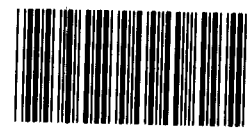


April 1993

ARMY MAINTENANCE

Strategy Needed to Integrate Military and Civilian Personnel Into Wartime Plans



148964

**National Security and
International Affairs Division**

B-251383

April 29, 1993

**The Honorable John Shannon
The Acting Secretary of the Army**

Dear Mr. Secretary:

With the demise of the Warsaw Pact and the dissolution of the Soviet Union, the Army faces the task of devising effective combat and support strategies to meet new threats to the nation's security. Because of the importance the Army places on sustaining its equipment during a conflict,¹ we reviewed its strategy for providing general support (GS) maintenance to determine whether the strategy is likely to be effective in meeting the expected support requirements of future conflicts.

Background

According to Army doctrine, GS maintenance provides equipment repair capability in the rear area of a battle zone to sustain combat and support forces. Under this maintenance concept, repaired items are generally returned to the supply system for reissue to units. As combat operations increase and more equipment becomes inoperable, GS maintenance becomes increasingly important in ensuring that the flow of serviceable equipment is not interrupted. Without an effective capability to provide this maintenance support, the Army's combat and support operations may be jeopardized.

For more than 40 years following the end of World War II, Army wartime planning focused on the possibility of a major conflict in Europe with Warsaw Pact forces. The GS maintenance strategy for this scenario called for heavy reliance on experienced host nation support personnel during the initial phases of the conflict, supplemented by the later deployment of U.S. active and reserve component maintenance units. With the demise of the Warsaw Pact and Soviet threats, the Army is considering the increased likelihood of a variety of other threats, regional in scope, as a basis for its planning. Also, under new battlefield doctrine being developed, the Army may require its maintenance forces to rapidly deploy and be prepared to perform missions in areas where equipment repair support from host nation forces may not be available.

¹The term "conflict," as used in this report, refers to a wide variety of possible wartime scenarios, including contingencies and declared wars.

Results in Brief

The Army's GS maintenance strategy will not likely be effective in future conflicts. The strategy does not reflect the changed threat environment, existing military maintenance capabilities, and actual maintenance practices used in past conflicts. Specifically, the strategy relies on military units to perform GS maintenance, while in practice the Army relies heavily on civilian² maintenance workers to support the mission, as was the case in the Persian Gulf War. The Army's strategy does not consider using civilians to perform GS maintenance in wartime scenarios.

Of particular concern is the fact that the strategy does not address the regional conflict scenarios where civilians could likely be used or the extent of their use. As a result, the Army must make ad hoc GS maintenance arrangements, as was done during the Persian Gulf War. Making this transition from strategy to practice posed problems during the war. For example:

- Many of the GS maintenance units that deployed to the Persian Gulf were not sufficiently trained to perform GS-level repairs on the Army's most modern equipment, especially the M1A1 tank and Bradley Fighting Vehicle. While the current strategy calls for military maintenance units to perform most GS repairs during a conflict, these units, which are primarily in the reserve component (Army Reserve or National Guard), have not routinely performed repairs on the most modern equipment in peacetime. As a result, they have not acquired the necessary skills to become proficient in performing GS-level repairs on this equipment.
- The Army was compelled to use civilians to help fill a maintenance support gap left by military maintenance units that (1) had been delayed in deploying to the Gulf and (2) often lacked the appropriate tools and spare parts to perform maintenance tasks when they arrived in the Gulf. Various Army "after action" reports have indicated that although these civilians provided a credible and rapidly deployable maintenance capability, some problems occurred with their deployments. Because of insufficient pre-deployment screening, for example, some civilians arrived in the Gulf with medical, emotional, or physical conditions that precluded them from being effectively used to perform their duties.

Until a revised GS maintenance strategy and plans are developed and implemented, the Army will continue to rely on ad hoc arrangements to satisfy maintenance requirements for future contingencies. While the Army had enough warning time to make the necessary arrangements for

²In this report, the term "civilians" refers to U.S. government civil servants employed at Army installations or depots. The Army also relies heavily on civilian support from contractors and host nations; however, these resources are not addressed in this report.

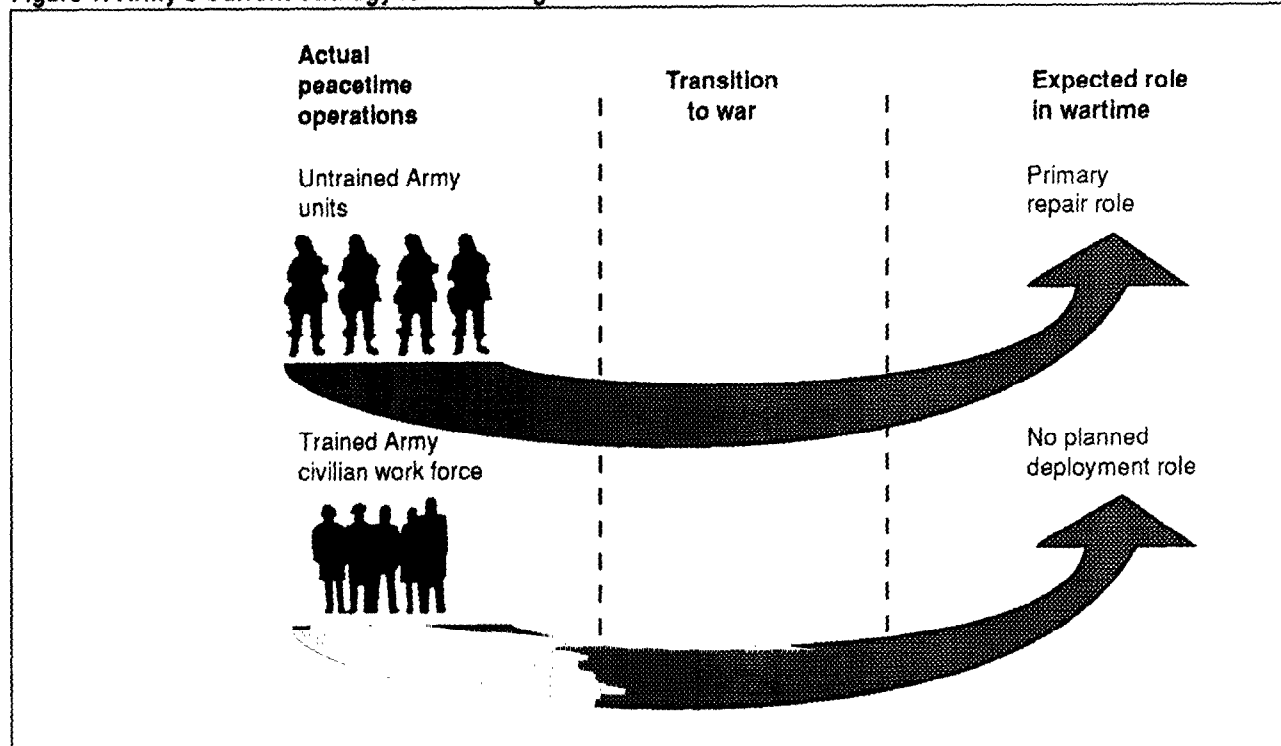
performing essential repairs during the Gulf War, the timing may not be as favorable for the next conflict. This could put maintenance support operations in jeopardy.

The Army is considering various proposals to change its approach for accomplishing GS maintenance in various conflict scenarios. Two proposals are intended to incorporate the use of civilian resources. One proposal involves the concept of establishing a support group comprised primarily of civilians that could rapidly deploy to carry out GS and depot-level repair work. However, the proposals do not address how to effectively incorporate both military maintenance forces and civilians or how to “mix and match” these forces with the conflict scenarios that are now being considered.

Wartime Practices Are Inconsistent With Strategy

The Army’s strategy for accomplishing its wartime maintenance mission—as contained in operational plans, training and doctrine publications, and maintenance policy regulations—is inconsistent with actual wartime maintenance practices. For example, while Army units are expected to play the predominant role in performing GS maintenance during wartime, they have not historically performed this maintenance, particularly on the Army’s most modern equipment, in peacetime on a regular basis. On the other hand, civilians employed by the Army regularly perform this maintenance in peacetime and are qualified to perform these tasks. However, the wartime strategy does not consider the use of civilians, even though they were used to perform repairs during past conflicts, such as the Gulf War. As illustrated in figure 1, this inconsistency has led to an ineffective wartime GS maintenance strategy that exists today.

Figure 1: Army's Current Strategy for Providing GS Maintenance



Military Maintenance Units Are Not Sufficiently Trained

The Army's military maintenance units have not developed the capability to effectively perform GS maintenance on all equipment which they are required to repair during wartime. As we pointed out in two previous reports, the Army's 76 active and reserve component GS maintenance units are not sufficiently trained in peacetime to perform GS-level repairs on all equipment, particularly the Army's newer equipment, during wartime. The units we reviewed at that time, for example, were often spending insufficient time during peacetime performing GS-level repairs to develop the necessary expertise. This situation was particularly evident in the reserve component because these units (1) were sometimes located far from maintenance facilities or other repair sites, (2) had only approximately 39 days a year to train soldiers on repairs, and (3) frequently spent much of their weekend training time on administrative tasks.

³Army Maintenance: General Support Maintenance Units Not Prepared to Perform Wartime Repairs (GAO/NSIAD-89-183, July 17, 1989) and Army Reserve Components: Better Training for General Support Maintenance Capability (GAO/NSIAD-91-219, July 9, 1991).

Our discussions with maintenance personnel at 8 of the 16 GS maintenance units that deployed to the Persian Gulf indicated that these units were continuing to have difficulty acquiring the needed training to repair modernized equipment. Most of these units, for example, had either limited or no training in repairing the Army's newer combat equipment, such as M1A1 tanks and Bradley Fighting Vehicles, and were therefore not qualified to perform these repairs in the Gulf.

The Army is aware of problems facing its GS maintenance units and has initiated several actions to improve their capability. Much of the Army's focus has been directed to the reserve component because 86 percent of its GS maintenance force structure, or 65 of 76 units, is in the reserves. For example, the Army has established (1) regional maintenance training facilities to provide equipment repair opportunities for reservists and (2) an overseas facility that provides maintenance training to reserve component units rotating for 3-week periods from the United States to Germany. Nevertheless, providing adequate training remains a difficult challenge for the Army because the reserves, in particular, have limited training time and often lack mission-essential equipment to repair. Until the Army overcomes such fundamental—and long-standing—training problems, it may continue to experience difficulties deploying a well-trained GS maintenance force in the event of future conflicts.

Military Maintenance Units Assigned Other Tasks in the Gulf

Due in large part to changes in deployment plans and higher theater priorities, most GS military maintenance units that served in the Gulf War were assigned tasks other than GS maintenance. Only one of eight units we reviewed—the 900th Heavy Equipment Maintenance Company (HEMCO)—played a major role in performing GS maintenance. Other units performed a wide variety of tasks, including mail delivery and guard duty, during the Gulf War rather than the expected primary wartime task—performing GS-level repairs—of a GS maintenance unit. After the war ended in February 1991, some units remained in the Gulf and were also assigned various tasks associated with preparing equipment for return to the United States. Table 1 shows the primary tasks accomplished by the GS maintenance units we contacted.

Table 1: GS Units' Primary Tasks While Serving in the Persian Gulf

GS unit	Assigned tasks
76th HEMCO	Vehicle washing and cannibalization point ^a
190th HEMCO	Cannibalization point ^a and various details, such as mail delivery
647th LEMCO ^b	Vehicle washing and various details, such as guard duty
556th HEMCO	Combat equipment turn-in site ^c
170th HEMCO	Vehicle washing and retrograde ^d
344th HEMCO	Cannibalization point, ^a technical inspections, and equipment recovery
900th HEMCO	Vehicle and component repair and retrograde
238th HEMCO	Equipment turn-in point and backup direct support ^e

^aThe unit helped operate a parts supply point where it removed serviceable parts from unserviceable equipment for use in repairing other unserviceable equipment.

^bLight equipment maintenance company.

^cThe unit helped operate an equipment compound where equipment was being turned in and stored.

^dThe unit helped prepare equipment for return to the United States. This preparation included cleaning and making minor repairs.

^eThe unit operated a receiving point for unneeded equipment and performed some lower level repairs.

Army officials told us that although most of the GS maintenance units arrived in the Gulf before the onset of hostilities in January 1991, the units arrived later than originally planned and were not well-equipped to perform maintenance when they arrived. In particular, many of the units lacked the tools and spare parts required to make repairs. Further, Army officials in the theater determined that some tasks—such as mail delivery—were a higher priority than maintenance at the time and assigned these tasks to units, including GS maintenance units, that were available to perform these tasks.

Civilians Not Considered in Wartime Deployment Plans

Although the Department of Defense has provided some guidance on the management of civilians during a wartime deployment, the Army's current GS maintenance strategy does not include plans for using civilians in future conflicts. However, the practice has been to use them during wartime because, unlike military personnel, these personnel have had extensive peacetime experience performing the types of GS maintenance repairs required during wartime. For example, the Army Materiel Command deployed a large number of civilians, as well as military and contractor

personnel, to perform logistical functions during the Gulf War. According to after action reports, the Army drew upon this experience during the Gulf War to meet maintenance needs for which no capability existed in-theater.

As part of its deployment, the Command established the U.S. Army Support Group, a temporary organization primarily composed of civilians, to provide GS and limited depot maintenance support in the Gulf. These civilians, many of whom volunteered to serve in the Gulf, came from more than 30 installations in the United States and Germany. The personnel buildup of the Support Group began in October 1990 and reached a peak strength of 601 maintenance personnel in March 1991. Overall, about 1,000 civilians deployed on tours ranging from 90 to 179 days.

According to Army after action reports, Support Group maintenance personnel were successful in performing GS and depot-level repairs on various types of equipment, ranging from gas masks to tanks. Specifically, the Support Group

- repaired over 44,000 items, including 4,300 tank and automotive components;
- modified and repaired 743 M1A1 tanks, which were then returned to combat units;
- repaired 60 Bradley Fighting Vehicles; and
- repaired M-911 Heavy Equipment Transporters through the use of contact teams.

In performing these repairs, the Support Group contributed directly to the high degree of success in supporting the maintenance requirements of combat forces during the Gulf War. Figure 2 shows examples of unserviceable engines and transmissions taken from wheeled and tracked vehicles that Support Group maintenance personnel typically repaired.

Figure 2: Unserviceable Equipment Awaiting Repair During the Gulf War



Source: U.S. Army.

Even though civilian maintenance personnel provided valuable assistance in keeping equipment operational in the Gulf, the Army Materiel Command, in its after action report, cited several problems it experienced in deploying and using civilians in the Gulf. For example:

- Some civilian personnel were not thoroughly screened for medical, physical, and emotional problems before deploying to the Gulf. As a result, some personnel arrived with medical and physical limitations, such as severe heart problems and kidney disorders, which precluded them from effectively performing their duties.

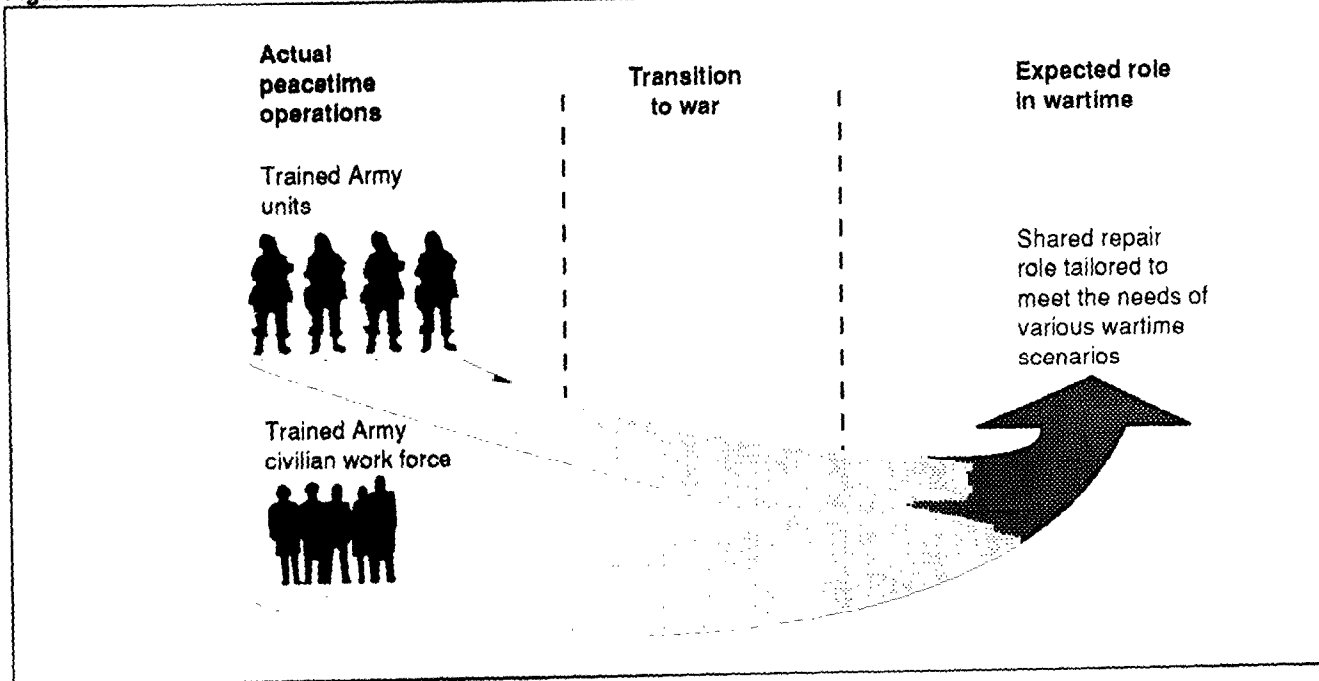
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- Some civilian personnel left the Gulf prior to the end of their tours. For example, 33 civilian personnel who were assigned to the Support Group left the Gulf early under confusing circumstances in which it appears they believed they had permission to leave. Although several of these civilians were initially disciplined, the disciplinary measures, including job suspensions, were ultimately waived by management. Army officials believe that in comparison to the total number of civilians deployed, this was not a significant problem.

Army Support Group officials attributed many of their deployment problems to the urgency of the Gulf War and the need to quickly organize and deploy the group without the benefit of an established mobilization plan. These officials believed that had such a plan been available, many of the problems they encountered could have been avoided.

Maintenance Strategy Does Not Address Using Civilians

Although civilians do represent a valued maintenance capability, as demonstrated in the Gulf War and other conflicts, the Army's gs maintenance strategy does not integrate civilian maintenance personnel into its planning for future conflicts. For example, the strategy does not address the extent to which civilians are likely to be used in a particular scenario or whether there are scenarios in which their use does not appear feasible. By implementing a revised comprehensive strategy, the Army could combine its experienced civilian capability with well-trained military maintenance units, as shown in figure 3, and mix and match these resources to provide the necessary capability to support operations under different conflict scenarios.

Figure 3: Alternative GS Maintenance Strategy for Integrating Military and Civilian Personnel Into Wartime Plans



The Army has several actions underway to improve its GS maintenance capability. Forces Command, for example, is focusing its attention on a number of initiatives to improve the capability of its military maintenance units, such as providing equipment repair opportunities at region maintenance training sites. The Army Materiel Command has submitted a proposal to incorporate into Army doctrine the concept of using civilian personnel in a manner similar to that employed by the Army Support Group in the Gulf. In addition, the Strategic Logistics Agency, an element of the Deputy Chief of Staff for Logistics, is developing a long-range concept calling for an integration of all resources—military and civilian—under a single manager to provide peacetime and wartime maintenance services both the GS and depot levels.

While these individual efforts appear to be steps in the right direction, their ultimate success will depend on a long-term commitment from Army managers to ensure that these efforts are fully developed and implemented. Their support is necessary, among other things, to address the needed changes in Army doctrine and policy that some of these

require. We believe that a comprehensive strategy will ensure this commitment.

To the extent that civilians can be included in a revised strategy, this may provide the Army an opportunity to reduce the number of military maintenance units in the current force structure. However, it would not be realistic for the Army to depend solely on the civilian work force. For example, Army Depot System Command officials told us that because of the large number of items requiring repair, civilian mechanics were able to repair only about 10 percent of the unserviceable components during the Gulf War. They added that had the war continued, they would have been unable to sustain a long-term effort without the assistance of other maintenance resources. Further, depending on the scope and nature of the conflict, it may not be feasible or prudent to deploy civilians for safety or security reasons.

Recommendations

We recommend that you take the following actions:

- Revise the existing GS maintenance strategy to reflect likely future conflicts, maintenance capabilities of military units, and the extent to which civilians are likely to be used in various scenarios. A revised strategy should consider, at a minimum, (1) the maintenance requirements for the various scenarios being discussed and (2) the use of a mix of military and civilian maintenance resources to effectively meet those needs, where practical.
- On the basis of a revised strategy, assign specific missions among available military and civilian maintenance resources and develop a training program that provides for the required peacetime training needed to achieve those missions.
- Revise maintenance doctrine to recognize the potential use of civilians in various scenarios and develop, as necessary, mobilization plans for deploying civilians for future conflicts.
- On the basis of a revised strategy, determine if reductions in the number of military maintenance units are warranted. Consideration should be given to retaining a minimum military capability to meet the needs of expected future conflicts.

Agency Comments

In commenting on a draft of this report, the Department of Defense concurred or partially concurred with all our findings and recommendations. The Department indicated that the Army is revising its

battlefield doctrine, to include the most effective use of support forces. As part of that effort, the Army is currently reviewing the use of civilians in various conflicts and is developing specific concepts for future employment of an Army Support Group. According to the Department, the Army expects to complete its analyses by December 1993. The Department indicated that after the battlefield doctrine has been revised and the use of civilians in conflicts has been evaluated, it can consider any needed changes to its GS maintenance strategy. The Department's comments are reprinted in their entirety in appendix II.

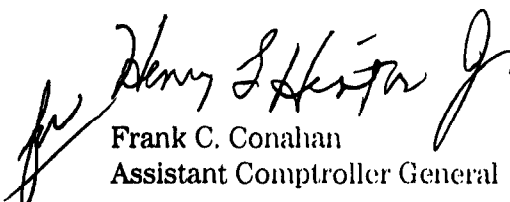
Appendix I provides information on the scope and methodology of our work.

As you know, the head of a federal agency is required under 31 U.S.C. 720 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 Senate and House 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 Chairmen of the above committees and of the House and Senate Committees on Armed Services, the Secretary of Defense, and the Director of the Office of Management and Budget. We will also make copies available to others upon request.

This report was prepared under the direction of Henry L. Hinton, Jr., who can be reached on (202) 512-6226 if you or your staff have any questions. Other major contributors are listed in appendix III.

Sincerely yours,



Frank C. Conahan
Assistant Comptroller General

Scope and Methodology

To assess the effectiveness of the Army's general support (GS) maintenance strategy, we compared the key elements of current plans with the expected needs for future maintenance forces. To obtain information on the Army's current strategy, we interviewed Army logisticians and examined maintenance policy, doctrine, and plans. We also interviewed Army officials about the expected requirements of future forces, examined logistics concepts for future conflicts, and reviewed GS maintenance practices used in the Gulf War.

Because the Army's current GS maintenance strategy relies heavily on the capability of its military maintenance units, we examined relevant after action reports for the performance of GS maintenance units during the Gulf War. We also visited 8 of the 16 GS maintenance units that deployed to the Persian Gulf. In so doing, we obtained first-hand accounts of whether they were prepared for war and whether they made a significant contribution to accomplishing the GS maintenance mission.

Although civilian personnel—civil servants employed by the U.S. government—are not included in the Army's current strategy, we examined the implications and recent Army experience of using them in the Persian Gulf War on an ad hoc basis. We examined Army policy and doctrine with respect to using civilians for this mission, obtained information on the mobilization and deployment of civilians to the Gulf area, and obtained information on Army concepts for using civilians in future conflicts. We did not evaluate the adequacy of these concepts because they were in the early stages of development.

During our review, we contacted the following offices and units:

- Office of the Deputy Chief of Staff for Logistics, Washington, D.C.;
- Office of the Deputy Chief of Staff for Operations and Plans, Washington, D.C.;
- Defense Logistics Agency, Alexandria, Va.;
- Forces Command, Fort McPherson, Ga.;
- Headquarters, National Guard Bureau, Arlington, Va.;
- Headquarters, Office of the Chief, Army Reserve, Washington, D.C.;
- Headquarters, Army Materiel Command, Alexandria, Va.;
- Depot System Command, Chambersburg, Pa.;
- Combined Arms Support Command, Fort Lee, Va.;
- Ordnance Center and School, Aberdeen Proving Grounds, Md.;
- Concepts Analysis Agency, Bethesda, Md.;
- Strategic Logistics Agency, Fort Belvoir, Va.;

- U.S. Army Central Command, Fort McPherson, Ga.;
- Combined Arms Command, Fort Leavenworth, Kans.;
- 190th Heavy Equipment Maintenance Company (HEMCO), Fort Hood, Tex.;
- 556th HEMCO, Fort Riley, Kans.;
- 76th HEMCO, Fort Knox, Ky.;
- 73rd HEMCO, Fort Carson, Colo.;
- 344th HEMCO, U.S. Army Reserve, Bogalusa, La.;
- 900th HEMCO, Alabama Army National Guard, Brundidge, Ala.;
- 238th HEMCO, U.S. Army Reserve, San Antonio, Tex.;
- 170th HEMCO, Kansas Army National Guard, Hays, Kans.;
- 647th Light Equipment Maintenance Company, Fort Hood, Tex.;
- Directorate of Logistics, Fort Knox, Ky.;
- Directorate of Logistics, Fort Hood, Tex.;
- Directorate of Logistics, Fort Sill, Okla.;
- Directorate of Logistics, Fort Stewart, Ga.;
- Directorate of Logistics, Fort Bragg, N.C.;
- Directorate of Logistics, Fort Carson, Colo.;
- Anniston Army Depot, Anniston, Ala.; and
- U.S. Army Center for Military History, Washington, D.C.

We conducted our review from August 1991 through September 1992 in accordance with generally accepted government auditing standards.

Comments From the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



PRODUCTION AND LOGISTICS

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, DC 20301-8000

March 30, 1993

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 MAINTENANCE: Strategy Needed to Integrate Military and Civilian Personnel into Wartime Plans," dated December 7, 1992 (GAO Code 393465) OSD Case 9268. The Department generally agrees with the report.

The DoD agrees that the recent changes in the world dictate the assessment of combat and support strategies to ensure those strategies most effectively meet current national security threats. In that regard, the Army is developing revised battlefield doctrine, to include the most effective use of support forces. As part of that effort, the Army is currently reviewing the use of civilians in various contingency scenarios and is developing specific concepts for future employment of an Army Support Group. It is anticipated that by December 1993, the Army analyses will be completed. Once the battlefield doctrine has been updated and the appropriate use of civilians in contingency situations has been evaluated, any needed changes to civilian personnel strategies can then be considered.

Detailed DoD comments on each finding and recommendation are provided in the enclosure. The Department appreciates the opportunity to comment on the draft report.

Sincerely,

for Jeffrey A. Jones
Acting Deputy Assistant Secretary
(Logistics)

Enclosure

GAO DRAFT REPORT--DATED DECEMBER 7, 1992
(GAO CODE 393465) OSD CASE 9268

"ARMY MAINTENANCE: STRATEGY NEEDED TO INTEGRATE
MILITARY AND CIVILIAN PERSONNEL INTO WARTIME PLANS"

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

o **FINDING A: Army General Support Maintenance.** The GAO observed that, according to Army doctrine, general support maintenance provides equipment repair capability in the rear area of a war zone to sustain combat and support forces. The GAO pointed out that, for more than 40 years following the end of World War II, Army operations focused on the possibility of a major conflict in Europe with Warsaw Pact forces. The GAO further pointed out that the general support maintenance strategy for such a scenario called for heavy reliance on experienced host nation support personnel during the initial phases of a conflict, supplemented by the later deployment of U.S. active and reserve component maintenance units. The GAO found that, under the new battlefield doctrine being developed, the Army may require maintenance forces to deploy rapidly and be prepared to perform missions in areas where equipment repair support from host nation forces may not be available. (pp. 1-2/GAO Draft Report)

DoD RESPONSE: Concur.

o **FINDING B: Wartime Practices are Inconsistent With Strategy.** The GAO reported that the Army strategy for accomplishing its wartime maintenance mission--as contained in operational plans, training and doctrine publications, and maintenance policy regulations--is inconsistent with actual wartime maintenance practices. The GAO pointed out that while Army units are expected to play the predominant role in performing general support maintenance during wartime, they have not historically performed that maintenance, particularly on its most modern equipment, in peacetime on a regular basis. The GAO further pointed out that, on the other hand, civilians employed by the Army regularly perform

Enclosure

Now on p. 1.

Now on pp. 3-4.

See comment 1.

general support maintenance in peacetime and are qualified to perform those tasks. The GAO noted, however, that the wartime strategy does not consider the use of civilians, even though they were used to perform repairs during past conflicts, such as the Gulf War. The GAO illustrated that inconsistency in Figure 1 of the report. The GAO observed that the inconsistency has led to an ineffective wartime general support maintenance strategy that exists today. (pp. 4-5/GAO Draft Report)

DoD RESPONSE: Partially concur. Active duty units do perform general support maintenance on the most modern equipment during peacetime. During periods of conflict, the performance of that function is to be augmented by Reserve and National Guard Components. The Reserve and National Guard Components are partly composed of civilians (members of the military technician program) that are employed as full time technicians during the week and perform these types of duties on a day to day basis. These personnel are also assigned to a military duty position that is compatible with their full time civilian technician position. It is agreed they do not always have access to training on the Army's most modern equipment.

o **FINDING C: Military Maintenance Units Are Not Sufficiently Trained.** The GAO explained that the Army military maintenance units have not developed the required capability in peacetime to enable units to effectively perform general support maintenance on all equipment which may require repair during wartime. As pointed out by the GAO in two previous reports (OSD Case 7973 and OSD Case 8663), most of those units were not sufficiently trained in peacetime to perform general support level repairs on some equipment, particularly the Army newer equipment, during wartime. The GAO observed that those units often spent insufficient time during peacetime performing general support-level repairs to acquire the necessary expertise. The GAO explained that the situation was evident in the Reserves because units (1) were sometimes located far from maintenance facilities or other repair sources, (2) had only approximately 39 days a year to train on repairs, and (3) frequently spent weekend training time on administrative tasks.

In interviews with maintenance personnel at eight of the 16 general support maintenance units deployed to the Persian Gulf, the GAO concluded that those units were continuing to have difficulty acquiring the needed training to repair modernized equipment. According to the GAO, most of the units had either limited or no training in repairing the Army newer combat equipment, such as M1A1 tanks and Bradley Fighting Vehicles, and were, therefore, not qualified to perform those repairs in the Gulf. (pp. 5-6/GAO Draft Report)

DoD RESPONSE: Concur.

o **FINDING D: Military Maintenance Units Were Assigned Other Missions in the Gulf.** The GAO reported that, due in large part to changes in deployment plans and higher theater priorities, most general support military maintenance units that served in the Gulf War were assigned missions other than general support maintenance. According to the GAO, only one of the eight units reviewed--the 900th Heavy Equipment Maintenance Company--played a major role in performing general support maintenance. The GAO noted that other units performed a wide variety of tasks, such as mail delivery and guard duty, during the Gulf War, rather than the expected primary wartime task--performing general support level repairs--of a general support maintenance unit. The GAO pointed out that after the war ended in February 1991, some units remained in the Gulf and were also assigned various tasks associated with preparing equipment for return to the United States--Table 1 of the report provides a listing of those primary tasks. (pp. 6-9/GAO Draft Report)

DoD RESPONSE: Concur. The general support maintenance units that were assigned other than maintenance functions (i.e. mail delivery and guard duty) were tasked in accordance with the requirements of the Theater Commander. It should be noted that all units activated for Desert Shield/Storm were deemed combat ready and capable of executing their wartime mission by the Department of the Army.

o **FINDING E: Civilians Not Considered in Wartime Deployment Plans.** The GAO reported that the current Army general support maintenance strategy does not include plans for using civilians in future conflicts. The GAO observed, however, that the practice has been to use civilians during wartime

Now on pp. 4-5.

Now on pp. 5-6.

because, unlike military personnel, the civilian personnel have had extensive peacetime experience performing the types of general support maintenance repairs required during wartime.

The GAO further reported that, as part of its deployment, the Army Materiel Command established the U.S Army Support Group--a temporary organization primarily composed of civilians--to provide general support and limited depot maintenance support in the Gulf. According to the GAO, the personnel buildup of the Support Group began in October 1990 and reached a peak strength of 601 maintenance personnel in March 1991--overall, about 1,000 civilians deployed on tours ranging from 90 to 179 days. The GAO found that the Support Group maintenance personnel were successful in performing general support and depot-level repairs on various types of equipment--ranging from gas masks to tanks. The GAO concluded that, in performing the repairs, the Support Group contributed directly to the high degree of success in supporting the maintenance requirements of combat forces during the Gulf War.

The GAO pointed out, however, that even though civilian maintenance personnel provided valuable assistance in keeping combat equipment operational in the Gulf, the Army Materiel Command, in its after-action report, cited several problems it experienced in deploying and using civilians in the Gulf. The GAO pointed out that the after-action report indicated that (1) some civilian personnel were not thoroughly screened for medical, physical, and emotional problems; and (2) some civilians left the Gulf early under confusing circumstances where it appears they believed they had permission to leave. The GAO reported several of those civilians were initially disciplined, but the disciplinary measures, including job suspensions, were ultimately waived by management. The GAO noted that, in comparison to the total number of civilians deployed, Army officials believed the second example was not a significant problem.

The GAO pointed out that Army officials attributed many of their deployment problems to the urgency of the Gulf War and the need to quickly organize and deploy the Group without the benefit of an established mobilization plan. The GAO further pointed out that the officials believed that, had such a plan

been available, many of the problems encountered could have been avoided. (pp. 9-11/GAO Draft Report)

DoD RESPONSE: Partially concur. The DoD agrees there was some confusion in using civilians for general support maintenance during the Gulf War. The DoD, however, has established policies and procedures for using civilians during a wartime deployment. For example, DoD Directive 1404.10, "Emergency-Essential (E-E) DoD U.S. Citizen Civilian Employees," dated April 10, 1992, provides overall policy guidance. Army Regulation 690-11, "Mobilization Planning, and Management," dated September 14, 1990, provides more specific guidance. As discussed in the DoD responses to Recommendations 1 and 2, the Army is currently reviewing the use of civilians in varying situations and developing concepts for future deployments, with results expected by late 1993.

o **FINDING F: Maintenance Strategy Does Not Address Using Civilians.** The GAO observed that, although civilians do represent a valued maintenance capability, as demonstrated in the Gulf War and other conflicts, the Army general support maintenance strategy does not integrate civilian maintenance personnel into its planning for future conflicts. The GAO further observed that the Army strategy does not address the extent to which civilians are likely to be used in a particular scenario, or whether there are scenarios in which the use of civilians does not appear feasible. The GAO concluded that, by implementing a revised comprehensive strategy, the Army could combine its experienced civilian capability with well-trained military maintenance units--and mix and match those resources to provide the necessary capability to support operations under different conflict scenarios. The GAO also observed that, until a revised general support maintenance strategy and plans are developed and implemented, the Army will continue to rely on ad hoc arrangements to satisfy maintenance requirements for future contingencies. The GAO concluded, however, that it would not be realistic for the Army to depend solely on the civilian work force and (depending on the scope and nature of the conflict) it may not be feasible or prudent to deploy civilians for safety or security reasons. (pp. 11-13/GAO Draft Report)

DoD RESPONSE: Partially concur. Civil servants designated as "Emergency Essential" under the terms of DoD Directive 1404.10 are subject to deployment overseas in support of

Now on pp. 6-9.

See comment 2.

Now on pp. 9-11.

See comment 2.

combat units. The Army is currently conducting a study entitled "Planning for Civilian Participation in Military Operations". The initial draft is expected by July 1993, and the final report should be completed by December 1993. The concept will probably include military and civilian personnel. The Reserve and National Guard Components also have the military technician program that was discussed in the DoD response to Finding B. Any changes to the use of civilians will be considered after the Army study is completed.

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RECOMMENDATIONS

o **RECOMMENDATION 1:** The GAO recommended that the Secretary of the Army revise the existing general support maintenance strategy to reflect likely future conflicts, maintenance capabilities of military units, and the extent to which civilians are likely to be used in various scenarios. (The GAO asserted that a revised strategy should consider, at a minimum, the maintenance requirements for the various scenarios being discussed, and the use of a mix of military and civilian maintenance resources to effectively meet those needs, where practical.) (p. 14/GAO Draft Report)

Now on p. 11.

DoD RESPONSE: Partially concur. The use of civilians in varying contingency scenarios is being reviewed by the Army. Currently, the Army is developing concepts for future employment of an Army Support Group. An Army study entitled "Planning for Civilian Participation in Military Operations," will provide recommendations in support of concept development. Once the battlefield doctrine is updated and the appropriate use of civilians in various contingency situations has been evaluated, any needed changes to the general support maintenance strategy can then be considered. The initial draft is expected by July 1993, and the final report should be completed by December 1993.

See comment 3.

o **RECOMMENDATION 2:** The GAO recommended that, on the basis of a revised strategy, the Secretary of the Army should (a) assign specific missions among available military and civilian maintenance resources; and (b) develop a training program that provides for the required peacetime training period needed to achieve those missions. (p. 14/GAO Draft Report)

Now on p. 11.

See comment 3.

DoD RESPONSE: Partially concur. As previously discussed in the DoD response to Recommendation 1, the Army is reviewing the use of civilians in various contingency scenarios, with results expected by December 1993. Once the analyses and revised battlefield doctrine have been completed, any mission changes or training requirements can then be considered.

Now on p. 11.

o **RECOMMENDATION 3:** The GAO recommended that the Secretary of the Army revise maintenance doctrine to recognize the potential use of civilians in various scenarios and develop, as necessary, mobilization plans for deploying civilians for future conflicts. (p. 14/GAO Draft Report)

DoD RESPONSE: Concur. Army mobilization plans are currently under development and include civilians.

Now on p. 11.

o **RECOMMENDATION 4:** The GAO recommended that, on the basis of a revised strategy, the Secretary of the Army determine if reductions in the number of military maintenance units are warranted--giving consideration to retaining a minimum military capability to meet the needs of expected future conflicts. (p. 14, GAO Draft Report)

DoD RESPONSE: Concur. The Army has been, and will continue to downsize to the minimum levels required to meet the expected threat. The Total Army Analysis (TAA), which is a comprehensive study done every two years based on the most current threat, determines the minimum warfighting requirements. The TAA 2001, completed in February 1993, has indicated a total requirement for 52 General Support units. This is a reduction of 47 units from the previous model. These results are due to be implemented by FY 96.

The following are GAO's comments on the Department of Defense's letter dated March 30, 1993.

GAO Comments

1. While Army units may have opportunities to perform GS maintenance on the most modern equipment, they do not do so on a regular basis during peacetime, as stated in our report.
2. We have revised our report to indicate that the Department of Defense has provided some guidance on the management of civilians during a deployment. Our point, however, remains the same: the Army has not developed an overall maintenance strategy that, among other things, reflects the extent to which civilians are likely to be used in future conflict scenarios.
3. Our report acknowledges the Army's proposal to incorporate into its doctrine the concept of an Army Support Group similar to that employed during the Gulf War. The Department states that any changes to the Army's GS maintenance strategy are pending until revisions to its battlefield doctrine are made. We believe this is consistent with our recommendation.

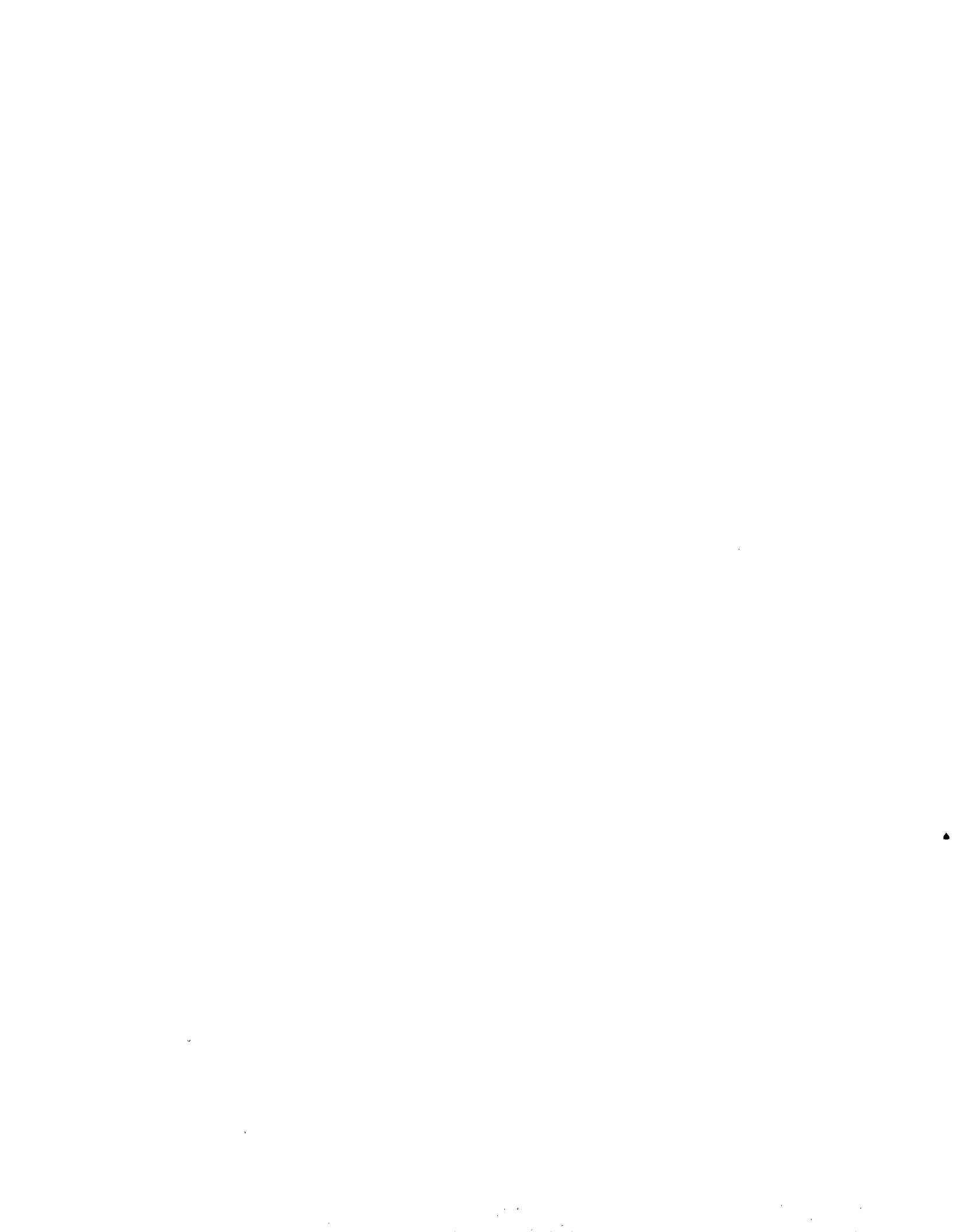
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