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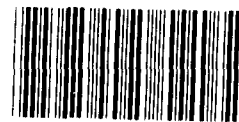
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Report to the Honorable
Frank R. Wolf, House of Representatives

March 1988

MODIFICATION PROGRAMS

Proposed Changes to the Army's Approval Process



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**National Security and
International Affairs Division**

B-230458

March 23, 1988

The Honorable Frank R. Wolf
House of Representatives

Dear Mr. Wolf:

In response to your March 12, 1987, request, we have evaluated the concerns expressed by one of your constituents relating to the approval process for the modification of Army equipment. Your constituent believes that proposed changes in the way the Army approves equipment modifications would decentralize the management of such modifications with the following results:

- Project managers could approve equipment modifications without review by higher level Army management.
- The Army Materiel Command's (AMC) Materiel Change Branch would become inoperable. That office currently performs various functions in support of Army modification programs, including the review and approval of equipment modification policies and the maintenance of historical records of such modifications.

Procedures for implementing the proposed changes in the approval process for equipment modification will not be available before October 1988. As a result, in assessing your constituent's concerns, we relied primarily on a briefing presented to us by AMC on upcoming changes in the management of equipment modifications and on discussions with Army officials. We also examined Army documents relating to all product improvements that were active as of May 1987 but did not attempt to verify the data provided. Our review was conducted from June to November 1987.

Although the management of relatively low-cost equipment modifications would be decentralized under the Army's proposed plan, the greater portion of equipment modifications, in terms of cost, would still come under the review of the Office of the Secretary of the Army. The Materiel Change Branch would continue to operate, with slightly reduced responsibilities, but would maintain records for the more significant modifications.

Proposed Changes to Current Management Procedures

When modifications are made to Army equipment, they may be applied to units of equipment still to come off the production line, to units of equipment already fielded, or to both. When the modification is applied to units that are still to come off the production line, it is referred to as an "engineering change." When the modification is applied to units already fielded, it is called a "product improvement," or "retrofit."

Currently, most engineering changes are approved by project managers located at Army materiel development commands. Unlike engineering changes, product improvements, regardless of cost, now require approval at the highest level of authority—Department of the Army headquarters. Frequently, there is a lengthy gap between the time the Army begins to apply an approved engineering change to production units and the time the change comes up for consideration at the Army headquarters level for application as a product improvement to fielded units.

In August 1985, the Army Chief of Staff requested that AMC revise its procedures for managing engineering changes and product improvements in order to provide better visibility and control over such programs. Under the proposed procedures, engineering change decisions (now made by project managers) and product improvement decisions (now made by Army headquarters) would be shared.

The proposed procedures would establish three levels of approval authority as shown in table 1.

Table 1: Proposed Approval Authority for Modifications

| Modification cost range ^a | Approving authority | | |
|--------------------------------------|---------------------|---------------------------|----------------------------|
| | Project manager | Program executive officer | Army acquisition executive |
| Up to \$5 million | X | | |
| \$5 million to \$25 million | | X | |
| Over \$25 million | | | X |

^aApplies to the combined total cost of the engineering change and product improvement.

Under the proposed plan, modifications exceeding \$25 million will require approval by the Army acquisition executive in the Office of the Secretary of the Army. The program executive officer, a newly created position in the acquisition management hierarchy, will be given the authority to approve modifications costing \$5 million to \$25 million.

Each program executive officer generally oversees several project managers, has responsibility for several acquisition programs, and reports to the Army acquisition executive. Project managers will retain the authority to approve modifications costing less than \$5 million. As a result of these revised procedures, Army headquarters will no longer be approving many low-cost product improvement programs.

Proposed Changes Provide High-Level Visibility

To provide some indication of how many changes would be reviewed and approved at various management levels under the proposed plan, we applied the proposed cost criterion to data available for the 715 product improvement programs active as of May 1987. Of the 715 programs, 146 would have been approved at Army headquarters by the Army acquisition executive. Although these represented only 20 percent of all the product improvement programs, they constituted 89 percent of their cost—\$23 billion of a total of \$26 billion. Another 199 product improvement programs, or 28 percent of the total, would have been approved by the program executive officer. These programs represented \$2.4 billion, or approximately 9 percent, of the aggregate cost of the 715 product improvement programs. Project managers would have been authorized to approve 370, or 52 percent, of the programs. Although this represented over half of the number of active product improvement programs, their total cost was \$586 million—only 2 percent of the cost of all such programs.

These statistics suggest that the proposed changes will not result in a loss of visibility over major product improvements at the Army headquarters level. Although we did not review engineering changes as we did product improvements, we believe that the proposed plan will provide Army headquarters the added visibility over high cost changes with approval of low-cost modifications remaining with the project manager.

AMC's Materiel Change Branch Will Remain Intact Under the Proposed Plan

The exact roles and responsibilities of the various participants after the Army implements the proposed changes are still unknown. According to the AMC official responsible for monitoring the implementation of the proposal, current plans do not call for the Materiel Change Branch to be dissolved. The Branch would perform most of the same functions that it has in the past except for equipment modifications costing less than \$5 million. Once the new procedures are implemented, the Branch will no longer maintain records of changes approved by project managers but will maintain data on the costlier, more significant changes approved

above that level. According to our analysis, these would have constituted about 98 percent of the total cost of all product improvement programs that were active as of May 1987.

Moreover, according to the AMC official, the Materiel Change Branch could solicit product improvement information on the programs for which it will not be maintaining data directly from the responsible project manager, should this become necessary.

The Department of Defense reviewed a draft of this report and agreed with its content.

As arranged with your office, copies of this report will be available to interested parties upon request. Should you have any questions, please call me on 275-4133.

Sincerely yours,



Mark E. Gebicke
Associate Director

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