

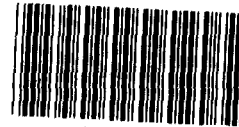
GAO

Report to the Chairman, Subcommittee
on Readiness, Committee on Armed
Services, House of Representatives

July 1991

ARMY INVENTORY

Fewer Items Should Be Stocked at the Division Level



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United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

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The Honorable Earl Hutto
Chairman, Subcommittee on
Readiness
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

This report responds to your concerns about whether the Army was taking full advantage of opportunities to streamline its logistics system. In this regard, you asked us to determine whether the Army

- needed to buy and maintain all of the items it stocked at the division level or
- could reduce its investment in divisions' inventories without adversely affecting supply responsiveness.

We are sending copies of this report to the Director of the Office of Management and Budget; the Chairmen of the House Committee on Government Operations, the Senate Committee on Governmental Affairs, the House and Senate Committees on Appropriations, and the Senate Committee on Armed Services; and the Secretaries of Defense and the Army. Copies will also be made available to other parties on request.

Please contact me at (202) 275-4141 if you or your staff have any questions. Other major contributors are listed in appendix IV.

Sincerely yours,

Richard Davis
Director, Army Issues

Executive Summary

Purpose

The Army's inventory—worth billions of dollars—is maintained through an extensive supply structure, with major concentrations of stock at its divisions. Concerned that the Army may not be taking full advantage of opportunities to streamline its logistics system, the Chairman of the Subcommittee on Readiness, House Committee on Armed Services, asked GAO to determine whether the Army (1) needed to buy and maintain all of the items it stocked at its divisions or (2) could reduce its investment in inventory at the divisions without adversely affecting supply responsiveness.

GAO performed its review at four divisions in the United States that were individually authorized to stock between 3,400 and 10,200 items. The value of the authorized stock at the divisions ranged from \$7 million to \$53 million.

Background

Spare and repair parts authorized to be stocked at the division level generally fall into two categories—demand-based and nondemand-based.

Demand-based items are items for which a specified number of demands accumulate during a 12-month period. Once an item is placed in this category it remains there as long as it continues to be requested at the required rate. If the item does not continue to be requested at this rate, it is no longer authorized to be stocked at the divisions.

Nondemand-based items are categorized as follows:

- Mandatory parts list items. These are items that the Department of the Army has directed will be stocked at divisions.
- Management discretion items. These are items that the division management is allowed to stock at its own discretion.
- Provisioning items. These are items stocked, for up to 2 years, to support newly fielded systems.

Results in Brief

The Army could reduce its inventory of spare and repair items at divisions in the United States by stocking only demand-based items. Doing so would allow the Army to reduce its investment in inventory without adversely affecting readiness.

At the four divisions in GAO's review, nondemand-based items accounted for 42 percent of the total authorized inventory items and 53 percent of the total value of the authorized inventory. At three of the divisions for

which demand data was available, 76 percent of the nondemand-based items had received fewer than three demands during the recent 12 months, and 61 percent of these items had not been requested at all. Even in those cases where the items were requested, only 16 percent of the requests were for items whose lack might have prevented the unit from being able to perform its mission.

There are also opportunities for the Army to reduce its inventory investment in items whose stock levels are based on demands. The requirements factors used to determine existing stock levels were established many years ago. Since then, enhancements in communications, distribution, and inventory management techniques have made it possible to respond to supply needs with less stock at the divisions. As the Army moves closer to a supply system that will allow the requester to obtain near-real-time information on the availability and location of needed inventory items, the need to maintain the current level of inventory becomes questionable.

Principal Findings

Nondemand-Based Inventory Items Are a Major Part of the Authorized Inventory Levels

At the four divisions in GAO's review, nondemand-based items accounted for 13,628, or about 42 percent, of the 32,221 line items the divisions were authorized to stock. In terms of inventory value, the nondemand-based items accounted for \$77 million, or about 53 percent, of the \$147 million value of the authorized inventory.

Even though the nondemand-based items are a large part of the total authorized inventory, these items are infrequently requested. For example, 61 percent of these items had not been requested at all during the recent 12 months for which demand data was available. During the same period, 15 percent of the items had been requested only once or twice. These low- or no-demand items represent \$35 million of inventory investment.

Even in cases when there were demands for these items, the demands were primarily low priority requisitions. For example, only 16 percent of the requisitions involved cases when the unit might not have been able to perform its mission due to the lack of parts.

Officials told GAO that inventory investment could be significantly reduced by issuing the nondemand-based items from the wholesale depots to the divisions when they were needed. The officials also stated that stocks at the depots would not have to be increased because they already reflected the demands of the retail level.

Stocking the items at the depots and issuing them when they are needed would allow the Army to meet the needs of its customers and reduce its inventory investment. When the lack of the item may impair equipment readiness or training, its delivery may need to be expedited from the depot. While some added transportation costs may be involved, any such costs would be minimal compared to the reduction in inventory investment.

Stock Levels for Demand-Based Items Are Questionable

Over the past several years, major advancements in the inventory management arena have included technology changes in communications and transportation as well as in the way inventory is managed. All these changes make it possible to reduce inventory investments while, at the same time, responding to the needs of the customers. The Army has the opportunity to take advantage of these improved technologies, yet it continues to base its stock levels for demand-based items on many of the same factors that were first established many years ago.

During Operations Desert Shield and Desert Storm, the Army employed a wide range of logistics measures, such as (1) expediting the delivery of critical parts from the storage depots to the requester, (2) expediting deliveries under existing contracts and expediting contract awards, (3) reducing production lead time, (4) directly delivering items from the manufacturer to the requester, and (5) expediting requisitions for spare and repair parts.

While some of these measures would not be cost-effective during peacetime, others could. The Army is pursuing certain of these measures as part of its Inventory Reduction Plan. However, the Army needs to continue the emphasis on these measures to bring them to fruition.

Recommendations

GAO recommends that the Secretary of the Army take the following actions:

- Direct that divisions in the United States not stock nondemand-based items that do not meet the “retain” criteria of at least three demands in

a 360-day period. Until the items qualify for stocking at the divisions based on the "add" criteria of nine demands in a 360-day period, the items should be stored at the wholesale-level depots and issued to the divisions when needed.

- Direct inventory managers to pursue opportunities for reducing inventory investment by (1) maximizing the use of alternatives such as direct vendor deliveries and expedited deliveries from the depots, and (2) evaluating inventory management lessons learned during Operations Desert Shield and Desert Storm. This should include the continuing emphasis on evaluating the requirements factors used in determining stock levels for demand-based items to ensure that they reflect improved technologies in communications, transportation, and inventory distribution methods.

Agency Comments

The Department of Defense concurred with all of the findings and recommendations.

The Department stated that latitude was needed to store nondemand-based items at the divisions because some were needed for readiness, some did not fit demand-based patterns, some were needed for programmed maintenance, and some were stocked based on essentiality. The Department also said that as part of planned and ongoing initiatives, it was already evaluating approaches like the ones mentioned in the report for reducing stockage at the division level.

The latitude the Army is seeking for storing nondemand-based items at the divisions is the primary reason that over 75 percent of the items had two or fewer demands during the year. Not only were the items requisitioned infrequently, but even when they were requisitioned, the items were generally not critical to mission capability.

GAO agrees that the Department's planned and ongoing initiatives to reduce stockage at the division level are a step in the right direction. For the most part, these efforts are still in the planning stage and have not yet been implemented. Therefore, the Army needs to continue to emphasize to its inventory managers the necessity to pursue these efforts to bring them to fruition.

The Department's detailed comments appear as appendix III.

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Introduction

The Army's supply system consists of two separate systems—the wholesale system and the retail system. The wholesale system is comprised of six National Inventory Control Points, which determine the types and quantities of items to be stocked and acquire and store the items at depots until they are issued to Army customers. The Army's retail supply system—often referred to as the “installation supply level” system—is responsible for computing requirements, requisitioning items from the wholesale system, storing them, and issuing them to units. Among the principal users in the retail level are divisions, where we performed our review.

Items stocked at the divisions include spare and repair parts for aircraft, missiles, and common equipment (such as trucks, tanks, and generators). While the total numbers and value of the Army-wide retail inventory are difficult to determine because inventory data is not centrally maintained, recent estimates by the Army place the inventory's value at several hundred million dollars.

At the four divisions in our review, the numbers of authorized items stocked ranged from 3,400 to 10,200, and the value of the inventory each division was authorized to stock ranged from about \$7 million to \$53 million.

Criteria for Determining Inventory Levels

The types and quantities of inventory that a division is authorized to stock are shown on its authorized stock list. The items stocked consist of demand-based items and nondemand-based items.

Demand-based items are items that qualify to be stocked based on a specified number of demands for them during a 12-month period. For an aviation or missile part to qualify, the unit must have requested it at least three times during a 12-month period. Common items must have been requested at least nine times. Once aviation and missile parts have been qualified as demand-based items, they must be requested at least once during a 12-month period to be retained on the authorized stock list. Common items to be retained must have been requested three times.

The specific quantity of a demand-based item that a division located in the United States is authorized to stock is computed using the following factors: (1) an operating factor equal to the quantity of an item needed to sustain 15 days of operations, (2) an order-ship-time factor equal to the quantity of an item needed to meet demands from the time an item is

ordered from the wholesale level until it is received by the division,¹ and (3) a safety level factor equal to the quantity of an item needed for 5 days of operations in the event of delivery delays or unanticipated increases in demand.

Nondemand-based items need not be demanded a specified number of times to qualify to be put on a division's authorized stock list. These items are categorized as follows:

- **Mandatory parts list items.** These are items the Department of the Army has directed will be stocked at the division level. These items are commonly referred to as "go-to-war" items.
- **Management discretion items.** These are items that the division management is allowed to stock at its discretion. The number of items in this category is limited to 5 percent of the total number of demand-based items.
- **Provisioning items.** These are items stocked to support newly fielded systems. An item identified as a provisioning item remains in that category for up to 2 years. If at the end of that period, it does not meet the criteria for a demand-based item, it is deleted from the authorized stock list unless it is justified for stocking under one of the above categories.

Objectives, Scope, and Methodology

The Chairman of the Subcommittee on Readiness, House Committee on Armed Services, asked us to determine whether the Army (1) needed to buy and maintain all of the inventory that it stocked at the retail level or (2) could reduce its inventory investment without adversely affecting supply responsiveness.

We reviewed Army policies, studies, and regulations regarding retail inventory management to determine how retail-level activities computed their stock levels and made decisions about which items would be retained. We also had discussions concerning inventory management practices with Army officials at the following locations:

- the Office of the Deputy Chief of Staff for Logistics, Department of the Army, Washington, D.C.;
- the Army Materiel Command, Washington, D.C.;
- the Army's Logistics Center, Fort Lee, Virginia;
- the Tank-Automotive Command, Warren, Michigan; and

¹If actual order-ship-time data is not available, the requirements system uses 25 days as the order-ship-time factor for determining the requirement level.

- the Army Materiel Command, Materiel Readiness Support Activity, Lexington, Kentucky.

On a judgmental basis, we selected the following four divisions located in the United States for a detailed review of their retail inventory records:

- the 1st Infantry (Mechanized) Division, Fort Riley, Kansas;
- the 4th Infantry (Mechanized) Division, Fort Carson, Colorado;
- the 7th Infantry (Light) Division, Fort Ord, California; and
- the 24th Infantry (Mechanized) Division, Fort Stewart, Georgia.

At each location, we determined the numbers of spare and repair parts the divisions were authorized to stock. We obtained this information from the divisions' availability balance files, which are used to compile the authorized stock lists. We also reviewed each division's demand history records² for the latest 12-month period at the time of our review to determine the demand frequency for nondemand-based items.

To assess the impact on readiness of storing nondemand-based items at the wholesale level depots rather than at the divisions, we analyzed the demands for these items to identify the ones whose lack would inhibit mission capability.

We also discussed with wholesale and retail inventory management officials whether the Army could reduce its inventory investment if nondemand-based items were not stocked at the division level. To assure ourselves that the data generated from the availability balance files was correct, we compared the unit cost for selected items shown on the divisions' availability balance files with the unit costs shown on the Army's Master Data Files. The comparison showed significant discrepancies between the unit costs in the two files. For the purpose of review, we used the unit cost data as listed in the Army Master Data Files because retail-level supply activities used these costs as the basis for reimbursing the retail stock fund when they ordered inventory items.

We performed our review from December 1990 to April 1991 in accordance with generally accepted government auditing standards.

²Because of Fort Riley's First Infantry Division's participation in the Persian Gulf War, we were not able to obtain its demand history records. Consequently, we did not include this unit in our demand analyses.

Nondemand-Based Items Should Be Stocked at the Wholesale Rather Than the Division Level

The Army could reduce its inventory of spare and repair items at divisions in the United States by stocking only demand-based items. Nondemand-based items could be maintained at the depots and issued to the divisions as needed. By doing so, the Army could reduce its investment in inventory without adversely affecting readiness.

Nondemand-Based Items Comprise a Significant Part of Divisions' Inventories

As shown in table 2.1, nondemand-based items at the four divisions in our review accounted for about 53 percent of their authorized inventory levels in terms of dollars and about 42 percent of the inventories in terms of numbers of line items.¹

Table 2.1: Nondemand-Based Authorized Inventory Items Compared to Total Authorized Inventory

Dollars in millions

Installation	Total inventory		Nondemand-based inventory			
	Number of items	Value	Number of items	Percent of total inventory	Value	Percent of total inventory
Fort Carson	10,232	\$40.2	5,806	56.7	\$32.4	80.7
Fort Ord	3,411	6.8	799	23.4	3.1	45.5
Fort Riley	9,138	46.7	3,935	43.1	20.5	44.0
Fort Stewart	9,440	53.0	3,088	32.7	21.1	39.8
Total	32,221	\$146.7	13,628	42.3	\$77.1	52.6

As shown in table 2.2, our analysis of the divisions' demand history data for the recent 12-month period at Forts Carson, Ord, and Stewart showed that 61 percent of the nondemand-based items had not been requested even once.² When combined with the number of items requested fewer than three times,³ the total increased to 76 percent. In other words, over three-fourths of the nondemand-based items the three divisions were authorized to stock had little or no use. These items represented an authorized inventory investment of \$35 million.

¹Appendix I shows a breakdown of the nondemand-based items by type at each location.

²Appendix II shows the frequency of demands, by type of nondemand-based item, for the three locations where demand data was available.

³For the purpose of our analysis, we assumed that an item requested three or more times would meet the retention criteria for stocking at the division level.

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Table 2.2: Extent to Which Nondemand-Based Spare and Repair Parts Were Requested at Three Divisions During the Latest 12 Months

Dollars in millions			
Number of requests	Authorized nondemand-based items		
	Number	Percent	Value
0	5,914	61	\$30
1-2	1,476	15	5
3 or more	2,303	24	21
Total	9,693	100	\$56

Note: Demand history data was not available at Fort Riley. Therefore, we could not determine the request frequency for the nondemand-based items.

About 800 of the 5,914 items with no demands were stocked at two or more divisions. The 800 items represent an authorized inventory value of \$5.6 million. For example, an electrical standard used in a mobile field van to test and repair missiles had an authorized stockage level of five (valued at \$58,220), and no demands for this item had been made during the recent 12-month period at the three divisions in our review. At the same time, the wholesale level had eight serviceable units on hand to support the retail-level units.

Requisitions for Nondemand-Based Items Had a Low Requisitioning Priority

Our analysis of the requisitions for the nondemand-based items to determine their relative importance in terms of impact on equipment readiness showed that at least 50 percent of the requisitions were for items whose lack would not affect the units' ability to perform their assigned missions.

Each requisition is assigned a priority that indicates the relative importance of the need for the item. There are three priority groups—high, medium, and low. To be assigned a high priority, a requisition must be for equipment that is not operational due to the lack of parts. To be assigned a medium priority, a requisition must be for a part whose lack impairs or could impair the unit's mission capability. A requisition is assigned a low priority if the item is simply needed to replenish the unit's inventory.

Our analysis showed that requisitions for nondemand-based items were seldom placed in the high priority category. In fact, only 16 percent of the 3,779 items requisitioned had been placed in this category. An additional 33 percent of the items requisitioned were categorized as low priority for routine replenishment of the unit's inventory. Further analysis of the items requisitioned as medium priority (51 percent) was not possible because a medium priority indicates that either (1) the lack of the

item could impair the unit's mission accomplishment or (2) the item's inventory has a zero balance.

Stocking Nondemand-Based Items at the Divisions Results in Unnecessary Inventory Investment

Maintaining inventories of nondemand-based items at the divisions results in a considerable investment in inventory for which there is little demonstrated need. As evidenced by our analysis, the three divisions in our review were authorized to stock nondemand-based items valued at \$35 million, and these items experienced little or no demand.

Army officials agreed that inventory investment could be significantly reduced by storing only demand-based stock at the divisions. The officials also stated that in doing so the inventory balances at the wholesale level would not have to be increased because the wholesale inventory level was based on the demands generated by the retail level.

The Army officials did express some concern about the possible impact on readiness of maintaining these items at and issuing them from a central location. However, because these items are demanded infrequently and many of their requisitions are assigned a low priority, any impact on readiness would be minimal. In cases when the lack of an item would degrade equipment readiness and training, its delivery could be expedited from the depot.

The following example demonstrates how expediting the delivery of a needed item could be used as an alternative to storing the item at the division level.

- Fort Carson was authorized to stock five engines, valued at \$8,895, for 1-1/4 ton trucks. During the recent 12-month period, the division received one high priority requisition for an engine. If the division had not had an engine available for issue, the engine could have been shipped by overnight delivery from the depot at a cost of \$1,348. This onetime cost, when compared to the reduced inventory investment, shows the advantage of relying on the wholesale system to provide the item rather than storing nondemand-based items at the division level.

Army Study Recommended Not Stocking Nondemand- Based Items at Divisions

In 1988, Logistics Operations, Inc., under contract to the Army, issued a report that recommended reducing the amount of stock stored at the divisions and placing more reliance on (1) stocks at the wholesale-level depots and (2) a responsive distribution system.⁴ The report said that significant savings in resources could be achieved by eliminating nondemand-based items from divisional inventories. Furthermore, the speed and reliability of modern communications and transportation make storing such inventories at the divisions unnecessary to enhance readiness.

Conclusions

Stocking items with little or no demand at the division level results in the inefficient use of limited resources. Transferring the management and storage of nondemand-based items to the wholesale system depots, which would issue them to the divisions when they were needed, would make for the more efficient use of these resources and would be another step toward streamlining the Army's logistics system. Clearly, the Army could significantly reduce its inventory investment by eliminating nondemand-based items from its retail inventories.

Recommendation

We recommend that the Secretary of the Army direct that divisions in the United States not stock nondemand-based items that do not meet the "retain" criteria of at least three demands in a 360-day period. Until the items qualify for stocking at the divisions based on the "add" criteria of nine demands in a 360-day period, the items should be stored at the wholesale-level depots and issued to the divisions when needed.

Agency Comments and Our Evaluation

The Department of Defense agreed with the recommendation to eliminate the stockage of unnecessary nondemand-based items at the division level. However, the Department stated that latitude was needed to store nondemand-based items at the divisions because some were needed for readiness, some did not fit demand-based patterns, some were needed for programmed maintenance, and some were stocked based on essentiality.

We recognize that the nondemand-based items are stored at the depots, and this was the basis for our recommendation that the items be issued from the depots to the divisions on an as-needed basis. Furthermore, the

⁴Causes of U.S. Army Class IX Excess at the Retail Level (Mar. 1, 1988).

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latitude for storing nondemand-based items at the divisions was a primary reason that over 75 percent of the items in inventory had two or fewer demands during the year. Not only were the items requisitioned infrequently, but even when they were requisitioned, the items were generally not critical to mission capability. Therefore, storing these items at the divisions does not materially improve the readiness capability of the equipment.

Additional Opportunities to Reduce the Divisions' Authorized Inventory Levels

The Army can reduce its inventory investment for those items whose stock levels are based on demands. The requirements factors used to determine existing stock levels were established many years ago. Since then, enhancements in communications, distribution, and inventory management techniques have made it possible to respond to supply needs with less stock at the divisions.

Over the past several years, the Army has made strides toward improving its inventory management and reducing its inventory levels. However, additional opportunities still exist for the Army to further advance the achievements already made.

Army's Efforts to Improve Inventory Management

The Army's efforts in the inventory management area over the past few years have been directed at streamlining the logistics system to make it more responsive to users' needs. As part of its effort, the Army has tested and begun to implement processes that will lead to a single supply system to replace the current system, which is cumbersome and time-consuming. For example, under the present process, when a user submits a requisition, it can take several days before the requisitioner finds out the status of the requisition and the availability of the requested item. It can take an additional several days, or even weeks, before the requested item is received.

The single supply system, when fully implemented, will enable users to quickly determine the availability and location of needed parts on a near-real-time basis. These attributes, in turn, will allow item managers to redistribute items from where they are located to where they are needed. In today's environment, where managers do not have this capability, the divisions have to stock more items to ensure that they can be responsive to users' requirements.

Another long-term, continuing effort by the Army to make its supply system more effective is its Inventory Reduction Plan. This effort involves a series of tasks directed at (1) reducing the amount of current and future inventory by better matching inventory needs to the size of the force structure and to the number and type of end items requiring logistics support, (2) increasing inventory visibility at the retail level, and (3) identifying opportunities for increasing direct deliveries from the vendors to the users.

Stock Levels for Demand-Based Items Can Be Reduced

The authorized stock level for a demand-based item at divisions located in the United States is computed by considering the operating level of the item (normally 15 days' worth), the safety level (normally 5 days' worth), and the number of order-ship-time days (the amount of stock necessary to compensate for how long it takes to receive the item after it has been ordered). If actual order-ship-time data is not available, 25 days is used. These requirements factors have remained unchanged for many years. As such, they do not reflect the improved technologies in the communications and transportation areas or the changes in philosophies concerning inventory management.

A 1988 study prepared by Logistics Operations, Inc., raised the issue of how to reduce stock levels at the divisions. The study pointed out that with the technology changes in communications and transportation, there were significant opportunities to reduce the amount of inventory that had to be stocked. One of the report's conclusions was that the Army should concentrate more on improving its supply distribution system's responsiveness than on increasing stock levels.

A more responsive distribution system would allow the Army to reduce its investment in inventory. For example, by 1995, the Army expects to have fully implemented its single supply system. This system will provide near-real-time information on inventory location and availability and will enhance redistribution capability. In turn, the divisions are expected to be able to meet their logistics needs and reduce the number and amount of items in their inventory.

If the inventory items can be made available sooner to the user, the need for up to 25 days of stock to compensate for order-ship-time and 5 days of stock for a safety level would also be reduced. The Army demonstrated this during its 1988 proof-of-principle testing of the single supply system. On the basis of limited testing, it demonstrated that the amount of stock that needed to be maintained at the divisions could be reduced by 50 percent due to the enhanced stock status and redistribution capabilities of the single supply system.

Because the single supply system is not expected to be fully implemented until 1995, the Army cannot now take full advantage of all the opportunities it offers. However, there are some interim measures that the Army can take to further streamline its logistics system.

One way for the Army to reduce its inventory levels and investment would be to make greater use of direct deliveries from its vendors, that

is, to deliver the items directly from the manufacturer to the user. With few exceptions, the current practice is for the Army to have the items shipped from the manufacturer's location to the storage depots and then issue the items to the requester. The advantages of direct delivery are that (1) the requester receives the items more quickly; (2) the Army does not tie up its funds for procuring, storing, maintaining, and issuing inventory; and (3) the Army lessens the likelihood of investing in inventory that may not be needed for a prolonged period. The issue of direct vendor deliveries was a key point made in the Logistics Operations Institute's 1988 report and in the Army's Inventory Reduction Plan.

Another streamlining measure is expediting deliveries of critically needed items from the depots to the users when the items are needed to reduce or preclude degraded mission training capabilities. Using expedited deliveries would enable the Army to reduce its inventory investment by reducing the amount of stock stored at the divisions. In our discussions with logistics officials, they expressed the opinion that there would be a small number of instances in which expedited deliveries would be needed. Moreover, they said that the reduction in inventory investment would more than offset any added transportation expenses incurred.

Taking Advantage of Lessons Learned During Operations Desert Shield and Desert Storm

The recent operation in the Persian Gulf required Army logisticians to develop innovative means to meet the logistics needs of the deployed forces, because the in-place systems could not always respond to these needs. For example, the requisitioning process was not considered timely for high priority requisitions. As a result, many of the requisitions for critically needed items were called in daily from Saudi Arabia to the Inventory Control Points. In other cases, because of projected increased usage rates, the Army reviewed its inventory levels of certain critical items and took actions to ensure that sufficient stock would be available to sustain the deployed forces.

To ensure the quick delivery of required parts, the Army employed a host of initiatives, including (1) expediting the delivery of critical parts from the depots to the requester, (2) expediting deliveries under existing contracts and expediting contract awards, (3) reducing production lead time, (4) directly delivering items from the manufacturer to the requester, and (5) expediting requisitions for spare and repair parts.

While some of these compensatory measures probably would be implemented only in a crisis because of the added costs involved, others could

apply in peacetime. In fact, some of the measures taken during Operations Desert Shield and Desert Storm, such as the expedited delivery of critical items, direct deliveries from vendors, and the increase of visibility of spare and repair parts in the supply system, were recommended in previous studies by us and others as ways to improve the management and responsiveness of the supply system.

Now that the conflict is over, the Army is assessing its overall performance during the operations and determining what, if anything, needs to be done to adjust inventory levels at the divisions. In evaluating their performance, operational commanders' natural tendency may very well be to want to increase stock levels at the divisions to ensure that if and when they have to deploy in future crises, they will have everything they need.

In our discussions with logistics officials concerning the lessons learned from Operations Desert Shield and Desert Storm, one theme was prevalent. All seemed to believe that the Army will be faced with decreasing budgets that will require them to do more with less. They will be required to look for ways to streamline their logistics functions without sacrificing logistics support. In other words, the services will be called upon to make better use of limited resources.

One Army general officer told us that, in his opinion, the Persian Gulf conflict had forced the Army to be more innovative. He concluded that, because of budgetary constraints, the Army would not be able to do business as usual and that it would be necessary to review innovative logistics measures employed during Operations Desert Shield and Desert Storm to identify those measures that could be incorporated into the logistics support structure.

Conclusions

Faced with reduced budgets, Army logisticians will need to find ways to improve efficiency without sacrificing readiness. Needed changes to the supply system should focus on identifying, implementing, and streamlining logistics measures that will minimize inventory levels at the divisions and make the logistics system more responsive to user needs. Some of the logistics initiatives employed during the Persian Gulf crisis, plus other ongoing and planned logistics initiatives to reduce inventory and increase its visibility, are steps in the right direction.

Recommendation

We recommend that the Secretary of the Army take the following actions:

- Direct inventory managers to pursue opportunities for reducing inventory investment by (1) maximizing the use of alternatives such as direct vendor deliveries and expedited deliveries from the depots, and (2) evaluating inventory management lessons learned during Operations Desert Shield and Desert Storm. This should include the continuing emphasis on evaluating the requirements factors used in determining stock levels for demand-based items to ensure that they reflect improved technologies in communications, transportation, and inventory distribution methods.

Agency Comments and Our Evaluation

The Department of Defense agreed with our recommendations. The Department also said that as part of its Inventory Reduction Plan and Defense Management Review Decisions, it was already evaluating approaches like the ones mentioned in the report for reducing stockage at the division level.

We agree that the Department's planned and ongoing initiatives to reduce stockage at the division level are a step in the right direction. However, for the most part, these efforts are still in the planning stage and have not yet been implemented. Therefore, the Army needs to continue to emphasize to its inventory managers the necessity to pursue these efforts to bring them to fruition.

Numbers and Types of Nondemand-Based Items at the Four Divisions in GAO's Review

Item type	Fort Carson	Fort Stewart	Fort Ord	Fort Riley	Total	Percent of total
Mandatory parts list	1,901	34	459	461	2,855	20.9
Management discretion	89	572	210	243	1,114	8.2
Provisioning	3,824	2,492	130	3,237	9,683	70.9
Total^a	5,814	3,098	799	3,941	13,652	100.0

^aThe totals by installation vary slightly from those shown in chapter 2 because of the way the items were counted. For example, the same item could be categorized as a provisioning item at one direct support unit and as a management discretion item at another direct support unit in the same division. Therefore, for the purpose of this table, the item would be counted as two items. However, when discussing nondemand-based items on a collective basis, it would be counted as one item.

Frequency of Demands for Nondemand-Based Items at Three Divisions in GAO's Review

Item type	Total items	No demands	1 to 2 demands	3 or more demands
Mandatory parts list	2,394	1,146	464	784
Management discretion	871	519	151	201
Provisioning	6,446	4,255	862	1,329
Total	9,711	5,920	1,477	2,314

Comments From the Department of Defense



ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-8000

July 15, 1991

(L/SD)

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "ARMY INVENTORY: Fewer Items Should Be Stocked at the Division Level," dated May 16, 1991 (GAO Code 393429, OSD Case 8701). The Department concurs with all the findings and with each of the three recommendations included in the draft report. Significant progress has been made in those areas by the Army and the other Services through implementation of the Defense Management Review Decisions and the DoD Inventory Reduction Plan.

The detailed DoD comments on the report recommendations are provided in the enclosure. The Department appreciates the opportunity to comment on the draft report.

Sincerely,

David J. Berteau
David J. Berteau
Principal Deputy

Enclosure

Appendix III
Comments From the Department of Defense

GAO DRAFT REPORT - DATED MAY 16, 1991
GAO CODE 393429 - OSD CASE 8701
"ARMY INVENTORY: FEWER ITEMS SHOULD BE STOCKED AT THE DIVISION
LEVEL"

DEPARTMENT OF DEFENSE COMMENTS

- * * * * *

RECOMMENDATIONS

- **RECOMMENDATION 1:** The GAO recommended that the Secretary of the Army issue policy guidance stating that non-demand-based items at CONUS-based divisions that do not meet the retain criteria (at least three demands in 360 days) (1) should not be stocked at the division level and (2) should be stored at the wholesale-level depots and issued to the divisions as needed. (p. 8, p. 22/GAO Draft Report)

DOD RESPONSE: Concur. The DoD Inventory Reduction Plan already requires all the Services to reduce their retail stock retention levels and non-demand-based additives. The Army is already implementing the plan. Current Army policy is to store materiel in the Area Oriented Depots and other wholesale supply depots that generally would be non-demand supported at the division level. However, some latitude in stocking non-demand-based items at the division level is necessary due to (1) readiness needs, (2) seasonal items that do not fit demand-based patterns, (3) programmed maintenance items, and (4) items under review for wholesale stockage based on essentiality.

- **RECOMMENDATION 2:** The GAO recommended that the Secretary of the Army require managers to reevaluate the requirements factors used in determining stock levels for demand-based items to ensure that the levels reflect improved technologies in communications, transportation, and inventory distribution methods. (pp. 8-9, p. 28/GAO Draft Report)

DOD RESPONSE: Concur. The Army is already evaluating several approaches for reducing stockage at the division level, including: (1) eliminating the safety level for divisions within the Continental United States, (2) testing the Objective Supply

Enclosure

Now on pp. 4 and 14.

Now on pp. 5 and 20.

Capability to reduce order ship time, (3) increasing reliance on echelons above the division for supply support, and (4) eliminating divisional supply support structure. Based on the mandates of on-going Defense Management Review Decisions, the Army continually is seeking further means to ensure that stock levels reflect improved technologies in communication, transportation, and inventory distribution.

- **RECOMMENDATION 3:** The GAO recommended that the Secretary of the Army require managers to evaluate (1) opportunities for reducing inventory investment by maximizing the use of alternatives such as direct vendor deliveries and expedited deliveries from the depots and (2) inventory management lessons learned during Operations Desert Shield and Desert Storm. (pp. 8-9, p. 28/GAO Draft Report)

Now on pp.5 and 20.

DOD RESPONSE: Concur. The DoD Inventory Reduction Plan issued in May 1990 includes initiatives specifically directed at reducing retail stockage levels and increasing the use of commercial distribution systems. The Army implementation of the plan includes 47 tasks associated with direct vendor delivery. The Army also is continuing to explore other applications to reduce materiel requirements. The Department agrees that Desert Storm and Desert Shield provided valuable insights into logistics management, which Army plans to use to refine its support procedures.

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