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OCT 76 J BERCOS, J R CHIORINI, R C EAKINS

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16 October 1976

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# Final Report

## Reserve Component Unit Evaluation Analysis

### Volume II

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Prepared for the  
Department of the Army  
Contract DAAG 39-75-C-0135

16 October 1976

## FINAL REPORT

### RESERVE COMPONENT UNIT EVALUATION ANALYSIS

### VOLUME II

by  
James Bercos  
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## ABBREVIATIONS

AA	Active Army
AEC	Average Evaluation Cost
AEC52	Average Evaluation Cost - for AT 75 at level 2
AM	Ammunition
AR	Armor
ARTEP	Army Training and Evaluation Program
AT	Annual Training
ATT	Army Training Test
Bn	Battalion
C-E	Cost-Effectiveness
COR	Contracting Officer's Representative
DA	Department of the Army
DCSCOM	Deputy Chief of Staff, Comptroller
DCSLOG	Deputy Chief of Staff for Logistics
DCSOPS	Deputy Chief of Staff for Operations and Plans
DCSRDA	Deputy Chief of Staff for Research, Development and Acquisition
DS	Direct Support
EC	Evaluation Cost
ECD	Evaluation Cost Based on ARTEP document
ECD63	Evaluation Cost Based on ARTEP document for AT 76 at level 3
EG	Evaluator Group

EM	Enlisted Men
EU	Evaluated Unit
FA	Field Artillery
FORSCOM	United States Army Forces Command
FTX	Field Training Exercise
FY	Fiscal Year
GS	General Support
H	Headquarters (Company/Battery)
IDT	Inactive Duty Training
IN	Infantry
IN(M)	Mechanized Infantry
JP4	Jet Fuel
L	Level Tested
L1, 2, 3	Levels 1, 2 and 3
MOGAS	Motor Gasoline
MP	Military Police
MT	Maintenance
MTC	Maneuver Training Command
NATO	North Atlantic Treaty Organization
NCO	Noncommissioned Officer
NGB	National Guard Bureau
O	Officer
PD	Per Diem
PL, POL	Petroleum, Oils and Lubricants
PR	Personnel

RC	Reserve Component
S	Combat Support Company or Service Battery
SA	Sensitivity Analysis
SAA	Sensitivity Analysis - Ammunition
SAG	Study Advisory Group
SAM	Sensitivity Analysis - Maintenance and POL
SAP	Sensitivity Analysis - Personnel
SAR	Sensitivity Analysis - RC Personnel
SAT	Sensitivity Analysis - Travel and Per Diem
SP	Self-Propelled
TI	Technical Inspection
TK	Tank
TRADOC	US Army Training and Doctrine Command
TV	Travel
TY	Training Year
USAF	United States Air Force
WO	Warrant Officer

## ANNEX A

### ARTEP EVALUATION COST

This annex presents detail in support of the discussions and analysis based on evaluation cost in the main report (Vol. I). The annex consists of the annex proper and two appendixes. The annex proper identifies the cost elements that in the aggregate constitute ARTEP evaluation cost, discusses data collection, explicates the methodology used to derive estimates of ARTEP evaluation implementation option costs for each type ARTEP used in the AT 75 and AT 76 Reserve Component ARTEP evaluation program, analyzes cost differences, and provides two estimates of the annual cost of an RC ARTEP evaluation program involving all the units in a given NATO contingency deployment list.

Appendix 1 contains tables of AT 75 cost data to supplement the information in the annex proper; and Appendix 2 similarly contains tables of AT 76 cost data.

## Annex A

### ARTEP EVALUATION COST

#### 1. Introduction

a. General. This annex presents a detailed discussion of the cost data collection and analysis effort and an explication of the methodology used to develop cost estimates for Reserve Component unit ARTEP evaluations conducted during annual training (AT) 1975 and AT 1976. Congressional interest in the Army's combat readiness, the Army's concern for the cost of training exercises to produce readiness and the Army's cost systems appeared to make the assembly of cost data for ARTEP evaluations a routine task. However, despite the generation of significant amounts of cost information and on-going costing efforts by the U.S. Army, not all the cost data required for the Reserve Component Unit Evaluation Analysis (Cost-Effectiveness) study were available in fact, or in usable form.

b. Cost Data Requirements. The cost data to be collected were identified with the assistance of cognizant headquarters and agencies. Both investment and operational costs for ARTEP evaluations were sought. No data for investment cost were identified for either annual training year. The operational cost considered included Operation & Maintenance and Military Personnel for Army, National Guard and Army Reserve as well as Procurement of Ammunition, Army funds.

c. Excluded Cost. Initial planning included the determination of a base cost for Army Training Tests (ATT) now replaced by ARTEP. When, however, it soon became apparent that base cost was not available the concept of an ARTEP evaluation cost was developed. As defined (see paragraph 5b) ARTEP evaluation cost does not include cost judged common to all type evaluations (such as ATT, Operational Readiness Training Tests, ARTEP). Accordingly, the following type costs were excluded from the Cost-Effectiveness (C-E) analysis.

(1) Personnel cost for the evaluated RC unit and RC evaluators, because personnel are paid for AT whether they participate in evaluation or simply train.

(2) Travel and Per Diem for the RC unit being evaluated, because travel is necessary for the required attendance at AT.

(3) Meal cost incurred for rations are consumed at AT regardless of activity.

(4) Evaluator training cost, because such training is conducted regardless of the type evaluation.

(5) Self service supply center cost, because such support is required for any evaluation.

(6) Medical support cost, because such support is required for any evaluation.

(7) Personnel cost for the aggressor force because of the training value in this type duty.

2. Guidance and Assumptions.

a. Guidance. The approach to the study and the C-E analysis methodology were outlined in the First Interim Report dated 15 May 1975 and the Second Interim Report dated 15 March 1976.

(1) At the Study Advisory Group (SAG) meeting on 10 June 1975 to review the First Interim Report, it was agreed that additive cost rather than total cost was probably more determinable, a sensitivity analysis be conducted to identify additional cost incurred by units having to travel to sites more distant than their normal AT sites, and that D+60 NATO contingency deployment would be used as a discriminator for programming Reserve Component unit evaluations. Consultations with DA DCSOPS and DCSLOG led to obtaining the acquisition cost of ammunition items from the Deputy Chief of Staff for Research, Development, and Acquisition (DCSRDA) and the Fiscal Year (FY) 1977 budget figures for petroleum (POL) cost.

(2) The SAG meeting of 29 March 1976 was held to review the Second Interim Report. The SAG requested sensitivity analysis regarding RC evaluator and support personnel cost and inclusion of a comparison of AT 75 and AT 76 costs for the final report.

b. Assumptions. The costing of personnel support for ARTEP evaluations for the evaluation planning group, evaluators, and support personnel was accomplished using standard military labor rates. The evaluated unit, RC evaluator and aggressor personnel were not costed. That some efficiencies are realized for biennial evaluations is acknowledged; conversely, quadrennial evaluations result in higher start-up cost. Because these proficiency gains and losses are dependent on the source and qualification of personnel as well as the personnel turnover rate, a linear cost discrimination was assumed between biennial, triennial and quadrennial evaluations.

### 3. Cost Elements.

a. Elements. The elements of cost for which data were collected were developed in cooperation with cognizant headquarters and agencies and are identified in Table A-1; Tables begin on page A-28. The cost data elements are operational in nature; no investment costs were identified for the evaluations in either AT 75 or AT 76.

b. Operational Cost. Six elements of operational cost were identified: Personnel, Travel, Per diem, POL, Maintenance and Ammunition to support the evaluation. Cost data collection is necessary for the planning evaluation headquarters responsible for the conduct of the evaluation and writing the scenario; the evaluator group; support personnel such

as drivers, radio operators, range personnel; the threat force (aggressor) personnel; the evaluated unit; attached and supporting units. Personnel data is reportable by the number of personnel by category (O, WO & EM) and man-days by rank. Travel and per diem costs are necessary for personnel who must travel to the evaluation site. POL consumed is accumulated in gallons by type - MOGAS, DIESEL and jet fuel (JP4). The maintenance cost is identified as the cost of the repair parts used during the evaluation and as a result of the post evaluation technical inspection. Ammunition is reportable by type and quantity utilized during the evaluation.

4. Data.

a. Sources. As planned at the outset of the study, the C-E analysis was dependent on the availability and use of existing data to determine the base (ATT) costs. Visits made to arrange for and collect such cost data are listed in Tables A-1-1 for AT 75 and A-2-1 for AT 76. During these visits the necessity to collect data was reviewed, the need for accurate data was explained, and definitions of data elements were clarified. The visits indicated that a detailed cost feedback system to identify the specific cost elements by unit and specific tactical exercises for RC units is nonexistent. The assistance of the tactical units was sought to collect the data elements necessary for the study.

b. Quantity. Cost-effective analyses in general require large amounts of information; this study required data which the existing cost

feedback system does not accumulate. Headquarters, FORSCOM and the National Guard Bureau assisted in coordinating the collection effort. The AT 75 study plan identified 81 elements of data, 54 from the Active Army (6 elements for 9 evaluations during AT 75) and 27 from the National Guard (3 elements for the 9 evaluations) to be collected. The National Guard obtained all the data and the Active Army collected 46 elements of data (see paragraph 5b). The AT 76 study plan identified 729 data elements, 486 from evaluator groups (Active Army, Maneuver Training Command, and RC) and 243 from evaluated units.

c. Quality. The completeness and accuracy of the data were important because of the data projection to average type battalion costs and the need to extrapolate to all RC units in the Army. The quality of data varied accordingly as data were available and as definitions and collection instructions were understood. Thus, direct comparability in all cases was not feasible. Visits to Fort Hood, Fort Carson and Fort Lewis established that reportable maintenance cost would be incomplete. The cost system for direct support (DS) and general support (GS) maintenance shops charged the shop and not the unit receiving the support so this data was not available. However, a register was to be kept on spare parts provided to RC units so that data could be made available. Here, the maintenance data reported would be for spare parts used during the evaluation period and as the result of the post evaluation technical inspection (TI). Nonetheless, since during the tactical portion of the exercise the primary effort is on keeping vehicles rolling, the maintenance costs collected might not be realistic.

d. Data Utilization. FY 77 budget prices for POL were obtained from DA DCSLOG to filter out the change in actual cost and to project future cost. Likewise acquisition cost of items of ammunition were obtained from DCSRDA to project more realistically the cost for future ARTEP evaluations rather than use the actual cost of ammunition consumed. Telephone communication was maintained with the data collectors to clarify and explain the data received. The data received were priced and extended where necessary. The data were tabulated for each evaluation, segregating Evaluated Unit (POL, maintenance and ammunition) and Evaluator Group (personnel, travel, per diem, POL, maintenance and ammunition) cost. Extreme values were eliminated from further consideration, or where practicable more realistic estimates were substituted. In addition, the cost data were normalized to facilitate comparisons. This treatment of the data will be identified and explained in the following discussion of evaluation cost.

5. Evaluation Cost.

a. General. Visits to Headquarters, FORSCOM and to the posts and divisions where evaluations were to take place failed to identify satisfactory cost data for RC battalions being evaluated against the ATT. The use of available incomplete base case data would reduce the creditability of any cost estimates established. Even though evaluation cost was to be collected, soft base cost data would make the additive cost suspect. The data collection effort designed to capture the cost of AT 75 and AT 76 evaluations was to provide current actual data for the personnel support, POL, ammunition, maintenance, travel and per diem. The concept of evaluation cost for type battalions was developed for costing ARTEP evaluations, identifying cost for evaluations at level 3,

and projecting the cost for each option. The concept provides the ability to extrapolate the additive cost for type battalions for the entire Reserve Component system.

b. Definition. The evaluation cost is designed to identify the cost to support an ARTEP evaluation. Evaluation cost (EC) for type battalion was calculated as the sum of all cost elements (EG being evaluator group and EU the evaluated unit) as applicable and provided:

$$EC = AM (EG \& EU) + MT (EG \& EU) + PD (EG) + PR (EG) + PL (EG \& EU) + TV (EG)$$

Following are definitions of each data element and the rules for how the data were used to derive evaluation cost.

(1) Ammunition. Ammunition (AM) items required for the evaluation were costed with acquisition cost as received from DCSRDA.

(2) Maintenance. Maintenance (MT) cost was limited to the cost of repair parts utilized during the evaluation and after post evaluation TI.

(3) Personnel. The cost of personnel (PR) support by the Evaluator Group, except the aggressor, was used in consideration of the effect on Active Army unit readiness and personnel nonavailability for normal duties. The cost of evaluator support by the evaluated unit or by other RC units was not considered because attendance at AT accrues cost whether or not an evaluation takes place. The cost of the aggressor unit whether Active Army or RC, was not considered because of the excellent training received while playing the role of aggressor. Maneuver Training Command (MTC)

personnel support applied only for evaluators because the task of scenario preparation would probably be handled during inactive duty training (IDT). The MTC normally does not provide support personnel for evaluations.

(4) Petroleum, Oil and Lubricants. The quantities of petroleum (PL) products - MOGAS, DIESEL, and JP4 - consumed for the evaluation were multiplied by the FY 77 budget costs as provided by DA DCSLOG.

(5) Travel. The cost of travel (TV) for personnel required to support the evaluation was dollar value or PL consumption as reported.

(6) Per Diem. Per diem (PD) for personnel necessary to support the evaluation was accumulated by numbers of officer and enlisted personnel times the number of days in a travel status.

c. Evaluation Cost Models. Using the EC formula and rules cited above, the following evaluation costs were developed: average AT 75 evaluation cost (AEC5), evaluation cost based on the ARTEP document (ECD)\*, average AT 76 evaluation cost (AEC6).

(1) Average AT 75 evaluation cost (AEC5) for three type battalions - Mechanized Infantry, Tank, and Field Artillery - evaluated at level 3 by Active Army evaluators were derived with reported PL and ammunition consumption projected on acquisition cost.

(2) Evaluation cost based on the ARTEP document for AT 75 (ECD5) was developed for all evaluator sources (AA, RC, MTC and mixes)

\* ECD developed as part of the AT 75 program are designated ECD5; those for AT 76 ECD6. A 2 or a 3 after the 5 or 6 in these abbreviations designate, respectively, level 2 or level 3 evaluation.

for level 3 (level 2 for FA) and level 2 (level 1 for FA). The ECD were based on averages of the actual AT 75 evaluation costs of PL and maintenance, and on estimates for personnel and ammunition in accordance with numbers and quantities recommended in the ARTEP document. Travel and per diem were computed for personnel traveling to the specific AT 75 sites.

(3) Average AT 76 evaluation cost (AEC6) was developed similarly as AEC5. AT 76 data include MTC and RC evaluator cost experience as well as cost for Active Army evaluators.

(4) Evaluation cost based on the ARTEP document for AT 76(ECD6). Based on experience gained during TY 1974-75 and on recommendations in the TRADOC/FORSCOM ARTEP Validation Report changes were introduced into ARTEP documents used for AT 76 evaluations. Also during AT 76, ARTEP not used during AT 75 were employed (e.g., Maintenance, Military Police, Infantry, and 105 mm Towed Field Artillery). ECD6 for all these ARTEP were developed similarly as the ECD5.

#### 6. AT 75 Evaluation Cost

a. Average AT 75 Evaluation Cost (AEC5). During AT 75 nine RC battalion evaluations with AA evaluators were conducted as a part of the FORSCOM/TRADOC validation program. Cost data as reported for these evaluations are shown in Tables A-1-2 to A-1-4. From these data, average AT 75 costs were developed for three type battalion evaluations - Infantry (M), Tank, and 155 (SP) Field Artillery - at level 3 (one FA at level 1).

Averages for both EG and EU were obtained by adding available data and dividing by the number of type units reporting. See Table A-1-5 to A-1-7.

(1) Ammunition. The quantities of ammunition items actually used during evaluations as reported were costed using the DCSRDA cost. The 1/303 AR Bn could not use pyrotechnics or blanks because of the potential for fire which existed at Yakima Firing Center; on the other hand, the 1/303 was the only Tank battalion to fire tank weapons in the AT 75 program. The 1/195 AR Bn cost does not include 4.2 in. mortar ammunition, but does include aggressor support by Troop E, 67th Cavalry. Ammunition data was not available for Active Army evaluators participating in the 1/123 AR, 3/117 IN (M), 1/134 IN (M) and 1/168 FA battalion evaluations.

(2) Maintenance. Cost provided was for a battalion level 3 evaluation in the context of a battalion Field Training Exercise (FTX) including the battalion slice support to each company. The actual spare parts cost was based on the actual number of vehicles utilized by the RC units. In that the maintenance cost reported by most RC units did not include the cost of DS and GS maintenance shop support, the estimated figures reported for the 81st Brigade provided average costs nearer actual maintenance costs for the battalions. EG cost for maintenance was unavailable for the 3/117 IN (M) and 1/123 AR evaluations.

(3) Personnel. The personnel support provided the RC units during AT 75 was greater than required by the ARTEP for two compound

reasons: all the RC units were affiliated, two battalions were roundout, all had Active Army support, and seven of the nine evaluations took place at Active Army installations; AT 75 evaluations were the first for RC units and the overall effort was designed to validate the documents. Thus, it may be that less personnel support will be provided future evaluations, more in line with the ARTEP. The stratification of personnel data was not uniform, so comparisons concerning the various types of personnel support were deemed infeasible. Average personnel cost for the AT 75 evaluations applied only to Active Army evaluators. The personnel support for the 1/134 IN (M) battalion evaluation included home station support of the affiliation program.

(4) POL. Petroleum products used during the AT 75 evaluations were costed using the FY 77 cost rates supplied by DA DCSLOG. The cost for 1/195 AR battalion evaluation includes aggressor support by Troop E, 67th Cavalry. EG cost was unavailable for the 3/117 IN (M) and 1/123 AR battalion evaluations.

(5) Travel and Per Diem.

(a) Travel cost was reported as actual total dollars or as actual POL consumed to move personnel required to support the evaluation. Cost for the 1/11 IN battalion includes \$26,636 for USAF C-141 support.

(b) Per diem was the amount actually paid for personnel who had to travel to support an ARTEP evaluation.

b. Evaluation Cost Based on the ARTEP Document. The evaluation cost based on the ARTEP document for AT 75 (ECD5) was under development concurrently with the collection and tabulation of AEC cost data. The ECD were developed by type battalion for level 3 (ECD53) and level 2 (ECD52), Tables A-1-8 to A-1-10, for all evaluator sources. Each ECD was accumulated as follows:

(1) Ammunition. The ammunition items prescribed in the ARTEP documents used for AT 75 evaluations were costed for levels 3 and 2 (see Tables A-1-11 to A-1-13) using the DCSRDA rates.

(2) Maintenance. The maintenance cost developed for the AT 75 evaluations was used as being the best available estimate.

(3) Personnel. The number of evaluators and support personnel by rank to support the evaluations was costed by standard military labor rates for levels 3 and 2 (see Tables A-1-14 to A-1-16).

(a) AA - evaluator and support personnel were costed.

(b) RC - personnel were not costed because the RC personnel are required to attend AT. Personnel contacted at RC headquarters advised that they would handle an evaluation within their own resources with personnel at AT at the time of the evaluation.

(c) MTC - normally will not provide support personnel.

(d) Mix AA+ - utilized 75% of the AA cost, 12.5% of the

RC cost (0), plus 12.5% of the MTC cost.

(e) Mix RC+ - utilized 25% of the AA cost and 75% of the RC cost.

(f) Mix Equal - utilized 50% of the AA cost, 25% of the RC cost, and 25% of the MTC cost.

(4) POL. POL consumption based on the actual number of vehicles utilized by the RC units for the AT 75 evaluations was utilized as the best available estimate.

(5) Travel and Per Diem.

(a) Travel. Travel cost was projected by the number of personnel required to support the AT 75 evaluations at the actual sites and the 15 June 1975 Official Airline Guide rates as outlined in paragraph 5d above. (See Tables A-1-17 to A-1-19).

(b) Per Diem. Per diem costs were developed similarly for the number of officers and enlisted men on temporary duty away from home station to support evaluations. (See Tables A-1-20 to A-1-22).

(6) Option Cost. The ECD estimated the cost by evaluator source and ARTEP evaluation level for battalion evaluations. It was necessary to derive EC across all frequencies of evaluation to complete the cost estimates for all 36 options. Because proficiency gains for biennial evaluations and losses for quadrennial evaluations are dependent on

source of evaluator and evaluator qualification, as well as turnover rate, a linear cost discrimination was assumed between biennial, triennial and quadrennial evaluations. See ECD5 by option in Table A-1-23.

c. ARTEP Document Analysis

(1) The ARTEP.

(a) ECD53 and ECD52. The three ARTEP documents for which data were collected during AT 75, 7-45 for Mechanized Infantry Battalion, 17-35 for Tank Battalion, and 6-365 for Field Artillery 155 (SP) Direct Support Units were analyzed. The analysis costed all evaluators and support personnel. The ECD5 for a Mechanized Infantry battalion ARTEP evaluation at level 2 is 6.4% above the ECD53; for a Tank battalion the ECD52 is 39.5% greater than the ECD53; and for a Field Artillery battalion the ECD52 is 1.194 times the ECD53. See Table A-1-24.

(b) ECD53 and AEC53. The average AT 75 costs of evaluations with AA evaluators, AEC53 and ECD53, were compared. The Mechanized Infantry AEC53 was 15.8% below the ECD53, while the AEC53 for Tank and Field Artillery battalions were 18% and 42.8% above the ECD53, respectively. The comparisons are shown in Table A-1-25.

(2) Data Element Analysis. The combined cost of ammunition and personnel support represented 84% and 78% of the Infantry and Tank evaluation ECD53, respectively, and 85% of the Field Artillery evaluation ECD52.

(a) Ammunition.

1 The cost of additional ammunition recommended in the ARTEP to support different evaluation levels varied between 2.7 and 54 percent. Table A-1-26 shows the cost of ammunition for a Mechanized Infantry battalion as \$49,347 for level 3 and \$50,664 for level 2, an increase of only 2.7%; the cost for level 1 is \$70,456 - 39% above the level 2 cost.

2 Ammunition used for AT 75 evaluations was compared with that recommended in the ARTEP document. Table A-1-27 reflects the ammunition cost for the four Infantry battalions evaluations averaged 37% less than the cost of the ammunition recommended in the ARTEP while the ammunition costs for the two Field Artillery battalions evaluations exceeded the cost of the ammunition recommended in the ARTEP by 69.6% and 117%.

(b) Personnel.

1 The affiliation and ARTEP validation programs raised the average battalion personnel cost for the AT 75 evaluations. Comparisons were made of the ARTEP suggested number of support personnel for the three evaluation levels. The Field Artillery ARTEP recommends the same personnel support for levels 2 and 1. Table A-1-28 shows the ECD53 for a Tank battalion evaluation is \$22,330 for evaluators and \$6,785 for support personnel for a total of \$29,115. The ECD52 total of \$33,095 is 13.7% greater than the ECD53.

2 The average cost of personnel support utilized for AT 75 evaluations was compared with that recommended by the ARTEP document. As shown in Table A-1-29, the personnel support component in the Field Artillery battalion AEC53 was \$25,927 or 26.4% above the ECD52 component of \$20,510.

3 Recommendations made in the Analysis of ARTEP Evaluator Tasks and Position Assignments (Annex C) introduce potential reductions in the cost of personnel support and per diem required for ARTEP evaluations. The Analysis recommends substitution of 12, 6 and 1 NCO for officer evaluators for the IN, TK and FA evaluations. For example, a captain's daily personnel rate is \$56/day compared to \$43/day for an E6; and per diem rates are \$8.30 and \$2.00, respectively; a potential savings of \$19.30 per day per substitution of qualified NCO for captains.

d. Sensitivity Analysis (SA). Analyses were made to determine the sensitivity of the total cost to changes in selected element costs.

(1) ECD Cost. Cost elements were varied  $\pm 10\%$  to allow for cost fluctuations or errors in the cost data. Variance analysis was based on comparisons of the 36 options ranked by cost.

(a) Tank Battalion. Four combinations of cost elements were varied by  $\pm 10\%$  to develop sensitized total costs. Sensitivity analyses were accomplished for personnel (SAP), ammunition (SAA), maintenance and POL (SAM), and travel and per diem (SAT). The set of 10 lowest cost options, see Table A-2, remained unchanged regardless of which element was

varied. There were, however, several shifts in rank among the 8 sets of top ten. Of 10 shifts among the 80 ranks, none was more than two positions. The proportion of the ECD by element, and the percent change in ECD with + 10% changes in element cost are:

<u>Cost Element</u>	<u>Percent of ECD</u>	<u>Percent change in ECD</u>
personnel	25.46	2.2975
ammunition	50.71	5.1583
maintenance & POL	18.98	2.0150
travel & per diem	4.85	0.4308

(b) Infantry Battalion (M). The cost elements varied were the personnel and ammunition which together represent 83% of the ECD. From the 10 lowest ECD options, see Table A-3, option 29 dropped when the SAP was decreased 10%, and the SAA was increased 10%; option 18 replaced option 29 in both cases. Two options shifted in rank; however, neither moved more than 2 positions. The proportion of the ECD by element, and the percent change in ECD with + 10% changes in element cost are:

<u>Cost element</u>	<u>Percent of ECD</u>	<u>Percent change in ECD</u>
personnel	22.42	2.0483
ammunition	<u>60.75</u>	6.2658
Total	83.17	
Other	16.87	

(c) Field Artillery (155 mm) Battalions. Personnel and ammunition which together represent 84% of the ECD were varied + 10%. The best ranked 10 options, see Table A-4, remained invariant as a set.

Although four of forty ranks changed, each shifted only 1 position. The proportion of the ECD by element, and the percent change in ECD with + 10% changes in element cost are:

<u>Cost element</u>	<u>Percent of ECD</u>	<u>Percent change in ECD</u>
personnel	21.63	2.1233
ammunition	<u>62.32</u>	6.3775
Total	83.95	
Other	16.05	

(2) RC Personnel. The SAG guidance included a requirement for SA on RC evaluator and support personnel costs (SAR). Charging RC personnel support negates the view that RC personnel cost is a sunk cost since RC personnel are required to attend AT whether or not their assignments are in support of an evaluation. Nonetheless, applying full RC personnel cost increased ECDs and caused shifts in the rank order of the ten lowest cost options, see Table A-5. The SAR shifted out from the lowest cost ten set options 11 and 29 for IN and FA, and option 27 for TK battalion evaluations. The SAR introduced into the lowest cost ten set option 3 and 18 for IN and FA, and option 5 for TK battalion evaluations.

(3) Travel. The SAG guidance also included a requirement for sensitivity analysis to identify additional cost incurred by units required to travel to ARTEP evaluation sites more distant than their normal AT sites. The concern for additional travel cost was allayed with the identification of 54 sites in the United States which meet ARTEP evaluations

requirements. The sites are discussed in a survey of major training sites (Annex D). The survey was based on an analysis of the maneuver area requirements for maneuver battalions and the equipment needed on site to permit an evaluation in accord with the ARTEP.

7. AT 76 Evaluation Cost

a. General.

(1) Average AT 76 Evaluation Cost (AEC6). A data collection program for AT 76 RC unit ARTEP evaluations (81 companies) was generated from the FORSCOM Tentative Schedule of Formal ARTEP Evaluations, TY 75-76. Two evaluations for eight ARTEP with each type evaluator group (AA, RC, and MTC) were included where possible. Data collected and available, as of the 15 September 1976, was received for 40 battalion evaluations. The treatment was generally as described in paragraph 6a; modifications are identified.

(a) Ammunition. The quantities of ammunition items reported used during evaluations were costed using the DCSRDA cost. Costs were obtained from SB700-20 where not available at DCSRDA.

(b) Maintenance. The spare parts reported used during the evaluation and as a result of the post evaluation technical inspection were costed. Where units did not include the item cost, the Army Master Date File was used.

(c) POL. Petroleum used during the evaluation was costed using FY 77 cost rates supplied by DA DCSLOG.

(d) Personnel. MTC evaluators were not costed if the evaluation took place during the MTC AT.

(e) Travel and Per Diem. MTC personnel who were evaluating as part of their AT had no travel or per diem cost.

1 Travel cost was reported air fare based on the Official Airline Guide of August 1, 1976 or as mileage travelled and the rate per mile.

2 Per Diem was that paid for the personnel supporting the evaluations.

(f) Data were not available for more than one complete battalion so the AEC was derived from the average of that battalion and a composite made up from companies and batteries.

(2) Evaluation Cost Based on the ARTEP Document. The evaluation cost for AT 76 based on the ARTEP document (ECD6) was under development concurrently with the collection and tabulation of AEC cost data. The ECD will be developed by type unit for level 3 (ECD63) for all ARTEP and for level 2 (ECD62) where the ARTEP were applicable to battalion; the Military Police and Maintenance companies were developed only for level 3 for all evaluator sources. Each ECD was accumulated as described in paragraph 6b.

(a) Ammunition. The ammunition items prescribed in the ARTEP documents used for AT 76 evaluations were costed using the DCSRDA rates. The Tank and Field Artillery (105mm) were changed in September 1975 with a result that the recommended quantities of ammunition are changed from those for AT 75 evaluations.

(b) Maintenance. The maintenance cost developed for the AT 76 evaluations was used as being the best available estimate.

(c) Personnel. The number of evaluators and support personnel by rank to support the evaluations was costed by standard military labor rates.

1 AA - evaluators and support personnel were costed for evaluations at AA sites, but the AA could not provide support personnel for all RC sites.

2 RC - evaluators were not costed because RC personnel are required to attend AT. RC units handled evaluations within their own resources with personnel at AT at the time of the evaluation during AT 76. Support personnel data was obtained to permit costing support personnel.

3 MTC - did not provide support personnel. Evaluator personnel were not costed if evaluation took place during their AT.

4 Mix AA+ - utilized 75% of the AA, 12.5% of the RC, 12.5% of the MTC evaluator cost plus the support personnel cost.

5 Mix RC+ - utilized 25% of the AA and 75% of the RC evaluator cost plus support personnel cost.

6 Mix Equal - utilized 50% of the AA, 25% of the RC, and 25% of the MTC evaluator cost plus the support personnel cost.

(d) POL. POL consumption for the AT 76 evaluations was utilized as the best estimate available.

(e) Travel and Per Diem.

1 Travel. Evaluator sources were costed by mileage or air rates in the August 1, 1976 Official Airline Guide.

2 Per Diem. Per diem costs were developed for the number of officers and enlisted men on temporary duty away from home station to support evaluations.

(f) Option Cost. The ECD estimated the cost by evaluator source and ARTEP evaluation level for ALL AT 76 evaluations for all eight ARTEP. It was necessary to derive EC for all frequency alternatives to complete the cost estimates for all 36 options (18 options for MP and MAINT company evaluations). Because proficiency gains for biennial evaluations and losses for quadrennial evaluations are dependent on source of evaluator and evaluator qualifications as well as turnover rate, a linear cost discrimination was assumed between biennial, triennial and quadrennial evaluations.

(3) ARTEP Document Analysis.

(a) ARTEP AEC63 and ECD63. The evaluation costs with AA evaluators, AEC63 and ECD63 are compared to determine how close the actual evaluations are coming to the ECD. AEC63 was also compared to ECD62.

(b) Data Element Analysis. The combined cost of personnel support and ammunition are the largest cost elements in the ECD and will be compared with the AEC for each ARTEP.

b. Field Artillery (155mm) - ARTEP 6-365.

(1) Average Evaluation Cost. Data were received from seven battalions but not received from the evaluator group for the three 1-147 battery evaluations nor for a headquarters battery. The need to have the cost for a HHB was handled by using the data for HHB of a 105mm battalion as the best available to determine the cost estimates found in Table A-2-2. The maintenance cost appears to be low because 7 of 13 batteries reported no maintenance cost.

(2) Evaluation Cost Based on the ARTEP Document. ECD is in Table A-2-3. The ammunition cost is in Table A-2-4. Since the ARTEP does not recommend ammunition except for the 155mm howitzer, the evaluator group ammunition was added. Personnel cost is in Table A-2-5, travel and per diem are in Table A-2-6 and option cost is in Table A-2-7.

(3) ARTEP Document Analysis.

(a) ARTEP Analysis. The comparison of ECD62 with ECD61 is in Table A-2-8. Evaluation cost at level 1 is 20% above the level 2 cost. AEC62 is compared with ECD62 in Table A-2-9 and the AEC is 12% below the ECD. Ammunition and personnel cost account for 92% of the ECD.

(b) Data Element Analysis. The AT 76 evaluations had ammunition cost below the ECD by 9% compared with AT 75 evaluations which exceeded the ECD by 93%. Personnel support cost (AEC) is 21% below the ECD.

c. Field Artillery (105mm) - ARTEP 6-105.

(1) Average Evaluation Cost. Data were collected from one complete battalion as the evaluations for another battalion were cancelled. Only headquarters battery reported maintenance cost. Data and AEC are in Table A-2-10. Personnel cost is only for support personnel as the division headquarters conducted the evaluation.

(2) Evaluation Cost Based on the ARTEP Document. ECD is in Table A-2-11. The ammunition used by the evaluator group was added to the ECD as the ARTEP recommends no ammunition other than for 105mm howitzers. Cost element tables are ammunition A-2-12, personnel A-2-13 and travel and per diem A-2-14. Option cost is in Table A-2-15.

(3) Document Analysis.

(a) ARTEP Analysis. The comparison of ECD62 with ECD61 is found in Table A-2-16. Evaluation cost at level 1 is 10% higher than level 2. AEC62 is compared with ECD62 in Table A-2-17 and the AEC is 12% above the ECD. Ammunition and personnel costs are responsible for 91% of the ECD.

(b) Data Element Analyses. Ammunition cost for the AT 76 evaluations exceeded the ECD by 127%. First year ammunition cost for field artillery (155mm) exceeded the ECD5 by 93% but it was 9% below the ECD6. The data are only for one battalion and it was the initial 105mm evaluations. AEC personnel support cost was only 3% of ECD due to the evaluator group being RC.

d. Maintenance (Forward Support Company) - ARTEP 29-17.

(1) Average Evaluation Cost. AEC and cost data for four battalions are in Table A-2-18. Units did report ammunition cost while the ARTEP recommends no ammunition. The MTC were at AT for the evaluations so there was no personnel cost.

(2) Evaluation Cost Based on the ARTEP Document. ECD is in Table A-2-19. Cost element tables are personnel A-2-20, travel A-2-21, per diem A-2-22. Option cost is in Table A-2-23. The ARTEP does not recommend ammunition.

(3) ARTEP Document Analysis. AEC63 is compared with ECD63 in Table A-2-24 and the AEC is only 26% of the ECD. Ammunition makes up 30% of the AEC while the ARTEP does not recommend ammunition. The personnel AEC is only 6% of the ECD which reflects the RC and MTC at AT evaluator groups.

e. Military Police - ARTEP 19-77.

(1) Average AT 76 Evaluation Cost (AEC6). Cost data and AEC for two Military Police company evaluations are in Table A-2-25. The low density of vehicles (seven  $\frac{1}{4}$  ton and five  $2\frac{1}{2}$  ton) may be responsible for only \$21.61 in maintenance cost for the two MP companies. Evaluator support for both MP companies was provided by a MTC while the RC battalion in both cases provided support personnel as well as the threat force. The threat force personnel were costed because it was not tactical training as it is in the other ARTEP.

(2) Evaluation Cost Based on the ARTEP Document. ECD6 is in Table A-2-26. The ammunition cost is in Table A-2-27. Personnel cost is in Table A-2-28. Travel and per diem is in Table A-2-29. Option cost is in Table A-2-30.

(3) ARTEP Document Analysis.

(a) ARTEP AEC63 and ECD63. The evaluation costs with AA evaluators, AEC63 and ECD63 were compared in Table A-2-31. The AEC63 was higher than the ECD63 by 8.9%. The combined cost of personnel support and ammunition represents 90% of the ECD63. The MP evaluations were the first in the program to be conducted by MTC. Future evaluations by MTC personnel may be closer to the ECD. The average personnel support cost was 19.7% above the ECD. The average ammunition cost of \$409 was 44% below the \$731 estimated cost of ammunition for the quantities recommended in the ARTEP.

(4) Sensitivity Analysis. Sensitivity analyses were made to determine the sensitivity of the total cost to changes in selected element costs.

(a) ECD Cost. The cost of personnel support (SAP) which was 80% of the ECD, was varied  $\pm 10\%$  to consider the effect on the ECD. The average change in ECD was 7.83% for the range of  $\pm 10\%$  changes in the personnel cost. The option ranks were invariant in this analysis. See Table A-6.

(b) RC Personnel. Analysis of the RC evaluator cost (SAR) was made. Full application of RC evaluator cost increased the ECD for evaluations

using RC evaluators by 50%, and affected the options rank order. Among ten lowest cost options all shifted position. See Table A-7. The first ranked, option 12, dropped to third place while the second ranked became first. Option 23 replaced option 10. As stated elsewhere the costing of RC evaluators represents a sunk cost because of the requirement for RC personnel to attend AT. ECD, therefore, is suitable for analytical processes in this study.

f. Mechanized Infantry - ARTEP 7-45.

(1) Average Evaluation Cost. Cost data and AEC for six battalions are in Table A-2-32. The maintenance cost appears low for a mechanized infantry battalion. Two companies reported no cost and another reported only \$25.

(2) Evaluation Cost Based on the ARTEP Document. ECD is in Table A-2-33. The AT 76 ammunition (see Table A-2-34) deleted the 20mm ammunition for M139 guns mounted on M113 and the claymore mines which are not consumable. Cost elements tables are personnel A-2-35, travel A-2-36 and per diem A-2-37 and option cost is in Table A-2-38.

(3) ARTEP Document Analysis.

(a) ARTEP Analysis. The comparison of ECD63 with ECD62 is in Table A-2-39. Evaluation cost at level 2 is 8% above the level 3 cost. AEC63 is compared with ECD63 in Table A-2-40 and the AEC is only 2% below the ECD. Ammunition and personnel cost make up 85% of the ECD.

(b) Data Element Analysis. The ammunition cost of AT 76 evaluations was 11% below the ECD6 compared to 37% below ECD5. The personnel AEC was only 2% below the ECD.

g. Infantry - ARTEP 7-15.

(1) Average Evaluation Cost. Cost data and AEC for nine battalions are in Table A-2-41. All MTC evaluator groups were at AT for the evaluations so the personnel were not costed.

(2) Evaluation Cost Based on the ARTEP Document. ECD is in Table A-2-42. Cost element tables are ammunition A-2-43, personnel A-2-44, travel A-2-45, per diem A-2-46 and option cost is in Table A-2-47. The per diem cost is high because all of the AT 76 evaluations were at RC installations.

(3) ARTEP Document Analysis.

(a) ARTEP Analysis. The comparison of ECD63 with ECD62 is in Table A-2-48. Evaluation cost at level 2 is 12% above the level 3 cost. AEC63 is compared with ECD63 in Table A-2-49 and the AEC is 25% below the ECD. Ammunition and personnel account for 84% of the ECD.

(b) Data Element Analysis. The ammunition cost for AT 76 evaluations was 25% below the ECD. The personnel AEC was 12% below the ECD.

h. Tank - ARTEP 17-35.

(1) Average Evaluation Cost. Cost data and AEC for three battalions are in Table A-2-50. Data were not received from A Company, 632 Armor Battalion. The companies of 2-252 Armor reported no ammunition expenditure for their evaluations.

(2) Evaluation Cost Based on the ARTEP Document. ECD is in Table A-2-51. Cost element tables are ammunition A-2-52, personnel A-2-53, travel A-2-54, per diem A-2-55 and option cost is in Table A-2-56.

(3) ARTEP Document Analysis.

(a) ARTEP Analysis. The comparisons of ECD63 with ECD62 is in Table A-2-57. Evaluation cost at level 2 is 145% above level 3 because of the large increase in ammunition expenditure recommended. AEC63 is compared with ECD63 in Table A-2-58 and the AEC is 62% below the ECD. Ammunition and personnel costs make up 79% of the ECD.

(b) Data Element Analysis. The ammunition cost for AT 76 evaluations was 64% below the ECD primarily because of the 2-252 Armor reporting zero ammunition expenditure. The personnel AEC was only 18% of the ECD.

i. Engineer - ARTEP 5-25.

(1) Average Evaluation Cost. Cost data and AEC for eight battalions and companies are in Table A-2-59. Data were not received from the evaluator group for the 122 Engineer Battalion, A Company, 820 Engineer Battalion, B Company, 242 Engineer Battalion, the 890 Engineer Company and the evaluator group nor the 103 Engineer Battalion. The 169 Engineer Company did not report any demolition expenditure. Ammunition expended was only \$16,313 compared to the ECD of \$114,681.

(2) Evaluation Cost Based on the ARTEP Document. ECD is in Table A-2-60. Ammunition cost is in Table A-2-61 and reflects \$76,847 for squad

and platoon missions. Cost element tables are personnel A-2-62, travel A-2-63, per diem A-2-64, and option cost is in Table A-2-65.

(3) ARTEP Document Analysis.

(a) ARTEP Analysis. The comparison of ECD63 with ECD62 is in Table A-2-66. Evaluation cost at level 2 is only 5% above ECD62. AEC63 is compared with ECD63 in Table A-2-67 and the AEC is only 16% of the ECD primarily because of the ammunition recommended which is 93% of the ECD.

(b) Data Element Analysis. The ammunition expended averaged only 14% of the ECD while the personnel cost represented only ½%.

8. RC System Cost.

a. Contingency Deployment. The SAG directed D+60 days be used as the RC unit discriminator for this study. The contract officer's representative (COR) made available a listing of units to be used to develop two preliminary costs for a RC evaluation program.

b. Approaches. With the available data a mini-max approach was employed.

(1) Minimum Cost. If fiscal concern is paramount, a minimum annual ECD based on quadrennial evaluations with RC evaluators is:

FA (155mm)	\$328,405	IN(M)	\$ 419,286
FA (105mm)	108,010	IN	354,406
MAINT	630	TK	476,379
MP	40,358	EN	<u>1,298,971</u>
	Minimum Cost=		\$3,026,445

(2) Maximum Effectiveness. If primary concern is the evaluation effectiveness, the annual ECD based on biennial evaluations with Active Army evaluators for combat arms type units and MTC evaluators for MP units is:

FA (155mm)	1,006,320	IN(M)	\$1,311,492
FA (105mm)	194,208	IN	1,368,647
MAINT	7,140	TK	1,386,456
MP	129,744	EN	<u>2,992,965</u>
Maximum Effectiveness Cost=			\$8,396,972

(3) The Engineer cost appears high because of excessive ammunition cost.

9. Other Concepts.

a. Opposing Forces within RC Unit. The AT 75 evaluation for 1-134 IN(M) used an A Company as the aggressor and simulated the reserve company. A Company was also evaluated in the battalion evaluation. The application appears appropriate when the RC unit will be evaluated at an RC post without benefit of AA support, and offers potential cost reduction particularly ammunition and POL. This approach was not used during AT 76.

b. Core Cost Concept. This concept considers the plateau of operational cost which should be fairly consistent evaluation to evaluation. This includes ammunition, maintenance and POL for both the evaluated unit and evaluator group. To this may be added the evaluation specific costs - personnel, travel and per diem considering source of personnel support and

the evaluation site. These costs could be "plugged in" for a specific evaluation and the attendant circumstances to provide an estimate for a specific ARTEP evaluation.

10. Findings and Summary.

a. Findings.

(1) Base cost data were not available for Reserve Component Army Training Test evaluations.

(2) No investment cost was reported in training years 75 or 76.

(3) The Army expense system does not provide maintenance data for direct support or general support of specific units.

(4) Ammunition and personnel cost represent 73% to 93% of the ECD with Active Army evaluators.

(5) The cost estimates sensitized were relatively invariant to cost element deviations of  $\pm 10\%$ .

(6) First year EC were high because of additional support and emphasis. For example, FA (155mm) evaluations for AT 75 utilized 93% more ammunition than recommended by the ARTEP while in AT 76 it was 9% below the ECD.

(7) The Engineer average consumption of ammunition is only 14% of the ECD; the ARTEP recommendations appear high.

b. Summary. The discussion and tables in this annex represent all the information relevant to the development of ARTEP evaluation cost. The cost estimates were derived from data available as of 15 September 1976.

Table A-1  
Cost Elements

Operational Cost

Personnel Required for Evaluations

Evaluation Headquarters

Evaluators

Aggressors

Support Personnel

Attached and Supporting Units

Travel

Per Diem

POL

Evaluated Unit

Evaluation Headquarters

Evaluators

Aggressors

Support Personnel

Attached and Supporting Units

Maintenance (repair parts) Cost

Ammunition

Table A-2  
 Summary ECD5 Sensitivity Analyses  
 Tank Battalions

Option	-10%					+10%					average variance in ECD with 10% change in component cost
	SAP	SAA	SAM	SAT	ECD	SAP	SAA	SAM	SAT		
6	9	9	9	9	9	9	9	9	9	9	
9	3	3	3	3	3	3	3	3	3	3	
11	4	4	4	4	4	4	4	4	4	4	
12	1	1	1	1	1	1	1	1	1	1	
18	10	10	10	10	10	10	10	10	10	10	
24	6	8	8	7	8	8	6	7	8	8	
27	7	6	6	6	6	6	7	6	6	6	
29	8	7	7	8	7	7	8	8	7	7	
30	2	2	2	2	2	2	2	2	2	2	
36	5	5	5	5	5	5	5	5	5	5	
	.02297	.05216	.02015	.00431							

Summary of data in Tables A-1-30 to A-1-33

Table A-3  
 Summary ECD5 Sensitivity Analyses  
 Mechanized Infantry Battalions

Option	-10%		ECD	+10%	
	SAP	SAA		SAP	SAA
8	6	6	6	6	6
9	2	2	2	2	2
11	5	5	5	5	5
12	1	1	1	1	1
18	10				9
24	8	9	9	9	8
27	4	4	4	4	4
29		8	8	8	
30	3	3	3	3	3
33	9	10	10	10	10
36	7	7	7	7	7

.02048 .06266

average variance in ECD with 10%  
 change in component cost

Summary of data in Tables A-1-34 to A-1-35

Table A-4  
 Summary ECD5 Sensitivity Analyses  
 155 (SP) Field Artillery Battalions

Option	-10%		ECD	+10%	
	SAP	SAA		SAP	SAA
6	10	10	10	10	10
9	3	3	3	3	3
11	4	4	4	4	4
12	1	1	1	1	1
18	9	9	9	9	9
24	8	8	8	8	8
27	6	5	5	5	6
29	7	7	7	7	7
30	2	2	2	2	2
36	5	6	6	6	5
	.02123	.06378		average variance in ECD with 10% change in component cost	

Summary of data in Tables A-1-36 to A-1-37

Table A-5  
ECD5 and SAR Option Ranks

Option	IN		TK		FA	
	ECD5	SAR	ECD5	SAR	ECD5	SAR
3		10				9
5				9		
6			9	3	10	3
8	6	5				
9	2	3	3	10	3	7
11	5		4	7	4	
12	1	1	1	1	1	1
18		8	10	6	9	6
21						10
24	9	6	8	4	8	4
27	4	7	6		5	8
29	8		7	8	7	
30	3	2	2	2	2	2
33	10	9				
36	7	4	5	5	6	5

Summarized from data in Tables A-1-38 to A-1-40

Table A-6

## ECD6 Sensitivity Analyses - Personnel SAP

## Military Police Companies

Option Number	Eval Source	Level	Freq	SAP -10%		ECD		SAP +10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	*	*	*	*	*	*
2	Act Army	Bn	Tri	*	*	*	*	*	*
3	Act Army	Bn	Quad	*	*	*	*	*	*
4	Act Army	Co	Bi	3,465	17	3,768	17	4,071	17
5	Act Army	Co	Tri	2,310	12	2,512	12	2,714	12
6	Act Army	Co	Quad	1,732	7	1,884	7	2,035	7
7	Res Comp	Bn	Bi	*	*	*	*	*	*
8	Res Comp	Bn	Tri	*	*	*	*	*	*
9	Res Comp	Bn	Quad	*	*	*	*	*	*
10	Res Comp	Co	Bi	2,190	10	2,374	10	2,559	10
11	Res Comp	Co	Tri	1,460	3	1,583	3	1,706	3
12	Res Comp	Co	Quad	1,095	1	1,187	1	1,279	1
13	Man Tng Cmd	Bn	Bi	*	*	*	*	*	*
14	Man Tng Cmd	Bn	Tri	*	*	*	*	*	*
15	Man Tng Cmd	Bn	Quad	*	*	*	*	*	*
16	Man Tng Cmd	Co	Bi	3,513	18	3,816	18	4,119	18
17	Man Tng Cmd	Co	Tri	2,342	13	2,544	13	2,746	13
18	Man Tng Cmd	Co	Quad	1,756	8	1,908	8	2,059	8
19	Mix AA+	Bn	Bi	*	*	*	*	*	*
20	Mix AA+	Bn	Tri	*	*	*	*	*	*
21	Mix AA+	Bn	Quad	*	*	*	*	*	*
22	Mix AA+	Co	Bi	3,299	16	3,587	16	3,876	16
23	Mix AA+	Co	Tri	2,199	11	2,391	11	2,584	11
24	Mix AA+	Co	Quad	1,649	5	1,794	5	1,939	5
25	Mix RC+	Bn	Bi	*	*	*	*	*	*
26	Mix RC+	Bn	Tri	*	*	*	*	*	*
27	Mix RC+	Bn	Quad	*	*	*	*	*	*
28	Mix RC+	Co	Bi	2,509	14	2,723	14	2,937	14
29	Mix RC+	Co	Tri	1,672	6	1,815	6	1,958	6
30	Mix RC+	Co	Quad	1,254	2	1,361	2	1,468	2
31	Mix Equal	Bn	Bi	*	*	*	*	*	*
32	Mix Equal	Bn	Tri	*	*	*	*	*	*
33	Mix Equal	Bn	Quad	*	*	*	*	*	*
34	Mix Equal	Co	Bi	3,133	15	3,430	15	3,680	15
35	Mix Equal	Co	Tri	2,089	9	2,287	9	2,553	9
36	Mix Equal	Co	Quad	1,567	4	1,715	4	1,840	4

\* MP ARTEP is written for company size units

Table A-7  
 ECD6 and SAR Option Ranks  
 Military Police Companies

Option Number	Eval Source	Level	Freq	ECD		SAR	
				\$	Rank	\$	Rank
1	Act Army	Bn	Bi	*	*	*	*
2	Act Army	Bn	Tri	*	*	*	*
3	Act Army	Bn	Quad	*	*	*	*
4	Act Army	Co	Bi	3768	<i>17</i>	3768	<i>17</i>
5	Act Army	Co	Tri	2512	<i>12</i>	2512	<i>11</i>
6	Act Army	Co	Quad	1884	7	1884	6
7	Res Comp	Bn	Bi	*	*	*	*
8	Res Comp	Bn	Tri	*	*	*	*
9	Res Comp	Bn	Quad	*	*	*	*
10	Res Comp	Co	Bi	2374	10	3562	<i>15</i>
11	Res Comp	Co	Tri	1583	3	2374	9
12	Res Comp	Co	Quad	1187	1	1781	3
13	Man Tng Cmd	Bn	Bi	*	*	*	*
14	Man Tng Cmd	Bn	Tri	*	*	*	*
15	Man Tng Cmd	Bn	Quad	*	*	*	*
16	Man Tng Cmd	Co	Bi	3816	<i>18</i>	3816	<i>18</i>
17	Man Tng Cmd	Co	Tri	2544	<i>13</i>	2544	<i>12</i>
18	Man Tng Cmd	Co	Quad	1908	8	1908	7
19	Mix AA+	Bn	Bi	*	*	*	*
20	Mix AA+	Bn	Tri	*	*	*	*
21	Mix AA+	Bn	Quad	*	*	*	*
22	Mix AA+	Co	Bi	3587	<i>16</i>	3587	<i>16</i>
23	Mix AA+	Co	Tri	2391	<i>11</i>	2391	10
24	Mix AA+	Co	Quad	1794	5	1794	4
25	Mix RC+	Bn	Bi	*	*	*	*
26	Mix RC+	Bn	Tri	*	*	*	*
27	Mix RC+	Bn	Quad	*	*	*	*
28	Mix RC+	Co	Bi	2723	<i>14</i>	2723	<i>13</i>
29	Mix RC+	Co	Tri	1815	6	1815	5
30	Mix RC+	Co	Quad	1361	2	1361	1
31	Mix Equal	Bn	Bi	*	*	*	*
32	Mix Equal	Bn	Tri	*	*	*	*
33	Mix Equal	Bn	Quad	*	*	*	*
34	Mix Equal	Co	Bi	3430	<i>15</i>	3430	<i>14</i>
35	Mix Equal	Co	Tri	2287	9	2287	8
36	Mix Equal	Co	Quad	1715	4	1715	2

\* MP ARTEP is written for company size units

Appendix 1 to Annex A

AT 75 ARTEP Evaluation Cost Data

Table A-1-1

1975 Coordination and Data Collection Visits

Pentagon	HQ DA - DCSOPS & PLANS DCSLOG DCSCOM DCSRDA NGB OCAR
Fort McPherson, GA	HQ FORSCOM - DCSOPS - DCSCOM
Fort Benning, GA	USACATB & USAIS
Nashville, TN	TN AG & USPFO
Cookeville, TN	3/117 IN (M)
Frankfort, KY	KY AG & USPFO
Fort Hood, TX	HQ III Corps - G3, G4 & DRC 1st CAV DIV 2nd AR DIV MASTER 1/123 AR 3/117 IN (M)
Fort Meade, MD	HQ First Army - DCSOI
Fort Carson, CO	G3, G4, COMPT, DRA 4th IN DIV (M) 1/195 AR 2/134 IN (M)
Yakima, WA	1/161 IN (M) 1/303 AR
Fort Lewis, WA	G3, G4, COMPT, DRCS 9th IN DIV 2/146 FA
Camp Murray, WA	WA AG & USPFO
Seattle, WA	81st Brigade (M)
Lincoln, NE	NE AG & 67th Brigade (M)
Camp Ripley, MN	1/134 IN (M) 867 EN Co

Table A-1-2.

Cost Data for AT 75 ARTEP Evaluations  
Mechanized Infantry Battalions

<u>EU Cost</u>	<u>3/117 IN</u>	<u>1/161 IN</u>	<u>2/134 IN</u>	<u>1/134 IN</u>
POL	\$ 4,597.94	\$ 2,504.99	\$ 1,480.04	\$ 2,037.07
Maint	1,022.60	5,000.00 <sup>a</sup>	724.63	653.80
Ammo	26,026.50	90,450.28	28,910.16	25,065.70
<b>EU TOTAL</b>	<b>\$31,647.04</b>	<b>\$97,955.27</b>	<b>\$31,114.83</b>	<b>\$27,756.57</b>
<u>EG Cost</u>	<u>2/50 IN</u>	<u>2/2 IN</u>	<u>1/12 IN</u>	<u>1/11 IN</u>
Personnel	\$33,452.00	\$121,390.00	\$35,258.00	\$46,472.00 <sup>b</sup>
Travel	0.00	1,363.25	0.00	27,266.00 <sup>c</sup>
Per Diem	0.00	553.50	0.00	10,200.00
POL	NA <sup>d</sup>	3,517.79	1,576.86	2,037.07
Maint	NA	0.00	2,166.97	501.63
Ammo	NA	3,264.55	5,389.64	NA
<b>EG TOTAL</b>	<b>\$33,452.00</b>	<b>\$130,089.09</b>	<b>\$44,391.47</b>	<b>\$86,476.70</b>
<b>TOTAL</b>	<b>\$65,099.04</b>	<b>\$228,044.36</b>	<b>\$75,506.30</b>	<b>\$114,233.27</b>

<sup>a</sup> Estimate.

<sup>b</sup> Includes preparation costs of \$36,041.

<sup>c</sup> Includes \$26,636 for USAF C-141.

<sup>d</sup> NA - not available.

Table A-1-3.  
 Cost Data for AT 75 ARTEP Evaluations  
 Tank Battalions

<u>EU Cost</u>	<u>1/123 AR</u>	<u>1/303 AR</u>	<u>1/195 AR</u>
POL	\$ 5,306.42	\$ 2,717.03	\$ 4,283.69 <sup>b</sup>
Maint	535.17	3,000.00 <sup>d</sup>	3,159.83
Ammo	16,789.34	79,820.82 <sup>ef</sup>	7,855.69 <sup>c</sup>
EU TOTAL	\$22,630.93	\$85,537.85	\$15,299.21 <sup>a</sup>
<u>EG Cost</u>	<u>2/67 AR</u>	<u>2/77 AR</u>	<u>1/70 AR</u>
Personnel	\$27,376.00	\$10,486.00	\$33,099.00
Travel	0.00	1,357.86	0.00
Per Diem	0.00	1,091.50	0.00
POL	NA <sup>g</sup>	900.56	2,997.00
Maint	NA	NA	526.31
Ammo	NA	0.00 <sup>f</sup>	2,910.30
EG TOTAL	\$27,376.00	\$13,835.92	\$39,532.61
TOTAL	\$50,006.93	\$99,373.77	\$54,831.82

<sup>a</sup> Includes aggressor Troop E, 167 Cavalry.

<sup>b</sup> Includes \$599.34 for aggressor.

<sup>c</sup> Includes \$2,655.02 for aggressor;  
 4.2 in. mortar ammunition not included.

<sup>d</sup> Estimate.

<sup>e</sup> Tank weapon ammunition only.

<sup>f</sup> Range conditions prohibited blanks and  
 pyrotechnics.

<sup>g</sup> NA - not available.

Table A-1-4.

Cost Data for AT 75 ARTEP Evaluations  
155 (SP) Field Artillery Battalions

<u>EU Cost</u>	<u>1/168 FA L3</u>	<u>2/146 FA L1</u>
POL	\$ 1,814.05	\$ 1,091.80
Maint	263.85	8,000.00 <sup>a</sup>
Ammo	49,333.53	88,142.64
EU TOTAL	\$51,411.43	\$97,234.44
<u>EG Cost</u>	<u>1/19 FA</u>	<u>1/11 FA</u>
Personnel	\$26,330.00	\$25,584.50
Travel	2,320.00	0.00
Per Diem	3,302.00	0.00
POL	839.77	131.36
Maint	31.62	0.00
Ammo	0.00	531.25
EG TOTAL	\$32,823.39	\$26,247.11
TOTAL	\$84,234.82	\$123,481.55

<sup>a</sup> Estimate.

Table A-1-5.  
Average AT 75 ARTEP Evaluation Cost - Level 3  
Mechanized Infantry Battalions

<u>EU Cost</u>	<u>3/117 IN</u>	<u>1/161 IN</u>	<u>2/134 IN</u>	<u>1/134 IN</u>	<u>Bn Avg. L3</u>
POL	\$ 4,597.94	\$ 2,504.99	\$ 1,480.04	\$ 2,037.07	\$ 2,655.00
Maint	1,022.60	5,000.00	724.63	653.80	1,850.00
Ammo	26,026.50	90,450.28 <sup>a</sup>	28,910.16	25,065.70	26,667.00
EU TOTAL	\$31,647.04	\$97,955.27	\$31,114.83	\$27,756.57	\$31,172.00
<u>EG Cost</u>	<u>2/50 IN</u>	<u>2/2 IN</u>	<u>1/12 IN</u>	<u>1/11 IN</u>	<u>Bn Avg. L3</u>
Personnel	\$33,452.00	\$121,390.00 <sup>a</sup>	\$35,258.00	\$33,335.00 <sup>b</sup>	\$34,015.00
Travel	0.00	1,363.25	0.00	10,388.00 <sup>c</sup>	2,937.00
Per Diem	0.00	553.50	0.00	10,200.00	2,688.00
POL	NA <sup>d</sup>	3,517.79	1,576.86	2,037.07	2,377.00
Maint	NA	0.00	2,166.97	501.63	1,334.00
Ammo	NA	3,264.55	5,389.64	NA	4,327.00
EG TOTAL	\$33,452.00	\$130,089.09	\$44,391.47	\$56,461.70	\$47,678.00
TOTAL	\$65,099.04	\$228,044.36	\$75,506.30	\$84,218.27	\$78,850.00 <sup>e</sup>

<sup>a</sup> Rejected as extreme.

<sup>b</sup> Reduced preparation cost to \$22,904.

<sup>c</sup> Commercial air rates.

<sup>d</sup> NA - not available.

<sup>e</sup> Based on actual data.

Table A-1-6.

Average AT 75 ARTEP Evaluation Cost - Level 3

Tank Battalions

<u>EU Cost</u>	<u>1/123 AR</u>	<u>1/303 AR</u>	<u>1/195 AR</u>	<u>Bn Avg. L3</u>
POL	\$ 5,306.42	\$ 2,717.03	\$ 4,283.69	\$ 4,102.00
Maint	535.17	3,000.00	3,159.83	2,232.00
Ammo	16,789.34	19,447.57 <sup>a</sup>	13,995.35 <sup>b</sup>	16,744.00
EU TOTAL	\$22,630.93	\$25,164.60	\$21,438.87	\$23,078.00
<u>EG Cost</u>	<u>2/67 AR</u>	<u>2/77 AR</u>	<u>1/70 AR</u>	<u>Bn Avg. L3</u>
Personnel	\$27,376.00	\$10,486.00	\$33,099.00	\$23,654.00
Travel	0.00	1,357.86	0.00	453.00
Per Diem	0.00	1,091.50	0.00	364.00
POL	NA <sup>c</sup>	900.56	2,997.00	1,949.00
Maint	NA	NA	526.31	526.00
Ammo	NA	0.00	2,910.30	2,910.00
EG TOTAL	\$27,376.00	\$13,835.92	\$39,532.61	\$29,856.00
TOTAL	\$50,006.93	\$39,000.52	\$60,971.48	\$52,934.00 <sup>d</sup>

<sup>a</sup> ARTEP document cost.

<sup>b</sup> Includes 4.2 in. mortar ammunition.

<sup>c</sup> NA - not available.

<sup>d</sup> Based on actual data.

Table A-1-7.

Average AT 75 ARTEP Evaluation Cost - Level 2

155 (SP) Field Artillery Battalions

<u>EU Cost</u>	<u>1/168 FA L3<sup>a</sup></u>	<u>2/146 FA L1<sup>a</sup></u>	<u>Bn Avg. L3<sup>b</sup></u>
POL	\$ 1,814.05	\$ 1,091.80	\$ 1,453.00
Maint	263.85	8,000.00	4,132.00
Ammo	49,333.53	88,142.64	49,334.00
EU TOTAL	\$51,411.43	\$97,234.44	\$54,919.00
<u>EG Cost</u>	<u>1/19 FA L3<sup>a</sup></u>	<u>1/11 FA L1<sup>a</sup></u>	<u>Bn Avg. L3<sup>b</sup></u>
Personnel	\$26,330.00	\$25,584.50	\$25,927.00
Travel	2,320.00	0.00	1,160.00
Per Diem	3,302.00	0.00	1,651.00
POL	839.77	131.36	486.00
Maint	31.62	0.00	16.00
Ammo	0.00	531.25	266.00
EG TOTAL	\$32,823.39	\$26,247.11	\$29,506.00
TOTAL	\$84,234.82	\$123,481.55	\$84,425.00 <sup>c</sup>

<sup>a</sup> Per Test Edition ARTEP.

<sup>b</sup> Per DA Edition ARTEP.

<sup>c</sup> Based on actual data.

Table A-1-8.

## Evaluation Cost Based on the ARTEP Document (ECD5)

## Mechanized Infantry Battalions

	Level 3					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$49,347	\$49,347	\$49,347	\$49,347	\$49,347	\$49,347
Maint	3,184	3,184	3,184	3,184	3,184	3,184
Personnel	29,115	0	22,330	24,627	7,279	20,141
POL	5,032	5,032	5,032	5,032	5,032	5,032
Travel	4,690	0	6,394	4,878	1,175	4,979
Per Diem	2,303	0	3,317	2,142	576	1,981
ECD53	\$93,671	\$57,563	\$89,604	\$89,210	\$66,593	\$84,664

	Level 2					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$50,664	\$50,664	\$50,664	\$50,664	\$50,664	\$50,664
Maint	3,184	3,184	3,184	3,184	3,184	3,184
Personnel	33,095	0	25,710	28,035	8,274	22,976
POL	5,032	5,032	5,032	5,032	5,032	5,032
Travel	5,098	0	6,950	5,298	1,275	5,411
Per Diem	2,591	0	3,781	2,416	648	2,241
ECD 52	\$99,664	\$58,880	\$95,321	\$94,629	\$69,077	\$89,508

Table A-1-9.

## Evaluation Cost Based on the ARTEP Document (ECD5)

## Tank Battalions

	Level 3					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$19,448	\$19,448	\$19,448	\$19,448	\$19,448	\$19,448
Maint	2,758	2,758	2,758	2,758	2,758	2,758
Personnel	15,440	0	12,800	13,180	3,860	10,920
POL	6,051	6,051	6,051	6,051	6,051	6,051
Travel	326	0	3,113	957	82	1,483
Per Diem	822	0	1,963	862	206	902
ECD53	\$44,845	\$28,257	\$46,133	\$43,256	\$32,405	\$41,562

	Level 2					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$27,608	\$27,608	\$27,608	\$27,608	\$27,608	\$27,608
Maint	2,758	2,758	2,758	2,758	2,758	2,758
Personnel	24,255	0	18,130	20,457	6,064	16,661
POL	6,051	6,051	6,051	6,051	6,051	6,051
Travel	557	0	4,080	1,608	141	2,555
Per Diem	1,347	0	2,892	1,372	337	1,396
ECD 52	\$62,576	\$36,417	\$61,519	\$59,854	\$42,959	\$57,029

Table A-1-10.

Evaluation Cost Based on the ARTEP Document (ECD5)

155 (SP) Field Artillery Battalions

	Level 2					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$29,252	\$29,252	\$29,252	\$29,252	\$29,252	\$29,252
Maint	4,148	4,148	4,148	4,148	4,148	4,148
Personnel	20,510	0	15,700	17,346	5,126	14,180
POL	1,939	1,939	1,939	1,939	1,939	1,939
Travel	1,120	0	2,884	1,561	280	2,002
Per Diem	2,151	0	3,165	2,009	538	1,867
ECD 52	\$59,120	\$35,339	\$57,088	\$56,255	\$41,283	\$53,388

	Level 1					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$40,731	\$40,731	\$40,731	\$40,731	\$40,731	\$40,731
Maint	4,148	4,148	4,148	4,148	4,148	4,148
Personnel	20,510	0	15,700	17,346	5,126	14,180
POL	1,939	1,939	1,939	1,939	1,939	1,939
Travel	1,120	0	2,884	1,561	280	2,002
Per Diem	2,151	0	3,165	2,009	538	1,867
ECD 51	\$70,599	\$46,818	\$68,567	\$67,734	\$52,762	\$64,867

ARTEP Document Ammunition Requirements

Mechanized Infantry Battalions

Item	Price	Level 3		Level 2	
		Number	Cost	Number	Cost
Ctg HE 81 mm Mort w/PDF	\$58.384	70	\$ 4,086.88	70	\$ 4,086.88
Ctg Smk WP 81 mm Mort	37.169	30	1,115.07	30	1,115.07
Ctg HE 4.2 in Mort w/PDF	72.965	65	4,742.73	65	4,742.73
Ctg Smk WP 4.2 in Mort	78.239	30	2,347.17	30	2,347.17
Ctg HEAT 106 mm RR	126.771	12	1,521.25	12	1,521.25
	or <sup>a</sup>				
Ctg HEP-T 106 mm RR	133.269	12	1,599.23	12	1,599.23
Ctg Spotter-Tracer cal .50	1.650	12	19.80	12	19.80
Ctg Tr cal .50 MLB	.805	2200	1,771.00	2200	1,771.00
Ctg Ball cal .50 Tr4-1 MLB	1.130	1000	1,130.00	1000	1,130.00
Ctg Ball cal .30	.182	14	2.55	14	2.55
Ctg Tracer cal .30	.182	15	2.73	15	2.73
Ctg Ball 7.62 mm MLB	.172	1800	309.60	1800	309.60
Ctg Blank 7.62 mm MLB	.145	25000	3,625.00	25000	3,625.00
Ctg Tracer 7.62 mm	.154	3	.46	3	.46
Ctg Ball 5.56 mm	.0779	7200	560.88	7200	560.88
Ctg Blank 5.56 mm	.05703	30000	1,710.90	30000	1,710.90
Ctg 20mmTP-T MLB F/GunM139	7.947	1000	7,947.00	1000	7,947.00
Rocket Prac 35 mm LAW	6.608	45	297.36	45	297.36
Guided Missile TOW Prac	3435.00	3	10,305.00	3	10,305.00
Diaphragm Blast Sim TOW	1.00	15	15.00	15	15.00
Grenade hand riot CS	28.250	-	0.00	30	847.50
Grenade hand smoke red	6.954	10	69.54	20	139.08
Grenade hand smoke green	7.474	2	14.95	40	298.96
Grenade hand smoke yellow	9.222	15	138.33	25	230.55
Grenade hand smoke HC	8.319	10	83.19	10	83.19
Signal gnd green star cl.	10.697	9	96.27	40	427.88
Signal gnd red star cl.	14.959	20	299.18	20	299.18
Signal gnd white star cl.	10.216	9	91.94	15	153.24
Signal gnd red star prcht	10.817	4	43.27	-	0.00
Signal gnd white star prcht	10.326	2	20.65	-	0.00
Simulator proj gnd burst	2.355	45	105.98	40	94.20
Simulator booby trap flash	1.836	5	9.18	5	9.18
Simulator booby trap illum	2.502	5	12.51	5	12.51
Mine M18 claymore inert	36.791	180	6,622.38	180	6,622.38
Simulator booby trap whistle	2.229	5	11.15	5	11.15
Simulator flash arty	3.500	40	140.00	40	140.00
Worst Cost			\$49,346.88		\$50,957.36 <sup>b</sup>

<sup>a</sup> HEP-T or HEAT may be used.

<sup>b</sup> Final adjustment increased total by \$293.03 which was considered insignificant.

Table A-1-12.

## ARTEP Document Ammunition Requirements

## Tank Battalions

Item	Price	Level 3		Level 2	
		Number	Cost	Number	Cost
Ctg HEAT-TP-T, 105 mm	\$157.434	150	\$23,615.10	150	\$23,615.10
Ctg HEP-T, 105 mm	114.324	90	10,289.16	90	10,289.16
Ctg APDS-TP-T, 105 mm	137.069	90	12,336.21	90	12,336.21
Ctg 4-1 Tracer cal .50	1.130	3190	3,604.70	3190	3,604.70
Ctg smoke WP 4.2 in Mort	78.239	30	2,347.17	30	2,347.17
Ctg HE, 4.2 in w/prox fuze	100.221	16	1,603.54	16	1,603.54
Ctg HE, 4.2 in Mort w/PDF	72.965	30	2,188.95	30	2,188.95
Ctg Illum 4.2 in Mort	67.025	-	0.00	-	0.00
Ctg Blank 7.62 mm MLB	.145	15000	2,175.00	41200	5,974.00
Ctg Ball 7.62 mm MLB	.172	5250	903.00	5250	903.00
Ctg Blank 5.56 mm	.05703	20240	1,154.29	44020	2,510.46
Grenade hand smk green	7.474	5	37.37	60	448.44
Grenade hand smk red	6.954	-	0.00	35	243.39
Grenade hand smk yellow	9.222	5	46.11	35	322.77
Grenade hand smk HC	8.319	-	0.00	-	0.00
Grenade hand riot CS	28.250	10	282.50	30	847.50
Sim projectile gnd burst	2.355	75	176.63	135	317.93
Sim arty gnd burst	2.355	-	0.00	-	0.00
Signal gnd white star prcht	10.326	6	61.96	6	61.96
Signal gnd red star prcht	10.817	20	216.34	60	649.02
Signal gnd green star cluster	10.697	27	288.82	67	716.70
Signal gnd red star cluster	14.959	27	403.89	37	553.48
Signal gnd white star cluster	10.216	20	204.32	55	561.88
Fuze grenade hand practice	.882	75	66.15	75	66.15
Ctg Tracer .50 cal	.805	180	144.90	180	144.90
Ctg Ball 5.56 mm	.0779	2376	185.09	2376	185.09
Ctg Tracer 7.62 mm	.154	9	1.39	9	1.39
Ctg HE 81 mm Mort w/PDF	58.384	62	3,619.81	62	3,619.81
Ctg HE 81 mm Mort w/prox fuze	100.980	12	1,211.76	12	1,211.76
Ctg smoke WP 81 mm Mort	37.169	30	1,115.07	30	1,115.07
Ctg Illum 81 mm Mort	55.323	-	0.00	-	0.00
Mines claymore M18A1 (Inert)	36.791	60	2,207.46	60	2,207.46
Flare surface trip	6.738	6	40.43	6	40.43
TOTAL			\$70,527.12		\$78,687.42

Table A-1-13.

ARTEP Document Ammunition Requirements

155 (SP) Field Artillery Battalions

<u>Item</u>	<u>Price</u>	<u>Level 2</u>		<u>Level 1</u>	
		<u>Number</u>	<u>Cost</u>	<u>Number</u>	<u>Cost</u>
Charge, Propelling	\$ 24.217	224	\$ 5,424.61	308	\$ 7,458.84
Fuze, Point Detonating	6.287	192	1,207.10	258	1,622.05
Fuze, Proximity	57.640	8	461.12	8	461.12
Fuze, MTSQ	17.733	24	425.59	42	744.79
Primer	1.054	224	236.10	308	324.63
Projectile, High Explosive	93.753	208	19,500.62	274	25,688.32
Projectile, Illumination	124.794	16	1,996.70	16	1,996.70
Projectile, Smoke HC	135.236			18	2,434.25
TOTAL			\$29,251.84		\$40,730.70

Table A-1-14.

ARTEP Document Personnel Support

Mechanized Infantry Battalions

Rank	Rate	Level 3				Level 2			
		Evaluators		Support		Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars
0-6	\$125								
0-5	101					10	\$ 1,010		
0-4	83	10	\$ 830			30	2,490		
0-3	71	70	4,970			80	5,680		
0-2	56	60	3,360			60	3,360		
0-1	40	90	3,600			90	3,600		
Sub-Total			\$12,760				\$16,140		
W-4	\$ 80								
W-3	68								
W-2	57								
W-1	47								
Sub-Total									
E-9	\$ 70								
E-8	59								
E-7	51	30	\$ 1,530	5	\$ 255	30	\$ 1,530	5	\$ 255
E-6	43	120	5,160	5	215	120	5,160	5	215
E-5	36	80	2,880	25	900	80	2,880	25	900
E-4	30			85	2,550			105	3,150
E-3	27			75	2,025			75	2,025
E-2	24			35	840			35	840
E-1	22								
Sub-Total			\$ 9,570		\$ 6,785		\$ 9,570		\$ 7,385
TOTAL			\$22,330		\$ 6,785		\$25,710		\$ 7,385
GRAND TOTAL				\$29,115			\$33,095		

Table A-1-15.

ARTEP Document Personnel Cost

Tank Battalions

Rank	Rate	Level 3				Level 2			
		Evaluators		Support		Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars
0-6	\$125								
0-5	101					10	\$ 1,010		
0-4	83					10	830		
0-3	71	40	\$ 2,840			70	4,970		
0-2	56	50	2,800			60	3,360		
0-1	40	50	2,000			70	2,800		
Sub-Total			\$ 7,640				\$12,970		
W-4	\$ 80								
W-3	68								
W-2	57								
W-1	47								
Sub-Total									
E-9	\$ 70								
E-8	59								
E-7	51							5	\$ 255
E-6	43	120	\$ 5,160			120	\$ 5,160	5	215
E-5	36			15	\$ 540			20	720
E-4	30			35	1,050			90	2,700
E-3	27			30	810			65	1,755
E-2	24			10	240			20	480
E-1	22								
Sub-Total			\$ 5,160		\$ 2,640		\$ 5,160		\$ 6,125
TOTAL			\$12,800		\$ 2,640		\$18,130		\$ 6,125
GRAND TOTAL			\$15,440				\$24,255		

Table A-1-16.

ARTEP Document Personnel Cost  
155 (SP) Field Artillery Battalions

Levels 2 and 1

Rank	Rate	Evaluator		Support	
		Man- Days	Dollars	Man- Days	Dollars
0-6	\$125				
0-5	101	10	\$ 1,010		
0-4	83	10	830		
0-3	71	70	4,970		
0-2	56	80	4,480	5	\$ 280
0-1	40	100	4,000	15	600
Sub-Total			\$15,290		\$ 880
W-4	\$ 80				
W-3	68				
W-2	57				
W-1	47				
Sub-Total					
E-9	\$ 70				
E-8	59				
E-7	51			5	\$ 255
E-6	43	10	\$ 430	10	430
E-5	36			25	900
E-4	30			55	1,650
E-3	27			25	675
E-2	24				
E-1	22				
Sub-Total			\$ 430		\$ 3,910
TOTAL			\$15,720		\$ 4,790
GRAND TOTAL			\$20,510		

Table A-1-17.

## Travel Cost for ECD5

## Mechanized Infantry Battalions

## Level 3

<u>Evaluator Source</u>	<u>Number of Travellers</u>	<u>3/117 IN</u>	<u>1/161 IN</u>	<u>2/134 IN</u>	<u>1/134 IN</u>	<u>Bn Avg. L3</u>
AA	92	\$ 0	\$ 729	\$ 0	\$18,032	\$ 4,690
RC	92	0	0	0	0	0
MTC	46	8,004	6,624	1,932	9,016	6,394
AA+	92	2,088	2,267	504	14,651	4,878
RC+	92	0	190	0	4,508	1,175
Equal	92	4,002	3,676	966	11,270	4,979

## Level 2

<u>Evaluator Source</u>	<u>Number of Travellers</u>	<u>3/117 IN</u>	<u>1/161 IN</u>	<u>2/134 IN</u>	<u>1/134 IN</u>	<u>Bn Avg. L2</u>
AA	100	\$ 0	\$ 792	\$ 0	\$19,600	\$ 5,098
RC	100	0	0	0	0	0
MTC	50	8,700	7,200	2,100	9,800	6,950
AA+	100	2,262	2,458	546	15,925	5,298
RC+	100	0	198	0	4,900	1,275
Equal	100	4,350	3,996	1,050	12,250	5,411

Table A-1-18.  
Travel Cost for ECD5  
Tank Battalions

<u>Evaluator Source</u>	<u>Number of Travellers</u>	Level 3			<u>Bn Avg. L3</u>
		<u>1/123 AR</u>	<u>1/303 AR</u>	<u>1/195 AR</u>	
AA	44	\$ 0	\$ 979	\$ 0	\$ 326
RC	44	0	0	0	0
MTC	26	4,524	3,724	1,092	3,115
AA+	44	1,044	1,576	504	957
RC+	44	0	245	0	82
Equal	44	1,914	2,074	966	1,485

<u>Evaluator Source</u>	<u>Number of Travellers</u>	Level 2			<u>Bn Avg. L2</u>
		<u>1/123 AR</u>	<u>1/303 AR</u>	<u>1/195 AR</u>	
AA	75	\$ 0	\$ 1,670	\$ 0	\$ 557
RC	75	0	0	0	0
MTC	34	5,916	4,896	1,428	4,080
AA+	75	1,740	2,664	420	1,608
RC+	75	0	423	0	141
Equal	75	3,306	3,560	798	2,555

Table A-1-19.

Travel Cost for ECD5

155 (SP) Field Artillery Battalions

Levels 2 and 1

<u>Evaluator Source</u>	<u>Number of Travellers</u>	<u>1/168 FA</u>	<u>2/146 FA</u>	<u>Bn Avg. L2 &amp; L1</u>
AA	56	\$ 2,240	\$ 0	\$ 1,120
RC	56	0	0	0
MTC	28	1,904	3,864	2,884
AA+	56	2,156	966	1,561
RC+	56	560	0	280
Equal	56	2,072	1,932	2,002

Table A-1-20.

## Per Diem Cost for ECD5

## Mechanized Infantry Battalions

		Level 3					
<u>Evaluator Source</u>	<u>Number of Personnel</u>	<u>3/117 IN</u>	<u>1/161 IN</u>	<u>2/134 IN</u>	<u>1/134 IN</u>	<u>Bn Avg. L3</u>	
AA	23 OFF 69 EM	\$ 0	\$ 4,605	\$ 0	\$ 4,605	\$ 2,303	
RC	23 OFF 69 EM	0	0	0	0	0	
MTC	23 OFF 23 EM	3,317	3,317	3,317	3,317	3,317	
AA+	23 OFF 69 EM	415	3,868	415	3,868	2,142	
RC+	23 OFF 69 EM	0	1,151	0	1,151	576	
Equal	23 OFF 69 EM	829	3,132	829	3,132	1,981	
		Level 2					
<u>Evaluator Source</u>	<u>Number of Personnel</u>	<u>3/117 IN</u>	<u>1/161 IN</u>	<u>2/134 IN</u>	<u>1/134 IN</u>	<u>Bn Avg. L2</u>	
AA	27 OFF 73 EM	\$ 0	\$ 5,181	\$ 0	\$ 5,181	\$ 2,591	
RC	27 OFF 73 EM	0	0	0	0	0	
MTC	27 OFF 23 EM	3,781	3,781	3,781	3,781	3,781	
AA+	27 OFF 73 EM	473	4,358	473	4,358	2,416	
RC+	27 OFF 73 EM	0	1,295	0	1,295	648	
Equal	27 OFF 73 EM	945	3,536	945	3,536	2,241	

Table A-1- 21.  
Per Diem Cost for ECD5  
Tank Battalions

Level 3

<u>Evaluator Source</u>	<u>Number of Personnel</u>	<u>1/123 AR</u>	<u>1/303 AR</u>	<u>1/195 AR</u>	<u>Bn Avg. L3</u>
AA	14 OFF 30 EM	\$ 0	\$ 2,467	\$ 0	\$ 822
RC	14 OFF 30 EM	0	0	0	0
MTC	14 OFF 12 EM	1,963	1,963	1,963	1,963
AA+	14 OFF 30 EM	245	2,095	245	862
RC+	14 OFF 30 EM	0	617	0	206
Equal	14 OFF 30 EM	491	1,724	491	902

Level 2

<u>Evaluator Source</u>	<u>Number of Personnel</u>	<u>1/123 AR</u>	<u>1/303 AR</u>	<u>1/195 AR</u>	<u>Bn Avg. L2</u>
AA	22 OFF 53 EM	\$ 0	\$ 4,040	\$ 0	\$ 1,347
RC	22 OFF 53 EM	0	0	0	0
MTC	22 OFF 12 EM	2,892	2,892	2,892	2,892
AA+	22 OFF 53 EM	362	3,392	362	1,372
RC+	22 OFF 53 EM	0	1,010	0	337
Equal	22 OFF 53 EM	723	2,743	723	1,396

Table A-1-22.

Per Diem Cost for ECD5

155 (SP) Field Artillery Battalions

Levels 2 and 1

<u>Evaluator Source</u>	<u>Number of Personnel</u>	<u>1/168 FA</u>	<u>2/146 FA</u>	<u>Bn Avg. L2 &amp; L1</u>
AA	31 OFF 25 EM	\$ 4,302	\$ 0	\$ 2,151
RC	31 OFF 25 EM	0	0	0
MTC	27 OFF 1 EM	3,165	3,165	3,165
AA+	31 OFF 25 EM	3,622	396	2,009
RC+	31 OFF 25 EM	1,076	0	538
Equal	31 OFF 25 EM	2,942	791	1,867

Table A-1-23

## ECD5 Option Cost for Type Battalion

Option Number	Eval Source	Level	Freq	IN (M) ECD5		TK ECD5		FA ECD5	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	49,832		31,288		35,300	
2	Act Army	Bn	Tri	33,221		20,859		23,533	
3	Act Army	Bn	Quad	24,916		15,644		17,650	
4	Act Army	Co	Bi	46,836		22,423		29,560	
5	Act Army	Co	Tri	31,224		14,948		19,707	
6	Act Army	Co	Quad	23,418		11,211	9	14,780	10
7	Res Comp	Bn	Bi	29,440		18,209		23,409	
8	Res Comp	Bn	Tri	19,627	6	12,139		15,606	
9	Res Comp	Bn	Quad	14,720	2	9,104	3	11,705	3
10	Res Comp	Co	Bi	28,782		14,129		17,670	
11	Res Comp	Co	Tri	19,188	5	9,419	4	11,780	4
12	Res Comp	Co	Quad	14,391	1	7,064	1	8,835	1
13	Man Tng Cmd	Bn	Bi	47,661		30,760		34,284	
14	Man Tng Cmd	Bn	Tri	31,774		20,506		22,856	
15	Man Tng Cmd	Bn	Quad	23,830		15,380		17,142	
16	Man Tng Cmd	Co	Bi	44,802		23,067		28,544	
17	Man Tng Cmd	Co	Tri	29,868		15,378		19,039	
18	Man Tng Cmd	Co	Quad	22,401		11,533	10	14,272	9
19	Mix AA+	Bn	Bi	47,315		29,927		33,867	
20	Mix AA+	Bn	Tri	31,543		19,951		22,578	
21	Mix AA+	Bn	Quad	23,657		14,964		16,934	
22	Mix AA+	Co	Bi	44,605		21,628		28,128	
23	Mix AA+	Co	Tri	29,737		14,419		18,752	
24	Mix AA+	Co	Quad	22,303	9	10,814	8	14,064	8
25	Mix RC+	Bn	Bi	34,539		21,480		26,381	
26	Mix RC+	Bn	Tri	23,026		14,320		17,587	
27	Mix RC+	Bn	Quad	17,269	4	10,740	6	13,191	5
28	Mix RC+	Co	Bi	33,297		16,203		20,642	
29	Mix RC+	Co	Tri	22,198	8	10,802	7	13,761	7
30	Mix RC+	Co	Quad	16,648	3	8,101	2	10,321	2
31	Mix Equal	Bn	Bi	44,754		28,515		32,434	
32	Mix Equal	Bn	Tri	29,836		19,010		21,622	
33	Mix Equal	Bn	Quad	22,377	10	14,257		16,217	
34	Mix Equal	Co	Bi	42,332		20,781		26,694	
35	Mix Equal	Co	Tri	28,221		13,854		17,796	
36	Mix Equal	Co	Quad	21,116	7	10,391	5	13,347	6

Table A-1-24.

ECD53-ECD52 Comparisons

<u>Element</u>	<u>IN (M) Bn</u>		<u>TK Bn</u>		<u>155 (SP) FA Bn</u>	
	<u>ECD53</u>	<u>ECD52</u>	<u>ECD53</u>	<u>ECD52</u>	<u>ECD52</u>	<u>ECD51</u>
Ammo	49,347	50,664	19,448	27,608	29,252	40,731
Maint	3,184	3,184	2,758	2,758	4,148	4,148
Personnel	29,115	33,095	15,440	24,255	20,510	20,510
Per Diem	2,303	2,591	822	1,347	2,151	2,151
POL	5,032	5,032	6,051	6,051	1,939	1,939
Travel	4,690	5,098	326	557	1,120	1,120
EC	93,671	99,664	44,845	62,576	59,120	70,599



Table A-1-26.

ARTEP Document Ammunition Comparisons

	<u>ECD53</u>	<u>ECD52</u>	<u>%</u>	<u>ECD51</u>	<u>%</u>
IN (M)	\$49,347	\$50,664	+2.7	\$70,456	+39.1
TK	19,448	27,608	+42.0	39,229	+42.1
TK*	51,080	78,678	+54.0	93,165	+18.4
FA 155		29,252		40,731	+39.2

\* With tank gun firing.

Table A-1-27.

AEC5-ECD5 Ammunition Comparisons

	<u>AEC53</u>	<u>ECD53</u>	<u>%</u>	<u>ECD52</u>	<u>%</u>	<u>ECD51</u>	<u>%</u>
IN (M)	\$30,994	\$49,347	-37.2				
TK	19,654	19,448	+ 1.1				
FA 155	49,600			\$29,252	+69.6		
FA 155-AEC51	88,409					\$40,731	+117.1

Table A-1-28.

ARTEP Document Personnel Support Comparisons

	ECD53 (FA L2)			ECD52 (FA L1)			%
	Evaluators	Support	Total	Evaluators	Support	Total	
IN (M)	\$22,330	\$6,785	\$29,115	\$25,710	\$7,385	\$33,095	+13.7
TK	12,800	2,640	15,440	18,130	6,125	24,255	+57.1
FA 155	15,720	4,790	20,510	15,720	4,790	20,510	+ 0

Table A-1-29.

AEC -ECD Personnel Support Comparisons

	<u>AEC53</u>	<u>ECD53 (FA L2)</u>	<u>%</u>
IN (M)	\$34,015	\$29,115	+16.8
TK	23,654	15,440	+53.2
FA 155	25,927	20,510	+26.4

Table A-1-30

## ECD5 Sensitivity Analysis - Personnel SAP

## Tank Battalion

Option Number	Eval Source	Level	Freq	SAP-10%		ECD		SAP+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	30,075		31,288		32,501	
2	Act Army	Bn	Tri	20,050		20,859		21,667	
3	Act Army	Bn	Quad	15,038		15,644		16,251	
4	Act Army	Co	Bi	21,651		22,423		23,195	
5	Act Army	Co	Tri	14,434		14,948		15,463	
6	Act Army	Co	Quad	10,825	9	11,211	9	11,597	9
7	Res Comp	Bn	Bi	18,209		18,209		18,209	
8	Res Comp	Bn	Tri	12,139		12,139		12,139	
9	Res Comp	Bn	Quad	9,104	3	9,104	3	9,104	3
10	Res Comp	Co	Bi	14,129		14,129		14,129	
11	Res Comp	Co	Tri	9,419	4	9,419	4	9,419	4
12	Res Comp	Co	Quad	7,064	1	7,064	1	7,064	1
13	Man Tng Cmd	Bn	Bi	29,853		30,760		31,666	
14	Man Tng Cmd	Bn	Tri	19,902		20,506		21,111	
15	Man Tng Cmd	Bn	Quad	14,927		15,380		15,833	
16	Man Tng Cmd	Co	Bi	22,427		23,067		23,707	
17	Man Tng Cmd	Co	Tri	14,951		15,378		15,804	
18	Man Tng Cmd	Co	Quad	11,213	10	11,533	10	11,853	10
19	Mix AA+	Bn	Bi	28,904		29,927		30,950	
20	Mix AA+	Bn	Tri	19,269		19,951		20,633	
21	Mix AA+	Bn	Quad	14,452		14,964		15,475	
22	Mix AA+	Co	Bi	20,969		21,628		22,287	
23	Mix AA+	Co	Tri	13,979		14,419		14,858	
24	Mix AA+	Co	Quad	10,485	6	10,814	8	11,144	8
25	Mix RC+	Bn	Bi	21,177		21,480		21,783	
26	Mix RC+	Bn	Tri	14,118		14,320		14,522	
27	Mix RC+	Bn	Quad	10,588	7	10,740	6	10,891	6
28	Mix RC+	Co	Bi	16,010		16,203		16,396	
29	Mix RC+	Co	Tri	10,673	8	10,802	7	10,930	7
30	Mix RC+	Co	Quad	8,005	2	8,101	2	8,198	2
31	Mix Equal	Bn	Bi	27,682		28,515		29,348	
32	Mix Equal	Bn	Tri	18,454		19,010		19,565	
33	Mix Equal	Bn	Quad	13,841		14,257		14,674	
34	Mix Equal	Co	Bi	20,235		20,781		21,327	
35	Mix Equal	Co	Tri	13,490		13,854		14,218	
36	Mix Equal	Co	Quad	10,118	5	10,391	5	10,664	5

Table A-1-31

## ECD5 Sensitivity Analysis - Ammunition SAA

## Tank Battalion

Option Number	Eval Source	Level	Freq	SAA-10%		ECD		SAA+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	29,908		31,288		32,669	
2	Act Army	Bn	Tri	19,938		20,859		21,779	
3	Act Army	Bn	Quad	14,954		15,644		16,334	
4	Act Army	Co	Bi	21,450		22,423		23,395	
5	Act Army	Co	Tri	14,300		14,948		15,597	
6	Act Army	Co	Quad	10,725	9	11,211	9	11,698	9
7	Res Comp	Bn	Bi	16,828		18,209		19,589	
8	Res Comp	Bn	Tri	11,219		12,139		13,059	
9	Res Comp	Bn	Quad	8,414	3	9,104	3	9,795	3
10	Res Comp	Co	Bi	13,156		14,129		15,101	
11	Res Comp	Co	Tri	8,771	4	9,419	4	10,067	4
12	Res Comp	Co	Quad	6,578	1	7,064	1	7,551	1
13	Man Tng Cmd	Bn	Bi	29,379		30,760		32,140	
14	Man Tng Cmd	Bn	Tri	19,586		20,506		21,427	
15	Man Tng Cmd	Bn	Quad	14,690		15,380		16,070	
16	Man Tng Cmd	Co	Bi	22,094		23,067		24,040	
17	Man Tng Cmd	Co	Tri	14,729		15,378		16,026	
18	Man Tng Cmd	Co	Quad	11,047	10	11,533	10	12,020	10
19	Mix AA+	Bn	Bi	28,547		29,927		31,308	
20	Mix AA+	Bn	Tri	19,031		19,951		20,872	
21	Mix AA+	Bn	Quad	14,273		14,964		15,654	
22	Mix AA+	Co	Bi	20,656		21,628		22,601	
23	Mix AA+	Co	Tri	13,770		14,419		15,067	
24	Mix AA+	Co	Quad	10,328	8	10,814	8	11,300	6
25	Mix RC+	Bn	Bi	20,099		21,480		22,860	
26	Mix RC+	Bn	Tri	13,399		14,320		15,240	
27	Mix RC+	Bn	Quad	10,050	6	10,740	6	11,430	7
28	Mix RC+	Co	Bi	15,230		16,203		17,175	
29	Mix RC+	Co	Tri	10,153	7	10,802	7	11,450	8
30	Mix RC+	Co	Quad	7,615	2	8,101	2	8,588	2
31	Mix Equal	Bn	Bi	27,134		28,515		29,895	
32	Mix Equal	Bn	Tri	18,089		19,010		19,930	
33	Mix Equal	Bn	Quad	13,567		14,257		14,948	
34	Mix Equal	Co	Bi	19,809		20,781		21,754	
35	Mix Equal	Co	Tri	13,206		13,854		14,502	
36	Mix Equal	Co	Quad	9,904	5	10,391	5	10,877	5

Table A-1-32

## ECD5 Sensitivity Analysis - Maintenance SAM

## Tank Battalion

Option Number	Eval Source	Level	Freq	SAM-10%		ECD		SAM+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	30,848		31,288		31,729	
2	Act Army	Bn	Tri	20,565		20,859		21,152	
3	Act Army	Bn	Quad	15,424		15,644		15,864	
4	Act Army	Co	Bi	21,982		22,423		22,863	
5	Act Army	Co	Tri	14,655		14,948		15,242	
6	Act Army	Co	Quad	10,991	9	11,211	9	11,432	9
7	Res Comp	Bn	Bi	17,768		18,209		18,649	
8	Res Comp	Bn	Tri	11,845		12,139		12,433	
9	Res Comp	Bn	Quad	8,884	3	9,104	3	9,325	3
10	Res Comp	Co	Bi	13,688		14,129		14,569	
11	Res Comp	Co	Tri	9,125	4	9,419	4	9,713	4
12	Res Comp	Co	Quad	6,844	1	7,064	1	7,285	1
13	Man Tng Cmd	Bn	Bi	30,319		30,760		31,200	
14	Man Tng Cmd	Bn	Tri	20,213		20,506		20,800	
15	Man Tng Cmd	Bn	Quad	15,160		15,380		15,600	
16	Man Tng Cmd	Co	Bi	22,626		23,067		23,507	
17	Man Tng Cmd	Co	Tri	15,084		15,378		15,671	
18	Man Tng Cmd	Co	Quad	11,313	10	11,533	10	11,754	10
19	Mix AA+	Bn	Bi	29,487		29,927		30,368	
20	Mix AA+	Bn	Tri	19,658		19,951		20,245	
21	Mix AA+	Bn	Quad	14,743		14,964		15,184	
22	Mix AA+	Co	Bi	21,188		21,628		22,069	
23	Mix AA+	Co	Tri	14,125		14,419		14,712	
24	Mix AA+	Co	Quad	10,594	8	10,814	8	11,034	7
25	Mix RC+	Bn	Bi	21,039		21,480		21,920	
26	Mix RC+	Bn	Tri	14,026		14,320		14,613	
27	Mix RC+	Bn	Quad	10,520	6	10,740	6	10,960	6
28	Mix RC+	Co	Bi	15,762		16,203		16,643	
29	Mix RC+	Co	Tri	10,508	7	10,802	7	11,095	8
30	Mix RC+	Co	Quad	7,881	2	8,101	2	8,322	2
31	Mix Equal	Bn	Bi	28,074		28,515		28,955	
32	Mix Equal	Bn	Tri	18,716		19,010		19,303	
33	Mix Equal	Bn	Quad	14,037		14,257		14,478	
34	Mix Equal	Co	Bi	20,341		20,781		21,222	
35	Mix Equal	Co	Tri	13,560		13,854		14,148	
36	Mix Equal	Co	Quad	10,170	5	10,391	5	10,611	5

Table A-1-33

## ECD5 Sensitivity Analysis - Travel SAT

## Tank Battalion

Option Number	Eval Source	Level	Freq	SAT-10%		ECD		SAT+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	31,193		31,288		31,383	
2	Act Army	Bn	Tri	20,795		20,859		20,922	
3	Act Army	Bn	Quad	15,597		15,644		15,692	
4	Act Army	Co	Bi	22,365		22,423		22,480	
5	Act Army	Co	Tri	14,910		14,948		14,987	
6	Act Army	Co	Quad	11,183	9	11,211	9	11,240	9
7	Res Comp	Bn	Bi	18,209		18,209		18,209	
8	Res Comp	Bn	Tri	12,139		12,139		12,139	
9	Res Comp	Bn	Quad	9,104	3	9,104	3	9,104	3
10	Res Comp	Co	Bi	14,129		14,129		14,129	
11	Res Comp	Co	Tri	9,419	4	9,419	4	9,419	4
12	Res Comp	Co	Quad	7,064	1	7,064	1	7,064	1
13	Man Tng Cmd	Bn	Bi	30,411		30,760		31,108	
14	Man Tng Cmd	Bn	Tri	20,274		20,506		20,739	
15	Man Tng Cmd	Bn	Quad	15,206		15,380		15,554	
16	Man Tng Cmd	Co	Bi	22,813		23,067		23,321	
17	Man Tng Cmd	Co	Tri	15,208		15,378		15,547	
18	Man Tng Cmd	Co	Quad	11,406	10	11,533	10	11,660	10
19	Mix AA+	Bn	Bi	29,778		29,927		30,076	
20	Mix AA+	Bn	Tri	19,852		19,951		20,051	
21	Mix AA+	Bn	Quad	14,889		14,964		15,038	
22	Mix AA+	Co	Bi	21,537		21,628		21,719	
23	Mix AA+	Co	Tri	14,358		14,419		14,479	
24	Mix AA+	Co	Quad	10,769	7	10,814	8	10,860	8
25	Mix RC+	Bn	Bi	21,456		21,480		21,504	
26	Mix RC+	Bn	Tri	14,304		14,320		14,336	
27	Mix RC+	Bn	Quad	10,728	6	10,740	6	10,752	6
28	Mix RC+	Co	Bi	16,188		16,203		16,217	
29	Mix RC+	Co	Tri	10,792	8	10,802	7	10,811	7
30	Mix RC+	Co	Quad	8,904	2	8,101	2	8,109	2
31	Mix Equal	Bn	Bi	28,317		28,515		28,712	
32	Mix Equal	Bn	Tri	18,878		19,010		19,141	
33	Mix Equal	Bn	Quad	14,159		14,257		14,356	
34	Mix Equal	Co	Bi	20,662		20,781		20,901	
35	Mix Equal	Co	Tri	13,774		13,854		13,934	
36	Mix Equal	Co	Quad	10,331	5	10,391	5	10,450	5

Table A-1-34

## ECD5 Sensitivity Analysis - Personnel SAP

## Mechanized Infantry Battalion

Option Number	Eval Source	Level	Freq	SAP-10%		ECD		SAP+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	48,177		49,832		51,487	
2	Act Army	Bn	Tri	32,118		33,221		34,325	
3	Act Army	Bn	Quad	24,089		24,916		25,744	
4	Act Army	Co	Bi	45,380		46,836		48,292	
5	Act Army	Co	Tri	30,253		31,224		32,194	
6	Act Army	Co	Quad	22,690		23,418		24,146	
7	Res Comp	Bn	Bi	29,440		29,440		29,440	
8	Res Comp	Bn	Tri	19,627	6	19,627	6	19,627	6
9	Res Comp	Bn	Quad	14,720	2	14,720	2	14,720	2
10	Res Comp	Co	Bi	28,782		28,782		28,782	
11	Res Comp	Co	Tri	19,188	5	19,188	5	19,188	5
12	Res Comp	Co	Quad	14,391	1	14,391	1	14,391	1
13	Man Tng Cmd	Bn	Bi	46,375		47,661		48,946	
14	Man Tng Cmd	Bn	Tri	30,917		31,774		32,631	
15	Man Tng Cmd	Bn	Quad	23,188		23,830		24,473	
16	Man Tng Cmd	Co	Bi	43,686		44,802		45,919	
17	Man Tng Cmd	Co	Tri	29,124		29,868		30,612	
18	Man Tng Cmd	Co	Quad	21,843	10	22,401		22,959	
19	Mix AA+	Bn	Bi	45,913		47,315		48,717	
20	Mix AA+	Bn	Tri	30,608		31,543		32,478	
21	Mix AA+	Bn	Quad	22,956		23,657		24,358	
22	Mix AA+	Co	Bi	43,374		44,605		45,837	
23	Mix AA+	Co	Tri	28,916		29,737		30,558	
24	Mix AA+	Co	Quad	21,687	8	22,303	9	22,918	9
25	Mix RC+	Bn	Bi	34,125		34,539		34,952	
26	Mix RC+	Bn	Tri	22,750		23,026		23,301	
27	Mix RC+	Bn	Quad	17,063	4	17,269	4	17,476	4
28	Mix RC+	Co	Bi	32,933		33,297		33,661	
29	Mix RC+	Co	Tri	21,955		22,198	8	22,440	8
30	Mix RC+	Co	Quad	16,466	3	16,648	3	16,830	3
31	Mix Equal	Bn	Bi	43,605		44,754		45,903	
32	Mix Equal	Bn	Tri	29,070		29,836		30,602	
33	Mix Equal	Bn	Quad	21,803	9	22,377	10	22,952	10
34	Mix Equal	Co	Bi	41,325		42,332		43,339	
35	Mix Equal	Co	Tri	27,550		28,221		28,893	
36	Mix Equal	Co	Quad	20,663	7	21,116	7	21,670	7

Table A-1-35

## ECD5 Sensitivity Analysis - Ammunition SAA

## Mechanized Infantry Battalion

Option Number	Eval Source	Level	Freq	SAA-10%		ECD		SAA+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	47,299		49,832		52,365	
2	Act Army	Bn	Tri	31,533		33,221		34,910	
3	Act Army	Bn	Quad	23,650		24,916		26,183	
4	Act Army	Co	Bi	44,368		46,836		49,303	
5	Act Army	Co	Tri	29,579		31,224		32,869	
6	Act Army	Co	Quad	22,184		23,418		24,652	
7	Res Comp	Bn	Bi	26,907		29,440		31,973	
8	Res Comp	Bn	Tri	17,938	6	19,627	6	21,315	6
9	Res Comp	Bn	Quad	13,454	2	14,720	2	15,987	2
10	Res Comp	Co	Bi	26,314		28,782		31,249	
11	Res Comp	Co	Tri	17,543	5	19,188	5	20,833	5
12	Res Comp	Co	Quad	13,157	1	14,391	1	15,625	1
13	Man Tng Cmd	Bn	Bi	45,128		47,661		50,194	
14	Man Tng Cmd	Bn	Tri	30,085		31,774		33,462	
15	Man Tng Cmd	Bn	Quad	22,564		23,830		25,097	
16	Man Tng Cmd	Co	Bi	42,335		44,802		47,269	
17	Man Tng Cmd	Co	Tri	28,223		29,868		31,512	
18	Man Tng Cmd	Co	Quad	21,167		22,401		23,635	9
19	Mix AA+	Bn	Bi	44,782		47,315		49,848	
20	Mix AA+	Bn	Tri	29,854		31,543		33,232	
21	Mix AA+	Bn	Quad	22,391		23,657		24,924	
22	Mix AA+	Co	Bi	42,138		44,605		47,072	
23	Mix AA+	Co	Tri	28,092		29,737		31,381	
24	Mix AA+	Co	Quad	21,069	9	22,303	9	23,536	8
25	Mix RC+	Bn	Bi	32,006		34,539		37,072	
26	Mix RC+	Bn	Tri	21,337		23,026		24,714	
27	Mix RC+	Bn	Quad	16,003	4	17,269	4	18,536	4
28	Mix RC+	Co	Bi	30,829		33,297		35,764	
29	Mix RC+	Co	Tri	20,553	8	22,198	8	23,843	
30	Mix RC+	Co	Quad	15,415	3	16,648	3	17,882	3
31	Mix Equal	Bn	Bi	42,221		44,754		47,287	
32	Mix Equal	Bn	Tri	28,147		29,836		31,525	
33	Mix Equal	Bn	Quad	21,111	10	22,377	10	23,644	10
34	Mix Equal	Co	Bi	39,865		42,332		44,800	
35	Mix Equal	Co	Tri	26,576		28,221		29,866	
36	Mix Equal	Co	Quad	19,932	7	21,116	7	22,400	7

Table A-1-36

## ECD5 Sensitivity Analysis - Personnel SAP

155 (SP) Field Artillery Battalion

Option Number	Eval Source	Level	Freq	SAP-10%		ECD		SAP+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	34,274		35,300		36,325	
2	Act Army	Bn	Tri	22,849		23,533		24,217	
3	Act Army	Bn	Quad	17,137		17,650		18,163	
4	Act Army	Co	Bi	28,535		29,560		30,586	
5	Act Army	Co	Tri	19,023		19,707		20,390	
6	Act Army	Co	Quad	14,267	10	14,780	10	15,293	10
7	Res Comp	Bn	Bi	23,409		23,409		23,409	
8	Res Comp	Bn	Tri	15,606		15,606		15,606	
9	Res Comp	Bn	Quad	11,705	3	11,705	3	11,705	3
10	Res Comp	Co	Bi	17,670		17,670		17,670	
11	Res Comp	Co	Tri	11,780	4	11,780	4	11,780	4
12	Res Comp	Co	Quad	8,835	1	8,835	1	8,835	1
13	Man Tng Cmd	Bn	Bi	33,499		34,284		35,534	
14	Man Tng Cmd	Bn	Tri	22,322		22,856		23,379	
15	Man Tng Cmd	Bn	Quad	16,749		17,142		17,534	
16	Man Tng Cmd	Co	Bi	27,759		28,544		29,329	
17	Man Tng Cmd	Co	Tri	18,506		19,039		19,553	
18	Man Tng Cmd	Co	Quad	13,880	9	14,272	9	14,665	9
19	Mix AA+	Bn	Bi	33,000		33,867		34,735	
20	Mix AA+	Bn	Tri	22,000		22,578		23,156	
21	Mix AA+	Bn	Quad	16,500		16,934		17,367	
22	Mix AA+	Co	Bi	27,260		28,128		28,995	
23	Mix AA+	Co	Tri	18,173		18,752		19,330	
24	Mix AA+	Co	Quad	13,630	8	14,064	8	14,498	8
25	Mix RC+	Bn	Bi	26,125		26,381		26,638	
26	Mix RC+	Bn	Tri	17,416		17,587		17,758	
27	Mix RC+	Bn	Quad	13,062	6	13,191	5	13,319	5
28	Mix RC+	Co	Bi	20,385		20,642		20,898	
29	Mix RC+	Co	Tri	13,590	7	13,761	7	13,932	7
30	Mix RC+	Co	Quad	10,193	2	10,321	2	10,449	2
31	Mix Equal	Bn	Bi	31,725		32,434		33,143	
32	Mix Equal	Bn	Tri	21,150		21,622		22,095	
33	Mix Equal	Bn	Quad	15,862		16,217		16,571	
34	Mix Equal	Co	Bi	25,985		26,694		27,403	
35	Mix Equal	Co	Tri	17,323		17,796		18,269	
36	Mix Equal	Co	Quad	12,993	5	13,347	6	13,702	6

Table A-1-37

## ECD5 Sensitivity Analysis - Ammunition SAA

155 (SP) Field Artillery Battalion

Option Number	Eval Source	Level	Freq	SAA-10%		ECD		SAA+10%	
				\$	Rank	\$	Rank	\$	Rank
1	Act Army	Bn	Bi	33,263		35,300		37,336	
2	Act Army	Bn	Tri	22,175		23,533		24,891	
3	Act Army	Bn	Quad	16,632		17,650		18,668	
4	Act Army	Co	Bi	28,098		29,560		31,023	
5	Act Army	Co	Tri	18,732		19,707		20,682	
6	Act Army	Co	Quad	14,049	10	14,780	10	15,511	10
7	Res Comp	Bn	Bi	21,373		23,409		25,446	
8	Res Comp	Bn	Tri	14,248		15,606		16,964	
9	Res Comp	Bn	Quad	10,686	3	11,705	3	12,723	3
10	Res Comp	Co	Bi	16,207		17,670		19,132	
11	Res Comp	Co	Tri	10,805	4	11,780	4	12,755	4
12	Res Comp	Co	Quad	8,104	1	8,835	1	9,566	1
13	Man Tng Cmd	Bn	Bi	32,247		34,284		36,320	
14	Man Tng Cmd	Bn	Tri	21,498		22,856		24,213	
15	Man Tng Cmd	Bn	Quad	16,124		17,142		18,160	
16	Man Tng Cmd	Co	Bi	27,082		28,544		30,007	
17	Man Tng Cmd	Co	Tri	18,054		19,039		20,004	
18	Man Tng Cmd	Co	Quad	13,541	9	14,272	9	15,003	9
19	Mix AA+	Bn	Bi	31,831		33,867		35,904	
20	Mix AA+	Bn	Tri	21,220		22,578		23,936	
21	Mix AA+	Bn	Quad	15,915		16,934		17,952	
22	Mix AA+	Co	Bi	26,665		28,128		29,590	
23	Mix AA+	Co	Tri	17,777		18,752		19,727	
24	Mix AA+	Co	Quad	13,333	8	14,064	8	14,795	8
25	Mix RC+	Bn	Bi	24,345		26,381		28,418	
26	Mix RC+	Bn	Tri	16,230		17,587		18,945	
27	Mix RC+	Bn	Quad	12,172	5	13,191	5	14,209	6
28	Mix RC+	Co	Bi	19,179		20,642		22,104	
29	Mix RC+	Co	Tri	12,786	7	13,761	7	14,736	7
30	Mix RC+	Co	Quad	9,590	2	10,321	2	11,052	2
31	Mix Equal	Bn	Bi	30,397		32,434		34,470	
32	Mix Equal	Bn	Tri	20,265		21,622		22,980	
33	Mix Equal	Bn	Quad	15,199		16,217		17,235	
34	Mix Equal	Co	Bi	25,232		26,694		28,157	
35	Mix Equal	Co	Tri	16,821		17,796		18,771	
36	Mix Equal	Co	Quad	12,616	6	13,347	6	14,078	5

Table A-1-38

## ECD5 Sensitivity Analysis - RC Personnel SAR

## Mechanized Infantry Battalions

Option Number	Eval Source	Level	Freq	SAR	
				\$	Rank
1	Act Army	Bn	Bi	49,832	35
2	Act Army	Bn	Tri	33,221	21
3	Act Army	Bn	Quad	24,916	10
4	Act Army	Co	Bi	46,836	29
5	Act Army	Co	Tri	31,224	17
6	Act Army	Co	Quad	23,418	5
7	Res Comp	Bn	Bi	45,988	27
8	Res Comp	Bn	Tri	30,659	15
9	Res Comp	Bn	Quad	22,994	3
10	Res Comp	Co	Bi	43,339	25
11	Res Comp	Co	Tri	28,893	13
12	Res Comp	Co	Quad	21,670	1
13	Man Tng Cmd	Bn	Bi	51,353	36
14	Man Tng Cmd	Bn	Tri	34,235	24
15	Man Tng Cmd	Bn	Quad	25,677	12
16	Man Tng Cmd	Co	Bi	48,195	32
17	Man Tng Cmd	Co	Tri	32,130	20
18	Man Tng Cmd	Co	Quad	24,097	8
19	Mix AA+	Bn	Bi	49,845	34
20	Mix AA+	Bn	Tri	33,230	22
21	Mix AA+	Bn	Quad	24,922	11
22	Mix AA+	Co	Bi	46,849	30
23	Mix AA+	Co	Tri	31,233	18
24	Mix AA+	Co	Quad	23,425	6
25	Mix RC+	Bn	Bi	46,949	31
26	Mix RC+	Bn	Tri	31,299	19
27	Mix RC+	Bn	Quad	23,475	7
28	Mix RC+	Co	Bi	44,215	26
29	Mix RC+	Co	Tri	29,477	14
30	Mix RC+	Co	Quad	22,107	2
31	Mix Equal	Bn	Bi	49,814	33
32	Mix Equal	Bn	Tri	33,209	23
33	Mix Equal	Bn	Quad	24,907	9
34	Mix Equal	Co	Bi	46,819	28
35	Mix Equal	Co	Tri	31,213	16
36	Mix Equal	Co	Quad	23,410	4

Table A-1-39

ECDS Sensitivity Analysis - RC Personnel SAR

Tank Battalions

Option Number	Eval Source	Level	Freq	SAR	
				\$	Rank
1	Act Army	Bn	Bi	31,288	33
2	Act Army	Bn	Tri	20,859	21
3	Act Army	Bn	Quad	15,644	14
4	Act Army	Co	Bi	22,423	26
5	Act Army	Co	Tri	14,948	9
6	Act Army	Co	Quad	11,211	3
7	Res Comp	Bn	Bi	30,336	31
8	Res Comp	Bn	Tri	20,224	19
9	Res Comp	Bn	Quad	15,168	10
10	Res Comp	Co	Bi	21,849	24
11	Res Comp	Co	Tri	14,566	7
12	Res Comp	Co	Quad	10,924	1
13	Man Tng Cmd	Bn	Bi	33,822	36
14	Man Tng Cmd	Bn	Tri	22,548	27
15	Man Tng Cmd	Bn	Quad	16,911	18
16	Man Tng Cmd	Co	Bi	24,387	30
17	Man Tng Cmd	Co	Tri	16,258	17
18	Man Tng Cmd	Co	Quad	12,193	6
19	Mix AA+	Bn	Bi	31,826	34
20	Mix AA+	Bn	Tri	21,217	22
21	Mix AA+	Bn	Quad	15,913	15
22	Mix AA+	Co	Bi	22,758	28
23	Mix AA+	Co	Tri	15,172	11
24	Mix AA+	Co	Quad	11,379	4
25	Mix RC+	Bn	Bi	30,575	32
26	Mix RC+	Bn	Tri	20,383	20
27	Mix RC+	Bn	Quad	15,288	12
28	Mix RC+	Co	Bi	21,993	25
29	Mix RC+	Co	Tri	14,662	8
30	Mix RC+	Co	Quad	10,996	2
31	Mix Equal	Bn	Bi	32,312	35
32	Mix Equal	Bn	Tri	21,541	23
33	Mix Equal	Bn	Quad	16,156	16
34	Mix Equal	Co	Bi	23,041	29
35	Mix Equal	Co	Tri	15,361	13
36	Mix Equal	Co	Quad	11,521	5

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LITTON MELLONICS SYSTEMS DEVELOPMENT DIV SPRINGFIELD VA  
RESERVE COMPONENT UNIT EVALUATION ANALYSIS. VOLUME II.(U)  
OCT 76 J BERCO, J R CHIORINI, R C EAKINS

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Table A-1-40

## ECDS Sensitivity Analysis - RC Personnel SAR

## 155 (SP) Field Artillery Battalions

Option Number	Eval Source	Level	Freq	SAR	
				\$	Rank
1	Act Army	Bn	Bi	35,300	35
2	Act Army	Bn	Tri	23,533	21
3	Act Army	Bn	Quad	17,650	9
4	Act Army	Co	Bi	29,560	27
5	Act Army	Co	Tri	19,707	15
6	Act Army	Co	Quad	14,780	3
7	Res Comp	Bn	Bi	33,664	31
8	Res Comp	Bn	Tri	22,443	19
9	Res Comp	Bn	Quad	16,382	7
10	Res Comp	Co	Bi	27,925	25
11	Res Comp	Co	Tri	18,617	13
12	Res Comp	Co	Quad	13,962	1
13	Man Tng Cmd	Bn	Bi	36,689	36
14	Man Tng Cmd	Bn	Tri	24,459	24
15	Man Tng Cmd	Bn	Quad	18,344	12
16	Man Tng Cmd	Co	Bi	30,949	30
17	Man Tng Cmd	Co	Tri	20,633	18
18	Man Tng Cmd	Co	Quad	15,475	6
19	Mix AA+	Bn	Bi	35,449	33
20	Mix AA+	Bn	Tri	23,633	22
21	Mix AA+	Bn	Quad	17,725	10
22	Mix AA+	Co	Bi	29,710	28
23	Mix AA+	Co	Tri	19,807	16
24	Mix AA+	Co	Quad	14,855	4
25	Mix RC+	Bn	Bi	34,073	32
26	Mix RC+	Bn	Tri	22,715	20
27	Mix RC+	Bn	Quad	17,037	8
28	Mix RC+	Co	Bi	28,834	26
29	Mix RC+	Co	Tri	19,223	19
30	Mix RC+	Co	Quad	14,417	2
31	Mix Equal	Bn	Bi	35,598	34
32	Mix Equal	Bn	Tri	23,732	23
33	Mix Equal	Bn	Quad	17,799	11
34	Mix Equal	Co	Bi	29,859	29
35	Mix Equal	Co	Tri	19,906	17
36	Mix Equal	Co	Quad	14,930	5

Appendix 2 to Annex A

AT 76 ARTEP Evaluation Cost Data

Table A-2-1

1976 Coordination and Data Collection Visits

Pentagon	HQ DA - DCSOPS & PLANS DCSLOG DCSCOM DCSRDA NGB
Fort McPherson, GA	HQ FORSCOM - DCSOPS
Fort Meade, MD	HQ First Army - DCSOI Army Readiness Region III
Fort Dix, NJ	Army Readiness Region II
Fort Bragg, NC	122 EN & 213 MP Co.
Fort Indiantown Gap, PA	458 EN
Fort Drum, NY	5/112 FA, 3-102 AR, 1-169 IN & 726 Maint
Camp Edward, MA	101 IN
Camp Shelby MS	4/117(M) & 890 EN Co.
Fort Stewart GA	1/118 IN(M) & 4/118 IN(M)
Fort Gillem, GA	Army Readiness Region IV
Fort Pickett, VA	211 MP Co, 307 MP Co, 1/109 IN(M), 2/109 IN & 728 Maint
Camp Ripley, MN	2/135 IN, 2/136 IN(M) & 747 Maint
Fort Hill, VA	103 EN, 1/229 FA(105)
Fort Hood, TX	2/252 AR & 2/120 IN(M)
Fort Chaffee, AR	2/153 IN & 3/153 IN

Table A-2-2  
Cost Data and Average Evaluation Cost for AF 76  
Field Artillery (155mm) Battalions

EU Cost	B, 1-120	A, 1-127	A, 1-147	B, 1-147	C, 1-147	A, 2-222	B, 2-222	A, 1-49	B, 1-49	C, 1-49	C, 4-133	A, 5-112	B, 5-112	Battery Average	Battalion Average
														ACCS3	
Ammo	\$58,206.05	\$32,041.21	\$17,225.63	\$14,057.36	\$4,874.73	\$42,509.77	\$42,188.41	\$22,064.98	\$23,766.02	\$25,386.58	\$21,263.29	\$25,200.23	\$25,200.23	\$26,460.00	\$26,460.00
Maint	0	0	0	0	0	572.00	8.31	0	0	13.73	17.89	761.50	1,071.17	183.00	705.00
POL	74.42	59.56	103.45	99.06	96.62	217.58	142.06	346.90	28.70	810.11	87.31	49.24	53.57	169.00	594.00
EU TOTAL	\$58,280.47	\$32,101.17	\$17,329.08	\$14,156.42	\$14,971.35	\$43,209.35	\$42,338.78	\$22,411.88	\$23,794.72	\$26,210.42	\$21,368.49	\$25,950.97	\$26,324.97	\$26,812.00	\$27,759.00
EC Cost	\$ 876.10	\$ 799.83	NR	NR	NR	\$ 799.83	\$ 799.83	\$ 448.80	\$ 448.80	\$ 448.80	\$ 142.88	\$ 1,085.98	\$ 894.98	\$ 595.00	\$ 1,784.00
Ammo	0	0	NR	NR	NR	0	0	0	0	0	0	0	0	0	0
Maint	0	0	NR	NR	NR	0	0	0	0	0	0	0	0	0	0
POL	182.80	64.21	NR	NR	NR	64.21	68.90	188.18	188.18	188.18	360.08	269.72	269.72	198.00	593.00
Personnel	13,244.00	5,439.00	NR	NR	NR	5,439.00	5,439.00	0	0	0	1,280.00	5,989.00	5,989.00	5,482.00	17,362.00
Travel	1,218.00	0	NR	NR	NR	0	0	0	0	0	0	236.32	236.32	282.00	898.00
Per Diem	1,968.00	1,080.00	NR	NR	NR	1,080.00	827.80	0	0	0	0	480.85	480.85	640.00	2,034.00
EC TOTAL	\$17,488.90	\$ 7,293.04	NR	NR	NR	\$ 7,343.04	\$ 7,135.53	\$ 636.98	\$ 636.98	\$ 636.98	\$ 1,762.86	\$ 8,061.87	\$ 7,870.87	\$ 7,177.00	\$22,671.00
TOTAL	\$55,769.37	\$39,394.21	NR	NR	NR	\$50,442.30	\$49,474.31	\$23,088.86	\$24,431.70	\$26,847.40	\$23,131.45	\$34,012.84	\$34,195.84	\$33,989.00	\$60,430.00

NR = Not received

Table A-2-3

## Evaluation Cost Based on the ARTEP Document (ECD6)

## Field Artillery (155mm) Battalions

	Level 2					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$31,036	\$31,036	\$31,036	\$31,036	\$31,036	\$31,036
Maint	705	705	705	705	705	705
POL	1,187	1,187	1,187	1,187	1,187	1,187
Personnel	22,075	4,605	22,075	19,891	8,973	17,708
Travel	633	0	1,460	1,640	486	1,337
Per Diem	1,867	0	2,241	1,680	467	1,494
ECD62	\$57,503	\$37,533	\$58,704	\$56,139	\$42,854	\$53,467

	Level 1					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$ 42,515	\$ 42,515	\$ 42,515	\$ 42,515	\$ 42,515	\$ 42,515
Maint	705	705	705	705	705	705
POL	1,187	1,187	1,187	1,187	1,187	1,187
Personnel	22,075	4,605	22,075	19,891	8,973	17,708
Travel	633	0	1,460	1,640	486	1,337
Per Diem	1,867	0	2,241	1,680	467	1,494
ECD 61	\$ 68,982	\$ 49,012	\$ 70,183	\$ 67,618	\$ 54,333	\$ 64,946

Table A-2-4

## ARTEP Document Ammunition Requirements

## Field Artillery (155mm) Battalions

<u>Item</u>	<u>Price</u>	<u>Level 2</u>		<u>Level 1</u>	
		<u>Number</u>	<u>Cost</u>	<u>Number</u>	<u>Cost</u>
Charge, Propelling	\$ 24.217	224	\$ 5,424.61	308	\$ 7,458.84
Fuze, Point Detonating	6.287	192	1,207.10	258	1,622.05
Fuze, Proximity	57.640	8	461.12	8	461.12
Fuze, MTSQ	17.733	24	425.59	42	744.79
Primer	1.054	224	236.10	308	324.63
Projectile, High Explosive	93.753	208	19,500.62	274	25,688.32
Projectile, Illumination	124.794	16	1,996.70	16	1,996.70
Projectile, Smoke HC	135.236			18	2,434.25
TOTAL			\$29,251.84		\$40,730.70

Table A-2-5

## ARTEP Document Personnel Cost

## Field Artillery (155mm) Battalions - Level 2 and 1

Rank	Rate	Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars
0-6	\$133		\$		\$
0-5	109	10	1,090		
0-4	91	10	910		
0-3	76	100	7,600		
0-2	60	70	4,200	15	900
0-1	45	70	3,150	5	225
Sub-Total			\$16,950		\$1,125
W-4	85				
W-3	71				
W-2	59				
W-1	52				
Sub-Total					
E-9	73				
E-8	61				
E-7	52	10	520		
E-6	44			15	660
E-5	37			20	740
E-4	31			40	1,240
E-3	28			30	840
E-2	26				
Sub-Total			\$ 520		\$3,480
TOTAL			\$17,470		\$4,605
GRAND TOTAL				\$22,075	

Table A-2-6

Travel and Per Diem Cost for ECD6  
Field Artillery (155mm) Battalions

Evaluator Source	Number of Travellers	Levels 2 and 1						Bn Avg. L2,1	
		5-122	4-133	1-49	1-120	1-127	2-222		1-147
AA	27	\$ 3,834	0	\$ 967	\$ 4,374	0	0	\$ 4,428	\$ 633
RC	52	0	0	0	0	0	0	0	0
MTC	27	1,508	\$ 2,646	730	975	\$ 257	0	4,104	1,460
AA+	52	3,064	331	817	3,403	32	0	3,834	1,640
RC+	52	959	0	242	1,094	0	0	1,107	486
Equal	52	2,294	662	666	2,431	64	0	3,240	1,337

Evaluator Source	Number of Personnel	Levels 2 and 1						Bn Avg. L2,1	
		5-122	4-133	1-49	1-120	1-127	2-222		1-147
AA	26 OFF 1 EM	\$ 2,614	0	\$ 2,614	\$ 2,614	0	\$ 2,614	\$ 2,614	\$ 1,867
RC	30 OFF 22 EM	0	0	0	0	0	0	0	0
MTC	26 OFF 1 EM	2,614	\$ 2,614	2,614	2,614	\$ 2,614	0	2,614	2,241
AA+	30 OFF 22 EM	2,287	327	2,287	2,287	327	1,961	2,287	1,680
RC+	30 OFF 22 EM	654	0	654	654	0	654	654	467
Equal	30 OFF 22 EM	1,961	654	1,961	1,961	654	1,307	1,961	1,494

Table A-2-7

## ECD6 Option Cost

## Field Artillery (155mm) Battalions

Option Number	Eval Source	Level	Freq	ECD6	
				\$	Rank
1	Act Army	Bn	Bi	34,491	35
2	Act Army	Bn	Tri	22,994	25
3	Act Army	Bn	Quad	17,246	14
4	Act Army	Co	Bi	28,752	31
5	Act Army	Co	Tri	19,168	20
6	Act Army	Co	Quad	14,376	9
7	Res Comp	Bn	Bi	24,506	27
8	Res Comp	Bn	Tri	16,337	12
9	Res Comp	Bn	Quad	12,253	3
10	Res Comp	Co	Bi	18,767	19
11	Res Comp	Co	Tri	12,511	4
12	Res Comp	Co	Quad	9,383	1
13	Man Tng Cmd	Bn	Bi	35,092	36
14	Man Tng Cmd	Bn	Tri	23,394	26
15	Man Tng Cmd	Bn	Quad	17,546	15
16	Man Tng Cmd	Co	Bi	29,352	32
17	Man Tng Cmd	Co	Tri	19,568	21
18	Man Tng Cmd	Co	Quad	14,676	10
19	Mix AA+	Bn	Bi	33,809	34
20	Mix AA+	Bn	Tri	22,539	24
21	Mix AA+	Bn	Quad	16,905	13
22	Mix AA+	Co	Bi	28,070	30
23	Mix AA+	Co	Tri	18,713	18
24	Mix AA+	Co	Quad	14,035	7
25	Mix RC+	Bn	Bi	27,167	29
26	Mix RC+	Bn	Tri	18,111	17
27	Mix RC+	Bn	Quad	13,583	6
28	Mix RC+	Ce	Bi	21,427	22
29	Mix RC+	Co	Tri	14,285	8
30	Mix RC+	Co	Quad	10,714	2
31	Mix Equal	Bn	Bi	32,473	33
32	Mix Equal	Bn	Tri	21,649	23
33	Mix Equal	Bn	Quad	16,237	11
34	Mix Equal	Co	Bi	26,734	28
35	Mix Equal	Co	Tri	17,822	16
36	Mix Equal	Co	Quad	13,367	5

Table A-2-8  
 ECD62-ECD61 Comparisons  
 Field Artillery (155mm) Battalions

<u>Element</u>	<u>ECD62</u>	<u>ECD61</u>
Ammo	\$31,036	\$42,515
Maint	705	705
POL	1,187	1,187
Personnel	22,075	22,075
Travel	633	633
Per Diem	1,867	1,867
ECD	\$57,503	\$68,982

Table A-2-9  
 AEC62-ECD62 Comparisons  
 Field Artillery (155mm) Battalions

<u>Element</u>	<u>AEC62</u>		<u>ECD62</u>	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$28,244	56.0	\$31,036	54.0
Maint	705	1.4	705	1.2
POL	1,187	2.4	1,187	2.1
Personnel	17,362	34.4	22,075	38.4
Travel	898	1.8	633	1.1
Per Diem	2,034	4.0	1,867	3.2
EC	\$50,430	100%	\$57,503	100%

Table A-2-10

Cost Data and Average Evaluation Cost for AT76--Level 2

Field Artillery (105mm) Battalions

<u>EU Cost</u>	<u>Cost Data</u>	<u>AEC62</u>
Ammo	\$55,429.55	\$ 55,430
Maint	155.00	155
POL	679.97	680
EU TOTAL	\$56,264.52	\$ 56,265
<u>EG Cost</u>		
Ammo	\$ 1,633.30	\$ 1,633
Maint	0	0
POL	270.68	271
Personnel	783.00	783
Travel	0	0
Per Diem	0	0
EG TOTAL	\$ 2,686.98	\$ 2,687
TOTAL	\$58,951.50	\$ 58,952

Table A-2-11

## Evaluation Cost Based on the ARTEP Document (ECD6)

## Field Artillery (105mm) Battalions

	<u>Level 2</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$25,150	\$25,150	\$25,150	\$25,150	\$25,150	\$25,150
Maint	155	155	155	155	155	155
POL	951	951	951	951	951	951
Personnel	22,945	4,605	22,945	20,653	9,190	18,360
Travel	1,206	0	227	933	302	660
Per Diem	2,218	0	2,218	1,941	555	1,664
ECD62	\$52,625	\$30,861	\$51,646	\$49,783	\$36,303	\$46,940

	<u>Level 1</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$30,464	\$30,464	\$30,464	\$30,464	\$30,464	\$30,464
Maint	155	155	155	155	155	155
POL	951	951	951	951	951	951
Personnel	22,945	4,605	22,945	20,653	9,190	18,360
Travel	1,206	0	227	933	302	660
Per Diem	2,218	0	2,218	1,941	555	1,664
ECD 61	\$57,939	\$36,175	\$56,960	\$55,097	\$41,617	\$52,254

Table A-2-12

ARTEP Document Ammunition Requirements

Field Artillery (105mm) Battalions

<u>Item</u>	<u>Price</u>	<u>Level 2</u>		<u>Level 1</u>	
		<u>Number</u>	<u>Cost</u>	<u>Number</u>	<u>Cost</u>
Fuse proximity	\$ 57.64	18	\$ 1,037.52	18	\$ 1,037.52
Cartridge 105mm HE w/f PD	65.22	222	14,478.84	290	18,913.80
Cartridge 105mm HE MTSQ	73.23	60	4,393.80	72	5,272.56
Cartridge 105mm HE (ICM)	132.00	18	2,376.00	18	2,376.00
Cartridge 105mm HE Illum	76.93	16	1,230.88	16	1,230.88
			\$23,517.04		\$28,830.76

Table A-2-13

## ARTEP Document Personnel Cost

Field Artillery (105mm) Battalions - Level 2 and 1

Rank	Rate	Evaluators		Support	
		Man-Days	Dollars	Man-Days	Dollars
0-6	\$133		\$		\$
0-5	109	10	1,090		
0-4	91	10	910		
0-3	76	90	6,840		
0-2	60	70	4,200	15	900
0-1	45	70	3,150	5	225
Sub-Total			\$16,190		\$ 1,125
W-4	85				
W-3	71				
W-2	59	10	590		
W-1	52				
Sub-Total			\$ 590		
E-9	73				
E-8	61				
E-7	52	30	1,560		
E-6	44			15	660
E-5	37			20	740
E-4	31			40	1,240
E-3	28			30	840
E-2	26				
Sub-Total			\$ 1,560		\$ 3,480
TOTAL			\$18,340		\$ 4,605
GRAND TOTAL				\$22,945	

Table A-2-14

Travel and Per Diem for ECD6

Field Artillery (105mm) Battalions - Levels 2 and 1

<u>Evaluator Source</u>	<u>Number of Travellers</u>	<u>1-229</u>
AA	29	\$ 1,206
RC	84	0
MTC	29	227
AA+	84	933
RC+	84	302
Equal	84	660

<u>Evaluator Source</u>	<u>Number of Personnel</u>	<u>1-229</u>
AA	26 OFF 3 EM	\$ 2,218
RC	30 OFF 54 EM	0
MTC	26 OFF 3 EM	2,218
AA+	30 OFF 54 EM	1,941
RC+	30 OFF 54 EM	555
Equal	30 OFF 54 EM	1,664

Table A-2-15

## ECD6 Option Cost

## Field Artillery (105mm) Battalions

Option Number	Eval Source	Level	Freq	ECD6	
				\$	Rank
1	Act Army	Bn	Bi	28,970	36
2	Act Army	Bn	Tri	19,313	27
3	Act Army	Bn	Quad	14,485	16
4	Act Army	Co	Bi	26,313	33
5	Act Army	Co	Tri	17,542	22
6	Act Army	Co	Quad	13,156	12
7	Res Comp	Bn	Bi	18,088	23
8	Res Comp	Bn	Tri	12,058	7
9	Res Comp	Bn	Quad	9,044	2
10	Res Comp	Co	Bi	15,431	17
11	Res Comp	Co	Tri	10,287	4
12	Res Comp	Co	Quad	7,715	1
13	Man Tng Cmd	Bn	Bi	28,480	35
14	Man Tng Cmd	Bn	Tri	18,987	26
15	Man Tng Cmd	Bn	Quad	14,240	15
16	Man Tng Cmd	Co	Bi	25,823	31
17	Man Tng Cmd	Co	Tri	17,215	20
18	Man Tng Cmd	Co	Quad	12,912	10
19	Mix AA+	Bn	Bi	27,549	34
20	Mix AA+	Bn	Tri	18,366	25
21	Mix AA+	Bn	Quad	13,774	13
22	Mix AA+	Co	Bi	24,892	30
23	Mix AA+	Co	Tri	16,594	19
24	Mix AA+	Co	Quad	12,446	9
25	Mix RC+	Bn	Bi	20,809	28
26	Mix RC+	Bn	Tri	13,872	14
27	Mix RC+	Bn	Quad	10,404	5
28	Mix RC+	Co	Bi	18,152	24
29	Mix RC+	Co	Tri	12,101	8
30	Mix RC+	Co	Quad	9,076	3
31	Mix Equal	Bn	Bi	26,127	32
32	Mix Equal	Bn	Tri	17,418	21
33	Mix Equal	Bn	Quad	13,064	11
34	Mix Equal	Co	Bi	23,470	29
35	Mix Equal	Co	Tri	15,647	18
36	Mix Equal	Co	Quad	11,755	6

Table A-2-16

## Field Artillery (105mm) Battalions

## ECD62 - ECD61 Comparisons

	<u>ECD62</u>	<u>ECD61</u>
Ammo	\$ 25,150	\$ 30,464
Maint	155	155
POL	951	951
Personnel	22,945	22,945
Travel	1,206	1,206
Per Diem	2,218	2,218
ECD	\$ 52,625	\$ 57,939

Table A-2-17

## Field Artillery (105mm) Battalions

## AEC62 - ECD62 Comparisons

	<u>AEC62</u>		<u>ECD62</u>	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$57,063	96.8	\$25,150	47.8
Maint	155	0.3	155	0.3
POL	951	1.6	951	1.8
Personnel	783	1.3	22,945	43.6
Travel	0	0	1,206	2.3
Per Diem	0	0	2,218	4.2
EC	\$58,952	100%	\$52,625	100%

Table A-2-18

Cost Data and Average Evaluation Cost for AT76--Level 3  
Maintenance Companies

<u>EU Cost</u>	<u>D,726</u>	<u>B,728</u>	<u>D,747</u>	<u>D,949</u>	<u>C,949</u>	<u>Company Average AEC63</u>
Ammo	\$ 668.59	\$ 333.61	\$ 65.01	0	0	\$ 213
Maint	45.35	37.95	271.18	0	0	71
POL	348.97	63.47	351.05	\$363.19	\$127.25	251
EU TOTAL	\$1,062.91	\$ 435.03	\$ 697.24	\$363.19	\$127.25	\$ 535
 <u>EG Cost</u>						
Ammo	\$ 255.03	\$ 196.95	0	0	0	\$ 90
Maint	0	0	0	0	0	0
POL	\$ 35.62	\$ 28.12	\$ 22.50	\$ 14.06	\$ 14.06	25
Personnel	0	871.00	0	0	0	174
Travel	0	72.00	597.60	0	0	134
Per Diem	0	0	288.40	0	0	58
EG TOTAL	\$ 290.65	\$1,168.07	\$ 908.50	\$ 14.06	\$ 14.06	\$ 479
 TOTAL	 \$1,353.56	 \$1,603.10	 \$1,605.74	 \$377.25	 \$141.31	 \$ 1,014

Table A-2-19

Evaluation Cost Based on the ARTEP Document (ECD63)

Maintenance Companies

<u>Element</u>	<u>Level 3</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Maint	71	71	71	71	71	71
POL	274	274	274	274	274	274
Personnel	2860	0	2860	2503	715	2145
Travel	536	0	627	481	134	425
Per Diem	167	14	225	155	53	144
ECD63	\$ 3908	\$ 359	\$4057	\$ 3484	\$ 1247	\$ 3059

Table A-2-20

ARTEP Document Personnel Cost

Maintenance Companies - Level 3

Rank	Rate	Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars
0-6	\$133				
0-5	109				
0-4	91	5	\$ 455		
0-3	76	5	380		
0-2	60	5	300		
0-1	41				
Sub-Total			\$1,135		
W-4	\$ 85				
W-3	71	5	\$ 355		
W-2	59	10	590		
W-1	52				
Sub-Total			\$ 945		
E-9	\$ 73				
E-8	61				
E-7	52	15	\$ 780		
E-6	44				
E-5	37				
E-4	31				
E-3	28				
E-2	26				
Sub-Total			\$ 780		
TOTAL			\$2,860		0
GRAND TOTAL				\$2,860	

Table A-2-21  
 Travel Cost for ECD63  
 Maintenance Companies

<u>Evaluator Source</u>	<u>Number of Travellers</u>	<u>D,726</u>	<u>D,747</u>	<u>B,728</u>	<u>C,949</u>	<u>D,949</u>	<u>Average</u>
AA	9	\$1278	\$ 954	\$ 450	\$ 0	\$ 0	\$ 536
RC	9	0	0	0	0	0	0
MTC	9	0	598	774	882	882	627
AA+	9	959	790	434	110	110	481
RC+	9	320	239	113	0	0	134
Equal	9	627	419	221	221	221	425

Table A-2-22  
 Per Diem Cost for ECD63  
 Maintenance Companies

<u>Evaluator Source</u>	<u>Number of Personnel</u>	<u>D,726</u>	<u>D,747</u>	<u>B,728</u>	<u>C,949</u>	<u>D,949</u>	<u>Average</u>
AA	6 OFF 3 EM	\$ 279	\$ 279	\$ 279	\$ 0	\$ 0	\$ 167
RC	6 OFF 3 EM	0	0	72	0	0	14
MTC	6 OFF 3 EM	0	288	279	279	279	225
AA+	6 OFF 3 EM	209	245	253	35	35	155
RC+	6 OFF 3 EM	70	70	124	0	0	53
Equal	6 OFF 3 EM	140	212	227	70	70	144

Table A-2-23

## ECD6 Option Cost

## Maintenance Companies

Option Number	Eval Source	Level	Freq	ECD6	
				\$	Rank
1	Act Army	Bn	Bi	*	*
2	Act Army	Bn	Tri	*	*
3	Act Army	Bn	Quad	*	*
4	Act Army	Co	Bi	1,954	17
5	Act Army	Co	Tri	1,305	13
6	Act Army	Co	Quad	977	9
7	Res Comp	Bn	Bi	*	*
8	Res Comp	Bn	Tri	*	*
9	Res Comp	Bn	Quad	*	*
10	Res Comp	Co	Bi	180	3
11	Res Comp	Co	Tri	120	2
12	Res Comp	Co	Quad	90	1
13	Man Tng Cmd	Bn	Bi	*	*
14	Man Tng Cmd	Bn	Tri	*	*
15	Man Tng Cmd	Bn	Quad	*	*
16	Man Tng Cmd	Co	Bi	2,029	18
17	Man Tng Cmd	Co	Tri	1,352	14
18	Man Tng Cmd	Co	Quad	1,014	10
19	Mix AA+	Bn	Bi	*	*
20	Mix AA+	Bn	Tri	*	*
21	Mix AA+	Bn	Quad	*	*
22	Mix AA+	Co	Bi	1,742	16
23	Mix AA+	Co	Tri	1,161	12
24	Mix AA+	Co	Quad	871	8
25	Mix RC+	Bn	Bi	*	*
26	Mix RC+	Bn	Tri	*	*
27	Mix RC+	Bn	Quad	*	*
28	Mix RC+	Co	Bi	624	6
29	Mix RC+	Co	Tri	416	5
30	Mix RC+	Co	Quad	312	4
31	Mix Equal	Bn	Bi	*	*
32	Mix Equal	Bn	Tri	*	*
33	Mix Equal	Bn	Quad	*	*
34	Mix Equal	Co	Bi	1,530	15
35	Mix Equal	Co	Tri	1,020	11
36	Mix Equal	Co	Quad	765	7

\*Forward Support ARTEP is written for company size units

Table A-2-24  
 AEC63-ECD63 Comparisons  
 Maintenance Companies

<u>Element</u>	<u>AEC63</u>		<u>ECD63</u>	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$ 303	29.9	\$ 0	0
Maint	71	7.0	71	1.8
POL	274	27.0	274	7.0
Personnel	174	17.2	2,860	73.2
Travel	134	13.2	536	13.7
Per Diem	58	5.7	167	4.3
EC	\$1,014	100%	\$3,908	100%

Table A-2-25

Cost Data and Average Evaluation Cost for AT76--Level 3  
Military Police Companies

<u>EU Cost</u>	<u>Cost Data</u>		<u>AEC63</u>
	<u>211 MP Co</u>	<u>307 MP Co</u>	
Ammo	\$ 0.00	\$ 166.38	\$ 83.00
Maint	0.00	21.61	11.00
POL	175.76	167.16	171.00
EU TOTAL	\$ 175.76	\$ 355.15	\$ 265.00
<u>EG Cost</u>			
Ammo	\$ 652.08	\$ 0.00	\$ 326.00
Maint	0.00	0.00	0.00
POL	136.53	158.85	148.00
Personnel	6965.00	7350.00	7158.00
Travel	145.46	478.20	312.00
Per Diem	0.00	0.00	0.00
EG TOTAL	\$7899.07	\$7987.05	\$7944.00
TOTAL	\$8074.83	\$8342.20	\$8209.00

Table A-2-26

Evaluation Cost Based on the ARTEP Document (ECD63)  
 Military Police Companies

	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$ 731	\$ 731	\$ 731	\$ 731	\$ 731	\$ 731
Maint	11	11	11	11	11	11
POL	319	319	319	319	319	319
Personnel	6062	3687	6062	5765	4281	5468
Travel	216	0	312	201	54	186
Per Diem	196	0	0	147	49	98
ECD63	\$ 7535	\$ 4748	\$ 7435	\$ 7174	\$ 5445	\$ 6813

Table A-2-27

ARTEP Document Ammunition Requirements  
 Military Police Company--Level 3

<u>Item</u>	<u>Price</u>	<u>Number</u>	<u>Cost</u>
Grenade Hand Riot CS	28.250	20	565.00
Grenade Hand Smoke HC	8.319	20	166.38
TOTAL			\$731.38

Table A-2-28

ARTEP Document Personnel Cost  
Military Police Companies - Level 3

Rank	Rate	Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars
O-6	\$133				
O-5	109				
O-4	91	5	\$ 455		
O-3	76	15	1,140		
O-2	60				
O-1	41				
Sub-Total			\$ 1,595		
W-4	85				
W-3	71				
W-2	59				
W-1	52				
Sub-Total					
E-9	73				
E-8	61				
E-7	52	15	\$ 780		
E-6	44			7	\$ 308
E-5	37			17	629
E-4	31			58	1,798
E-3	28			34	952
E-2	26				
Sub-Total			\$ 780		\$ 3,687
TOTAL			\$ 2,375		\$ 3,687
GRAND TOTAL					\$6,062

Table A-2-29

Travel and Per Diem Cost For ECD63

Military Police Companies

Evaluator Source	Travel		Per Diem	
	Number of Travellers	Cost	Number of Personnel	Cost
AA	7	\$ 216	4 OFF 3 EM	\$ 196
RC	37	0	4 OFF 33 EM	0
MTC	7	312	4 OFF 3 EM	196
AA+	37	201	4OFF 33 EM	147
RC+	37	54	4 OFF 33 EM	49
Equal	37	186	4 OFF 33 EM	98

Table A-2-30

ECD6 Option Cost  
Military Police Companies

Option Number	Eval Source	Level	Freq	ECD6	
				\$	Rank
1	Act Army	Bn	Bi	*	*
2	Act Army	Bn	Tri	*	*
3	Act Army	Bn	Quad	*	*
4	Act Army	Co	Bi	3,768	17
5	Act Army	Co	Tri	2,512	12
6	Act Army	Co	Quad	1,884	7
7	Res Comp	Bn	Bi	*	*
8	Res Comp	Bn	Tri	*	*
9	Res Comp	Bn	Quad	*	*
10	Res Comp	Co	Bi	2,374	10
11	Res Comp	Co	Tri	1,583	3
12	Res Comp	Co	Quad	1,187	1
13	Man Tng Cmd	Bn	Bi	*	*
14	Man Tng Cmd	Bn	Tri	*	*
15	Man Tng Cmd	Bn	Quad	*	*
16	Man Tng Cmd	Co	Bi	3,816	18
17	Man Tng Cmd	Co	Tri	2,544	13
18	Man Tng Cmd	Co	Quad	1,908	8
19	Mix AA+	Bn	Bi	*	*
20	Mix AA+	Bn	Tri	*	*
21	Mix AA+	Bn	Quad	*	*
22	Mix AA+	Co	Bi	3,587	16
23	Mix AA+	Co	Tri	2,391	11
24	Mix AA+	Co	Quad	1,794	5
25	Mix RC+	Bn	Bi	*	*
26	Mix RC+	Bn	Tri	*	*
27	Mix RC+	Bn	Quad	*	*
28	Mix RC+	Co	Bi	2,723	14
29	Mix RC+	Co	Tri	1,815	6
30	Mix RC+	Co	Quad	1,361	2
31	Mix Equal	Bn	Bi	*	*
32	Mix Equal	Bn	Tri	*	*
33	Mix Equal	Bn	Quad	*	*
34	Mix Equal	Co	Bi	3,430	15
35	Mix Equal	Co	Tri	2,287	9
36	Mix Equal	Co	Quad	1,715	4

\* MP ARTEP is written for company size units

Table A-2-31  
 AEC63-ECD63 Comparisons  
 Military Police Companies

	AEC63		ECD63	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$ 409	5.0	\$ 731	9.7
Maint	11	0.1	11	0.2
POL	319	3.9	319	4.2
Personnel	7158	87.2	6062	80.4
Travel	312	3.8	216	2.9
Per Diem	0	0	196	2.6
EC	\$8209	100%	\$7535	100%

Table A-2-32

Cost Data and Average Evaluation Cost for AT 76

Mechanized Infantry Battalions

EU Cost	C, 2-136	B, 1-118	B, 4-118	HQ, 2-120	A, 4-117	B, 4-117	C, 4-117	C, 1-109	Mech Co Average	Mech Bn Average AEC63
Ammo	\$ 851.88	\$10,854.76	\$12,566.16	\$ 1,174.76	\$12,106.39	\$ 6,262.60	NR	\$10,613.41	\$ 8,876	\$30,568
Maint	249.93	327.97	117.26	0	138.02	0	\$ 25.20	0	123	371
POL	315.25	509.12	210.92	456.61	180.27	382.30	NR	NR	320	1,386
EU TOTAL	\$ 1,417.06	\$11,691.85	\$12,894.34	\$ 1,631.37	\$12,424.68	\$ 6,644.90			\$ 9,319	\$32,325

A-2-28

EG Cost	C, 2-136	B, 1-118	B, 4-118	HQ, 2-120	A, 4-117	B, 4-117	C, 2-117	C, 1-109	Mech Co Average	Mech Bn Average AEC63
Ammo	\$ 2,591.04	\$ 1,681.21	\$ 1,681.21	\$ 305.39	0	0	0 \$	510.96	\$ 923	\$ 2,544
Maint	0	65.14	65.14	0	0	0	0	0	19	33
POL	645.91	807.36	807.36	205.28	\$ 46.87	\$ 46.87	\$ 46.87	\$ 135.49	362	967
Personnel	36,158.00	4,998.00	4,998.00	1,469.00	72.57	72.57	72.57	630.00	6,834	21,736
Travel	16,000.00	0	0	0	120.28	120.28	120.28	0	2,337	8,180
Per Diem	3,903.90	0	0	0	0	0	0	0	558	1,952
EG TOTAL	\$59,298.85	\$ 7,551.71	\$ 7,551.71	\$ 1,979.67	\$ 239.72	\$ 239.72	\$239.72	\$ 1,276.45	\$11,033	\$35,412
TOTAL	\$60,715.92	\$19,243.56	\$20,446.05	\$ 3,611.04	\$12,664.40	\$ 6,884.62			\$20,352	\$67,737

Table A-2-33

## Evaluation Cost Based on the ARTEP Document (ECD6)

## Mechanized Infantry Battalions

	<u>Level 3</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$37,175	\$37,175	\$37,175	\$37,175	\$37,175	\$37,175
Maint	404	404	404	404	404	404
POL	2,353	2,353	2,353	2,353	2,353	2,353
Personnel	22,330	0	22,330	19,559	5,583	16,748
Travel	4,717	0	6,072	4,297	1,179	3,877
Per Diem	2,569	0	2,843	2,152	592	1,895
ECD63	\$69,348	\$39,932	\$71,177	\$65,900	\$47,286	\$62,452

	<u>Level 2</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$38,849	\$38,849	\$38,849	\$38,849	\$38,849	\$38,849
Maint	404	404	404	404	404	404
POL	2,353	2,353	2,353	2,353	2,353	2,353
Personnel	25,710	0	25,710	22,496	6,428	19,285
Travel	5,130	0	6,600	4,673	1,283	4,215
Per Diem	2,701	0	3,241	2,431	675	2,161
ECD62	\$75,147	\$41,606	\$77,157	\$71,206	\$49,992	\$67,265

Table A-2-34

## ARTEP Document Ammunition Requirements (ECD6)

## Mechanized Infantry Battalions

Item	Price	Level 3		Level 2	
		Number	Cost	Number	Cost
Ctg HE 81 mm mort w/PDF	\$ 58.384	70	\$ 4,086.88	70	\$ 4,086.88
Ctg illum 81 mm mort	55.323	18	995.81	18	995.81
Ctg smoke WP 81 mm mort	37.169	30	1,115.07	30	1,115.07
Ctg HE 4.2 in mort w/PDF	72.965	65	4,742.73	65	4,742.73
Ctg illum 4.2 in mort	67.025	18	1,206.45	18	1,206.45
Ctg smoke WP 4.2 in mort	78.239	30	2,347.17	30	2,347.17
Ctg HEAT 106 mm RR	126.771	12	1,521.25	12	1,521.25
Ctg HEP-T 106 mm RR <sup>or<sup>a</sup></sup>	133.269	12	1,599.23	12	1,599.23
Ctg spotter-tracer cal .50	1.650	12	19.80	12	19.80
Ctg tr cal .50 MLB	.805	2200	1,771.00	2200	1,771.00
Ctg ball cal .50 tr4-1 MLB	1.130	1000	1,130.00	1000	1,130.00
Ctg tracer cal .30	.182	15	2.73	15	2.73
Ctg ball 7.62 mm MLB	.172	1800	309.60	1800	309.60
Ctg blank 7.62 mm MLB	.145	25000	3,625.00	25000	3,625.00
Ctg tracer 7.62 mm	.154	3	.46	3	.46
Ctg ball 5.56 mm	.0779	7200	560.88	7200	560.88
Ctg blank 5.56 mm	.057	30000	1,710.00	30000	1,710.00
Rocket prac 35 mm LAW	6.608	45	297.36	45	297.36
Guided Missile TOW prac	3435.00	3	10,305.00	3	10,305.00
Diaphragm blast sim TOW	1.00	15	15.00	15	15.00
Grenade hand riot CS	28.250	-	0.00	30	847.50
Grenade hand smoke red	6.954	10	69.54	20	139.08
Grenade hand smoke green	7.474	2	14.95	40	298.96
Grenade hand smoke yellow	9.222	15	138.33	25	230.55
Grenade hand smoke HC	8.319	10	83.19	10	83.19
Signal gnd green star cl.	10.697	9	96.27	40	427.88
Signal gnd red stat cluster	14.959	20	299.18	20	299.18
Signal gnd white star cl.	10.216	9	91.94	15	153.24
Signal gnd red star preht	10.817	4	43.27	4	43.27
Signal gnd white star preht	10.326	2	20.65	2	20.65
Simulator proj gnd burst	2.355	45	105.98	40	94.20
Simulator booby trap flash	1.836	5	9.18	5	9.18
Simulator booby trap illum	2.502	5	12.51	5	12.51
Simulator booby trap whistle	2.229	5	11.15	5	11.15
Simulator flash arty	3.500	40	140.00	40	140.00
Fuze practice grenade	.882	225	198.42	225	198.42
Worst Cost			\$37,174.73		\$38,849.15

<sup>a</sup>HEP-T or HEAT may be used.

Table A-2-35

## ARTEP Document Personnel Support

## Mechanized Infantry Battalions

Rank	Rate	Level 3				Level 2			
		Evaluators		Support		Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars
0-6	\$125								
0-5	101					10	\$ 1,010		
0-4	83	10	\$ 830			30	2,490		
0-3	71	70	4,970			80	5,680		
0-2	56	60	3,360			60	3,360		
0-1	40	90	3,600			90	3,600		
Sub-Total			\$12,760				\$16,140		
W-4	\$ 80								
W-3	68								
W-2	57								
W-1	47								
Sub-Total									
E-9	\$ 70								
E-8	59								
E-7	51	30	\$ 1,530	5	\$ 255	30	\$ 1,530	5	\$ 255
E-6	43	120	5,160	5	215	120	5,160	5	215
E-5	36	80	2,880	25	900	80	2,880	25	900
E-4	30			85	2,550			105	3,150
E-3	27			75	2,025			75	2,025
E-2	24			35	840			35	840
E-1	22								
Sub-Total			\$ 9,570		\$6,785		\$ 9,570		\$7,385
TOTAL			\$22,330		\$6,785		\$25,710		\$7,385
GRAND TOTAL				\$29,115				\$33,095	

Table A-2-36

Travel Cost for ECD6

Mechanized Infantry Battalions

Evaluator Source	Number of Travellers	Level 3					Battalion Average
		2-136	1-118	4-118	1-120	4-117	
AA	46	\$15,015	\$ 3,312	\$ 3,312	0	\$ 5,244	\$ 4,717
RC	91	0	0	0	0	0	0
MTC	46	4,416	8,188	8,188	\$12,788	599	6,072
AA+	91	11,813	3,508	3,508	1,599	4,008	4,297
RC+	91	3,754	828	828	0	1,311	1,179
Equal	91	8,612	3,703	3,703	3,197	2,772	3,877

Evaluator Source	Number of Travellers	Level 2					Battalion Average
		2-136	1-118	4-118	1-120	4-117	
AA	50	\$16,355	\$ 3,600	\$ 3,600	0	\$ 5,700	\$ 5,130
RC	99	0	0	0	0	0	0
MTC	50	4,800	8,900	8,900	\$13,900	651	6,600
AA+	99	12,851	3,813	3,813	1,738	4,356	4,676
RC+	99	4,084	900	900	0	1,425	1,283
Equal	99	9,368	4,025	4,025	3,475	3,013	4,215

Table A-2-37

Per Diem Cost for ECD6

Mechanized Infantry Battalions

Evaluator Source	Number of Personnel	Level 3						Bn Avg.
		2-136	1-118	4-118	1-120	4-117	1-109	
AA	23 OFF 23 EM	\$2,923	\$2,843	\$2,843	0	\$2,843	\$2,843	\$2,369
RC	23 OFF 68 EM	0	0	0	0	0	0	0
MTC	23 OFF 23 EM	2,843	2,843	2,843	\$2,843	2,843	2,843	2,843
AA+	23 OFF 68 EM	3,298	2,488	2,488	355	2,488	2,488	2,132
RC+	23 OFF 68 EM	981	711	711	0	711	711	592
Equal	23 OFF 68 EM	2,672	2,132	2,132	711	2,132	2,132	1,895

  

Evaluator Source	Number of Personnel	Level 2						Bn Avg.
		2-136	1-118	4-118	1-120	4-117	1-109	
AA	27 OFF 23 EM	\$4,417	\$3,241	\$3,241	0	\$3,241	\$3,241	\$2,701
RC	27 OFF 72 EM	0	0	0	0	0	0	0
MTC	27 OFF 23 EM	3,241	3,241	3,241	\$3,241	3,241	3,241	3,241
AA+	27 OFF 72 EM	3,718	2,836	2,836	405	2,836	2,836	2,431
RC+	27 OFF 72 EM	1,104	810	810	0	810	810	675
Equal	27 OFF 72 EM	3,019	2,431	2,431	810	2,431	2,431	2,161

Table A-2-38

## ECD6 Option Cost

## Mechanized Infantry Battalions

Option Number	Eval Source	Level	Freq	ECD6	
				\$	Rank
1	Act Army	Bn	Bi	37,574	35
2	Act Army	Bn	Tri	25,049	27
3	Act Army	Bn	Quad	18,787	15
4	Act Army	Co	Bi	34,674	32
5	Act Army	Co	Tri	23,116	22
6	Act Army	Co	Quad	17,337	12
7	Res Comp	Bn	Bi	20,803	18
8	Res Comp	Bn	Tri	13,869	6
9	Res Comp	Bn	Quad	10,402	2
10	Res Comp	Co	Bi	19,966	17
11	Res Comp	Co	Tri	13,311	5
12	Res Comp	Co	Quad	9,983	1
13	Man Tng Cmd	Bn	Bi	38,579	36
14	Man Tng Cmd	Bn	Tri	25,719	28
15	Man Tng Cmd	Bn	Quad	19,289	16
16	Man Tng Cmd	Co	Bi	35,589	33
17	Man Tng Cmd	Co	Tri	23,726	24
18	Man Tng Cmd	Co	Quad	17,794	13
19	Mix AA+	Bn	Bi	35,603	34
20	Mix AA+	Bn	Tri	23,735	25
21	Mix AA+	Bn	Quad	17,802	14
22	Mix AA+	Co	Bi	32,950	30
23	Mix AA+	Co	Tri	21,967	20
24	Mix AA+	Co	Quad	16,475	9
25	Mix RC+	Bn	Bi	24,996	26
26	Mix RC+	Bn	Tri	16,664	10
27	Mix RC+	Bn	Quad	12,498	4
28	Mix RC+	Co	Bi	23,643	23
29	Mix RC+	Co	Tri	15,762	8
30	Mix RC+	Co	Quad	11,822	3
31	Mix Equal	Bn	Bi	33,633	31
32	Mix Equal	Bn	Tri	22,422	21
33	Mix Equal	Bn	Quad	16,816	11
34	Mix Equal	Co	Bi	31,226	29
35	Mix Equal	Co	Tri	20,817	19
36	Mix Equal	Co	Quad	15,613	7

Table A-2-39  
 ECD63-ECD62 Comparisons  
 Mechanized Infantry Battalions

	<u>ECD63</u>	<u>ECD62</u>
Ammo	\$ 37,175	\$ 38,849
Maint	404	404
POL	2,353	2,353
Personnel	22,330	25,710
Travel	4,717	5,130
Per Diem	2,369	2,701
ECD	\$ 69,348	\$ 75,147

Table A-2-40  
 AEC63-ECD63 Comparisons  
 Mechanized Infantry Battalions

	<u>AEC63</u>		<u>ECD63</u>	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$33,112	48.9	\$37,175	53.6
Maint	404	0.6	404	0.6
POL	2,353	3.5	2,353	3.4
Personnel	21,736	32.1	22,330	32.2
Travel	8,180	12.1	4,717	6.8
Per Diem	1,952	2.9	2,369	3.4
EC	\$67,737	100%	\$69,348	100%

Table A-2-41

Cost Data and Average Evaluation Cost for AT 76

Infantry Battalions

EU CODE	Infantry Battalions										Company Average	AIC63 Battalion Average						
	S.2-153	2-153	A.3-153	B.3-153	C.3-153	S.3-153	3-153	A.2-109	B.3-109	C.1-101			C.1-169	B.2-135	A.1-137	S.1-137	A.2-137	S.2-137
Ammo	\$8,905.97	X	\$9,753.97	\$2,207.03	\$5,998.43	\$2,072.80	\$20,092.20	\$7,316.01	\$7,257.43	\$ 649.58	\$1,192.86	\$4,040.17	\$ 670.33	\$7,966.67	\$8,859.40	\$1,344.07	4,801	18,619
Maint	0	0	0	0	0	417.70	417.70	0	0	0	0	0	496.63	0	0	0	50	457
POL	X	\$ 615.00	107.33	153.77	150.07	70.31	481.38	NR	NR	90.29	36.47	71.19	43.56	91.30	49.81	60.80	88	464
EU TOTAL			\$9,861.30	\$2,420.77	\$6,148.50	\$2,560.81	\$20,991.38	NR	NR	\$ 739.87	\$1,229.33	\$4,111.36	\$1,210.52	\$8,057.97	\$8,909.21	\$1,404.87	4,939	19,540
EG CODES																		
Ammo	NR	\$ 4,117.38	\$1,372.66	\$1,372.66	\$1,732.66	NR	4,117.38	\$25.55	\$54.05	464.21	1,999.69	1,350.96	3,784.96	NR	3,789.50	NR	1,578	4,814
Maint	NR	73.78	0	0	0	NR	73.78	0	0	0	0	0	0	NR	0	NR	7	37
POL	NR	1,061.61	0	0	0	NR	1,061.61	102.11	102.11	49.21	288.66	185.17	237.92	NR	197.96	NR	221	762
Personnel	NR	39,087.00	2,540.00	2,540.00	2,540.00	NR	39,047.00	506.00	506.00	0	0	0	0	NR	0	NR	8,681	19,797
Travel	NR	539.00	107.80	107.80	107.80	NR	539.00	0	0	106.26	640.00	111.72	38.00	NR	38.00	NR	902	2,500
Per Dies	NR	231.20	46.24	46.24	46.24	NR	231.20	0	0	0	0	0	0	NR	0	NR	23	116
EG TOTAL																	11,412	28,026
TOTAL																	16,351	47,566

NR = Not received

X = Not used

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Table A-2-42

## Evaluation Cost Based on the ARTEP Document (ECD6)

## Infantry Battalions

	<u>Level 3</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$31,249	\$31,249	\$31,249	\$31,249	\$31,249	\$31,249
Maint	494	494	494	494	494	494
POL	1,226	1,226	1,226	1,226	1,226	1,226
Personnel	22,390	0	22,390	19,591	5,598	16,793
Travel	5,679	0	4,104	4,772	1,420	3,866
Per Diem	2,620	0	2,620	2,293	655	1,965
ECD63	\$63,658	\$32,969	\$62,083	\$59,625	\$40,642	\$55,593

	<u>Level 2</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$32,332	\$32,332	\$32,332	\$32,332	\$32,332	\$32,332
Maint	494	494	494	494	494	494
POL	1,226	1,226	1,226	1,226	1,226	1,226
Personnel	27,340	0	27,340	23,923	6,835	20,505
Travel	6,472	0	4,677	5,439	1,618	4,405
Per Diem	3,142	0	3,142	2,749	786	2,357
ECD62	\$71,006	\$34,052	\$59,211	\$66,163	\$43,291	\$61,319

Table A-2-43

## ARTEP Document Ammunition Requirements

## Infantry Battalions

Item	Price	Level 3		Level 2	
		Number	Cost	Number	Cost
Ctg HE 81 mm mortar w/PDF	\$58.384	74	\$ 4,320.42	74	\$ 4,320.42
Ctg illum 81 mm mortar	55.323	6	331.94	6	331.94
Ctg smoke WP 81 mm mort	37.169	30	1,115.07	30	1,115.07
Ctg HE 4.2 in mort w/PDF	72.965	65	4,742.73	65	4,742.73
Ctg illum 4.2 in mortar	67.025	6	402.15	6	402.15
Ctg smoke WP 4.2 in mort	78.239	30	2,347.17	30	2,347.17
Ctg HEAT 106 mm RR <sup>ora</sup>	126.771	2	253.54	2	253.54
Ctg HEP-T 106 mm RR <sup>ora</sup>	133.269	2	266.54	2	266.54
Ctg spotter-tracer cal .50	1.650	18	29.70	18	29.70
Ctg tracer cal .30	.182	17	3.09	17	3.09
Ctg ball 7.62 mm MLB	.172	1,800	309.60	1,800	309.60
Ctg blank 7.62 mm MLB	.145	25,000	3,625.00	25,000	3,625.00
Ctg tracer 7.62 mm	.154	23	3.54	23	3.54
Ctg ball 5.56 mm	.0779	7,200	560.88	7,200	560.88
Ctg blank 5.56 mm	.057	30,000	1,710.00	30,000	1,710.00
Rocket prac 35 mm LAW	6.608	45	297.36	45	297.36
Guided missile TOW prac	3435.00	3	10,305.00	3	10,305.00
Diaphragm blast sim TOW	1.00	15	15.00	15	15.00
Grenade hand smoke red	6.954	10	69.54	30	208.62
Grenade hand smoke green	7.474	4	29.90	60	448.44
Grenade hand smoke yellow	9.222	20	184.44	25	230.55
Grenade hand smoke HC	8.319	10	83.19	10	83.19
Fuze grenade hand practice	.882	225	198.45	225	198.45
Signal gnd green star cl.	10.697	7	74.88	6	64.18
Signal gnd red star cluster	14.959	8	119.67	30	448.77
Signal gnd white star cl.	10.216	5	51.08	15	153.24
Signal gnd red star prcht	10.817	4	43.27	4	43.27
Signal gnd white star prcht	10.326	2	20.65	2	20.65
Simulator proj gnd burst	2.355	35	82.43	60	141.30
Simulator hand grenade	2.240	75	168.00	75	168.00
Simulator flash arty	3.500	40	140.00	40	140.00
Worst Cost			\$31,248.54		\$32,331.70

<sup>a</sup> HEP-T or HEAT may be used.

Table A-2-44

ARTEP Document Personnel Cost

Infantry Battalions

Rank	Rate	Level 3				Level 2			
		Evaluators		Support		Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars
0-6	\$133								
0-5	109					10	\$ 1,090		
0-4	91	10	\$ 910			30	2,730		
0-3	76	60	4,560			80	6,080		
0-2	60	70	4,200			70	4,200		
0-1	45	70	3,150			70	3,150		
Sub-Total			\$12,820				\$17,250		
W-4	85								
W-3	71								
W-2	59								
W-1	52								
Sub-Total									
E-9	73								
E-8	61								
E-7	52	30	1,560	5	\$ 255	40	\$ 2,000	5	\$ 255
E-6	44	140	6,160	5	215	140	6,160	5	215
E-5	37	50	1,850	25	900	50	1,850	25	900
E-4	31			85	2,550			105	3,150
E-3	28			75	2,025			75	2,025
E-2	26			35	840			35	840
E-1									
Sub-Total			\$ 9,570		\$ 6,785		\$10,090		\$7,385
TOTAL			\$22,390		\$ 6,785		\$27,340		\$7,385
GRAND TOTAL				\$29,175				\$34,725	

Table A-2-45

Travel Cost for ECD6

Infantry Battalions

Evaluator Source	Number of Travellers	Level 3							Battalion Average		
		2-153	3-153	2-109	3-109	1-101	2-135	1-137		2-137	1-169
AA	46	\$7,310	\$7,310	\$1,327	\$1,327	\$6,708	\$7,095	\$6,966	\$6,966	\$6,106	\$5,679
RC	91	0	0	0	0	0	0	0	0	0	0
MTC	46	2,838	2,838	2,107	2,107	3,268	3,655	7,009	7,009	6,106	4,104
AA+	91	5,837	5,837	1,259	1,259	5,440	5,778	6,101	6,101	5,343	4,772
RC+	91	1,828	1,828	332	332	1,677	1,774	1,742	1,742	1,527	1,420
Equal	91	4,365	4,365	1,190	1,190	4,171	4,461	5,236	5,236	4,580	3,866

Evaluator Source	Number of Travellers	Level 2							Battalion Average		
		2-153	3-153	2-109	3-109	1-101	2-135	1-137		2-137	1-169
AA	50	\$8,330	\$8,330	\$1,512	\$1,512	\$7,644	\$8,085	\$7,938	\$7,938	\$6,958	\$6,472
RC	99	0	0	0	0	0	0	0	0	0	0
MTC	50	3,234	3,234	2,401	2,401	3,724	4,165	7,987	7,987	6,958	4,677
AA+	99	6,652	6,652	1,434	1,434	6,199	6,584	6,952	6,952	6,088	5,439
RC+	99	2,083	2,083	378	378	1,911	2,021	1,985	1,985	1,740	1,618
Equal	99	4,974	4,974	1,356	1,356	4,753	5,084	5,966	5,966	5,219	4,405

Table A-2-46  
Per Diem Cost for ECD6  
Infantry Battalions

<u>Evaluator Source</u>	<u>Number of Personnel</u>	Level 3	
		<u>EC</u>	<u>Battalion Average</u>
AA	21 OFF 22 EM	\$ 2,620	\$ 2,620
RC	21 OFF 68 EM	0	0
MTC	21 OFF 22 EM	2,620	2,620
AA+	21 OFF 68 EM	2,293	2,293
RC+	21 OFF 68 EM	655	655
Equal	21 OFF 68 EM	1,965	1,965

<u>Evaluator Source</u>	<u>Number of Personnel</u>	Level 2	
		<u>EC</u>	<u>Battalion Average</u>
AA	26 OFF 23 EM	\$ 3,142	\$ 3,142
RC	26 OFF 72 EM	0	0
MTC	26 OFF 23 EM	3,142	3,142
AA+	26 OFF 72 EM	2,749	2,749
RC+	26 OFF 72 EM	786	786
Equal	26 OFF 72 EM	2,357	2,357

Table A-2-47

## ECD6 Option Cost, Infantry Battalions

Option Number	Eval Source	Level	Freq	ECD6	
				\$	Rank
1	Act Army	Bn	Bi	35,503	36
2	Act Army	Bn	Tri	23,669	28
3	Act Army	Bn	Quad	17,752	18
4	Act Army	Co	Bi	31,829	33
5	Act Army	Co	Tri	21,219	24
6	Act Army	Co	Quad	15,915	13
7	Res Comp	Bn	Bi	17,026	16
8	Res Comp	Bn	Tri	11,351	6
9	Res Comp	Bn	Quad	8,513	2
10	Res Comp	Co	Bi	16,485	14
11	Res Comp	Co	Tri	10,990	5
12	Res Comp	Co	Quad	8,242	1
13	Man Tng Cmd	En	Bi	34,606	35
14	Man Tng Cmd	Bn	Tri	23,070	27
15	Man Tng Cmd	En	Quad	17,303	17
16	Man Tng Cmd	Co	Bi	31,042	32
17	Man Tng Cmd	Co	Tri	20,694	23
18	Man Tng Cmd	Co	Quad	15,521	12
19	Mix AA+	En	Bi	33,082	34
20	Mix AA+	Bn	Tri	22,054	26
21	Mix AA+	Bn	Quad	16,541	15
22	Mix AA+	Co	Bi	29,813	30
23	Mix AA+	Co	Tri	19,875	20
24	Mix AA+	Co	Quad	14,906	10
25	Mix RC+	Bn	Bi	21,646	25
26	Mix RC+	Bn	Tri	14,430	9
27	Mix RC+	Bn	Quad	10,823	4
28	Mix RC+	Co	Bi	20,321	21
29	Mix RC+	Co	Tri	13,547	7
30	Mix RC+	Co	Quad	10,161	3
31	Mix Equal	En	Bi	30,660	31
32	Mix Equal	Bn	Tri	20,440	22
33	Mix Equal	En	Quad	15,330	11
34	Mix Equal	Co	Bi	27,797	29
35	Mix Equal	Co	Tri	18,531	19
36	Mix Equal	Co	Quad	13,898	8

Table A-2-48  
 ECD63-ECD62 Comparisons  
 Infantry Battalions

	<u>ECD63</u>	<u>ECD62</u>
Ammo	31,249	32,332
Maint	494	494
POL	1,226	1,226
Personnel	22,390	27,340
Travel	5,679	6,472
Per Diem	2,620	3,142
ECD	63,658	71,006

Table A-2-49  
 AEC63-ECD63 Comparisons, Infantry Battalions

	<u>AEC63</u>		<u>ECD63</u>	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$23,433	49.3	\$31,249	49.1
Maint	494	1.0	494	0.8
POL	1,226	2.6	1,226	1.9
Personnel	19,797	41.6	22,390	35.2
Travel	2,500	5.3	5,679	8.9
Per Diem	116	0.2	2,620	4.1
EC	\$47,566	100%	\$63,658	100%

Table A-2-50

Cost Data and Average Evaluation Cost for AT 76  
Tank Battalions

EU Cost	<u>A, 3-102</u>	<u>A, 1-632</u>	<u>A, 2-252</u>	<u>B, 2-252</u>	<u>C, 2-252</u>	<u>S, 2-252</u>	Tank Company Average	Tank Battalion Average AEC63
Ammo	\$2,596.32	NR	0	0	0	\$7,784.80	\$ 649	\$ 7,785
Maint	130.16	NR	\$ 170.36	\$1,690.00	\$ 485.96	292.72	619	2,639
POL	843.66	NR	703.57	708.57	703.57	252.48	715	2,368
EU TOTAL	\$3,570.14	NR	\$ 873.93	\$2,398.57	\$1,189.53	\$8,330.00	\$ 1,983	\$ 12,792
EG Cost								
Ammo	\$ 747.40	0	\$1,538.92	\$1,877.12	\$2,068.86	NR	\$ 1,246	\$ 5,485
Maint	0	0	305.39	0	0	NR	61	305
POL	263.88	32.81	1,420.60	1,413.57	1,434.66	NR	913	4,269
Personnel	1,719.00	1,522.00	474.00	474.00	474.00	NR	1,226	2,991
Travel	317.52	0	0	0	0	NR	63	0
Per Diem	0	116.20	0	0	0	NR	23	0
EG TOTAL	\$ 3,047.80	\$ 3,738.91	\$ 3,764.69	\$ 3,977.52	\$ 3,532	\$ 13,050		
TOTAL	6,617.94	\$ 4,612.84	\$ 6,163.26	\$ 5,167.05	\$ 5,515	\$ 25,842		

NR = Not received

Table A-2-51

Evaluation Cost Based on the ARTEP Document (ECD6)  
Tank Battalions

	<u>Level 3</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$ 36,894	\$ 36,894	\$ 36,894	\$ 36,894	\$ 36,894	\$ 36,894
Maint	2,944	2,944	2,944	2,944	2,944	2,944
POL	6,637	6,637	6,637	6,637	6,637	6,637
Personnel	16,680	0	16,680	14,595	4,170	12,510
Travel	3,040	0	2,120	2,545	760	2,050
Per Diem	1,437	0	2,156	1,347	359	1,258
ECD63	\$ 67,632	\$ 46,475	\$ 67,431	\$ 64,962	\$ 51,764	\$ 62,293

	<u>Level 2</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$ 128,634	\$ 128,634	\$ 128,634	\$ 128,634	\$ 128,634	\$ 128,634
Maint	2,944	2,944	2,944	2,944	2,944	2,944
POL	6,637	6,637	6,637	6,637	6,637	6,637
Personnel	21,690	0	21,690	18,979	5,425	16,268
Travel	3,749	0	2,615	3,319	937	2,528
Per Diem	1,903	0	2,854	1,784	476	1,665
ECD62	\$ 165,557	\$ 138,215	\$ 165,374	\$ 162,297	\$ 145,051	\$ 158,676

Table A-2-52

## ARTEP Document Ammunition Requirements

## Tank Battalions

Item	Price	Level 3		Level 2	
		Number	Cost	Number	Cost
Launcher & 35 mm Ctg tactical CS	N	N	N	N	N
Grenade hand riot CS-1 M25	\$ 7.98	5	\$ 39.90	5	\$ 39.90
Grenade hand riot CS-1 M7	28.25	12	339.00	20	565.00
Grenade hand smoke green	7.474	64	478.34	52	388.65
Grenade hand smoke HC	8.319	64	532.42	52	432.59
Grenade hand smoke yellow	9.222	64	590.21	52	479.54
Grenade hand smoke violet	4.95	64	316.80	52	257.40
Grenade hand smoke red	6.954	50	208.62	46	319.88
Smoke pot HC	77.41	30	2,322.30	22	1,703.02
Cap blasting electric	1.14	0	0	252	287.28
Ctg blank 5.56 mm	.057	45,800	2,610.60	50,200	2,861.40
Ctg ball 7.62 mm	.16	12,870	2,059.20	9,900	1,584.00
Ctg blank 7.62 mm	.145	40,800	5,916.00	41,400	6,003.00
Ctg ball cal .50 TR 4-1 MLB	.97	4,410	4,277.70	4,140	4,015.80
Firing device DML pressure release	2.41	30	72.30	36	86.76
Firing device DML pressure	2.24	30	67.20	36	80.64
Firing device DML pull	2.41	30	72.30	36	86.76
Firing device DML pull release	3.36	30	100.80	36	120.96
Primer percussion cap	.16	225	36.00	285	45.60
Coupling base firing	.20	225	45.00	285	57.00
Flare personnel distress red	1.08	14	15.12	17	18.36
Flare personnel distress white	1.08	14	15.12	17	18.36
Flare personnel distress green	1.08	14	15.12	17	18.36
Flare personnel distress amber	1.08	14	15.12	17	18.36
Kit flare signal mixed	N	N	N	N	N
Flare surface trip	6.738	80	539.04	100	673.80
Simulation booby trap flash	1.836	80	146.88	100	183.60
Simulation booby trap illum	2.502	80	200.16	100	250.20
Simulation booby trap whistle	2.229	80	178.32	100	222.90
Fuze mine AT prac	2.40	240	576.00	300	720.00
Ctg 40 mm white star prcht	7.21	28	201.88	34	245.15
Ctg 40 mm white star cluster	6.72	28	188.16	34	228.48
Ctg HE 4.2 inch mortar PDF	72.965	50	3,648.25	100	7,296.50
Ctg HE 4.2 inch mortar proximity	100.221	15	1,503.32	30	3,006.63
Ctg illum 4.2 inch mortar	67.025	90	6,032.25	251	16,823.28
Ctg smoke WP 4.2 inch mortar	78.239	30	2,347.17	30	2,347.17
Ctg TPDS-T 105 mm gun	137.069	0	0	342	46,877.60
Ctg HEP-T 105 mm gun	114.324	0	0	72	8,231.33
Ctg HEAT-TP-T 105 mm gun	157.434	0	0	72	11,335.25
Ctg HEAT-T 105 mm gun	112.41	0	0	72	8,093.52

(continued)

Table A-2-52 (continued)

## ARTEP Document Ammunition Requirements

## Tank Battalions

<u>Item</u>	<u>Price</u>	<u>Level 3</u>		<u>Level 2</u>	
		<u>Number</u>	<u>Cost</u>	<u>Number</u>	<u>Cost</u>
Signal gnd green star cluster	\$10.697	4	\$ 42.79	32	\$ 342.30
Signal gnd green star prcht	12.99	4	51.96	32	415.68
Signal gnd white star cluster	10.216	4	40.86	32	326.91
Signal gnd white star prcht	10.326	4	41.30	32	330.43
Signal gnd red star cluster	14.959	13	194.47	25	373.98
Signal gnd red star prcht	10.817	13	140.62	25	270.43
Simulator proj ground burst	2.355	22	51.81	150	353.25
TOTAL			\$36,894.11		\$128,633.57

Table A-2-53  
 ARTEP Document Personnel Cost  
 Tank Battalions

Rank	Rate	Level 3				Level 2			
		Evaluators		Support		Evaluators		Support	
		Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars	Man- Days	Dollars
0-6	\$133								
0-5	109					10	\$ 1,090		
0-4	91	10	\$ 910			10	910		
0-3	76	30	2,280			50	3,800		
0-2	60	100	6,000			140	8,400		
0-1	45	50	2,250			50	2,250		
Sub-Total			\$11,440				\$16,450		
W-4	85								
W-3	71								
W-2	59								
W-1	52								
Sub-Total									
E-9	73								
E-8	61								
E-7	52	50	\$ 2,600			50	\$ 2,600	15	\$ 260
E-6	44	60	2,640			60	2,640		
E-5	37			15	\$ 555			20	740
E-4	31			40	1,240			100	3,100
E-3	28			40	1,120			80	2,240
E-2	26								
E-1									
Sub-Total			\$ 5,240		\$ 2,915		\$ 5,240		\$6,340
TOTAL			\$16,680		\$ 2,915		\$21,690		\$6,340
GRAND TOTAL			\$19,595				\$28,030		

Table A-2-54  
Travel Cost for ECD6  
Tank Battalions

Evaluator Source	Number of Travellers	Level 3			Bn Avg.
		3-102	1-632	2-252	
AA	30	\$4,260	\$4,860	0	\$3,040
RC	30	0	0	0	0
MTC	30	2,340	1,080	\$2,940	2,120
AA+	30	3,488	3,780	368	2,545
RC+	30	1,065	1,215	0	760
Equal	30	2,715	2,700	735	2,050

Evaluator Source	Number of Travellers	Level 2			Bn Avg.
		3-102	1-632	2-252	
AA	37	\$5,254	\$5,994	0	\$3,749
RC	37	0	0	0	0
MTC	37	2,886	1,332	\$5,626	2,615
AA+	37	4,301	4,662	453	3,139
RC+	37	1,314	1,499	0	937
Equal	37	3,348	3,330	907	2,528

Table A-2-55  
Per Diem Cost for ECD 6  
Tank Battalions

Evaluator Source	Number of Personnel	Level 3			
		3-102	1-632	2-252	Bn Avg. L3
AA	19 OFF 11 EM	\$2,156	\$2,156	0	\$1,437
RC	19 OFF 11 EM	0	0	0	0
MTC	19 OFF 11 EM	2,156	2,156	\$2,156	2,156
AA+	19 OFF 11 EM	1,887	1,887	270	1,347
RC+	19 OFF 11 EM	539	539	0	359
Equal	19 OFF 11 EM	1,617	1,617	539	1,258

Evaluator Source	Number of Personnel	Level 2			
		3-102	1-632	2-252	Bn Avg. L3
AA	26 OFF 11 EM	\$2,854	\$2,854	0	\$1,903
RC	26 OFF 11 EM	0	0	0	0
MTC	26 OFF 11 EM	2,854	2,854	\$2,854	2,854
AA+	26 OFF 11 EM	2,497	2,497	357	1,784
RC+	26 OFF 11 EM	714	714	0	476
Equal	26 OFF 11 EM	2,141	2,141	714	1,665

Table A-2-56

## ECD6 Option Cost

## Tank Battalions

Option Number	Eval Source	Level	Freq	Cost	
				\$	Rank
1	Act Army	Bn	Bi	82,779	36
2	Act Army	Bn	Tri	55,186	30
3	Act Army	Bn	Quad	41,389	24
4	Act Army	Co	Bi	33,816	18
5	Act Army	Co	Tri	22,544	12
6	Act Army	Co	Quad	16,908	7
7	Res Comp	Bn	Bi	69,108	31
8	Res Comp	Bn	Tri	46,072	25
9	Res Comp	Bn	Quad	34,554	19
10	Res Comp	Co	Bi	23,238	13
11	Res Comp	Co	Tri	15,492	3
12	Res Comp	Co	Quad	11,619	1
13	Man Tng Cmd	Bn	Bi	82,687	35
14	Man Tng Cmd	Bn	Tri	55,125	29
15	Man Tng Cmd	Bn	Quad	41,344	23
16	Man Tng Cmd	Co	Bi	33,716	17
17	Man Tng Cmd	Co	Tri	22,477	11
18	Man Tng Cmd	Co	Quad	16,858	6
19	Mix AA+	Bn	Bi	81,149	34
20	Mix AA+	Bn	Tri	54,099	28
21	Mix AA+	Bn	Quad	40,574	22
22	Mix AA+	Co	Bi	32,481	16
23	Mix AA+	Co	Tri	21,654	10
24	Mix AA+	Co	Quad	16,241	5
25	Mix RC+	Bn	Bi	72,526	32
26	Mix RC+	Bn	Tri	48,350	26
27	Mix RC+	Bn	Quad	36,263	20
28	Mix RC+	Co	Bi	25,882	14
29	Mix RC+	Co	Tri	17,255	8
30	Mix RC+	Co	Quad	12,941	2
31	Mix Equal	Bn	Bi	79,338	33
32	Mix Equal	Bn	Tri	52,892	27
33	Mix Equal	Bn	Quad	39,669	21
34	Mix Equal	Co	Bi	31,147	15
35	Mix Equal	Co	Tri	20,764	9
36	Mix Equal	Co	Quad	15,573	4

Table A-2-57  
 ECD63-ECD62 Comparisons

	<u>ECD63</u>	<u>ECD62</u>
Ammo	\$36,894	\$128,634
Maint	2,944	2,944
POL	6,637	6,637
Personnel	16,680	21,690
Travel	3,040	3,749
Per Diem	1,437	1,903
ECD	\$67,632	\$165,557

Table A-2-58  
 AEC63-ECD63 Comparisons

	<u>AEC63</u>		<u>ECD63</u>	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$13,270	51.4	\$36,894	54.6
Maint	2,944	11.4	2,944	4.4
POL	6,637	25.7	6,637	9.8
Personnel	2,991	11.6	16,680	24.7
Travel	0	0	3,040	4.5
Per Diem	0	0	1,437	2.1
EC	\$25,842	100%	\$67,632	100%

Table A-2-59

Cost Data and Average Evaluation Cost for AT 76

Engineer Battalions

EU Cost	<u>A,458</u>	<u>H,111</u>	<u>A,820</u>	<u>122</u>	<u>B,242</u>	<u>169 Co</u>	<u>890 Co</u>	<u>103</u>	<u>Co Avg.</u>	<u>Bn Avg. ECD63</u>
Ammo	\$3,262.38	\$6,973.76	NR	\$8,801.32	NR	\$ 842.92	NR	NR	\$2,053	\$ 11,993
Maint	343.92	421.25	NR	0	NR	0	NR	NR	344	976
POL	982.78	307.06	NR	6,559.07	NR	63.56	NR	NR	523	3,612
EU TOTAL	\$4,589.08	\$7,702.07			\$ 906.48				\$2,920	\$ 16,581
EG Cost	<u>A,458</u>	<u>H,111</u>	<u>A,820</u>	<u>122</u>	<u>B,242</u>	<u>169 Co</u>	<u>890 Co</u>	<u>103</u>	<u>Co Avg.</u>	<u>Bn Avg. ECD63</u>
Ammo	\$ 548.11	\$2,000.72	\$ 867.02	NR	0	\$ 159.42	\$ 744.55	NR	\$ 580	\$ 4,320
Maint	0	0	0	NR	0	0	0	NR	0	0
POL	351.52	34.49	215.46	NR	0	41.04	224.98	NR	208	867
Personnel	62.00	0	0	NR	0	0	0	NR	16	62
Travel	0	0	0	NR	0	0	446.40	NR	112	446
Per Diem	0	0	0	NR	0	0	0	NR	0	0
EG TOTAL	\$ 961.63	\$2,035.21			\$ 200.46	\$1,415.93			\$ 916	\$ 5,695
TOTAL	\$5,550.71	\$9,737.28			\$1,106.94				\$3,836	\$22,276

Table A-2-60

## Evaluation Cost Based on the ARTEP Document (ECD6)

## Engineer Battalions

	<u>Level 3</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$114,681	\$114,681	\$114,681	\$114,681	\$114,681	\$114,681
Maint	976	976	976	976	976	976
POL	4,479	4,479	4,479	4,479	4,479	4,479
Personnel	12,490	0	12,490	10,929	3,123	9,368
Travel	2,174	0	1,985	1,879	544	1,583
Per Diem	906	0	1,208	831	227	755
ECD63	\$135,706	\$120,136	\$135,819	\$133,775	\$124,030	\$131,842

	<u>Level 2</u>					
	<u>AA</u>	<u>RC</u>	<u>MTC</u>	<u>AA+</u>	<u>RC+</u>	<u>Equal</u>
Ammo	\$114,681	\$114,681	\$114,681	\$114,681	\$114,681	\$114,681
Maint	976	976	976	976	976	976
POL	4,479	4,479	4,479	4,479	4,479	4,479
Personnel	17,690	0	17,690	15,479	4,423	13,268
Travel	2,965	0	2,705	2,562	741	2,159
Per Diem	1,220	0	1,627	1,118	305	1,017
ECD 62	\$142,011	\$120,136	\$142,158	\$139,295	\$125,605	\$136,580

ARTEP Document Ammunition Requirements

Engineer Battalions - Level 3 and 2

<u>Item</u>	<u>Price</u>	<u>Number</u>	<u>Cost</u>
Cap blasting electric	\$ 1.14	336	\$ 383.04
Cap blasting non-electric	.38	348	132.24
Charge demolition shaped 40#	222.22	180	39,999.60
Cord detonating ft	.09	28,010	2,520.00
Charge demolition cratering 40#	53.05	216	11,458.80
Charge demolition C4 1¼#	2.99	4,280	12,797.20
Igniter time blast M60	1.58	168	265.44
Fuze time blast M700 ft	.06	500	30.00
Dynamite military M1	1.02	360	367.20
Charge demolition TNT 1#	1.97	360	709.20
Demolition kit bangalore torpedo	212.34	36	7,644.24
Riot control agent CSI	9.87	124	1,223.88
Grenade hand riot CS	7.98	74	593.71
Grenade hand smoke green	7.474	99	739.93
Grenade hand smoke HC	8.319	50	415.95
Grenade hand smoke red	6.954	99	688.45
Grenade hand tactical CS	28.25	25	706.25
Pot smoke HC 30#	77.41	50	3,870.50
Thickener M4	2.10	6	12.60
Squib electric flash	2.06	74	152.44
Ctg, blank 5.56 mm	0.057	186,880	10,652.16
Ctg, blank 7.62 mm	0.145	19,800	2,871.00
Firing device pressure release M5	2.41	620	1,494.20
Firing device pull release M3	3.36	620	2,083.20
Firing device pressure release M1	2.24	620	1,388.80
Firing device pull release M1	2.41	620	1,494.20
Flare surface trip	6.738	620	4,177.56
M8 practice AP mine components	1.07	62	66.34
M20 practice AT mine components	-		
Activator practice M1	1.13	62	70.66
Fuze AT M604	2.40	31	74.40
Signal ground green star cluster	10.697	12	128.36
Signal ground green star prcht	6.22	12	74.64
Signal ground red star cluster	14.959	12	179.51
Signal ground red star prcht	10.817	12	129.80
Signal ground white star cluster	10.216	12	122.59
Signal ground white star prcht	10.326	12	123.91
Simulator projectile air burst	4.94	16	79.04
Simulator booby trap flash	1.836	484	888.62
Simulator booby trap illum	2.502	484	1,210.97
Simulator booby trap whistle	2.229	484	1,078.84
Simulator hand grenade	2.24	74	165.76
Simulator flash artillery	3.50	50	175.00
Simulator shell burst ground	2.355	50	117.75
Fuse, mine M605 combination	7.54	149	1,123.46

Table A-2-62

## ARTEP Document Personnel Cost

## Engineer Battalions

Rank	Rate	Level 3		Level 2	
		Man-Days	Dollars	Man-Days	Dollars
0-6	\$133		\$		\$
0-5	109			10	1,090
0-4	91	10	910	10	910
0-3	76	40	3,040	60	4,560
0-2	60	20	1,200	20	1,200
0-1	45	20	900	20	900
Sub-Total			\$ 6,050		\$ 8,660
W-4	85				
W-3	71			10	590
W-2	59				
W-1	52				
Sub-Total					\$ 590
E-9	73				
E-8	61				
E-7	52	90	4,680	120	6,240
E-6	44	40	1,760	50	2,200
E-5	37				
E-4	31				
E-3	28				
E-2	26				
Sub-Total			\$ 6,440		\$ 8,440
TOTAL			\$ 12,490		\$ 17,690

Table A-2-63

Travel Cost for ECD6

Engineer Battalions

Evaluator Source	Number of Travellers	Level 3							Battalion Average	
		458	111	820	122	242	169	890		
AA	22	\$3,784	0	\$ 367	0	\$3,432	\$5,324	\$2,728	\$1,760	\$2,174
RC	22	0	0	0	0	0	0	0	0	0
MTC	22	521	\$2,156	1,241	\$3,432	203	3,212	3,608	1,503	1,985
AA+	22	2,903	270	430	429	2,599	4,394	2,497	1,508	1,879
RC+	22	946	0	92	0	858	1,331	682	440	544
Equal	22	2,202	539	494	858	1,767	3,465	2,266	1,255	1,583

Evaluator Source	Number of Travellers	Level 2							Battalion Average	
		458	111	820	122	242	169	890		
AA	30	\$5,160	0	\$ 500	0	\$4,680	\$7,260	\$3,720	\$2,400	\$2,965
RC	30	0	0	0	0	0	0	0	0	0
MTC	30	710	\$2,940	1,692	\$4,680	277	4,380	4,920	2,040	2,705
AA+	30	3,959	368	587	585	3,545	5,993	3,405	2,055	2,562
RC+	30	1,290	0	125	0	1,170	1,815	930	600	741
Equal	30	2,758	735	673	1,170	2,409	4,725	3,090	1,710	2,159

Table A-2-64

Travel Cost for ECD6

Engineer Battalions

Evaluator Source	Number of Personnel	Level 3						Battalion Average		
		458	111	820	122	242	169 CO	890 CO	103 IN	
AA	9 OFF 13 EM	\$1,208	0	\$1,208	0	\$1,208	\$1,208	\$1,208	\$1,208	\$ 906
RC	9 OFF 13 EM	0	0	0	0	0	0	0	0	0
MTC	9 OFF 13 EM	1,208	\$1,208	1,208	\$1,208	1,208	1,208	1,208	1,208	1,208
AA+	9 OFF 13 EM	1,057	151	1,057	151	1,057	1,057	1,057	1,057	831
RC+	9 OFF 13 EM	302	0	302	0	302	302	302	302	227
Equal	9 OFF 13 EM	906	302	906	302	906	906	906	906	755

  

Evaluator Source	Number of Personnel	Level 2						Battalion Average		
		458	111	820	122	242	169 CO	890 CO	103 IN	
AA	12 OFF 18 EM	\$1,627	0	\$1,627	0	\$1,627	\$1,627	\$1,627	\$1,627	\$1,220
RC	12 OFF 18 EM	0	0	0	0	0	0	0	0	0
MTC	12 OFF 18 EM	1,627	\$1,627	1,627	\$1,627	1,627	1,627	1,627	1,627	1,627
AA+	12 OFF 18 EM	1,424	203	1,424	203	1,424	1,424	1,424	1,424	1,118
RC+	12 OFF 18 EM	407	0	407	0	407	407	407	407	305
Equal	12 OFF 18 EM	1,221	407	1,221	407	1,221	1,221	1,221	1,221	1,017

Table A-2-65  
 ECD6 Option Cost  
 Engineer Battalions

Option Number	Eval Source	Level	Freq	ECD6	
				\$	Rank
1	Act Army	Bn	Bi	71,006	35
2	Act Army	Bn	Tri	47,337	23
3	Act Army	Bn	Quad	35,503	11
4	Act Army	Co	Bi	67,583	31
5	Act Army	Co	Tri	45,235	19
6	Act Army	Co	Quad	33,927	7
7	Res Comp	Bn	Bi	60,068	25 <sup>1</sup> / <sub>2</sub>
8	Res Comp	Bn	Tri	40,045	13 <sup>1</sup> / <sub>2</sub>
9	Res Comp	Bn	Quad	30,034	1 <sup>1</sup> / <sub>2</sub>
10	Res Comp	Co	Bi	60,068	25 <sup>1</sup> / <sub>2</sub>
11	Res Comp	Co	Tri	40,045	13 <sup>1</sup> / <sub>2</sub>
12	Res Comp	Co	Quad	30,034	1 <sup>1</sup> / <sub>2</sub>
13	Man Tng Cmd	Bn	Bi	71,079	36
14	Man Tng Cmd	Bn	Tri	47,386	24
15	Man Tng Cmd	Bn	Quad	35,540	12
16	Man Tng Cmd	Co	Bi	67,910	32
17	Man Tng Cmd	Co	Tri	45,273	20
18	Man Tng Cmd	Co	Quad	33,955	8
19	Mix AA+	Bn	Bi	69,648	34
20	Mix AA+	Bn	Tri	46,432	22
21	Mix AA+	Bn	Quad	34,824	10
22	Mix AA+	Co	Bi	66,888	30
23	Mix AA+	Co	Tri	44,592	18
24	Mix AA+	Co	Quad	33,444	6
25	Mix RC+	Bn	Bi	62,803	28
26	Mix RC+	Bn	Tri	41,868	16
27	Mix RC+	Bn	Quad	31,401	4
28	Mix RC+	Co	Bi	62,015	27
29	Mix RC+	Co	Tri	41,343	15
30	Mix RC+	Co	Quad	31,008	3
31	Mix Equal	Bn	Bi	68,290	33
32	Mix Equal	Bn	Tri	45,527	21
33	Mix Equal	Bn	Quad	34,145	9
34	Mix Equal	Co	Bi	65,921	29
35	Mix Equal	Co	Tri	43,947	17
36	Mix Equal	Co	Quad	32,961	5

Table A-2-66  
 ECD63-ECD62 Comparisons  
 Engineer Battalions

	<u>ECD63</u>	<u>ECD62</u>
Ammo	\$114,681	\$114,681
Maint	976	976
POL	4,479	4,479
Personnel	12,490	17,690
Travel	2,174	2,965
Per Diem	906	1,220
ECD	\$135,706	\$142,001

Table A-2-67  
 AEC63-ECD63 Comparisons  
 Engineer Battalions

	<u>AEC63</u>		<u>ECD63</u>	
	<u>Cost</u>	<u>Percent</u>	<u>Cost</u>	<u>Percent</u>
Ammo	\$16,313	73.2	\$114,681	84.5
Maint	976	4.4	976	0.7
POL	4,479	20.1	4,479	3.3
Personnel	62	0.3	12,490	9.2
Travel	446	2.0	2,174	1.6
Per Diem	0	0	906	0.7
EC	\$22,276	100%	\$135,706	100%