REPORT TO THE CONGRESS

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

Greater Use Of Commercial Distribution Systems For Minor, Low-Use Supply Items Can Reduce Defense Logistics Costs

Defense Supply Agency

Many low-use supply items are centrally managed and stocked, although they are readily available on the commercial market. Large savings in supply management costs and reduced inventories can be realized by placing greater reliance on commercial distribution systems for such items.

The report recommends ways to prevent commercial items from entering the supply system and to minimize the number of such items already stocked in the system.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

The Defense Supply Agency manages hundreds of thousands of minor, low-use supply items. For example, in 1975 about 624,500 stocked items had annual issues of less than $400 and another 524,500 stocked items were not requisitioned at all during the year. Many of these types of items are readily available from established commercial supply sources.

This report points out that large savings in supply management costs and reduced inventories can be realized by placing greater reliance on commercial distribution systems for such items.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of Defense; the Secretaries of the Army, Navy, and Air Force; and the Director, Defense Supply Agency.

Comptroller General
of the United States

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APPENDIX

ABBREVIATIONS

DOD	Department of Defense
DSA	Defense Supply Agency
GAO	General Accounting Office
NSO	numeric stockage objective

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

GREATER USE OF COMMERCIAL DISTRIBUTION SYSTEMS FOR MINOR, LOW-USE SUPPLY ITEMS CAN REDUCE DEFENSE LOGISTICS COSTS
Defense Supply Agency

D I G E S T

The Defense Supply Agency provides logistics support to the military services and to various civil agencies of the Federal Government. The Agency generally manages common-use, commercial-type supply items, such as circuit breakers, electrical lamps, and chain and wire rope.

Most of the Agency's items are low-cost, low-use items. For example, in 1975 about 624,500 of the Agency's 1.4 million items had annual issues of less than $400 (low-value items) and another 524,500 items had not been requisitioned by military users during the year. GAO's review indicated that many of these items lacking high turnover are readily available within 30 days to users from established commercial supply sources. (See pp. 1, 14, and 15.)

At December 31, 1975, only 3.2 percent of all DSA-managed items were decentralized for local management and purchasing, which indicated that the system generally favored central stockage. (See p. 6.)

The overemphasis on central stockage by the Agency's supply centers was a major factor in limiting the use of commercial distribution systems and may have caused many commercially available items to enter and remain in the central supply system unnecessarily. The centers do not give enough consideration to item availability from commercial sources and to costs of central management when deciding whether users should buy items directly or requisition them through the Agency's supply channels. (See pp. 4 and 6.)

GAO concluded that the Agency should consider supply alternatives to centrally stocking

common-use, commercial-type items at high management, investment, and storage costs. The commercial distribution systems--a recognized national asset for use in emergencies and during normal times--are an effective alternative. They provide the same commercial items to the general public that the Agency stocks, and they maintain a system as extensive as any distribution system for commercial items which could be established within the Department of Defense.

GAO believes that greater use of commercial distribution systems can save the Agency millions of dollars in supply management and inventory investment costs. The Agency has various ways of providing responsive support to users through commercial distribution systems.

For example, the use of Federal Supply Schedules, indefinite-delivery contracts, and local purchase by using activities are recognized as effective procurement methods which help the user to purchase directly from suppliers and which can result in savings to the user, as well as to the Agency. These contract arrangements provide to Federal agencies making small purchases the convenience and simplicity of ordering brand-name supplies directly from local vendors or from manufacturers' representatives. (See p. 7.)

GAO recommends that the Secretary of Defense instruct the Director, Defense Supply Agency, to:

--Give greater consideration to commercial availability and costs of central management when deciding the best supply method for items entering its supply system.

--Determine, after the decision is made to invest in stockage, whether an item can be effectively supported from commercial sources if anticipated demand does not materialize after the demand development period.

--Stress greater use of Federal Supply Schedules, indefinite-delivery contracts, and

local purchase authority for those low-cost, low-use items which are readily available from established commercial supply sources, especially to assist in supplying overseas needs.

--Increase the scope of internal audit coverage at the supply centers to include evaluations of the potential benefits in expanding the use of non-stocked-item management methods for low-use supply items. (See pp. 33 and 34.)

The Department of Defense told GAO that it intended to make greater use of commercial distribution systems. It also said that several issues, such as overseas support and the need for a viable support structure in wartime, tend to make decisions to stock or not stock somewhat more complex. (See pp. 31 and 32.)

GAO recognizes that such issues must be considered but believes they should not prevent a major reduction in the stockage of commercial items. Prompt implementation of GAO's recommendations should help to produce this result and reduce defense logistics costs. (See pp. 32 to 33.)

CHAPTER 1

INTRODUCTION

Within the Department of Defense (DOD), the Defense Supply Agency (DSA) provides integrated logistics support to the military services and to various civil agencies of the Federal Government. Generally DSA manages consumable common-use, commercial-type supply items--such as bathroom plumbing fixtures, circuit breakers, electrical lamps, chain and wire rope, and X-ray equipment. Nonconsumable items and weapons systems items are managed by the military services.

DSA manages about 49 percent of the total items in the DOD supply system. Its supply centers stock about 1.4 million different items valued at $3.6 billion. Each supply center assigns these items to various management categories on the basis of the following demand criteria.

1. High-value items--those having annual demands totaling more than $4,500. This amount and those shown below are arrived at by multiplying the number of units issued annually times the unit price of the item.

2. Medium-value items--those having annual demands totaling at least $400 but not more than $4,500.

3. Low-value items--those having annual demands of less than $400.

DSA's stocked inventories contain mostly low-value items and items for which no issues were made to customers during the last 12 months. During 1975 about 624,500 items, or 75 percent of those demanded, had annual demands amounting to less than $400. Another 524,500 items had not been requisitioned during this period. For four supply centers, the data is as follows:

Supply Center	Total stocked	No-demand items Number	No-demand items Percent	Total demanded	Low-value items Number	Low-value items Percent
Construction	229,929	90,649	39.4	139,280	94,560	67.9
Electronics	532,677	225,775	42.4	306,902	241,876	78.8
General	125,449	42,246	33.7	83,203	53,575	64.4
Industrial	436,438	159,680	36.6	276,758	224,629	81.2
Total (note a)	1,324,493	518,350	39.1	806,143	614,640	76.3

a/Statistics were obtained from DSA's Summary Fractionation report for 1975.

The above data strongly suggests that the supply activity of DSA-managed items is rather limited. Other pertinent data maintained by DSA tends to support this conclusion. For example, data on the number of times each DSA-stocked item was demanded during 1975 showed that 539,100 items were not requisitioned and another 334,900 were requisitioned from one to three times. These two categories alone accounted for two-thirds of the items stocked in DSA's system. This data, for four DSA centers, is shown below.

Supply Center	Number of times items were demanded					
	0	1 to 3	4 to 6	7 to 12	13 to 19	20 or over
Construction	94,906	56,677	21,116	18,894	10,187	23,470
Electronics	231,675	136,685	46,264	38,633	19,144	38,519
General	44,633	30,010	11,881	11,595	6,449	17,056
Industrial	167,931	111,523	43,608	40,009	21,225	49,142
Total (note a)	539,145	334,895	122,869	109,131	57,005	128,187

a/Statistics were obtained from DSA's Item Frequency Count report for 1975.

Because DSA maintains many low-value, slow-moving items in its inventories and in view of the commercial nature of many of these items and the high costs to support them, we wanted to determine (1) the extent to which these kinds of items were readily available from commercial distribution systems, (2) the feasibility of relying more on commercial sources as an effective supply support alternative, and (3) the problems in DSA's supply system which could limit greater use of commercial distribution systems. We reviewed the Construction Supply Center and the Electronics Supply Center because they carried about 58 percent of the total items stocked in DSA inventories.

ITEM MANAGEMENT POLICY

Within the guidelines prescribed by DOD, DSA determines whether supply items under its responsibility will be managed on a centralized or decentralized basis. Since it is not practicable nor economical to maintain all repair parts in the supply system, criteria are needed on which items will be managed to effectively support both military- and non-military-type equipment, facilities, and personnel.

DSA's basic policy for deciding how supply items will be managed states that, consistent with military necessity

in peacetime, DSA will (1) place optimum reliance on local management, purchase, or fabrication of required material and (2) keep the use of its storage and distribution systems to a minimum. DSA's policy states also that, for commercially available items, 1/ greater use of the decentralized item management concept should be made to provide direct ordering or purchasing by users. The policy states also that items normally available from commercial sources within 30 days after date of order should not be stocked in the military wholesale system.

In this respect, the Office of Federal Procurement Policy has stated that the Government must emphasize the acquisition of commercial, off-the-shelf products to achieve optimal effectiveness in supply support operations and to reduce expenditures. It issued a policy statement pointing out that the Government will use commercial distribution channels in supplying commercial products to its users. The application of this policy will require innovative management to insure its timely and effective implementation.

The supply centers determine whether supply items will be bought and stored for future issues to military users, bought and shipped directly to users when needed, or purchased directly by using activities. The DSA decision to manage an item on a centralized or decentralized basis is made in accordance with the policies and criteria established in the revised DSA Regulation 4140.52, Assignment of Supply Status Codes and Acquisition Advice Codes, June 18, 1975. The regulation provides guidelines for determining and assigning the appropriate means of supply support to all items entering DSA's system. It also provides for periodic reviews of all items to determine whether the means of support to users and the current methods for users to acquire items should be continued or changed.

1/The Commission on Government Procurement generally regards commercial products as those including (1) equipment, materials, supplies, parts, components, and accessories produced and sold to the general public directly or through established commercial distribution systems and (2) products generally equivalent to those offered to the general public but modified to meet Federal and military specifications.

CHAPTER 2

STOCKAGE DECISIONS LIMIT THE USE OF COMMERCIAL DISTRIBUTION SYSTEMS

Initial decisions to stock and retain supply items in DSA inventories are based on known or anticipated demand. DSA policy states that items available from commercial sources within 30 days after receipt of an order should not be stocked; however, its regulations do not permit the supply centers to rely as much as possible on commercial distribution systems. As a result, supply centers do not fully consider commercial availability and costs of central management when deciding whether users will buy items directly or will requisition them through DSA supply channels.

Factors we identified indicating that greater use should be made of commercial distribution systems for DSA items included (1) criteria overemphasizing central stockage, (2) unnecessary buildup of stocked items managed under the category of insurance or numeric stockage objective (NSO) items, and (3) extremely high costs incurred to hold low-use, commercial-type items in stock.

Because commercial availability was not fully considered, together with these other factors affecting the supply system, DSA may be unnecessarily spending millions of dollars by managing minor, low-value supply items readily available to using activities from commercial sources.

INVENTORY DECISION PROCESS

An item becomes stocked in the supply system through provisioning or through item management coding. About 160,000 items entered the system in fiscal year 1974 through these actions. Under provisioning, items supporting new equipment are introduced by the military services with industry and service estimates of the quantities needed for support. Under the item management coding program, items formerly managed by the military services are transferred to DSA for management under certain specified criteria.

Although the military services establish supply item use estimates and priorities to meet military needs, DSA has the final decision as to how the items will be managed. Supply centers must determine whether supply items can best be supported on a centralized or a decentralized basis. In some

cases, DSA will stock or not stock an item if the military service has been managing the item in that manner.

Item management methods

DSA Regulation 4140.52 provides the guidance for assigning and reassigning the appropriate supply status to items DSA manages. For items entering the system, the supply centers determine the management method when they are designated for DSA management the first time. Thereafter the centers are required to review the management method for each item periodically and to change it, if necessary.

An item's normal means of supply can be identified by its supply status code. The 10 item management methods used to identify an item's supply status are shown below. Appendix II shows the supply status of items assigned to four supply centers as of December 31, 1975.

Supply status code	Description
1	Centrally procured, stocked, and distributed to all customers.
2	Nonstocked, locally purchased by users.
3	Nonstocked, centrally procured for direct shipment to users.
4	Centrally procured and/or stocked solely for the Military Assistance Program.
5	For reference purposes only (in bid invitations or allowance lists) and does not represent a physical item of supply.
6	Terminal items in stock which are issued until exhausted. Future procurement is not authorized.
7	Stocked for overseas where local purchase is prohibited or not available.
8	Centrally procured and stocked as Government-furnished material or property.
9	Semiactive--a potentially inactive item. Future procurement is not authorized.
A	Insurance or NSO. Centrally procured and stocked in nominal quantities due to essentiality or leadtime of the item.

CRITERIA FOR DETERMINING ITEM MANAGEMENT METHODS PLACE TOO MUCH EMPHASIS ON CENTRAL STOCKAGE

Although Regulation 4140.52 includes provisions for reviewing an item's commercial availability and for determining whether the item can qualify for other nonstocked methods, it primarily consists of criteria that emphasize central stockage. Generally decentralized management, i.e., designated supply status code 2--nonstocked, locally purchased--can be considered only when various stockage criteria are satisfied. At December 31, 1975, only 3.2 percent of all DSA-managed items were decentralized for local management and purchasing, which indicated that the system generally favored central stockage.

Under DSA's present system, the criterion for stocking an item is its anticipated or actual demand. If an item is expected to have three demands annually for a quantity of 12 or more units and a dollar value of $20 or more, it will be stocked. Commercial availability is not a factor in this decision. Even if the item does not meet the annual demand criterion, it can still be stocked as an insurance or NSO item and be justified as a mission-essential item.

Once the item is stocked in the supply system, it stays there for 2 years before a different item management method can be considered. Afterward, it is difficult to remove it from a stocked status if the item has at least one demand annually. The system permits the item to be reclassified as an NSO item. For example, a stocked item having only one demand during the previous 12 months is retained in the system as an NSO-managed item if the current inventory exceeds that annual demand.

Reviewing an item for commercial availability or other acceptable non-stocked-item management methods will not occur very often as long as the system emphasizes central management and stockage of commercial items.

Items entering the system

The DSA regulation requires that items entering the supply sytem be properly screened so that the responsible supply center can determine the appropriate management method. The screening process includes a series of progressive steps which must be applied in sequence. Each step includes criteria to consider so that a suitable supply method can be assigned. Basic criteria are supplied both for items

transferred from the military services through the item management coding program and for items entering the system through provisioning.

Generally stocked categories are used for items expected to have demands of 12 or more units annually. As shown on page 5, stocked categories also are assigned to items needed for certain military programs, for insurance purposes, or for other reasons. Non-stocked-item management methods are permitted when the military service indicates that (1) the item can be procured on demand, (2) the item has no demands or estimated demands, or (3) the production leadtime for the item is 2 months or less and issues are not expected to exceed $100 annually. The latter method generally authorizes local purchase by user activities.

Federal Supply Schedules, indefinite-delivery-type contracts, and basic ordering agreements may permit user activities to order items directly from contractors. The Schedules, negotiated by the General Services Administration, provide to Federal agencies making small purchases the convenience and simplicity of obtaining brand-name supplies from local vendors or from manufacturers' representatives. The other contract types are also used for small purchases, to simplify ordering items not normally available from the Schedules. Ideally, they are recommended for ordering supplies directly from vendors for delivery to the user. DSA intended that maximum use of these contract arrangements and local purchase authority would result in greater use of commercial distribution systems for commercial-type supply items.

At the Construction and Electronics Centers, the anticipated annual use of an item determines whether it will be centrally stocked. Commercial availability did not seem to influence these decisions. Generally the centers accepted the military services' use estimates and recommendations without question, and therefore items available from commercial sources entered the supply system unnecessarily. Without considering an item's commercial availability once it enters the system, the supply centers cannot make sound decisions for determining the best way to manage the various types and sizes of items in their inventories.

Supply center officials told us that items entering the supply sytem were not reviewed to determine whether commercial distribution systems could support the item; this procedure is not called for in the regulation. They

added that, if such a procedure were required, a system would need to be established to implement it. The officials agreed, however, that such a requirement would help reduce unnecessary items and reduce inventory management and storage costs.

Electronics Center officials said that they could determine an item's commercial availability by talking with suppliers selling the same or similar items, cross-referencing national stock numbers and manufacturer's part numbers, and reviewing various suppliers' catalogs.

Items currently in supply system

DSA procedures do not require its centers to periodically screen items, particularly low-use items, to see if they are available from commercial sources. At the two centers we visited, decisions to continue stocking items once they were in the supply system a few years were based primarily on how frequently the items were used annually. As discussed on page 9, many items not meeting required usage criteria were retained in the system because DSA guidelines permitted it.

In reviewing their items to see whether the supply support method should continue or change, the supply centers are to determine how long the items have been in the system, whether they meet certain demand criteria to remain centrally managed, and whether they could qualify for non-stocked-item management methods. The two centers did not have a fully mechanized system to make the reviews or enough personnel to do them manually. Therefore an item remained stocked if it met the demand criteria. Otherwise, it was designated for an NSO classification which enabled the centers to retain the item in central stockage. Commercial availability or other nonstocked methods were apparently not considered when these decisions were made.

INSURANCE AND NSO ITEMS

Under DSA policy, items should not be ordinarily stocked if demand is so low that they do not meet required stockage criteria at a given activity. In some cases, however, such an item is stocked when it is needed to support a weapon or weapons system. Some of these are insurance items; although not expected to fail through normal use, they could affect readiness if not available.

Other items are stocked as NSO if the items are demanded, or expected to be demanded, too infrequently for stockage on a replenishment basis but are justified for stockage to maintain military effectiveness. In our opinion, local stockage decisions undermine the intent of the aforementioned DSA policy by stocking many thousands of items not critical to sustaining military readiness.

Many of these items originally were classified as replenishment items but were not used as frequently as expected. Under DSA's guidelines, items not meeting replenishment criteria are automatically given an NSO classification. Historically, the military services transfer thousands of low-value and low-demand items to DSA each year. Most of these items are likely to be assigned to NSO management under current operating procedures.

At the time of our review, over 727,000 items, or about 56 percent of the total stocked by DSA, were managed as NSO items and had inventories valued at $361.2 million. As of December 31, 1975, 488,800 NSO items had no demand for the previous 12 months. Of these, about 317,700 NSO-managed items, valued at $111.7 million, had no demand for at least the previous 2 years. As shown in the following table, NSO-managed items appear to account for many of the low-demand items dominating the inventories of the supply centers during 1975.

	NSO items			
Supply Center	No demands in 1975	Less than three demands in 1975	Three demands or more in 1975	Total
Construction	91,323	37,660	16,125	145,108
Electronics	228,423	95,552	25,760	349,735
General	29,701	9,877	3,333	42,911
Industrial	139,349	42,676	7,504	189,529
Total	488,796	185,765	52,722	727,283

Although we recognize the need to stock selected items which are used infrequently but whose unavailability could impair mission effectiveness, we believe that many items are classified as NSO items because the lack of demand does not justify their retention as normal centrally managed items and not because they are needed to sustain military readiness.

Item managers, who must make the decision, are reluctant to decentralize an item because it is their responsibility to insure that military requirements are fulfilled during periods of emergency. They feel this cannot be done when items are decentralized but is possible only with stock on hand ready to ship to users upon receiving a requisition. Under DSA criteria, if the item is not classified as normal replenishment or as an NSO, the item manager is required to consider using commercial distribution systems as an alternative to supplying it or buying it as needed.

As we indicate on pages 14 and 15, many of DSA's low-use items are commercially available within 30 days or less. We believe that supply centers should consider using commercial supply sources for low-use items rather than retaining them in the supply sytem as NSO-managed items.

CENTRALIZED PURCHASE OF ITEMS FOR DIRECT DELIVERY TO USERS

At December 31, 1975, DSA had about 400,000 items which it centrally managed but did not stock. These types of items are slow-moving also in that 70 percent of them had not been requisitioned during 1975. Rather than place these items on basic ordering agreements or indefinite-delivery contracts for puchasing by users direct from vendors, DSA centrally purchases them on demand. The General Services Administration, on the other hand, extensively uses these kinds of contracts for making common-use items available to Federal agencies at the lowest overall cost to the Government.

Centrally purchased, nonstocked items create workload problems and delays in customer support when unexpected increases in demand occur because each requisition DSA receives on them usually requires initiation of a separate purchase order for shipment directly to the user.

It costs a lot to process orders. Depending on the complexity of the item, number of supply sources, and type of purchasing method, the costs can range from $92 to $259 for each purchase. DSA spent $60 million in 1 year at the two centers to handle purchasing functions and could save money by reducing the number of orders issued. Electronics Center officials felt that processing requests for low-unit-cost items and long leadtime items

--drained center funds by awarding numerous purchase requests,

--resulted in increased costs because of contractors' minimum buy policies and because very small buys by their nature were uneconomical,

--caused customers to become dissatisfied by waiting long periods for each request they submitted, and

--resulted in an inordinate amount of followup actions from customers.

As described on pages 28 and 29, users are already purchasing similar types of items at the local level. In addition, users having established indefinite-delivery contracts can simply add a new item on the existing contract to obtain the desired item.

DSA has recognized that decentralizing appropriate items for local purchase and establishing indefinite-delivery contracts and basic ordering agreements for use in making the purchases are potentially effective and economical supply support arrangements, especially in view of increasing procurement workloads at the supply centers.

Recognizing these problems, DSA headquarters recently advised its centers that it was DSA's objective to reduce the number of commercial items that they buy on demand for military customers and to code these items so that users can locally purchase commercial items readily available within 30 days directly from established commercial distribution sources. DSA required its centers to submit a time-phased plan on the actions they would take. At the completion of our fieldwork, the centers were implementing the required action.

INVENTORY HOLDING COSTS

Inventories containing hundreds of thousands of low- and no-demand items often result in large and unnecessary costs in terms of inventory investment, storage, and obsolescence. DSA inventories included about 624,500 low-value items and 524,500 items not demanded during 1975. The latter included 328,000 items not demanded for 2 years before December 31, 1975. The costs to hold and maintain these kinds of items in inventory run into hundreds of millions of dollars annually.

DSA cost studies show that annual inventory carrying costs are from 18 to 25 percent of the dollar investment in inventory. Considering that DSA's total investment in its inventories amounts to about $3 billion, annual holding

costs could range from $540 million to $750 million a year. Further, a large percentage of these costs is incurred to maintain inventories of low-use items which are readily available from commercial sources.

Obsolescence costs account for an appreciable portion of the cost to hold items in inventory. Obsolescence occurs when items are no longer needed to meet current or projected needs. This may be due to technological obsolescence, over-procurement, or reduced use.

Although obsolescence rates have decreased from 1971 to 1975, it is still costly since the Government is able to recover, through sales or use by other agencies, only a very small percent of the value of the obsolete stock disposed. In addition to items that have been removed from inventory and transferred to Property Disposal Offices, there are still about 92,000 items in the supply system which DSA considers obsolete. They are retained in stock because assets of such items are on hand and will be issued until exhausted but will not be replenished.

If DSA ceased stocking items readily available commercially, it could reduce its investment in inventories by millions of dollars. Although obsolescence is largely unavoidable, this approach would lessen the chances of managing obsolete inventory.

INTERNAL AUDIT

In May 1975 DSA's Auditor General reported on an evaluation made of procedures and practices related to assigning and reassigning supply status codes to DSA managed items. The audit, conducted at the Electronics and Industrial Supply Centers, included an examination of pertinent studies and other available data to determine whether the code assigned to each item reviewed met the criteria contained in DSA Regulation 4140.52.

The auditors found a high error rate in the assigned codes reviewed at both supply centers and determined that it was caused by various factors. For example, at the Electronics Center, about 50 percent of the codes reviewed were incorrectly assigned because the program used to reassign items from the centrally procured and stocked code to the NSO category did not contain the correct criteria set forth in the regulation for assignment of all codes. In addition, DSA's computerized materiel management system,

which was to contain this criteria, was not programed to perform the required quarterly reviews for validating the codes. The auditors estimated that, as a result, at least 30,000 items stocked by the center qualified for non-stocked-item management methods.

At the Industrial Supply Center, the auditors took a representative sample of all items managed. For the 645 items sampled, the auditors found that the supply codes for 339 items could not be verified because documentation was unavailable. The auditors brought this condition to the attention of local officials who said that action would be taken to include the requirement for retaining supporting documentation on code changes.

We believe DSA should continue providing sufficient audit coverage of its supply center activities relative to the assignment and reassignment of supply status codes. Such audits could be especially helpful in identifying recurring problems with centrally managed supply items and in recommending corrective actions that can be taken.

CHAPTER 3

POTENTIAL FOR GREATER RELIANCE ON COMMERCIAL DISTRIBUTION SYSTEMS

The inventories of the two supply centers we visited contained large numbers of items available from commercial sources to meet military users' requirements. We estimated that, at these centers, inventories of items available within 30 days could be reduced by about $100 million a year and that management costs of $17 million could be saved annually if military users procured these items directly. Although purchase prices generally tend to be higher for direct procurement actions, DSA's costs to purchase, store, and distribute commercially available items would more than offset the higher prices.

We believe that, if our findings on low-cost, low-use commercially available items are representative of the other supply centers not selected for review, DSA can save additional millions of dollars in supply management and inventory investment costs.

COMMERCIAL AVAILABILITY OF CONSTRUCTION AND ELECTRONICS SUPPLY CENTER ITEMS

To determine an item's commercial availability at the two centers visited, we selected a statistically random sample of active stocked items for further examination. We directed our examination primarily to low-value items (the majority of items managed by DSA) but reviewed some medium-value items to see if different conclusions would be drawn as to their commercial nature. The commercial availability of the randomly selected items was determined through a questionnaire that we sent to numerous suppliers throughout the country. Details and typical responses from industry are described in the exhibit.

Stocks for 78.8 percent and 68.2 percent of our sample of active items at the Construction and Electronics Centers, respectively, were considered by vendors to be commercially available. About 50 percent of these items could be supplied in 30 days or less. Many items were available within 10 days, particularly those stocked at the Construction Center.

We estimated that these supply centers stocked a total of about 187,400 low-value items (less than $400 total yearly

demand) which had been in the supply system for at least 2 years and for which stocks could be obtained from commercial sources. We estimated that about 91,300 of these items were available within 30 days. Also, there were about 47,200 medium-value commercially available items ($400 to $4,500 yearly demand) at the two centers and about 21,800 of these items were available within 30 days.

Because of the relatively incomplete demand experience on new items, we omitted from our statistical sample those items which were in the system less than 2 years. We also omitted inactive and high-value items. Since we found no evidence to the contrary, we believe that many of the items we omitted are also commercially available. Therefore, we conclude the two supply centers are stocking additional hundreds of thousands of items which could be supplied from commercial sources.

COST EFFECTIVENESS OF STOCKING COMMERCIAL ITEMS

Centrally stocking some commercial items can be justified provided the volume of annual issues and the unit-price advantage are sufficient to offset DSA's overhead costs. However, our cost analyses showed many low- and medium-value items where the total costs to the Government would be less if direct procurement methods by users could have been applied for the commercially available items.

We compared DSA's cost to supply the sampled items (purchase price plus support systems costs) with what suppliers said it would cost to deliver the same or similar items to the military user. In making this comparison, we used the number of units DSA issued annually. The direct price to the user was based on the contractor's quote for that quantity range.

We estimated that, for 58.3 percent and 62.9 percent of the sample items available within 30 days at the Construction and Electronics Centers, respectively, it would cost the Government more to stock them than it would cost users to obtain them directly from commercial sources. We estimated that about $100 million worth of items in inventories could be reduced and that, by applying an overhead cost factor, about $17 million in annual supply management costs could be saved if users purchased these items directly from commercial sources. The $17 million was calculated by comparing DSA's purchase price plus overhead with direct purchase prices quoted to us by the questionnaire respondents.

The aforementioned results were generally similar for items available within 30 to 90 days. Therefore, DSA not only manages items readily available from commercial sources but also manages a vast number of them for which their annual issue activity and unit-price advantage do not appear to warrant the high costs to manage them centrally.

Elements of economic costs

DSA logistics support systems are expensive to maintain. The Commission on Government Procurement reported that this was caused by (1) the type of management required for military logistics support, (2) the economic and demand characteristics of the items being supported, and (3) the high costs of inventory investment associated with low turnover.

In 1972 the Commission estimated that it cost DSA $63.78 to purchase and distribute $100 worth of stock in depot programs. The Commission arrived at this figure by determining the total DSA operating costs for fiscal year 1971 ($1.1 billion), divided by the total DSA sales for the same period ($1.7 billion).

The Commission's report stated that the total cost of stocking goods was considerable and that economy required all support costs to be considered in evaluating alternative means of providing commercial product support to using activities. Further, DOD policies for relying on commercial sources can be based on the facts that manufacturers of commercial items maintain extensive distribution systems to support equipment in general civilian use and that many of these systems are at least as extensive as any distribution system for commercial items which could be established within DOD.

The Commission has categorized the costs related to acquiring and using commercial products as follows:

1. Support--the cost of the support systems the Government uses to acquire and provide commercial products to the ultimate user, such as delivery, inventory management, and installation.

2. Landed--the total cost to provide an item to its user, including the price paid for the item and its allocated share of the cost of the support system, or systems, used to acquire and deliver it.

3. Total economic--the landed cost of an item, plus costs incident to its use, and disposal on consumption, including testing, training, operating labor, operating materials, preventive maintenance, corrective maintenance, dismantling, residual value, and depreciation.

The Commission noted that, to compare prices between the use of commercial and Government sources, the landed cost of the two alternatives must be considered. Prices to the Government vary above and below those available to commercial users. Although the Government is able to buy products at a lower unit price if procured for stock in large volume, landed costs using commercial channels of distribution appear competitive and, in many cases, offer other advantages to user activities. This is because of the extra cost of depot stock support programs which the Commission divides into the following four cost categories:

--Inventory management.

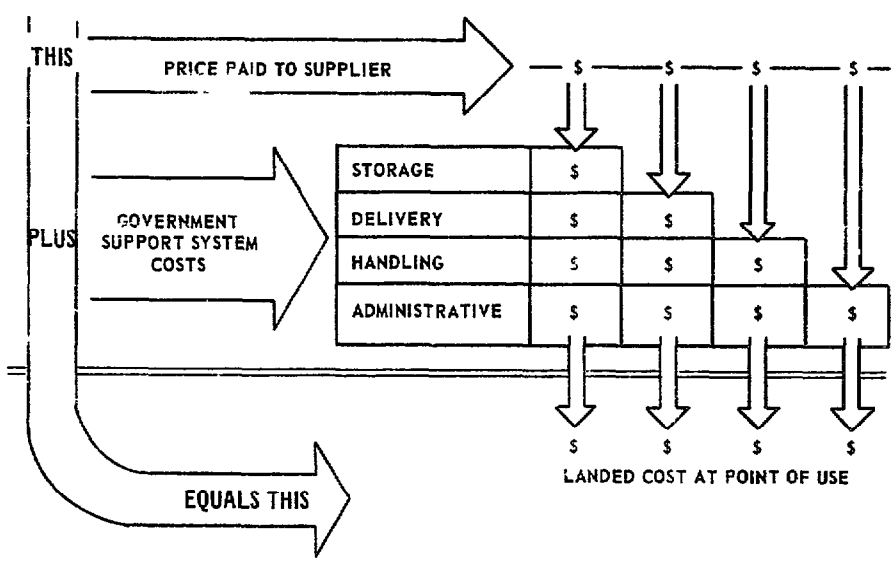
--Storage.

--Annual return on investment.

--Economic losses associated with disposal of obsolete and unneeded inventory.

The chart below shows the Commission's summary of the basic elements of landed cost.

ELEMENTS OF LANDED COST



We believe that the landed cost approach was an appropriate comparison for the types of DSA items we reviewed. We used this approach to determine the potential savings available to DOD through greater use of commercial distribution systems. The $17 million in supply management cost savings shown on page 15 agrees with conservative DSA supply management and storage cost estimates. For example, DSA estimated it cost $100 to manage and $40 to store each line item. Using this cost data, there is a potential to reduce supply management costs by about $16 million ($140 x 113,100 items--see pp. 14 and 15) for items available within 30 days.

The potential to reduce the inventories by $100 million seems to be reasonable also. During 1974 the two centers we visited had a total of about 446,000 low- and medium-use items with inventories valued at about $438 million. The weighted average inventory value per item, therefore, was $982. Using this average inventory value, we estimate that about $111 million worth of supply inventories of such items could be eliminated.

Examples of our analyses of some commercially available supply items are discussed below.

Pipe-to-tube brass adapter (NSN (note 1) 4730-00-722-2637)

This item was established in the DSA supply system in 1966. As of May 6, 1975, 254 items with a DSA standard unit price 2/ at $4.89 each were stocked in the Construction Center's inventory. The item had demands of 84 units during the previous 12 months. Four suppliers indicated they could furnish this item to military users within 30 days after receipt of an order. Delivery prices quoted by the suppliers ranged from $2.77 to $3.95. Comparison of the landed cost of delivering 84 of the items to users at the vendor's price of $2.77 with the Construction Center's price of $4.89 showed the center could save the Government $424.54 if military users purchased the item directly from listed suppliers. The lower price accounted for $178.08 of the savings, whereas the

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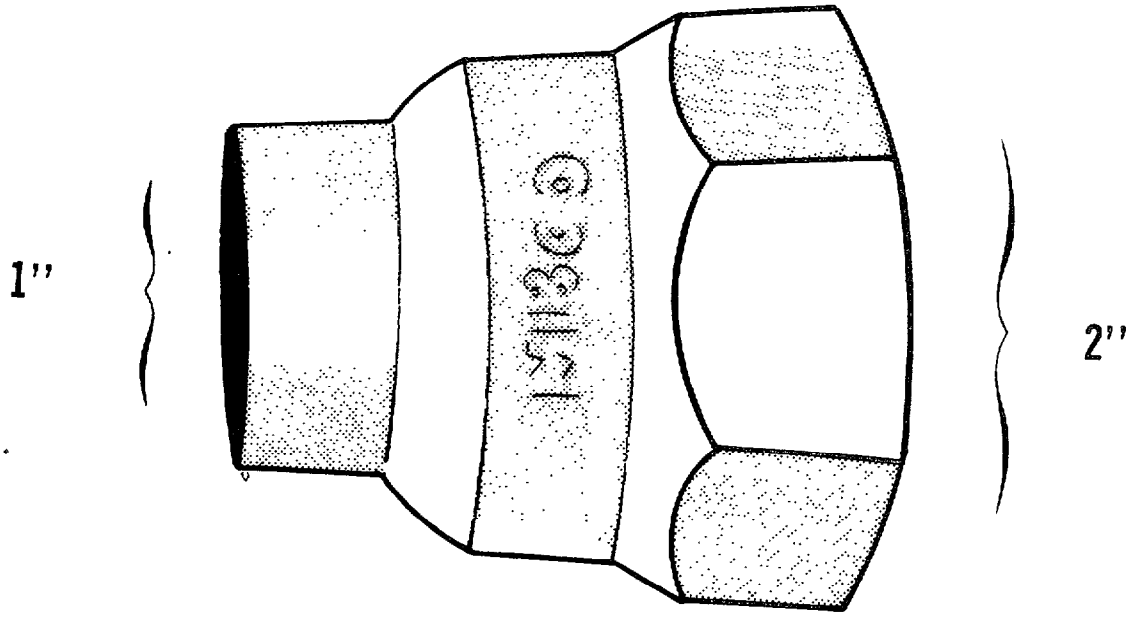
1/NSN (National stock number).

2/In effect at the time of our review and may have changed since then.

remaining $246.46 represented the additional overhead it cost DSA to manage the item on a stocked basis. Other items found to be commercially available at the Construction Center are shown in appendix III.

PIPE-TO-TUBE BRASS ADAPTER

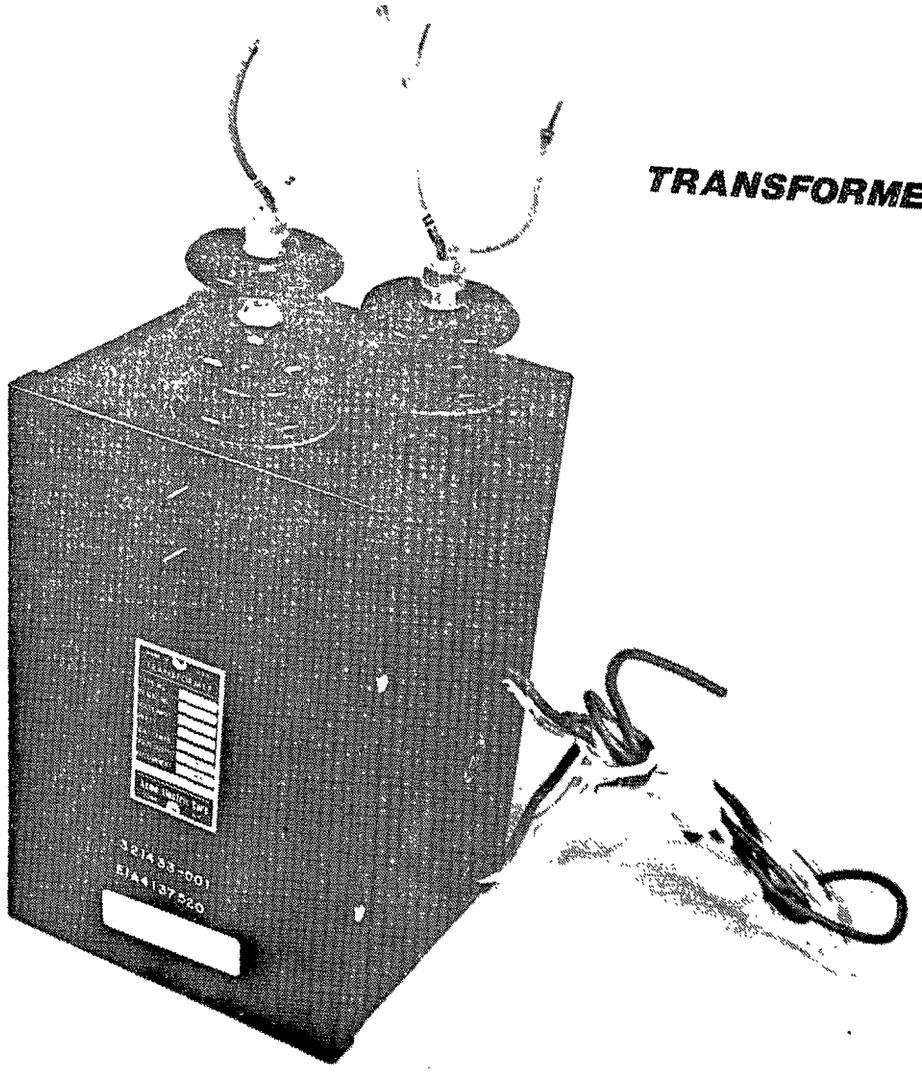


Transformer (NSN 5950-00-302-7829)

This item was established in the DSA supply system in 1968. As of May 24, 1975, the standard unit price charged by the Electronics Center was $159. The item had demands of 10 units during the previous 12 months. A commercial supplier said he could furnish this item to military users within 10 days after receipt of an order at a price of $55.62 a unit.

Comparison of the landed cost of delivering 10 of the items to users at the vendor's price of $55.62 to the Electronics Center's price of $159.00 showed that the center could save the Government $1,987.80 annually if users purchased the item directly from the commercial vendor. A better price to users accounts for $1,033.80 of the savings, whereas the remaining $954.00 represents additional costs of DSA's stocked operations that could be avoided. Other items found to be commercially available at the Electronics Center are shown in appendix IV.

TRANSFORMER



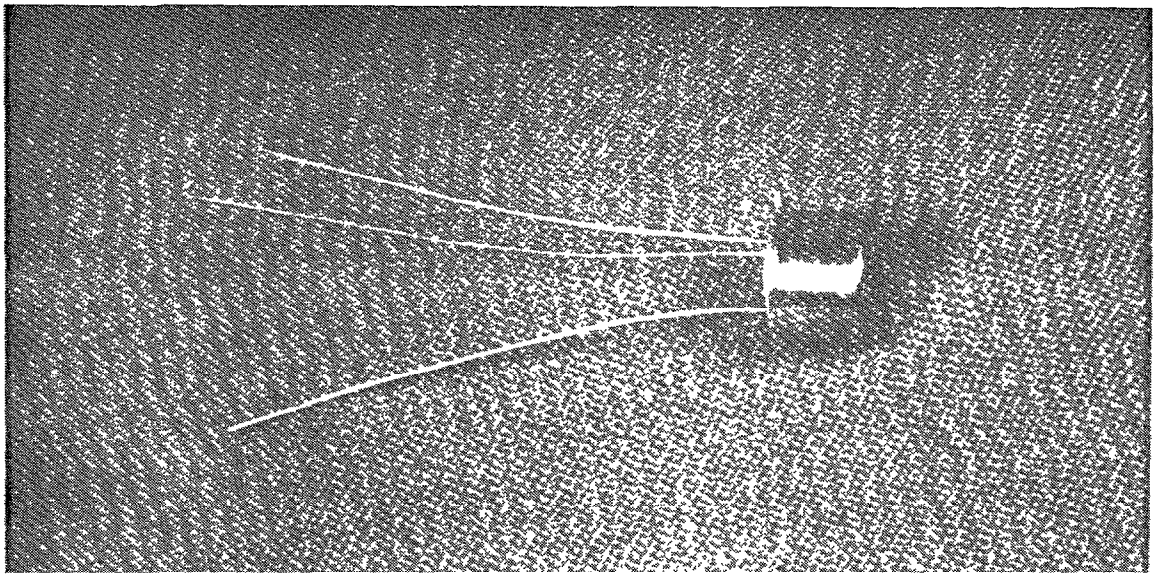
ACTUAL
MEASUREMENTS

7"WIDE
7"LONG
10"HIGH
15 LBS

Transistor (NSN 5961-00-847-6841)

This item was established in the DSA supply system in 1962. As of May 17, 1975, 3,280 items valued at $1.38 each were stocked in the Electronics Center's inventory system. The item had demands of 3,108 during the previous 12 months. Four suppliers indicated they could furnish this item to potential military users within 30 days after receipt of an order. Prices quoted by the suppliers ranged from $3.51 to $5.08. Comparing the landed cost of delivering 3,108 of the items to users at a vendor's price of $3.51 to the Electronics Center price of $1.38 showed that the center was saving the Government $1,715.62 by managing this item on a centralized stocked basis. This example shows that DSA can justify the stockage of some commercially available items. Similar examples were found for the Construction Center's items.

TRANSISTOR



DOD STUDIES ON COMMERCIALLY AVAILABLE ITEMS

Contractor-operated parts stores

In a December 1971 report, "Contractor Operated Parts Stores," a DOD-wide study group reported on its survey of the commercial availability of items used within DOD. The group made this survey because it found that there was no source which could readily provide data on commercial availability of items used within DOD.

The group used a questionnaire to obtain the information it needed. It defined "commercial availability" as making

an item available to the user within 30 days through commercial channels of distribution (i.e., manufacturer sales branches, wholesaler-distributor, dealers, etc.). Questionnaires were sent to about 2,000 manufacturers and about 100 wholesaler-distributors. A total of 5,194 items managed by various DOD activities were selected for sampling. Replies from questionnaire respondents provided information on 1,631 items.

Responses on the 1,631 items indicated that 560 items, or 34.3 percent, were considered to be commercially available. Most of the items, in terms of total sample size and answers received, involved four DSA supply centers. The group's findings on commercial availability are summarized below.

Supply Center	Number of items sampled	Number of items answered	Number of items commercially available	Percent
Construction	770	308	151	49.0
Electronics	1,047	428	121	28.3
General	299	71	27	38.0
Industrial	1,018	271	114	42.0
Total	3,134	1,078	413	38.3

The group concluded that DOD, generally, and DSA, specifically, stocked an appreciable number of commercially available items and that these types of items should be purchased locally.

The Defense Science Board task force

In October 1974 DOD's Defense Science Board established an electronic test equipment task force to examine whether DOD could use, to a greater degree, privately developed, commercially available off-the-shelf electronic test equipment, including modifications, with the goal of achieving economy and reliability benefits for the military services and to recommend policies and procedures to maximize these benefits.

The task force, composed of high-level officials from each of the military services and from nine private firms, took about a year to complete its work. Its members visited various facilities, heard presentations from selected agencies and groups, and received and evaluated much information

submitted by industry and the Government. It made 28 recommendations which, if implemented, could result in savings conservatively estimated at $80 million annually. The task force's chairman said that the recommendations should be implemented promptly and "not studied to the point of oblivion."

Some of the problems we identified in our review and pointed out by the task force in its February 1976 report follow.

Logistics support

The task force noted that DOD policies and regulations provided for, and even encouraged, the use of commercial support resources, but current DOD logistics support sytems usually fail to take advantage of such resources. The task force added that, in many cases, logistics support DOD provided was more costly and less responsive than using direct commercial support currently available to industry and Government.

To solve some of these problems, the task force recommended that DOD make greater use of commercial distribution systems for the supply of repair parts. Some of the benefits the task force anticipated included (1) reduced total costs for logistics support, (2) reduced requirements on DOD supply systems by eliminating or limiting resources needed to provision, catalog, manage, stock, and issue repair parts, and (3) strengthened commercial support systems ready to respond to a need for rapid mobilization.

Procurement simplification

The task force concluded that DOD procurement and stocking of off-the-shelf electronic test equipment had become unnecessarily burdensome, had increased administrative costs, and had lengthened acquisition leadtime. The task force stated that the use of indefinite-delivery contracts--a recognized cost-effective purchasing method--had not occurred.

The task force found that some users felt they could best fill their needs by direct delivery from a manufacturer or supplier, but, because local purchase procedures were cumbersome, this was inhibited.

The task force concluded that:

--Because direct commercial support was used as an alternative in emergencies, consideration should be given to developing simplified systems for its use as the primary means of support at all times. Federal Supply Schedules, or other indefinite-delivery contract systems, appeared to provide this mechanism.

--Federal Supply Schedules appeared to be the simplest, quickest, and probably cheapest method of purchasing off-the-shelf electronic test equipment and support parts directly from suppliers.

--As a primary method of purchasing off-the-shelf electronic test equipment, Federal Supply Schedules would strengthen commercial distribution systems as a national asset for use in emergencies and during normal times.

The task force recommended that DOD, along with the General Services Administration, encourage maximum use of the Federal Supply Schedule program as a cost-effective and time-saving means of meeting military needs through the purchase of off-the-shelf electronic test equipment. The task force anticipated that implementing this recommendation would help to (1) realize potential administrative and other indirect savings of millions of dollars annually, (2) provide more responsive delivery to using activities, and (3) establish a system for direct purchasing during emergencies and during peace.

Other matters

According to the Secretary of Defense, DOD is having increasing difficulty in obtaining bids on contract requests and is frequently confronted with sole sources of supply for certain items. Manufacturers are phasing out items with little commercial demand, even though DOD still has equipment which requires replacement of items that are no longer being made. DSA has this problem buying certain electronics items.

The problem surfaced in May 1973 when a DOD ad hoc study group on vacuum tubes was established to identify the magnitude and impact of the lack of manufacturing sources for these items and to develop practical and economical alternatives to diminishing sources. The group surveyed all known domestic tube manufacturers to see which tubes they could currently manufacture. Because the term "vacuum

tube" and its applications were unclear, the group redefined it and settled on the term "receiving tube"--a definition covering the majority of tubes that were products of the receiving tube industry.

Of 941 such tubes identified as managed by the Electronics Supply Center, 241 were reported as having no current manufacturing source, 373 had one manufacturer, and 327 had two or more. The group also found that:

--Existing directives, regulations, and instructions did not contain procedures for determining actions to take when the last manufacturing source had ended, or was about to end, production.

--No management requirement existed for determining the remaining inventory life of the equipment applications for most receiving tubes.

The group believed that immediate guidance and direction was necessary to lessen the impact of diminishing production sources. It recommended that the military departments and DSA issue directives specifying the responsibilities each should assume to solve any problem resulting from a lack of manufacturing source for a consumable item.

The group recommended further that procedures be developed and instituted for including "last buy" funds in stock fund budgeting processes which would thereby permit a timely response to last-buy opportunities now lost in lengthy budget planning procedures.

DOD is taking steps to deal with diminishing supply sources by establishing a system to identify supplier closedowns and material shortages sooner. These actions will be helpful in determining which older and rarely used items, out of production, need to remain centrally stocked for supporting older equipment. For the many low-use standard commercial items not affected by diminishing production sources, action is necessary to eliminate them from inventory whenever it is feasible to do so.

LOCAL ACTIVITY COMMENTS

We discussed the results of our review with officials at the two supply centers. The officials generally agreed that their inventories contained items available from commercial supply sources and that many items could be obtained

from such sources within 30 days after receipt of an order. Construction Center officials said that decentralized management of commercially available items should be given increased management attention, but Electronics Center officials said that they generally were not convinced of the advantages of managing electronics-type items on a decentralized basis.

Both supply centers pointed out that several factors must be considered before deciding to manage commercial items on a local purchase or other nonstocked basis. The principal reasons given by the centers for not considering an otherwise commercially available item suitable for non-stocked-item management methods and our evaluation follow.

Military specifications

When users of DSA materiel order a part, they must be assured that the part received will fit and function properly in their equipment. For some items this assurance is provided by preparing military specifications. Sometimes a specification creates items exclusively for military use. DSA generally considers it necessary to maintain stocks of specification items on the theory that commercial counterparts of this kind are not available.

We recognize the protection afforded by maintaining stocks of items having a military specification assigned. We found, however, that the number of stocked items with military specifications did not involve a major part of DSA inventories. For example, about 10.4 and 19.1 percent of stocked items at the Construction and Electronics Centers, respectively, were considered to have some kind of specification assigned to them.

We found that vendors were selling commercial versions which they considered to be functionally equivalent to the military specification version of the item. In many cases, a specification item is interchangeable with the commercial version in terms of form, fit, and function. Sometimes the only difference between the two is additional Government testing, inspection, or packaging requirements. Examples of specification items sold commercially are shown on p. 39.

In its 1972 report, the Commission on Government Procurement pointed out that, although specifications had certain advantages, the military services used millions of commercial items which were bought through use of agency-prepared

purchase descriptions. However, the need for specifications is not necessarily caused by lack of commercially available products which will meet the Government's needs. Specifications are used primarily to provide a standard way to describe, catalog, and qualify products for purchase, stock, and issue.

Mobilization reserve requirements

Officials at both supply centers maintained that central management was necessary for items having established mobilization reserve requirements. We agree that DSA needs to retain, under central management, items necessary to insure availability of support to the military services during conditions of mobilization, contingencies, or war.

At the two centers we visited, the number of items designated as mobilization reserves was not appreciable. For example, at March 1975 only 2 percent of the stocked items at the Construction Center and about 1.3 percent at the Electronics Center were considered to have mobilization reserve requirements.

Availability of items

According to supply center officials, the centers must keep many items in stock to fill priority requests and to insure that items are available when users need them. They explained that remotely located users had no access to outlets from which they could purchase supply items.

Concerning priority requests, data at the two supply centers we visited showed that about 60 percent of the requisitions received from users during the 12-month period ended March 1975 were for the lowest priority designation. In connection with item availability, our questionnaire results show that vendors are stocking many of the items users are ordering through DSA's supply system and that the items can be obtained at least in the same length of time it takes to deliver from a supply center or depot.

Special contractor requirements

DSA offficials said many suppliers required minimum purchase quantities, minimum purchase values, handling charges, or other special conditions which increased the overall cost of direct purchasing by users. Generally speaking, contractors at the very top of the marketing channel, such as manufacturers, have minimum charges because they do not want

to deal with low-volume orders. Those at the bottom of the marketing channel, such as retailers, do not have any minimum charges and are in business to fill orders in the quantities that users would order.

According to suppliers' responses on our sample items, 32 percent of the sampled items sold commercially did not have these kinds of requirements. This suggests that many commercial items can be supplied by vendors without special requirements. In those cases where an item's annual demand value was less than the minimum requirements specified by the respondents, we considered this difference in arriving at the $17 million savings estimate.

OBTAINING SUPPLY ITEMS DIRECTLY

The basic reason for acquiring commercial products is to provide users with the required goods and services in the most responsive way. Therefore users must have the capability to purchase commercial products directly before nonstockage of supply items by DSA can become a feasible alternative. To determine whether users had this capability, we visited three military activities that used the types of items which the Construction or Electronics Centers were carrying in stock. An Army, a Navy, and an Air Force activity was included in our visits. We recognize that these activities represent a very small part of military users nationwide and that they are not necessarily representative of all DSA customers. Nevertheless, we consider it significant that these activities were obtaining many of their supplies from commercial sources.

Users are authorized to purchase locally many of their needs from commercial sources (1) if such needs are not ordinarily available through installation supply functions, DSA, or other Government activities or (2) when it is in the Government's best interest to do so. Unless local purchase is authorized, users must determine whether an item's normal source of supply is through the central supply system.

Supply officials at the Naval Aerospace and Regional Medical Center, Pensacola, Florida--a small purchaser of electronics items--were unfamiliar with the various specifications and part numbers DSA assigned to electronics items and found it very difficult to identify the specific item they needed. They said they preferred to use the commercial system primarily because of its simplicity and responsiveness. They pointed out that low-turnover items ordered as needed

could be provided effectively from commercial sources and that much leadtime could be saved by buying supplies this way. The officials added, however, that, when large-volume purchases needed to be made, the DSA system was preferable.

In discussing the capability of a commercial vendor to supply items to military users, we learned that the vendor servicing the Medical Center maintained distribution outlets throughout various Southern States and made daily deliveries to military users in these areas. At the time of our visit, about 10 percent of the vendor's business was with military customers and the vendor maintained enough inventory to handle additional orders if needed.

During fiscal year 1975 the base supply activity at Wright-Patterson Air Force Base, Dayton, Ohio, purchased about $79.5 million of goods and services commercially, including DSA-type supplies, for 10 Air Force onbase users. This amount included purchases under DSA and General Services Administration supply schedule contracts and purchases from local suppliers. Purchases from local suppliers amounted to about $10.3 million. Base supply officials told us that the DSA supply sytem and other Government sources were checked first before these commercial buys were started.

At Fort Knox, Kentucky, base supply officials said that locally purchased material, particularly DSA-type construction supplies, normally accounted for a great deal of total purchases made annually. For example, $30.5 million worth of materiel, or 47 percent of all materiel acquired in fiscal year 1975, was purchased directly by the base from commercial sources. A using activity we visited at this location bought $1.8 million worth locally, or 68.4 percent of its total requirements during the same period.

This data indicates that DSA users already buy much materiel commercially and have the capability to do so. Users we visited felt that buying directly from commercial sources provided the insurance of getting the exact product they needed, when they needed it, and in the right quantity.

It was apparent from these visits that DSA users often met their needs satisfactorily from commercial distribution systems. We believe that commercial sources can adequately supplement the existing supply sytem in providing DSA-type commercial items to users.

CHAPTER 4

CONCLUSIONS

DSA manages hundreds of thousands of minor, low-use items of supply. During 1975, about 624,500 items had annual issues of less than $400 (low-value items) and another 524,500 items had not been requisitioned. Our review indicated that many of these items, lacking high turnover, were readily available from established commercial supply sources.

We concluded that DSA should consider supply alternatives to centrally stocking these kinds of items at high management, investment, and storage costs. The commercial distribution systems--a recognized national asset for use in emergencies and during normal times--are an effective alternative. They provide the same commercial items to the general public that DSA stocks, and they maintain a system as extensive as any distribution system for commercial items which could be established within DOD.

We believe that greater use of commercial distribution systems for minor, low-use supply items can save DSA millions of dollars in supply managment and inventory investment costs. DSA has various ways of providing responsive support to users through commercial distribution systems. For example, the maximum use of Federal Supply Schedules, indefinite-delivery contracts, and local purchase by using activities are recognized as effective procurement methods which help the user to purchase directly from suppliers and which can result in savings to the user, as well as to DSA.

We recognize that certain commercially available items, such as those having high-demand activity and valid military specification, mobilization reserve, and insurance requirements, should be stocked. We believe, however, that DSA should determine whether an item can be effectively supported from commercial sources once it enters the system and consider using these sources if high-demand activity is not anticipated or if a critical military requirement does not apply. After commercial items designated for stockage have passed a demand development period, generally 2 years, DSA should consider making another commercial availability review if data shows that demands (in certain stock classes, for example) have not materialized.

CHAPTER 5

AGENCY COMMENTS, OUR EVALUATION, AND RECOMMENDATIONS

AGENCY COMMENTS

We brought our findings and conclusions to the attention of the Secretary of Defense in our March 11, 1976, preliminary report. In his May 18, 1976, letter, the Principal Deputy Assistant Secretary of Defense (Installations and Logistics) commented on our preliminary report. (See app. I.) He said the report would be very useful in developing additional policy guidance on the management of commercial items. He said DOD intended to make greater use of commercial distribution systems and to increase the use of indefinite-delivery contracts at both local and centralized management activities.

Concerning the actions we concluded were needed, DOD

--agreed with the concept of giving greater consideration to commercial availability and costs of central management,

--did not concur in the need to review commercial sources for items in which anticpated demand does not materialize,

--is revising the DOD instruction on centralized versus decentralized management; it is scheduled for publication by December 1976, and

--will evaluate the need for increased internal audit coverage in this area against other priority audit requirements.

Although DOD agreed with the concept of giving greater consideration to commercial availability and central management costs, it believes that many items have to be stocked, or at least centrally managed, for overseas customers regardless of the cost-benefit relationships of central management versus local management in the United States. It stated that to centrally stock or not stock was a complex issue related to the needs of the user and the type of alternative support structures available.

In regard to reviewing an item's commercial availability if the anticipated demand does not occur 2 years after the item's introduction into DSA's system, DOD said it

would be cost effective to satisfy demands from central stockage rather than to buy items locally for the few demands which might occur on inactive items. DOD added that once the investment was made, excess inventory would be disposed of under the Defense Inactive Item Program.

According to DOD, the revised DOD instruction will stress greater use of Federal Supply Schedules, idenfinite-delivery contracts, and local purchase of low-cost, low-use commercial-type items.

OUR EVALUATION

Although supporting overseas requirements deserves careful consideration, we do not see it as a major barrier in limiting more commercial items from being decentralized by DSA. For example, as of December 1975, DSA stocked only 10,000 items for overseas users who were unable to buy them locally because local purchase was prohibited or was not available. This indicates that many other items can be bought locally overseas, if necessary.

During our review, DSA had a program underway which permitted direct vendor support of overseas users for commercially available nonstocked automotive repair parts. DSA officials said that this program, using indefinite-delivery contracts, had substantially reduced the time required to fill overseas orders. The officials said DSA was experimenting with the use of this concept for other item supply classes.

The Procurement Commission also addressed the overseas supply issue. It concluded that:

--Purchase of U.S.-made commercial products by overseas activities from U.S. firms or subsidiaries with overseas distribution systems would provide a potential for savings over shipment of these items by the U.S. Government from the United States.

--Indefinite-delivery contracts could be used to simplify procurement of U.S.-made products from overseas sources.

--Overseas activities should not be required to order materiel from the United States without considering alternatives that might be more cost effective.

The thrust of our suggestion dealing with a commercial availability review following the demand development period, if expected demand fails to materialize, was intended to exploit non-stocked-item management methods for low-use commercial items. At the end of the demand development period, DSA's inventory investment may still be considerable. However, for commercially available items, DSA should start coding appropriate items for local purchase once the existing inventory has been depleted. Unless these items are so coded, they will remain in the system indefinitely as long as one demand occurs every 2 years. An item cannot be disposed of under the Defense Inactive Item Program until it has been in the system 7 years and no demands occur within the past 2 years. We believe the action we suggested is essential to help reduce DSA's involvement--management, inventory investment, and storage--for seldom used commercially available items.

We plan to monitor DSA's and the military services' implementation of the revised DOD instruction. We also strongly encourage DOD and DSA to increase the scope of future audits in the area of centralized and decentralized item management.

RECOMMENDATIONS

To prevent commercial items from entering DSA's supply system unnecessarily and to minimize the number of such items already stocked in the system, we recommend that the Secretary of Defense instruct the Director, DSA, to:

--Give greater consideration to commercial availability and costs of central management when deciding the best supply method for items entering DSA's supply system.

--Determine, after the decision is made to invest in stockage, whether an item can be effectively supported from commercial sources if anticipated demand does not materialize after the demand development period.

--Stress greater use of Federal Supply Schedules, indefinite-delivery contracts, and local purchase authority for those low-cost, low-use items which are readily available from established commercial supply sources, especially to assist in supplying overseas needs.

--Increase the scope of internal audit coverage at the supply centers to include evaluations of the potential benefits in expanding the use of non-stocked-item management methods for low-use supply items.

CHAPTER 6

SCOPE OF REVIEW

We made our review to determine whether greater use of commercial distribution systems for low-use commercially available items can reduce defense logistics costs and provide an effective supply support alternative for users of these items. We made our review at the Defense Construction Supply Center, Columbus, Ohio, and at the Defense Electronics Supply Center, Dayton, Ohio.

We reviewed pertinent regulations, reports, and other records relating to the stockage criteria for supply items. We held discussions with DSA headquarters and supply center officials concerning policies, procedures, and criteria pertaining to stockage decisions. To determine whether users can buy DSA commercially available items locally, we visited using activities located at the Naval Aerospace and Regional Medical Center, Pensacola, Florida; at Fort Knox, Kentucky; and at Wright-Patterson Air Force Base, Dayton, Ohio.

At the two supply centers we visited, we selected a total statistical random sample of 564 active stocked items for further examination. Items identified as high-value items, inactive items, those which had been in the system less than 2 years, and those which had not had any usage during the past 12 months were not included in our sample. For the selected items, we reviewed the procurement and demand history and standard unit price data.

To determine the extent to which the sample items were readily available from commercial sources, together with other requested information, we sent questionnaires to a total of 848 different suppliers and received 752 responses. These suppliers were ones which the two centers listed as possible sources for buying the items we sampled.

EXHIBIT

EXHIBIT A

INDUSTRY REACTION TO STOCKAGE OF COMMERCIALLY AVAILABLE ITEMS

To determine the extent of commercially available items in the Construction and Electronics Centers' inventories, we sent questionnaires (see p. 45) to 848 different suppliers and obtained their views. These suppliers--wholesalers, distributors, manufacturers--were ones which the two centers listed as possible sources for buying the items we sampled. If a specific item was not considered to be commercially available, we asked the respondents whether they sold a commercial version which was functionally equivalent to the item under consideration.

To help respondents provide requested commercial availability, price, and delivery information, we gave them a description of the sampled item by name, national stock number, manufacturer's part number, and other identifying numbers which we felt were necessary.

RESPONSES TO QUESTIONNAIRES

The respondents indicated that a large number of the sampled items from the two centers' stocks (1) were commercially available, (2) were deliverable within 30 days after the date of order, (3) could be obtained for a lower unit price as more units were ordered, and (4) could be shipped to customers throughout the United States. Following are questions we asked and some typical responses to them.

Does your company sell the (sampled) item commercially?

Most of the items stocked in the two supply centers' inventories were sold commercially by the suppliers who responded. For this question, we asked respondents to disregard military packaging and labeling and commercial branding and labeling considerations unless specifically requested. The results are shown below.

EXHIBIT A

Supply Center	Number of items sampled	Number of items answered	Number of items commercially available	Percent commercially available
Construction	276	269	212	78.8
Electronics	288	277	189	68.2
Total	564	546	401	73.4

The ready availability of the 401 commercially available items, according to the questionnaire responses, is as follows:

	Construction		Electronics	
Delivery days	Number of items	Percent	Number of items	Percent
30 and under	139	65.5	70	37.0
31 to 45	8	3.8	20	10.6
46 to 60	19	9.0	34	18.0
61 to 90	19	9.0	34	18.0
Over 90	24	11.3	27	14.3
No response	3	1.4	4	2.1
Total	212	100.0	189	100.0

Typical comments provided by respondents on commercial availability and benefits in using commercial distribution systems follow.

> "All serviceable engine components sold by [our company] are available commercially through our distributor network."
>
> "* * * most of our parts can be shipped in 30 to 90 days. In cases of emergency, we are able to do better. We agree * * * that for other than long lead items it is not necessary for DSA to stock a large number of parts."
>
> "* * * consideration should be given to having local using units buy their parts directly from the distributor or dealer in their area, including in overseas locations.
>
> "This approach would be entirely feasible for nearly all commercial products manufactured by companies with world-wide distribution systems."

* * * * *

"We wish to point out, at this time, that [our company], which is a large business concern * * *, manufactures a family of standard commercial products designed, developed and tooled at it's own expense to serve the needs of * * * Government and Commercial customers for teletypewriter Data terminals. For this reason, we have an established sales policy which * * * apply to all customers including U.S. Government and U.S. Government End-Use transactions."

If not (sold commercially), does it sell a commercial version of this item that, in your opinion, is functionally equivalent to the military specification version of this item?

There were 145 items which respondents said were not sold commercially. For nine of these items, or 6 percent, respondents said they sold commercial versions which they felt would function just as well as the military version. For an additional 24 items which various respondents said were sold commercially, other respondents not selling these same 24 items felt that they had another available version which would work just as well. Examples of specification items for which a similar version is sold commercially follow.

NSN	Description
2540-00-481-3637	Windshield wiper blade
2920-00-126-3637	Spark plug
2920-00-846-4637	Terminal
4730-00-266-1841	Straight adapter
5905-00-147-9841	Fixed film resistor
5920-00-296-6841	Cartridge fuse
6625-00-877-5829	Test lead

In the case of the windshield wiper blade, the supplier replying to this item indicated that the military version was furnished in an olive drab finish, whereas the commercial version was sold without regard to the color. Although undoubtedly basic differences do exist between both military and commercial versions, these responses indicate that commercial sources can provide, if necessary, similar versions well within the limits specified by the military.

In other cases, respondents not selling a particular item commercially said that sometimes items manufactured are unique to military requirements.

> "We wish to point out that the particular part in question is specially designed to meet rigid U.S. Navy requirements. These include not only those imposed by the basic MIL [military] spec applicable to the compressor, but they also include other specialized requirements. These include design for high shock, design for vibration, design for inclined operation, and selection to meet the stringent shipboard requirements of the operating environment. Since these represent constraints which are much more severe than encountered on commercial applications, the item must be specially designed."

Does your company have a minimum quantity or dollar value purchase order requirement?

Sixty-eight percent of the items required minimum order quantities or minimum dollar-value purchases. Although minimum requirements may cause users to buy more units than they need from certain suppliers, the fact that 32 percent of the commercially available items had no minimum requirements indicates that thousands of DSA commercial items can be bought from suppliers without these charges.

> "The particular part you chose is highly abnormal. By this we mean that it's usage outside the government is very limited. This accounts for the delivery [150 to 270 days] and high minimum quantity. There are many other parts which we handle on a stocking basis where delivery would be within 48 hours (in smaller quantities) and minimum quantity requirements would be negligible or insignificant."

Are your unit prices affected by the quantity ordered?

Seventy-three percent of the sample items sold commercially could be bought for lower unit prices as more units were ordered.

"In the first place, all items are sold commercially. The unit price and the delivery depends upon the quantity being ordered. We will get requests all the way from one to many thousands."

* * * * *

"Since we are [a] custom [house], there are quantity discounts with the following quantity level breaks: 1-4, 5-9, 10-24, 25-49, 50-99, 100-249."

Although price discounts are available in most cases, unit price information provided by respondents on our sample items suggests that DSA is selling many items to its users for more than commercial suppliers are selling it. Ninety-six of our samples, or 24 percent of those considered to be commercially available, had unit prices lower than the DSA standard unit price at the time of our review. Comments from respondents on this and related matters follow.

"We agree * * * that commercial replacement parts can be obtained much quicker through commercial distribution channels and, many times, at a price equal to or less than what DSA is charging.

* * * * *

"If DSA is not or cannot perform this [wholesale operation] cost effectively, then there would seem to be considerable merit to using existing commercial distribution systems."

A respondent felt that, although unit prices generally were higher commercially, opportunities for cost avoidances by DSA were available.

"While the immediate acquisition price of an individual piece will almost always be higher than when purchased through DSA, the complete DSA overhead and time delay would not be required for items purchased locally from manufacturers, distributors or dealers with a resulting overall cost savings to the Government and the improved delivery performance by the shortening of the order processing pipeline."

EXHIBIT A

Will your company fill and ship orders for customers throughout the United States?

For 99 percent of the items, respondents said "yes." Some respondents indicated that they also shipped orders internationally.

> "Today, our [international] parts network consists of 48 Distributors in the United States, plus Distributors in Canada, and Overseas Countries. Each of these Distributors maintain a substantial parts inventory to support his customers besides maintaining full service shops, new engine sales, and reliable rebuilt assemblies.
>
> "It has been our practise [sic] to ship parts to any U.S. Government agency; however, it is our contention that most of the direct ship orders can be placed with the local Distributor thereby eliminating time delays of the system and realizing procurement economies."

Are there any additional charges involved in selling the commercially available units to the military?

Forty-nine percent of the items had additional charges associated with them. Some respondents indicated that additional charges for handling and shipping were part of their routine business operation, whereas others suggested that military packaging and labeling requirements for commercial items were unnecessary.

> "There is a packaging charge only when special packaging is required. Since [our company] does volume business with all major aerospace companies, our standard commercial packaging is normally more than adequate to meet all 'real' needs."
>
> * * * * *
>
> "* * * there are no additional charges involved in selling commercial items to the Military. We wish to clarify this statement by saying that this is true if the Military will order

EXHIBIT A

standard commercial preparation for delivery. If the Military order special preservation, packaging and packing, there are additional charges. We subcontract Military preservation, packaging and packing, since this is a specialty in itself and the charges usually run 10 to 15% of the cost of the item. We simply pass on the cost of this preparation for delivery to the Military, at the price we pay for it."

The above data and responses clearly show that industry is willing to provide support to users for items they sell commercially for which DSA also maintains stocks. The responses suggest that commercial distribution systems can alleviate some of the problems DSA has experienced with its supply system.

EXHIBIT A

EXHIBIT A

UNITED STATES GENERAL ACCOUNTING OFFICE
REGIONAL OFFICE
8112 FEDERAL OFFICE BUILDING
FIFTH AND MAIN STREETS
CINCINNATI, OHIO 45202

June 11,1975

Manager of Marketing

Dear Sir:

The General Accounting Office -- an agency of the Congress charged with investigating the application of Federal funds -- is conducting a study of the availability of Defense Supply Agency (DSA) items in the commercial market. The purpose of this study is to identify supplier sources and to determine how quickly and at what prices these sources could be expected to supply certain items directly to military users as an alternative to stocking the items in DSA's wholesale system. In this connection, we have prepared the enclosed questionnaire which is especially designed for quick completion and we are asking potential suppliers like yourself to give us the few minutes necessary to complete and return the questionnaire. Your response is important for we cannot make an adequate report to Congress without your help.

If you are wondering "why us", your company was chosen as part of a random sample drawn from the records of DSA's Defense Electronics Supply Center in Dayton, Ohio and Defense Construction Supply Center in Columbus, Ohio. However, time constraints have limited our survey to an examination of only a small sample of items contained in the DSA inventory, and it is essential that a reply be received from every company contacted. In some cases, it may be necessary to follow-up with letters, calls and visits to ensure we obtain complete data. We hope you will bear with us in this effort for our staff is charged with the responsibility of obtaining a reply from everyone in the sample.

In addition, we want to assure you that all replies will be treated confidentially. Your responses will be used only for the purpose of this study and will be released to no one without your written consent.

Since your timely response is important, we request that your company complete the questionnaire(s) and return it to our Office in the enclosed self-addressed envelope within 10 days. If you have any questions concerning the questionnaire, please feel free to contact Mr. James L. Silvati or Mr. Paul E. Cox of my staff on 513-684-2107.

Thank you for your cooperation.

Very truly yours,

Robert W. Hanlon

Robert W. Hanlon
Regional Manager

Enclosure

EXHIBIT A

U.S. GENERAL ACCOUNTING OFFICE

SURVEY OF ITEMS COMMERCIALLY AVAILABLE FOR MILITARY PURCHASE

INSTRUCTIONS

Please provide the requested commercial availability and price infomation on the item described below. Complete your answers by either checking the appropriate box or filling in the indicated blank.

Item Description

1. Item name _____

2. Federal stock number _____

3. Manufacturer's part number _____

4. Other identifying number _____

Commercial Availability

5. Does your company sell the above item commercially?

[1] Yes [2] No

Note: In this and all subsequent items disregard military packaging and labeling and commercial branding and labeling considerations unless this information is specifically requested (as in item 12).

If yes go to 8; if no continue.

6. If not, does it sell a commercial version of this item that, in your opinion, is functionally equivalent to the military specification version of this item?

[1] Yes [2] No

If no, skip to item 14 and return the questionnaire.

7. If yes, please indicate the part number of the functionally equivalent item?

(Part Number)_____

Unit Price, Minimum Order, and Delivery Information

8. What is the unit price and delivery period for the commercially available item?

[1] Unit price – $ _____

[2] Delivery period – _____ days.

9. Does your company have a minimum quantity or dollar value purchase order requirement?

[1] No

[2] Yes, a minimum quantity order of

_____ units.
(minimum quantity)

[3] Yes, a minimum dollar value order of

_____
(minimum $ amount)

10. Are your unit prices affected by the quantity ordered?

[1] Yes [2] No

If yes, please indicate below the unit prices applicable to various order sizes for which you allow a price discount.

	(1) Quantity ordered	(2) Unit price	(3) Delivery time in days
(1)			
(2)			
(3)			
(4)			
(5)			

11. Will your company fill and ship orders for customers throughout the continental U.S. ?

[1] Yes [2] No

12. Are there any additional charges involved in selling the commercially available units to the military?

[1] Yes [2] No

If no, go to 14; if yes, continue.

13. What are these additional charges (base all charges on a single unit cost per minimum order)? (Indicate your answer by checking the appropriate altemative and completing the blank.

[1] There is a handling charge of $_____

[2] There is a shipping charge of $_____

[3] There is a packing charge of $_____

[4] There is a packaging or labeling charge of $_____

Respondent Infomation

14. Name _____

15. Title _____

16. Phone _____

APPENDIXES

APPENDIX I

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

SR
INSTALLATIONS AND LOGISTICS

18 MAY 1976

Mr. Fred J. Shafer
Director, Logistics &
Communications Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Shafer:

This is in response to your letter of March 11, 1976 to the Secretary of Defense forwarding copies of your Draft Report entitled, "Greater Use of Commercial Distribution Systems for Minor, Low-Use Supply Items Can Reduce Defense Logistics Costs," (OSD Case #4309).

We have reviewed the Draft Report and believe it will be most useful in developing additional policy guidance in this area. Our comments, keyed to specific recommendations, are furnished in the enclosure.

We intend to make greater use of the commercial distribution system and are particularly interested in increasing the use of indefinite delivery type contracts at both local and centralized management activities.

There are several issues which were not addressed in the Draft Report relative to "sunk" costs that are incurred as a result of centralized stockage for overseas support, and our need to assure the operating forces of a viable support structure in wartime as well as peacetime. Consideration of these and other related issues tends to make the decision-making process somewhat more complex than is indicated in the Draft Report.

We appreciate the opportunity to comment on this Report in draft form.

Sincerely,

JOHN J. BENNETT
Principal Deputy Assistant Secretary of Defense
(Installations and Logistics)

Enclosure
As Stated

APPENDIX I

DEPARTMENT OF DEFENSE COMMENTS
ON
GAO DRAFT REPORT
DATED MARCH 11, 1976

GREATER USE OF COMMERCIAL DISTRIBUTION
SYSTEMS FOR MINOR, LOW-USE SUPPLY ITEMS CAN REDUCE DEFENSE LOGISTICS COSTS

(OSD Case #4309)

Comments on Specific GAO Recommendations:

Recommendations:

The General Accounting Office (GAO) recommends that the Secretary of Defense instruct the Director, Defense Supply Agency (DSA) to

--Give greater consideration to commercial availability and costs of central management when deciding the best supply method for items entering DSA's supply system.

--Determine, after the decision is made to invest in stockage, whether an item can be effectively supported from commercial sources if anticipated demand does not materialize following the demand development period.

--Stress greater use of Federal Supply Schedules, indefinite delivery type contracts, and local purchase authority for those low-cost, low-usage items which are readily available from established supply sources.

--Increase the scope of internal audit coverage at the supply centers to include evaluations of the benefits in using nonstocked management methods for low-use supply items.

DoD Comments:

The concept of giving greater consideration to commercial availability and cost of central management is concurred in. Although it is difficult, to develop cost benefit relationships that account for all elements of central versus local stockage, the lack of any definitive data on the increased cost of local procurement tends to bias the conclusions reached in the Draft Report toward a need for greater use of the commercial distribution system. Many items have to be stocked, or at least centrally managed, for overseas customers, regardless of the cost benefit relationships of central versus local management in the Continental United States (as addressed in the Draft

Report). There are also other related support techniques which replace central or local stockage. In sume instances, we find that it makes sense to support commercial-type administrative vehicles and civil engineering activities through Contractor Operated Parts Stores (COPARS). This type of support is used primarily for locally procured items; however, in some instances centrally procured items are also involved. The Draft Report did not address overseas support requirements and the relation of these requirements to a total cost benefit analysis. In our view, this is a significant deficiency which dilutes the impact of the conclusions indicated in the Report. Thus, to centrally stock or not is a complex issue related to the needs of the user and the type of alternative support structures available.

As to a change from central to local management after having no demands during a demand development period, once the investment in stockage is made, excess inventory would be disposed of eventually under the Defense Inactive Item Program. For several years, however, it would be cost-effective to satisfy demands from the central stockage rather than initiate procurement action at the local level for the few demands that might occur on relatively inactive items. Thus, the recommendation for review of centralized versus local management, after the demand development period (two years after introduction of the end item) is not concurred in.

A revision to the DoD Instruction on Centralized versus Decentralized Management is in process. Policy guidance stressing greater use of Federal Supply Schedules, indefinite delivery type contracts, and local purchase of low-cost, low-usage, commercial type items will be included in the revision to this Instruction, which is scheduled for completion and promulgation by December 1976.

The recommendation for increased internal audit coverage in this area will be evaluated against other priority audit requirements.

SUMMARY OF ITEMS ASSIGNED TO DSA

AS OF DECEMBER 31, 1975

Supply status code	Defense supply center				
	Construction	Electronics	General	Industrial	Total
	(thousands of items)				
1	165.1	223.2	72.9	328.1	789.3
2	36.4	4.2	9.9	4.6	55.1
3	74.7	148.7	65.4	110.5	399.3
4	1.2	.2	.9	5.1	7.4
5	-	-	.1	-	.1
6	18.1	49.8	9.8	7.9	85.6
7	8.0	-	1.3	.4	9.7
8	-	-	-	-	-
9	19.3	6.6	9.9	20.9	56.7
A	37.7	258.1	40.2	103.9	439.9
Total	360.5	690.8	210.4	581.4	1,843.1

APPENDIX III

SAMPLE OF DEFENSE CONSTRUCTION SUPPLY CENTER
ITEMS AVAILABLE WITHIN 30 DAYS
FROM COMMERCIAL SUPPLY SOURCES

Item number	NSN	Part	Unit price	Onhand inventory (note a)	Inventory value
1	2520-00-080-6759	Plate, spring	$ 1.05	136	$ 142.80
2	-125-2841	Shifter fork	11.60	35	406.00
3	-432-9637	Plate, clutch	18.49	1	18.49
4	-622-3841	Pin, gear shift	.23	214	49.22
5	-734-8759	Ball, pivot	.47	23	10.81
6	-758-0637	Shaft, axle, auto	9.76	37	361.12
7	-852-4841	Disk, clutch	53.00	32	1,696.00
8	-932-0759	Spring,transmission	.45	123	55.35
9	-944-8637	Parts kit, clutch	132.00	17	2,244.00
10	-948-8829	Tube assembly	30.40	64	1,945.60
11	2530-00-014-6841	Hose assembly	5.30	26	137.80
12	-080-2841	Brake lining kit	4.23	140	592.20
13	-192-8637	Parts kit, hydraulic	4.35	10	43.50
14	-378-7759	Fitting	.40	-	-
15	-403-0841	Reservoir hydraulic	33.10	131	4,336.10
16	-712-9637	Hydrovac ass'y, brake	32.60	77	2,510.20
17	-718-3637	Packing, axle	2.70	-	-
18	-741-0841	Cup, hydraulic brake	1.00	59	59.00
19	-826-9841	Hose assembly	4.50	65	292.50
20	-845-2841	Plug, brake	.30	45	13.50
21	-848-1759	Brake shoe	38.50	27	1,039.50
22	-860-9841	Parts kit, hydraulic	.48	316	151.68
23	-971-4759	Pawl	3.86	85	328.10
24	2540-00-018-2759	Bracket	1.60	393	628.80
25	-425-5841	Seat assembly	129.00	6	774.00
26	2805-00-042-4637	Insert, valve seat	5.59	361	2,017.99
27	-078-2637	Mount, engine	1.15	2,003	2,303.45
28	-132-4759	Spring	.16	615	98.40
29	-253-5759	Rod, piston	7.14	103	735.42
30	-339-5637	Gasket set, valve	3.02	216	652.32
31	-377-5637	Piston, internal comb.	16.80	24	403.20
32	-622-8637	Piston, internal comb.	3.20	2,821	9,027.20
33	-640-8637	Ring, piston	.39	-	-
34	-785-6637	Sleeve, valve spring	.11	265	29.15
35	-905-9829	Ring set, piston	6.75	224	1,512.00
36	-962-8637	Pump, oil engine	8.40	64	537.60
37	-962-8841	Parts kit, engine	16.30	140	2,282.00
38	2815-00-035-8637	Valve, poppet	3.37	7	23.59
39	-070-8841	Lever, injector	1.21	1,448	1,752.08
40	-147-1841	Parts kit, engine	36.81	10	368.10
41	-148-5759	Cover, balance	16.30	45	733.50
42	-364-3829	Shaft, lube oil	5.06	30	151.80
43	-400-6841	Pulley, idler	14.80	115	1,702.00
44	-499-4759	Pin, piston	55.00	90	4,950.00
45	-682-7637	Valve, poppet	1.41	2	2.82
46	-779-2829	Piston, internal comb.	13.39	-	-
47	-919-4841	Seal kit	5.04	266	1,340.64
48	-964-4759	Camshaft, engine	156.00	15	2,340.00
49	2910-00-042-4759	Ring, cam	23.60	-	-
50	-047-3759	Pump, fuel	6.00	207	1,242.00
51	-374-3841	Bowl, sediment, fuel	.18	332	59.76
52	-848-7759	Tank, fuel	16.50	16	264.00
53	-871-2759	Valve filter	.26	81	21.06
54	-873-1841	Hose, fuel	5.80	12	69.60
55	-885-5637	Block, fuel filter	2.59	59	152.81
56	-932-4841	Spring, throttle	.42	89	37.38
57	2920-00-126-3637	Spark plug	.83	6,693	5,555.19
58	-161-7759	Wire, magneto	2.22	8	17.76
59	-806-0637	Coupling	10.00	14	140.00
60	-846-4637	Terminal	.10	6,712	671.20
61	-847-9637	Fan generator	.90	39	35.10

APPENDIX III

Item number	NSN	Part	Unit price	Onhand inventory (note a)	Inventory value
62	2930-00-351-7759	Connector, water	2.39	1	2.39
63	-362-0759	Pump, water	303.00	21	6,363.00
64	-469-9841	Ring, wearing	6.60	35	231.00
65	-845-3841	Pulley, fan	3.30	8	26.40
66	-932-9637	Pulley, fan	8.75	16	140.00
67	2940-00-884-5759	Filter, intake	5.12	141	721.92
68	2990-00-318-6637	Housing, governor	15.30	61	933.30
69	-313-9637	Governor, diesel	140.00	145	20,300.00
70	-456-5841	Bracket, tail pipe	1.90	5	9.50
71	-845-6759	Link	.32	170	54.40
72	3020-00-005-7637	Gear, spur	13.54	4	54.16
73	-196-1759	Link, offset	4.05	23	93.15
74	-294-9637	Gear, bevel	15.00	72	1,080.00
75	-475-0637	Gear, spur	3.52	84	295.68
76	-517-0637	Gear, helical	4.86	17	82.62
77	-540-8637	Gear, spur	51.00	104	5,304.00
78	-891-3759	Gear	17.90	-	-
79	3030-00-111-6637	Belt, powerband	253.00	20	5,060.00
80	-431-6637	Belts V, set	6.60	182	1,201.20
81	-859-4829	Belts V, set	85.00	157	13,345.00
82	3040-00-944-1759	Gear shaft	2.05	180	369.00
83	3805-00-131-1841	Pump, hydraulic	362.00	-	-
84	-621-5637	Collar, shifter	60.00	77	4,620.00
85	-686-6637	Bushing	50.00	307	15,350.00
86	-798-4637	Ring backup	.37	551	203.87
87	3910-00-441-0637	Roller assembly	23.20	56	1,299.20
88	3930-00-179-6759	Packing kit, tilt	5.30	28	148.40
89	-933-3759	Hose assembly	14.00	23	322.00
90	3950-00-086-2637	Grand cartridge kit	11.70	23	269.10
91	-371-9637	Trolley, I-beam	59.00	-	-
92	4210-00-640-1841	Bracket, fire exting.	12.00	101	1,212.00
93	4310-00-354-7841	Intercooler, comp.	22.33	120	2,679.60
94	-967-4829	Cylinder/plunge	20.00	138	2,760.00
95	4320-00-812-7841	Impeller,pump	47.00	27	1,269.00
96	-999-3637	Splined shaft space	3.00	25	75.00
97	4330-00-001-7841	Filter element, fluid	16.65	-	-
98	-036-3829	Element, filter	3.56	442	1,573.52
99	4510-00-889-9759	Rod, lift	.39	133	51.87
100	4530-00-103-8637	Valve, regulating	11.90	22	261.80
101	4710-00-822-5841	Pipe, metallic	5.34	1,171	6,253.14
102	4720-00-203-7637	Hose, preformed	1.30	395	513.50
103	-248-0841	Tubing, rubber	.32	2,306	737.92
104	-477-1759	Hose assembly	4.86	11	53.46
105	-494-0759	Hose, preformed	1.11	6	6.66
106	-984-1637	Hose assembly	21.10	24	506.40
107	4730-00-008-4829	Elbow, tube	11.80	355	4,189.00
108	-222-9637	Plug, pipe	1.15	2,742	3,153.30
109	-233-0759	Cup, oil lube	2.05	24	49.20
110	-234-7637	Adapter	.60	731	438.60
111	-263-3759	Tee, pipe	16.80	4,313	72,458.40
112	-265-9759	Tee, pipe	.74	433	320.42
113	-266-1841	Adapter	.85	269	228.65
114	-266-2637	Tee, pipe	.49	205	100.45
115	-269-2841	Elbow, pipe	.28	10	2.80
116	-277-2759	Bushing, pipe	.93	248	230.64
117	-277-9759	Connector	1.76	686	1,207.36
118	-369-4637	Adapter	.73	2,735	1,996.55
119	-478-2637	Reducer, pipe	.90	18	16.20
120	-594-1637	Thread piece	1.74	670	1,165.80
121	-722-2637	Adapter	4.89	254	1,242.06
122	-722-2759	Elbow, pipe	.50	70	35.00
123	-811-1841	Flange,pipe	2.00	910	1,802.00
124	-814-8841	Trap, air	19.90	31	616.90
125	-828-4841	Union, tube	.98	223	218.54
126	-842-7841	Plug, pipe	.36	947	340.92
127	-896-7759	Adapter	2.29	6	13.74
128	-901-0637	Adapter	.78	403	314.34
129	-908-1637	Elbow, tube	2.49	3	7.47
130	4810-00-934-8637	Seat, valve	18.50	-	-

APPENDIX III

Item number	NSN	Part	Unit price	Onhand inventory (note a)	Inventory value
131	4820-00-203-0637	Valve, gate	14.40	24	345.60
132	-254-8637	Cock, shutoff	2.24	628	1,406.72
133	-274-3637	Cock, plug	3.40	528	1,795.20
134	-287-5637	Cock, plug	8.84	1,846	16,318.64
135	-442-3841	Valve, expansion	52.00	18	936.00
136	-702-6841	Valve, safety	29.20	27	788.40
137	-731-1637	Seat, valve	3.00	62	186.00
138	4930-00-007-4759	Reel, static	63.00	6	378.00
139	-445-0759	Adapter and screen	.83	710	589.30

[a]As of May 5, 1975.

APPENDIX IV

SAMPLE OF DEFENSE ELECTRONICS SUPPLY CENTER ITEMS AVAILABLE WITHIN 30 DAYS FROM COMMERCIAL SUPPLY SOURCES

Item number	NSN	Part	Unit price	Onhand inventory (note a)	Inventory value
1	5905-00-111-4841	Resistor, fixed	.03	10,717	$ 321.51
2	-243-5841	Resistor, variable	2.49	186	463.14
3	-284-3759	Resistor, current	.90	176	158.40
4	-577-3759	Resistor, variable	1.29	1,796	2,316.84
5	-702-1759	Resistor, variable	4.40	126	554.40
6	-834-5841	Resistor, fixed	.70	12	8.40
7	5910-00-490-3759	Capacitor, fixed	8.81	61	537.41
8	-577-6841	Capacitor, fixed	1.00	136	136.00
9	5920-00-296-6841	Fuse	.34	2,566	872.44
10	5925-00-503-5841	Circuit breaker	3.50	146	511.00
11	5930-00-060-1637	Switch, pressure	.64	1,707	1,092.48
12	-433-7841	Switch, sensitive	5.80	2	11.60
13	-472-0759	Switch, rotary	12.10	39	471.90
14	-689- 759	Switch, rotary	29.10	7	203.70
15	-901-5841	Switch, sensitive	10.60	45	477.00
16	-910-1637	Switch, thermostat	40.80	14	571.20
17	5935-00-098-8759	Connector body	2.75	12	33.00
18	-110-0759	Connector	12.50	380	4,750.00
19	-172-0841	Connector	14.30	12	171.60
20	-204-6841	Connector	3.40	293	996.20
21	-222-0841	Connector	.40	594	237.60
22	-243-8759	Connector	25.20	8	201.60
23	-244-7759	Socket	1.10	115	126.50
24	-247-5759	Connector	27.00	17	459.00
25	-280-2829	Connector	.89	4,697	4,180.33
26	-728-4637	Connector	6.42	1,530	9,822.60
27	-925-1841	Socket	5.20	28	145.60
28	-940-2841	Socket	.23	73	16.79
29	-962-2841	Connector	3.40	81	275.40
30	5945-00-127-3841	Relay	5.07	7	35.49
31	-170-9841	Solenoid	47.00	11	517.00
32	-185-4841	Chopper	70.00	11	770.00
33	-412-0841	Relay	7.11	25	177.75
34	-892-8759	Relay	8.34	37	308.58
35	5950-00-003-5759	Coil	3.25	8	26.00
36	-070-7637	Coil	.41	2,602	1,066.82
37	-150-4759	Transformer	23.60	23	542.80
38	-164-9841	Transformer	17.50	2	35.00
39	-226-6841	Transformer	12.00	-	-
40	-302-7829	Transformer	159.00	-	-
41	-617-4759	Transformer	30.00	73	2,190.00
42	-717-2637	Transformer	7.00	24	168.00
43	-763-9841	Coil	5.00	14	70.00
44	-824-3841	Coil	3.81	90	342.90
45	-864-0759	Transformer	7.70	25	192.50
46	-919-7759	Transformer	5.20	23	119.60
47	-942-2759	Transformer	2.50	144	360.00
48	5955-00-060-0759	Crystal unit	2.80	449	1,257.20
49	-812-7637	Crystal unit	17.80	2	35.60
50	-910-2841	Crystal unit	23.30	82	1,910.60
51	5961-00-074-8841	Transistor	6.20	263	1,630.60
52	-077-1841	Transistor	.47	390	183.30
53	-110-7841	Semiconductor	.29	107	31.03
54	-179-0841	Semiconductor	7.73	25	193.25
55	-441-7841	Semiconductor	3.48	86	299.28
56	-494-4841	Transistor	1.30	197	256.10
57	-497-8841	Transistor	2.32	24	55.68
58	-813-3759	Transistor	2.90	238	690.20
59	-835-3829	Semiconductor	7.54	145	1,093.30
60	-847-6841	Transistor	1.38	3,280	4,526.40
61	-917-9637	Semiconductor	2.38	672	1,599.36
62	-927-0829	Transistor	.90	1,057	951.30
63	-929-4841	Transistor	3.77	175	659.75
64	-997-2841	Transistor	1.86	1,342	2,496.12
65	5962-00-139-2841	Microcircuit	48.80	1	48.80
66	-169-3829	Microcircuit	65.00	-	-
67	-248-2637	Microcircuit	1.07	1,278	1,367.46
68	-455-3637	Microcircuit	13.40	160	2,144.00
69	6625-00-020-5829	Prod, test assembly	26.90	221	5,944.90
70	-877-5829	Head, test	27.80	55	1,529.00

[a]As of May 5, 1975.

PRINCIPAL OFFICIALS

RESPONSIBLE FOR ADMINISTERING ACTIVITIES

DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
SECRETARY OF DEFENSE:		
Donald Rumsfeld	Nov. 1975	Present
James R. Schlesinger	June 1973	Nov. 1975
William P. Clements, Jr. (acting)	Apr. 1973	June 1973
Elliot L. Richardson	Jan. 1973	Apr. 1973
ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS AND LOGISTICS):		
Frank A. Shrontz	Feb. 1976	Present
John J. Bennett (acting)	Apr. 1975	Feb. 1976
Arthur T. Mendolia	Apr. 1973	Mar. 1975
Hugh McCullough (acting)	Jan. 1973	Apr. 1973
DIRECTOR, DEFENSE SUPPLY AGENCY:		
Lt. Gen. Woodrow W. Vaughn	Jan. 1976	Present
Lt. Gen. Wallace H. Robinson, Jr.	July 1971	Dec. 1975

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