



Report to the Honorable  
Tom Harkin, U.S. Senate

January 1999

# ARMY MEDIUM TRUCKS

## Information on Delivery Delays and Corrosion Problems



19990219137



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

National Security and  
International Affairs Division

B-281385

January 13, 1999

The Honorable Tom Harkin  
United States Senate

Dear Senator Harkin:

As you requested, we reviewed the Army's Family of Medium Tactical Vehicles (FMTV) program. On November 19, 1998, we reported on the vehicle's production problems and recommended safeguards needed to preclude such problems in future contracts. We also reported on the Army's plan to develop a second source producer without conducting a cost and benefit analysis or examining alternatives. <sup>1</sup> This report responds to your request for historical FMTV program information. Specifically, it addresses (1) the causes and effects of the contractor's delays in delivering acceptable trucks and (2) the Army's actions to mitigate corrosion problems on FMTV trucks.

## Results in Brief

A combination of factors caused lengthy delays in delivering FMTV trucks. First, the Army did not execute a low-risk acquisition strategy. It selected an FMTV contractor that was not experienced in producing trucks and was no longer affiliated with an experienced truck producer. Second, the contract contained an aggressive schedule for truck production considering the contractor's inexperience. The inexperienced contractor had difficulty in both establishing a production line and producing trucks that could meet qualification and operational testing requirements. Despite the difficulties, the Army allowed production to continue and increase during testing. As a result, many trucks were produced that required modification or repair.

Because of production problems and competing funding requirements, the Army decided in 1994 to terminate the final year of the original 5-year FMTV production contract. The Army requested only enough funding for fiscal year 1996 to terminate the program. Congress, not wanting a break in the program, provided additional funding for that year, but not enough to fully fund the production quantities called for in the contract. As a result, the Army and the contractor agreed to extend the contract and spread the final year's quantities over 3 years. The agreement included a repricing of the trucks. The project office has not determined the exact cost of the contract extension but has an estimate that it will add \$85 million to the

<sup>1</sup>Army Medium Trucks: Acquisition Plans Need Safeguards (GAO/NSIAD-99-28, Nov. 19, 1998).

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Army's contract cost. Also, we estimate that delays in delivering trucks may cost the Army an additional \$22 million to operate and support older trucks that the FMTV trucks were expected to replace.

The Army determined that the first 4,955 trucks produced did not meet the FMTV's corrosion protection requirements. The contract specified that the trucks were to be designed to prevent corrosion from perforating or causing other damage requiring repair or replacement of parts during the initial 10 years of service. Corrosion was found on the cabs of trucks less than 3 years old that were still awaiting modification at the contractor's plant. Rather than making the contractor replace all 4,955 truck cabs at a cost of \$31 million, the Army accepted the contractor's proposal to repair the corrosion damage and to provide a 10-year warranty, not to exceed \$10 million, against any future corrosion. This dollar limitation, in effect, relieved the contractor of a potential \$21 million liability.

The Army also subjected one of the 4,955 trucks to a contract-specified corrosion test. It failed with corrosion being detected in 60 areas. Following these events, the Army and the contractor agreed on modified production procedures to address the corrosion problem on subsequently produced trucks. The contractor produced 2,491 trucks under these procedures. However, the Army and the contractor ultimately concluded that galvanized steel cabs may be required to meet the 10-year corrosion prevention requirement and the contract was modified to require galvanized steel cabs. The contract's final 3,751 trucks were produced with galvanized steel cabs. The Army agreed to pay up to \$7 million for the cabs and other corrosion improvements. It did not test or require the contractor to provide a corrosion warranty on the 2,491 trucks produced prior to the switch to galvanized steel cabs.

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## Background

At a projected cost of \$15.7 billion, the FMTV program is one of the Army's largest acquisition programs. From fiscal year 1991 through fiscal year 2022—a 32-year period—the Army plans to purchase 85,488 FMTV trucks to replace its aging medium truck fleet. Under the program, the Army will purchase a family of 2.5- and 5-ton trucks based on a common truck cab and chassis. The 2.5-ton trucks, called light medium tactical vehicles, consist of cargo and van variants and a 2.5-ton trailer. The 5-ton trucks, called medium tactical vehicles, consist of seven variants—cargo, long wheel base cargo, dump, fuel tanker, tractor, van, and wrecker—and a 5-ton trailer.

The FMTV acquisition strategy has two phases—prototype and production. In the prototype phase, three companies were awarded contracts to develop and produce prototype trucks for evaluation and testing. The contracts were awarded on October 21, 1988, and the prototypes were tested from January to December 1990. On October 11, 1991, the Army awarded the winning contractor—Stewart & Stevenson Services, Inc., Houston, Texas—a \$1.2 billion, 5-year fixed-price production contract for the first 10,843 FMTV trucks. The contract contained options for additional trucks. The fifth year of the contract was subsequently restructured and the contract was extended 2 years. Stewart & Stevenson completed production under the contract in November 1998. The initial production contract does not include the 5-ton fuel tanker, 5-ton van, and both trailers. These vehicles will be included in future production contracts.

In our November 1998 report, we found that the Army had not (1) instituted safeguards to ensure that existing production problems did not occur in follow-on production contracts and (2) performed a cost and benefit analysis of its plan to develop a second source for the trucks or compared its plan with other alternatives. We recommended that the Army include safeguards in follow-on production contracts so that it does not repeat errors and does perform a cost and benefit analysis of its second source plans before continuing with them.

## Factors Contributing to FMTV Delivery Delays

The Army did not execute a low-risk acquisition strategy. To reduce the time to develop and field FMTV trucks, the Army streamlined its acquisition strategy. Rather than a lengthy development phase, the Army decided to conduct a prototype competition and use the results as part of the evaluation of proposals for a production contract. The Army believed this strategy would be low-risk partly because the contractors participating in the prototype competition were experienced in producing military trucks or affiliated with an experienced truck producer. However, the Army did not include experience or affiliation with an experienced truck producer as a requirement in the production contract solicitation and subsequently awarded the FMTV multiyear production contract to a contractor that was neither experienced in truck production nor affiliated with an experienced truck producer. The contractor had been affiliated with an experienced truck producer during the prototype phase but did not maintain its affiliation. Further, the contract contained an aggressive production schedule that did not take into account the contractor's inexperience. The inexperienced contractor had problems establishing a production line and producing trucks that met testing requirements. These problems resulted

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in substantial delays in delivering the trucks. In response to the schedule delays, the Army and contractor agreed to accelerate truck production during testing even though the trucks were not meeting test requirements.

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### Army Did Not Execute a Low-Risk Acquisition Strategy

The Army used a streamlined acquisition strategy to reduce the time required to develop and field FMTV trucks. The reduction in time was to be achieved by combining the demonstration and validation phase<sup>2</sup> and the engineering and manufacturing development phase into a single prototype competition phase and by conducting concurrent tests. The Army believed its streamlined acquisition strategy was achievable and low risk because (1) FMTV trucks would be designed using state-of-the-art commercial components that did not push the manufacturing and production process beyond the current capability of truck manufacturers, (2) FMTV truck configurations would be established and subjected to prototype testing prior to the production contract award, and (3) contractors participating in the prototype competition either had produced military trucks in the past or were affiliated with an experienced military truck producer.

The production contract solicitation did not require the contractor to be experienced in truck production or affiliated with an experienced truck producer. The Army awarded the production contract to Stewart & Stevenson, which was not experienced in manufacturing trucks. Stewart & Stevenson was a distribution and service company for various products and was experienced in producing gas turbine generators and aircraft ground support equipment. Nevertheless, the production contract called for the delivery of the first FMTV trucks for testing within 11 months of award and the Army planned to have enough trucks to fully equip its first unit with FMTV trucks by October 1993—about 24 months after contract award.

During the prototype competition phase of the program, Stewart & Stevenson was affiliated with an experienced military truck producer (Steyr-Daimler-Puch, AG. of Austria). Stewart & Stevenson subcontracted with Steyr to design and develop FMTV prototypes based on the design of a truck Steyr produced for the Austrian army. Steyr designed and built the FMTV prototypes in Austria, supported the FMTV prototype testing, and delivered an FMTV technical data package. According to a Stewart & Stevenson official, Steyr completed its subcontract work before Stewart & Stevenson submitted its production proposal and was not included in the production phase of the program.

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<sup>2</sup>Now called the program definition and risk reduction phase.

When the Army issued the solicitation for the production contract, it established a source selection board, which evaluated the proposals of the three competing contractors. The Army gave highest consideration to the technical and cost factors of the proposals. Stewart & Stevenson was selected because its proposal offered the best value for meeting the Army's overall requirements and receives the highest score for the technical factor and was the lowest cost. The board considered the government's previous experience with the prototype contractors as part of the Army's overall production readiness evaluation. This evaluation noted that Stewart & Stevenson (1) had no prior experience in high volume production of combat or tactical vehicles, (2) needed to convert European engineering drawings to U.S. specifications and standards, and (3) had unsatisfactory delivery performance on past low dollar purchase orders.

### Contractor Inexperience Contributed to Delays

The contractor, which was inexperienced in truck production, had difficulties in both establishing a production line and producing trucks that would pass test requirements. To acquire FMTV truck production capability, Stewart & Stevenson purchased a plant from an oil-drilling equipment manufacturer, configured the plant for truck production, and established a tactical truck division. According to Defense officials, Stewart & Stevenson immediately experienced problems in producing trucks that were capable of meeting FMTV requirements. For example, the FMTV data package provided by Steyr was in German and used metric measurements. Stewart & Stevenson did not accurately translate the instructions or convert the measurements. Production disruptions occurred when instructions did not work as intended and when subcontractor parts, produced using drawings furnished by the contractor, did not fit. As a result, the contractor was late in delivering trucks for testing.

The contract required the contractor to deliver a minimum of 85 trucks by October 1992 for production qualification testing, initial operational testing, and technical manual verification. The contractor delivered its first truck in March 1993 and did not deliver 85 trucks until March 1994. As a result, the start of the production qualification and operational testing was delayed.

### Delays in Passing Tests

The contractor took much longer than expected to deliver trucks capable of passing production qualification and operational tests. Production qualification testing was originally scheduled to be completed in

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August 1993; the test was not completed until December 1994. The test was designed to determine whether the FMTV truck variants fulfilled the Army's technical performance and reliability, availability, and maintainability requirements. The trucks failed the test because they did not meet reliability and some performance requirements. The Army identified over 90 problems that the contractor was required to correct.

Initial operational testing was originally scheduled to be completed in June 1993. However, because of production problems, the Army did not begin operational testing until October 1993. The test was designed to determine whether and to what degree the FMTV truck variants could accomplish missions when operated and maintained by soldiers in the expected operational environment. The test was suspended in December 1993 because the trucks did not meet operational reliability, availability, and maintainability requirements. In August 1994, the Army started a second operational test, but in September 1994, the test was suspended because test personnel were deployed on a peacekeeping mission in Haiti. However, according to Army test assessment officials, the test was about to be suspended because the trucks were not meeting reliability requirements.

In February 1995, the Army started a second production qualification test of newly produced trucks that incorporated changes to address problems identified during earlier testing. Operational testing of the new trucks began in April 1995. The Army completed both tests in June 1995. The trucks were assessed as having met the FMTV requirements in both tests. However, because of difficulties in producing trucks that passed the tests, the contractor did not receive approval to begin full-rate production until August 1995, 23 months later than planned, and the first unit was not equipped with FMTV trucks until January 1996, 2 years and 3 months later than planned.

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### Continued Production Increased Trucks Needing Repair

According to a project official, the Army believed that increasing monthly delivery quantities during testing would allow the contractor to catch up on its scheduled deliveries. The production contract allowed the contractor to deliver up to 150 trucks a month until the testing phase was completed. The Army modified the contract to increase the monthly delivery limit to 200 trucks. Because the higher monthly delivery limit exceeded the contractor's production capability, the contractor was able to produce as many trucks as it could.

The trucks that were produced could not meet FMTV technical and operational requirements. By the time the production qualification and operational tests were successfully completed in June 1995, the contractor had produced about 3,000 trucks, all needing varying levels of work to conform to the specifications of those that had passed testing. About 1,474 trucks had to be disassembled to their frames and remanufactured. This additional work delayed the production of new trucks during 9 months while the contractor modified the 3,000 trucks. The contractor had to stop new production for 5 months and produced only 175 new trucks during the other 4 months. The contract required the contractor to pay for the modifications needed to make the trucks meet FMTV requirements.

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### Extension of the Production Contract

In 1994, the Army, in response to FMTV production problems and other competing funding priorities, decided to terminate the final year of the FMTV production contract. Accordingly, for fiscal year 1996, the Army only requested \$39.7 million for FMTV termination costs rather than the \$384 million needed to complete the final year of the contract. As part of the termination plans, the Army planned to recompet a new multiyear FMTV production contract in fiscal year 1998.

The Congress, in reviewing the Army's fiscal year 1996 budget request, did not support the termination. The Congress, citing truck modernization as vital to the Army and the need to avoid a production break, added \$110 million to the Army's request for a total appropriation of \$149.7 million for the program. Since this was not enough to fully fund the final year of the contract, the Army and the contractor agreed to extend the FMTV production contract 2 years, ending in December 1998. The agreement increased the price of the FMTV trucks. The Army requested additional funding for the remaining 2 years in its fiscal years 1997 and 1998 budget requests. The project office has not determined the exact cost of the contract extension but has an estimate that it will add \$85 million to the Army's contract cost.

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### Cost of the Delivery Delay

The Army postponed the delivery dates five times during the contract to account for the delays. These delays in delivering and fielding the trucks caused the Army to incur additional costs to operate and support its current fleet of older, less reliable trucks. We estimate that as of December 31, 1997, the Army may have incurred an additional \$22 million to operate the older trucks that the FMTV trucks were to replace. We estimated this potential cost by subtracting the projected annual cost to

operate the new 2.5- and 5-ton FMTV trucks from the annual cost of operating the 2.5- and 5-ton trucks the Army plans to replace. The scope and methodology section of this report contains a more detailed discussion of this calculation.

## Corrosion Problems With FMTV Trucks

The first 4,955 trucks produced did not meet the FMTV corrosion protection requirements. The FMTV production contract specifies that FMTV trucks be designed so that corrosion will not perforate or cause other damage requiring repair or replacement of parts during the initial 10 years of their service lives. The contract also specifies the procedures to be used to test the 10-year corrosion protection.

The FMTV project office first became aware that FMTV trucks had corrosion problems in late 1995, when a truck was found corroded through the sheet metal of its cab. The truck was less than 3 years old and was among those stored at the plant awaiting modification. The contractor and the Army surveyed all of the trucks in storage and discovered corrosion on other truck cabs. They determined that the main causes of the corrosion were inadequate cleaning and painting procedures by the cab subcontractor, McLaughlin Body Company. McLaughlin subsequently improved its procedures at no cost to the Army. These improvements would be reflected in trucks produced after February 28, 1997.

On January 19, 1996, the Army agreed to accept trucks with cabs produced before McLaughlin improved its procedures if Stewart & Stevenson (1) repaired or replaced cabs that showed corrosion, (2) agreed to a corrosion test of two repaired cabs to verify the repairs, and (3) agreed to repair or replace the older cabs if corrosion appeared on them within 5 years. Pending its approval of the contractor's corrective action plan, the Army withheld \$1,000 or \$2,000 per truck, depending on type. Both contractor and Army project officials said that the Army had not accepted these trucks and therefore could have required the contractor to replace all the cabs on all the trucks already produced or in various stages of production before McLaughlin improved its processes—a total of 4,955 trucks. We estimated that this could have cost the contractor \$31 million. In addition, the Army and the contractor subsequently discovered that corrosion had also penetrated the beds of FMTV cargo trucks stored at the plant. Under terms similar to the cab agreement, the Army agreed to accept trucks with corrosion repairs of their cargo beds.

The Army later tested the corrosion repairs made on two cabs and found the repairs unacceptable. On September 25, 1996, the Army informed the contractor that it would no longer accept trucks with repaired cabs. The contractor offered to provide a 10-year corrosion protection warranty on the cabs, cargo beds, frame rails, and crossmembers on all trucks produced through February 28, 1997, if the Army would continue accepting trucks with corrosion repairs. Trucks produced after February 28, 1997, would be produced with cabs assembled by McLaughlin after it improved its procedures and would not be covered by the corrosion warranty. Under the warranty, the contractor agreed to pay for any repair caused by corrosion perforation or corrosion damage that requires repair or replacement of parts. The warranty limited the contractor's liability for these repairs to \$10 million—\$21 million less than the contractor's estimated \$31 million liability for cab replacement.

On November 13, 1996, the Army agreed to the warranty and again began accepting trucks with corrosion repairs. At the same time, the Army agreed to release to the contractor all funding previously withheld because of corrosion problems. The corrosion warranty was in addition to the contract's warranty provision that covers defects in materials and workmanship for 18 months or 12,000 miles.

The Army also ran a contract-specified corrosion test on an FMTV cargo truck with a cab produced before McLaughlin improved its procedures—one of the first 4,955 trucks produced under the contract. The truck failed the test. By the end of the test, the truck was corroded in 60 areas. Army officials said that since the Army had specified the material to be used in 20 of the areas, it agreed to pay for necessary changes in these areas to improve the FMTV trucks' corrosion protection. The Army also agreed to pay a portion of the cost of correcting the corrosion problems in the remaining 40 areas because the contractor maintained that the test specified in the contract indicated the effects of 15 years of corrosion even though the contract only required trucks with 10 years of corrosion protection. The Army was unable to disprove the contractor's claim.

The Army and the contractor concluded that using galvanized (zinc coated) steel to produce the cabs may be the only way to meet the 10-year corrosion protection requirement. They also believed that galvanization would likely provide more than 10 years of corrosion protection. Because the galvanized cab has the potential to protect against corrosion beyond the contract requirement, the Army agreed to share the cost of the cabs.

The Army and the contractor modified the FMTV contract to specify the use of galvanized steel for FMTV cabs and of other materials to correct the corrosion problems discovered in the contract-specified corrosion test. The modifications set a ceiling of \$7 million on the Army's share of costs. The contractor produced 3,751 trucks with galvanized cabs under the first production contract. Army project officials said that the Army is designing a new corrosion test to determine the number of years of protection the new design will provide. They also said that the corrosion protection enhancements and the corrosion test of these enhancements will be included as requirements in future FMTV truck production contracts.

The contractor produced 2,491 trucks after McLaughlin improved its procedures to address corrosion problems found on the first 4,955 trucks and before trucks with galvanized steel cabs were produced. These 2,491 trucks have not been tested for corrosion and are not covered under the agreed upon corrosion warranty covering the first 4,955 trucks produced.

## Conclusions

The Army's decision to award a \$1.2-billion FMTV contract to a company that was not experienced in truck production, did not have truck production facilities, and was not affiliated with an experienced producer, was not consistent with its plans for a low-risk acquisition strategy. Further, the Army contract contained an aggressive production schedule, considering an inexperienced contractor, that further added to the risks. The combination of inexperience and an aggressive production schedule were major contributors to the contractor's production problems and schedule delays. The Army changed its plans to terminate the final year of the 5-year FMTV production contract when the Congress provided additional funding to continue the program. Instead of terminating the final year, the contract was extended 2 additional years with the original final year's production quantities spread over the 3-year period. The contract extension added an estimated \$85 million to the original contract price.

When the Army found that the first 4,955 trucks produced did not meet the corrosion protection requirements, the contractor agreed to repair the corroded trucks, provide a 10-year corrosion warranty on those trucks, and make changes in its production process and procedures to correct the corrosion problem. The contractor produced 2,491 trucks under these new procedures. However, the Army and the contractor ultimately concluded that galvanized steel cabs may be needed to fully meet the truck's 10-year corrosion prevention requirement. The contract was subsequently

modified to require the galvanized steel cabs. The Army did not test or require the contractor to provide a corrosion warranty on the 2,491 trucks produced prior to the switch to galvanized steel.

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## Agency Comments and Our Evaluation

In commenting on a draft of this report, DOD generally agreed that it identified lessons learned from a historical perspective. DOD included with its written comments an enclosure providing additional contextual information for some of the issues in the report. In the enclosure, DOD stated that it believed the acquisition strategy for the FMTV program has been appropriate. According to DOD, the competitive source selection took into account a balance of factors, including the contractor's assessed production capabilities. As noted in the report, we did not find the combination of awarding a contract with an aggressive production schedule to an inexperienced truck producer, who had no affiliation with an experienced truck producer, consistent with a low-risk acquisition strategy.

In response to the report's statement that production problems and higher funding priorities contributed to the decision to terminate the final year of the FMTV contract, DOD noted that the decision was based on funding demands from higher priority programs. We agree that the decision was based on funding priorities; however, as a DOD official familiar with the decision stated, the FMTV program's schedule and production problems weakened its ability to compete with other programs for funds.

DOD also states that improving corrosion protection on tactical vehicles is an ongoing, high priority, effort and the contractor continues to be required to meet corrosion protection requirements. Based on the FMTV corrosion problems cited in this report, we agree that improving corrosion protection should be an ongoing high priority effort and the contractor should be required to meet the corrosion protection requirements. DOD's comments are reprinted in appendix I.

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## Scope and Methodology

To determine the contractor's delay in delivering acceptable FMTV trucks, including the Army's decision to restructure the current contract and the Army's handling of corrosion problems, we interviewed Defense, Army, and contractor officials and reviewed various FMTV program documents, including the acquisition strategy and plan, the production contract, budget documents, selected acquisition reports, and the production contract's source selection board evaluation. For early historical data, we

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had to rely mainly on oral testimony because many documents dealing with the early program were unavailable. We were able to obtain some of the earlier documents, mostly those dealing with FMTV truck testing, by reviewing our workpapers from previous reviews of the program.

To determine the impact of delays in delivering FMTV trucks, we calculated additional operating and support costs the Army might have incurred as of December 31, 1997. To accomplish this, we first determined operating tempo for the older M35 2.5-ton and M809 5-ton trucks. We selected the M35 and M809 trucks because, according to project office officials, they were the trucks the FMTV trucks would be replacing and the trucks the project office used in its update of the FMTV program baseline cost estimate. The FMTV project office provided a 3-year average operating and support cost per mile for the older trucks and an estimated operating and support costs per mile for FMTV trucks. A project office official said that the older truck average was based on the trucks used in three Army major commands. We determined an average operating tempo for each truck using the operating tempo reported by the same three Army major commands. This information was reported by the U.S. Cost and Economic Analysis Center in its fiscal year 1996 tactical systems cost report, which was updated as of October 27, 1997. We computed monthly operating and support costs for the older trucks and FMTV trucks using the operating tempo for the older trucks. We then computed the difference between the cost for the older and the FMTV trucks. This provided the monthly additional operating and support costs to operate the older 2.5- and 5-ton trucks.

To determine the delay in delivering FMTV trucks to the government and the number of vehicles involved, we first identified the number of 2.5- and 5-ton FMTV trucks accepted by the government on a monthly basis from material receiving and shipping report data provided by the Defense Finance and Accounting Service. We compared the original FMTV delivery schedules to actual delivery dates to compute the number of each type of truck that was delayed and the duration of the delay.

To compute the total additional operating and support costs that may have been incurred by the Army, we multiplied the delay in months by the number of FMTV trucks delivered late. We then multiplied that product by the monthly additional operating and support costs for the older trucks. This gave us an estimate of the additional costs that the Army might have incurred as of December 31, 1997, because of delayed FMTV truck deliveries.

We did not independently verify the accuracy of material receiving and shipping report data obtained from the Defense Finance and Accounting Service; however, we corroborated its accuracy with another database that used the same original source documentation. The Defense Finance and Accounting Service also relies on its database to make payments to the contractor for delivered vehicles. We also did not verify the accuracy of operating and support cost factors and operating tempo for the older 2.5- and 5-ton trucks and FMTV trucks provided by the U.S. Army Cost and Economic Analysis Center. This data is part of the operating and support management information system managed by the U.S. Army Cost and Economic Analysis Center and is the Army's source of historical operating and support cost information for more than 400 systems deployed in tactical units.

We based our estimate of the potential cost of replacing all of the cabs on trucks covered by the corrosion warranty on an Army estimate. The Army estimated that it would cost \$18.5 million to replace all of the cabs on trucks covered by the warranty. However, it bases its estimate on 2,864 trucks that it thought would be covered, not 4,955 trucks that actually are covered by the warranty. The Army used a replacement cost of \$8,000 per air drop cab and \$6,000 per standard cab to develop its estimate. We were not able to determine the number of air drop and standard trucks in the 2,091 trucks not included in the Army's estimate. To produce a conservative estimate of the potential total cost to replace all the cabs, we multiplied the standard cab cost of \$6,000 per truck by 2,091 trucks to increase the Army's estimate by \$12.5 million to \$31 million.

We performed our work at Defense and Army Headquarters, Washington, D.C.; Defense Contract Management Command Headquarters, Fort Belvoir, Virginia; Medium Tactical Vehicle Project Office, U.S. Army Tank-automotive and Armaments Command, Warren, Michigan; U.S. Army Cost and Economic Analysis Center, Arlington, Virginia; Defense Contract Management Command—Stewart & Stevenson Office, Sealy, Texas; Tactical Vehicle Systems, Stewart & Stevenson Services, Inc., Sealy, Texas; and Defense Finance and Accounting Service, Columbus, Ohio.

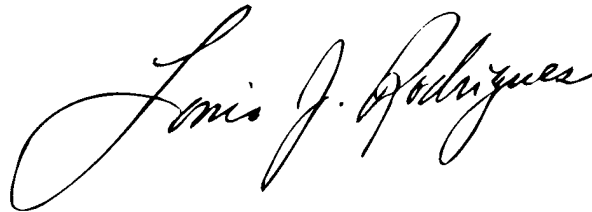
We conducted our review between July 1997 and November 1998 in accordance with generally accepted government auditing standards.

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We plan no further distribution of this report until 30 days from its issue date, unless you publicly announce its contents earlier. At that time, we will send copies of the report to the Chairmen and Ranking Minority Members of the Senate Committees on Governmental Affairs, Armed Services, and Appropriations and of the House Committees on Government Reform, Armed Services, and Appropriations; the Secretaries of Defense and the Army; and the Director of the Office of Management and Budget. We will also make copies available to others on request.

Please contact me on (202) 512-4841 if you or your staff 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 "Louis J. Rodrigues". The signature is written in black ink and is positioned below the "Sincerely yours," text.

Louis J. Rodrigues  
Director, Defense Acquisitions Issues

# Comments From the Department of Defense



ACQUISITION AND  
TECHNOLOGY

## OFFICE OF THE UNDER SECRETARY OF DEFENSE

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30 DEC 1998

Mr. Louis Rodrigues  
Director  
Defense Acquisitions Issues  
National Security and International Affairs Division  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Rodrigues:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "ARMY MEDIUM TRUCKS: Information on Delivery Delays and Corrosion Problems," dated November 25, 1998 (GAO Code 707380/OSD Case 1718). DoD generally agrees that the report identifies lessons learned from a historical perspective. The enclosure provides additional context for some of the issues raised in the report.

Sincerely,

A handwritten signature in black ink, appearing to read "George R. Schaefer".

George R. Schaefer  
Director  
Strategic and Tactical Systems



General Accounting Office Draft Report  
"ARMY MEDIUM TRUCKS: Information on  
Delivery Delays and Corrosion Problems"  
(GAO Code 707380/OSD Case 1718):

ADDITIONAL DEPARTMENT OF DEFENSE COMMENTS

See p. 10.

The report expresses concern that a "low-risk" acquisition strategy was not executed. The DoD believes the acquisition strategy has been appropriate. The competitive source selection took into account a balance of factors, including the performance of prototype trucks in extensive and challenging testing, production prices, and the contractor's assessed production capabilities.

See pp. 10-11.

The report asserts that production problems contributed to the decision in 1994 to terminate the final year of the FMTV production contract. This decision, which did result in FMTV program disruption at both prime and vendor contractor levels, was taken on the basis of funding demands from higher priority programs.

See p. 11.

The report expresses concern that after some trucks encountered corrosion problems in testing, the contractor may have been relieved of some financial liability in connection with corrosion protection, and that some fielded trucks may not meet 10-year corrosion protection requirements. The DoD believes that improving corrosion prevention on tactical vehicles is an ongoing, high priority effort where progress has been made in the course of the FMTV program. Early in the program, in consultation with independent experts from the private sector, test criteria were revised to more accurately portray expected field experience. Subsequent improvements have included the adoption of the best commercial practices, for example in the use of galvanized steel for sheet metal body parts subject to severe environments. The contractor continues to be required to meet corrosion protection requirements and we are confident that the fielded vehicles will economically provide the required service life.

DTIC QUALITY INSPECTED 4

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# Major Contributors to This Report

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