

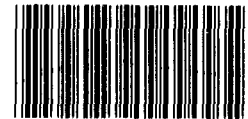
GAO

Report to the Commanding General,
Headquarters, Army Materiel
Command

August 1990

ARMY
MAINTENANCE

Clearer Guidance
Needed to Ensure
Programs Reflect
Current Requirements



141999

**National Security and
International Affairs Division**

B-226358

August 13, 1990

General William G. T. Tuttle, Jr.
Commanding General
Headquarters, Army Materiel Command
5001 Eisenhower Avenue
Alexandria, Virginia 22333-0001

Dear General Tuttle:

At the request of the Chairman of the Subcommittee on Readiness, House Committee on Armed Services, we recently completed a review of the Army's process for determining depot maintenance requirements. At two of the Army's six buying commands—the U.S. Army Tank-Automotive Command (TACOM) and the U.S. Army Aviation Systems Command (AVSCOM)—we examined how the Army determined secondary item requirements for repair programs.¹ In this follow-on report, we address the issue of whether controls were in place to ensure that repair programs established at Army depots were based on current requirements.

Background

The Army's process for determining depot repair programs begins with budget projections included in the President's budget presented to the Congress in January of each year. The depot repair programs are then refined at the start of each fiscal year when the buying commands define the actual quantities they need to repair. The buying commands enter into written Memorandums of Agreement (MOA) with Army depots establishing the quantities of assets they consider most crucial to be repaired during the fiscal year. The items are selected for inclusion in the MOA based on their potential impact on Army readiness and/or high-dollar value. Once the fiscal year repair programs begin, the commands and the depots participate in quarterly production reviews of all MOA items.

TACOM has provided guidance to item managers that addresses the need to use current requirements data when establishing depot maintenance requirements for use in budget submissions, which are prepared about 10 months prior to the MOA. AVSCOM guidance requires item managers to review and validate repair requirements quarterly. However, neither

¹Army Maintenance: Concerns Over the Validity of Depot Requirements and Backlogs (GAO/NSIAD-90-194BR, July 24, 1990).

command's guidance specifically states that requirements need to be updated when establishing MOA repair program quantities or that updated requirements are to be considered during the quarterly production reviews. Officials at both buying commands agreed that even though the guidance is unclear on this issue, item managers should be using current requirements information to prepare the MOAs.

Results in Brief

Our review indicated that the two buying commands lacked effective controls to ensure that repair programs established at Army depots were based on current requirements data. Specifically, requirements for some depot repair programs at these commands had been established using outdated data. Basing program decisions on such data has resulted in the expenditure of money in some cases to repair more items than were needed to satisfy current requirements. In other cases the commands repaired fewer items than needed. In 1987, the Army Audit Agency found a similar problem at the U.S. Army Communications-Electronics Command. The Army Audit Agency reported that the command had failed to review and adjust maintenance programs to coincide with changing requirements. The problems at the two commands, coupled with the prior Army Audit Agency finding, indicate that the situation warrants your attention.

TACOM and AVSCOM Establish Repair Requirements Using Outdated Information

Our review of 31 judgmentally selected secondary items (23 from TACOM's MOA and 8 from AVSCOM's MOA) showed that MOA quantities for 13 (42 percent) were based on current updated requirements data. As detailed in appendix I, the requirements for the remaining 18 items (58 percent) were computed 8 to 19 months prior to the preparation of the MOAs. In 16 of the 18 cases, more current information was available at the time the MOAs were prepared. In the remaining two cases, the requirements had not been updated since the MOA quantities were originally established.

Of the 23 items we examined from TACOM's fiscal year 1989 MOA, representing about 44 percent of the MOA items, we found that repair program quantities for 12 of the items had been based on requirements reflected in supply control studies that were 9 to 16 months old when the MOA was prepared. For 3 of the 12 items, quantities were adjusted after the MOA was prepared to reflect more current requirements. Repair programs for the remaining nine items, however, were based on outdated requirements information. As a result, as shown in table 1, repair programs for six of the nine were carried out at levels above current requirements,

resulting in repair costs that were excess to fiscal year 1989 requirements by about \$13.1 million.² For the other three items, repair programs were carried out below current requirements, resulting in shortages of items valued at about \$1.2 million.

Table 1: TACOM Repair Costs in Excess of or Below Current Requirements

National stock number	Item name	Requirement as defined in MOA	Requirement when MOA was initiated	Difference between MOA quantity and current requirement	Value of assets in excess of or below current requirements
Excess to current requirements					
2520-00-973-4086	Transmission	238	0	238	\$571,200
2815-00-239-5819	Engine	1,212	405	807	4,599,900
2520-00-140-7531	Transmission	281	204	77	654,500
2520-00-971-5016	Transmission	416 ^a	0	416	1,123,200
2815-00-178-0268	Engine	907	15	892	5,976,400
2520-00-741-1141	Axle	42	0	42	134,400
Total					\$13,059,600
Below current requirements					
2520-00-884-4833	Transmission	1,184	1,485	(301)	(361,200)
2520-00-089-8287	Transfer	1,318	1,685	(367)	(440,400)
2815-01-105-6445	Engine	74	111	(37)	(403,300)
Total					\$(1,204,900)

^aThe program quantity shown in the MOA was 522. However, due to a lack of unserviceable assets, the program was subsequently reduced to 416.

TACOM's treatment of the multifuel engine for the 5-ton truck (national stock number 2815-00-239-5819) illustrates the conditions that existed at that command. While TACOM showed a requirement to repair 1,212 multifuel engines in its fiscal year 1989 MOA, it had based this requirement on a June 1987 supply control study generated 16 months prior to the preparation of the MOA. A more current study, prepared in September 1988, about 1 month prior to the start of fiscal year 1989, showed that requirements had decreased to 405—a reduction of 807 engines. TACOM took no action to reduce the planned program but did adjust fiscal year 1990 requirements by 807 engines to balance off the fiscal year 1989 excess. By repairing an additional 807 multifuel engines at a cost of \$5,700 per engine, the Army spent \$4.6 million more than

²In five of the six cases, which account for \$12.4 million, TACOM later adjusted fiscal years 1990, 1991, or 1992 requirements downward to balance the fiscal year 1989 excess.

necessary to meet its fiscal year 1989 requirements. By repairing more items than it needs to, the Army risks being unable to repair needed items. The Army also increases the risk that some of the repaired items will become excess to future needs.

In our examination of 8 of 114 items from AVSCOM's fiscal 1990 MOA, we found that repair requirements for 6 items were based on outdated information that had been determined 8 to 19 months prior to the preparation of the MOA. Quantities for four of the six items were later adjusted after the MOA was prepared. Requirements for the other two items had not been updated since the MOA quantities were originally established. Therefore, we were unable to determine whether the requirements included in the MOA were more or less than what is currently required.

Item managers did not always know about the existing procedures, which call for the quarterly review and validation of repair requirements, or these procedures were not clear to them. Some TACOM and AVSCOM item managers who were not aware of these procedures had not validated requirements prior to preparing the MOA. Item managers who were aware of these procedures had not always implemented them because they believed that changing the original requirements could disrupt scheduling at the depots. Officials at both commands agreed that requirements should be validated prior to performing the repair work.

Army Audit Agency Reported Similar Problems at Another Command

The 1987 Army Audit Agency report concluded that improvements were needed in the procedures and controls used to establish and develop in-house depot maintenance programs at the Army's Communications-Electronics Command. That report stated that item managers had established maintenance programs for secondary items, even though sufficient serviceable stocks were on hand to satisfy repair requirements. In addition, the Army Audit Agency found that several scheduled maintenance programs could have been reduced, but preplanned maintenance programs were seldom reviewed or adjusted to coincide with changing requirements. As a result, the Army Audit Agency concluded that some maintenance programs had been established unnecessarily and that assets that exceeded requirements had been generated.

Conclusion and Recommendation

The Army's controls for ensuring that planned maintenance programs are based on the most current available information would be strengthened if item managers were specifically required to use the latest available requirements data prior to the preparation of MOAs. This practice

would allow item managers to cancel, reduce, or increase maintenance requirements that have changed over time.

Therefore, we recommend that you clarify existing guidance to specifically require the major subordinate commands to base requirements for depot maintenance programs on the latest information available at the time MOAs are prepared.

Scope and Methodology

We reviewed TACOM and AVSCOM guidance provided to the item managers to determine what procedures were in place for determining quantities of repair items to be included in the MOAs. We discussed the guidance with the item managers and obtained command officials' views on what requirements data should be used when preparing the MOA. To assess the validity of the quantities of assets scheduled to be repaired, we judgmentally selected 23 of 52 items from TACOM's 1989 MOA and 8 of 114 items from AVSCOM's 1990 MOA. We analyzed these items and interviewed responsible item managers to determine what requirements data they had used to support the MOAs and whether more current requirements data had been available when the MOAs were prepared.

We conducted our review from June 1989 to March 1990 in accordance with generally accepted government auditing standards. We obtained informal oral comments from agency officials on this report. Department of Defense and Army officials stated that they had no reason to question the report.

We would appreciate your advising us of what action you plan to take regarding our recommendation.

We are sending copies of the report to the Secretaries of Defense and the Army; the Director of the Office of Management and Budget; and the Chairmen of the House Committee on Government Operations, Senate Committee on Governmental Affairs, and the House and Senate Committees on Appropriations and on Armed Services.

Please contact me at (202) 275-4141 if you have any questions concerning this report. Major contributors to this report are listed in appendix II.

Sincerely yours,

A handwritten signature in cursive script that reads "Richard Davis".

Richard Davis
Director, Army Issues

TACOM and AVSCOM MOA Programs Based on Outdated Data

National stock number	Item name	MOA repair quantity ^a	Date of supply control study used to define MOA quantity	Months that elapsed between study date and MOA
TACOM				
2520-00-884-4833	Transmission	1,184	06/87	16
2815-00-909-5949	Engine	343	06/87	16 ^b
2935-01-178-7245	Engine rear module	176	08/87	14 ^b
2520-00-089-8287	Transfer	1,318	12/87	10
2815-01-105-6445	Engine	74	01/88	9
2520-00-973-4086	Transmission	238	06/87	16
2530-00-525-1350	Steering gear	922	12/87	10 ^b
2815-00-239-5819	Engine	1,212	06/87	16
2520-00-140-7531	Transmission	281	08/87	14
2520-00-971-5016	Transmission	522	06/87	16
2815-00-178-0268	Engine	907	06/87	16
2520-00-741-1141	Axle	42	06/87	16
AVSCOM				
2840-01-030-4890	Helicopter engine overhaul	86	12/88	10 ^b
2840-01-030-4890	Helicopter engine inspect/repair	35	12/88	10 ^b
2840-00-134-4803	Helicopter engine overhaul	430	02/89	8 ^b
2840-00-134-4803	Helicopter engine inspect/repair	171	02/89	8 ^b
1615-00-183-0834	Helicopter transmission	550	03/88	19
1615-01-237-0512	Helicopter hub assembly	546	06/88	16

^aThe TACOM fiscal year 1989 MOA was prepared around October 1988. The AVSCOM fiscal year 1990 MOA was prepared around October 1989.

^bThese items were adjusted after the MOA was prepared to reflect more current information.

Major Contributors to This Report

**National Security and
International Affairs
Division, Washington,
D.C.**

Henry L. Hinton, Associate Director
Kenneth R. Knouse, Jr., Assistant Director
Stephen G. De Sart, Evaluator-in-Charge
Beverly Schladt, Reports Analyst

Detroit Regional Office

Robert W. Herman, Regional Assignment Manager
Gilbert W. Kruper, Site Senior
Yasmina T. Musallam, Evaluator

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