8
Ravenna Ammo Plant	Ravenna Arsenal, Inc.	Ravenna, OH	Inactive	Ammunition	56.0	-	56.0
Joliet Ammo Plant	Uniroyal, Inc.	Joliet, IL	Inactive	Ammunition	87.8	-	87.8
Newport Ammo Plant	Mason-Hanger	Newport, IN	Inactive	Ammunition	26.5	-	26.5
Carbonyl Iron Plant	GAF Corp.	Huntsville, AL	Active	Iron powder	1.3	-	1.3
Redstone Arsenal	Morton-Thiokol, Inc.	Redstone Arsenal, AL	Active	Missiles and propellants	9.2	-	9.2
Detroit Arsenal Tank Plant	General Dynamics	Warren, MI	Active	Tanks	58.2	1.0	59.2
Lima Army Tank Plant	General Dynamics	Lima, OH	Active	Tanks	79.5	7.8	87.3
Tarheel Missile Plant	AT&T Technologies	Burlington, NC	Active	Missiles	25.7	4.6	30.3
Saginaw Aircraft Plant	Bell Helicopter-Textron	Saginaw, TX	Active	Helicopters	8.0	2.5	10.5
Stratford Engine Plant	AVCO-Lycoming	Stratford, CT	Active	Aircraft and tank engines	38.0	4.9	42.9

[a]The Government-owned contractor operated plants listed in this table have been identified by the services as being part of the Defense industrial reserve retained for national emergency as directed by Public Law 93-155 (Defense Industrial Reserve Act of 1973).

APPENDIX II

Listing of Government-Owned, Contractor-Operated Plants and Equipment by Military Service
As of September 30, 1984

Plant	Contractor	Plant location	Status	Products produced	IPE and OPE	STE	TOTAL
					millions		
ARMY: continued							
Phosphate Development Works	Tennessee Valley Authority	Sheffield, AL	Inactive	Chemical munitions	$ 7.3	$ -	$ 7.3
Total: 32 Army Plants				Total Dollar Value Army	$1,446.8	$ 25.8	$1,472.6
AIR FORCE:							
AF Plant PJKS	Martin-Marietta	Waterton, CO	Active	Electronics	$ 16.2	$ 38.0	$ 54.2
AF Plant #3	McDonnell Douglas and			Aircraft com-	10.8	-	10.8
	Rockwell International			ponents and	3.4	-	3.4
		Tulsa, OK	Active	overhaul			
AF Plant #4	General Dynamics	Ft. Worth, TX	Active	Aircraft	47.9	48.0	95.9
AF Plant #6	Lockheed	Marietta, GA	Active	Aircraft	35.2	23.8	59.0
AF Plant #19	General Dynamics	San Diego, CA	Active	Aircraft and missile components	10.5	-	10.5
AF Plant #36	General Electric	Evandale, OH	Active	Aircraft engines	53.7	1.6	55.3
AF Plant #38	Bell Aerospace Textron	Porter, NY	Active	Lasers	1.6	2.2	3.8
AF Plant #42	Lockheed				0.7	-	0.7
	Northrop				2.8	-	2.8
	Rockwell				10.9	-	10.9
	McDonnell Douglas	Palmdale, CA	Active	Aircraft	-	-	-
AF Plant #44	Hughes Aircraft	Tucson, AZ	Active	Missiles	7.7	77.0	84.7
AF Plant #59	General Electric	Binghamton, NY	Active	Avionics	1.8	-	1.8
AF Plant #70	Aerojet Strategic Propulsion	Sacramento, CA	Active	Missiles	17.0	-	17.0
AF Plant #78	Morton-Thiokol, Inc.	Brigham City, UT	Active	Missiles	14.2	.1	14.3
AF Plant #85	Rockwell International	Columbus, OH	Active	Aircraft	24.3	.6	24.9
Total: 13 Air Force Plants.				Total Dollar Value Air Force	$ 258.7	$191.3	$ 450.0
NAVY:							
Naval Weapons Industrial Reserve Plant	Hercules	McGregor, TX	Active	Rocket motors	$4.8	$0.9	$5.7
Naval Weapons Industrial Reserve Plant	Teledyne, CAE	Toledo, OH	Active	Jet engines	6.8	-	6.8

APPENDIX II

Listing of Government-Owned, Contractor-Operated Plants and Equipment by Military Service
As of September 30, 1984

Plant	Contractor	Plant location	Status	Products produced	IPE and OPE	STE	TOTAL
					millions		
NAVY: Continued							
Naval Weapons Industrial Reserve Plant	Grumman	Bethpage, NY[b]	Active	Aircraft	$21.6	$107.1	$128.7
Naval Weapons Industrial Reserve Plant	Grumman	Calverton, NY[b]	Active	Aircraft			
Naval Weapons Industrial Reserve Plant	Raytheon	Bristol, TN	Active	Missile components and missile radar	9.8	1.4	11.2
Naval Weapons Industrial Reserve Plant	Kaman Aerospace	Bloomfield, CT	Active	Rotor blades for helicopters	3.1	0.5	3.6
Naval Weapons Industrial Reserve Plant	General Offshore Corp.	St. Croix, U.S.V.I.	Active	Electronics (sonobuoys)	3.8	-	3.8
Naval Weapons Industrial Reserve Plant	Raytheon	Bedford, MA	Active	Missiles	2.2	34.6	36.8
Naval Weapons Industrial Reserve Plant	McDonnell Douglas	St. Louis, MO	Active	Aircraft	40.0	143.0	183.0
Naval Weapons Industrial Reserve Plant	LTV Vought	Dallas, TX	Active	Aircraft	27.7	9.0	36.7
Naval Industrial Reserve Ordnance Plant	General Electric	Pittsfield, MA	Active	Missile guidance and fire control systems	16.3	13.6	29.9
Naval Industrial Reserve Ordnance Plant	Hercules	Magna, UT	Active	Missiles	9.9	0.3	10.2
Naval Industrial Reserve Ordnance Plant	FMC	Minneapolis, MN	Active	Missile launching systems and gun mounts	37.7	0.3	38.0
Naval Industrial Reserve Ordnance Plant	Lockheed	Sunnyvale, CA	Active	Missiles	48.5	132.4	180.9
Naval Industrial Reserve Ordnance Plant	General Dynamics	Pomona, CA	Active	Missiles and gun systems	45.0	0.2	45.2
Naval Industrial Reserve Ordnance Plant	Sperry Corp.	St. Paul, MN	Active	Fleet computers overhaul	3.3	0.5	3.8
Naval Industrial Reserve Ordnance Plant	Eastman Kodak	Rochester, NY	Active	Projectiles	1.2	0.6	1.8
Naval Industrial Reserve Ordnance Plant	Hercules	Cumberland, MD	Active	Missile propellants	6.3	1.0	7.3
Naval Industrial Reserve Ordnance Plant	Aerojet Solid Propulsion	Sacramento, CA	Active	Missiles	7.2	-	7.2
Total: 19 Navy Plants.				Total Dollar Value Navy	$295.2	$445.4	$740.6
Grand Total: 64 Plants.				Grand Total Dollar Value	$2,000.7	$662.5	$2,663.2

[b]The dollar amounts for the two Grumman plant locations represents equipment at both plants.