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Report to Secretary, Department of Defense; by Robert G. Rothwell (for Fred J. Shafer, Director, Logistics and Communications Div.).

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In September 1977, there were about 2,900 vehicles used by the U.S. Forces in Korea to support administrative operations. Excluding shipping costs, the estimated replacement cost of these vehicles was about \$23 million. The 8th Army had 1,875 vehicles as of September 1977 which were operated 21 million miles at a cost of \$3.9 million, excluding driver and depreciation costs. Findings/Conclusions: The 8th Army's vehicle management was ineffective because it had not followed prescribed management controls over use or adequately reviewed vehicle operations to assure that all vehicles were needed and effectively used. The following management weaknesses were identified: too many vehicles which contributed to underuse, vehicles assigned and used inefficiently, misuse of vehicles, public transportation not used when possible, and inadequate review of vehicle needs. The 8th Army could save costs by reducing the number of vehicles to the minimum essential for transacting official business, consolidating motor pools where economically feasible, and improving vehicle operations and maintenance procedures. The U.S. Forces in Korea had not corrected deficiencies in motor vehicle operations which had been previously identified. Recommendations: The Secretary of Defense should determine why corrective action was not taken on previously reported management deficiencies and require followup audits to ensure that corrective action is taken. The Secretary of the Army should: reduce the number of administrative-use vehicles to the lowest possible number consistent with mission accomplishment, study the feasibility of consolidating motor pools in Korea and direct their consolidation where economically feasible, and modify Army regulations to require a written justification when a vehicle to be replaced was driven less than the Army's minimum goal. (RRS)

6869.

REPORT BY THE U.S.

General Accounting Office

Improved Vehicle Management Needed At Military Installations In Korea

The 8th Army in Korea can reduce the cost of operating their administrative vehicle fleet by reducing the number of vehicles to the minimum essential for transacting official business, consolidating motor pools where economically feasible, and improving vehicle operations and maintenance procedures.



LCD-78-228
JUNE 30, 1978



UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

**LOGISTICS AND COMMUNICATIONS
DIVISION**

B-132990

**The Honorable
The Secretary of Defense**

Dear Mr. Secretary:

This report is a review of the management of administrative-use motor vehicles in Korea, and identifies opportunities for DOD to reduce transportation costs through improved management. We discussed vehicle management with responsible officials, reviewed pertinent regulations, and examined management practices. While most of our effort was devoted to the 8th Army, many of the observations may apply to other military components in Korea. Throughout this report, the term "vehicles" refers to motor vehicles, normally of commercial design--including sedans, station wagons, jeeps, and panel trucks--for administrative use.

In September 1977, there were about 2,900 vehicles used by the U.S. Forces in Korea to support administrative operations. Excluding shipping costs, the estimated replacement cost of these vehicles is about \$23 million. The 8th Army's vehicles--1,875 as of September 1977--were operated 21 million miles in fiscal year 1977 at a cost of \$3.9 million, excluding driver and depreciation costs.

As summarized below and discussed in more detail in appendix I, we identified numerous management weaknesses, many of which were previously reported but not corrected. We believe that the 8th Army can save costs by

- reducing the number of vehicles to the minimum essential for transacting official business,
- consolidating motor pools where economically feasible, and
- improving vehicle operations and maintenance procedures.

Except for the need to reduce the number of the 8th Army's vehicles, officials were responsive to our recommendations. In several cases, officials improved procedures during or shortly after the completion of our review. U.S. Forces in Korea officials agreed that management deficiencies, identified by various audit and inspection groups, were not corrected because command leadership did not insist on it.

NEED TO DECREASE THE SIZE
OF VEHICLE FLEET

Regulations require that the number of vehicles be kept to the minimum essential for transacting official business by frequently reviewing vehicle needs and by efficiently managing vehicle use. The 8th Army had done neither.

As evidence that the 8th Army had too many vehicles:

- Over 700 vehicles were driven less than the Army minimum use requirement during fiscal year 1977. Written justifications for the retention of underused vehicles were not maintained.
- Most vehicles were assigned to organizations rather than to motor pools where they could be used as military taxis.
- Vehicles were used for unauthorized purposes.
- Vehicles were often used for trips that could be made more economically with public transportation.

Vehicle management was ineffective because the 8th Army had neither followed prescribed management controls over use nor adequately reviewed vehicle operations to assure that all vehicles were needed and effectively used. The most recent vehicle survey was completed in March 1976. Although the purpose of the semiannual Administrative Transport Management surveys is to determine vehicle requirements of each unit, we were told that they were conducted annually and that requirements validation is not covered when these surveys are made. Officials told us that there has been no validation of needs since March 1976.

The 8th Army expects to replace about 500 vehicles with new vehicles costing over \$3.9 million from fiscal years 1977 and 1978 procurement programs. Without a careful review of requirements, there is no assurance that all 500 vehicles need to be replaced.

Because of our review, the 8th Army issued instructions designed to correct improper assignment, low use and misuse of vehicles, and to take advantage of public transportation where feasible. Although stating that all vehicles in its fleet were justified, they agreed that the number of vehicles could be reduced through closer control over vehicle assignments.

Opportunities for decreasing the number of vehicles exist, and we are recommending that the Secretary of the Army direct the 8th Army to justify the number of vehicles in its fleet, based on needs.

OPI RTUNITY TO REDUCE COST BY
CONSOLIDATING MOTOR POOLS

The cost of operating motor pools can be reduced through establishment of centrally operated motor pools, including maintenance and storage facilities, based on economic determinations. Where such consolidation is feasible, it generally increases efficiency of operations and reduces cost of personnel, space, and maintenance and enables the Government to reduce its vehicle inventories.

In February 1977, the U.S. Forces in Korea studied the feasibility of consolidating several motor pools in the Seoul and Pyongtaek (Camp Humphreys/Osan) areas but decided against it because of information provided by installation officials. As a result of our review, which showed that some key factors have since changed, the U.S. Forces in Korea agreed to consolidate certain motor pools in the Pyongtaek area and restudy the feasibility of consolidating those in the Seoul area.

MANY WEAKNESSES WERE IDENTIFIED BEFORE

The U.S. Forces in Korea had not corrected deficiencies previously identified by us, other audit teams, and 8th

Army inspection teams. We believe that insufficient command leadership emphasis and constant rotation of personnel had caused the recurring deficiencies. The U.S. Forces in Korea agreed and directed 8th Army commanders by letter dated December 16, 1977, to correct the deficiencies in vehicle management and operations (see app. II).

CONCLUSIONS

Inadequate management resulted in the U.S. Government incurring unnecessary costs for administrative transportation. Management weaknesses were allowed to continue by the responsible officials of the U.S. Forces in Korea even though the deficiencies were identified and brought to their attention continually.

While in many instances corrective action has been initiated which should result in avoiding unnecessary costs in the future, we believe there is ample opportunity for greater savings--especially by reducing the number of administrative-use vehicles in Korea.

RECOMMENDATIONS

We recommend that the Secretary of Defense determine why corrective action was not taken on previously reported management deficiencies and require followup audits to ensure that effective corrective action is taken by U.S. Forces in Korea.

We recommend that the Secretary of the Army (1) reduce the number of administrative-use vehicles to the lowest possible number consistent with mission accomplishment, (2) study the feasibility of consolidating motor pools in Korea and direct their consolidation where economically feasible, and (3) modify Army regulations to require a written justification when a vehicle to be replaced was driven less than the Army's minimum goal.

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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House

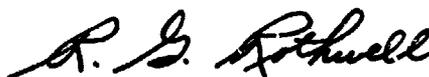
B-132990

and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Director, Office of Management and Budget, and to the Chairmen of the Senate and House Committees on Armed Services and the above mentioned Committees.

We would appreciate being told of actions taken on the matters discussed in this letter.

Sincerely yours,



for F. J. Shafer
Director

OPPORTUNITIES FOR COST SAVINGS THROUGH
IMPROVED MANAGEMENT OF VEHICLES

DECREASING THE SIZE OF THE VEHICLE FLEET
COULD INCREASE EFFICIENCY OF OPERATIONS

Joint procedures for management of administrative-use vehicles as set forth in AR 58-1 require that the military services reduce the size of their vehicle fleets to the minimum necessary for transacting business. We found evidence that the 8th Army had too many vehicles:

- Many vehicles had low mileage in fiscal year 1977.
- Most vehicles were assigned to organizations rather than to motor pools where they could be used as military taxis.
- Vehicles were used for unauthorized purposes.
- Vehicles were often used for trips that could have been made more economically with public transportation.

Vehicle management was ineffective because the 8th Army had not followed prescribed management controls over use nor adequately reviewed vehicle operations to assure that all vehicles were needed and effectively used. Without a careful review of needs, there is no assurance that the 500 vehicles expected to be replaced by the 8th Army is necessary.

After we discussed our observations with 8th Army officials, they issued instructions designed to correct improper assignment, low use and misuse of vehicles, and to take advantage of public transportation where feasible. Although stating that all vehicles in its fleet were justified, 8th Army officials told us the number of vehicles will be reduced through closer control over vehicle assignments.

Too many vehicles contribute to underuse

Managers are responsible for ensuring that vehicles are used to the maximum extent--for authorized purposes and being consistent with valid requirements--so that the number of vehicles can be kept to the minimum. Regulations

state that having too many vehicles contributes to unsatisfactory use and that vehicle allocations should be reduced when mileage is below the standard unless a survey has been made to completely justify the low use.

The Army has prescribed minimum annual mileage goals for each vehicle type to determine if vehicles are being used enough to justify their assignment and replacement. For example, the Army expects sedans to be driven an average of 14,000 miles annually. We projected the actual mileage of each 8th Army vehicle during April 1 to June 30, 1977, to arrive at an estimated annual mileage (actual miles driven during a 12-month period were not readily available). Based on this estimate, 744 vehicles did not accumulate minimum mileage. Also, written justifications were not available for these low-mileage vehicles.

We examined transportation requirements to see if the need for 744 underused vehicles could be satisfied by fewer vehicles. We determined that about 300 vehicles could be considered in excess of requirements unless specifically justified. We also found that vehicles were not assigned and used efficiently and economically, which is another indication that there are too many vehicles in the 8th Army. These matters are discussed in more detail below.

Vehicles assigned and used inefficiently

Army regulation (AR 58-1) requires that, for efficient and economical operations, vehicles be assigned to motor pools as much as possible to meet the bulk of transportation needs. Vehicles assigned to organizations must be approved by the installation/activity commander and continually reviewed by the motor transport officer.

According to the 8th Army quarterly vehicle use report, which is designed to assist managers in the evaluation of vehicle assignment, less than 30 percent of the 8th Army's vehicles were assigned to motor pools, while over 70 percent were assigned to individuals and user organizations. Analysis showed that about 70 percent of the 744 vehicles with low average use were assigned to organizations.

Some vehicle assignment requests that were approved by an installation commander did not fully explain the need for the vehicle. One request was approved even though the justification section was blank and the vehicle had a history of extremely low use.

According to the quarterly use report, only 32 of the 8th Army vehicles were used as taxis. The Chief of the Administrative Motor Vehicle Support Section said that a radio dispatched taxi service would reduce vehicle misuse, optimize vehicle usage, and reduce the number of vehicles required. He said, however, that the current taxi service in the Seoul area would have to be improved before taxis could replace the excessive number of vehicles assigned to units.

Misuse of vehicles

The use of passenger vehicles is limited exclusively "for official purposes" by 31 U.S.C. 638a, as set forth in AR 58-1. During our visit, we observed frequent misuse of vehicles. For example, in one day, we identified 46 vehicles at various locations such as the post exchange, commissary, bank, golf course, liquor store, officer's club, and a nearby off-base shopping/entertainment district. Despite the numerous reports that brought vehicle misuse to the commanders' attention, we observed that very little was done to identify and punish the misusers.

Public transportation not used when possible

It is DOD's policy to use scheduled military bus and public transportation when possible except in cases of military necessity. Public transportation was not used to the fullest extent practical. For example, regularly scheduled public bus and train as well as a scheduled military bus service is available between the Taegu and Pusan Army Garrisons--a distance of about 90 miles. However, in October 1977, 45 trips from Pusan to Taegu were made by vehicles assigned to Pusan Army Garrison--at a cost of about \$16.20 as opposed to \$2.30 by train.

One motor pool official told us that the military personnel preferred a military vehicle over commercial transportation because they can use this vehicle at the destination. A Garrison comptroller said that funds had not been programed for extensive use of commercial transportation.

Corrective action taken

Eighth Army officials agreed that management of vehicle operations was lax and local commanders had not corrected the management deficiencies brought to their attention by previous inspection reports. To ensure maximum use of

vehicles and reduce the size of its vehicle fleet, the Commander, 8th Army directed each subordinate command to

- be certain before requesting a vehicle that the transportation requirement cannot be satisfied by military taxi, bus service, or commercial transportation;
- improve the taxi service so that motor pools can respond to a call in 10 minutes;
- insure that Government vehicles are used only for official business; and
- review each vehicle assigned to units and rejustify those which do not meet criteria.

Vehicle needs not reviewed adequately

Army regulation (AR 58-1) requires frequent reviews of vehicle requirements to ensure that the number authorized during equipment surveys are limited to the minimum necessary. The most recent equipment survey for establishing the authorized number of vehicles was done by the 8th Army's Transportation Branch personnel during September 1975 through March 1976.

We could not review the procedures used because the survey documents had been disposed. Officials told us that vehicle requirements were justified in part on a utilization standard which differed from that prescribed by the Army. For example, 8th Army criteria for a sedan is 9,600 miles annually while the Army standard is 14,000 miles annually. No written justification was available to explain why the 8th Army deviated from the Army standard, except that the practice was said to have been established years ago.

While 8th Army representatives told us that its annual vehicle management surveys provided an additional requirements review, the official who conducted the surveys said requirements were not evaluated or validated. He said the 8th Army Transportation Branch did not have enough resources to make such an analysis. The management surveys made in fiscal year 1977 showed that requirements were not evaluated or validated.

The Transportation Branch official said he relied on the installation transportation officers to continually review vehicle requirements. Installation officials do

not evaluate requirements. As a result, the 8th Army had not done an analysis since March 1976 to assure that the number of vehicles operated or requested for replacement were the minimum necessary to transact business.

The 8th Army expects to replace about 500 vehicles with new vehicles costing about \$3.9 million under the fiscal years 1977 and 1978 vehicle procurement programs. A detailed analysis of vehicle use and a validation of the needs for individual vehicles were not made to justify this investment. It was based instead, on the age and mileage of the existing fleet. Unless the 8th Army makes a careful review of vehicle needs, it cannot be certain that all replacement vehicles are needed. This is very important, considering the 8th Army acknowledged that vehicle management needs improving.

We issued several interim memorandums informing 8th Army officials of our observations. In response, they told us that they believed the number of vehicles in its fleet was fully justified based on the overall annual mileage. Taking into consideration, that some vehicles accumulate excessive mileage while others fail to meet the minimum goal, they said the average annual mileage per vehicle by each group exceeded the minimum Army standards. It agreed, however, that the number of vehicles could be reduced through closer control over vehicle assignments.

The 8th Army's justification for the number of vehicles based on the annual mileage by vehicle group rather than the need for each vehicle is inconsistent with the Army's policy requiring managers to ensure that all vehicles are used to the maximum extent.

Although Army regulations do not consider the usage of each vehicle when determining requirements, Air Force regulations state:

"Vehicles assigned to a low priority user or indicating low utilization will be considered for withdrawal to support new requirements or reported as excess to current requirements."

To prevent the unnecessary replacement of vehicles, the Department of State also requires a full justification when vehicles to be replaced are driven less than 1,000 miles monthly.

CONCLUSIONS

The 8th Army did not review its vehicle operations adequately and frequently enough to ensure that it has the minimum number of vehicles. Corrective action, if consistently applied, should result in more efficient and effective vehicle operations and some requirement reductions. Further opportunities for economies will exist by decreasing the size of the 8th Army's vehicle fleet to the minimum necessary to transact Government business.

NEED TO RECONSIDER FEASIBILITY OF CONSOLIDATING FACILITIES

The consolidation of separate motor pools into a single centrally operated motor pool often increases efficiency of operations and reduces cost of personnel, space, and maintenance. Centralized operation and management also often provide greater capability for meeting the transportation needs of agencies served and may enable the Government to reduce its vehicle inventories.

In April 1977, the U.S. Forces in Korea (USFK) decided against consolidating several of its motor pools because it was considered uneconomical. During our study in November 1977, some of the factors on which the decision was based had changed, and the USFK agreed to consolidate or restudy the feasibility of consolidating certain motor pools in two locations. As of September 1977, three military services operated about 40 vehicle motor pools in Korea.

Pyongtaek area

The Army operates two motor pools in the Pyongtaek (Camp Humphreys) area--the Garrison pool with 171 vehicles and the Facility Engineers pool with 115 vehicles--within 2 miles of each other. At Osan Air Base--about 15 miles from Camp Humphreys, the Air Force operates one motor pool with 380 general purpose vehicles of commercial design.

In February 1977, the 8th Army's Headquarters studied the feasibility of consolidating the Facility Engineers' motor pool with the Garrison motor pool at Camp Humphreys.

The merger was expected to result in substantial savings by eliminating duplication of motor pool functions, lowering personnel costs, and streamlining operations--one supply account, one administrative office, and one annual management survey.

In February 1977, the 19th Support Command, parent organization for Camp Humphreys, recommended against consolidation of the two Army motor pools because the expected advantages would be outweighed by the following disadvantages:

- Lack of space would preclude physical relocation of Facility Engineers' vehicles necessitating in effect three motor pools with four additional personnel.
- The Facility Engineers have modified 25 vehicles for specific engineering uses making them unsuitable for other uses.

In November 1977, contrary to the 19th Support Command response, there was enough space surrounding the Garrison motor pool to park the Facility Engineers' commercial design vehicles. The Area Facility Engineer also told us his vehicles generally had no special equipment that would prevent them from being rotated with the Garrison's vehicles. He said, however, that he was still opposed to consolidation because

- vehicles received from a consolidated motor pool may not be in good mechanical condition and
- consolidated motor pools may not provide the needed support.

We were told that in Pusan, where a consolidated motor pool is operated, the quality of maintenance and service was considered satisfactory. A Facility Engineers official in Pusan stated in November 1977 that they received adequate support from the consolidated motor pool although they have to more closely plan and monitor their vehicle requirements.

Adequate consideration of the possible consolidation of motor pools in the Camp Humphreys area is particularly important in view of the proposed construction of a new motor pool for the Facility Engineers. According to one official, the cost of construction, programed in fiscal year 1980, is estimated to be from \$0.8 to \$1.3 million, but may not be necessary if the motor pools are consolidated.

Seoul area

Six military units have vehicles in the Seoul area. There are two maintenance facilities--one at the Yongsan

Garrison motor pool and another at the District Engineer compound, less than 10 miles away. The District Engineer Compound does all maintenance on its vehicles, and the other services manage and retain operational control over their vehicles but obtain maintenance support either from the Yongsan Garrison through interservice support agreements or from the post exchange.

In February 1977, the USFK examined the feasibility of consolidating motor pools in the Seoul area. The Chief, 8th Army Transportation Branch, reported that Yongsan Army Garrison had 850 vehicles under its supervision and no additional space in its motor pool. Furthermore, the Garrison was responsible for rebuilding components for all 8th Army commercial vehicles throughout Korea. The Chief concluded that placing additional vehicles under the control of the Garrison motor pool could result in a degradation of service and increased costs. Consequently, a decision was made not to consolidate.

Changes took place in the Seoul area, which made it necessary to reevaluate the decision. By November 1977, the rebuilding facility had been relocated outside the Seoul area and the motor pools had fewer vehicles than previously reported.

Corrective action promised

USFK officials agreed that it would be feasible to consolidate the two motor pools in the Camp Humphreys area. We were told that consolidation would be completed by March 31, 1978.

The officials also agreed to restudy the feasibility of consolidating the motor pools in the Seoul area. This study was to be concluded by March 31, 1978. Officials also said that with the future unit drawdown in Korea, consolidations of motor pools will inevitably occur.

OPPORTUNITIES FOR DECREASING THE COST OF VEHICLE MAINTENANCE AND OPERATION

The 8th Army was not exercising adequate management control over maintenance and operation of its vehicle fleet. Officials agreed that the cost of vehicle operations should and could be reduced and thus instructed commanders to improve the maintenance management and standards.

Operating costs--too high

Army regulations require commanders to determine the efficiency and economy of vehicle operations and to insure maximum effectiveness in the use of manpower. The 8th Army reported an average operating cost of \$0.18 per mile in fiscal year 1977. As shown below, there were significant variations in the operating cost at the four motor pools we visited.

<u>Motor pool</u>	<u>FY 1977 operating cost per mile</u>		
	<u>Operations</u>	<u>Maintenance</u>	<u>Total</u>
Yongsan Garrison	\$0.12	\$0.09	\$0.21
Camp Humphreys Garrison	.07	.06	.13
Camp Humphreys Facility			
Engineers	.06	.08	.14
Pusan Garrison	.11	.10	.21
8th Army average	.10	.08	.18

Vehicle management survey teams have reported that operating costs at certain motor pools are high and recommended vigorous management action to decrease the cost per mile. The Yongsan motor pool reported that in June and July 1977, the cost per mile was reduced from \$0.200 to \$0.187.

An official in the Transportation Branch estimated that operating costs could be reduced by \$0.02 per mile through improved management at the motor pools. The Yongsan Transportation Officer told us that, the cost per mile of \$0.20 was too high and that based on management inefficiencies identified at Yongsan Garrison motor pool, an operating cost of \$0.12 to \$0.15 per mile would be reasonable. If the average 8th Army operating cost could be reduced to the level reported by the Camp Humphreys Garrison motor pool, over \$1 million might be saved annually.

Inefficient staffing practices

In a 1975 report, entitled "Ways of Increasing Productivity in the Maintenance of Commercial-Type Vehicles" (LCD-75-421, June 24, 1975), we stated that the military has not

** * * developed effective methods for determining appropriate staffing levels at vehicle maintenance activities. As a result, many activities are over-staffed, unnecessary costs are incurred, and

productivity suffers. The overmaintenance, especially preventive maintenance, being done at Government motor pools has tended to justify and perpetuate this overstaffing."

Our review in Korea showed that in 1977, deficiencies similar to those described in the 1975 GAO report existed at various 8th Army installations.

The minimum number of personnel required to accomplish the mission is determined through manpower surveys. The Army prescribes staffing guides for various functions and requires that every effort be made to operate within the Army-wide staffing level.

The staffing levels at the Yongsan Garrison's motor pool exceeded the Army staffing guide. Our analysis of the manpower survey report for this motor pool showed that of 176 maintenance positions, only 83 were based on Army staffing standards. We were told by 8th Army manpower personnel that a productivity study of the Yongsan Garrison motor pool was not done because of insufficient resources.

Prescribed productivity measures not used

The effectiveness of maintenance staffing can be evaluated by Army staffing standards expressed as the number of direct-mechanic hours used to maintain a vehicle for 1,000 miles of operation. It was shown in a comparison of direct-mechanic hours and standard hours that for the first half of fiscal year 1977, the 8th Army exceeded the Army's standards as follows:

<u>Vehicle group</u>	<u>Mechanic hours per 1,000 miles</u>		<u>Actual as a percent of standard</u>
	<u>Actual</u>	<u>Standard</u>	
	(hours)		(percent)
Sedan	7.3	2.0	365
Station wagon	5.3	2.2	241
Ambulance	10.6	6.0	177
Bus	35.7	7.0-10.0	357-510
Jeep and truck less than 1 ton	9.3	3.5	266
Truck 1 ton	13.5	3.0	450
Truck greater than 1 ton	18.3	6.5-12.5	146-282

In our analysis, we excluded 9,115 direct-mechanic hours that were reportedly used to overhaul and rebuild components such as engines, transmissions, and carburetors because maintenance of this type is not allowed under the standard hours.

Vehicle managers are also required to measure the productivity of maintenance personnel by using flat-rate standards--the average time it takes a mechanic with average experience to complete a job. These standards were not used at the 8th Army's installations. On our request, a representative at the Yongsan motor pool recorded the standard rates on work orders for selected vehicles. A comparison showed that the actual time for these maintenance jobs exceeded the standards by about 70 percent.

A Transportation Branch official told us the age of the vehicle fleet and the lack of skilled English-speaking mechanics prevented the 8th Army from meeting the standards. He told us, however, that a formal study had not been made to support his views.

Inefficient maintenance practices

We identified the following inefficient maintenance practices at motor pools

- similar or identical repairs were made and preventive maintenance was made too often on vehicles,
- maintenance was done on vehicles to be replaced, and
- warranties were not used to recover cost of defective parts on new vehicles.

Repetitive repairs and preventive maintenance

Repetitive repairs were made at each of the four motor pools. For example

- work orders for 19 vehicles at the Yongsan Garrison disclosed that repetitive repairs were made on 11 (58 percent) of them;
- a 1973 Chevrolet sedan had the spark plugs, carburetor, and engine idle repaired, replaced, or serviced on six occasions over a 6-month/5,000-mile period;
- the cooling system serviced five times;
- the points serviced four times; and

--the rear arm rest replaced/repaired three times.

Another 1973 sedan had--in a 240-day period--two rebuilt engines, two starter motors, and two alternators installed and the carburetor repaired seven times.

Generally, preventive maintenance was neither scheduled nor done at the manufacturer's recommended interval. The following table shows some of the services made too often:

<u>Service</u>	<u>Vehicle</u>	<u>Recommended interval</u>	
		<u>Manufacturer</u>	<u>Actual schedule</u>
			(months)
Chassis lubrication	1973 Chevrolet sedan	6,000	2,000
	1976 Dodge pick-up	4,000	2,000
	1976 AMC jeep	3,000-5,000	2,000
Repack front wheel bearings	1972 Ford sedan	30,000	12,000
	1973 Chevrolet sedan	24,000	12,000

Personnel at several motor pools told us that some vehicles were operated over poor roads and required preventive maintenance more often than the manufacturer recommends. They agreed, however, that this should be done on a case-by-case basis to preclude unnecessary maintenance.

Maintenance done on vehicles destined for disposal

Army regulation (AR 700-88) does not permit extensive repairs on vehicles scheduled for replacement and for which replacement delivery is known or expected. We analyzed maintenance work done on 14 sedans that were sent to property disposal in November 1977 under the normal replacement cycle. The maintenance was done during January 1 through September 30, 1977. About 2,000 maintenance man-hours and about \$5,000 in parts, including engines, were used to maintain them.

USFK agreed that there was no monitoring system to insure that motor pools did only minor repairs on vehicles to be replaced.

Warranties not used

Eighth Army maintenance personnel at three motor pools were not taking advantage of manufacturer's warranty

provisions when replacing defective parts on new vehicles. One installation transportation officer told us he was not aware that Government-owned vehicles were covered by a manufacturer warranty.

USFK said that the vehicle warranty provisions were clear and there was no logical reason why transportation officials should not be familiar with them.

Inadequate control over fuel,
tires, and repair parts

To prevent waste or misappropriation of Government property, managers are required to monitor, control, and safeguard assets. Contrary to this management principle, we found that the 8th Army had not

- adequately monitored fuel consumption and inspected vehicles to determine and eliminate causes for high consumption and/or pilferage of fuel;
- used management reports to identify and correct excessive tire consumption;
- turned in to a central supply point excess repair parts for use by other motor pools; and
- obtained reimbursement for use of Government facilities for inspection of privately-owned vehicles at some motor pools.

Corrective action taken

The 8th Army acknowledged that it had not corrected poor management practices in maintaining and operating vehicles and safeguarding assets. In December 1977, the Chief of Staff, USFK, directed the 8th Army to improve maintenance management and standards to eliminate poor maintenance practices and reduce costs.