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ARMY 86 COST SENSITIVITY ANALYSIS

Technical Report 1-80

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Directorate of Studies and Analysis
US Army Combined Arms Studies and Analysis Activity
Fort Leavenworth, Kansas

Army 86 Cost Sensitivity Analysis
Draft Report

by
Harry Levitt

ACN 36801

Approved by:


ROBERT T. REED
Colonel, Armor
Acting Director, CASAA

ABSTRACT

This report describes a sensitivity analysis based on the use of the Force Cost Information System (FCIS) in the development of cost data in support of the Army 86 studies. Division size forces are costed using three different methods to determine the requirement for the development of detailed cost data for equipment. Battalion size forces are costed using the methodology developed with the division level analysis to ascertain if the methodology will work with smaller force units. The cost methodology shown in this report will reduce the cost data requirements submitted to DARCOM HQ with minimal impact on the results of a force cost effectiveness analysis. This methodology will be more responsive to the needs of CASAA in decreasing the time required to perform force costing and develop their impact on the Army 86 study alternatives.

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SENSITIVITY ANALYSIS
OF THE
FORCE COST INFORMATION SYSTEM (FCIS)

1. PURPOSE. This sensitivity analysis of the Force Cost Information System (FCIS) is based on its use in the development of force costs in support of the Army 86 studies. The purpose of this analysis is to determine the requirement for the development of detailed cost data and cost factors for equipment associated with the TOE forces for which force costs are being developed and to define a method of costing forces in support of the Army 86 study program. This sensitivity analysis was performed in accordance with the tasking provided by TRADOC HQ MSG P0515457, Oct 79, Subject: Force Cost Analysis in Support of Division 86 and modified as a result of the 18 Dec 79 briefing to HQ TRADOC, Director, Analysis Directorate.

2. BACKGROUND.

a. Tasking. TRADOC HQ, with CACDA support, briefed Mr. McGregor, Director, Cost Analysis at DARCOM HQ on 24 - 25 Sep 79 on the current methodology used in the development of force costs in support of the Army 86 studies. As a result of this meeting TRADOC HQ agreed to task CACDA to perform a sensitivity analysis to ascertain the requirement for detailed equipment cost data and cost factors that DARCOM HQ is being requested to provide in support of TRADOC's force costing effort.

b. Current Concept. The current concept used in the development of force costs for a conceptual unit with conceptual equipment is to cost 100 percent of the personnel and equipment in that unit. DARCOM HQ is tasked to provide detailed cost data and cost factors for each line item of equipment for which no data are contained in the FCIS equipment file. DARCOM HQ has been requested to provide detailed cost data and cost factors for 550 line items of equipment in support of the heavy Division 86 study. These line items of equipment covered the spectrum of sophistication from the advanced attack helicopter to a spanner wrench.

c. Proposed Concept. The proposed concept examined in this paper for the development of force costs for a conceptual unit with conceptual equipment is to cost 100 percent of the personnel and only those line items of equipment considered to be cost drivers. Experience has shown that there are selected line items of equipment that can be considered to be cost drivers. By costing these cost drivers; i.e., high cost line items of equipment, a significant majority of the force's equipment costs should be captured. Therefore, a division force, containing in excess of 1,000 line items of equipment, could be costed by costing 100 percent of the personnel and approximately 10 percent of the line items of equipment.

3. GENERAL.

a. Methodology (Division Level).

(1) An analysis of the incremental costs attributable to each of the cost data factors as a percentage of the total cost of a division force was developed. These incremental costs and the effect on the cost of the total force costs of each division force were examined. The level of detailed cost data and cost factor support required to support the Army 86 studies was determined from this analysis. Cost data and cost data factors are listed below:

- Rollaway/flyaway cost.
- Peacetime replacement factor.
- Annual depot maintenance (cost/yr).
- Repair cycle float factor.
- Operational readiness float factor.
- Annual Service Practice Ammunition and Missile Cost.
- Weight in short tons.

(2) The methodology used in the performance of the division level sensitivity analysis is based on costing two different division forces using both the current and proposed concepts. This analysis is designed to:

- (a) evaluate the percentage of the division's total costs that can be captured using the proposed concept;
- (b) establish the relative error incurred by using the proposed concept compared to the current concept.
- (c) develop the change in the cost of one division force compared to the other division force using both force cost concepts.
- (d) evaluate the sensitivity of the change in cost between divisions.

b. Methodology (Battalion Level). The methodology used in the performance of the battalion level sensitivity analysis is based on costing different battalion forces using both the current and proposed concepts and is analogous to the division level methodology.

c. Assumptions/constraints.

(1) Cost data are in FY 80 constant year dollars, currently available on the FCIS data base.

(2) Costs are developed for a 20-year period.

(3) Force costs are developed in terms of annual recurring and nonrecurring costs for the European theater of operations.

(4) The April 1979 TOE tapes were used.

d. Support Requirements.

(1) The Office of the Comptroller of the Army (OCA) provided support as required in the analysis of data elements currently in the FCIS data base.

(2) US Army Management Systems Support Agency (USAMSSA) provided support in the development of FCIS computer runs for this sensitivity analysis.

(3) TRADOC HQ provided coordination and support as the tasking agency.

e. Cost Model.

(1) The FCIS is maintained by the US Army Management Systems Support Agency (USAMSSA) under the control of the Office of the Comptroller of the Army (OCA). It is an automated system used in developing the resource requirements for any given force structure pertaining to: (a) procurement; (b) operations and maintenance, Army (OMA); and (c) military personnel, Army (MPA). Force costs can be developed for any size force from company size to division size for combat, combat support, and combat service support units. Conceptual forces can be costed based on the use of conceptual TOE/AURS. This will often require the development of cost data for each new line item of equipment in the conceptual force.

(2) Cost data are developed for the following geographic locations: CONUS, Europe, Alaska, Pacific, and Korea and for any of the five different authorized levels of unit strength; i.e.:

STRENGTH LEVEL 1	100% Personnel and Equipment
2	90% Personnel and/or Equipment
3	80% Personnel and/or Equipment
4	Cadre, Full Equipment
5	Augmented with indigenous civilian personnel

(3) FCIS limitations include the following: (a) no consideration is given for inherited assets, (b) the annual operating costs are not valid for the first 2 years of operation that the unit is in the force, and (c) the non-recurring cost excludes the initial load of missiles and ammunition. Cost appropriations for Research Development Testing & Evaluation (RDT&E); Military Construction, Army (MCA); and war reserves are not provided. All costs are valid only when the total Army strength is from 600,000 to 1,000,000 people.

(4) FCIS assumptions include: (a) charging each force unit with the full cost of all initial personnel procurement and training to produce full TOE trained strength in the unit, and (b) the annual operating costs are developed at the full TOE trained strength with full TOE equipment in a peacetime environment. Despite its limitations, the Force Cost Information System is the best automated cost data bank available for Army force costing.

f. Cost Drivers. The definition used for cost drivers in this sensitivity analysis is based on the information found in the FCIS equipment descriptive data sheets. The cost driver concept is a method by which a major portion of a division's equipment costs can be captured by costing a small percentage of the total number of line items that make up the division's equipment. The line items of equipment that are considered to be cost drivers have a significant impact on the total equipment and equipment related costs of a division or battalion force. Cost drivers are separated into the following four categories:

- (1) Aircraft and major aircraft systems.
- (2) Missiles and major missile systems.
- (3) Weapons and tracked combat vehicles.
- (4) Others:
 - (a) Wheeled vehicles.
 - (b) Night vision systems.
 - (c) Communication centers.
 - (d) Radios and radar systems.
 - (e) Other high cost systems.

A master list of equipment line item cost drivers developed from the division lists of cost drivers is included as table A-36 in appendix A. This master list is used for all the battalions evaluated in this study.

4. DIVISION LEVEL SENSITIVITY ANALYSIS

a. General. The division level sensitivity analysis was designed to measure the sensitivity of the FCIS in the development of delta cost comparisons between different division size force units. The delta cost comparison, percent change in the cost of the light infantry division when compared to the armor division, is measured using three methods of cost development. In each of these methods 100 percent of the personnel costs are used with the equipment costs being varied in accordance with the following methodology:

- (1) 100 Percent Equipment Costs
- (2) Equipment Cost Driver Rollaway/Flyaway Costs
- (3) Equipment Cost Drivers and Associated Costs.

b. Organizational Alternatives. The division level sensitivity analysis performed in this study is based on costing two different division size forces. These divisions are:

- (1) Notional armor division - SRC 17000Z500
with 6 tank battalions
5 mech infantry battalions
Total personnel 18,377
- (2) Notional light infantry division - SRC 07000Z500
with 1 tank battalion
1 mech infantry battalion
8 infantry battalions
Total personnel 18,166

Table 1 is a compilation of the differences in the number of selected major systems between the two type divisions and is shown for purposes of comparison.

TABLE 1

COMPARISON OF MAJOR SYSTEMS AND
WEAPONS IN THE DIVISION FORCES

	ARMOR DIVISION	LIGHT INF DIVISION	DIFFERENCES LIGHT INF DIV COMPARED TO ARMOR DIV
ATTACK HELICOPTERS AH-1S	51	48	-3
ECM HELICOPTER EH-1H	3	3	-
OBSERVATION HELICOPTER OH-58A	66	74	+8
UTILITY HELICOPTER UH-1H	52	90	+38
TOW CARRIER	90	18	-72
TOW WEAPONS (GROUND SYSTEM)	-	144	+144
ARAAV M551A1	27	9	-18
81MM MORTAR CARRIER	45	9	-36
M106A1 MORTAR CARRIER	53	11	-42
M113A1 PERSONNEL CARRIER	619	126	-493
COMBAT ENGINEER VEHICLE	8	3	-5
SP AIR DEFENSE GUN M163	24	24	-
SP 8 INCH HOW M110	12	4	-8
TWO LT HOW M102	-	54	+54
SP 155MM HOW M109A3	54	-	-54
TWO MED HOW 155MM M198	-	18	+18
MORTAR M30 M24A1	-	43	+43
TANK M60A1	324	54	-270

c. Total Division. The total costs for the armor division and for the light infantry division, less those items of equipment found on table 2, are based on adding the costs of the MOS files and the equipment files for each division. These totals were verified against the standard (non-split files) FCIS printout for each division. Based on the split data runs the costs captured via the FCIS files are shown below:

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>
MOS FILES	8,053,512.	7,858,177.
EQUIP FILES	<u>3,307,071.</u>	<u>1,896,362.</u>
TOTAL	11,360,583.	9,754,539.

The percent of each division's costs that are captured for a 20-year period is:

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>
MOS FILES	70.9	80.5
EQUIP FILES	<u>29.1</u>	<u>19.5</u>
TOTAL	100.0	100.0

d. 100 Percent Equipment Costs. These costs taken directly from the FCIS split files are shown below with the percent change in the cost of the light infantry division when compared to the armor division in thousands of FY 80 dollars:

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>	<u>PERCENT CHANGE</u>
MOS FILE COSTS	8,053,512.	7,858,177.	-02
EQUIPMENT FILE COSTS	<u>3,307,071.</u>	<u>1,896,362.</u>	<u>-43</u>
TOTAL	11,360,583.	9,754,539.	-14

This method is used as the base case for this sensitivity analysis. Of interest is the percent of the change that is attributable to each category. For the MOS files this number is 12 percent and for the equipment file it is 88 percent. Therefore, the major difference in cost between the two divisions is equipment related.

e. Cost Drivers. The development of cost drivers is based on the definition found in paragraph 3f. Based on this definition and the equipment descriptive data pages for each of the divisions, lists of cost drivers were developed. These lists of cost driver equipment are shown on table A-29 for the armor division and table A-34 for the light infantry division in the appendix. The costs for these line items of equipment and

TABLE 2
EQUIPMENT LINE ITEMS NOT COSTED
IN DIVISION FORCES

LINE ITEM		QUANTITY NOT COSTED		SB700-20
		<u>ARMOR</u>	<u>LIGHT</u>	<u>COST/ITEM</u>
<u>NUMBER</u>	<u>NOMENCLATURE</u>	<u>DIV</u>	<u>INF DIV</u>	<u>FY 80 DOLLARS</u>
K23746	DEL-TERM	15	15	25.
M40157	DEL-TERM	6	2	25.
Z13157	ADPE EQUIP (I13157)	8	8	--
Z14736	CHAMBER, RECOMPRESSION LT. WT.	1	1	144,180.
Z16654	COMPRESSED AIR FACILITY	1	1	9,612.
Z19168	ADPE EQUIP (I19168)	4	4	--
Z20467	CYLINDER AIR, DIVERS	6	6	494.
Z20485	DATA ANALYSIS CENTRAL: ANTKY-10A	4	4	8,201.
Z20537	ADPE EQUIP (I20537)	1	1	--
Z21627	DETECTOR, MULTI GAS	1	1	160.
Z23141	ADPE EQUIP (I23141)	1	1	--
Z35210	ADPE EQUIP (I35201)	1	1	--
Z74660	ADPE EQUIP (I74660)	2	2	--
Z76749	DEL-TERM	3	3	122.
Z80330	TERMINAL TAC CUSTOMER GUARDRAIL II	1	1	32,000.

DELTA COST DIFFERENCE BETWEEN FORCES, EQUIP ROLLAWAY/FLYAWAY COSTS IS \$100.0

their related cost data factors were developed via the use of the FCIS and are shown on table A-30 for the armor division and table A-35 for the light infantry division in the appendix. The cost data on these tables reflect the FCIS breakdown by cost category extended for a 20-year period. These costs, shown by category, are reported as the percent of the equipment file cost captured and the percent of the total division's cost captured by each category. It is of interest to note that out of 1,062 line items of equipment in the armor division there were only 72 line items considered to be cost drivers. For the light infantry division with a total of 1,078 line items of equipment only 79 line items of equipment are considered to be cost drivers. For both of these divisions approximately 7 percent of the line items of equipment are considered to be cost drivers, as shown below:

<u>Division</u>	<u>Total number of line items of equipment</u>	<u>Cost driver number of line items</u>	<u>Percent of total line items that are cost drivers</u>
Armor	1062	72	6.8
Light Inf	1078	79	7.3

f. Equipment Cost Driver Rollaway/Flyaway Costs.

(1) The equipment cost driver rollaway/flyaway costs were developed by costing the equipment listed on table A-29 and table A-34 for the quantities shown and can be found on table A-30 and table A-35 of appendix A. The percent change in the cost of the light infantry division when compared to the armor division is calculated on the basis of 100 percent MOS file costs and cost driver rollaway/flyaway costs only and is shown below, in thousands of FY 80 dollars:

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>	<u>PERCENT CHANGE</u>
MOS FILE COST	8,053,512.	7,858,177.	-02
EQUIPMENT ROLLAWAY/FLYAWAY COSTS	<u>816,686.</u>	<u>406,662.</u>	<u>-50</u>
TOTAL	8,870,198.	8,264,839.	-07

(2) The delta cost change using this method does not give accurate results when compared with the method of costing 100 percent personnel and 100 percent equipment and is not an acceptable substitute. Further analysis of the makeup of the costs found on the equipment file shows that the majority of the delta change between the division forces is in the other equipment costs. Cost driver rollaway/flyaway costs account for only 29 percent of the total change attributable to the equipment files and are shown below:

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>	<u>PERCENT CHANGE</u>
EQUIP FILE COSTS	3,307,071.	1,896,362.	-43
ALL OTHER EQUIP FILE COSTS	2,490,385.	1,489,700.	-40
COST DRIVER ROLLAWAY/FLYAWAY COSTS	816,686.	406,662.	-50

Of interest is the percent of the change that is attributable to each category. For the cost driver rollaway/flyaway costs this number is 29 percent of the total change attributable to the equipment file. Seventy-one percent is attributable to all the other costs in the equipment file.

(3) A detailed breakdown of the cost data in the equipment files is listed below. This breakdown was performed on the basis of the percent of a division's 20-year cost that is captured by each of the cost data elements.

<u>COST DATA ELEMENT</u>	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>
ROLLAWAY/FLYAWAY	7.8	5.0
ANNUAL DEPOT MAINT	3.0	1.8
OPER READINESS FLOAT	0.5	0.3
REPAIR CYCLE FLOAT	0.4	0.2
PEACETIME REPLACEMENT	1.3	1.3
WEIGHT IN SHORT TONS	0.3	0.2
ANNUAL SERVICE PRACTICE	5.3	3.3
REP PARTS & SEC ITEMS	5.9	3.9
DIRECT OMA PROG 2	4.6	3.5
TOTAL	29.1	19.5

(4) An analysis of these data indicate that equipment costs would be better represented by using all the equipment cost driver costs developed through the use of the FCIS. The two categories, repair parts and secondary items and direct OMA Program 2, are developed within the FCIS program. The costs for repair parts and secondary items are based on

the cost of major equipment, operational readiness, and repair cycle float. The costs for OMA Program 2 are based on the nonrecurring cost of major equipment.

g. Equipment Costs Driver Costs.

(1) The total costs associated with the equipment cost drivers are taken from table A-30 and table A-35. These costs are used in the development of the percent change in the cost of the light infantry division when compared to the armor division in thousands of FY 80 dollars, shown below:

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>	<u>PERCENT CHANGE</u>
MOS FILE COSTS	8,053,512.	7,858,177.	-02
TOTAL COST DRIVER COSTS	<u>3,041,293.</u>	<u>1,583,336.</u>	<u>-48</u>
TOTAL	11,094,805.	9,441,513.	-15

(2) The delta cost change using this method compares favorably to costing 100 percent personnel and 100 percent equipment in each division force. The delta change using three significant figures is 14.1 percent compared to 14.9 percent, a difference of less than 0.8 percent.

(3) An analysis of the costs compared to the total equipment file shows that this method picks up a majority of the delta change between the division forces by using all cost driver costs and is shown here in thousands of FY 80 dollars for a 20-year period:

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>	<u>PERCENT CHANGE</u>
EQUIP FILE COSTS	3,307,071.	1,896,362.	-43
ALL OTHER EQUIP FILE COSTS	265,778.	313,026.	+18
ALL COST DRIVER COSTS	3,041,293.	1,583,336.	-48

The percent of the change that is attributable to all the costs associated with the cost drivers is 92 percent, leaving only 8 percent attributable to the remaining costs in the equipment file.

(4) Another way to look at these numbers is to see what percent of each division's total 20-year costs are captured by using this method of costing when compared to costing 100 percent personnel and 100 percent equipment costs. As shown below approximately 96 percent of each division's total 20-year cost is captured by this methodology.

	<u>ARMOR DIV</u>	<u>LIGHT INF DIV</u>
COST DRIVER ROLLAWAY/FLYAWAY COSTS	7.2	4.2
COST DRIVER FACTOR COST	19.6	12.1
MOS FILE COSTS	<u>70.9</u>	<u>80.5</u>
	97.7	96.8

h. Conclusions. The relative error for these division forces, comparing the cost using cost drivers against 100 percent costing, is less than 4 percent. The relative error for the armor division is 2.3 percent and for the light infantry division is 3.2 percent. These small relative errors are another indication that the cost driver method of costing is an acceptable substitute for 100 percent costing via the FCIS.

5. BATTALION LEVEL SENSITIVITY ANALYSIS

a. General. The battalion level sensitivity analysis was added to the original tasking at the direction of TRADOC HQs. This was done in order to ascertain if the cost driver methodology would be acceptable for use with battalion size units. The sensitivity analysis will be used to measure the sensitivity of the FCIS in the development of delta cost comparisons between the different battalion-size units being evaluated. This delta cost comparison will measure the percent change in the cost of each of the type battalions compared with the cost of all the other type battalions being costed. Costs will be developed for each battalion using two methods of cost development, 100 percent costing and the cost driver method of costing. Both of these cost methods will use 100 percent of the personnel costs; only the specific items of equipment to be costed will be varied.

b. Battalion Level Organizational Alternatives. The battalions listed below are categorized as equipment heavy and personnel heavy battalions. In addition, two of the five battalions are combat service support.

<u>EQUIPMENT HEAVY BATTALIONS</u>	<u>SRC NO</u>	<u>NO OF PERSONNEL</u>
Tank	SRC 17035H010	567
Mech Infantry	SRC 07045H030	835
<u>PERSONNEL HEAVY BATTALIONS</u>		
Light Infantry	SRC 07175H020	789
Medical	SRC 08035H000	400
Supply and Transportation	SRC 29005H000	334

These battalions were chosen to evaluate the cost driver methodology. The purpose of the analysis requires looking at different type battalions and is not intended to suggest that the battalions chosen are interchangeable.

c. Cost Data Tables. Appendix A contains the cost data tables for the five battalions evaluated in this analysis. The cost data on these tables are the basis for the sensitivity analysis. A list of these tables and the page numbers where they appear in the appendix is provided below, as these tables will not be referenced in this chapter.

TABLE NO	DESCRIPTION	PAGE NO
<u>MECH INFANTRY BN</u>		
A-1	MOS File Cost	A-4
A-2	Equipment File Cost	A-5
A-3	Total Unit Cost	A-6
A-4	Cost Driver List	A-7
A-5	Cost Driver Costs	A-8
<u>LIGHT INFANTRY BN</u>		
A-6	MOS File Cost	A-9
A-7	Equipment File Cost	A-10
A-8	Total Unit Cost	A-11
A-9	Cost Driver List	A-12
A-10	Cost Driver Costs	A-13
<u>MEDICAL BN</u>		
A-11	MOS File Cost	A-14
A-12	Equipment File Cost	A-15
A-13	Total Unit Cost	A-16
A-14	Cost Driver List	A-17
A-15	Cost Driver Costs	A-18
<u>TANK BN</u>		
A-16	MOS File Cost	A-19
A-17	Equipment File Cost	A-20
A-18	Total Unit Cost	A-21
A-19	Cost Driver List	A-22
A-20	Cost Driver Costs	A-23
<u>SUPPLY & TRANS BN</u>		
A-21	MOS File Cost	A-24
A-22	Equipment File Cost	A-25
A-23	Total Unit Cost	A-26
A-24	Cost Driver List	A-27
A-25	Cost Driver Costs	A-28

d. Total Battalion Costs.

(1) The total costs for each of the battalions in this sensitivity analysis, as shown below, are based on adding the costs of the MOS files and the equipment files for each battalion. These costs are in thousands of fiscal year 80 dollars for a 20-year time period.

	<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
MOS FILES	345,543.	320,539.	186,626.	251,837.	136,180.
EQUIP FILES	72,056.	18,566.	13,174.	226,590.	26,290.
TOTAL	417,599.	339,105.	199,800.	478,427.	162,470.

(2) These totals were verified against the standard (non-split data files) FCIS printout for each battalion. The percent of each battalion's costs captured via the split data files is shown here. The data from the split files shows what percent of a battalion's costs will be affected using the cost driver method.

<u>BATTALION</u>	<u>MOS FILES</u>	<u>EQUIP FILES</u>	<u>TOTAL</u>
MECH INFANTRY	82.75	17.25	100.00
LIGHT INFANTRY	94.53	5.47	100.00
MEDICAL	93.40	6.60	100.00
TANK	52.63	47.37	100.00
SUPPLY & TRANSPORTATION	83.82	16.18	100.00

(3) The tank battalion has 47.37 percent of its costs developed in the equipment file, whereas the light infantry battalion has only 5.47 percent of its costs developed in the equipment file.

e. Cost Drivers.

(1) The selection of cost drivers for these battalion units is based on the cost drivers selected for the armor and light infantry divisions. The number of equipment line items in the battalions that are found to be cost drivers as well as what percent of each battalion's line items of equipment are considered to be cost drivers is shown here:

	<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
NUMBER OF LINE ITEMS OF EQUIPMENT	167	136	101	161	100
NUMBER OF COST DRIVERS	35	21	11	30	18
% OF UNIT'S LINE ITEMS OF EQUIPMENT CONSIDERED TO BE COST DRIVERS	21.0	15.4	10.9	18.6	18.0

(2) The percent of each battalion's line items of equipment considered to be cost drivers is greater than the 10 percent stated for the division size forces. The reason is that the 10 percent number for the divisions assumes a process of averaging across all the battalions and separate companies in the division. The dollar cost of the cost drivers for each of the battalions is shown here in thousands of FY80 dollars:

<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
\$67,337.	\$ 9,107.	\$ 7,284.	\$222,015.	\$18,340.

f. Battalion Costs with Cost Drivers.

(1) The cost of each battalion using the MOS file cost and the cost driver cost will provide a total that is less than the cost of the battalion using the 100 percent method of costing. The costs for each battalion using both methods of costing are shown in table 3 and are used to develop the percent relative error comparing the cost driver against the 100 percent cost method. These battalion costs are also used to develop the percent of each battalion's costs that are captured using the cost driver method of costing.

TABLE 3
COST METHOD COMPARISON
(THOUSANDS OF FY 80 DOLLARS)

	<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
100% COST METHOD	\$417,599.	\$339,105.	\$199,800.	\$478,427.	\$162,470.
COST DRIVER METHOD	\$412,880.	\$329,646.	\$193,910	\$473,852.	\$154,520.
DELTA COST DIFFERENCE	\$ 4,719.	\$ 9,459.	\$ 5,890.	\$ 4,575.	\$ 7,950.
% RELATIVE ERROR	1.13	2.79	2.95	0.96	4.89

(2) In the best case the percent relative error is only 0.96 for the tank battalion. The largest relative error is 4.89 for the supply and transportation battalion. For each of the battalions in this sensitivity analysis the relative error is less than 5 percent. The actual percent of each battalion's total costs that are captured using the cost driver cost method is shown below:

	<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
MOS FILES	82.75	94.53	93.40	52.63	83.82
COST DRIVERS	16.13	2.68	3.65	46.41	11.29
% OF TOTAL COST CAPTURED	98.88	97.21	97.05	99.04	95.11

(3) The cost driver method of costing captures at a minimum 95 percent of the supply and transportation battalion's total costs. In all other cases the cost driver costs are within 3 percent of the 100 percent method of costing.

g. Delta Cost Change.

(1) The percent change in the cost of each battalion compared to each of the other battalions using the 100 percent cost method is shown in table 4 and in table 5 for the cost driver method of costing. These tables show the Delta difference, percent change in cost, of the battalions across the horizontal axis when compared with the battalions in the vertical axis.

TABLE 4
Percent Change in Cost of BN(T) when compared with BN(C)
100 Percent method of costing

<u>BN(T) →</u>	<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
BN(C) ↓					
MECH INF BN		-18.80	-52.16	14.58	-61.09
LIGHT INF BN	23.15		-41.08	41.09	-52.09
MEDICAL BN	109.01	69.72		139.45	-18.68
TANK BN	-12.71	-29.12	-53.24		-66.04
SUPPLY & TRANS BN	157.03	108.72	22.98	194.47	

TABLE 5
Percent Change in Cost of BN(T) when compared with BN(C)
Cost Driver method of costing

<u>BN(T) →</u>	<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
<u>BN(C) ↓</u>					
MECH INF BN		-20.14	-53.02	14.79	-62.67
LIGHT INF BN	25.23		-41.18	43.75	-53.12
MEDICAL BN	112.88	70.00		144.37	-20.31
TANK BN	-12.88	-30.43	-59.08		-67.39
SUPPLY & TRANS BN	167.15	113.33	25.49	206.66	

(2) The data on table 4 and table 5 are used to develop the percent of error comparing the cost driver method with the 100 percent method of costing and is shown on table 6. The percent of cost error, with the exception of the medical battalion when compared to the supply and transportation battalion, is within 10 percent for all other battalion comparisons. For all comparisons the percent of cost error is positive.

TABLE 6
Percent of Error Comparing Cost Methods

	<u>MECH INF</u>	<u>LIGHT INF</u>	<u>MEDICAL</u>	<u>TANK</u>	<u>SUPPLY & TRANS</u>
MECH INF BN		7	2	2	3
LIGHT INF BN	9		0	6	2
MEDICAL BN	4	0		4	9
TANK BN	1	4	1		2
SUPPLY & TRANS BN	6	4	11	6	

6. CONCLUSIONS.

a. The division level sensitivity analysis established that force costing based on 100 percent personnel costs and all cost driver costs would provide sufficient cost data to accomplish a reasonably accurate cost analysis. The battalion level sensitivity analysis extended the use of the cost driver method to battalion size units and has established that this abbreviated method of force costing is acceptable.

b. The concept of force costing via the FCIS using 100 percent personnel costs in conjunction with all the costs associated with the cost drivers will provide an acceptable substitute for 100 percent costing via FCIS.

APPENDIX A

SENSITIVITY ANALYSIS COST DATA

A-1. INTRODUCTION. This appendix contains the cost data tables for all the units that were evaluated in the division level and battalion level sensitivity analysis. For each unit there is a set of five tables. These tables, listed below, are the basis of the sensitivity analysis.

MOS File Costs
Equipment File Costs
Total Unit Costs
Cost Driver List
Cost Driver Costs

All cost data was extracted from the FCIS in thousands of FY 80 dollars.

A-2. DISCUSSION.

a. MOS Files. The personnel and personnel related cost portion of the split data runs will be referred to as the MOS files. These MOS files contain all the costs associated with personnel as reported in the FCIS and do not require any MOS substitutions. These MOS file costs will be used as is, since the purpose of this analysis is to measure the effect on a unit's total costs by changes in the type of equipment line items that are costed. These tables reflect the FCIS breakdown of costs in the MOS files extended for a 20-year period and the percent that each category captures of the total costs of the units being costed.

b. Equipment Files. The equipment and equipment related cost portion of the split data runs will be referred to as the equipment files. The equipment files, with the exception of the equipment line items listed elsewhere in the report, contain all the costs associated with equipment as reported in the FCIS. The equipment file tables reflect the different categories of costs associated with equipment extended for a 20-year period. These costs are reported by category and as a percent of the battalion/division total costs captured by the equipment file.

c. Total Unit Costs.

(1) The total costs for the armor division and for the light infantry division, less those items of equipment found on table 2, are based on adding the costs of the MOS files and the equipment files for each division. These totals were checked against the completed division FCIS run.

(2) The total costs for each of the battalions less one line item of equipment in the light infantry battalion are based on adding the MOS file and equipment file costs. These costs are checked against the

completed battalion FCIS cost run. The cost data on these tables reflect the total cost of the unit extended to a 20 year period. The cost categories are reported as the percent of the battalions/divisions total costs represented by each category.

d. Cost Drivers Lists. The development of cost drivers is based on the definition found in paragraph 3f. Based on this definition and the equipment descriptive data pages for each of the divisions, lists of cost drivers were developed. A master list of all the cost driver line items of equipment is included. The equipment on this list is compiled from the cost driver lists for the two division forces examined in this sensitivity analysis.

e. Cost Driver Costs. The costs for these line items of equipment and their related cost data factors were developed via the use of the FCIS and are shown on these tables. The cost data on these tables reflect the FCIS breakdown by cost category extended for a 20-year period. These costs, shown by category, are reported as the percent of the equipment file cost captured and the percent of the battalion/division total cost captured by each category.

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TABLE A-1
MOS FILES
(THOUSANDS OF FY 80 DOLLARS)
MECH INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
DIRECT-PROCUR OF AMMO	--	98.	1960.	0.47
MPA (LESS TNG)	1692.	10910.	219892.	52.66
OMA PROG 2 DIRECT	547.	473.	10007.	2.40
OMA PROG 8 (T) TRAINING	1389.	339.	8169.	1.96
MPA TRAINING	5201.	1501.	35221.	8.43
INDIRECT PROCUR OF AMMO	328.	82.	1968.	0.47
OMA PROG 2	--	1447.	28940.	6.93
OMA PROG 7(S)	316.		316.	0.08
OMA PROG 7(S)		1531.	30620.	7.33
OMA PROG 8(M)	10.	297.	5950.	1.43
OMA PROG 8(O)	40.	74.	1520.	0.36
OMA PROG 9	--	49.	980.	0.23
TOTAL	9,523.	16,801.	345,543.	82.75

TABLE A-2
EQUIPMENT FILES
(THOUSANDS OF FY 80 DOLLARS)
MECH INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	20640.	--	20640.	4.94
PTRF	--	237.	4740.	1.14
OP READ FLOAT	771.	--	771.	0.19
REPAIR CYCLE FLOAT	753.	--	753.	0.18
MISSILES	--	--	--	--
PROCURE OF AMMO	1.	533.	10661.	2.55
REPAIR PARTS & SEC ITEMS	1333.	672.	14773.	3.54
DIRECT OMA PROG 2	1012.	508.	11172.	2.67
OMA PROG 7(S) (WT FACTOR)	1106.	--	1106.	0.26
OMA PROG 7(M) (DEPO MAINT)	--	372.	7440.	1.78
TOTAL	25,616.	2,322.	72,056.	17.25

TABLE A-3
TOTAL FORCE
(THOUSANDS OF FY 80 DOLLARS)
MECH INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	20640.	--	20640.	4.94
PTRF	--	237.	4740.	1.14
OP READ FLOAT	771.	--	771.	0.19
REPAIR CYCLE FLOAT	753.	--	753.	0.18
MISSILES	--	--	--	--
PROCUR OF AMMO	1.	631.	12621.	3.02
REPAIR PARTS & SEC ITEMS	1333.	672.	14773.	3.54
MOS TNG-INVEST	328.	82.	1968.	0.47
MOS TNG MPA	5201.	1501.	35221.	8.43
MOS TNG OMA PROG 8(T)	1389.	339.	8169.	1.96
MPA (LESS TNG)	1692.	10910.	219892.	52.66
DIRECT OMA PROG 2	1559.	981.	21179.	5.07
OMA PROG 2	--	1447.	28940.	6.93
OMA PROG 7(S) (WT FACTOR)	1422.	--	1422.	0.34
OMA PROG 7(S)	--	1531.	30620.	7.33
OMA PROG 7(M) (DEPO MAINT)	--	372.	7440.	1.78
OMA PROG 8(M)	10.	297.	5950.	1.43
OMA PROG 8(O)	40.	74.	1520.	0.36
OMA PROG 9	--	49.	980.	0.23
TOTAL	35,139.	19,123.	417,599.	100.00

TABLE A-4
MAJOR EQUIPMENT COST DRIVERS
MECH INFANTRY BATTALION

1. Aircraft and Major Aircraft Support Systems

(Not Applicable)

2. Missile and major missile support systems.

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
D11681	CARRIER GM EQP LES WE
G22933	DSPLY SET TGT DATA FR
L45740	LNCHR TBLR GM M220A1
M66857	MONITORING ST AN/TSQ
M75714	MT TPD MG 7.52MM M122
W80715	TRKR IR GM SU36(XO-1)
X04518	TRNG SET GM STM M76
X04584	TRNG SET GM STM M70

3. Weapons and Tracked Combat Vehicles

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
D10726	CARR 81MM MORT M125A1
D10741	CARR MORT M106A1
D11538	CARR CMND POST M577A1
D12087	CARRIER PERS M113A1
L91838	MG CAL .50 FLEX M2
L92386	MG 7.62MM M60
M68282	MORTAR M30 W/MT M24A1
R50544	REC VEH FT LT AR M578
R94977	RIFLE 5.56MM M16A1

4. Other

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
M11895	MASK FLD ABC-M17A1 L
N04456	NIGHT VIS GL AN/PVS-5
N04732	NI VI AN/PVS-4 W/IMG
Q34308	RADIO SET AN/GRC-160
Q53001	RADIO SET AN/VRC-46
Q54174	RADIO SET AN/VRC-47
Q56783	RADIO SET AN/VRC-64
U01305	SPCH SEC EQ TSEC/KY38
W95400	TLR CGO 1/4 TON M416
W98511	TLR CGO M105A2
X39940	TRL CGO 1-1/4T M561
X40009	TRK CGO 2 1/2T M35A2
X40146	TRK CGO 2 1/2T M35A2
X41310	TRK CGO 5T 8X8 M656
X41615	TRK CGO 8T 4X4 M520
X60833	TRK UTIL 1/4T M151A2
X63436	TRK WRK 10T 4X4 M553
Y03104	VIEWER INFR AN/PAS-7

TABLE A-5
COST DRIVERS
(THOUSANDS OF FY 80 DOLLARS)
MECH INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF EQUIP FILES 20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	18189.	--	18189.	25.24	4.36
PTRF	--	691.	13820.	19.18	3.31
OP READ FLOAT	715.	--	715.	0.99	0.17
REPAIR CYCLE FLOAT	710.	--	710.	0.99	0.17
MISSILES	--	--	--	--	--
PROCURE OF AMMO	--	394.	7880.	10.94	1.89
REPAIR PARTS & SEC ITEMS	1144.	595.	13044.	18.10	3.12
DIRECT OMA PROG 2	182.	391.	8002.	11.10	1.92
OMA PROG 7(S) (WT FACTOR)	917.	--	917.	1.27	0.22
OMA PROG 7(M) (DEPO MAINT)	--	203.	4060.	5.64	0.97
TOTAL	21,857.	2,274.	67,337.	93.45	16.13

TABLE A-6
MOS FILES
(THOUSANDS OF FY 90 DOLLARS)
LIGHT INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
DIRECT-PROCUR OF AMMO	--	93.	1860.	0.55
MPA (LESS TNG)	1600.	10122.	204040.	60.17
OMA PROG 2 DIRECT	517.	447.	9457.	2.79
OMA PROG 8 (T) TRAINING	1150.	278.	6710.	1.98
MPA TRAINING	4715.	1366.	32035.	9.45
INDIRECT PROCUR OF AMMO	312.	78.	1872.	0.55
OMA PROG 2	--	1367.	27340.	8.06
OMA PROG 7(S)	298.	--	298.	0.09
OMA PROG 7(S)	--	1446.	28920.	8.53
OMA PROG 8(M)	9.	281.	5629.	1.66
OMA PROG 8(O)	38.	70.	1438.	0.42
OMA PROG 9	--	47.	940.	0.28
TOTAL	8,639.	15,595.	320,539.	94.53

TABLE A-7
EQUIPMENT FILES
(THOUSANDS OF FY 80 DOLLARS)
LIGHT INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYWAY	4651.	--	4651.	1.37
PTRF	--	49.	980.	0.29
OP READ FLOAT	188.	--	188.	0.05
REPAIR CYCLE FLOAT	59.	--	59.	0.02
MISSILES	--	--	--	--
PROCURE OF AMMO	1.	319.	6381.	1.88
REPAIR PARTS & SEC ITEMS	427.	145.	3327.	0.98
DIRECT OMA PROG 2	369.	114.	2649.	0.78
OMA PROG 7(S) (WT FACTOR)	171.	--	171.	0.05
OMA PROG 7(M) (DEPO MAINT)	--	8.	160.	0.05
TOTAL	5,866.	635.	18,566.	5.47

TABLE A-8
TOTAL FORCE
(THOUSANDS OF FY 80 DOLLARS)
LIGHT INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	4651.	--	4651.	1.37
PTRF	--	49.	980.	0.29
OP READ FLOAT	188.	--	188.	0.05
REPAIR CYCLE FLOAT	59.	--	59.	0.02
MISSILES	--	--	--	--
PROCUR OF AMMO	1.	412.	8241.	2.43
REPAIR PARTS & SEC ITEMS	427.	145.	3327.	0.98
MOS TNG-INVEST	312.	78.	1872.	0.55
MOS TNG MPA	4715.	1366.	32035.	9.45
MOS TNG OMA PROG 8(T)	1150.	278.	6710.	1.98
MPA (LESS TNG)	1600.	10122.	204040.	60.17
DIRECT OMA PROG 2	886.	561.	12106.	3.57
OMA PROG 2	--	1367.	27340.	8.06
OMA PROG 7(S) (WT FACTOR)	469.	--	469.	0.14
OMA PROG 7(S)	--	1446.	28920.	8.53
OMA PROG 7(M) (DEPO MAINT)	--	8.	160.	0.05
OMA PROG 8(M)	9.	281.	5629.	1.66
OMA PROG 8(O)	38.	70.	1438.	0.42
OMA PROG 9	--	47.	940.	0.28
TOTAL	14,505.	16,230.	339,105.	100.00

TABLE A-9
MAJOR EQUIPMENT COST DRIVERS
LIGHT INFANTRY BATTALION

1. Aircraft and Major Aircraft Support Systems

(Not Applicable)

2. Missile and major missile support systems.

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
G22933	DSPLY SET TGT DATA FR
L45740	LNCHR TBLR GM M220A1
M66857	MONITORING ST AN/TSQ
W80715	TRKR IR GM SU36(XO-1)
X04518	TRNG SET GM STM M76
X04584	TRNG SET GM STM M70
X45317	TRUCK GM 10398963
X45549	TRUCK GM EQUIP

3. Weapons and Tracked Combat Vehicles

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
L92386	MG 7.62MM M60

4. Other

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
M11895	MASK FLD ABC-M17A1 L
N04456	NIGHT VIS GL AN/PVS-5
N04732	NI VI AN/PVS-4 W/IMG
Q34308	RADIO SET AN/GRC-160
Q38299	RADIO SET AN/PRC-25
U01305	SPCH SEC EQ TSEC/KY38
W95400	TLR CGO 1/4 TON M416
X39940	TRK CGO 1-1/4T M561
X40009	TRK CGO 2 1/2T M35A2
X40146	TRK CGO 2 1/2T M35A2
X60833	TRK UTIL 1/4T M151A2
Y03104	VIEWER INFR AN/PAS-7

TABLE 4-10
COST DRIVERS
(THOUSANDS OF FY 80 DOLLARS)
LIGHT INFANTRY BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF EQUIP FILES 20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	3462.	--	3642.	19.52	1.07
PTRF	--	27.	540.	2.91	0.16
OP READ FLOAT	160.	--	160.	0.36	0.05
REPAIR CYCLE FLOAT	43.	--	43.	0.23	0.01
ISSILES	--	--	--	--	--
PROCURE OF AMMO	--	9.	180.	0.97	0.05
REPAIR PARTS & SEC ITEMS	346.	115.	2646.	14.25	0.78
DIRECT OMA PROG 2	36.	78.	1596.	8.39	0.47
MA PROG 7(S) (WT FACTOR)	120.	--	120.	0.65	0.04
OMA PROG 7(M) (DEPO MAINT)	--	9.	180.	0.97	0.05
TOTAL	4,347.	238.	9,107.	49.05	2.68

TABLE A-11
MOS FILES
(THOUSANDS OF FY 80 DOLLARS)
MEDICAL BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
DIRECT-PROCUR OF AMMO	--	47.	940.	0.47
MPA (LESS TNG)	954.	6067.	122294.	61.21
OMA PROG 2 DIRECT	262.	227.	4802.	2.40
OMA PROG 8 (T) TRAINING	628.	140.	3423.	1.72
MPA TRAINING	4119.	907.	22259.	11.14
INDIRECT PROCUR OF AMMO	28.	7.	168.	0.08
OMA PROG 2	--	693.	13860.	6.94
OMA PROG 7(S)	151.	--	151.	0.07
OMA PROG 7(S)	--	733.	14660.	7.34
OMA PROG 8(M)	5.	142.	2845.	1.42
OMA PROG 8(O)	19.	36.	739.	0.37
OMA PROG 9	--	24.	480.	0.24
TOTAL	6,166.	9,023.	186,626.	93.40

TABLE A-12
EQUIPMENT FILES
(THOUSANDS OF FY 80 DOLLARS)
MEDICAL BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	2866.	--	2866.	1.43
PTRF	--	184.	3680.	1.34
OP READ FLOAT	97.	--	97.	0.05
REPAIR CYCLE FLOAT	49.	--	49.	0.03
MISSILES	--	--	--	--
PROCURE OF AMMO	--	48.	960.	0.48
REPAIR PARTS & SEC ITEMS	281.	114.	2561.	1.28
DIRECT OMA PROG 2	905.	70.	2305.	1.16
OMA PROG 7(S) (WT FACTOR)	356.	--	356.	0.18
OMA PROG 7(M) (DEPO MAINT)	--	15.	300.	0.15
TOTAL	4,554.	431.	13,174.	6.60

TABLE A-13
TOTAL FORCE
(THOUSANDS OF FY 80 DOLLARS)
MEDICAL BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	2866.	--	2866.	1.43
PTRF	--	184.	3680.	1.84
OP READ FLOAT	97.	--	97.	0.05
REPAIR CYCLE FLOAT	49.	--	49.	0.03
MISSILES	--	--	--	--
PROCUR OF AMMO	--	95.	1900.	0.95
REPAIR PARTS & SEC ITEMS	281.	114.	2561.	1.28
MOS TNG-INVEST	28.	7.	168.	0.08
MOS TNG MPA	4119.	907.	22259.	11.14
MOS TNG OMA PROG 8(T)	628.	140.	3428.	1.72
MPA (LESS TNG)	954.	6067.	122294.	61.21
DIRECT OMA PROG 2	1167.	297.	7107.	3.56
OMA PROG 2	--	693.	13860.	6.94
OMA PROG 7(S) (WT FACTOR)	507.	--	507.	0.25
OMA PROG 7(S)	--	733.	14660.	7.34
OMA PROG 7(M) (DEPO MAINT)	--	15.	300.	0.15
OMA PROG 8(M)	5.	142.	2845.	1.42
OMA PROG 8(O)	19.	36.	739.	0.37
OMA PROG 9	--	24.	480.	0.24
TOTAL	10,720.	9,454.	199,800.	100.00

TABLE A-14
MAJOR EQUIPMENT COST DRIVERS
MEDICAL BATTALION

1. Aircraft and Major Aircraft Support Systems
(Not Applicable)

2. Missile and major missile support systems.
(Not Applicable)

3. Weapons and Tracked Combat Vehicles

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
R94977	RIFLE 5.56MM M16A1

4. Other

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
M11895	MASK FLD ABC-M17A1 L
Q53001	RADIO SET AN/VRC-46
Q54174	RADIO SET AN/VRC-47
U01305	SPCH SEC EQ TSEC/KY38
W95400	TLR CGO 1/4 TON M416
W95811	TLR CGO M105A2
X40009	TRK CGO 2 1/2T M35A2
X40146	TRK CGO 2 1/2T M35A2
X60833	TRK UTIL 1/4T M151A2
X63299	TRK WKR MB16 W/WN

TABLE A-15
COST DRIVERS FILES
(THOUSANDS OF FY 80 DOLLARS)
MEDICAL BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF EQUIP FILES 20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	1614.	--	1614.	12.25	0.31
PTRF	--	65.	1300.	9.37	0.65
OP READ FLOAT	38.	--	38.	0.29	0.02
REPAIR CYCLE FLOAT	11.	--	11.	0.08	0.01
MISSILES	--	--	--	--	--
PROCURE OF AMMO	--	85.	1700.	12.90	0.85
REPAIR PARTS & SEC ITEMS	158.	63.	1418.	10.76	0.71
DIRECT OMA PROG 2	16.	35.	716.	5.44	0.36
OMA PROG 7(S) (WT FACTOR)	187.	--	187.	1.42	0.09
OMA PROG 7(M) (DEPO MAINT)	--	15.	300.	2.28	0.15
TOTAL	2,024.	263.	7,284.	55.29	3.65

TABLE A-16
MOS FILES
(THOUSANDS OF FY 80 DOLLARS)
TANK BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
DIRECT-PROCUR OF AMMO	--	67.	1340.	0.28
MPA (LESS TNG)	1195.	7768.	156555.	32.72
OMA PROG 2 DIRECT	371.	321.	6791.	1.42
OMA PROG 8 (T) TRAINING	1436.	321.	7856.	1.64
MPA TRAINING	4608.	1203.	28668.	5.99
INDIRECT PROCUR OF AMMO	859.	169.	4239.	0.89
OMA PROG 2	--	983.	19660.	4.11
OMA PROG 7(S)	214.	--	214.	0.04
OMA PROG 7(S)	--	1039.	20780.	4.34
OMA PROG 8(M)	7.	202.	4047.	0.35
OMA PROG 8(O)	27.	50.	1027.	0.21
OMA PROG 9	--	33.	660.	0.14
TOTAL	8,717.	12,156.	251,837.	52.63

TABLE A-17
EQUIPMENT FILES
(THOUSANDS OF FY 80 DOLLARS)
TANK BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	61895.	--	61895.	12.94
PTRF	--	176.	3520.	0.74
OP READ FLOAT	4917.	--	4917.	1.03
REPAIR CYCLE FLOAT	4387.	--	4387.	0.92
MISSILES	--	--	--	--
PROCURE OF AMMO	1.	2333.	46661.	9.75
REPAIR PARTS & SEC ITEMS	2851.	2185.	46551.	9.73
DIRECT OMA PROG 2	1058.	1523.	31518.	6.59
OMA PROG 7(S) (WT FACTOR)	2621.	--	2621.	0.55
OMA PROG 7(M) (DEPO MAINT)	--	1226.	24520.	5.12
TOTAL	77,730.	7,443.	226,590.	47.37

TABLE A-18
TOTAL FORCE
(THOUSANDS OF FY 80 DOLLARS)
TANK BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	61895.	--	61895.	12.94
PTRF	--	176.	3520.	0.74
OP READ FLOAT	4917.	--	4917.	1.03
REPAIR CYCLE FLOAT	4387.	--	4387.	0.92
MISSILES	--	--	--	--
PROCUR OF AMMO	1.	2400.	48001.	10.03
REPAIR PARTS & SEC ITEMS	2851.	2185.	46551.	9.73
MOS TNG-INVEST	859.	169.	4239.	0.89
MOS TNG MPA	4608.	1203.	28668.	5.99
MOS TNG OMA PROG 8(T)	1436.	321.	7856.	1.64
MPA (LESS TNG)	1195.	7768.	156555.	32.72
DIRECT OMA PROG 2	1429.	1844.	38309.	8.01
OMA PROG 2	--	983.	19660.	4.11
OMA PROG 7(S) (WT FACTOR)	2835.	--	2835.	0.59
OMA PROG 7(S)	--	1039.	20780.	4.34
OMA PROG 7(M) (DEPO MAINT)	--	1226.	24520.	5.12
OMA PROG 8(M)	7.	202.	4047.	0.85
OMA PROG 8(O)	27.	50.	1027.	0.21
OMA PROG 9	--	33.	660.	0.14
TOTAL	86,447.	19,599.	478,427.	100.00

TABLE A-19
MAJOR EQUIPMENT COST DRIVERS
TANK BATTALION

1. Aircraft and Major Aircraft Support Systems

(Not Applicable)

2. Missile and major missile support systems.

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
G22933	DSPLY SET TGT DATA FR
X04518	TRNG SET GM STM M76

3. Weapons and Tracked Combat Vehicles

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
D10741	CARR MORT M106A1
D11538	CARR CMND POST M577A1
D12087	CARRIER PERS M113A1
L92112	MG CAL .50 M85 FIXED
R50544	REC VEH FT LT AR M578
R50681	REC VEH FT MED M88A1
V13101	TK M60A1 RISE/PASSIVE

4. Other

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
C20414	BRIDGE AVLSC50-60 FT
L43664	LAUNCH M60 SERIES TNK
N04456	NIGHT VIS GL AN/PVS-5
N04732	NI VI AN/PVS-4 W/IMG
Q45779	RADIO SET AN/VRC-12
Q53001	RADIO SET AN/VRC-46
Q54174	RADIO SET AN/VRC-47
Q56783	RADIO SET AN/VRC-64
S66941	SEARCLGT IN AN/VSS-3A
U01305	SPCH SEC EQ TSEC/KY38
W95400	TLR CGO 1/4 TON M416
W95811	TLR CGO M105A2
X39940	TRL CGO 1-1/4T M561
X40009	TRK CGO 2 1/2T M35A2
X40146	TRK CGO 2 1/2T M35A2
X41310	TRK CGO 5T 8X8 M556
X41615	TRK CGO 8T 4X4 M520
X58093	TRK TK FUELSVC M559WW
X60833	TRK UTIL 1/4T M151A2
X63436	TRK WRK 10T 4X4 M553
Y03104	VIEWER INFR AN/PAS-7

TABLE A-20
COST DRIVERS
(THOUSANDS OF FY 80 DOLLARS)
TANK BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF EQUIP FILES 20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	61888.	--	61888.	27.31	12.94
PTRF	--	253.	5060.	2.23	1.06
OP READ FLOAT	4664.	--	4664.	2.06	0.97
REPAIR CYCLE FLOAT	4343.	--	4343.	1.92	0.91
SSILES	--	--	--	--	--
PROCURE OF AMMO	--	2514.	50280.	22.19	10.51
REPAIR PARTS & SEC ITEMS	2785.	2171.	46205.	20.39	9.66
DIRECT OMA PROG 2	619.	1331.	27239.	12.02	5.69
A PROG 7(S) (WT FACTOR)	2736.	--	2736.	1.21	0.57
OMA PROG 7(M) (DEPO MAINT)	--	980.	19600.	8.65	4.10
TOTAL	77,035.	7,249.	222,015.	97.98	46.41

TABLE A-21
MOS FILES
(THOUSANDS OF FY 80 DOLLARS)
SUPPLY & TRANSPORTATION BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
DIRECT-PROCUR OF AMMO	--	39.	780.	0.48
MPA (LESS TNG)	687.	4402.	88727.	54.61
OMA PROG 2 DIRECT	219.	189.	3999.	2.46
OMA PROG 8 (T) TRAINING	511.	118.	2871.	1.77
MPA TRAINING	1809.	524.	12289.	7.56
INDIRECT PROCUR OF AMMO MOS TNG	28.	7.	168.	0.10
OMA PROG 2	--	579.	11580.	7.13
OMA PROG 7(S)	126.	--	126.	0.08
OMA PROG 7(S)	--	612.	12240.	7.53
OMA PROG 8(M)	4.	119.	2384.	1.47
OMA PROG 8(O)	16.	30.	616.	0.38
OMA PROG 9	--	20.	400.	0.25
TOTAL	3,400.	6,639.	136,180.	83.82

TABLE A-22
EQUIPMENT FILES
(THOUSANDS OF FY 80 DOLLARS)
SUPPLY & TRANSPORTATION BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	7375.	--	7375.	4.54
PTRF	--	239.	4780.	2.94
OP READ FLOAT	180.	--	180.	0.11
REPAIR CYCLE FLOAT	62.	--	62.	0.04
MISSILES	--	--	--	--
PROCURE OF AMMO	1.	61.	1220.	0.75
REPAIR PARTS & SEC ITEMS	731.	288.	6491.	4.00
DIRECT OMA PROG 2	657.	181.	4277.	2.63
OMA PROG 7(S) (WT FACTOR)	885.	--	885.	0.54
OMA PROG 7(M) (DEPO MAINT)	--	51.	1020.	0.63
TOTAL	9,890.	820.	26,290.	16.18

TABLE A-23
TOTAL FORCE
(THOUSANDS OF FY 80 DOLLARS)
SUPPLY & TRANSPORTATION BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	7375.	--	7375.	4.54
PTRF	--	239.	4780.	2.94
OP READ FLOAT	180.	--	180.	0.11
REPAIR CYCLE FLOAT	62.	--	62.	0.04
MISSILES	--	--	--	--
PROCUR OF AMMO	--	100.	2000.	1.23
REPAIR PARTS & SEC ITEMS	731.	288.	6491.	4.00
MOS TNG-INVEST	28.	7.	168.	0.10
MOS TNG MPA	1809.	524.	12289.	7.56
MOS TNG OMA PROG 8(T)	511.	118.	2871.	1.77
MPA (LESS TNG)	687.	4402.	88727.	54.61
DIRECT OMA PROG 2	876.	370.	8276.	5.09
OMA PROG 2	--	579.	11580.	7.13
OMA PROG 7(S) (WT FACTOR)	1011.	--	1011.	0.62
OMA PROG 7(S)	--	621.	12240.	7.53
OMA PROG 7(M) (DEPO MAINT)	--	51.	1020.	0.63
OMA PROG 8(M)	4.	119.	2384.	1.47
OMA PROG 8(O)	16.	30.	616.	0.38
OMA PROG 9	--	20.	400.	0.25
TOTAL	13,290.	7,459.	162,470.	100.00

TABLE A-24
MAJOR EQUIPMENT COST DRIVERS
SUPPLY & TRANSPORTATION BATTALION

1. Aircraft and Major Aircraft Support Systems

(Not Applicable)

2. Missile and major missile support systems.

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
M75714	MT TPD MG 7.62MM M122

3. Weapons and Tracked Combat Vehicles

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
L92386	MG 7.62MM M60
R94977	RIFLE 5.56MM M16A1
W32730	S/E AUTO M-R OM CM 2

4. Other

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
J04717	FUEL SYS SUP PT
L76556	LDR SCOOP AC 645M
Q53001	RADIO SET AN/VRC-46
S72024	STLR STAKE M127A2C
S72188	STLR TK 5000 GAL M857
W95811	TLR CGO M105A2
X39432	TRK CGO 1-1/4T M880
X40009	TRK CGO 2 1/2T M35A2
X40146	TRK CGO 2 1/2T M35A2
X40794	TRK CGO D/S M813A1
X48914	TRK LF OD MDL MLT6-2
X59326	TRK TRAC M818
X60833	TRK UTIL 1/4T M151A2
X63299	TRK WKR M816 W/WN

TABLE A-25
COST DRIVERS FILES
(THOUSANDS OF FY 80 DOLLARS)
SUPPLY & TRANSPORTATION BATTALION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF EQUIP FILES 20 YEAR COST	% OF BATTALION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	5107.	--	5107.	19.43	3.14
PTRF	--	162.	3240.	12.32	1.39
OP READ FLOAT	116.	--	116.	0.44	0.07
REPAIR CYCLE FLOAT	25.	--	25.	0.10	0.02
MISSILES	--	--	--	--	--
PROCURE OF AMMO	--	86.	1720.	6.54	1.06
REPAIR PARTS & SEC ITEMS	504.	199.	4484.	17.06	2.76
DIRECT OMA PROG 2	51.	110.	2251.	8.56	1.39
OMA PROG 7(S) (WT FACTOR)	737.	--	737.	2.80	0.45
OMA PROG 7(M) (DEPO MAINT)	--	33.	660.	2.51	0.41
TOTAL	6,540.	590.	18,340.	69.76	11.29

TABLE A-26
MOS FILES
(THOUSANDS OF FY 80 DOLLARS)
ARMOR DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF DIVISION'S 20 YEAR COST
DIRECT-PROCUR OF AMMO	--	2158.	43160.	0.4
MPA (LESS TNG)	39609.	251820.	5076009.	44.7
OMA PROG 2 DIRECT	12037.	10420.	220437.	2.0
OMA PROG 8 (T) TRAINING	53816.	10601.	265836.	2.3
MPA TRAINING	142016.	37330.	888616.	7.8
INDIRECT PROCUR OF AMMO MOS/TNG	11566.	2205.	55666.	0.5
OMA PROG 2	--	31844.	636880.	5.6
OMA PROG 7(S)	6947.	--	6947.	0.1
OMA PROG 7(S)	--	33681.	673620.	5.9
OMA PROG 8(M)	212.	6542.	131052.	1.1
OMA PROG 8(O)	889.	1636.	33609.	0.3
OMA PROG 9	--	1084.	21680.	0.2
TOTAL	267,092.	389,321.	8,053,512.	70.9

TABLE A-27
EQUIPMENT FILES
(THOUSANDS OF FY 80 DOLLARS)
ARMOR DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF DIVISION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	882431.	--	882431.	7.8
PTRF	--	7241.	144820.	1.3
OP READ FLOAT	56236.	--	56236.	0.5
REPAIR CYCLE FLOAT	50240.	--	50240.	0.4
MISSILES	--	1988.	39760.	0.4
PROCURE OF AMMO	55.	27956.	559175.	4.9
REPAIR PARTS & SEC ITEMS	54349.	30777.	669889.	5.9
DIRECT OMA PROG 2	26431.	24873.	523891.	4.6
OMA PROG 7(S) (WT FACTOR)	37509.	--	37509.	0.3
OMA PROG 7(M) (DEPO MAINT)	--	17156.	343120.	3.0
TOTAL	1,107,251.	109,991.	3,307,071.	29.1

TABLE A-28
TOTAL FORCE COSTS
(THOUSANDS OF FY 80 DOLLARS)
ARMOR DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF DIVISION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	882431.	--	882431.	7.8
PTRF	--	7241.	144820.	1.3
OP READ FLOAT	56236.	--	56236.	0.5
REPAIR CYCLE FLOAT	50240.	--	50240.	0.4
MISSILES	--	1988.	39760.	0.4
PROCUR-OF AMMO	55.	30114.	602335.	5.3
REPAIR PARTS & SEC ITEMS	54349.	30777.	669889.	5.9
MOS TNG-INVEST	11566.	2205.	55666.	0.5
MOS TNG MPA	142016.	37330.	888616.	7.8
OMA PROG 8(T)	53816.	10601.	265836.	2.3
MPA (LESS TNG)	39609.	251820.	5076009.	44.7
DIRECT OMA PROG 2	38468.	35293.	744328.	6.6
OMA PROG 2	--	31844.	636880.	5.6
OMA PROG 7(S) (WT FACTOR)	44456.	--	44456.	0.4
OMA PROG 7(S)	--	33681.	673620.	5.9
OMA PROG 7(M) (DEPO MAINT)	--	17156.	343120.	3.0
OMA PROG 8(M)	212.	6542.	131052.	1.1
OMA PROG 8(O)	889.	1636.	33609.	0.3
OMA PROG 9	--	1084.	21680.	0.2
TOTAL	1,374,343.	499,312.	11,360,583.	100.0

TABLE A-29
MAJOR EQUIPMENT - COST DRIVERS
ARMOR DIVISION

1. Aircraft and major aircraft systems.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
51	A90437	ARM SS HCP 40MM M28A1
51	K29694	HCPTTR ATTACK AH-1S
3	K30548	HCPTTR ECM EH-1H
66	K31042	HCPTTR OBSN OH-58A
52	K31795	HCPTTR UTILITY UH-1H

2. Missile and major missile support systems.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
90	D11681	CARRIER GM EQP LES WE
148	G22933	DSPLY SET TGT DATA FR
24	J95533	GM STM INCPT AER M48
90	L45740	LNCHR TBLR GM M220A1
65	M66857	MONITORING ST AN/TSQ
8	Q16046	RADAR AN/MPQ-49 XO-1
2	T14440	SHP EQ AN/TSM-95 XO-3
1	T14441	SHP EQ AN/TSM-96 XO-4
65	T45627	SGHT SYS ANTIOS M76
4	V79132	TEST SET GM LAUNCHER
6	V79430	TEST SET AN/TSM-114
1	V83998	TEST ST RDR AN/MPM-57
1	W00869	TEST STA GM AN/TSM-93
161	W80715	TRKR IR GM SU36(XO-1)
15	X04518	TRNG SET GM STM M76
15	X04584	TRNG SET GM STM M70

3. Weapons and tracked combat vehicles.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
27	A93125	ARAAV M551A1 FT 152MM
45	D10726	CARR 81MM MORT M125A1
53	D10741	CARR MORT M106A1
66	D11049	CARR CGO FT 6TON M548
144	D11538	CARR CMND POST M577A1
619	D12087	CARRIER PERS M113A1
8	E56578	COMBAT ENG VEH M728

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
24	J96694	GUN AIRDEF AR SP M163
12	K56981	HOW HV SP FT 3IN M110
54	K57667	HOW SPFT 155MM M109A3
1196	L91838	MG CAL .50 FLEX M2
332	L92112	MG CAL .50 M85 FIXED
63	R50544	REC VEH FT LT AR M578
37	R50681	REC VEH FT MED M88A1
14797	R94977	RIFLE 5.56MM M16A1
324	VI3101	TK M60A1 RISE/PASSIVE

4. Other.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
18	C20414	BRIDGE AVLSCO-60 FT
16	L43664	LAUNCH M60 SERIES TNK
13706	M11895	MASK FLD ABC-M17A1 L
2128	N04456	NIGHT VIS GL AN/PVS-5
577	N04732	NI VI AN/PVS-4 W/IMG
5	Q15414	RADAR ST AN/MPQ-4A LP
25	Q16110	RADAR SET AN/PPS-5ALP
773	Q34308	RADIO SET AN/GRC-160
191	Q45779	RADIO SET AN/VRC-12
654	Q53001	RADIO SET AN/VRC-46
480	Q54174	RADIO SET AN/VRC-47
498	Q56783	RADIO SET AN/VRC-64
36	Q92894	RDO TM S AN/TRC-145LP
12	R78062	RPT S RD AN/TRC-113LP
359	S66941	SEARCLGT IN AN/VSS-3A
30	S72188	STLR TK 5000 GAL M857
759	U01305	SPCH SEC EQ TSEC/KY38
24	U58881	SUPSTR TRANSPTR T52703
694	W95811	TLR CGO M105A2
254	X39940	TRL CGO 1-1/4T M561
603	X40009	TRK CGO 2 1/2T M35A2
122	X40146	TRK CGO 2 1/2T M35A2
47	X40831	TRK CGO 5T 6X6 M813
73	X41310	TRK CGO 5T 8X8 M656
132	X41615	TRK CGO 8T 4X4 M520
16	X43708	TRK DUMP 5T 6X6 M817
23	X58078	TRK TK FUEL SVC M669
24	X58093	TRK TK FUEL SBV M559WW
79	X59326	TRK TRAC M818
808	X60833	TRK UTIL 1/4T M151A2
12	X62237	TRK VAN EXP 5T M820
49	X62340	TRK VAN SHOP M109A3
19	X63299	TRK WKR M816 W/WN
25	X63436	TRK WRK 10T 4X4 M553
77	Y03104	VIEWER INFR AN/PAS-7

TABLE A-30
COST DRIVERS
(THOUSANDS OF FY 80 DOLLARS)
ARMOR DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF EQUIP FILES 20 YEAR COST	% OF DIVISION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	816686.	--	816686.	24.7	7.2
PTRF	--	5725.	114500.	3.5	1.0
OP READ FLOAT	53869.	--	53869.	1.6	0.5
REPAIR CYCLE FLOAT	48531.	--	48531.	1.5	0.4
MISSILES	--	1988.	39760.	1.2	0.3
PROCURE OF AMMO	--	25553.	511060.	15.4	4.5
REPAIR PARTS & SEL ITEMS	48673.	28310.	614873.	18.6	5.4
DIRECT OMA PROG 2	8167.	23255.	473267.	14.3	4.2
OMA PROG 7(S) (WT FACTOR)	32487.	--	32487.	1.0	0.3
OMA PROG 7(M) (DEPO MAINT)	--	16813.	336260.	10.2	3.0
TOTAL	1,008,413.	101,644.	3,041,293.	92.0	26.8

TABLE A-31
MOS FILES
(THOUSANDS OF FY 80 DOLLARS)
LIGHT INF DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF DIVISION'S 20 YEAR COST
DIRECT-PROCUR OF AMMO	--	2133.	42660.	0.4
MPA (LESS TNG)	39309.	247054.	4980389.	51.1
OMA PROG 2 DIRECT	11899.	10300.	217899.	2.2
OMA PROG 8 (T) TRAINING	52051.	9810.	248251.	2.5
MPA TRAINING	134159.	35482.	843799.	8.7
INDIRECT PROCUR OF AMMO MOS TNG	7823.	1542.	38663.	0.4
OMA PROG 2	--	31478.	629560.	6.5
OMA PROG 7(S)	--	33294.	665880.	6.8
OMA PROG 7(S)	6867.	--	6867.	0.1
OMA PROG 8(M)	210.	6467.	129550.	1.3
OMA PROG 8(O)	879.	1617.	33219.	0.3
OMA PROG 9	--	1072.	21440.	0.2
TOTAL	253,197.	380,249.	7,858,177.	80.5

TABLE A-32
EQUIPMENT FILES
(THOUSANDS OF FY 80 DOLLARS)
LIGHT INF DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF DIVISION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	490512.	--	490512.	5.0
PTRF	--	6165.	123300.	1.3
OP READ FLOAT	29263.	--	29263.	0.3
REPAIR CYCLE FLOAT	21558.	--	21558.	0.2
MISSILES	--	1869.	37380.	0.4
PROCURE OF AMMO	24.	14167.	283364.	2.9
REPAIR PARTS & SEL ITEMS	38019.	17143.	380879.	3.9
DIRECT OMA PROG 2	20380.	15994.	340260.	3.5
OMA PROG 7(S) (WT FACTOR)	19166.	--	19166.	0.2
OMA PROG 7(M) (DEPO MAINT)	--	8534.	170680.	1.8
TOTAL	618,922.	63,872.	1,896,362.	19.5

TABLE A-33
TOTAL FORCE
(THOUSANDS OF FY 80 DOLLARS)
LIGHT INFANTRY DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF DIVISION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	490512.	--	490512.	5.0
PTRF	--	6165.	123300.	1.3
OP READ FLOAT	29263.	--	29263.	0.3
REPAIR CYCLE FLOAT	21558.	--	21558.	0.2
MISSILES	--	1869.	7380.	0.4
PROC OF AMMO	24.	16300.	326024.	3.3
REPAIR PARTS & SEC ITEMS	38019.	17143.	380879.	3.9
MOS TNG-INVEST	7823.	1542.	38663.	0.4
MOS TNG MPA	134159.	35482.	843799.	8.7
OMA PROG 8(T)	52051.	9810.	248251.	2.5
MPA (LESS TNG)	39309.	247054.	4980389.	51.1
DIRECT OMA PROG 2	32279.	26294.	558159.	5.7
OMA PROG 2	--	31478.	629560.	6.5
OMA PROG 7(S) (WT FACTOR)	26033.	--	26033.	0.3
OMA PROG 7(S)	--	33294.	665880.	6.8
OMA PROG 7(M) (DEPO MAINT)	--	8534.	170680.	1.8
OMA PROG 8(M)	210.	6467.	129550.	1.3
OMA PROG 8(O)	879.	1617.	33219.	0.3
OMA PROG 9	--	1072.	21440.	0.2
TOTAL	872,119.	444,121.	9,754,539.	100.0

TABLE A-34
MAJOR EQUIPMENT - COST DRIVERS
LIGHT INFANTRY DIVISION

1. Aircraft and major aircraft support systems.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
48	A90437	ARM SS HCP 40MM M28A1
48	K29694	HCPTT ATTCK AH-1S
3	K30548	HCPTT ECM EH-1H
74	K31042	HCPTT OBSN OH-58A
90	K31795	HCPTT UTILITY UH-1H

2. Missiles and major missile support systems.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
18	D11681	CARRIER GM EQP LES WE
143	G22933	DSPLY SET TGT DATA FR
24	J95533	GM STM INCPT AER M48
162	L45740	LNCHR TBLR GM M220A1
662	M75714	MT TPD MG 7.62MM M122
8	Q16046	RADAR AN/MPQ-49 XO-1
2	T14440	SHP EQ AN/TSM-95 XO-3
1	T14440	SHP EQ AN/TSM-96 XO-4
5	V79132	TEST SET GM LAUNCHER
10	V79430	TEST SET AN/TSM-144
1	V83998	TEST ST RDR AN/MPM-57
1	W00869	TEST STA GM AN/TSM-93
267	W80715	TRKR IR GM SU36 (XO-1)
19	X04584	TRNG SET GM STM M70
144	X45317	TRUCK GM 10398963
144	X45549	TRUCK GM EQUIP

3. Weapons and tracked combat vehicles.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
9	A93125	ARAAV M551A1 152MM
9	D10726	CARR 81MM MORT M125A1

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
11	010741	CARR MORT M106A1
20	011538	CARR CMND POST M577A1
126	012087	CARRIER PERS M113A1
3	E56578	COMBAT ENG VEH M728
20	E76866	COMPTR GUN DIRECT M18
24	J96694	GUN AIRDEF AR SP M163
4	K56981	HOW HV SP FT 8IN M110
54	K57392	HOWITZER LT TWO M102
18	K57821	HOW MED TWO 155MM M198
250	L91838	MG CAL .50 FLEX M2
154	L91975	MG 50 M2 HB FLEX GRND
57	L92112	MG CAL .50 M85 FIXED
744	L92386	MG 7.62MM M60
43	M68282	MORTAR M30 W/MT M24A1
16	R50544	REC VEH FT LR AR M578
8	R50681	REC VEH FT MED M88A1
15673	R94977	RIFLE 5.56MM M16A1
54	V13101	TK M60A1 RISE/PASSIVE

4. Other.

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
12	B83582	BOAT BR EREC DSL ENG
1	F77651	DATA ANA OL-88/MYK-8V
66	L28351	KITCHEN FLD TLR MTD
16618	M11895	MASK FLD ABC-M17A1
1528	N04456	NIGHT VIS GL AN/PVS-5
678	N04732	NI VI AN/PVS-4 W/ING
5	Q15414	RADAR ST AN/MPQ-4A LP
25	Q16110	RADAR SET AN/PPS-5ALP
592	Q34308	RADIO SET AN/GRC-160
555	Q38299	RADIO SET AN/PRC-25
474	Q53001	RADIO SET AN/VRC-46
433	Q54174	RADIO SET AN/VRC-47
50	Q90120	R TT AN/GRC-1428LP/LA
36	Q92894	RDO TM S AN/TRC-145P
12	R78062	RPT S RD AN/TRC-113LP

<u>QUANTITY</u>	<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
32	S74832	STLR VAN STOR M750
235	U01295	SPCH SEC EQ TSEC/KY28
608	U01305	SPCH SEC EQ TSEC/KY38
889	W95400	TLR CGO 1/4TON M416
552	W95811	TLR CGO M105A2
40	X23277	TRANSPORTER BRDGE FLO
331	X39940	TRK CGO 1-1/4T M561
529	X40009	TRK CGO 2 1/2T M35A2
189	X40146	TRK CGO 2 1/2T M35A2
63	X40831	TRK CGO 5T 6X6 M813
50	X41310	TRK CGO 5T 8X8 M656
10	X41327	TRK CGO 5T 8X8 M656WW
29	X41615	TRK CGO 8T 4X4 M520
34	X43708	TRK DUMP 5T 6X6 M817
21	X48914	TRK LF DD MDL MLT6-2
62	X59326	TRK TRAC M818
890	X60833	TRK UTIL 1/4T M151A2
14	X62237	TRK VAN EXP 5T M820
50	X62340	TRK VAN SHOP M109A3
35	X63299	TRK WKR M816 W/WN
6	X63436	TRK WKR 10T 4X4 M553
107	Y03104	VIEWER INFR AN/PAS-7

TABLE A-35
COST DRIVERS
(THOUSANDS OF FY 80 DOLLARS)
LIGHT INFANTRY DIVISION

COST CATEGORY	NON- RECURRING	ANNUAL RECURRING	20 YEAR COST	% OF EQUIP FILES 20 YEAR COST	% OF DIVISION'S 20 YEAR COST
ROLLAWAY/FLYAWAY	406662.	--	406662.	21.4	4.2
PTRF	--	5522.	110440.	5.8	1.1
OP READ FLOAT	26225.	--	26225.	1.4	0.3
REPAIR CYCLE FLOAT	19551.	--	19551.	1.0	0.2
SSILES	--	1869.	37380.	2.0	0.4
PROCURE OF AMMO	--	12339.	246780.	13.0	2.5
REPAIR PARTS & SEL ITEMS	30480.	14094.	312360.	16.5	3.2
DIRECT OMA PROG 2	4067.	12977.	263607.	13.9	2.7
A PROG 7(S) (WT FACTOR)	12511.	--	12511.	0.7	0.1
OMA PROG 7(M) (DEPO MAINT)	--	7391.	147820.	7.8	1.5
TOTAL	499,496.	54,192.	1,583,336.	83.5	16.2

TABLE A-36
MAJOR COST DRIVER EQUIPMENT LIST

1. Aircraft and major aircraft support systems.

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
A90437	ARM SS HCP 40MM M28A1
K29694	HCPTR ATTACK AH-1S
K30548	HCPTR ECM EH-1H
K31042	HCPTR OBSN OH-58A
K31795	HCPTR UTILITY UH-1H

2. Missiles and major missile support systems.

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
D11681	CARRIER GM EQP LES WE
G22933	DSPLY SET TGT DATA FR
J95533	GM STM INCPT AER M48
L45740	LNCHR TBLR GM M220A1
M66857	MONITORING ST AN/TSQ
M75714	MT TPD MG 7.62MM M122
Q16046	RADAR AN/MPQ-49 XO-1
T14440	SHP EQ AN/TSM-95 XO-3
T14441	SHP EQ AN/TSM-96 XO-4
T45627	SGHT SYS ANTIOS M76
V79132	TEST SET GM LAUNCHER
V79430	TEST SET AN/TSM-114
V83998	TEST ST RDR AN/MPM-57
W00869	TEST STA GM AN/TSM-93
W80715	TRKR IR GM SU36(XO-1)
X04518	TRNG SET GM STM M76
X04584	TRNG SET GM STM M70
X45317	TRUCK GM 10398963
X45549	TRUCK GM EQUIP

3. Weapons and tracked combat vehicles.

<u>LINE ITEM NUMBER</u>	<u>NOMENCLATURE</u>
A93125	ARAAV M551A1 FT 152MM
D10726	CARR 82MM MORT M125A1
D10741	CARR MORT M106A1
D11049	CARR CGO FT 6TON M548
D11538	CARR CMND POST M577A1
D12087	CARRIER PERS M113A1

LINE ITEM NUMBER

E56578
E76866
J96694
K56981
K57392
K57667
K57821
L91838
L91975
L92112
L92386
M68282
R50544
R50681
R94977
V13101
W32730

NOMENCLATURE

COMBAT ENG VEH M728
COMPTR GUN DIRECT M18
GUN AIRDEF AR SP M163
HOW HV SP FT 8IN M110
HOWITZER LT TWD M102
HOW SPFT 155MM M109A3
HOW MED TWD 155MM M198
MG CAL .50 FLEX M2
MG 50 M2 HB FLEX GRND
MG CAL .50 M85 FIXED
MG 7.62MM M60
MORTAR M30 W/MT M24A1
REC VEH FT LT AR M578
REC VEH FT MED M88A1
RIFLE 5.56MM M16A1
TK M60A1 RISE/PASSIVE
S/E AUTO M-R OM CM 2

4. Other.

LINE ITEM NUMBER

B83582
C20414
F77651
J04717
L28351
L43664
L76556
M11895
N04456
N04732
Q15414
Q16110
Q34308
Q38299
Q45779
Q53001
Q54174
Q56783
Q90120
Q92894
R78062
S66941
S72024

NOMENCLATURE

BOAT BR EREC DSL ENG
BRIDGE AVLSC60-60 FT
DATA ANA OL-88/MYK-8V
FUEL SYS SUP PT
KITCHEN FLD TLR MTD
LAUNCH M60 SERIES TNK
LDR SCOOP AC 645M
MASK FLD ABC-M17A1 L
NIGHT VIS GL AN/PVS-5
NI VI AN/PVS-4 W/IMG
RADAR ST AN/MPQ-4A LP
RADAR SET AN/PPS-5ALP
RADIO SET AN/GRC-160
RADIO SET AN/PRC-25
RADIO SET AN/VRC-12
RADIO SET AN/VRC-46
RADIO SET AN/VRC-47
RADIO SET AN/VRC-64
R TT AN/GRC-142BLP/LA
RDO TM S AN/TRC-145LP
RPT S RD AN/TRC-113LP
SEARCLGT IN AN/VSS-3A
STLR STAKE M127A2C

LINE ITEM NUMBERNOMENCLATURE

S72188	STLR TK 5000 GAL M857
S74832	STLR VAN STOR M750
U01295	SPCH SEC EQ TSEC/KY28
U01305	SPCH SEC EQ TSEC/KY38
U58881	SUPSTR TRANSPTR T52703
W95400	TLR CGO 1/4TON M416
W95811	TLR CGO M105A2
X23277	TRANSPORTER BRDGE FLO
X39432	TRK CGO 1-1/4T M880
X39940	TRK CGO 1-1/4T M561
X40009	TRK CGO 2 1/2T M35A2
X40146	TRK CGO 2 1/2T M35A2
X40794	TRK CGO D/S M813A1
X40831	TRK CGO 5T 6X6 M813
X41310	TRK CGO 5T 8X8 M656
X41327	TRK CGO 5T 8X8 M656WW
X41615	TRK CGO 8T 4X4 M520
X43708	TRK DUMP 5T 6X6 M817
X48914	TRK LF DD MDL MLT6-2
X58078	TRK TK FUEL SVC M559
X58093	TRK TK FUELSVC M559WW
X59326	TRK TRAC M818
X60833	TRK UTIL 1/4T M151A2
X62237	TRK VAN EXP 5T M820
X62340	TRK VAN SHOP M109A3
X63299	TRK VKR M816 W/WN
X63436	TRK WRK 10T 4X4 M553
Y03104	VIEWER INFR AN/PAS-7