AD-A134 353 NAVY'S PROGRESS IN IMPROVING PHYSICAL INVENTORY CONTROLS AND THE MAGNITUD..(U) GENERAL ACCOUNTING OFFICE WASHINGTON DC NATIONAL SECURITY AND.. 04 NOV 83 1/1

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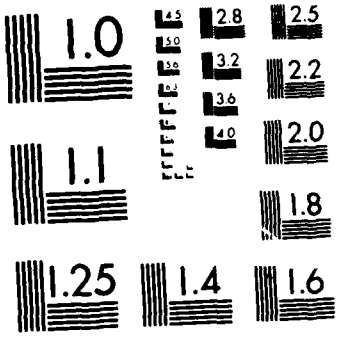

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BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Secretary Of Defense

Navy's Progress In Improving Physical Inventory Controls And The Magnitude, Causes, And Impact Of Inventory Record Inaccuracies In The Army, Air Force, And Defense Logistics Agency

This review was performed at the request of the Chairman of the Subcommittee on Readiness, House Committee on Armed Services. In response to the Subcomittee's concern, the Navy has developed and is making good progress in executing a plan of action to improve physical inventory controls and security over supply system inventories.

The magnitude and impact of the inventory accuracy problem in the Army, Air Force, and DLA are much greater than previously recognized by DOD and its components. The value of physical inventory adjustments reported by these agencies significantly understates the true extent of their inventory record inaccuracies. Acceptable levels of inventory record accuracy are not being achieved because the basic causes of recurring errors are generally not being identified and corrected. These conditions are due to inadequate management emphasis and priority, noncompliance with DOD's policy, as well as inadequacies in the policy and implementing procedures and practices, a shortage of qualified personnel, and a lack of individual accountability for action affecting inventory record accuracy.

GAO is recommending that the Secretary of Defense take a number of actions to bring about needed improvements in physical inventory controls and inventory record accuracy.

UNITED STATES GENERAL ACCOUNTING OFFICE

GAO/NSIAD-84-9
NOVEMBER 4, 1983

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

NATIONAL SECURITY AND
INTERNATIONAL AFFAIRS DIVISION

B-213422

The Honorable Caspar W. Weinberger
The Secretary of Defense

Dear Mr. Secretary:

On May 27, 1982, the Chairman of the Subcommittee on Readiness, House Committee on Armed Services, asked us to review the (1) Navy's progress in improving physical inventory controls; (2) magnitude, causes, and impact of physical inventory adjustments in the Army, Air Force and Defense Logistics Agency (DLA), and (3) adequacy of Department of Defense (DOD) policies, procedures, and efforts to improve physical inventory controls and inventory record accuracy. The results of our review are summarized below and are presented in greater detail in enclosures I through IV.

We found that the Navy is making good progress in executing a plan of action to improve physical inventory controls and security over supply system inventories. The Navy has completed an immediate action designed to establish accurate inventory record baseline data. This special physical inventory effort, which was completed in December 1982, resulted in the correction of inventory record errors totaling $439 million. Additionally, the Navy has developed and is in the process of completing action on 73 other initiatives designed to bring about permanent improvements in physical inventory controls and inventory record accuracy.

We also found that the magnitude and impact of the inventory accuracy problem in the Army, Air Force, and DLA are much greater than previously recognized by DOD. The value of physical inventory adjustments reported by these agencies significantly understates the true extent of their inventory record

inaccuracies. Under existing procedures and practices, a high ratio of physical inventory adjustments are improperly excluded from statistics reported to DOD. In many instances, required physical inventory adjustments are not made because of arbitrary and erroneous reconciliations of valid physical inventory variances.

Our review and agency audits show that continuing significant inventory record inaccuracies in the Army, Air Force, and DLA frequently have an adverse impact on supply economies and degrade the readiness of military forces. For example, at an Air Force logistics center, three unresolved physical inventory losses of cable assemblies over a 35-day period in 1982 contributed to the grounding of 40 C141 aircraft. We also found that improvements are needed in the procedures and practices followed by the Army, Air Force, and DLA in identifying and correcting the causes of recurring major inventory record errors.

We attribute the above problems to inadequate management emphasis and priority, noncompliance with DOD's policy as well as inadequacies in the policy and implementing procedures and practices, a shortage of qualified personnel, and a lack of individual accountability for actions affecting inventory record accuracy.

In response to the Subcommittee's concern, DOD is in the process of implementing a DOD-wide physical inventory improvement plan that calls for a series of actions through fiscal year 1985. The plan will identify improvements needed in policies, procedures, and standards for upgrading inventory record accuracy. We believe that this plan, with certain exceptions, is a positive one. However, more needs to be done. Accordingly, we recommend that you take a series of actions to correct the conditions described in this report. (See app. IV.)

The matters discussed in this report were the subject of hearings held by the Subcommittee on Readiness on April 27, 1983. At these hearings, DOD officials were provided with a detailed statement of facts. Previously, they were provided a detailed briefing on our findings and conclusions. In his testimony, the Deputy Assistant Secretary of Defense (Logistics and Materiel Management) agreed with the matters discussed in this report and stated that DOD would rely heavily on the Subcommittee's and our findings, conclusions, and recommendations to bring about needed improvements in inventory record accuracy.

As you are aware, the Chairman of the Subcommittee on Readiness asked DOD officials to provide him with a written reply on

actions taken or planned in response to this report. Also, 31 U.S.C. §720 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Chairman of the Subcommittee on Readiness, House Committee on Armed Services; the Secretaries of the Army, Navy, and Air Force; the Director, Defense Logistics Agency; the Director, Office of Management and Budget; and the Chairmen of the appropriate congressional committees.

Sincerely yours,

Frank C Conahan

Frank C. Conahan
Director

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INTRODUCTION

BACKGROUND

Accurate inventory records are essential to the economic and effective supply support of U.S. military forces. Inaccurate records can result in critical supply shortages and prolonged delays in filling requisitions for materiel affecting mission readiness, inflated requests for funds, unnecessary expenditure of funds for procurement and repair of stocks, maldistribution of stocks, and accumulation and disposal of excess stocks.

To ensure that acceptable levels of inventory record accuracy are achieved and sustained by DOD components (military services and DLA), DOD has established policy and procedures for physical inventory control for its wholesale supply system inventories. The basic policy is set forth in DODI 4140.35 and the procedures are contained in DOD 4140.22-M.

The DOD wholesale supply system is composed of the supply organizations of the military services and DLA which provide wholesale supply support to military users in the continental United States and overseas. Each of these components has a logistics command that has overall responsibility for the wholesale supply mission; inventory management activities that determine requirements and procure, distribute, manage, and account for designated categories of wholesale stocks; and depots that store, physically control, and issue wholesale stocks worldwide at the direction of the inventory management activities. In fiscal year 1982, DOD components managed approximately 6 million items of wholesale stocks valued at $61 billion, according to their records.

DOD depots are required to take annually scheduled physical inventories on a complete, sample, or selective basis. Controlled items (classified, sensitive, or pilferable) are to be inventoried completely whereas other items are to be inventoried on a sample or selective basis. Under the sampling basis, items (generally 50-250 items) are randomly selected from an inventory lot that consists of groupings of hundreds or thousands of items. If a sample inventory indicates that less than 85 percent of the items in a lot have accurate records (do not have major variances valued at over $800), the entire lot of items must be inventoried within 90 days. Under the selective basis, priority is given to physically inventorying those items with the greatest supply support significance. Depots also are

required to take unscheduled physical inventories of designated items when requested by accountable inventory management activities or whenever needed to confirm and correct suspected discrepancies.

After taking physical inventories, the depots are to promptly make the necessary adjustments to their records and to report the physical counts to the appropriate inventory management activities. Inventory management activities compare the physical count quantities with quantities shown on the accountable stock records. Potential gain or loss adjustments must be subjected to preadjustment research to reconcile variances caused by recent incomplete transactions that occurred just before or during the physical inventory (e.g., material preposted as issued on the accountable records during the inventory but not yet shipped by the depot and which was included in its reported physical count).

After making the necessary adjustments to the accountable stock records, the inventory management activities are required to perform causative research for (1) all adjustments involving classified or sensitive items, (2) adjustments valued at over $2,500 for pilferable items, and (3) adjustments valued at over $10,000 for all other items. Adjustments valued at over $800 that do not meet these criteria are to be researched on a sampling basis. Causative research consists of a complete review of all transactions, catalog data changes, shipment discrepancies, and unposted or rejected documentation occurring since the last physical inventory or within the past year, whichever is sooner. The purpose of this research is to identify, analyze, and evaluate the causes of inventory record errors and eliminate repetitive errors.

Inventory management activities are allowed to reverse physical inventory adjustments within 90 days if causative research reveals that the adjustments are due to prior erroneous transactions (i.e. earlier erroneous physical inventory adjustment, duplicate recording of receipt or issue transactions). Reversed physical inventory adjustments are eliminated from cumulative statistics, which are reported to higher management levels and viewed as a primary indicator of the quality of inventory record accuracy.

The results of physical inventories are reported to agency commands who, in turn, consolidate the results and report them quarterly to DOD. DOD prepares a quarterly report and an end-of-fiscal year inventory control effectiveness report that show comparative physical inventory performance and inventory record accuracy results for DOD components.

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In assessing whether acceptable levels of inventory record accuracy are being achieved, DOD management views as a prime indicator the reported value of gross physical inventory adjustments (gains and losses) in relation to both average annual inventory value and value of materiel inventoried. DOD has not established a gross physical inventory dollar ratio standard, but its components have established standards ranging from 3 percent (Navy) to 8 percent (Army).

In addition to a physical inventory program, DOD components are required to establish a quality control program. Under the program, depots and inventory management activities are to make periodic quality checks of work processes directly related to physical control of assets (i.e., receiving, issuing, warehousing, physical inventory taking, and adjusting records). The purposes of a quality control program are to assist management in identifying those human, procedural, or system errors that adversely affect inventory record accuracy and to achieve better control over physical assets.

OBJECTIVES, SCOPE, AND METHODOLOGY

In 1981, the House Subcommittee on Readiness investigated the large increasing trend in gross physical inventory adjustments and inventory losses at naval supply centers. Gross physical inventory adjustments at the supply centers increased from $66 million in 1978 to $503 million in 1981. At the same time physical inventory losses increased from $48 million to $330 million. The investigation and subsequent hearings held in February 1982 established that the large increases in physical inventory adjustments adversely affected supply economies and military readiness and were symptomatic of serious inventory management deficiencies--lack of management concern and accountability, ineffective physical inventory controls, shortage of qualified personnel, inadequate physical security safeguards, and outdated computer systems.

In response to the Subcommittee's concern, in January 1982 the Secretary of the Navy directed the naval supply centers to complete by December 1982 a special physical inventory effort to establish accurate inventory record baseline data. He also, directed the Navy Supply Systems Command to develop by April 1982 a plan of action to bring about permanent improvements in physical inventory controls and inventory record accuracy.

~~Our~~ objectives, as requested by the Chairman of the Readiness Subcommittee, were to (1) monitor the Navy's progress in developing and executing a plan of action to improve physical inventory controls and inventory record accuracy,(2) investigate the magnitude, causes, and impact of physical inventory

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adjustments in the Army, Air Force, and DLA, and (3) evaluate the adequacy of DOD's policy and procedures and efforts to improve them.

We reviewed DOD's policy and procedures for physical inventory control of military supply system inventories. Also, we examined the effectiveness of the implementing procedures and practices of the Army, Air Force, and DLA. We also reviewed the results of the Navy's special physical inventory effort in 1982 to establish accurate inventory record baseline data for inventories stored at naval supply centers. Also, we evaluated the adequacy of the Navy's progress in developing and executing a plan of action to improve physical inventory controls and inventory record accuracy. We also examined into the effectiveness of DOD's physical inventory improvement plan and progress made in implementing this plan.

We reviewed the results of all internal agency audit reports that dealt with physical inventory controls and inventory record accuracy at the wholesale level which were issued during a 5-year period through 1982. We analyzed and compared trends in physical inventory adjustments that the Army, Air Force and DLA had reported for a 5-year period through fiscal year 1982. At selected activities in each of these agencies, we reviewed the accuracy and completeness of physical inventory adjustments reported for fiscal years 1981-1982 by testing the validity of reconciliations of major physical inventory variances and reversals of physical inventory adjustments.

We also evaluated the effectiveness of procedures and practices the selected activities followed in identifying and correcting recurring causes of major inventory record errors. In this regard, we made a 100-percent analysis of the results of causative research of major physical inventory adjustments for fiscal years 1981-1982. We also evaluated the adequacy of quality control coverage of work processes affecting inventory record accuracy. Finally, we evaluated the impact of major physical inventory adjustments on supply economies and military readiness.

Our review was made from August 1982 through April 1983 at the following locations:

DOD

Office of Assistant Secretary of Defense (MRA&L)

Army

Army Materiel Development and Readiness Command
Army Depot Systems Command
Army Tank-Automotive Command
New Cumberland Army Depot

Navy

Navy Supply Systems Command
Norfolk Naval Supply Center

Air Force

Air Force Logistics Command
San Antonio Air Logistics Center

DLA

Headquarters, DLA

Defense General Supply Center and
the colocated Richmond Depot

Defense Personnel Support Center

Our review was performed in accordance with generally accepted government auditing standards.

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NAVY'S PROGRESS IN IMPROVING PHYSICAL INVENTORY CONTROLS

The Navy has developed and is making good progress in executing a plan of action to improve physical inventory controls. The Navy has completed an immediate action designed to establish accurate inventory record baseline data for supply system inventories. Additionally, the Navy has developed and is in the process of completing action on 73 other initiatives designed to bring about permanent improvements in physical inventory controls and inventory record accuracy.

In January 1982 the Secretary of the Navy directed the Norfolk Naval Supply Center to complete by June 1982 a (1) 100 percent survey and reconciliation of the recorded and physical warehouse locations of stored materiel and (2) physical count of the onhand quantities for high-dollar value items and fast-moving items. The other five supply centers were to complete similar actions by December 1982. This special physical inventory resulted in inventory gains valued at $239 million and losses valued at $200 million.

In addition to the immediate action described above, the Navy developed and published in March 1982 a plan of action entitled "Inventory Accuracy Problem." This plan consisted of 73 initiatives designed to bring about long-term and sustained improvements in physical inventory controls and inventory record accuracy. As a part of these initiatives inventory management is now receiving top command priority and emphasis. In this respect, the Naval Supply Systems Command now has a flag officer who is responsible for inventory and system integrity.

Additionally, clear guidance has been provided to supply activities that falsified reporting will not be tolerated and that if found the strongest disciplinary actions will be taken. A mandatory entry on inventory accuracy and materiel accountability is now required in the fitness reports of supply corps officers and in the merit pay objectives/performance evaluations of supervisors and foremen involved in functions affecting inventory accuracy.

The Navy has begun to take actions to strengthen physical security at supply centers. These actions, estimated to cost $2.3 million, include increasing the size of security forces and covert warehouse operations by Navy investigative personnel and restricting access to warehouses by establishing a security badge identification system and constructing security fencing.

Also, the Navy has taken action to identify the training needs of supply center personnel and to ensure that the training is provided. The Naval Supply Systems Command has established an Office of Education and Training to direct and assist stock points in their training efforts. This office, with the assistance of a contractor, is developing, at an estimated cost of $2.5 million, a curriculum of supply courses to be given to employees at stock points.

A training cadre is being developed at the Norfolk and Oakland supply centers to provide refresher training to supply officers and civilian employees on automated inventory system applications. Further, the Naval Supply Systems Command has instituted a policy whereby all new employees in physical material distribution will be hired as trainees and enrolled in a training program. At the end of this program, they must pass a test to qualify for permanent employment.

The Navy has taken actions to develop new computer programs and modify existing programs at a cost of $1.2 million to assist supply centers in reducing the time required to research and reconcile physical inventory discrepancies. Also, the Navy has initiated actions to increase the size of quality assurance teams at supply centers and to expand the scope of quality checks of work processes affecting inventory record accuracy. For example the Norfolk supply center's quality assurance team was increased from 48 to 90 employees and its scope of periodic quality checks was expanded to include the quality of research efforts to identify and correct recurring major error causes.

CONCLUSION

In our opinion, the positive actions taken by the Navy, if properly implemented and pursued continuously, should bring about long-term and sustained improvements in physical inventory controls and inventory record accuracy.

MAGNITUDE, CAUSES AND IMPACT OF INVENTORY ADJUSTMENTS--ARMY, AIR FORCE, DLA

During the 5 fiscal years ended 1982, the value of gross physical inventory adjustments reported by the Army, Air Force, and DLA decreased from $1.5 billion to $1.3 billion (losses dropped from $778 million to $690 million). Conversely, the value of materiel inventoried increased from $30 billion to $43 billion. As a percentage of the value of materiel inventoried, the gross physical inventory adjustments decreased from 5 percent to about 3 percent, as compared to standards ranging from 4.4 percent in the Air Force to 8 percent in the Army.

In fiscal year 1982, the Army, Air Force, and DLA spent an estimated $50 million on their physical inventory programs. These agencies physically inventoried $43 billion of supply system stocks, equivalent to 88 percent of the average annual value of stored inventories, according to their records.

ACCURACY AND COMPLETENESS OF REPORTED PHYSICAL INVENTORY ADJUSTMENTS

Our review indicates that the value of physical inventory adjustments reported to DOD understates significantly the true extent of inventory record inaccuracies. Major physical inventory variances are often improperly corrected by means other than physical inventory adjustments and thus not reflected in reported statistics. Also, physical inventory variances are often arbitrarily and erroneously reconciled to agree with recorded balances to avoid making and reporting adjustments. Finally, a high ratio of physical inventory adjustments is reversed and improperly excluded from statistics reported to management. Details of our findings follow.

Air Force

The Air Force reported physical inventory adjustments of $215 million and $300 million for fiscal years 1981 and 1982 respectively. However, physical inventories taken at the five air logistics centers revealed inventory record variances valued at $2.6 billion for fiscal year 1981 and $4.2 billion for fiscal year 1982. These variances represented 29.8 percent and 36.2 percent of the value of materiel inventoried. According to Air Force records, approximately 92 percent of the value of these physical inventory variances were resolved without making or reporting physical inventory adjustments. Air Force records indicated that only about 5 percent of these physical inventory variances were due to recent unprocessed transactions and thus,

according to DOD policy, correctable by means other than physical inventory adjustments.

DOD's policy stipulates that physical inventory variances will be subjected to a limited amount of preadjustment research to reconcile variances caused by unprocessed transactions that were initiated immediately before or during the physical inventory period. Contrary to this policy, the Air Force's preadjustment research includes a review of an item's past 12-month transaction history. If a physical inventory variance can be attributed to an erroneous transaction that occurred during this time, it is corrected by processing either a reversal of the erroneous transaction or an accounting adjustment transaction.

Additionally, our review and prior Air Force audits indicate that physical inventory variances are often arbitrarily and erroneously reconciled to agree with recorded balances. At the San Antonio Air Logistics Center, we found that required physical inventory adjustments were not made in many instances because of erroneous reconciliations of major inventory variances. Responsible stock control personnel said that the erroneous reconciliations were done arbitrarily because of management pressure to reduce physical inventory adjustments to an acceptable level.

Examples of erroneous reconciliations of major variances made by the San Antonio center follow.

In February 1981, a sample physical inventory was made of an inventory lot consisting of 18,618 items. The count of 50 sample items valued at $1.7 million revealed initial major variances valued at $247,120 (shortages of $156,592) for 18 items. However, following preadjustment research, it was reported that only two items had final major variances requiring the processing of physical inventory adjustment transactions. Under the Air Force's sampling plan, if no more than two sample items are found to have major variances, the inventory lot meets the accuracy criteria.

Our analysis disclosed that 8 of the 18 major variances were arbitrarily considered reconciled for the sole purpose of meeting the accuracy criteria. The preadjustment research concluded that major variances for 8 of the 18 items were reconciliable. With 10 final major variances, the inventory lot would have failed the sample accuracy criteria, necessitating a complete count of the 18,618 items within 90 days. However, a supervisor arbitrarily reduced the number of items with final major variances to two. Although our findings was confirmed by research personnel, management officials advised us that they

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did not have sufficient resources to conduct a complete count of this inventory lot.

In another case, an August 1982 physical inventory of an aircraft engine fan blade (stock number 2840-01-004-1804) located 138 unrecorded blades valued at $401,580. Preadjustment research completed in October 1982 concluded that this gain occurred because 52 issues for a total of 138 blades recorded over a 1-year period had not been shipped. Thus, the variance was considered resolved and the item's recorded balance was corrected by reversing the 52 issues. Our analysis of depot shipping records showed that the 52 issues had been shipped. As a result of the invalid preadjustment research, the depot avoided making and having to explain a physical inventory gain adjustment of $401,580.

An Air Force audit report issued in March 1981 criticized the accountability for critical items at the Oklahoma City Air Logistics Center. The audit report cited a 36 percent sample error rate for critical items and noted that inaccurate record balances for these items delayed filling high priority requisitions. The audit report pointed out that the high rate of inventory record errors for critical items was caused partly by erroneous reconciliations of major inventory variances. The audit report also noted that major variances were being erroneously corrected by arbitrarily reversing prior physical inventory adjustments. The report concluded that although the reversals greatly reduced reported physical inventory adjustments and improved this activity's statistics, this procedure was neither prudent nor justified.

Erroneously reconciling major inventory variances to avoid physical inventory adjustments is a continuing problem in the Air Force. In 1971, we reported that 49 percent of required adjustments for active, high-dollar items were not made by three air logistics centers because of erroneous reconciliations.

Army

The Army reported physical inventory adjustments totaling $904 million and $790 million in fiscal years 1981 and 1982 respectively. These statistics do not include physical inventory adjustments that were subsequently reversed or potential major physical inventory variances that were resolved by means other than physical inventory adjustments.

Although required by DOD and Army policy, we found that data on reversals of physical inventory adjustments at the Army's five materiel commands were not readily identifiable.

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However, a computerized analysis of transactions at the Tank-Automotive Command revealed reversals totaling $592 million in fiscal year 1981 and $108 million in fiscal year 1982. These reversals represented 55 percent and 38 percent of the physical inventory adjustments made to stock records by this command in fiscal years 1981 and 1982, respectively.

In fiscal year 1981, the Tank-Automotive Command's gross physical inventory dollar adjustment ratio (ratio of stock record dollar adjustments to value of material inventoried) was 43.4 percent before reversals. This activity's reported gross adjustment ratio after reversals was 19.4 percent as compared to an Army standard of 8 percent. Also, in fiscal year 1981, this activity reported a net physical inventory gain of $67 million after reversals. Had the reversals not been made, a net loss of $464 million would have been reported.

Additionally our review and prior Army audits indicate that required physical inventory adjustments are not made in many instances because of erroneous reconciliations of physical inventory variances. In this respect, the New Cumberland Army Depot completed preadjustment research of 1,435 potential major physical inventory variances (variances valued at over $10,000 or for controlled items) in 1982, and concluded that no adjustments were necessary for 52 percent. We tested eight major variances for which no adjustments were made and found that in six cases, or 62 percent, major adjustments should have been made. An example follows.

A June 1982 physical inventory revealed a shortage of 41 diesel engines having a unit price of $7,658. This 1200-pound diesel engine (stock number 2815-01-098-5763), which is classified as a mission essential item, is used on the M561 tactical truck. Because the preadjustment research concluded that an overage of five engines existed, the variance was considered reconciled and no adjustment was made. Another physical inventory taken in December 1982 revealed a shortage of 15 engines. This shortage was not subjected to the required preadjustment research and no adjustment was made.

In January 1983, we made a physical inventory, which was monitored by depot personnel, of these engines. We found that there were 15 fewer engines on hand than shown on depot records. Moreover, the depot had 103 fewer engines valued at $788,774 on hand than reflected on the accountable records maintained by the Tank-Automotive Command. Depot personnel initially concluded that the diesel engines had been mixed in the stock of another engine (stock number 2815-00-124-5390) stored nearby, because a February 1983 physical inventory had revealed an overage of 20

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units of the other engine (unit price $10,425). However, a subsequent physical inventory taken by depot personnel, and monitored by us, revealed no such mixture of engine stocks.

In response to our followup inquiries, the depot adjusted its records in February 1983 to reflect a loss of 15 diesel engines valued at $114,870 and a gain of 20 of the other engines valued at $208,500. Also, the depot reported its physical counts of these two engines to the Tank-Automotive Command so that the necessary adjustments could be made to the accountable records.

An Army audit report issued in January 1981 cited weaknesses in physical inventory controls at the Letterkenny Army Depot. The report noted that in 90 percent of the cases sampled, required physical inventory adjustments were not made for controlled items because of erroneous reconciliations. The report concluded that physical inventory variances were often arbitrarily reconciled to agree with recorded balances.

DEFENSE LOGISTICS AGENCY

DLA reported physical inventory adjustments totaling $247 million and $290 million in fiscal years 1981 and 1982, respectively. The reported statistics did not include physical inventory adjustments that were later reversed. We found that the five DLA supply centers reversed physical inventory adjustments valued at $353 million and $548 million in fiscal years 1981 and 1982. These reversals represented 59 percent and 65 percent of the dollar value of physical inventory adjustments made for these fiscal years. The physical inventory adjustments for these supply centers after reversals represented a gross dollar adjustment ratio (dollar adjustments made to stock records divided by the value of materiel inventoried) of 6.3 percent and 5.8 percent in fiscal years 1981 and 1982, as compared to a DLA standard of 5 percent. Before reversals, the gross physical inventory dollar adjustment ratios were 31.5 percent and 39.9 percent.

DLA's policy for reversals of physical inventory adjustments is more liberal than required by DOD's. DLA's policy allows 1 year for reversals of physical inventory adjustments, whereas DOD's policy prescribes a 90-day time frame for such reversals. An example of how DLA uses reversals to reduce reported physical inventory adjustments follows.

In October 1981, the Defense General Supply Center recorded a physical inventory loss of 1,935 cable assemblies valued at $31,250. In January 1982, the center recorded a physical inventory gain of 1,330 cable assemblies valued at $21,480.

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On the basis of its postadjustment research, the center determined that the gain was attributable to the prior loss adjustment which was made in error. In this connection, the center recorded a receipt of 1,935 units after establishment of the inventory cutoff date but before completion of the inventory. As of the cutoff date, the recorded balance was zero. The day after recording the receipt, the center received a physical count quantity of zero. Inasmuch as the recorded balance and physical count both showed zero as of the cutoff date, no adjustment was necessary. However, the center erroneously wrote off the receipt of 1,935 units, which had been recorded a day earlier, as a loss. Even though the gain adjustment of 1,330 units corrected the stock record, subsequent entries were recorded to reverse the gain and 1,330 units of the original loss adjustment.

IMPACT OF INVENTORY RECORD INACCURACIES ON SUPPLY ECONOMIES AND READINESS

Our review and agency audits show that continuing inventory record inaccuracies frequently have an adverse impact on supply economies and readiness.

DLA

At the Defense General Supply Center we randomly selected and analyzed reversals of 85 major loss adjustments that occurred in fiscal year 1982. In 16 of the cases, or about 19 percent, the temporary losses of materiel delayed filling 164 requisitions by as much as 407 days, or an average of 50 days. Of these requisitions, 44 were to satisfy high-priority needs, including 9 for materiel affecting mission capability. Also, these temporary losses resulted in premature or unnecessary procurement valued at $34,795.

Additionally, we identified 121 high-priority requisitions for mission essential items that were delayed in fiscal year 1982 because of inaccurate inventory records. Our sampling tests showed that delays up to 60 days occurred in filling these requisitions because stock on hand was not shown on inventory records.

The following table provides examples of the 130 delayed requisitions for items affecting mission capability.

Item	Weapon application	Days delayed	Customer
Distribution box	Hawk missile	118	Fort Riley, Kansas
Gear bearing	Submarine tender	41	U.S.S. Fulton
Piston connecting rod	Amphibious assault ship	39	U.S.S. Okinawa
Axial fan impeller	M-60 tank	31	A Co. 2D Eng. Tongduchon, Korea

The Defense Audit Service is processing a report that shows the Defense Personnel Support Center unnecessarily procured an estimated $1.2 million of subsistence items in 1981 because of inaccurate inventory records. This occurred because the center relied on conducting infrequent physical inventories to correct the records rather than recording transactions as they occurred.

Air Force

Air logistics centers have a critical item program for managing items that adversely affect mission capability for prolonged periods. To be included in this program, an item must have adversely affected mission capability for a minimum of 2,000 hours.

At the San Antonio Air Logistics Center we identified a number of critically managed items that were in this status because of a shortage of available assets. We reviewed the transaction histories for these items and randomly selected seven items for which physical inventory losses had been recorded in 1982. We found that the inventory losses directly caused the critical status of four items and aggravated the criticality of three items. Examples follow.

Three physical inventory losses over a 35-day period in 1982 aggravated the critical supply status of a cable assembly (stock no. 1680-00-970-5206, unit price $181). The cable assembly is used on the C141 aircraft fuel elevator. This item had been in a critical status over 10 months because of a 60-percent increase in demands coupled with a 2-year procurement

leadtime. The increased demands were due to an urgent need to replace existing cables because of an unexpected corrosion problem. At the time of our review, 40 C141 aircraft were grounded because of this problem.

On June 9, 1982, 27 cable assemblies were received. Between this date and July 14, 1982, 15 of the cable assemblies were deleted from the records as a result of three inventory loss adjustments. One loss adjustment for 10 cables was made as a result of a warehouse denial of a high-priority requisition. The other two loss adjustments for a total of five cables were the result of a computer program that automatically deleted asset balances for items for which no recorded warehouse locations existed for a 10-day period. Followup causative research failed to resolve the reason for the loss adjustments.

In another example, a transducer (stock no. 4920-00-081-0459, unit price $677), used on the TF39 engine that powers the C5A aircraft, was placed in a critical status following an October 1981 physical inventory loss of 124 transducers. This loss, representing a 25-month supply, resulted in an out-of-stock condition for this item for about 13 months. The TF39 engine is not operable without the transducer which controls its air intake. Thus, the shortage of the transducer prolonged the repair of inoperable engines and potentially degraded the mission capability of C5A aircraft for over a year.

The loss of 124 engine transducers was caused in large part by a clerical error that went undetected for over 2 years. In June 1979 a receipt of 37 units was erroneously recorded four times. The error was discovered in October 1981 following a series of warehouse denials of high-priority requisitions for this item, which had a recorded balance of 124 units at that time.

Army

At the New Cumberland Army Depot, we randomly selected and reviewed 18 major physical inventory loss adjustments that had been reversed during a quarterly period ending in October 1982. We found that 10 of these erroneous loss adjustments, or 55 percent, had resulted in losses of materiel up to 5 months with resultant delays in filling high-priority requisitions up to 3 months.

All of the erroneous inventory loss adjustments were caused by materiel being moved from a recorded storage location to another storage area without recording the change. The materiel was subsequently located and restored on the records by reversing the prior loss adjustments.

For example, in May 1982 the New Cumberland depot was unable to locate in a recorded storage location five control boxes (stock no. 1620-00-903-0252) with a unit price of $4,870. As a result, five requisitions, including three high-priority ones, were denied and an inventory loss adjustment of $24,350 was recorded. The denied requisitions were referred to other depots and filled 85 to 101 days later. In August 1982, the missing control boxes were located at the New Cumberland depot and restored on the records.

An Army audit report issued in January 1982 provides further demonstration of the adverse impact of inventory record inaccuracies. This report criticized the Tank-Automotive Command for delays in researching and reversing significant erroneous inventory loss adjustments. The report concluded that as much as $110 million of inventory losses recorded by this command in fiscal year 1981 may have been invalid and that 50 percent of the invalid loss adjustments adversely affected either procurement economies or supply effectiveness.

EFFECTIVENESS OF PROCEDURES AND PRACTICES FOR IDENTIFYING AND CORRECTING MAJOR RECURRING CAUSES OF INVENTORY ERRORS

The procedures and practices of the Army, Air Force, and DLA are generally not effective in identifying and correcting the causes of recurring major inventory record errors. Error trends are either not identified or, if identified, not corrected. These conditions are attributable to procedural weaknesses, a shortage of qualified personnel, and inadequate management emphasis and priority.

Army

In fiscal year 1982, the Tank-Automotive Command was unable to determine a reason for 73 percent of the more than 12,000 major variances researched. The remainder was attributed to depot warehouse location problems. However, no followup was made with the depots to identify and correct the causes of this problem.

At the New Cumberland Army depot our review indicated that a primary cause of materiel location problems was the constant rewarehousing of stocks--more than 1,000 location changes were made monthly due to saturation of available storage space. As a result, materiel was frequently mislocated for prolonged periods. Quality control checks performed at this depot noted repeated problems involving inaccurate physical counts and delays in or failure to record materiel location changes. Although these problems were repeatedly reported to depot officials,

effective corrective action was not taken to prevent a recurrence. In this respect, the quality control results and feedback on corrective action taken were not reported to the depot commander or higher Army authority.

At the Tank-Automotive Command prescribed quality control coverage did not include the accuracy of pre- and post- adjustment research results and related reconciliations of major inventory variances and reversals of major physical inventory adjustments. At the New Cumberland depot, statistics compiled for a 21-month period in 1981 and 1982 showed that required monthly checks of the accuracy of adjustments made to depot locator records were not made for 18 months. The statistics also showed that required checks of the accuracy of location record reconciliations were not made for 13 of the 21 months. Justifications cited for frequently not making required key quality control checks were lack of adequately trained personnel and higher priority assignments.

The Army's Materiel Development and Readiness Command has recognized the need for providing more management emphasis and priority to the quality control program. In January 1983, the Command directed the materiel commands and depots to comply with prescribed quality control procedures and to submit monthly quality control reports to command headquarters.

Air Force

In fiscal years 1981 and 1982, the five air logistics centers could not determine a reason for 43 percent and 39 percent of the major physical inventory variances researched, respectively. At the San Antonio center, research performed in these fiscal years showed that prior erroneous physical inventory adjustments and delays in reporting or not reporting physical count results accounted for 20 percent of the major variances. However, no apparent follow-up action was taken to correct these problems.

We found that major inventory variances caused by delays in reporting or not reporting count results were due to a correctable Air Force-wide system problem, which local management had been aware of for at least 3 years. In this respect, the standard automated inventory system at the centers is programmed to reduce the balances of items subjected to scheduled physical inventories to zero, if completed count cards are not input to the system within 30 days after the established inventory cutoff date.

Supply officials gave the following reasons for not correcting recurring causes of major physical inventory variances:

APPENDIX III

--Air Force guidance on the objectives of inventory research is unclear. Local management's efforts to obtain clarification and more detailed guidance from the Air Force Logistics Command have been unsuccessful.

--Research analysts and item managers lack adequate training to conduct timely and accurate inventory research.

--The Air Force's goal of 14 days for completing preadjustment research does not allow sufficient time to accomplish thorough research.

--Turnover among item managers is high.

DLA

The Defense General Supply Center was unable to determine a reason for 26 percent and 28 percent of the major physical inventory variances researched in fiscal years 1981 and 1982, respectively. Although causative research at this center indicated that erroneous warehouse denials and inaccurate physical counts at depots were responsible for 52 percent and 41 percent of major physical inventory adjustments in fiscal years 1981 and 1982, no apparent followup action was taken with the depots to identify or correct the primary causes of these problems. Center officials believed that the primary purpose of causative research was to identify and reverse erroneous physical inventory adjustments rather than to resolve the primary causes of recurring major variances.

DLA requires its depots to perform quarterly quality control checks of 17 operations affecting inventory record accuracy. However, contrary to DOD's policy, DLA does not require its supply centers to perform quality control checks. Thus, the accuracy of physical inventory adjustments, causative research, and related reversals of adjustments are not subjected to quality assurance tests.

We found that DLA depots frequently do not meet quality assurance standards. For example, in fiscal years 1981 and 1982, the Richmond depot did not meet acceptable quality control standards for 12 of 17 inventory operations. Also, this depot's inventory count accuracy decreased from 91.5 percent in fiscal year 1981 to 86.9 percent in fiscal year 1982, as compared to an acceptable quality rate of 98.5 percent.

We also found that DLA depots do not perform all of the required quality checks because of a shortage of quality assurance specialists. For example, in fiscal year 1982 the Richmond

depot did not perform required quality control checks for 3 of the 17 operations.

In May 1982, the DLA director became concerned with the Richmond depot's high materiel release order denial rate and directed the depot to take the necessary corrective actions. As a result, this depot is now performing monthly quality control audits for 6 of the 17 operations (i.e., inventory count accuracy, requisition denial processing). Also, the depot quality control team is now making a 100 percent verfication of locator record data input.

CONCLUSIONS

The magnitude and impact of the inventory accuracy problem in the Army, Air Force, and DLA are much greater than previously recognized by DOD and its components. The high rate of reversals of physical inventory adjustments and erroneous reconciliations of major physical inventory variances disclosed by our review and prior agency audits is indicative of both poor physical inventory performance and serious inventory control problems. Acceptable levels of inventory record accuracy are not being achieved because the basic causes of recurring major stock record errors are generally not being identified and corrected.

We attribute these conditions to inadequate management emphasis and priority, noncompliance with DOD's policy as well as inadequacies in the policy and implementing procedures and practices, a shortage of qualified personnel, and a lack of individual accountability for actions affecting inventory record accuracy.

APPENDIX IV

DOD'S PLANS FOR IMPROVING PHYSICAL INVENTORY CONTROLS

In 1982 the Defense Council on Integrity and Management Improvement designated physical inventory control as an issue that required immediate management attention and corrective actions. The council expressed concern with the increasing trend of physical inventory adjustments, totaling over $2 billion in fiscal year 1981, and believed that not enough effort had been dedicated to identifying and correcting error causes.

The council established a plan of action for improving physical inventory controls. Under this plan, DOD's Joint Physical Inventory Working Group was tasked with identifying and implementing improvements needed in policies, procedures, and standards for achieving and sustaining an acceptable level of inventory record accuracy for supply system inventories. Also, the DOD components were directed to upgrade the command priority and emphasis given to their physical inventory programs and to assess the additional resources needed to improve performance.

The Joint Physical Inventory Working Group developed a physical inventory control improvement program plan in June 1982. This plan calls for a series of actions from fiscal years 1982 through 1985 to identify and implement improvements needed in policies, procedures, and standards for upgrading physical inventory performance and inventory record accuracy. Specifically, the plan provided for:

--Expedited approval and publication by December 1982 of previously proposed changes to improve DOD's physical inventory procedures.

--Review of actions currently being taken by the Navy to upgrade inventory record accuracy and identification of those improvements deemed advantageous for adoption throughout DOD. This action was targeted for completion in September 1982.

--Onsite visits during February through April 1983 to 10 depot and inventory control activities by members of the Joint Physical Inventory Working Group to review actual performance. These visits will provide baseline data for developing additional procedural changes and serve as a prototype for establishing a permanent program of periodic review of physical inventory procedures and practices by DOD components and the Joint Physical Inventory Working Group.

--Validation of existing performance standards and development of new or revised standards by September 1983.

--Review of physical inventory techniques used by DOD components and an assessment of the impact of increasing the percentage of items to be inventoried each year. This action is targeted for completion by July 1985.

--Development of new procedural requirements and techniques to relate impact of physical inventory adjustments to requirement determination and procurement. The milestone for accomplishing this action is July 1985.

As a part of this plan, the chairman of the group is to provide periodic progress reports to the Director, Supply Management Policy, OASD (MRA&L). The first progress report was due in September 1982 with ensuing reports due every 6 months thereafter.

We met with the chairman and other members of DOD's Joint Physical Inventory Working Group in January 1983 to evaluate the progress being made in accomplishing the objectives of the physical inventory improvement plan. At that time, the group had not submitted its first progress report. The only completed action taken that we could evaluate was the publication of proposed changes to DOD's physical inventory procedures, which are scheduled for implementation by December 1983.

We noted a number of benefits and shortfalls in the proposed changes. The benefits noted included:

--Establishment of expanded inventory error classification codes broken out by types of operation in which the error occurred (i.e. receiving, issuing, physical inventory, warehousing).

--Expanded quality control coverage to include accuracy checks of (1) recorded materiel location changes following major rewarehousing projects and (2) causative research results and related physical inventory adjustments and reversals made by both depots and inventory control points.

--Revision of the inventory control effectiveness report compiled quarterly by DOD and used to measure comparative physical inventory performance of its components. The revised report will include data on reversals made to prior quarters' physical inventory adjustments. Also,

when performance goals are not achieved, the report will be accompanied by a narrative analysis of major error causes and corrective action initiated.

While the proposed changes provided for disclosure of reversals made to prior quarters' physical inventory adjustments, which were used to reduce cumulative reported physical inventory adjustments, they did not reveal the extent to which reversals made in the current quarter were used to reduce physical inventory adjustments reported for that quarter. Also, the proposed changes did not require that reversals be viewed as a management indicator of the quality of physical inventory performance.

On April 11, 1983, members of the Readiness Subcommittee staff and GAO jointly briefed DOD representatives on the results of this review. At this meeting, DOD provided us with the latest proposed changes, dated March 1983, to DOD's physical inventory procedures. The proposed changes which are scheduled for implementation by October 1984, provide for reporting and full disclosure of reversals made to physical inventory adjustments.

We noted several shortfalls with the proposed procedural changes. The change to increase the time frame for reversing physical inventory adjustments from 90 days to 1 year would only contribute to more time-consuming and futile causative research. It also would encourage additional arbitrary reversals for the sole purpose of minimizing reported physical inventory adjustments. Another shortfall involves increasing the mandatory dollar criterion for complete causative research of physical inventory adjustments of pilferable items from over $2,500 to over $4,000. This change was arbitrarily proposed without benefit of a study. Our review indicated that the average adjustment for pilferable items is under $4,000 at a majority of inventory control points. Thus, implementation of this change would reduce the effectiveness of research to detect and deter unauthorized diversion of pilferable items.

CONCLUSION AND RECOMMENDATIONS

We believe that DOD's plan, with the exceptions noted above, is a positive one. However, more needs to be done. Accordingly, we recommend that you:

(1) Adopt on a DOD-wide basis the following actions taken by the Navy to improve physical inventory controls and inventory record accuracy:

(a) Recognize inventory record accuracy as a major concern and upgrade the command priority and emphasis given to physical inventory programs.

(b) Require that merit pay objectives/performance evaluations of military and civilian personnel involved in functions affecting inventory record accuracy include a mandatory entry on inventory record accuracy and materiel accountability performance.

(c) Have top management provide clear guidance to depots and inventory managers that falsified reporting of physical inventory performance and inventory accuracy results will not be tolerated and that, if found, the strongest disciplinary actions will be taken.

(d) Identify the training needs of depot and inventory control point supply personnel and ensure that the training is provided.

(e) Establish standard rewarehousing procedures that, at a minimum, will (1) limit the amount of materiel movement to the lowest possible level, (2) provide standard materiel movement controls to ensure that materiel location changes are reflected promptly on depot locator records, and (3) require that either quality sampling checks or complete location surveys be made following rewarehousing projects to insure that the new locations of rewarehoused materiel are reflected promptly and accurately on locator records.

(2) Expand the frequency and scope of quality control checks of work processes affecting inventory record accuracy at both the depot and inventory management levels. At a minimum, expanded quality control programs should include weekly sampling checks of the quality of research efforts to identify and correct recurring error causes, as well as the validity of reconciliations of major physical inventory differences and reversals of physical inventory adjustments. Also, require that quality control results be reported to depot and inventory control point commanders and higher management levels and that a feedback system be established to ensure that problem areas repeatedly noted by quality checks are corrected promptly.

(3) Require inventory management levels to report the results of causative research of physical inventory adjustments to higher management levels and establish a feedback system to ensure that recurring error causes are being identified and corrected. Also, require inventory management levels to report results of causative research to affected depots and have the

depots use the results to identify problem areas warranting expanded quality control coverage.

(4) Rescind DOD's recent policy changes that (1) increase the time frame for reversing physical inventory adjustments from 90 days to 1 year and (2) increase the dollar criterion for researching physical inventory adjustments for pilferable items from over $2,500 to over $4,000.

(5) Direct the Air Force to comply with the intent of DOD's policy by limiting preadjustment research to reconciliations of physical differences caused by recent unprocessed transactions that occurred immediately before or during the physical inventory control period.

(6) Establish uniform standards for gross physical inventory dollar adjustment ratios based on the value of materiel inventoried. Also, establish uniform standards for reversals of physical inventory adjustments.

(7) Require that reversals to physical inventory adjustments be viewed equally with physical inventory adjustments by DOD and its components in assessing overall inventory record accuracy performance.

(8) Require inspector general and inventory control review teams in the services and DLA, as a part of their periodic annual inspections, to examine into the quality of physical inventory performance, including the adequacy of efforts to identify and correct recurring error causes as well as the validity of reconciliations of physical inventory variances and reversals of physical inventory adjustments. Also, require more frequent and indepth service and DLA-wide coverage of wholesale physical inventory controls and inventory record accuracy by internal audit organizations.

(9) Expand DOD's plans to develop procedural requirements and techniques to relate impact of physical inventory adjustments on requirements determination and procurement to include identification of adjustments affecting mission essential items. Also, require that data on physical inventory adjustments affecting requirements, procurements, and mission essential items be reported to DOD and included in the quarterly inventory control effectiveness report.

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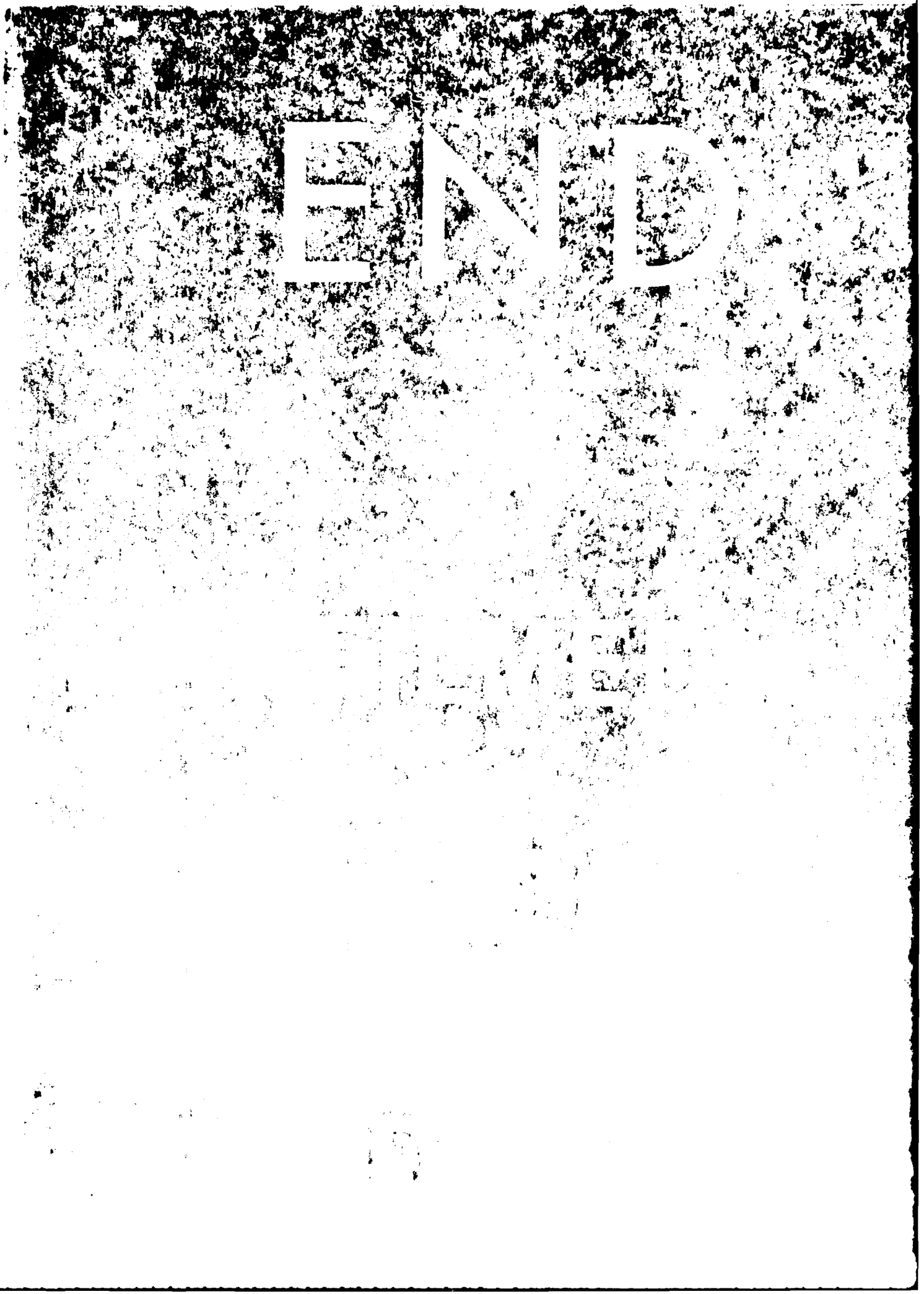
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