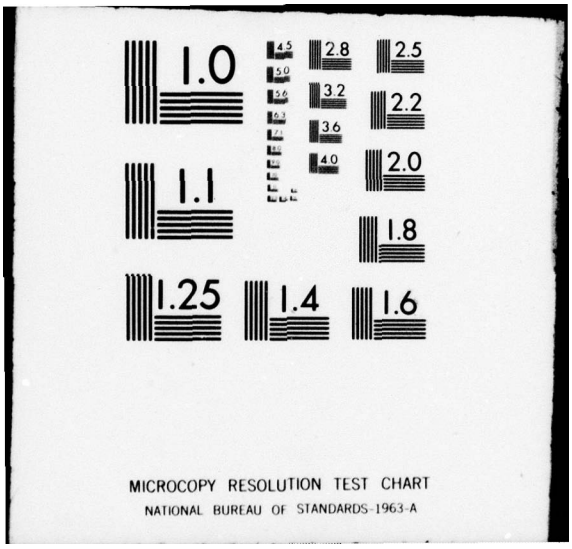
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THESIS

The Training Management Control System and
The Army Training Environment

by

Eddie Mitchell

December 1978

Thesis Advisor: J. K. Hartman

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This paper examines the adequacy of a division level, linear programing system named the Training Management Control System. The training environment of a mechanized infantry company is described in a manner which reveals synergistic time burdening at the line unit level. An Available Time Model is developed and used to quantitatively estimate minimum, mid-range, and high time burdening of infantry units. A software/hardware test of the system is documented and shows that the TMCS fails to adequately handle time as a

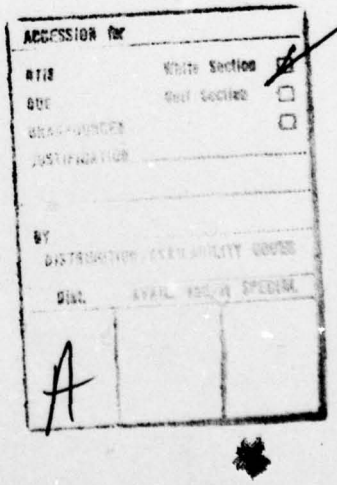
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The Training Management Control System and The Army Training Environment

by

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Captain, United States Army
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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

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This paper examines the adequacy of a division level, linear programing system named the Training Management Control System. The training environment of a mechanized infantry company is described in a manner which reveals synergistic time burdening at the line unit level. An Available Time Model is developed and used to quantitatively estimate minimum, mid-range, and high time burdening of infantry units. A software/hardware test of the system is documented and shows that the TMCS fails to adequately handle time as a training constraint. Recommendations are included describing ways in which the TMCS can be improved to handle total time burdening as a constraint and ways of reducing environmental, synergistic time burdening.

TABLE OF CONTENTS

I. INTRODUCTION ---------- 8

II. METHOD OF ANALYSIS ---------- 9

A. SYNERGISTIC APPROACH ---------- 9

B. CAUSE VERSUS EFFECT ---------- 9

C. COMBAT EFFECTIVENESS MODEL ---------- 10

III. INDICATORS AND CAUSES FOUND IN THE TRAINING ENVIRONMENT --------- 11

A. HISTORIC INDICATORS ---------- 11

B. EQUIPMENT PROLIFERATION ---------- 12

C. COMPLEX TECHNOLOGY ---------- 15

D. CONSTRAINED ENVIRONMENT ---------- 16

E. MANAGEMENT INFORMATION SYSTEM ---------- 17

F. PREOCCUPATION WITH KEY TRAINING EVENTS ---------- 21

G. SUMMARY ---------- 23

IV. AVAILABLE TIME MODEL OF THE TRAINING ENVIRONMENT ---------- 24

A. MODEL DESCRIPTION ---------- 24

B. EVENT CATEGORIES ---------- 25

C. ASSUMPTIONS ---------- 27

V. TIME ESTIMATE CALCULATIONS AND SUMMARIES ---------- 29

A. BEGINNING AVAILABLE TIME ---------- 29

B. CALCULATION METHODS ---------- 30

C. SUMMARY OF CATEGORY 1-7 TIME ESTIMATES ---------- 35

VI. INTRICACIES OF THE TRAINING ENVIRONMENT ---------- 48

A. AVAILABLE TIME MODEL USE ---------- 48

B. TOTAL WORKLOAD ANALYSIS ---------- 48

C. SUB-WORKLOAD ANALYSIS ---------- 52

VII. TRAINING PLANS DEVELOPMENT IN THE TRAINING ENVIRONMENT --------- 56

A. MODEL DESCRIPTION ---------- 56

B. GUIDANCE ---------- 57

C. DETAILED PLAN ---------- 58

D. CHANGES ---------- 58

VIII. HYPOTHESIS ---------- 59

IX. THE TRAINING MANAGEMENT CONTROL SYSTEM ---------- 59

A. STATED OBJECTIVES OF TMCS ---------- 59

B. ACTUAL PERFORMANCE OF TMCS ---------- 61

1. Test Procedure ---------- 61

2. Software Test Results ---------- 62

3. Discussion Research Results ---------- 66

C. ANALYSIS OF TMCS PERFORMANCE ---------- 67

X. CONCLUSIONS AND RECOMMENDATIONS ---------- 70

A. CONCLUSIONS ---------- 70

B. RECOMMENDATIONS ---------- 72

1. Equipment Acquisition ---------- 73

2. Regulations ---------- 74

3. TMCS and Training Management ---------- 75

ANNEX A - Regulations and Circulars ---------- 78

ANNEX B - Workload Time Estimates ---------- 94

ANNEX C - FORSCOM Cir 350-8 ---------- 168

ANNEX D - 1978 FORSCOM CMDR's Guidance ---------- 173

ANNEX E - MICO System ---------- 174

ANNEX F - TOE ---------- 180

ANNEX G - Computer Printouts ---------- 183

GLOSSARY ---------- 207

FOOTNOTES ---------- 208

BIBLIOGRAPHY ---------- 210

INITIAL DISTRIBUTION LIST ---------- 211

I. INTRODUCTION

The United States Army is preparing to field a computerized, linear programming system named the Training Management Control System (TMCS). This system will be available from battalion through division levels. It will be used to cost training and provide data for budget justification. Also, improvements in decentralized training management will occur by eliminating many of the cost related uncertainties in training management.

The TMCS supposedly will allow rapid evaluation of different combinations of training activities, insure proposed combinations fall within budget constraints, and develop a printed list of the planned training activities.

Battalion field training days (BFTD's) will be the basic unit of measure to be costed. The BFTD is similar to Navy steaming days and Air Force flying hours, all of which can be used by senior decision makers in evaluating if dollars are effectively being spent by the services.

The TMCS has the potential to be utilized as a training management and cost control tool. The analysis that follows will seek to identify potential flaws in the TMCS so that they may be considered by decision makers, users, and program designers prior to fielding of the system, as well as, during implementation.

II. METHOD OF ANALYSIS

A. SYNERGISTIC APPROACH

The major concern of this analysis is whether time is satisfactorily represented and/or accounted for in the TMCS. The basic assumption of the analysis is that if a unit's available time is inefficiently managed, then its combat readiness will be degraded. Since the TMCS appears to be an emerging time management tool, its handling of time should be studied.

To reach any conclusions about TMCS, a person must have an understanding of what the actual training environment is and how the TMCS reflects this environment and deals with time. This understanding will be developed by describing a combat effectiveness model, by explaining and identifying causes of stress on this model, by developing an Available Time Model of the present mechanized infantry training environment, and by calculating quantitative estimates of present time limitations on company sized units. The TMCS time constraints will then be compared to those described by the Available Time Model and analyzed for potential weaknesses, abuses or misuses.

In describing the training environment and TMCS, this study attempts to provide the reader with an understanding of the synergistic, or simultaneous, impact of several causes of stress on the Army as described by the combat effectiveness model.

B. CAUSE VERSUS EFFECT

In large, bureaucratic organizations the identification of the cause of a problem is not a simple task. Many times a decision maker does not have the skills or knowledge to recognize synergistic effects impacting on his area of responsibility. Also, the decision maker may

not have the power to effect changes outside his area so he concentrates on local solutions. Also, many decision makers are under great pressure to perform so they opt for short term versus long term solutions. Furthermore, organizations may have changing problems over a period of time.[1] The result of this type of problem solving can lead to short term elimination of undesired local effects or indicators of stress and not long term identification and elimination of the causes of stress.

The Army is such an organization and has had a continual requirement of producing combat effective units in a changing technological environment. Periodically different members of the service have stated what they believed were the causes of present training deficiencies, such as, no draft, poor quality troops, etc. However, some of these stated causes have, in fact, been effects. To understand present training deficiencies, internal and external, organizational indicators and causes must be identified and evaluated. A Combat Effectiveness Model will be used in developing this understanding.

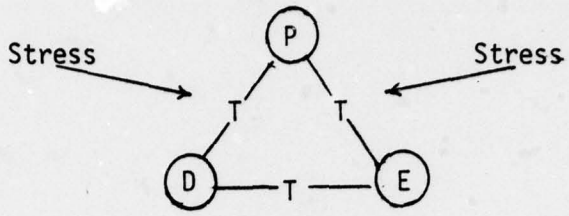
C. COMBAT EFFECTIVENESS MODEL

Initial combat effectiveness, the combat effectiveness of a unit during the first few weeks of a war, can be considered a function of some variables combined during peacetime training. Military leaders throughout history have sought to identify these variables and learn how they are related. Four variables often considered to be in this function are: Doctrine, Personnel, Equipment, and Training, i.e.

$$CE = f(\text{peacetime training}) = f(D, P, E, T, \ldots)$$

There may be other variables but only these will be considered in this study. The four variables can be viewed as being combined in a flexible triangle. The corners are the variables doctrine, personnel, and equipment. The material connecting the variables is training.

Figure 1



An optimum state of the triangle system will occur when it is not under stress; the effect of each variable is balanced. As stresses occur on any of the variables, the triangle is distorted. The system then seeks an optimum state and changes occur in the other variables. It can be seen that contractions, oscillations and breakdowns can happen. Thus, the quality of a unit's combat effectiveness will vary in some manner as the variables are changed.

The Training variable can be considered as being strongly influenced by the amount of available time a unit devotes to developing its combat skills. If this available time is inefficiently employed, it follows that a unit's initial combat effectiveness will be less than optimum.

The military force which is fastest in recognizing stress indicators and in grasping what causes the stresses can adapt and achieve combat effectiveness equal to or greater than its enemy. If what causes stress on the variables can be controlled (or at least guided), then higher quality combat effectiveness can be achieved.

III. INDICATORS AND CAUSES FOUND IN THE TRAINING ENVIRONMENT

A. HISTORIC INDICATORS

Stress indicators can be recognized in the Army. For years there have existed indications within the Army that problems existed in

readiness training. In the late 1950's and early 60's, arguments were voiced that an excessive amount of unit time was devoted to non-combat tasks.[2] The Army's response to the Cuban missile crisis highlighted weaknesses in its equipment preparedness.[3] In the early 1970's, decentralized training was advocated as a way of training better. Later, the tests and standards of the Army Training and Evaluation Program (ARTEP) replaced ATT/ORTT evaluations in an attempt to have combat units spend adequate time training on skills identified as being useful in combat. In the late 70's, a majority of Army divisions began utilizing X, Y, Z (or 3 cycle) annual training programs. Also, organization effectiveness officers were introduced into divisions during this period. These incidences have two common elements. First, is an awareness that line units were not adequately accomplishing all the tasks assigned to them. Secondly, some improvements were considered or implemented to better manage or reduce the number of training requirements. One method of understanding why such indicators exist is to investigate what organizational aspects of the Army can cause stress on the combat effectiveness model.

B. EQUIPMENT PROLIFERATION

The first cause of stress on the combat effectiveness model is piecemeal proliferation of company level equipment over time. Figure 2 shows the explosion of types of equipment in the mounted/mechanized infantry unit since 1859, just prior to the Civil War.[4,5,6] The rate of growth in items can be calculated as follows:

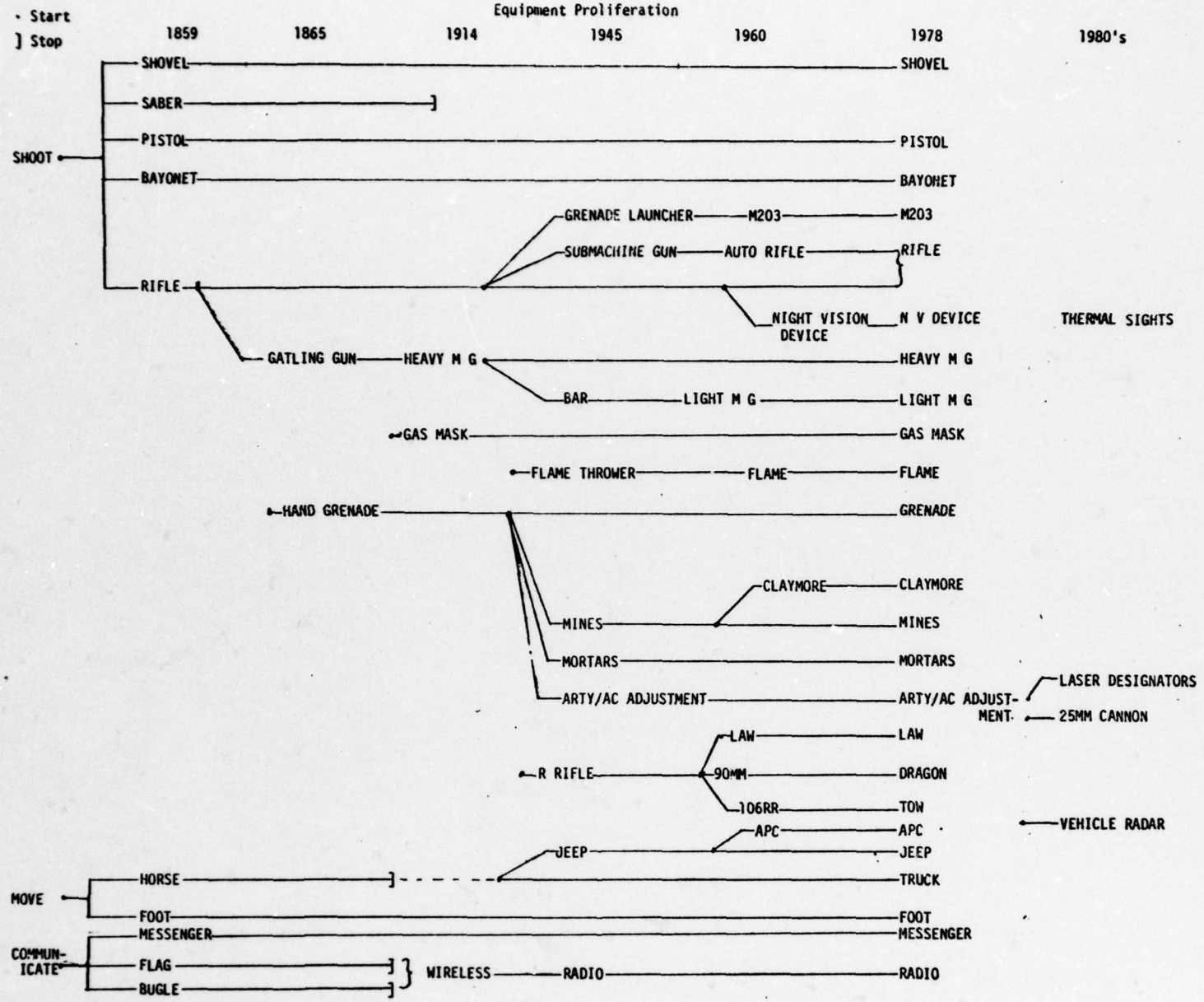
$$\text{Item loss rate} = \frac{3}{119}\ \frac{\text{items}}{\text{years}} \simeq .02\ \frac{\text{item}}{\text{year}} \simeq 1 \text{ item dropped per 50 years}$$

$$\text{Item gain rate} = \frac{24}{119}\ \frac{\text{items}}{\text{years}} = .20\ \frac{\text{item}}{\text{year}} = 10.0 \text{ items gained per 50 years}$$

Item growth rate = 10-1 = 9.0 items gained each 50 years.

Figure 2

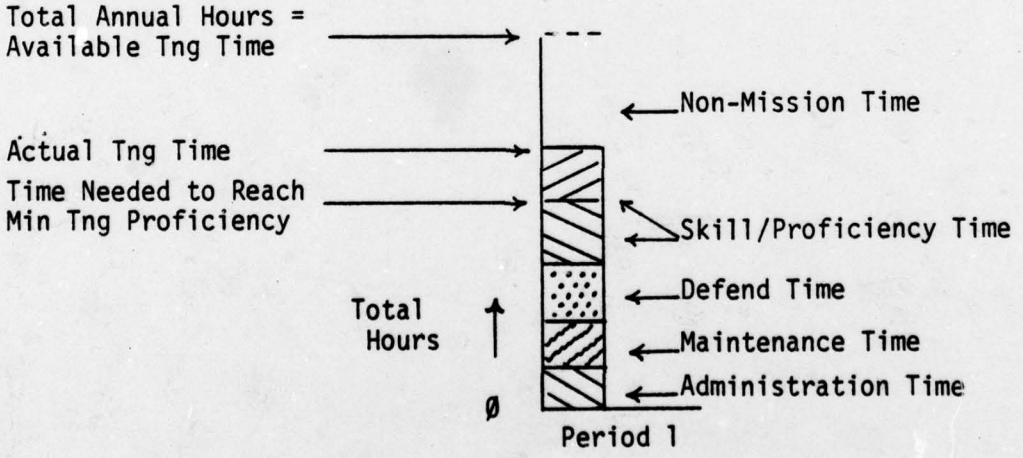
Equipment Proliferation



This growth rate reflects the capitalization of the Army in its effort to become efficient in accomplishing its mission. This capitalization has led to three types of weapons existing in the company. These three types are individual, mass and equipment kill weapons. Because of the global mission facing American forces and the nature of infantry combat, certain individual and mass kill weapons and skills will always be required while equipment kill weapons increase or change in quantity or technological complexity.

Each addition of equipment requires the line unit to devote four types of time to it; time to learn how to gain and retain skill with the item, time to learn how to defend against similar enemy equipment, time to maintain the item in operating condition, and time devoted to administrative requirements. (See Figure 3.)

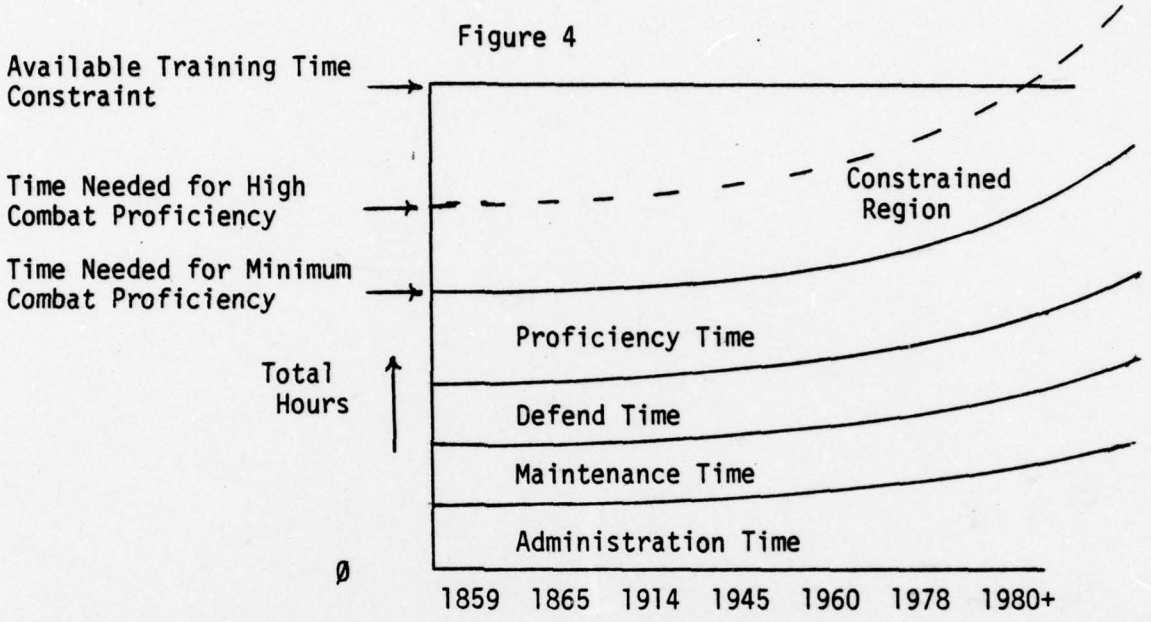
Figure 3



It is reasonable, therefore, to expect that the proliferation of equipment and subsequent training requirements can reach such a level that the line unit does not have sufficient time to become highly proficient in all or possibly any of the equipment items. The following figure will show this idea of time becoming obligated to numerous

tasks. A question that Army decision makers should be concerned about is how close are the minimum and maximum training time lines to the available time constraint?

Figure 4



Note in Figure 4 that an increasing percent of available time must annually be devoted to meeting minimum combat proficiency. Correspondingly, high proficiency training time has continued to approach the maximum available time constraint and the amount of time available for developing high proficiency is steadily decreasing. With a positive rate of growth of time requirements, eventually, only minimum training standards will be met.

C. COMPLEX TECHNOLOGY

Throughout the history of warfare, technology has been applied to military equipment to improve its killing efficiency. The impact of this changing technology upon training time requirements can be negative or positive. An obvious trend in the US Army since WWI, has been the acquiring of more and more complex and varied equipment which requires

more maintenance and operator skills per unit member. The M551 Sheridan, air deliverable, missile and cannon firing vehicle is an example of such equipment. Furthermore, to maintain high levels of hand, eye and team proficiency in such complex gun systems requires rigorous initial team training and continual repetitious refresher drills.

Should Army equipment be acquired without regard to the total training load required to operate it, then an unforeseen, time burdening effect can develop at the line unit level. A non-obvious fact is that, through purposeful management, quality technology advances can be acquired which require little user training time. An example of such a piece of equipment is the TOW missile system.

Thus, the second cause of stress is that piecemeal acquisition of maintenance and training complexity can inefficiently increase the line unit's time requirements.

D. CONSTRAINED ENVIRONMENT

A third cause which is becoming apparent to many Army leaders is that the service is becoming functionally constrained by budget and personnel resource limits.

Today the different sectors of American society are better organized and represented than in previous years, in their attempts to compete with the military for federal funds.[7] Since the military budget represents the majority of non-committed, annual federal funds; Congress has been attempting to minimize its growth.[8] Combined with these trends is the rising cost of rapidly growing technology. The result is that the Army has the capability to buy only a portion of the available technology. The Army must choose which technological, commodity bundle to buy.

Demographic changes within American society are reducing available military manpower pools. Furthering this trend is the no draft policy which forces the Army to compete with civilian markets for workers. It has become more difficult for the Army to recruit the desired numbers of high school graduates and/or mental category I/II presonnel for combat units. The resultant effect is that the Army will have to utilize a higher density of mental category III/IV personnel while acquiring and maintaining complex equipment. A policy of using more female soldiers, will reduce the number of male personnel positions in non-combat units thus increasing the number of males potentially available for line use. However, there is no guarantee that sufficient numbers of higher mental category males will opt for combat jobs if support type jobs are closed to them.

E. MANAGEMENT INFORMATION SYSTEM

The fourth and fifth causes of training deficiencies can be found among the three major components of the Army's communication and control process. These components are reports, regulations and inspections/tests.

The complexities and requirements of a division are similar to those of a civilian production or service organization. Many proven civilian business management practices have the potential to be successfully applied to the Army. For example, it is a common civilian management practice to utilize formal communication and control channels to evaluate actual performance to see that it corresponds to planned performance. This checking is done with exception reporting and variance analysis. In order to execute the checking, standards and criteria are established, used in the development of the operations and budget plans, and used during later evaluation periods, when designated information

is periodically reported by manual and/or automated means. Also, many large, complex civilian organizations realize that the information needs of different levels of management are as shown below:

Management Level	Information Needs[9]
High	Strategic, long range, internal and external
Middle	Resource allocation
Low	Operational

In comparison, the Army has a communication and control process which poorly applies concepts of management information systems. The first component, reports, rarely follows a deliberate gathering policy of supplying division, brigade, or battalion headquarters with the necessary information needed to ellicit behavior from subordinate units. Instead massive amounts of information and data are gathered at the company level, co-located and added to at battalion and brigade levels, and considered at division level. This process has led to information overload and excessive activity requirements at the company level. The recent process of consolidating administration at the battalion level (CABL) was introduced into the Army to reduce some of the deficiencies in the Army information reporting system.

The development procedures of the second component, regulations, also cause deficiencies in the Army information system. Army regulations are used to control training, spending, maintenance and personnel management. Army regulations state clearly what must be done by major Army commands in training and maintenance areas. These regulations are expanded at FORSCOM and division level and sometimes by the brigade and battalion. The expansion occurs in the issuance of regulations, circulars and commander's guidance letters.

Analysis of this expansion process reveals several interesting phenomena. First, because of the difficulty in changing regulations, FORSCOM and division circulars and commander's guidance effectively become short term prioritization work lists for subordinates. This prioritization occurs without the decision maker knowing, quantitatively, how much time is available to perform the short term prioritization, as well as, other regulated requirements. The process is done under the assumption that the unit does, in fact, have the time to execute all that it is told to do. However, after questioning numerous personnel in units from the company level to FORSCOM, few were found who had conducted any input analysis of time as a resource.

Another effect of these directives is that the line unit is not only provided with a list of requirements of what to do but some detail in how to do it. An example of this effect, can be seen by comparing the mission statement of the infantry company, FORSCOM Regulation 350-8 dtd 1977, and the 1978 FORSCOM Training Guidelines. (See Annex C and D.)

Perusal of present directives and normal division procedures shows no use, calculations nor institutional knowledge of the "standard" or "normal" workload of a unit, such as, direct labor hours as used in common business management. Thus, the effect of additions or deletions in equipment or training tasks is unknown. An analogy can be drawn to a factory which produces widgets and a manager who requires 12,000 widgets to be produced without knowing at what per cent of capacity his firm is operating.

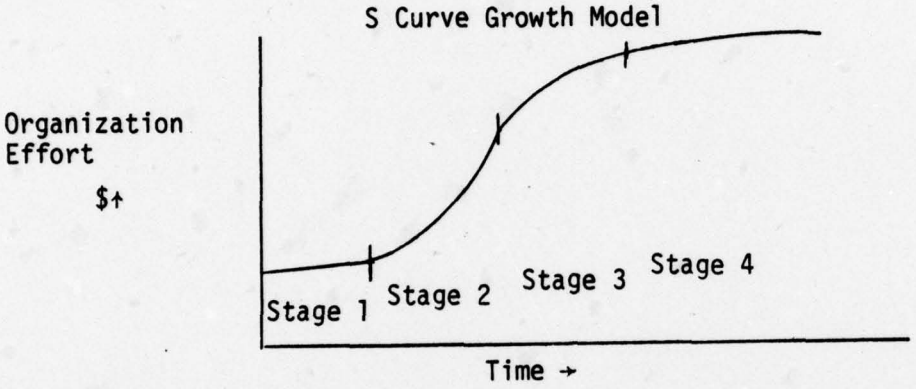
Adding to the above situation is the fact that periodic system review, by FORSCOM units and agencies of the <u>total effect</u> of

directives and reports is not done. Instead, piecemeal review is done by publishing agencies and Management Information Control Offices.

Impacting on this situation is that the Army's largely manual information system is being transformed into a highly automated one. Gibson and Nolan describe four stages in the emergence of management information systems as follows:

Figure 5

S Curve Growth Model



Stage 1: Cost-reduction accounting applications

Stage 2: Unplanned rapid expansion of applications in all functional areas

Stage 3: Moratorium on new applications, emphasis on control

Stage 4: Data base applications[10]

The Army's training MIS development is in the vicinity of Stage 1. If Stage 2's unplanned, rapid expansion is combined with the previous listed information deficiencies, then the line unit's workload may be increased. The proliferation of automated uses may cause additional, uncoordinated reporting and behavioral responses at the company level.

The inspection/test component of the Army's MIS system is applied in the best manner. Study of the regulated requirements listed in Annex A reveals that the majority of required events compliment the

AGI, ARTEP, EDRE, PCPT and NBC inspections/tests. These evaluations require a small percentage of a line unit's time while assisting in motivating much of the unit's annual effort.

However, there is a weakness in the way that this component is used in terms of motivating behavior above the company level. Higher headquarters are inspected during the Annual General Inspection for compliance in terms of having issued directives consistent with regulations and superior's orders. The line unit is inspected for actual performance, as well as, documented performance. In this process, there is no standardized manner of measuring or auditing training management performance by division, brigade, or battalion personnel. There exists no standardized method of comparing actual training performance over a period of time against planned performance. There exists no standardized method of inspecting or reporting on the efficient or inefficient management by headquarters personnel of the input resources of money, equipment, material, personnel, or time. It is possible, then, for a commander to overburden a subordinate and not be evaluated for such behavior. This type of system allows a commander to avoid difficult decisions. He can push a problem of overburdening off onto his subordinates who then must "selectively prioritize"[11] the requirements and disregard doing events for which they do not have the resources.

It is possible then for overburdening to be caused by not using standardized, management performance inspections of division, brigade and battalion unit headquarters.

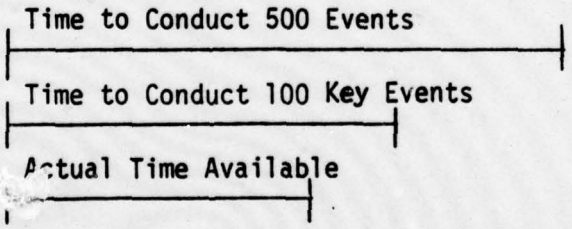
F. PREOCCUPATION WITH KEY TRAINING EVENTS

The sixth cause of stress can be identified by studying key event training. In attempting to develop effective forces, the Army decision

makers and analysts have preoccupied themselves with identifying the key training events a unit must be proficient in to be considered combat ready. The decision makers decide what training a unit should do. The units conducting training supposedly will have sufficient freedom to control how the training is conducted. Examples of this approach can be seen in Chapter 4 of the 1977-78 Army Training Study and in the mechanized infantry ARTEP.

The general consideration process is to look at numerous events or combat skills. Out of these the key events, judged as necessary ones, are chosen. These key events are then presented in some "realistically achievable program."[12] The weakness of this process occurs if the unit's equipment and/or regulated requirements preclude the unit from having sufficient time to perform the key event training. For example,

Figure 6



A line unit in this situation will not be able to train to a high level of proficiency in all of the combat and non-combat skills it is required to perform. To avoid being criticized for not executing required event training, a unit leader is in fact motivated to train in as many key events as he has available time to conduct. This situation leads a unit into conducting minimum level proficiency training. The preoccupation with deciding what training to perform can restrict the unit commander in how he conducts training.

For the key event analysis to be effective it must progress in three steps. First, identify the desired key events. Secondly, analyze whether the regulation and training system will hamper the units form performing the key events. Finally, pick a mix of key events which can be performed in the available time and which do not excessively restrict how training will be conducted.

It can be seen, then, that such programs as the ARTEP system may consist of the correct key combat events, but may decrease training proficiency if the total time burden of the unit is not considered while picking the set of key events.

G. SUMMARY

This section developed the idea that indicators of training deficiencies have resulted from six causes of stress originating internally or externally to the Army. The causes are:

1. Piecemeal proliferation of numerous equipment items over time.
2. Piecemeal proliferation of maintenance and training complexity.
3. Tighter money and personnel constraints.
4. Unguided codification of operation requirements.
5. Lack of standardized, management performance inspections of headquarters personnel.
6. Training analysts' preoccupation with identifying key training events.

Individually, none of these causes are critically damaging to the service. However, when their simultaneous impact is studied, it is easier to realize that they all increase the time burden of the line unit and may lead to mismanagement of available time. This problem may lead to degraded combat effectiveness.

Armed now with a synergistic understanding of the causes of training deficiencies in the Army, at least one dominant constraint can be identified; training time.

IV. AVAILABLE TIME MODEL OF THE TRAINING ENVIORNMENT

A. MODEL DESCRIPTION

To what degree is combat effectiveness limited by time constraints? In an attempt to answer this question, a model of the mechanized infantry training environment will be developed. It will be used to calculate high and low estimates of how time constrained is the infantry company. Insights or understanding of the training environment or process which may emerge through study of the model will also be sought.

The annual constraint estimate will be calculated by use of the formula:

RAT = AT - CT

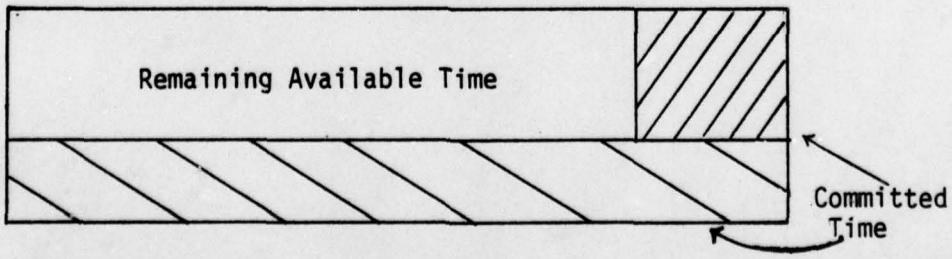
Remaining Available Time = Available Time - Committed Time

The formula components can be converted into percentages for different training situations and high-low % range estimates can be calculated.

Graphically the Available Time Model can be viewed as shown in Figure 7.

Figure 7

Available Time Model



The area of the rectangle represents the total available amount of the input resource time. This amount is expressed in manhours per year.

B. EVENT CATEGORIES

To estimate how much the beginning available training time is reduced, seven categories of committed time will be calculated in Annex B, Tables 1 through 3. These categories are:

1. Overhead
2. Non-combat training
3. Non-combat test/inspections
4. Combat test/inspections
5. Administration/maintenance
6. Taskings
7. Required combat training

The impact of three additional categories are studied in Section 7 of this paper. These categories are:

8. Division/Brigade/Battalion add on training
9. 1980 Infantry Fighting Vehicle add on training
10. Training inefficiency

The model with all component categories identified is shown in Figure 8.

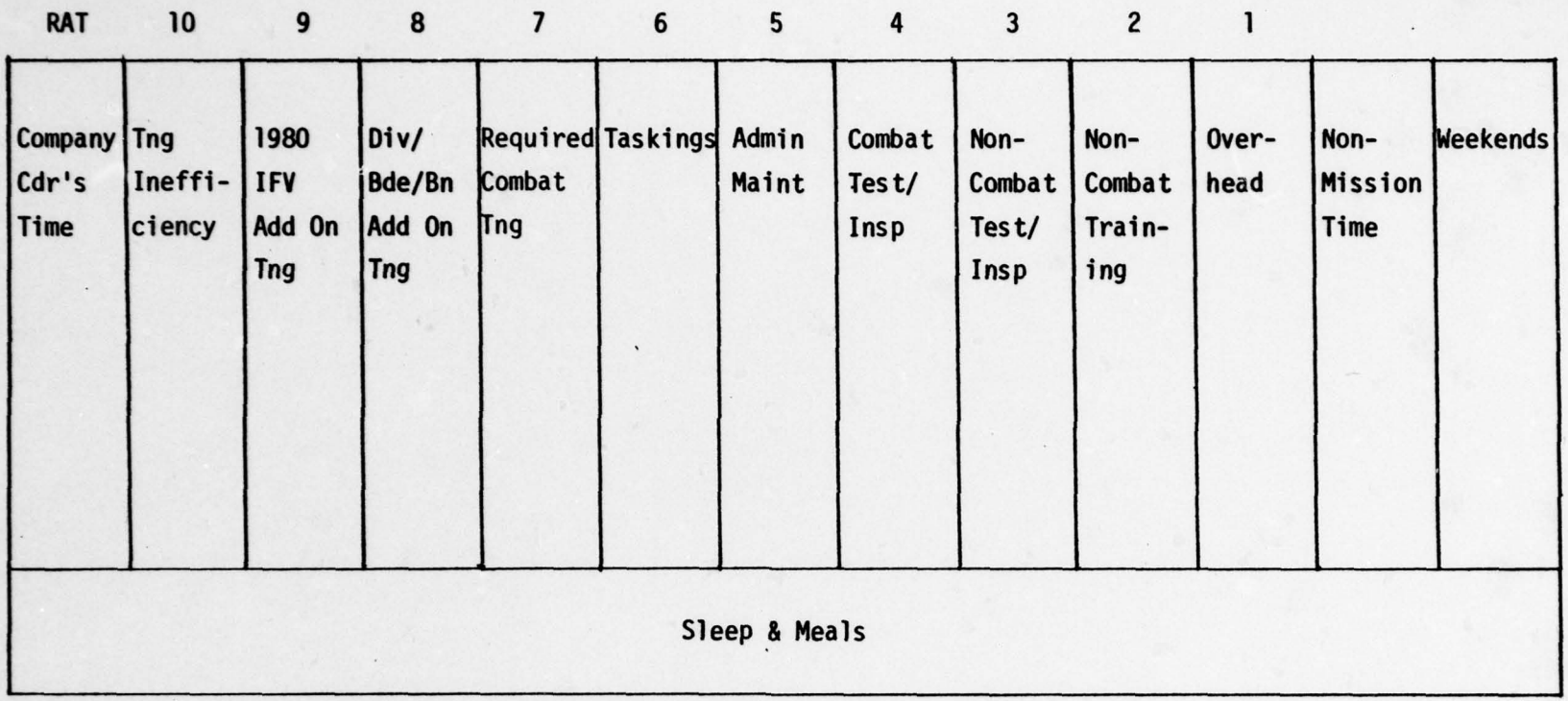


Figure 8

Available Time Model Categories

C. ASSUMPTIONS

Quantitative estimates of the size of the blocks of the model are based on the following numbered assumptions:

(Training Management)

1. The determination of the training, maintenance, and administrative activities to be accomplished by the line unit has been done by the Army's leaders; these activities are codified in regulations, circulars and commanders' guidances.

2. Headquarters above the company attempt to equalize mission, training and tasking work assignments issued to subordinates.

3. The company commander can group his training time in any combination he desires while accomplishing required activities.

4. The company will maximize the use of integrated and/or combined training.

5. During required field training exercises (FTX's), previously taught training skills will be integrated with ARTEP tasks.

6. All involved managers are conscientious and dedicated in their attempts to implement training.

7. The objective of the Army is to field highly trained, company and larger sized units.

8. If a unit's available training time is inefficiently managed, then its initial, combat effectiveness will be degraded.

(Calculations)

9. For each type of required activity a high and low estimate of the number of hours needed to accomplish the task can be made.

10. Required activities can have a preparation component and/or an execution component.

(Organization)

11. The manning and organization of the mechanized infantry, rifle company is as per TOE 07047-H020. See Annex F.

12. A standard distribution of mental Category I, II, III, IV personnel is assigned to the company.

(Training Day Breakdown)

13. By Army policy, two days a week, normally weekends, are not used for training.

14. Working at the job for 24 hours per day occurs only during emergencies and field training exercises (FTX's).

15. Line unit personnel expectation of an average low training load is a load close to 40 hours per week; their expectation of an excessively heavy work load is a load which is less than a 120 hour week.

16. Each soldier is allowed six hours for sleep and three hours for meals each training day.

17. Three average weekly levels of annual work load are:

Heavy load (40/20 mix): 40 hours day training
20 hours night training

Middle load (40/12 mix): 40 hours day training
12 hours night training

Low load (40/4 mix): 40 hours day training
4 hours night training

18. Night training is any training conducted between 1700 and 0600 hours. Day training is any training conducted between 0601 and 1659 hours.

19. A standard distribution of equipment and personnel availability will exist.

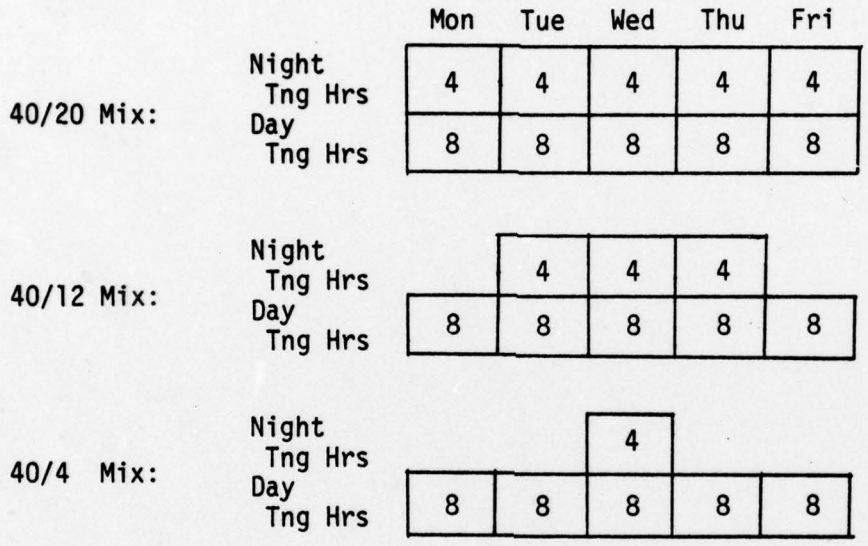
20. Each soldier is provided a non-mission portion of each day; during this period he is not expected to be on the job.

V. TIME ESTIMATE CALCULATIONS AND SUMMARIES

A. BEGINNING AVAILABLE TIME

The assumptions lead to a description of the company weekly work-load mixes as follows:

Figure 9



The beginning available time for each mix was calculated as shown below and does not include weekends, sleep, meals and non-mission time.

40/20 mix: $60 \frac{hr}{wk} \times 52 \frac{wks}{yr} \times 166 \frac{men}{} = 517{,}920 \frac{man\ hrs}{year}$

40/12 mix: $52 \frac{hr}{wk} \times 52 \frac{wks}{yr} \times 166 \frac{men}{} = 448{,}864 \frac{man\ hrs}{year}$

40/4 mix: $52 \frac{hr}{wk} \times 52 \frac{wks}{yr} \times 166 \frac{men}{} = 379{,}808 \frac{man\ hrs}{year}$

The workloads equate to the following number of 48 hour FTX's which can be used as another measure of heavy, medium and low work load mixes.

Figure 10

	Calculations	Maximum Monthly Rate	Maximum Annual Rate
40/20 Mix	80 $\frac{\text{Night Hrs}}{\text{Month}}$ ÷ 26 $\frac{\text{Night Hrs*}}{\text{FTX}}$	3.08 $\frac{\text{FTX's}}{\text{Month}}$	36.96 $\frac{\text{FTX's}}{\text{Year}}$
40/12 Mix	48 $\frac{\text{Night Hrs}}{\text{Month}}$ ÷ 26 $\frac{\text{Night Hrs*}}{\text{FTX}}$	1.85 $\frac{\text{FTX's}}{\text{Month}}$	22.20 $\frac{\text{FTX's}}{\text{Year}}$
40/4 Mix	16 $\frac{\text{Night Hrs}}{\text{Month}}$ ÷ 26 $\frac{\text{Night Hrs*}}{\text{FTX}}$	.62 $\frac{\text{FTX's}}{\text{Month}}$	7.44 $\frac{\text{FTX's}}{\text{Year}}$

*2 Night Periods 1700 - 0600 = 2 x 13 = 26 Hrs

Figure 11 reflects the average weekly and annual, beginning available hours. The upper left corner of the model represents the beginning available day and night training time.

B. CALCULATION METHODS

A major obstacle in developing training time estimates which are to be used in some management capacity is deriving an estimate which is acceptable to the training participants. Disagreements about training estimates are usually presented in three challenges to the validity of the estimates. The first challenge is that the estimates are purely the analyst's opinions and he has no basis for the figures used except his past experience which may or may not be representative of the actual time distributions for the training events. A second challenge is that the analyst has picked numerous events which units should be doing and again his opinions may not be the same as those of other military personnel. A third challenge is that changes in doctrine, threat, and so forth, cause changes in what events should be done. The conclusion, if these challenges are correct, is that the estimates are not valid and they are biased.

Figure 11

Beginning Available Time

	Average Individual Manhours Per Week			Total Annual Company Manhours Per Year (By TOE 166 Men Per Company)		
40/20 Mix	Remaining Available Time (RAT) = 60	Non-Mission Time 15	Week-ends 48	Remaining Available Time (RAT) 517,920	Non-Mission Time 129,480	Week-ends 414,336
	Sleep & Meals 45			Sleep & Meals 388,440		
40/12 Mix	RAT 52	Non-Mission Time 23	Week-ends 48	RAT 448,864	Non-Mission Time 198,536	Week-ends 414,336
	Sleep & Meals 45			Sleep & Meals 388,440		
40/4 Mix	RAT 44	Non-Mission Time 31	Week-ends 48	RAT 379,808	Non-Mission Time 267,592	Week-ends 414,336
	Sleep & Meals 45			Sleep & Meals 388,440		

To avoid, as much as possible, these challenges this report employs Assumption Number 1:

> The determination of the training, maintenance and administrative activities to be done by the line unit, has been accomplished by the Army's leaders; these activities are codified in regulations, circulars and commanders' guidances.

This assumption means that the list of activities to be accomplished has been developed by some decision making process acceptable to major Army command leaders and is not the opinion of the analyst. AR 600-55, AR 350-1 and FORSCOM Cir 350-8 are examples of documents containing codified requirements which must be followed by company commanders. A search of Army, FORSCOM and one division's regulations, circulars and other such documents was conducted and Annex A (Regulations and Circulars) was developed.

While researching the list of required events, three event characteristics were noted. First, some events are only composed of execution time while others have an execution component and a preparation component. A national holiday is an example of an event which has no preparation time. However, an Emergency Deployment Readiness Exercise (EDRE) is required to be conducted annually. For a unit to be able to pass this evaluation, preparation time must be devoted to insuring annual dental checks, innoculations, etc. have been accomplished prior to the evaluation. Secondly, some codified requirements state that a unit is periodically to perform a single event such as an ARTEP. But examination of the event's stated requirements reveals it is actually a collection of sub-events for which the unit must prepare. An example is in the mechanized infantry ARTEP sub-evaluation

of platoon and squad patrolling abilities. These sub-evaluations require units to be able to perform day and night land navigation. Thus, explicit and implicit time requirements must be extracted from regulations and circulars. The third characteristic is that, depending on the work load mix 40/20 or 40/12 or 40/4, the calculation of required time for some events differs. The difference comes about because the number of available night training hours counted as being used up per event is not the same. FORSCOM Supplement 1 to AR 350-6 directs units to conduct sniper/marksmenship training. This training can be viewed as being conducted away from the company. Thus, a unit working at a 40/20 mix load would, in one week, lose one man to a sniper training committee for eight more hours than if it were at a 40/12 mix and 16 more hours than if it were at a 40/4 mix.

The basic formula used in calculating an event time estimate is:

$$CT = M \times F \times D$$

$$\text{Committed Time} = \left(\begin{array}{c}\text{Number of Men}\\ \text{Involved in Event}\end{array}\right) \times \left(\begin{array}{c}\text{Annual}\\ \text{Frequency}\end{array}\right) \times \left(\begin{array}{c}\text{Estimated}\\ \text{Duration of}\\ \text{Event}\end{array}\right)$$

Note the units of measure are man hours per year.

The size of the key variables M, F and D are sought from the codified requirements. For example, FORSCOM Cir 350-8 requires units to annually conduct M-16 rifle qualification and maintain a 90% minimum level of personnel qualified on any given day. To accomplish this requirement, because of unit personnel reassignment, the minimum percent of unit personnel required to be trained is picked at 100%. A low and high duration of training is estimated after studying Field Manuals describing how M-16 qualification is to be accomplished.

Thus, the key variables are valued at:

M = number of men armed with M-16 rifles = 153

F = annually = 1

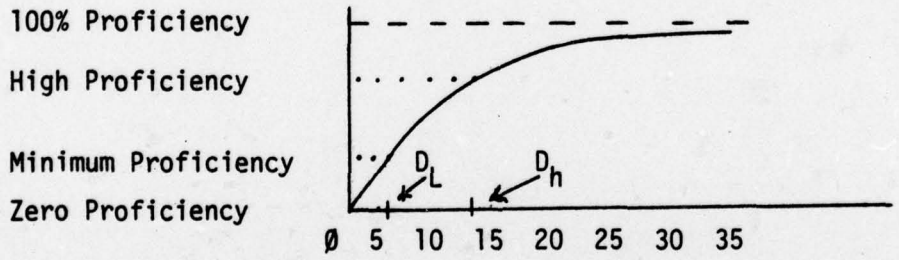
D_L = 8 hours D_h = 12 hours

The range of committed time is then:

Low time required = 153 x 1 x 8 = 1224 man hours

High time required = 153 x 1 x 12 = 1836 man hours

It is apparent then that by use of stated requirements the probability for error in estimating committed time is reduced and most often will appear in the duration variable. In estimating the low and high duration times, a distributional assumption was made about the time necessary to train a person to a high level of proficiency. The assumption, based on the theory of learning curves and field experience, was that this process has an exponential form and can graphically be depicted as shown below:



Thus, D_L is the training time needed to reach a minimum level of training proficiency; D_h is the time needed to reach a high level of proficiency.

The low and high duration column entries of Tables 1 - 3 of Annex B (Mix Time Estimates) were calculated in the above manner. The Table 1 - 3 entries were used as the basic data to develop the quantitative hourly, percentage and midrange figures shown in the remaining portions of this paper. The final figure sought is the

total midrange percentage of remaining available time. Recall the formula used for this calculation is RAT = AT - CT. The AT component equals 100%. The total CT component is equal to the sum of all the categories' committed time estimates, i.e.

$$CT_{total} = \sum_{i}^{n} CT_i$$

An example of such a calculation is shown below for the 40/20 mix overhead category.

Low load duration estimate (See Annex B, Table 1 & Figure 17a) = 54,126 $\frac{\text{man hrs}}{\text{yr}}$

High load duration estimate (See Annex B, Table 1 & Figure 17a) = 66,618 $\frac{\text{man hrs}}{\text{yr}}$

Low load percentage estimate (See Figure 16a) = $\frac{54,126}{517,920}$ = 10.45%

High load percentage estimate (See Figure 16a) = $\frac{66,618}{517,920}$ = 12.86%

Midrange percentage estimate (See Figure 15a) = $\frac{10.45 + 12.86}{2}$ = 11.65%

Thus, CT_1 = 11.65%. For the 40/20 mix CT_{total} = 63.54%. (See Figure 14.) The resultant RAT value equals 100% - 63.54% = 36.46%.

The midrange values of the remaining available time, by mix, are used in this study as the representative estimates of the actual available and controllable time of the company commander. The estimates of committed time of Categories 1 - 7 represent the effect of division and higher decision making upon the line unit.

C. SUMMARY OF CATEGORY 1 - 7 TIME ESTIMATES

The calculations of committed hours by category, conversion to percentages and conversion to midrange values are summarized in Figures 12 through 17. Figure 12 reflects quantitative estimates of the range of regulated committed time by work load mix.

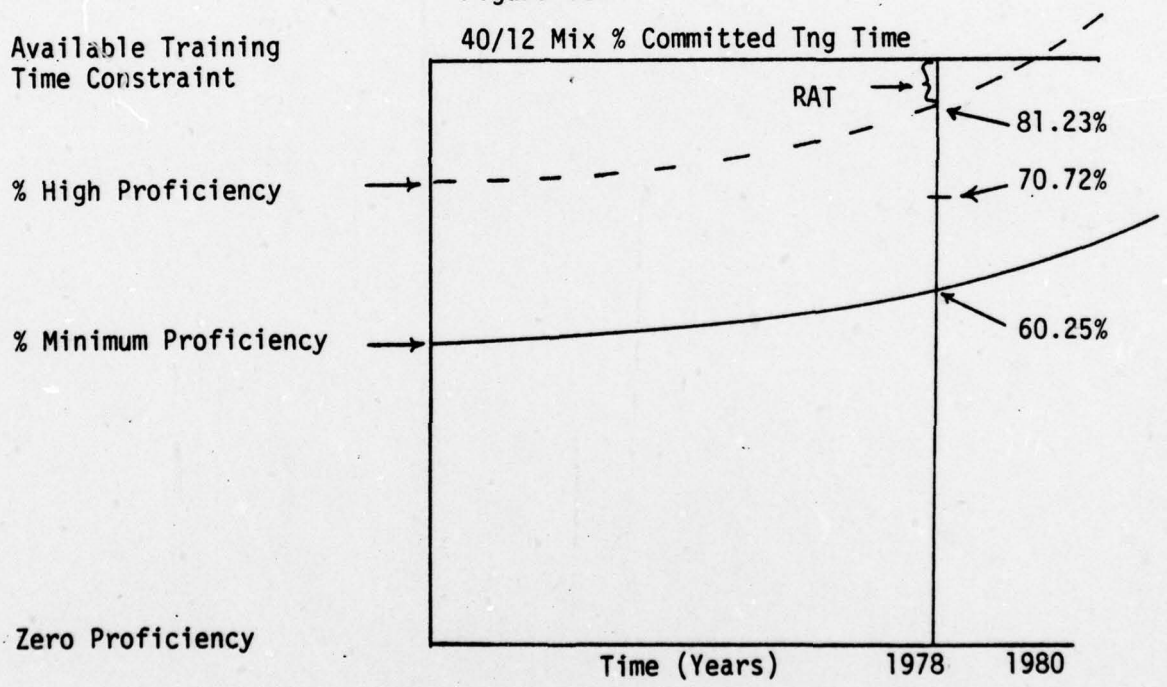
Figure 12

Ranges (Midranges) of Committed Time for Categories 1 - 7

Mix	Minimum Proficiency		High Proficiency
40/20 Mix	54.25%	(63.54%)	72.85%
40/12 Mix	60.25%	(70.72%)	81.23%
40/4 Mix	68.49%	(79.28%)	90.11%

The question raised in Section 3 about how close the minimum and maximum time lines are to the available time constraint can now begin to be answered. The author feels that the 40/12 mix estimates can be used as reasonable and conservative approximations of the constraining effects of division and higher decision making. (See Figure 13.)

Figure 13



The midrange values shown in Figure 12 come from Figure 14 which is a midrange, percentage summary of Categories 1 - 7 in terms of committed time. Figures 15A, 15B and 15C contain the separate mix,

midrange calculations. Figures 16A, 16B and 16C contain the separate mix, high-low percentage values. Figures 17A, 17B and 17C contain the separate mix, hourly totals developed in Annex B, Tables 1 - 3. Thus, the 40/20 mix values are found in the A Figures, the 40/12 mix values are found in the B Figures and the 40/4 mix values are found in the C Figures.

Figure 14

Summary, Midrange Percentages of Committed Time by Category

	CATEGORIES	40/20	40/12	40/4
AT	Beginning Available Time	100%	100%	100%
CT_1	Overhead	11.65	11.44	11.95
CT_2	Non-Combat Training	2.66	3.07	3.63
CT_3	Non-Combat Test/Insp	1.15	1.32	1.21
CT_4	Combat Test/Tng	14.39	16.6	19.53
CT_5	Admin/Maint	16.32	18.73	20.57
CT_6	Taskings	8.42	9.28	10.3
CT_7	Required Combat Tng	8.95	10.28	12.09
CT_T	Total Committed	63.54	70.72	79.28
RAT = AT - CT_T	Total Remaining Available Time	36.46	29.28	20.72

Figure 15A

40/20 Mix, Midrange Committed Time by Category

CATEGORIES		EXECUTION	+ PREPARATION	= TOTAL
AT	Beginning Available Time	100%	--	100%
CT_1	Overhead	11.65	--	11.65
CT_2	Non-Combat Training	2.66	--	2.66
CT_3	Non-Combat Test/Insp	.77	.38	1.15
CT_4	Combat Test/Tng	4.09	10.3	14.39
CT_5	Admin/Maint	15.52	.79	16.32
CT_6	Taskings	8.42	--	8.42
CT_7	Required Combat Tng	4.21	4.74	8.95
CT_T	Total Committed Time	47.32	16.21	63.54*
$RAT = AT - CT_T$	Total Remaining Available Time	52.62	--	36.46*

*Interpretation: Fixed requirements require allocating approximately 2/3 of unit's available time leaving 1/3 as variable time

Figure 15B

40/12 Mix, Midrange Committed Time by Category

CATEGORIES		EXECUTION	+ PREPARATION	= TOTAL
AT	Beginning Available Time	100%	--	100%
CT_1	Overhead	11.44	--	11.44
CT_2	Non-Combat Training	3.07	--	3.07
CT_3	Non-Combat Test/Insp	.88	.44	1.32
CT_4	Combat Test/Tng	4.70	11.89	16.6
CT_5	Admin/Maint	17.81	.91	18.73
CT_6	Taskings	9.28	--	9.28
CT_7	Required Combat Tng	4.81	5.47	10.28
CT_T	Total Committed	52.04	18.73	70.72*
RAT = AT - CT_T	Total Remaining Available Time	47.95	--	29.28*

*Interpretation: Fixed requirements require allocating 70% of available time leaving 30% variable

Figure 15C

40/4 Mix, Midrange Committed Time by Category

CATEGORIES		EXECUTION	+ PREPARATION	= TOTAL
AT	Beginning Available Time	100%	--	100%
CT_1	Overhead	11.95	--	11.95
CT_2	Non-Combat Training	3.63	--	3.63
CT_3	Non-Combat Test/Insp	.69	.59	1.21
CT_4	Combat Test/Insp	5.47	14.05	19.53
CT_5	Admin/Maint	19.48	1.08	20.57
CT_6	Taskings	10.3	--	10.3
CT_7	Required Combat Tng	5.62	6.46	12.09
CT_T	Total Committed	57.19	22.13	79.28*
RAT = AT - CT_T	Total Remaining Available Time	42.8	--	20.72*

*Interpretation: Fixed requirements require allocating 80% of available time leaving 20% variable

Figure 16A

40/20 Mix, Percentage Committed Time by Category

CATEGORIES		EXECUTION D_L	EXECUTION D_h	+ PREPARATION D_L	PREPARATION D_h	= TOTAL COMMITTED D_L	TOTAL COMMITTED D_h
AT	Beginning Available Time	100%	100%	--	--	100%	100%
CT_1	Overhead	10.45%	12.86%	--	--	10.45%	12.86%
CT_2	Non-Combat Training	2.54%	2.79%	--	--	2.54%	2.79%
CT_3	Non-Combat Test/Insp	.77%	.77%	.25%	.51%	1.02%	1.28%
CT_4	Combat Test/Tng	3.97%	4.19%	8.17%	12.44%	12.14%	16.63%
CT_5	Admin/Maint	14.33%	16.72%	.59%	1.0%	14.92%	17.72%
CT_6	Taskings	6.18%	10.66%	--	--	6.18%	10.66%
CT_7	Required Combat Tng	4.13%	4.29%	2.87%	6.62%	7.0%	10.91%
CT_T	Total Committed Time	42.37%	52.28%	11.88%	20.57%	54.25%	72.85%
RAT = AT - CT_T	Total Remaining Available Time	57.63%	47.72%	--	--	45.75%*	27.15%*

*High-Low Range

Figure 16B

40/12 Mix, Percentage Committed Time by Category

	CATEGORIES	EXECUTION D_L	EXECUTION D_h	+ PREPARATION D_L	PREPARATION D_h	= TOTAL COMMITTED D_L	TOTAL COMMITTED D_h
AT	Beginning Available Time	100%	100%	--	--	100%	100%
CT_1	Overhead	10.07%	12.82%	--	--	10.07%	12.82%
CT_2	Non-Combat Training	2.93%	3.22%	--	--	2.93%	3.22%
CT_3	Non-Combat Test/Insp	.88%	.88%	.29%	.59%	1.18%	1.47%
CT_4	Combat Test/Tng	4.58%	4.83%	9.43%	14.35%	14.01%	19.19%
CT_5	Admin/Maint	16.45%	19.17%	.68%	1.15%	17.13%	20.33%
CT_6	Taskings	6.89%	11.67%	--	--	6.89%	11.67%
CT_7	Required Combat Tng	4.73%	4.89%	3.31%	7.63%	8.04%	12.53%
CT_T	Total Committed	46.56%	57.52%	13.72%	23.74%	60.25%	81.23%
RAT = AT - CT_T	Total Remaining Available Time	53.43%	42.47%	--	--	39.75%*	18.77%*

*High-Low Range

Figure 16C

40/4 Mix, Percentage Committed Time by Category

CATEGORIES		EXECUTION D_L	EXECUTION D_h	+ PREPARATION D_L	PREPARATION D_h	= TOTAL COMMITTED D_L	TOTAL COMMITTED D_h
AT	Beginning Available Time	100%	100%	--	--	100%	100%
CT_1	Overhead	11.31%	12.60%	--	--	11.31%	12.60%
CT_2	Non-Combat Training	3.46%	3.81%	--	--	3.46%	3.81%
CT_3	Non-Combat Test/Insp	.69%	.69%	.34%	.69%	1.04%	1.39%
CT_4	Combat Test/Tng	5.32%	5.62%	11.14%	16.96%	16.47%	22.59%
CT_5	Admin/Maint	18.38%	20.58%	.80%	1.36%	19.19%	21.95%
CT_6	Taskings	7.57%	13.03%	--	--	7.57%	13.03%
CT_7	Required Combat Tng	5.54%	5.71%	3.91%	9.02%	9.45%	14.74%
CT_T	Total Committed	52.30%	62.08%	16.21%	28.06%	68.49%	90.11%
RAT = AT - CT_T	Total Remaining Available Time	47.69%	37.91%	--	--	31.51%*	9.89%*

*High-Low Range

Figure 17A

40/20 Mix, Hours Committed by Category

	CATEGORIES	EXECUTION D_L	EXECUTION D_h	+ PREPARATION D_L	+ PREPARATION D_h	= TOTAL COMMITTED D_L	= TOTAL COMMITTED D_h
AT	Beginning Available Time	517,920	517,920	--	--	517,920	517,920
CT_1	Overhead	54,126	66,618	--	--	54,126	66,618
CT_2	Non-Combat Training	13,164	14,492	--	--	13,164	14,492
CT_3	Non-Combat Test/Insp	3,984	3,984	1,328	2,656	5,312	6,640
CT_4	Combat Test/Tng	20,560	21,712	42,336	64,444	62,896	86,156
CT_5	Admin/Maint	74,256	86,640	3,060	5,202	77,316	91,842
CT_6	Taskings	32,028	55,250	--	--	32,028	55,250
CT_7	Required Combat Tng	21,408	22,236	14,864	34,288	36,272	56,524
CT_T	Total Committed	219,526	270,932	61,588	106,590	281,114	377,522
RAT = AT - CT_T	Total Remaining Available Time	298,394	246,988	--	--	236,806	140,398

Figure 17B

40/12 Mix, Hours Committed by Category

	CATEGORIES	EXECUTED D_L	EXECUTED D_h	+ PREPARATION D_L	+ PREPARATION D_h	= TOTAL COMMITTED D_L	= TOTAL COMMITTED D_h
AT	Beginning Available Time	448,864	448,864	--	--	448,864	448,864
CT_1	Overhead	45,230	57,586	--	--	45,230	57,586
CT_2	Non-Combat Training	13,164	14,492	--	--	13,164	14,492
CT_3	Non-Combat Test/Insp	3,984	3,984	1,328	2,656	5,312	6,640
CT_4	Combat Test/Tng	20,560	21,712	42,336	64,444	62,896	86,156
CT_5	Admin/Maint	73,872	86,064	3,060	5,202	76,932	91,266
CT_6	Taskings	30,968	52,418	--	--	30,968	52,418
CT_7	Required Combat Tng	21,232	21,972	14,864	34,288	36,096	56,260
CT_T	Total Committed	209,010	258,228	61,588	106,590	270,598	364,818
RAT = AT - CT_T	Total Remaining Available Time	239,854	190,636	--	--	178,266	84,046

Figure 17C

40/4 Mix, Hours Committed by Category

	CATEGORIES	EXECUTED D_L	EXECUTED D_h	+ PREPARATION D_L	+ PREPARATION D_h	= TOTAL COMMITTED D_L	= TOTAL COMMITTED D_h
AT	Beginning Available Time	379,808	379,808	--	--	379,808	379,808
CT_1	Overhead	42,974	47,890	--	--	42,974	47,890
CT_2	Non-Combat Training	13,164	14,492	--	--	13,164	14,492
CT_3	Non-Combat Test/Insp	2,656	2,656	1,328	2,656	3,984	5,312
CT_4	Combat Test/Tng	20,228	21,380	42,336	64,444	62,564	85,824
CT_5	Admin/Maint	69,840	78,192	3,060	5,202	72,900	83,394
CT_6	Taskings	28,756	49,502	--	--	28,756	49,502
CT_7	Required Combat Tng	21,056	21,708	14,864	34,288	35,920	55,996
CT_T	Total Committed	198,674	235,820	61,588	106,590	260,262	342,410
RAT = AT - CT_T	Total Remaining Available Time	181,134	143,988	--	--	119,546	37,398

VI. INTRICACIES OF THE TRAINING ENVIRONMENT

A. AVAILABLE TIME MODEL USE

The objective of this section is to reveal additional intricacies of the Army's training environment based on the assumption that the purpose of the Army is to field highly trained company and larger sized units. This objective will be reached by using the Available Time Model which can provide decision makers with "insights into directional trends to increase ... understanding of system dynamics."[13]

B. TOTAL WORK LOAD ANALYSIS

The previous detailed calculations have revealed that a significant portion of a unit's time is committed. Speculative estimates of categories

(6) increased tasking levels,

(8) division/brigade/battalion add on of time requirements,

(9) XM-2, Infantry Fighting Vehicle training requirements, and

(10) unit training inefficiency levels

can be used to gain a feel for the impact of various time burdening for these categories. Sets of estimates of these categories are shown in Figure 19. The Infantry Fighting Vehicle training add on values are calculated from Annex B, Table 4.

Figure 18

Alternative Workload Considerations

	CATEGORIES	COMMITTED TIME 40/20	40/12	40/4	
AT	Beginning Available Time	100%	100%	100%	DOD/FORSCOM Fixed (Regulated) Requirements
CT_1	Overhead	11.65	11.44	11.95	
CT_2	Non-Combat Training	2.66	3.07	3.63	
CT_3	Non-Combat Test/Insp	1.15	1.32	1.21	
CT_4	Combat Test/Tng	14.39	16.6	19.53	
CT_5	Admin/Maint	16.32	18.73	20.57	
CT_6	Taskings	8.42	9.28	10.3	
CT_7	Required Combat Tng	8.95	10.28	12.09	
CT_6	Double Tasking (Additional Reduction)	8.42	9.28	10.3	Estimated Alternative Reductions
CT_8	Div/Bde/Div Tng Add On Alt 2	6.0	8.0	10.0	
CT_9	1980 IFV Tng Add On	2.55	2.94	3.48	
CT_{10}	5% Inefficiency	5.0	5.0	5.0	
CT_T	Total Committed Training Time	85.51	95.94	108.06*	
RAT = AT - CT_T	Company Commanders Controllable Remaining Available Time	14.49	4.06	-8.06*	

*Overcommitted

Figure 19

CT_6 Alternative Tasking Levels %

	40/20	40/12	40/4
Base Estimate	8.42	9.28	10.3
150% of Base	12.63	13.92	15.45
200% of Base	16.84	18.56	20.6

CT_8 Alternative Div/Bde/Bn Tng Add On Levels %

	40/20	40/12	40/4
Base Estimate	0	0	0
Alt 1	4	6	8
Alt 2	6	8	10

CT_9 1980 IFV Training Add On Estimate %

	40/20	40/12	40/4
Base Estimate	1.94	2.24	2.65

CT_{10} Alternative Inefficiency Levels %

	40/20	40/12	40/4
Alt 1	3	3	3
Alt 2	5	5	5
Alt 3	10	10	10

The values in the top half of Figure 18 are the same as listed in Figure 14. The values in the lower half of Figure 18, Categories 6 - 9 are used to look at one possible total loading condition of: heavy taskings, low division/brigade/battalion headquarters training add on, and a 95% level of line unit training efficiency. When these additional committed time estimates are added to the previous committed time, then the resultant midrange committed times are:

40/20 mix 85.51%

40/12 mix 95.95%

40/4 mix 108.06% (Available time constraint violated)

The effect of such an alternative loading reveals that:

1. For two of the workload mixes a unit commander would have little influence on changing the proficiency level of his unit.

2. For two of the workload mixes a unit would not be training at a high proficiency level of combat readiness but at some midrange proficiency level.

3. At the 40/4 workload, a unit could not accomplish all assigned tasks.

4. It is possible for Army, FORSCOM, division, brigade and battalion accumulated policies to commit sufficient amount of the line unit's time so as to violate its available time constraint.

It should be clear that any load variation that a decision maker considers as being a reasonable reflection of his local environment can be studied in the above manner. Organizational, total workload policies can thus be evaluated for their efficiency and reasonableness. Insights into the Army's training system are exposed by the above analysis method. First, the division is given a mission, a large fixed time burden of approximately 70% of its available time

and a controllable portion of time. The size of the controllable portion of time is a direct function of the average weekly workload followed by division units. Secondly, division, brigade and battalion headquarter's training policies can consume the majority of the company commander's controllable time. Thirdly, should this phenomena occur, attempts to improve Army training deficiencies will be frustrated if the effort is directed at the company level. Since the unit commander, in this case, controls a small portion of his training effort, at best, only small improvements will be produced. Thus, improvement efforts should be directed at the managers who control larger amounts of the available training time.

C. SUB-WORKLOAD ANALYSIS

Additional insights into the Army training environment can be developed by aggregating the quantitative data of Annex A in terms of specific combat skills. Analysis of different aggregations may then reveal some information about the amount of committed and remaining available time which is or must be devoted to a combat skill in order to achieve a desired training proficiency level.

One such aggregation is live fire training conducted by rifle units versus individual live fire training. Figures 20, 21 and 22 are groupings of events which deal with live fire training. Figure 20 shows the high and low duration time for each unit level live fire training event. Figure 21 shows all events which would include unit simulated live fire training. Twenty percent of each of these events is used to estimate the amount of total event time spent on simulated live firing. Figure 22 shows all individual live fire training events. To develop the number of hours that rifle platoon personnel are involved in any event, the high-low duration estimates in Figures

Figure 20

Unit (Sqd and Larger) Live Fire Training Events

Event	Hours D_L Load	Hours D_H Load	% Inf Tng	Midrange Inf Hours
ARTEP Inf Sqd Test & Preparation	396	792	100	594
ARTEP Mortar Plt Test	1,104	2,208	--	--
ARTEP Mortar Plt Qual	615	615	--	--
ARTEP AT Sec Test & Preparation	512	1,536	--	--
Bn/Co/Plt LF EX	1,328	1,816	68.67	1,079
TOTAL	3,955	6,967	--	1,673

Figure 21

Unit (Sqd and Larger) Simulated Live Fire Training Events

Event	20% D_L Load	20% D_H Load	% Inf Tng	Midrange Inf Hours
ARTEP	2,158	2,158	68.67	1,482
Reaction Force NUC Surety Tng	492	1,476	100	984
ARTEP Opposing Force	1,760	1,760	68.67	1,209
Major Tng Exercise	3,088	4,283	68.67	2,531
FTX	3,984	3,984	68.67	2,736
Sqd/Plt ARTEP Tasks	1,752	3,504	78.08	2,052
Anti Armor Tng	232	464	68.67	239
Air Defense Tng	124	372	73.54	182
TOTAL	13,590	18,001	--	11,415

Figure 22

Event	D_L Load	D_H Load
M-16 Qual/Fam	1,836	2,448
M-203 Qual/Fam	168	168
M-60 Qual	720	720
45 S M G	12	12
50 Cal M G	336	336
45 Pistol Qual	39	39
Dragon/Law	216	216
Sniper/ Marksmenship	1,320	1,320
ARTEP Social/M-60 Test/Preparation	224	224
Other Wpn Tng	4,508	4,508
TOTAL	9,376	15,607

Figure 23

% of Total Time: Inf Unit (Sqd and Hoove) Live Fire Tng

Mix	Midrange % Live Fire Tng	+	Midrange % Simulated	=	Midrange Combined %
40/20	.32		2.20		2.52
40/12	.37		2.54		2.91
40/4	.44		3.0		3.44

Figure 24

% Ind Live Fire Tng

Mix	Midrange % Tng
40/20	4.82
40/12	5.56
40/4	6.58

21 and 22 are multiplied by the percent of rifle platoon personnel who would participate in the specific events. Figures 23 and 24 are the corresponding midrange, percentage calculations. Figure 23 reflects midrange values for unit live fire training while Figure 24 reflects midrange values for individual firing.

An interesting set of figures appear in Column 2 of Figure 23; it shows that for any workload mix less than one half of one percent of a rifle company's training time is committed to actual unit configured, live fire training. This set of figures can be compared to the ones in Figure 24 which show that approximately twelve times as much effort is required to be devoted to individual live fire training. It would appear that the Army policy is for division units to insure that portions of the available time controllable by them be used to conduct additional unit live fire training. Should this additional training not be conducted, then the effective policy of the training unit becomes one of fielding trained individuals instead of trained units for this training event.

The above policy may or may not be needed in a time constrained environment, but the decision maker must make such decisions in as objective manner as possible. Use of the Available Time Model has revealed possible situations in the training environment which could lead to some of the Army's present training deficiencies.

VII. TRAINING PLANS DEVELOPMENT IN THE TRAINING ENVIRONMENT

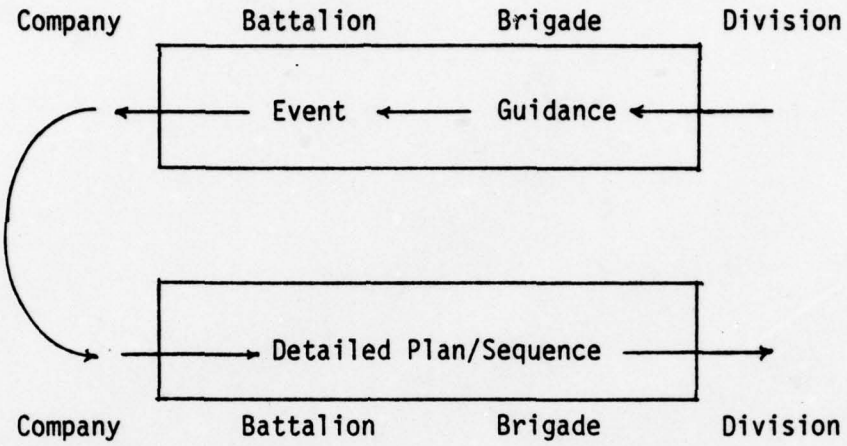
A. MODEL DESCRIPTION

How a training plan is developed for an Army division is another integral part of the training environment. The Training Management Control System should fit into this process and compliment or improve

it. The development process can be described by the Training Plans Model shown below.

Figure 25

Training Plans Model



B. GUIDANCE

The model portrays a two step process. The first step is developing and finalizing guidance instructions on what and when units will be involved in training dictated by higher headquarters. Normally, this training is viewed as a major training and/or field event by the headquarters requiring compliance. Such a major event could be a battalion's participation in amphibious operations training at a naval facility. This type of guidance affects the annual sequence and mix of training events that the battalion will conduct.

The division's guidance is typically developed at the beginning of a fiscal year and updated periodically, such as quarterly, or when unexpected events develop which the division is involved in. An example would be a postal strike or national emergency. This development process is time consuming and involves dialogue between the

different levels of headquarters about alternative sequences of training. The major participants in this process are commanders, G3/S3 personnel and G4/S4 personnel.

The G3 office manually writes up the division alternatives and the finalized annual training plan. This fact becomes important after a person realizes that the personnel developing the division sequence are actually attempting to develop a training program while dealing with the numerous training constraints listed in Annex A, as well as, other FORSCOM guidance and budget constraints. These personnel are confronted with a large programming/scheduling type problem and must attempt to manually optimize it.

The completed division plan is sent to the subordinate headquarters. These headquarters finalize their guidance; eventually the company receives the guidance necessary to complete its annual training plan.

C. DETAILED PLAN

The second step of the process is more rapid. The lowest unit finalizes its plans, reports it to its higher headquarters, makes any necessary adjustments and receives approval to use the plan for its annual training.

D. CHANGES

Changes to the master training plan are developed, finalized and detailed in a similar two step process. Usually the number of alternative sequences have been reduced because many of the training constraints have, or are being met by, the present master schedule, so only a portion of the sequence must be changed. The impact at the company level of division or brigade changes may be substantial or minimal depending on the type of change. Should, for example, a

battalion be issued a mission to guard special weapons storage areas for 30 days, much of the battalion's training cycle will be affected.

Thus, it can be seen that the detailed plan is a function of the sequence guidance provided to a unit.

VIII. HYPOTHESIS

The Army training environment has now been described in some detail. The remainder of this analysis will seek to determine if the TMCS satisfactorily fits into this environment. To make this evaluation the following hypothesis will be used:

> The proposed division level Training Management Control System may produce an infeasible training time result since the system does not accurately account for required time constraints affecting the mechanized infantry company.

IX. THE TRAINING MANAGEMENT CONTROL SYSTEM

A. STATED OBJECTIVES OF TMCS

The stated objectives of the TMCS are as follows:

(1) "Provide zero based budgeting input for Program 2, OMA, to include justified decision packages, to insure that training is adequately supported."[14]

(2) "The proposed system, TMCS ... will provide a tool to aid in defense of the Army's need for resrouces (BFTD) similar to the Air Force's Flying hours program and the Navy's steaming days."[15]

(3) "A Battalion Field Training Day is defined as 8 - 24 hours of mission-related training conducted by a modified table of organization and equipment (MTOE) battalion with sufficient personnel and equipment to accomplish its training task outside its assigned

billeting, administrative and logistical areas."[16]

The above statements indicate that a major purpose of TMCS is to provide the Army with a valid means of justifying its annual budget request.

A second objective is to optimize training as reflected in the next statements.

(4) "TMCS forecasts the cost of field training and quantifies it in terms of Battalion Field Training Days (BFTD's), provides a basis for allocation of resources to support training requirements, assesses the impact of training alternatives and provides the actual cost of field training when it is completed. The core of TMCS is a linear programming mathematical model (called Battalion Decision Model) which determines what training can be conducted within available training resources and selects the training to be conducted on the basis of its cost effectiveness contribution to training readiness."[17]

(5) Resource constraints entered and used in the Battalion Decision Model are:

"1. Aviation spares
2. Aviation gas
3. MOGAS
4. Spare parts
5. Diesel fuel
6. Other costs
7. Flying hours
8. BFTDs
9. Acre days"[18]

TMCS is also envisioned to assist in managing training:

(6) "Provide a simple, easily understood, interactive management tool for division, brigade and battalion commanders and the training managers to plan, execute, evaluate and modify their training programs to provide the best training possible within limited resources."[19]

(7) "Because of the interactive nature of the system, the battalion commander can rerun many times, with changes in training events and resources, to evaluate alternative field training considerations in light of their impact on resources and training events, any changes in the training program, or any changes in resources available. This process is essential to determine the variance between programmed and actual and the impact of any changes on training yet to be conducted."[20]

The above official statements indicate that TMCS can be utilized to provide Zero Based Budgeting justification, assist in the management of training throughout the training plan development process, and optimize training while accounting for the input resources of time, money and training sites.

B. ACTUAL PERFORMANCE OF TMCS

1. Test Procedure: In order to verify if the actual performance of TMCS satisfactorily met the system's stated objectives, as well as, satisfactorily fitting into the training environment, a test of the system was developed by the author. The test components were as follows:

a. Model the training environment with time viewed as an input resource. (As presented in Sections 1 - 8.)

b. Test the TMCS software program on the hardware equipment proposed to be fielded. The objective of the test was to see if a training sequence which was infeasible in terms of time would be reported as feasible by the system.

c. Discuss the system's stated and actual performance with the Army program developers and testers at FORSCOM Headquarters, Fort McPherson, Georgia.

d. Discuss the system's linear and integer programming algorithm with the IBM programmer who updated the basic program which was sold to the Army.

e. Compare and analyze facts and results.

2. Software Test Results: The test data which was run on the TMCS was four weeks of Mission cycle training proposed to be conducted by one rifle company of a mechanized infantry battalion. The company has received its guidance and is developing its detailed plan. The events entered include field and garrison events. The number of personnel involved, duration and type of events used to calculate total required manhours parallel those in Annex B, Table 1. The mix of training events and thus total hours needed to conduct training was picked to insure that a unit working at the 40/20 workload, the heaviest load, could not accomplish the training shown in Figure 26. Figure 26 reflects the event sequence. Figure 27 shows the hourly calculations for each event.

Following the procedures listed in the TMCS user's manual, the data was coded on worksheets, typed into the program and the program was executed to determine and print the training program. Note that this section is addressing weaknesses of TMCS. However, the system has many excellent aspects such as its ease of operation, clear and simple user instructions and ease of inputting data.

The detailed results of the test are shown in Annex G (Computer Printouts). The TMCS results only show that the field training events are feasible. No information is presented showing that the time constraint for all events is violated. Note also that no garrison events are printed out to show if they were optional or required events and/or their priority.

Figure 26

Training Sequences TMCS Test

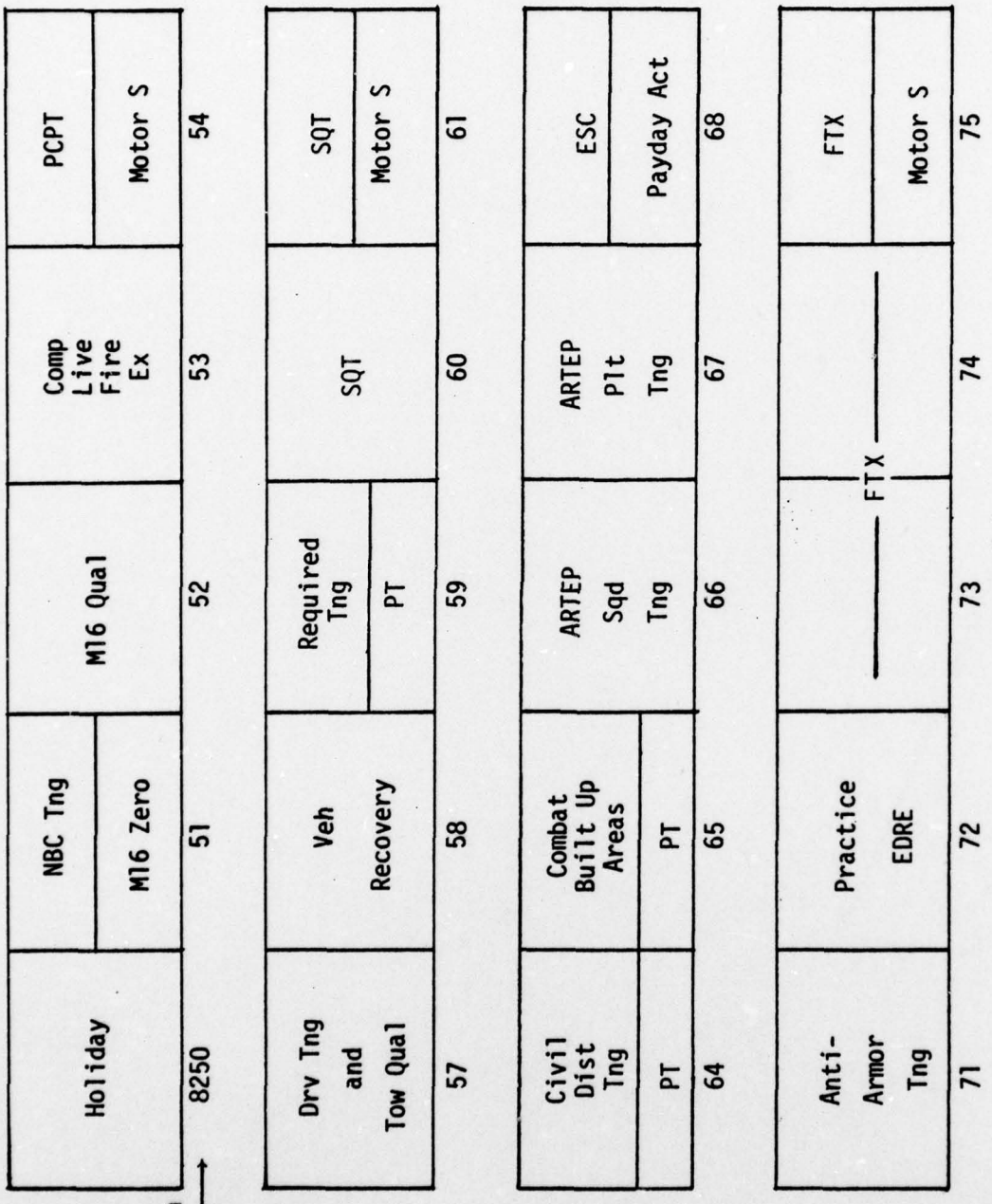


Figure 27

Hourly Calculation TMCS Test

Grand Total 41,485 >

Available Time Per Tng Mix

- 40/20 166 x 60 x 4 = 39,840
- 40/12 166 x 52 x 4 = 34,528
- 40/4 166 x 44 x 4 = 29,216

Event	Tng Time Calculation	Admin/Maint	
Holiday	166 x 12 = 1,992		Week 1
NCB	166 x 4 = 664		
M-16	153 x 12 = 1,836	13 x 8 = 105	
Comp Live Fire Ex	147 x 12 = 1,764	19 x 8 = 152	
PCPT	166 x 4 = 664		
Motor S	147 x 4 = 558	19 x 4 = 76	
Field Drv Tng	134 x 16 = 2,144	19 x 8 = 152	Week 2
Tow Qual	13 x 8 = 104		
Veh Recovery	147 x 12 = 1,764	19 x 8 = 152	
Req Tng/PT	166 x 8 = 1,328		

Figure 27

Hourly Calculation TMCS Test (Cont)

Event	Tng Time Calculation	Admin/Maint	
SQT	166 x 16 = 2,656		Week 2
Motor S	147 x 4 = 588	19 x 4 = 76	
Civil Dist Tng	166 x 7 = 1,162		Week 3
PT	166 x 1 = 166		
Combat BA	147 x 12 = 1,764	19 x 7 = 133	
ARTEP SQD Tng	147 x 16 = 2,352	19 x 8 = 152	
ARTEP PLT Tng	147 x 16 = 2,352	19 x 8 = 152	
ESC	147 x 4 = 588	19 x 4 = 76	
Anti Armor Tng	147 x 8 = 1,176	19 x 4 = 76	Week 4
EDRE	166 x 8 = 1,328		
FTX	166 x 64 =10,624		
Motor S	147 x 8 = 1,176	19 x 4 = 76	
Pay Act	166 x 8 = 1,328		
Column Total	40,108	1,377	
	Grand Total	41,485	

Thus, the computer output presents the training program as being satisfactory for all input constraints when, in fact, it is not.

3. Discussion Research Results: Subsequent discussions with key TMCS developers and testers revealed the following information:

a. It is envisioned that there will be no change in how training guidance is provided to subordinates.

b. Desired training is identified and then fitted to the proposed budget. Battalion training schedules, ammunition requirements and costs are to be "rolled up"[21] to division. The idea is that, as long as feasible, battalion training programs are produced then the division training program will be feasible.

c. Obvious overburdening of subordinates will be identified and prevented by responsible commanders and staff members.

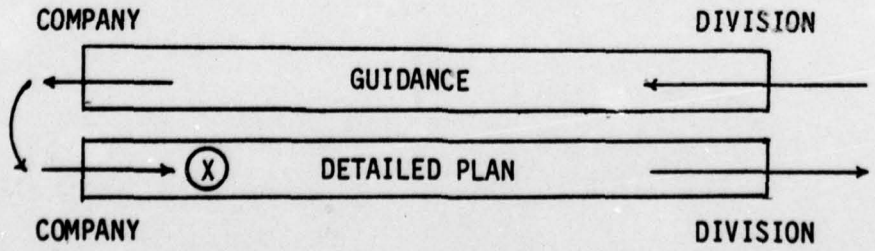
d. A theoretical maximum number of BFTD's is not part of the Battalion Decision Model. The BFTD constraint limit entered by the user into the program is a manual calculation of the available field time.

e. Should training changes occur during the year TMCS can rapidly be used to look at training options and insure they meet resource constraints.

C. ANALYSIS OF TMCS PERFORMANCE

Therefore, TMCS's actual performance is as follows:

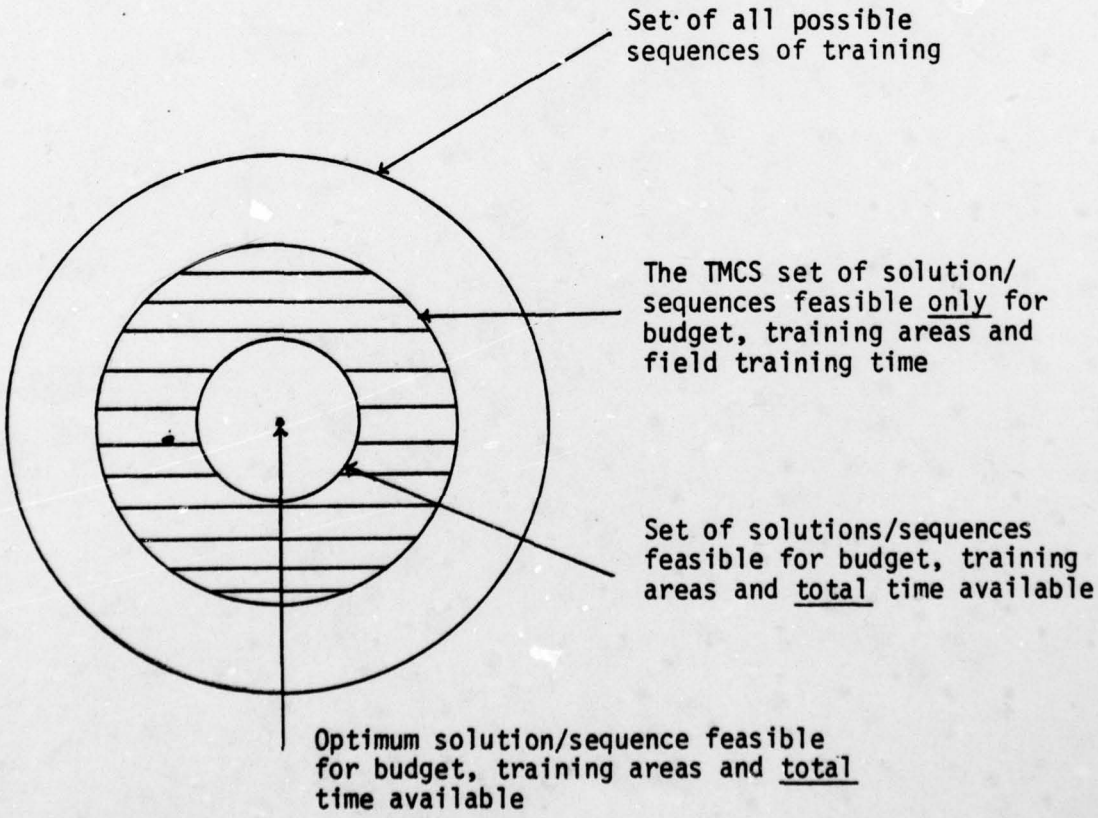
1. In terms of the Training Plans Model, TMCS enters at



position (X); it provides no assistance to the planner during the guidance development process. In other words, TMCS does not optimize training by selecting the best sequence of field events, garrison events or both. That whole, slow process is still manually performed. TMCS solely insures that the picked sequence of field training fits within budget, training area and field training time constraints. However, it does not insure that sufficient available time to conduct all planned training exists. A major weakness of the system, as revealed by the software test, is that division training plans can be developed and accepted as optimum but actually be infeasible because units do not have sufficient time to perform all the tasks. Graphically this situation can be described as picking a solution lying within the hashed marked regions of Figure 28.

Figure 28

Solution Sets



As presently proposed two of the three types of major users within the division will become dissatisfied and disillusioned with TMCS. The satisfied users will be the G4/S4 community which normally develops its detailed plans and budgets after receiving the training sequence from the unit operations personnel. However, unit commanders and G3/S3 personnel will rapidly find out that TMCS does not assist in planning a training sequence which is one of their primary duties. For example, a division commander attempting to prepare the fiscal training guidance for an upcoming year cannot "roll up"[21] numerous alternatives he may desire to look at. Should the division's Air Cavalry Squadron, a high cost unit, participate in one, two, or three brigade FTX's is a question he may want to study. The TMCS will be able to generate cost estimates of a squadron's support costs per day of an FTX but an attempt to cost the massive changes which occur in a division training schedule if a major unit is exercised or not, will prove TMCS is unwieldy for this type of effort. TMCS is better described as a funds management control system; it is not a training management control system.

2. Another important point about TMCS is that total dollar costs are a function of the events picked. Change the event or sequence of events and the total training program will change. For example, a one day FTX may cost $25,000, a two day FTX will cost more, and conducting rifle firing costs some other amount. Thus, the independent variable in the cost equation is the specific event duration; the dependent variable is total cost. The equation is

TC = (Event duration hours) x $/hour.

Since the TMCS program does not guarantee that the time constraint is properly handled, meaning the duration of costed field events may

be greater than available field training time, it is probable that the developed total cost will not only be false but also a poor estimate of the true range of costs. This fact will be proven as the division works through its training schedules and changes are forced on units which do not have sufficient time to execute field and required garrison events. The earlier in a unit's training year that this type of problem arises, the greater the number of changes will be in event sequences and in costs.

3. In terms of management, TMCS has several weaknesses. First, the present definition of BFTD's will lead to clouding a superior's ability to judge and explain what is the actual effectiveness of his units. Consider two identical units which perform the exact same training on a 48 hour FTX and both are exactly effective in their training efforts. Unit A enters its data into TMCS in terms of 8 hour BFTD's while Unit B enters it in terms of 24 hour BFTD's. The A unit will appear to have conducted six BFTD's for the same dollars as unit B spent to conduct three. Secondly, the terminology "sufficient personnel" leads to an ambiguous case. Unit A conducts his field training with 50% of his unit while unit B conducts his training with 100% of his unit. Unit A's reported costs per BFTD will obviously be less than unit B's. Again Unit A falsely appears more effective than B. Thirdly, TMCS does not provide a means of assisting or assuring that regulated requirements to conduct field training are accomplished.

X. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS: The following conclusions can be made from this analysis:

1. The actual effect of regulations, equipment acquisition and training management policy of the continental US Army is to field less than maximum proficient units.

2. Some training deficiencies of mechanized infantry units are caused by the synergistic time constraining effects of:

a. Piecemeal, equipment proliferation over time.

b. Increased training, maintenance and operational complexity of purchased technology.

c. Development of time committing regulations without knowledge of units overall available and committed time.

d. FORSCOM and Division level development of long and short term training, prioritization directives without knowledge of units available and committed time.

e. Preoccupation of Army analysis and decision makers with identifying key training events instead of identifying an optimum mix of fixed and variable events.

f. An uncoordinated, emerging management information/control system.

g. Tighter budget and manpower constraints.

This synergistic, time constraining effect is becoming critical and has the potential to limit units to performing training requirements at minimal standards.

3. Evaluation of alternative equipment during the acquisition

cycle cannot be adequately done unless the equipment is studied in terms of how it will effect the total operational and training time package of the line unit.

4. The Army divisions do not have standardized management methods of periodically conducting checks of performance, identifying variances form planned budget and training plans and issuing corrective orders as necessary.

5. Concepts of management information systems are not well applied to the regulation development process.

6. The Army does not evaluate combat arms commanders at division, brigade and battalion levels in terms of effective utilization of the input resource time.

7. Under the present training system it is possible for higher headquarters to overburden subordinate units in terms of time. High tasking levels, poor training sequence loads, and/or division, brigade, and battalion additional activity requirements can burden the line unit with more requirements than it has time to do.

8. Battalion and larger unit commanders who manage without regarding time as a constraint avoid acknowledging or confronting the problem of overburdening and require subordinates to solve, avoid or hide the problem.

9. For a unit working 52 hours per week, per year, regulated (Categories 1 - 7) requirements consume over 70% of the unit's time. Unit commanders who work their units less than 52 hours per week run a high risk of not being able to meet fixed training requirements.

10. Decisions by DOD, FORSCOM, TRADOC and division headquarters directly limit the unit commanders freedom on deciding how his training will be conducted. Unit commanders can be reduced to only

insuring directed training sequences are met at minimum standards.

11. Committed (fixed) and Available (variable) unit time categories can be identified and quantified by use of an Available Time Model.

12. Training production capacity of a unit can be estimated in terms of maximum possible training time and actual level of production committed by regulation.

13. Division training programs are developed in a two-step process (guidance then detailed plans) as shown in the Training Plans Model.

14. The Training Management Control System does not assist the training planner in the guidance step of the Training Plans Model. It does not optimize training by providing the best mix of training within all constraints. It optimizes a manually picked, training sequence for budget, training areas and field training time constraints.

15. TMCS is improperly time constrained; it does not compare available total time against the desired total time load. It can produce an output solution which appears feasible for all constraints while actually being infeasible in terms of total time.

16. TMCS is not a management control or training control system; it is a funds control system.

17. The present definition of BFTD has the potential to be misused by commanders who wish to create the best appearance of unit efficiency.

B. RECOMMENDATIONS: The following recommendations are presented as means of improving the TMCS system so that it can reach its full potential as an effective management tool.

1. Equipment Acquisition

Stop piecemeal acquisitions of technology by following a policy of "bundle buying." Each proposed change to the Army's bundle of mechanized infantry technology must be evaluated by TRADOC analysts to see that the bundle mix optimizes the capabilities of the items in terms of training and operational time considerations, i.e., an item change causes a bundle change.

This goal can be achieved by having TRADOC:

a. Employ the criteria that time requirements of the bundle cannot surpass the units maximum capacity of available training and operational time.

b. Identify and quantify the available training and operational time requirements of the present bundle of mechanized infantry technology through the use of an Available Time Model.

c. Identify and quantify the fixed and variable training time components of the present bundle of technology. At the same time, identify and quantify the maximum capacity of a mechanized infantry company in terms of time.

d. Evaluate future equipment acquisitions in terms of their impact on the line unit's total time load.

e. Encourage acquisition of high quality, technology bundles which reduce the unit's total training workload.

f. Insure regulations and training prioritizations allow the company to train at a level of proficiency above minimum standards.

g. Educate DOD, FORSCOM and TRADOC Headquarters of the direct impact and the magnitude of the impact that decisions on equipment acquisition, reports and regulations have on restricting

line unit's variable time.

h. Educate Army unit leaders of the necessity to manage time as a resource.

2. Regulations

Stop piecemeal development of training regulations; follow a policy of "bundle regulating." Each proposed change to the Army's bundle of mechanized infantry equipment, doctrine and personnel structure must be evaluated by DOD, FORSCOM and TRADOC personnel involved in regulation development in order to insure that regulated requirements compliment the blending of doctrine, personnel, equipment and available training time. A regulation change causes a bundle change.

This goal can be reached by:

a. Identifying all regulated time requirements developed through FORSCOM Headquarters, similar to Annex A for the present bundle of regulations.

b. Identify regulated requirements as fixed events.

c. Employ the criteria that the time requirements of the regulation bundle cannot surpass the units' maximum capacity of available training time.

d. Quantify the fixed events and educate divisions on the fixed load that their units will have to meet and the available time left to be controlled by division.

e. Require, as a minimum standard, review of the regulation bundle when the Army undergoes major doctrine, personnel or equipment changes, or once every five years, whichever occurs first.

f. Coordinate the management of Army regulations, reports and automated information processes so they are complimentary

in supporting the Army management information and control process.

g. Require the AGI to inspect battalion headquarters and above to see if they have overburdened the subordinate in terms of time.

3. TMCS and Training Management

Establish standardized means of measuring unit's efficient use of time and budget resources through following a policy of introducing automated management tools into the Army training system.

This goal can be achieved by:

a. Fielding the TMCS system, with modifications, to assist in assuring picked sequences of training fall within budget constraints during the second step of the training plans process.

b. Field a modification or extension of the TMCS which will assist planners in picking reasonable sequences of training during the guidance step of the training plans process. This extension must be compatible with the TMCS system to reduce duplication of effort by the user. It should allow the planner to enter directly estimated costs of selected events for one day's operation. This ability will allow the planner to rapidly find "ball park" training plans alternatives and expose infeasible ones. The 1977-78 Army Training Studies, goal programming process should be considered as an extension to TMCS.

c. Modify the TMCS software program to:

(1) Calculate maximum available manhours for the number of days or parts of days that training is to be conducted.

(2) Compare desired time for garrison and field events against available time to see if the unit has sufficient time to conduct all activities and training; this process will assist the

user in not forgetting or overlooking the fixed time burden.

(3) Print out garrison events similar to field events.

d. Require the TMCS extension to compare planned training versus regulated, required training, versus actual conducted training. This process will allow variance analysis and performance management techniques to be used in evaluating managers performance.

e. Require the TMCS extension to list and add up all the FORSCOM, division, brigade and battalion requirements in order to show the total minimum burden placed on the line unit by level of authority.

f. Evaluate unit leaders on their ability to efficiently manage time as a resource.

g. Utilize the TMCS modification program as a management tool to assist in evaluating if units are violating dollar and time constraints.

h. Change the definition of BFTD from "8- to 24 hours of training" to 8 hours of training away from garrison location.

i. Educate Army personnel of the concept of time as a resource and the necessity for unit leaders to be efficient at managing fixed and variable time requirements.

j. Require external evaluation of units training efficiency by:

(1) Directing division AGI's to use TMCS in evaluating if line units are over burdened.

(2) Annually, require a FORSCOM team to randomly conduct vertical inspections of headquarters training management down through battalion headquarters.

k. Use an Available Time Model in cost benefit analysis of all present training processes such as the amount of effort placed on unit training versus individual training.

l. Use the results of the equipment, cost benefit analysis' as inputs to determining regulated guidance and inputs into the equipment acquisition process.

ANNEX A

Regulations and Circulars

1. This annex lists Army and FORSCOM training and activity directives, such as, regulations, circulars, ARTEPs and commander's guidance, which state explicit and/or implicit performance requirements for division level units. The order of events corresponds to Categories 1 - 7 of committed time listed in Annex B (Workload Time Estimates).

2. An asterisk code (*) is used in Columns 2 and 3 to reflect specific frequency, number of hours and percent of unit authorized or required to participate in each event. The performance requirements of non-asterisk coded events are thus implicitly stated within the directives corresponding to each event.

3. The following frequency codes will be utilized in Column 2:

A	-	Annual Frequency
SA	-	Semi-Annual Frequency
Q	-	Quarterly Frequency
M	-	Monthly Frequency
W	-	Weekly Frequency
D	-	Daily Frequency
O	-	Other Frequency

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Holidays		* 9 $\frac{\text{days}}{\text{yr}}$	*100%	AR 630-5		Can add M. L. King Day
Leaves		*30 $\frac{\text{days}}{\text{yr}}$	*100%	AR 630-5		
Payday Activities	M	12 $\frac{\text{days}}{\text{yr}}$	100%			Normally observed in line units
In/Out Processing				AR 614-6, AR 635-10		Normally 5-10 days allowed for clearing
Change of Command or Ceremony	A		100%	AR 600-25		Min 2 events per yr Organization Day Div/Bde/Bn/Comp Change of Command
Compensatory Time	A		*100%	AR 630-5		

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Security/Guard Duty						
CQ	D			AR 190-11, AR 190-13		
Arms Room	D			AR 190-11, AR 190-13		
Bn & Unit Area	M			AR 190-11, AR 190-13		
Civilian Education AHEAD Program GED	Select Personnel			AR 621-1		
SAFETY	M*		*100%	AR 385-1 (OSHA)	FC Suppl 1 to AR 385-1	
Health and Welfare Insp	M		100%	AR 190-13		
Junior NCO Tng	A*			AR 350-1	FC Reg 350-1 FORSCOM CDR's Guidance	Tng Support MOS Proficiency

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Military Justice	A*	*	100%	AR 350-1, AR 350-212	FC Reg 350-1	
Code of Conduct	A*	*	100%	AR 350-1	FC Reg 350-1	
Sere, Survival, Escape, Resistance Evasion	A*	*	100%	AR 350-1	FC Reg 350-1	
Geneva Hague Convention	A*	*	100%	AR 350-1, AR 350-30	FC Reg 350-1	
Service Benefits	A*	*	100%	AR 350-1, AR 350-21	FC Reg 350-1	
Race Relations	M*	*	100%	AR 350-1, AR 600-42	FC Reg 350-1	
Alcohol & Drug Abuse	A*	*	100%	AR 350-1	FC Reg 350-1	
Moral Leadership	A*	*	100%	AR 350-1, AR 600-30	FC Reg 350-1	

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME & UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
SOFA	A*	*100%	AR 350-1	FC Reg 350-1	
SAEDA	A*	*100%	AR 381-12	FC Suppl 1 to AR 381-12	
Standards of Conduct	A*	*100%	AR 600-50		
Privacy Act	A*	*100%	AR 340-21		
Civil Disturbance Tng	A	16 Hr PE for Unit 8 Hr for NCO's & Officers 100%	AR 350-1, AR 350-7	FC Reg 350-1	Any unit assigned a special mission i.e. garden plot
Driver's Tng	A		AR 385-55, AR 600-55	FC Suppl 1 to AR 385-55	Includes: Min 2 Hr BAT I/II M151 Safety Class 12 Hr Class
Jeep			DA Pam 611-175, DA Cir 385-55		
APC Other					Road test, refresher classes

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Driver's Tng (Cont) DDC		*All licensed drivers 8 Hrs		AR 58-1		
AGI	A*			AR 20-1		
MAIT	A			AR 750-51		
EDRE	A*		*80-100%	AR 55-1, AR 220-10, AR 612-2	FC Reg 350-1 FC Reg 525-2 FC Reg 350-8	Conflict w/ FC Reg 525-2
Innoculations	A*		*100%	AR 40-5, AR 40-562 AR 600-20		
Hearing Conservation	A*		*100%	AR 40-5		
Annual Dental Check	A*		*100%	AR 40-3		

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Personnel Records File	A*		*100%	AR 612-2		
Rail Movement	A	9 Hr Class min rail load team		AR 55-1 AR 220-10		
Air Movement Tng	A	33 Hrs Class 16 Hrs PE min air load team		AR 55-1, AR 220-10	FC Reg 350-3 CH 3. C3	
Amphibious Tng	As ordered	4 Hrs up to 3 weeks	100% of unit	AR 350-26, AR 55-1, AR 220-10		Retain Army skill in this event
ARTEP Tasks SQD/PLT/Company	*External Test 1 per 18 months	*Min 3 days	*80-100%	AR 350-1, Para 3-4c, ARTEP 7-15, 7-45	FC Reg 350-1, FC Cdr's Tng Guidance	Internal tests can be annual
Movement Tng				"	"	
Attack				"	"	
Defense				"	"	

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	%	UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
ARTEP Tasks SQD/PLT/Company (Cont)					AR 350-1, Para 3-4c, ARTEP 7-15, 7-45	FC Reg 350-1, FC Cdr's Tng Guidance	
Delay					"	"	
Veh Road March					"	"	
Patrolling					"	"	
Live Fire (SUE)					"	"	
Sub Unit					"	"	
Evaluation					"	"	
First Aid			100%		ARTEP 7-15, 7-45	"	
Land Navigation			"		"	"	
Camouflage			"		"	"	
Air Defense Tng A/C Recognition	A	1 Hr A/C Ident Class, 1 Hr air def, PE			ARTEP 7-15, 7-45	FC Reg 350-3, CH 3 C3 FC Cdr's Tng Guidance	

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY TIME & UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Electronic Warfare Communication Tng	A	ARTEP 7-15, 7-45	FC Reg 350-3, CH 4 FC Cdr's Tng Guidance	Integrate into Tng
Intelligence Tng	A	ARTEP 7-15, 7-45	FC Reg 350-3, CH 6 FC Cdr's Tng Guidance	Integrate into Tng
Vehicle Recovery		ARTEP 7-15, 7-45	FC Reg 350-1, FC Cdr's Tng Guidance	
Night Driving Terrain Driving		ARTEP 7-15, 7-45	FC Reg 350-1, FC Cdr's Tng Guidance	
Rifle Plt Tng				
Mvt to Contact	SA*	ARTEP 7-15, 7-45	FC Cir 350-8, FC Cdr's Tng Guidance	
Defense	SA*	"	"	

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Rifle Plt Tng (Cont)	SA*			ARTEP 7-15,	FC Cir 350-8, FC Cdr's Tng Guidance	
Attack	SA*			"	"	
Anti Armor Tng			100%	ARTEP 7-15, 7-45	FC Cdr's Tng Guidance	
Combat Built Up Areas				ARTEP 7-15, 7-45	FC Cdr's Tng Guidance	
Mines, Claymore				ARTEP 7-15, 7-45	FC Cdr's Tng Guidance	
Mortar/Arty Adjustment				ARTEP 7-15, 7-45	FC Cdr's Tng Guidance	
Foot Road March				ARTEP 7-15, 7-45 AR 600-9	FC Cdr's Tng Guidance	Foot Min 12 kilometers

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
SQT Tng/Test	*Annual or once every 2 years	*4 Hrs Admin *4 Hrs PE	*100% of EM	AR 600-200 CH 5 C 59, DA Pam 350-37 Para 1.7	FC Reg 700-2, FC Cdr's Tng Guidance	Test score determines min frequency
PCPT	A*		*90%	AR 600-9	FC Reg 350-1 FC Cir 350-8	
PT	W		100%	AR 600-9		Usually daily
NBC Refresher, NBC Proficiency Test, Team Tng, Defense Tng	SA* A* A		*90% *Team 100%	AR 220-58	FC Cir 350-8	
Weapon Tng						
Bayonet				AR 350-4		
.45 Cal Pistol	A*		*90% Assigned Weapon	AR 350-4, AR 350-6	FC Reg 350-1, Suppl 1 to AR 350-6, FC Cir 350-8	
M-16	SA*		"	"	"	

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME % UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Weapon Tng (Cont)					
Grenade Claymore Demolitions			AR 350-4		
M203	A*	*90% Assigned Weapon	"	FC Reg 350-1, FC Cir 350-8	
M-60	SA*	*80% Crews	"	"	
50. Cal	SA*	*80% Crews	"	"	
81mm	A*	*80% Crews	"	"	
Law/90mm/Dragon	Q*	*80% Crews	" ARTEP 7-15, 7-45	"	
Tow	Q*	*80% Crews	"	"	
Maintenance Personnel	W	*60% of Maintenance Section		FC Cir 350-8	Normally daily

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY TIME % UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Maintenance (Cont)				
PM Services	Q*	AR 58-1, AR 350-13, Technical Pubs	FC Cir 350-8 10% or less overdue	Normally daily
Motor Stables	W	AR 350-13	FC Reg 350-1	"
ESC's	Q*	AR 750-1	FC Reg 750-1 FC Reg 700-2	"
10% Monthly and BII Inspection	M Q	AR 710-2,	FC Reg 700-1 FC Message R091915Z Jul 76	
Weapon and Radio Maintenance	W	AR 350-13, AR 750-1		
Maintenance Plt Support	D	AR 350-13, AR 750-1, TOE Mission		
HQ Plt Support	D	TOE Mission		
EM/OFF Schooling PNOC, NCOES		AR 350-1, AR 351-1		

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY TIME & UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Taskings				Tasking Letters, FORSCOM, Div, etc
Post/Bde Police		AR 40-5		
Retirement Parade		AR 600-25		
Reaction Force		AR 50-5, Special Missions	Special Missions	
School Support		AR 351-1		
ARTEP Test Committee		ARTEP 7-15, 7-45		
Opposing Forces		AR 350-2	FC Reg 350-1 FC Reg 350-3	
JFTX, Major Exercises		Special Missions	FC Reg 350-5	
AR/NG Support Round Out		AR 1-35, AR 5-9 AR 11-29	FC Reg 350-2, FC Reg 10-42, FC Reg 350-16	
FTX	Q* *48 Hrs *80-100%	ARTEP 7-15, 7-45	FC Cir 350-8	

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Sniper/Marksmen ship Tng	A*	4 Man Team		AR 350-6	FC Suppl 1 to AR 350-6	
Water Operations APC Float	A			AR 385-15		
Water Survival Drown Proofing	A		100%	AR 385-15	FC Reg 350-1	
Life Guards	A			AR 385-15		
Bn/Company/Plt Live Fire Exercise				Dependent upon ammunition availability		Normally at least one level exercised annually
Airmobile Tng				ARTEP 7-15, 7-45	FC Reg 350-3	
Cold/Hot Weather Operations				AR 40-5	FC Reg 40-1, FC Reg 40-2	
Civilian/Military Operations			100%	AR 350-25, Cdr's discretion	FC Reg 350-1	

Annex A (Regulations and circulars)

EVENT	MINIMUM FREQUENCY	TIME	% UNIT	ARMY REGULATIONS	FORSCOM REG/CIR	REMARKS
Primetime Tng	M	*1/3 of Tng time	80% of unit	AR 360-1	FC Reg 350-1	Normally monthly
Night Tng	M	*1/3 Tng time	80% of unit		FC Reg 350-1	Normally monthly
EIB				AR 672-12	FC Reg 350-1	Cdr's discretion for select personnel
OJT				AR 350-1		Do as necessary
Field Sanitation Team	A			AR 40-5	FC Suppl 1 to AR 40-5	

ANNEX B

Workload Time Estimates

1. This annex lists specific high and low duration time estimates (D_H, D_L). Estimates for workload mixes 40/20, 40/12 and 40/4 are in Tables 1 - 3 respectively. The remarks column of each table contains the basic logic supporting each event's duration estimates. The order of events corresponds to the order of events listed in Annex A (Regulations and Circulars).

2. An asterisk code (*) is used in the remarks column to reflect specific regulated performance reguirements as stated in Annex A. Any non-asterisk coded entry is thus a general estimate based on implicit performance requirements stated in Annex A and related field manuals, pamphlets or technical manuals.

3. Category 6, taskings, contains the additional columns: ARTEP and N-ARTEP. Since a line unit is required to participate in an external ARTEP only once every 18 months estimates of its annual tasking workload will be different in the years it has an ARTEP. The basic assumption made for this category is that during the year a unit receives an external ARTEP it is not tasked to participate as an ARTEP test committee member nor required to conduct National Guard/ Army Reserve annual training. The ARTEP, N-ARTEP total manhours are then used as the low and high duration estimates for this category.

4. Duration estimates for training on the XM-2 infantry fighting vehicle are listed in Table 4.

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

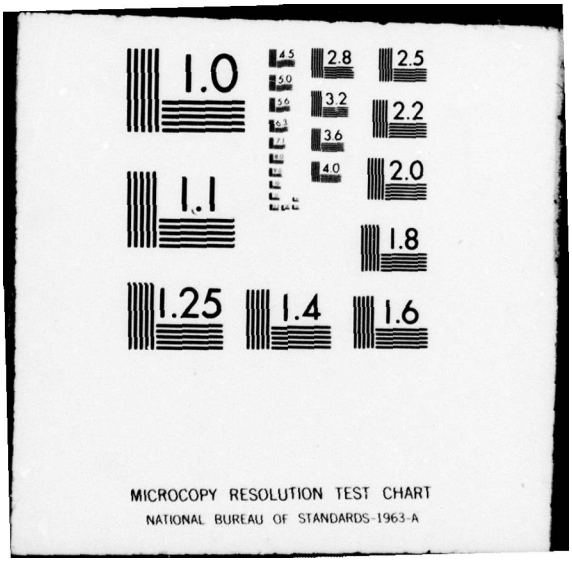
EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
Beginning Balance	60 $\frac{Hr}{Wk}$ x 52 $\frac{Wk}{Yr}$ x 166 men	517,920	517,920
	OVERHEAD		
Holidays	Each soldier gets these days off or compensatory time. No night training planned	- 11,952	- 11,952
	*9 Holidays		
	Two holidays included in two week 1/2 day Xmas schedule i.e., 8 days, 32 hrs lost, no night training	- 5,312	- 5,312
	Martin L. King Day		
	L: 10% Off 2 Hrs H: 15% Off 2 Hrs	- 34	- 50
		500,622	500,606
Leaves	Five days per man lost in conjunction with Xmas, emergency, or ordinary leave. It is assumed the majority of leave is consumed during PCS moves.	- 9,960	- 9,960
	L = H		
		490,662	490,646
Payday Activities	No night tng and one tng blk lost to payday activities, less Dec payday = 11 paydays	- 14,608	- 21,912
	L: 11 Days 8 Hr/Day H: 11 Days 12 Hr/Day		
		476,054	468,734

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NATIONAL BUREAU OF STANDARDS-1963-A

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
In/Out Processing	Annual turnover min loss five tng days for: L: 20% Turnover H: 30%	- 1,980 474,074	- 3,000 465,734
Ceremonies	Parade prep and execution for either Bn/Bde/Div Cmdr. L: 1 COC 8 Hr H: 2 COC 16 Hr Parade and/or equip display plus activities for Bn/Bde/Div Organization Day, Inf Birthday or Armed Forces Day. No night trg L: 1 Tng Day/Prep H: 1 Tng Day & 14 Hr Blk	- 1,328 - 1,992 470,754	- 2,656 - 2,656 460,422
Guard Duty	CQ/Runner, arms room guard, Bn duty, office/NCO a min of three men 1-4 hour block comp time less weekends L = H	- 3,120 467,634	- 3,120 457,302
Civilian Education	Men allowed to attend civ schooling, 3 times per year, 4 weeks at a time 4 hour/day L: 10% H: 15%	- 3,840 463,794	- 6,000 451,302
		89.5%	87.1%

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
NON-COMBAT TRAINING			
Required Training			
Health & Welfare Inspection	1 Hr per month veh, barracks work areas	- 1,992	- 1,992
Safety Briefings	1 Hr per month POV inspections, hearing conservation, heat/cold info, 9 holidays, and prior to major tng exercises	- 1,992	- 1,992
Jr NCO Training	2 times per month drill and ceremonies, unit inspections less 2 times for ceremonies 1 Hr per session = 22 Hrs 160 men	- 3,520	- 3,520
Code of Conduct Geneva Hague Convention	1 Hr	- 166	- 166
Survival Escape Resistance & Evasion	1 Hr w/o PE	- 166	- 166
Service Benefits Standard of Conduct	1 Hr	- 166	- 166
Race Relations	1 Hr = 12 $\frac{Hr}{Yr}$	- 1,992	- 1,992
Alcohol/Drug Abuse	1 Hr	- 166	- 166

Annex B (Workload Time Estimates)

Table # 1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Required Training (Cont)			
Moral Leadership Privacy Act	1 Hr	- 166	- 166
SOFA & SAEDA	1 Hr	- 166	- 166
Military Justice	Included in Re-Up briefing		
	TOTAL	- 10,492	- 10,492
		453,302	440,810
Civil Disturbance Training	Proficiency w/baton, formations special orders, civil mil operations tng	- 1,328	- 2,656
	L: 2 Tng Blocks H: 4 Tng Blocks		
		451,974	438,154
Drivers Licensing	From assignments/losses and other unit turbulence a min of 1 drivers tng session per year, # to be trained = 1/2 required wheeled/track drivers and asst drivers and cross trained personnel = 26 men		
	Tng = physical exam, road test battery I/II = 2 Hrs plus 12 Hrs classroom tng (MAINT, SAFETY, etc)	- 364	- 364
	1 Hr annual refresher tng all drivers and asst drivers = 52 men	- 52	- 52

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Drivers Licensing (Cont)	*All civ/mil drivers 25 yrs or less 2-4 Hr blocks	- 928	- 928
DDC	70% of unit < 25 = 116 Men		
-	L = H	450,630	436,810
		87.0%	84.3%
	NON-COMBAT TESTS/INSPECTIONS		
AGI	*Formal insp 1 tng day lost (12 Hrs)	- 1,992	- 1,992
	L = H	448,638	434,816
MAIT	Prep and inspection utilizes 1 tng day (12 Hrs)	- 1,992	- 1,992
	L = H	446,646	432,826
		86.2%	83.6%

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	COMBAT TESTS/TRAINING		
EDRE	*1 unannounced test by Bde/Div - alert, muster, loadout and movement - 2-4 Hr Blocks L = H	- 1,328 445,318	- 1,328 431,498
ARTEP	*Test: External ARTEP 4 days subtests and FTX - 3 days continuous opns = 45 Hr + 12 Hr Maint: Assume: 2-4 Hr Blocks of additional maint L = H	- 10,790 434,528	- 10,790 420,708
SQT Test	*1/2 of 11C, 11B, 63C will be tested annually - 4 Hrs written, 4 Hrs hands on, on subsequent days. Refreshing tng min 1-4 Hr block, no night tng between test days L = H	- 1,328 433,200	- 1,328 419,380

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
PCPT	L: 2 Hr for testing 1 Hr not twice a year = 3 Hr H: 4 Hrs POR requirements and reassignments require conducting test twice a year	- 996 432,204	- 1,328 418,052
NBC	L = H *Includes refresher tng annually. Proficiency Test SA. Refresher tng taught at both periods to handle turbulence/ POR needs 1 tng block twice a year	- 1,328 430,876	- 1,328 416,724
<u>Weapon Qualification Familiarization</u>	Number of men involved is increased from authorized # of weapon for all wpn's except M-16, 81mm, TOW, 45's i.e., M-16 = 153, .45 Cal SMG = 2, M203 = 21, M-60 = 45, .50 Cal = 42, 45 Pistol = 13, TOW = 8, Dragon/Law = 27, 81mm = 23		
M-16 Qual	*Day and night qual w/zeroing wpn L: min 2 Tng blocks including mvt H: 3 tng blocks	- 1,224	- 1,836
M-16 Fam	*Zeroing and day firing only 1 tng block L = H	- 612	- 612
M203 Qual	Day qual w/zeroing min 1 tng block L = H	- 84	- 84

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
M203 Fam	Day qual w/zeroing min 1 tng block L = H	- 84	- 84
M-60 Qual	Day/night qual plus zeroing min 2 tng blocks for crews and cross trained personnel L = H	- 720	- 720
.45 Cal S MG	Fam fire run w/.45 cal range or other range L = H	- 12	- 12
.50 Cal Qual	Day qual w/zeroing crews and cross tng per min 1 tng block L = H	- 336	- 336
45 Pistol Qual	Qual and mvt min 3 Hrs L = H	- 39	- 39
TOW Qual/Live Fire	L: Min 1 tng block plus range supt of 5 men H: 3 tng blocks includes night qual	- 104	- 312
Dragon/Law	Min 1 tng block L = H	- 216	- 216
81mm	Day and night firing min 3 tng blocks tng run by weapon plt 31 men L = H	- 744	- 744
MAINT	Each above exercise requires min 1 Hr maint = 15 Hr total for avg of 41 men L = H	- 615	- 615
	TOTAL	- 4,790 426,086	- 5,610 411,114

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
		82.3%	79.4%
	ADMIN/MAINT OVERHEAD		
ESC	Requirement is quarterly but common division practice is to perform monthly ESC's min 1-4 Hr block. Include BII/TOOLS inventory 10% monthly TOE inspection. L = H	- 7,968 418,118	- 7,968 403,146
Motor Stables	Requirement is to "do it." Normal practice is to perform weekly MS except for Xmas and during major fld exercises. 1-4 Hr block 48 wks L = H	- 31,872 386,246	- 31,872 371,274
PM Services	Min 2-4 Hr blocks per veh/SQD or 8 blocks per veh per yr. Assume: 3 men per Sq/Veh required for maint of 21 vehs L = H	- 2,016 384,230	- 2,016 369,258

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Wpn Maintenance and Radio Maint	Includes: Assembly/disassembly wpns/radios. Non-firing maintenance. Assume: Min 1 1/2 blocks per quarter includes inspections L = H	- 3,984 380,246	- 3,984 365,274
Maintenance Plt Support	Plt employed in maint support L: 3 days a week, 2 blocks per day H: 4 days a week for 48 weeks, 11 men	- 12,672 367,574	- 16,896 348,378
HQ Plt Support	HQ plt employed in admin support L: 3 days a week, 2 blocks per day H: 4 days a week, 48 weeks, less Co Cmdr, 1SG = 8 men	- 9,216 358,358	- 12,288 336,090
Maintenance Plt Night Tng Lost	L: 1/3 time no night tng H: 1/2 time no night tng	- 2,112 356,246	- 4,224 331,866

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

✓ Execute

__ Do Not Do

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
HQ Plt Night Tng Lost	L: 1/3 time no night tng H: 1/2 time no night tng	- 1,536 354,710	- 3,072 328,794
EM/OFF Schooling PNOC, BLC, MECH, etc, NCOES	L: 2 men/month 2 week school H: 3 men/month 2 week school	- 2,880 351,830	- 4,320 324,474
		67.9%	62.6%

TASKINGS		ARTEP	N-ARTEP	D_L	D_h
<u>Details</u>	FORSCOM or Division Level common tasks				
Guard Duty	Duty external to Bn: Ammo dumps, finance guards, logistics buildings L: 1 SQD H: 2 SQD 3 times per yr	✓	✓	- 396	- 792
Post/BDE Police	L: 3 men H: 6 men for 2 tng blocks 3 times per year	✓	✓	- 72	- 144
Range Detail	L: 1 SQD H: 2 SQD for 1 tng day 3 times per year	✓	✓	- 396	- 792
Rec Center, PX, Clothing Sales, Commissary Support	L = H = 1 SQD for 1 tng day 3 times per year		✓	- 396	- 396

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	Duration Time D_L	Duration Time D_h
Funeral Detail	L = H = 17 men for 1 1/2 tng days per year	✓		- 272	- 272
<u>Non-Training Support</u>					
Retirement Parade	L = H = 1 company for 2 tng blocks once per year		✓	- 1,328	- 1,328
Special Olympics or Community Act	L: 4 tng blocks H: 8 tng blocks for 1/2 company once per year	✓		- 1,328	- 2,656
Blood Drive	L: 1 tng block H: 2 tng blocks no night tng 1/3 company lost twice per year	✓	✓	- 440	- 880
Army Survey	L: 1 SQD H: 2 SQD for 1 tng block per year		✓	- 44	- 88
<u>Training Support</u>					
Mass Casualty Exercise	L = H = 44 men for 2 tng blocks once per year	—	—	- 352	- 352
Reaction Force NUC Surety/ARF	L: 1 plt 5 days prep H: 3 plt 5 days prep Includes special orders/PE, unannounced alert, standby time 41 man plt + mech and 31B	✓	✓	- 2,460	- 7,380

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	DURATION TIME D_L	D_h
SQT Proctors	L = 1 SQD H = 2 SQD for 3 tng days per year. Lost from night tng also 2 nights 32 Hr	✓		- 352	- 704
Div/BDE CPX/ TWT or MAPEX	L = 1 SQD H = 2 SQD for 6 tng blocks per year	✓	✓	- 264	- 528
School Support	L = 1 SQD H = 2 SQD for 1 tng day 3 times per year	✓	✓	- 396	- 792
ARTEP INT/EXT Test Committee	L = H = 94 men: includes prep for rg/eval, do eval, and develope reports 1 - 8 Hr day, 1 - 12 Hr day, 3 days 45 Hr = 65 Hr		✓	- 2,860	- 2,860
ARTEP Opposing Forces	L = H = 1 company: 3 days cont opn 45 Hrs + 8 Hr maint	✓		- 8,798	- 8,798
Major Tng Exercise Player	Company lost for 3 days, cont opns = 45 Hr. Includes maint and mvt. Brave Shield/Refroger/Jungle Warfare/ Coronado/Jack Frost, etc L: 7 days H: 10 days	✓	✓	- 15,438	- 21,414
Equip Operators	L = H = 3 men for 2 tng days 3 times per year	✓	✓	- 216	- 216

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	DURATION TIME D_L	DURATION TIME D_h
NG/Reserve/ROTC Support	L = H				
	Depending on which CONUS div the company is in, it is likely to participate in a BDE assignment of range/ARTEP tng support for summer ROTC support: Assume run 1 range, prep 1 week, execute 1 week less 19 maint/ HQ personnel; unit at the same time may be an affiliated unit/Jr ROTC/ annual AT training. Recurring loss of personnel during year. 10 men for 10 tng days per year includes mvt time.		✓	- 17,640	- 17,640
		✓		- 1,200	- 1,200
	TOTAL			- 32,028	- 55,250
				319,802	269,224
				61.7%	51.9%

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	REQUIRED COMBAT TRAINING		
FTX	L = H 30 Hrs 48 Hr FTX as a min includes company training in mvt to contract/DEF/ATK. Meals not included = 42 Hrs	- 19,920 299,882	- 19,920 249,304
Sniper/ Marksmenship Comp	Pistol, Rifle, M-60 annual service qualification competition: Assume: 11 men lost. L: 10 Days H: 15 Days	- 1,320 298,562	- 1,980 247,324
Water Survival	Turnover/lifeguard tng/refresher tng causes 1/4 unit attend for 1 tng block L: 1 Tng Block H: 2 Tng Block	- 168 298,394	- 336 246,988
		57.6%	47.7%

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	PREPARATION NON-COMBAT TESTS/INSPECTION		
AGI	Includes prep of supply, maint, admin, como, NBC sections and wpns with Cmdr's inspection can include informal BN/BDE inspection L: 2 Tng Blocks H: 4 Tng Blocks	- 1,328	- 2,656
		297,066	244,332
		57.4%	47.2%
	PREPARATION COMBAT TESTS		
EDRE			
Indiv Prep	Annual dental check/maint 2 $\frac{Hr}{Man}$	- 332	- 332
	Innoculations check/update 2 $\frac{Hr}{Year}$	- 2	- 2
	Security clearances and personal readiness folders 1 $\frac{Hr}{Man}$	- 166	- 166
	Clothing inspections/corrections 4 $\frac{Hr}{Year}$	- 4	- 4
Muster/Alert	L: 1 muster and 1 veh line up 3 Hr H: 2 musters 2 veh line up 1 veh weighing 8 Hr	- 498	- 1,328

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
EDRE (Cont)			
Mvt Tng	Includes tng for weighing teams, airload tm's, rail load teams, highway convoy classes. Prep unit mvt/load plans and amphib mvt	- 374	- 550
	L: Weighing team tng 2 Blocks 22 Men x 17 Hr		
	Air load team tng 2 Blocks "		
	Road convoy 1 Hr "		
	H: Air mvt tng and PE 4 Blocks 22 Men x 23 Hr		
	Rail mvt tng/PE 2 Blocks "		
	Road convoy opns 1 Hr "		
	TOTAL	- 1,376	- 2,382
		295,690	241,950
ARTEP			
Live Fire Exercise	SQD march/live fire test	- 198	- 396
	L: 9 SQDS 2 Hr/SQD 1 per yr		
	H: 9 SQDS 2 Hr/SQD 1 per yr		
	Plus range personnel 11 men	- 198	- 198
	APC social/M-60 gunners test	- 112	- 336
	L: 14 APC - 2 men per veh 1 block once a year		
	H: 14 APC - 2 men per veh 1 block once a year		
	Plus range personnel 11 men	- 198	- 198

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
ARTEP			
Live Fire Exercise (Cont)	Mortar Test: Assume semi-annual live fire used as ARTEP test but prep tng still necessary in form of live firing/ gunners drill/pneumatic device/FO tng	- 1,104	- 2,208
	L: 12 Blocks per year 23 Men		
	H: 24 Blocks per year 23 Men		
	AT Sec Test: Similar to mortar plt tng	- 256	- 768
	L: 8 Blocks 8 Men		
	H: 24 Blocks 8 Men		
	Includes tracking/ARTEP tasks		
	Aircraft/Veh Recog Test:	- 166	- 498
	L: 1 Hr per year/man		
	H: 3 Hr per year/man		
	Plt Patrol: Practice tests held during Q FTX but prep tng conducted prior to FTX	- 1,584	- 4,752
	L: 4 tng blocks per year/plt 99 Men		
	H: 12 tng blocks per year/plt 99 Men		
	TOTAL	- 3,816	- 9,354

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
SQD/Plt ARTEP Tasks			
Deliberate Attack	Includes day and night attact scopes, real train L: 6 tng Blocks 146 Men H: 12 tng Blocks 146 Men	- 3,504	- 7,008
Defense	Includes day and night defense scopes, real train L: 6 tng Blocks 146 Men H: 12 tng Blocks 146	- 3,504	- 7,008
Mvt to Contact	L: 3 tng Blocks 146 Men H: 6 tng Blocks 146 Men	- 1,752	- 3,504
	TOTAL	- 8,760 283,114	- 17,520 215,076
Physical Training	Lost PT days 8 FTX, 4 Rd March, 2 PCPT, 1 SQT, 4 ARTEP, 11 paydays, 2 Civil Dist Tng, 1 EDRE, 1 AGI, 1 MAIT, 1 Water survival, 10 inclement weather = 260 - 46 = less other tng days L = 160 days H = 190 days	- 26,560	- 31,540

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Road March	12 kilometer march for rifle plt L: 2 8 Hr marches per year 114 men H: 4 8 Hr marches per year 114 men	- 1,824 254,730	- 3,648 179,888
		49.2%	34.7%
PREPARATION MAINTENANCE			
Vehicle Recovery	Includes: Classroom instruction, track repair, vehicle towing, vehicle extraction PE's L: 8 Hr 153 Men H: 16 Hr 153 Men	- 1,224	- 2,448
Vehicle Swim Exercise	Includes: Class, pre-dip, swim, Capstan kit use L: 12 Hr 153 men H: 153 men	- 1,836 251,670	- 2,754 174,686
		48.6%	33.7%

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	PREPARATION COMBAT TRAINING		
Night Driving and Terrain Driving	Includes: Techniques of driving to maximize terrain cover while not throwing tracks , damaging suspensions, endangering vehicle, etc L: 6 Hr 52 Drivers/Asst Drivers H: 12 Hr 62 Drivers/Asst Drivers	- 312 251,358	- 624 174,062
Live Fire Exercise BN/Company/Plt	Includes: Class, Prep/Dry Fire, Live Exercise L: BN/Co Live Fire ex only once 8 Hr H: 1 BN/Co ex 8 Hr 1 plt ex w/wpn plt support 4 Hr	- 1,328 250,030	- 1,816 172,246
Combat in Built Up Areas	Includes: Class and PE, day and/or night tng L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160 248,870	- 2,320 169,926
Anti Armor Tng	Includes: Opns with/against tanks open terrain opns, fighting pos L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160 247,710	- 2,320 167,606

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Land Navigation	Includes: Classes, day/night exercise		
Dismounted	L: 12 Hr H: 36 Hr 145 Men	- 1,740	- 5,220
Mounted	L: 12 Hr H: 36 Hr 52 Men	- 624	- 1,872
		245,346	160,514
First Aid Field	Includes: Vehicle extractions, burns and other injuries	- 664	- 1,992
	L: 4 Hr 166 Men		
	H: 12 Hr 166 Men	244,682	158,522
Decontamination Radiological Survey Team Tng	Assume: 17 Men classes and PE	- 136	- 408
	L: 8 Hr		
	H: 24 Hr	244,546	158,114
Camouflage Tng	Includes: indiv/veh/assembly area camouflage	- 664	- 1,992
	L: 4 Hr 166 Men		
	H: 12 Hr 166 Men	243,882	156,122
Air Defense Tng	Includes: Class, dry firing PE, live fire PE	- 620	- 1,860
	L: 4 Hr 155 Men		
	H: 12 Hr 155 Men	243,262	154,262

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Communications Security/Opns	Includes: Class use of CEOI's, PE L: 6 Hr 62 Men H: 18 Hr 62 Men	- 372 242,890	- 1,116 153,146
Intelligence Tng	Includes: Handling prisoners/equip, spot reports L: 4 Hr 166 Men H: 8 Hr 166 Men	- 664 242,226	- 1,328 151,818
Air Mobil Tng	Includes: Loading/unloading, air mvt 81's/TOWS L: 4 Hr 145 Men H: 12 Hr 145 Men	- 580 241,646	- 1,740 150,078
Cold/Hot Weather Operations	Includes: clothing, maint, sanitation in different climates L: 2 Hr 166 Men H: 4 Hr 166 Men	- 332 241,314	- 664 149,414
<u>Weapon Tng</u> Bayonet	Pugil tng L: 4 Hr 153 Men H: 8 Hr 153 Men	- 612	- 1,224

Annex B (Workload Time Estimates)

Table #1 40/20 Mix

EVENT	REMARKS AND ASSUMPTIONS	D_L	D_h
Weapon Tng (Cont)			
Hand Grenade	Includes: Refresher tng/PE methods of throwing L: 4 Hr 166 Men H: 8 Hr 166 Men	- 664	- 1,328
Demolitions	Includes: Class live fire and PE L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160	- 2,320
Mines, Claymore	Includes: Mine clearing, detection, inplacing use of Claymore, live fire L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160	- 2,320
Mortar/ARTY	L: 8 Hr 114 Men H: 16 Hr 114 Men	- 912	- 1,824
	TOTAL	- 4,508	- 9,016
		236,806	140,398
		45.7%	27.1%

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
Beginning Balance	60 $\frac{Hr}{Wk}$ x 52 $\frac{Wk}{Yr}$ x 166 men	448,864	448,864
	OVERHEAD		
Holidays	Each soldier gets these days off or compensatory time. No night training planned *9 Holidays	- 11,952	- 11,952
	Two holidays included in two week 1/2 day Xmas schedule i.e., 8 days, 32 hrs lost, no night training	- 5,312	- 5,312
	Martin L. King Day L: 10% Off 2 Hrs H: 15% Off 2 Hrs	- 34	- 50
		431,566	431,550
Leaves	Five days per man lost in conjunction with Xmas, emergency, or ordinary leave. It is assumed the majority of leave is consumed during PCS moves. L = H	- 8,632	- 8,632
		422,934	422,918
Payday Activities	No night tng and one tng blk lost to payday activities, less Dec payday = 11 paydays L: 11 Days 8 Hr/Day H: 11 Days 12 Hr/Day	- 7,304	- 14,608
		415,630	408,310

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
In/Out Processing	Annual turnover min loss five tng days for: L: 20% Turnover H: 30%	- 1,716 413,914	- 2,600 405,710
Ceremonies	Parade prep and execution for either Bn/Bde/Div Cmdr. L: 1 COC 8 Hr H: 2 COC 16 Hr	- 1,328	- 2,656
	Parade and/or equip display plus activities for Bn/Bde/Div Organization Day, Inf Birthday or Armed Forces Day. No night tng L: 1 Tng Day/Prep H: 1 Tng Day & 14 Hr Blk	- 1,992 410,594	- 2,656 400,398
Guard Duty	CQ/Runner, arms room guard, Bn duty, office/NCO a min of three men 1-4 hour block comp time less weekends L = H	- 3,120 407,474	- 3,120 397,278
Civilian Education	Men allowed to attend civ schooling, 3 times per year, 4 weeks at a time 4 hour/day L: 10% H: 15%	- 3,840 403,634	- 6,000 391,278
		89.9%	87.2%

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
NON-COMBAT TRAINING			
Required Training			
Health & Welfare Inspection	1 Hr per month veh, barracks work areas	- 1,992	- 1,992
Safety Briefings	1 Hr per month POV inspections, hearing conservation, heat/cold info, 9 holidays, and prior to major tng exercises	- 1,992	- 1,992
Jr NCO Training	2 times per month drill and ceremonies, unit inspections less 2 times for ceremonies 1 Hr per session = 22 Hrs 160 men	- 3,520	- 3,520
Code of Conduct Geneva Hague Convention	1 Hr	- 166	- 166
Survival Escape Resistance & Evasion	1 Hr w/o PE	- 166	- 166
Service Benefits Standard of Conduct	1 Hr	- 166	- 166
Race Relations	1 Hr=12 $\frac{Hr}{Yr}$	- 1,992	- 1,992
Alcohol/Drug Abuse	1 Hr	- 166	- 166

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Required Training (Cont)			
Moral Leadership Privacy Act	1 Hr	- 166	- 166
SOFA & SAEDA	1 Hr	- 166	- 166
Military Justice	Included in Re-Up briefing		
	TOTAL	- 10,492	- 10,492
		393,142	380,786
Civil Disturbance Training	Proficiency w/baton, formations special orders, civil mil operations tng	- 1,328	- 2,656
	L: 2 Tng Blocks H: 4 Tng Blocks		
		391,814	378,130
Drivers Licensing	From assignments/losses and other unit turbulence a min of 1 drivers tng session per year, # to be trained = 1/2 required wheeled/track drivers and asst drivers and cross trained personnel = 26 men		
	Tng = physical exam, road test battery I/II = 2 Hrs plus 12 Hrs classroom tng (MAINT, SAFETY, etc)	- 364	- 364
	1 Hr annual refresher tng all drivers and asst drivers = 52 men	- 52	- 52

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Drivers Licensing (Cont) DDC	*All civ/mil drivers 25 yrs or less 2-4 Hr blocks 70% of unit < 25 = 116 Men L = H	- 928 390,470	- 928 376,786
		87.0%	83.9%
NON-COMBAT TESTS/INSPECTIONS			
AGI	*Formal insp 1 tng day lost (12 Hrs) L = H	- 1,992 388,478	- 1,992 374,794
MAIT	Prep and inspection utilizes 1 tng day (12 Hrs) L = H	- 1,992 386,486	- 1,992 372,802
		86.1%	83.1%

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	COMBAT TESTS/TRAINING		
EDRE	*1 unannounced test by Bde/Div - alert, muster, loadout and movement - 2-4 Hr Blocks L = H	- 1,328 385,158	- 1,328 371,474
ARTEP	*Test: External ARTEP 4 days subtests and FTX - 3 days continuous opns = 45 Hr + 12 Hr Maint: Assume: 2-4 Hr Blocks of additional maint L = H	- 10,790 374,368	- 10,790 360,684
SQT Test	*1/2 of 11C, 11B, 63C will be tested annually - 4 Hrs written, 4 Hrs hands on, on subsequent days. Refreshing tng min 1-4 Hr block, no night tng between test days L = H	- 1,328 373,040	- 1,328 359,356

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
PCPT	L: 2 Hr for testing 1 Hr not twice a year = 3 Hr H: 4 Hrs POR requirements and reassignments require conducting test twice a year	- 996 372,044	- 1,328 358,028
NBC	L = H *Includes refresher tng annually. Proficiency Test SA. Refresher tng taught at both periods to handle turbulence/ POR needs 1 tng block twice a year	- 1,328 370,716	- 1,328 356,700
<u>Weapon Qualification Familiarization</u>	Number of men involved is increased from authorized # of weapon for all wpn's except M-16, 81mm, TOW, 45's i.e., M-16 = 153, .45 Cal SMG = 2, M203 = 21, M-60 = 45, .50 Cal = 42, 45 Pistol = 13, TOW = 8, Dragon/Law = 27, 81mm = 23		
M-16 Qual	*Day and night qual w/zeroing wpn L: min 2 Tng blocks including mvt H: 3 tng blocks	- 1,224	- 1,836
M-16 Fam	*Zeroing and day firing only 1 tng block L = H	- 612	- 612
M203 Qual	Day qual w/zeroing min 1 tng block L = H	- 84	- 84

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
M203 Fam	Day qual w/zeroing min 1 tng block L = H	- 84	- 84
M-60 Qual	Day/night qual plus zeroing min 2 tng blocks for crews and cross trained personnel L = H	- 720	- 720
.45 Cal S MG	Fam fire run w/.45 cal range or other range L = H	- 12	- 12
.50 Cal Qual	Day qual w/zeroing crews and cross tng per min 1 tng block L = H	- 336	- 336
45 Pistol Qual	Qual and mvt min 3 Hrs L = H	- 39	- 39
TOW Qual/Live Fire	L: Min 1 tng block plus range supt of 5 men H: 3 tng blocks includes night qual	- 104	- 312
Dragon/Law	Min 1 tng block L = H	- 216	- 216
81mm	Day and night firing min 3 tng blocks tng run by weapon plt 31 men L = H	- 744	- 744
MAINT	Each above exercise requires min 1 Hr maint = 15 Hr total for avg of 41 men L = H	- 615	- 615
	TOTAL	- 4,790 365,926	- 5,610 351,090

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
		81.5%	78.2%
ADMIN/MAINT OVERHEAD			
ESC	Requirement is quarterly but common division practice is to perform monthly ESC's min 1-4 Hr block. Include BII/TOOLS inventory 10% monthly TOE inspection. L = H	- 7,968 357,958	- 7,968 343,122
Motor Stables	Requirement is to "do it." Normal practice is to perform weekly MS except for Xmas and during major fld exercises. 1-4 Hr block 48 wks L = H	- 31,872 326,086	- 31,872 311,250
PM Services	Min 2-4 Hr blocks per veh/SQD or 8 blocks per veh per yr. Assume: 3 men per Sq/Veh required for maint of 21 vehs L = H	- 2,016 324,070	- 2,016 309,234

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Wpn Maintenance and Radio Maint	Includes: Assembly/disassembly wpns/radios. Non-firing maintenance. Assume: Min 1 1/2 blocks per quarter includes inspections L = H	- 3,984 320,086	- 3,984 305,250
Maintenance Plt Support	Plt employed in maint support L: 3 days a week, 2 blocks per day H: 4 days a week for 48 weeks, 11 men	- 12,672 307,414	- 16,896 288,254
HQ Plt Support	HQ plt employed in admin support L: 3 days a week, 2 blocks per day H: 4 days a week, 48 weeks, less Co Cmdr, 1SG = 8 men	- 9,216 298,198	- 12,288 276,066
Maintenance Plt Night Tng Lost	L: 1/3 time no night tng H: 1/2 time no night tng	- 2,112 296,086	- 4,224 271,842

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

✓ Execute

__ Do Not Do

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
HQ Plt Night Tng Lost	L: 1/3 time no night tng H: 1/2 time no night tng	- 1,536 294,550	- 3,072 268,770
EM/OFF Schooling PNOC, BLC, MECH, etc, NCOES	L: 2 men/month 2 week school H: 3 men/month 2 week school	- 2,496 292,054	- 3,744 265,026
		65.1%	59.0%

TASKINGS		ARTEP	N-ARTEP	D_L	D_h
<u>Details</u>	FORSCOM or Division Level common tasks				
Guard Duty	Duty external to Bn: Ammo dumps, finance guards, logistics buildings L: 1 SQD H: 2 SQD 3 times per yr	✓	✓	- 396	- 792
Post/BDE Police	L: 3 men H: 6 men for 2 tng blocks 3 times per year	✓	✓	- 72	- 144
Range Detail	L: 1 SQD H: 2 SQD for 1 tng day 3 times per year	✓	✓	- 396	- 792
Rec Center, PX, Clothing Sales, Commissary Support	L = H = 1 SQD for 1 tng day 3 times per year		✓	- 396	- 396

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	Duration Time D_L	Duration Time D_h
Funeral Detail	L = H = 17 men for 1 1/2 tng days per year	✓		- 272	- 272
<u>Non-Training Support</u>					
Retirement Parade	L = H = 1 company for 2 tng blocks once per year		✓	- 1,328	- 1,328
Special Olympics or Community Act	L: 4 tng blocks H: 8 tng blocks for 1/2 company once per year	✓		- 1,328	- 2,656
Blood Drive	L: 1 tng block H: 2 tng blocks no night tng 1/3 company lost twice per year	✓	✓	- 440	- 880
Army Survey	L: 1 SQD H: 2 SQD for 1 tng block per year		✓	- 44	- 88
<u>Training Support</u>					
Mass Casualty Exercise	L = H = 44 men for 2 tng blocks once per year	—	—	- 352	- 352
Reaction Force NUC Surety/ARF	L: 1 plt 5 days prep H: 3 plt 5 days prep Includes special orders/PE, unannounced alert, standby time 41 man plt + mech and 31B	✓	✓	- 2,460	- 7,380

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	DURATION TIME D_L	DURATION TIME D_h
SQT Proctors	L = 1 SQD H = 2 SQD for 3 tng days per year. Lost from night tng also 2 nights 32 Hr	✓		- 308	- 616
Div/BDE CPX/ TWT or MAPEX	L = 1 SQD H = 2 SQD for 6 tng blocks per year	✓	✓	- 264	- 528
School Support	L = 1 SQD H = 2 SQD for 1 tng day 3 times per year	✓	✓	- 308	- 616
ARTEP INT/EXT Test Committee	L = H = 94 men: includes prep for rg/eval, do eval, and develope reports 1 - 8 Hr day, 1 - 12 Hr day, 3 days 45 Hr = 65 Hr		✓	- 2,860	- 2,860
ARTEP Opposing Forces	L = H = 1 company: 3 days cont opn 45 Hrs + 8 Hr maint	✓		- 8,798	- 8,798
Major Tng Exercise Player	Company lost for 3 days, cont opns = 45 Hr. Includes maint and mvt. Brave Shield/Refroger/Jungle Warfare/ Coronado/Jack Frost, etc L: 7 days H: 10 days	✓	✓	- 14,774	- 18,758
Equip Operators	L = H = 3 men for 2 tng days 3 times per year	✓	✓	- 216	- 216

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	DURATION TIME D_L	DURATION TIME D_h
NG/Reserve/ROTC Support	L = H Depending on which CONUS div the company is in, it is likely to participate in a BDE assignment of range/ARTEP tng support for summer ROTC support: Assume run 1 range, prep 1 week, execute 1 week less 19 maint/ HQ personnel; unit at the same time may be an affiliated unit/Jr ROTC/ annual AT training. Recurring loss of personnel during year. 10 men for 10 tng days per year includes mvt time.		✓	- 17,640	- 17,640
		✓		- 1,200	- 1,200
	TOTAL			- 30,968	- 52,418
				261,086	212,608
				58.2%	47.4%

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
	REQUIRED COMBAT TRAINING		
FTX	L = H 30 Hrs 48 Hr FTX as a min includes company training in mvt to contract/DEF/ATK. Meals not included = 42 Hrs	- 19,920 241,166	- 19,920 192,688
Sniper/ Marksmenship Comp	Pistol, Rifle, M-60 annual service qualification competition: Assume: 11 men lost. L: 10 Days H: 15 Days	- 1,144 240,022	- 1,716 190,972
Water Survival	Turnover/lifeguard tng/refresher tng causes 1/4 unit attend for 1 tng block L: 1 Tng Block H: 2 Tng Block	- 168 239,854	- 336 190,636
		53.4%	42.5%

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	PREPARATION NON-COMBAT TESTS/INSPECTION		
AGI	Includes prep of supply, maint, admin, como, NBC sections and wpns with Cmdr's inspection can include informal BN/BDE inspection L: 2 Tng Blocks H: 4 Tng Blocks	- 1,328	- 2,656
		238,526	187,980
		53.1%	41.9%
	PREPARATION COMBAT TESTS		
EDRE			
Indiv Prep	Annual dental check/maint 2 $\frac{Hr}{Man}$	- 332	- 332
	Innoculations check/update 2 $\frac{Hr}{Year}$	- 2	- 2
	Security clearances and personal readiness folders 1 $\frac{Hr}{Man}$	- 166	- 166
	Clothing inspections/corrections 4 $\frac{Hr}{Year}$	- 4	- 4
Muster/Alert	L: 1 muster and 1 veh line up 3 Hr H: 2 musters 2 veh line up 1 veh weighing 8 Hr	- 498	- 1,328

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
EDRE (Cont)			
Mvt Tng	Includes tng for weighing teams, airload tm's, rail load teams, highway convoy classes. Prep unit mvt/load plans and amphib mvt	- 374	- 550
	L: Weighing team tng — 2 Blocks — 22 Men x 17 Hr		
	Air load team tng — 2 Blocks — "		
	Road convoy — 1 Hr — "		
	H: Air mvt tng and PE — 4 Blocks — 22 Men x 23 Hr		
	Rail mvt tng/PE — 2 Blocks — "		
	Road convoy opns — 1 Hr — "		
	TOTAL	- 1,376	- 2,382
ARTEP			
Live Fire Exercise	SQD march/live fire test	- 198	- 396
	L: 9 SQDS 2 Hr/SQD 1 per yr		
	H: 9 SQDS 2 Hr/SQD 1 per yr		
	Plus range personnel 11 men	- 198	- 198
	APC social/M-60 gunners test	- 112	- 336
	L: 14 APC - 2 men per veh 1 block once a year		
	H: 14 APC - 2 men per veh 1 block once a year		
	Plus range personnel 11 men	- 198	- 198

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
ARTEP			
Live Fire Exercise (Cont)	Mortar Test: Assume semi-annual live fire used as ARTEP test but prep tng still necessary in form of live firing/ gunners drill/pneumatic device/FO tng	- 1,104	- 2,208
	L: 12 Blocks per year 23 Men		
	H: 24 Blocks per year 23 Men		
	AT Sec Test: Similar to mortar plt tng	- 256	- 768
	L: 8 Blocks 8 Men		
	H: 24 Blocks 8 Men		
	Includes tracking/ARTEP tasks		
	Aircraft/Veh Recog Test:	- 166	- 498
	L: 1 Hr per year/man		
	H: 3 Hr per year/man		
	Plt Patrol: Practice tests held during Q FTX but prep tng conducted prior to FTX	- 1,584	- 4,752
	L: 4 tng blocks per year/plt 99 Men		
	H: 12 tng blocks per year/plt 99 Men		
	TOTAL	- 3,816	- 9,354

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
SQD/Plt ARTEP Tasks			
Deliberate Attack	Includes day and night attact scopes, real train L: 6 tng Blocks 146 Men H: 12 tng Blocks 146 Men	- 3,504	- 7,008
Defense	Includes day and night defense scopes, real train L: 6 tng Blocks 146 Men H: 12 tng Blocks 146	- 3,504	- 7,008
Mvt to Contact	L: 3 tng Blocks 146 Men H: 6 tng Blocks 146 Men	- 1,752	- 3,504
	TOTAL	- 8,760 224,574	- 17,520 158,724
Physical Training	Lost PT days 8 FTX, 4 Rd March, 2 PCPT, 1 SQT, 4 ARTEP, 11 paydays, 2 Civil Dist Tng, 1 EDRE, 1 AGI, 1 MAIT, 1 Water survival, 10 inclement weather = 260 - 46 = less other tng days L = 160 days H = 190 days	- 26,560	- 31,540

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Road March	12 kilometer march for rifle plt L: 2 8 Hr marches per year 114 men H: 4 8 Hr marches per year 114 men	- 1,824 196,190	- 3,648 123,536
		43.7%	27.5%
	PREPARATION MAINTENANCE		
Vehicle Recovery	Includes: Classroom instruction, track repair, vehicle towing, vehicle extraction PE's L: 8 Hr 153 Men H: 16 Hr 153 Men	- 1,224	- 2,448
Vehicle Swim Exercise	Includes: Class, pre-dip, swim, Capstan kit use L: 12 Hr 153 men H: 153 men	- 1,836 193,130	- 2,754 118,334
		43.0%	26.4%

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	PREPARATION COMBAT TRAINING		
Night Driving and Terrain Driving	Includes: Techniques of driving to maximize terrain cover while not throwing tracks , damaging suspensions, endangering vehicle, etc L: 6 Hr 52 Drivers/Asst Drivers H: 12 Hr 62 Drivers/Asst Drivers	- 312 192,818	- 624 117,710
Live Fire Exercise BN/Company/Plt	Includes: Class, Prep/Dry Fire, Live Exercise L: BN/Co Live Fire ex only once 8 Hr H: 1 BN/Co ex 8 Hr 1 plt ex w/wpn plt support 4 Hr	- 1,328 191,490	- 1,816 115,894
Combat in Built Up Areas	Includes: Class and PE, day and/or night tng L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160 190,330	- 2,320 113,574
Anti Armor Tng	Includes: Opns with/against tanks open terrain opns, fighting pos L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160 189,170	- 2,320 111,254

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Land Navigation	Includes: Classes, day/night exercise		
Dismounted	L: 12 Hr H: 36 Hr 145 Men	- 1,740	- 5,220
Mounted	L: 12 Hr H: 36 Hr 52 Men	- 624	- 1,872
		186,806	104,162
First Aid Field	Includes: Vehicle extractions, burns and other injuries	- 664	- 1,992
	L: 4 Hr 166 Men		
	H: 12 Hr 166 Men	186,142	102,170
Decontamination Radiological Survey Team Tng	Assume: 17 Men classes and PE	- 136	- 408
	L: 8 Hr		
	H: 24 Hr	186,006	101,762
Camouflage Tng	Includes: indiv/veh/assembly area camouflage	- 664	- 1,992
	L: 4 Hr 166 Men		
	H: 12 Hr 166 Men	185,342	99,770
Air Defense Tng	Includes: Class, dry firing PE, live fire PE	- 620	- 1,860
	L: 4 Hr 155 Men		
	H: 12 Hr 155 Men	184,722	97,910

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Communications Security/Opns	Includes: Class use of CEOI's, PE L: 6 Hr 62 Men H: 18 Hr 62 Men	- 372 184,350	- 1,116 96,794
Intelligence Tng	Includes: Handling prisoners/equip, spot reports L: 4 Hr 166 Men H: 8 Hr 166 Men	- 664 183,686	- 1,328 95,466
Air Mobil Tng	Includes: Loading/unloading, air mvt 81's/TOWS L: 4 Hr 145 Men H: 12 Hr 145 Men	- 580 183,106	- 1,740 93,726
Cold/Hot Weather Operations	Includes: clothing, maint, sanitation in different climates L: 2 Hr 166 Men H: 4 Hr 166 Men	- 332 182,774	- 664 93,062
<u>Weapon Tng</u> Bayonet	Pugil tng L: 4 Hr 153 Men H: 8 Hr 153 Men	- 612	- 1,224

Annex B (Workload Time Estimates)

Table #2 40/12 Mix

EVENT	REMARKS AND ASSUMPTIONS	D_L	D_h
Weapon Tng (Cont)			
Hand Grenade	**Includes:** Refresher tng/PE methods of throwing **L:** 4 Hr 166 Men **H:** 8 Hr 166 Men	- 664	- 1,328
Demolitions	**Includes:** Class live fire and PE **L:** 8 Hr 145 Men **H:** 16 Hr 145 Men	- 1,160	- 2,320
Mines, Claymore	**Includes:** Mine clearing, detection, inplacing use of Claymore, live fire **L:** 8 Hr 145 Men **H:** 16 Hr 145 Men	- 1,160	- 2,320
Mortar/ARTY	**L:** 8 Hr 114 Men **H:** 16 Hr 114 Men	- 912	- 1,824
	TOTAL	- 4,508	- 9,016
		178,266	84,046
		39.7%	18.7%

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Beginning Balance	60 $\frac{Hr}{Wk}$ x 52 $\frac{Wk}{Yr}$ x 166 men	379,808	379,808
	OVERHEAD		
Holidays	Each soldier gets these days off or compensatory time. No night training planned *9 Holidays	- 11,952	- 11,952
	Two holidays included in two week 1/2 day Xmas schedule i.e., 8 days, 32 hrs lost, no night training	- 5,312	- 5,312
	Martin L. King Day L: 10% Off 2 Hrs H: 15% Off 2 Hrs	- 34	- 50
		362,510	362,494
Leaves	Five days per man lost in conjunction with Xmas, emergency, or ordinary leave. It is assumed the majority of leave is consumed during PCS moves. L = H	- 7,304	- 7,304
		355,206	355,190
Payday Activities	No night tng and one tng blk lost to payday activities, less Dec payday = 11 paydays L: 11 Days 8 Hr/Day H: 11 Days 12 Hr/Day	- 7,304	- 7,304
		347,902	347,886

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
In/Out Processing	Annual turnover min loss five tng days for: L: 20% Turnover H: 30%	- 1,452 346,450	- 2,200 345,686
Ceremonies	Parade prep and execution for either Bn/Bde/Div Cmdr. L: 1 COC 8 Hr H: 2 COC 16 Hr	- 1,328	- 2,656
	Parade and/or equip display plus activities for Bn/Bde/Div Organization Day, Inf Birthday or Armed Forces Day. No night tng L: 1 Tng Day/Prep H: 1 Tng Day & 14 Hr Blk	- 1,328 343,794	- 1,992 341,038
Guard Duty	CQ/Runner, arms room guard, Bn duty, office/NCO a min of three men 1-4 hour block comp time less weekends L = H	- 3,120 340,674	- 3,120 337,918
Civilian Education	Men allowed to attend civ schooling, 3 times per year, 4 weeks at a time 4 hour/day L: 10% H: 15%	- 3,840 336,834	- 6,000 331,918
		88.7%	87.3%

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
NON-COMBAT TRAINING			
Required Training			
Health & Welfare Inspection	1 Hr per month veh, barracks work areas	- 1,992	- 1,992
Safety Briefings	1 Hr per month POV inspections, hearing conservation, heat/cold info, 9 holidays, and prior to major tng exercises	- 1,992	- 1,992
Jr NCO Training	2 times per month drill and ceremonies, unit inspections less 2 times for ceremonies 1 Hr per session = 22 Hrs 160 men	- 3,520	- 3,520
Code of Conduct Geneva Hague Convention	1 Hr	- 166	- 166
Survival Escape Resistance & Evasion	1 Hr w/o PE	- 166	- 166
Service Benefits Standard of Conduct	1 Hr	- 166	- 166
Race Relations	1 Hr=12 $\frac{Hr}{Yr}$	- 1,992	- 1,992
Alcohol/Drug Abuse	1 Hr	- 166	- 166

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Required Training (Cont)			
Moral Leadership Privacy Act	1 Hr	- 166	- 166
SOFA & SAEDA	1 Hr	- 166	- 166
Military Justice	Included in Re-Up briefing		
	TOTAL	- 10,492	- 10,492
		326,342	321,426
Civil Disturbance Training	Proficiency w/baton, formations special orders, civil mil operations tng	- 1,328	- 2,656
	L: 2 Tng Blocks H: 4 Tng Blocks		
		325,014	318,770
Drivers Licensing	From assignments/losses and other unit turbulence a min of 1 drivers tng session per year, # to be trained = 1/2 required wheeled/track drivers and asst drivers and cross trained personnel = 26 men		
	Tng = physical exam, road test battery I/II = 2 Hrs plus 12 Hrs classroom tng (MAINT, SAFETY, etc)	- 364	- 364
	1 Hr annual refresher tng all drivers and asst drivers = 52 men	- 52	- 52

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Drivers Licensing (Cont)	*All civ/mil drivers 25 yrs or less 2-4 Hr blocks	- 928	- 928
DDC	70% of unit < 25 = 116 Men		
	L = H	323,670	317,426
		85.2%	83.6%
NON-COMBAT TESTS/INSPECTIONS			
AGI	*Formal insp 1 tng day lost (12 Hrs)	- 1,328	- 1,328
	L = H	322,342	316,098
MAIT	Prep and inspection utilizes 1 tng day (12 Hrs)	- 1,328	- 1,328
	L = H	321,014	314,770
		84.5%	82.9%

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	COMBAT TESTS/TRAINING		
EDRE	*1 unannounced test by Bde/Div - alert, muster, loadout and movement - 2-4 Hr Blocks L = H	- 1,328 319,686	- 1,328 313,442
ARTEP	*Test: External ARTEP 4 days subtests and FTX - 3 days continuous opns = 45 Hr + 12 Hr Maint: Assume: 2-4 Hr Blocks of additional maint L = H	- 10,790 308,896	- 10,790 302,652
SQT Test	*1/2 of 11C, 11B, 63C will be tested annually - 4 Hrs written, 4 Hrs hands on, on subsequent days. Refreshing tng min 1-4 Hr block, no night tng between test days L = H	- 996 307,900	- 996 301,656

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
PCPT	L: 2 Hr for testing 1 Hr not twice a year = 3 Hr H: 4 Hrs POR requirements and reassignments require conducting test twice a year	- 996 306,904	- 1,328 300,328
NBC	L = H *Includes refresher tng annually. Proficiency Test SA. Refresher tng taught at both periods to handle turbulence/ POR needs 1 tng block twice a year	- 1,328 305,576	- 1,328 299,000
Weapon Qualification Familiarization	Number of men involved is increased from authorized # of weapon for all wpn's except M-16, 81mm, TOW, 45's i.e., M-16 = 153, .45 Cal SMG = 2, M203 = 21, M-60 = 45, .50 Cal = 42, 45 Pistol = 13, TOW = 8, Dragon/Law = 27, 81mm = 23		
M-16 Qual	*Day and night qual w/zeroing wpn L: min 2 Tng blocks including mvt H: 3 tng blocks	- 1,224	- 1,836
M-16 Fam	*Zeroing and day firing only 1 tng block L = H	- 612	- 612
M203 Qual	Day qual w/zeroing min 1 tng block L = H	- 84	- 84

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
M203 Fam	Day qual w/zeroing min 1 tng block L = H	- 84	- 84
M-60 Qual	Day/night qual plus zeroing min 2 tng blocks for crews and cross trained personnel L = H	- 720	- 720
.45 Cal S MG	Fam fire run w/.45 cal range or other range L = H	- 12	- 12
.50 Cal Qual	Day qual w/zeroing crews and cross tng per min 1 tng block L = H	- 366	- 366
45 Pistol Qual	Qual and mvt min 3 Hrs L = H	- 39	- 39
TOW Qual/Live Fire	L: Min 1 tng block plus range supt of 5 men H: 3 tng blocks incl ıdes night qual	- 104	- 312
Dragon/Law	Min 1 tng block L = H	- 216	- 216
81mm	Day and night firing min 3 tng blocks tng run by weapon plt 31 men L = H	- 744	- 744
MAINT	Each above exercise requires min 1 Hr maint = 15 Hr total for avg of 41 men L = H	- 615	- 615
	TOTAL	- 4,790 300,786	- 5,610 293,390

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
		79.2%	77.2%
	ADMIN/MAINT OVERHEAD		
ESC	Requirement is quarterly but common division practice is to perform monthly ESC's min 1-4 Hr block. Include BII/TOOLS inventory 10% monthly TOE inspection. L = H	- 7,968 292,818	- 7,968 285,422
Motor Stables	Requirement is to "do it." Normal practice is to perform weekly MS except for Xmas and during major fld exercises. 1-4 Hr block 48 wks L = H	- 31,872 260,946	- 31,872 253,550
PM Services	Min 2-4 Hr blocks per veh/SQD or 8 blocks per veh per yr. Assume: 3 men per Sq/Veh required for maint of 21 vehs L = H	- 2,016 258,930	- 2,016 251,534

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Wpn Maintenance and Radio Maint	Includes: Assembly/disassembly wpns/radios. Non-firing maintenance. Assume: Min 1 1/2 blocks per quarter includes inspections L = H	- 3,984 254,946	- 3,984 247,550
Maintenance Plt Support	Plt employed in maint support L: 3 days a week, 2 blocks per day H: 4 days a week for 48 weeks, 11 men	- 12,672 242,274	- 16,896 230,654
HQ Plt Support	HQ plt employed in admin support L: 3 days a week, 2 blocks per day H: 4 days a week, 48 weeks, less Co Cmdr, 1SG = 8 men	- 9,216 233,058	- 12,288 218,366
Maintenance Plt Night Tng Lost	None	--	--

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

✓ Execute

__ Do Not Do

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
HQ Plt Night Tng Lost	None	--	--
EM/OFF Schooling PNOC, BLC, MECH, etc, NCOES	L: 2 men/month 2 week school H: 3 men/month 2 week school	- 2,112	- 3,168
		230,946	215,198
		60.8%	56.7%

	TASKINGS	ARTEP	N-ARTEP	D_L	D_h
<u>Details</u>	FORSCOM or Division Level common tasks				
Guard Duty	Duty external to Bn: Ammo dumps, finance guards, logistics buildings L: 1 SQD H: 2 SQD 3 times per yr	✓	✓	- 396	- 792
Post/BDE Police	L: 3 men H: 6 men for 2 tng blocks 3 times per year	✓	✓	- 72	- 144
Range Detail	L: 1 SQD H: 2 SQD for 1 tng day 3 times per year	✓	✓	- 264	- 528
Rec Center, PX, Clothing Sales, Commissary Support	L = H = 1 SQD for 1 tng day 3 times per year		✓	- 264	- 264

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	Duration Time D_L	Duration Time D_h
Funeral Detail	L = H = 17 men for 1 1/2 tng days per year	✓		- 272	- 272
Non-Training Support					
Retirement Parade	L = H = 1 company for 2 tng blocks once per year		✓	- 1,328	- 1,328
Special Olympics or Community Act	L: 4 tng blocks H: 8 tng blocks for 1/2 company once per year	✓		- 1,328	- 2,656
Blood Drive	L: 1 tng block H: 2 tng blocks no night tng 1/3 company lost twice per year	✓	✓	- 440	- 440
Army Survey	L: 1 SQD H: 2 SQD for 1 tng block per year		✓	- 44	- 88
Training Support					
Mass Casualty Exercise	L = H = 44 men for 2 tng blocks once per year	—	—	- 352	- 352
Reaction Force NUC Surety/ARF	L: 1 plt 5 days prep H: 3 plt 5 days prep Includes special orders/PE, unannounced alert, standby time 41 man plt + mech and 31B	✓	✓	- 2,460	- 7,380

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	DURATION TIME D_L	DURATION TIME D_h
SQT Proctors	L = 1 SQD H = 2 SQD for 3 tng days per year. Lost from night tng also 2 nights 32 Hr	✓		- 264	- 528
Div/BDE CPX/ TWT or MAPEX	L = 1 SQD H = 2 SQD for 6 tng blocks per year	✓	✓	- 264	- 528
School Support	L = 1 SQD H = 2 SQD for 1 tng day 3 times per year	✓	✓	- 264	- 528
ARTEP INT/EXT Test Committee	L = H = 94 men: includes prep for rg/eval, do eval, and develope reports 1 - 8 Hr day, 1 - 12 Hr day, 3 days 45 Hr = 65 Hr		✓	- 2,860	- 2,860
ARTEP Opposing Forces	L = H = 1 company: 3 days cont opn 45 Hrs + 8 Hr maint	✓		- 8,798	- 8,798
Major Tng Exercise Player	Company lost for 3 days, cont opns = 45 Hr. Includes maint and mvt. Brave Shield/Refroger/Jungle Warfare/ Coronado/Jack Frost, etc L: 7 days H: 10 days	✓	✓	- 12,782	- 16,766
Equip Operators	L = H = 3 men for 2 tng days 3 times per year	✓	✓	- 216	- 216

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	ARTEP	N-ARTEP	DURATION TIME D_L	DURATION TIME D_h
NG/Reserve/ROTC Support	L = H Depending on which CONUS div the company is in, it is likely to participate in a BDE assignment of range/ARTEP tng support for summer ROTC support: Assume run 1 range, prep 1 week, execute 1 week less 19 maint/ HQ personnel; unit at the same time may be an affiliated unit/Jr ROTC/ annual AT training. Recurring loss of personnel during year. 10 men for 10 tng days per year includes mvt time.		✓	- 17,640	- 17,640
		✓		- 1,200	- 1,200
	TOTAL			- 28,756	- 49,502
				202,190	165,696
				53.2%	43.6%

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	D_h
	REQUIRED COMBAT TRAINING		
FTX	L = H 30 Hrs 48 Hr FTX as a min includes company training in mvt to contract/DEF/ATK. Meals not included = 42 Hrs	- 19,920 182,270	- 19,920 145,776
Sniper/ Marksmenship Comp	Pistol, Rifle, M-60 annual service qualification competition: Assume: 11 men lost. L: 10 Days H: 15 Days	- 968 181,302	- 1,452 144,324
Water Survival	Turnover/lifeguard tng/refresher tng causes 1/4 unit attend for 1 tng block L: 1 Tng Block H: 2 Tng Block	- 168 181,134	- 336 143,988
		47.7%	37.9%

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	PREPARATION NON-COMBAT TESTS/INSPECTION		
AGI	Includes prep of supply, maint, admin, comm, NBC sections and wpns with Cmdr's inspection can include informal BN/BDE inspection L: 2 Tng Blocks H: 4 Tng Blocks	- 1,328	- 2,656
		179,806	141,332
		47.3%	37.2%
	PREPARATION COMBAT TESTS		
EDRE			
Indiv Prep	Annual dental check/maint 2 $\frac{Hr}{Man}$	- 332	- 332
	Innoculations check/update 2 $\frac{Hr}{Year}$	- 2	- 2
	Security clearances and personal readiness folders 1 $\frac{Hr}{Man}$	- 166	- 166
	Clothing inspections/corrections 4 $\frac{Hr}{Year}$	- 4	- 4
Muster/Alert	L: 1 muster and 1 veh line up 3 Hr H: 2 musters 2 veh line up 1 veh weighing 8 Hr	- 498	- 1,328

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
EDRE (Cont)			
Mvt Tng	Includes tng for weighing teams, airload tm's, rail load teams, highway convoy classes. Prep unit mvt/load plans and amphib mvt	- 374	- 550
	L: Weighing team tng 2 Blocks 22 Men x 17 Hr		
	Air load team tng 2 Blocks "		
	Road convoy 1 Hr "		
	H: Air mvt tng and PE 4 Blocks 22 Men x 23 Hr		
	Rail mvt tng/PE 2 Blocks "		
	Road convoy opns 1 Hr "		
	TOTAL	- 1,376	- 2,382
ARTEP			
Live Fire Exercise	SQD march/live fire test	- 198	- 396
	L: 9 SQDS 2 Hr/SQD 1 per yr		
	H: 9 SQDS 2 Hr/SQD 1 per yr		
	Plus range personnel 11 men	- 198	- 198
	APC social/M-60 gunners test	- 112	- 336
	L: 14 APC - 2 men per veh 1 block once a year		
	H: 14 APC - 2 men per veh 1 block once a year		
	Plus range personnel 11 men	- 198	- 198

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
ARTEP			
Live Fire Exercise (Cont)	Mortar Test: Assume semi-annual live fire used as ARTEP test but prep tng still necessary in form of live firing/ gunners drill/pneumatic device/FO tng	- 1,104	- 2,208
	L: 12 Blocks per year 23 Men		
	H: 24 Blocks per year 23 Men		
	AT Sec Test: Similar to mortar plt tng	- 256	- 768
	L: 8 Blocks 8 Men		
	H: 24 Blocks 8 Men		
	Includes tracking/ARTEP tasks		
	Aircraft/Veh Recog Test:	- 166	- 498
	L: 1 Hr per year/man		
	H: 3 Hr per year/man		
	Plt Patrol: Practice tests held during Q FTX but prep tng conducted prior to FTX	- 1,584	- 4,752
	L: 4 tng blocks per year/plt 99 Men		
	H: 12 tng blocks per year/plt 99 Men		
	TOTAL	- 3,816	- 9,354

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
SQD/Plt ARTEP Tasks			
Deliberate Attack	Includes day and night attact scopes, real train L: 6 tng Blocks 146 Men H: 12 tng Blocks 146 Men	- 3,504	- 7,008
Defense	Includes day and night defense scopes, real train L: 6 tng Blocks 146 Men H: 12 tng Blocks 146	- 3,504	- 7,008
Mvt to Contact	L: 3 tng Blocks 146 Men H: 6 tng Blocks 146 Men	- 1,752	- 3,504
	TOTAL	- 8,760	- 17,520
		283,114	215,076
Physical Training	Lost PT days 8 FTX, 4 Rd March, 2 PCPT, 1 SQT, 4 ARTEP, 11 paydays, 2 Civil Dist Tng, 1 EDRE, 1 AGI, 1 MAIT, 1 Water survival, 10 inclement weather = 260 - 46 = less other tng days L = 160 days H = 190 days	- 26,560	- 31,540

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Road March	12 kilometer march for rifle plt L: 2 8 Hr marches per year 114 men H: 4 8 Hr marches per year 114 men	- 1,824 137,470	- 3,648 76,888
		36.19%	20.2%
	PREPARATION MAINTENANCE		
Vehicle Recovery	Includes: Classroom instruction, track repair, vehicle towing, vehicle extraction PE's L: 8 Hr 153 Men H: 16 Hr 153 Men	- 1,224	- 2,448
Vehicle Swim Exercise	Includes: Class, pre-dip, swim, Capstan kit use L: 12 Hr 153 men H: 153 men	- 1,836 134,410	- 2,754 71,686
		35.38%	18.9%

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	PREPARATION COMBAT TRAINING		
Night Driving and Terrain Driving	Includes: Techniques of driving to maximize terrain cover while not throwing tracks , damaging suspensions, endangering vehicle, etc L: 6 Hr 52 Drivers/Asst Drivers H: 12 Hr 62 Drivers/Asst Drivers	- 312 134,098	- 624 71,062
Live Fire Exercise BN/Company/Plt	Includes: Class, Prep/Dry Fire, Live Exercise L: BN/Co Live Fire ex only once 8 Hr H: 1 BN/Co ex 8 Hr 1 plt ex w/wpn plt support 4 Hr	- 1,328 132,770	- 1,816 69,246
Combat in Built Up Areas	Includes: Class and PE, day and/or night tng L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160 131,610	- 2,320 66,926
Anti Armor Tng	Includes: Opns with/against tanks open terrain opns, fighting pos L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160 130,450	- 2,320 64,606

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Land Navigation	Includes: Classes, day/night exercise		
Dismounted	L: 12 Hr H: 36 Hr 145 Men	- 1,740	- 5,220
Mounted	L: 12 Hr H: 36 Hr 52 Men	- 624	- 1,872
		128,086	57,514
First Aid Field	Includes: Vehicle extractions, burns and other injuries	- 664	- 1,992
	L: 4 Hr 166 Men		
	H: 12 Hr 166 Men	127,422	55,522
Decontamination Radiological Survey Team Tng	Assume: 17 Men classes and PE	- 136	- 408
	L: 8 Hr		
	H: 24 Hr	127,286	55,114
Camouflage Tng	Includes: indiv/veh/assembly area camouflage	- 664	- 1,992
	L: 4 Hr 166 Men		
	H: 12 Hr 166 Men	126,622	53,122
Air Defense Tng	Includes: Class, dry firing PE, live fire PE	- 620	- 1,860
	L: 4 Hr 155 Men		
	H: 12 Hr 155 Men	126,002	51,262

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
Communications Security/Opns	Includes: Class use of CEOI's, PE L: 6 Hr 62 Men H: 18 Hr 62 Men	- 372 125,630	- 1,116 50,146
Intelligence Tng	Includes: Handling prisoners/equip, spot reports L: 4 Hr 166 Men H: 8 Hr 166 Men	- 664 124,966	- 1,328 48,818
Air Mobil Tng	Includes: Loading/unloading, air mvt 81's/TOWS L: 4 Hr 145 Men H: 12 Hr 145 Men	- 580 124,386	- 1,740 47,078
Cold/Hot Weather Operations	Includes: clothing, maint, sanitation in different climates L: 2 Hr 166 Men H: 4 Hr 166 Men	- 332 124,054	- 664 46,414
<u>Weapon Tng</u> Bayonet	Pugil tng L: 4 Hr 153 Men H: 8 Hr 153 Men	- 612	- 1,224

Annex B (Workload Time Estimates)

Table #3 40/4 Mix

EVENT	REMARKS AND ASSUMPTIONS	D_L	D_h
Weapon Tng (Cont)			
Hand Grenade	Includes: Refresher tng/PE methods of throwing L: 4 Hr 166 Men H: 8 Hr 166 Men	- 664	- 1,328
Demolitions	Includes: Class live fire and PE L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160	- 2,320
Mines, Claymore	Includes: Mine clearing, detection, inplacing use of Claymore, live fire L: 8 Hr 145 Men H: 16 Hr 145 Men	- 1,160	- 2,320
Mortar/ARTY	L: 8 Hr 114 Men H: 16 Hr 114 Men	- 912	- 1,824
	TOTAL	- 4,508	- 9,016
		119,546	37,398
		31.5%	9.8%

Annex B (Future Weapons)

Table 4

EVENT	REMARKS AND ASSUMPTIONS	DURATION TIME D_L	DURATION TIME D_h
	Training Requirements 1981 Infantry Fighting Vehicle		
25mm Cannon/TOW	Crew Qualification: Driver, gunner, asst gunner or 2nd qualified gunner 3 men per vehicle L: 42 Men H: 114 Men Day and night qual during modified MISPIC or armor Table 8 Live Fire Exercise. Assume: 9 tng blocks including night qualification, MAINT and mvt, range prep	- 3,024	- 8,208
TOW Prep Tng Live/ Tracking Tng and 25mm Live Fire Tng	Crew tng only: 42 men Tracking/Live Fire for ARTEP and SA Qual: TOW (L: 4 Blks, H: 8; 25mm (L: 8 Blks, H: 16; L: 16 Blk H: 32 Blk ARTEP Tasks for Test: Both weapons L: 4 H: 8	- 2,688	- 5,376
Increased Maint Requirements	TOW hydrolic system, 25mm pullover tests Assume: L: 2 Blks per yr add maint H: 4 Blks per yr add maint 3 men per veh (14)	- 2,736	- 5,472
AT Sec	Deleted	+ 256	+ 768
	TOTAL	- 8,192	- 18,288

*FORSCOM Cir 350-8

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY FORCES COMMAND
Fort McPherson, Georgia 30330

FORSCOM Circular
No. 350-8

26 April 1977

Expires 26 April 1978
Training
FORSCOM TRAINING READINESS PROGRAM

1. PURPOSE.

a. To establish goals, objectives, and standards to be used to identify training requirements and to develop training programs for FORSCOM units.

b. To provide training guidance that will assist commanders in appraising unit training status.

c. To assist commanders in managing unit training programs and training assets.

d. To assist commanders in identifying those areas affecting training where additional resources are needed.

2. REFERENCE: AR 220-1 with FORSCOM Supplement 1, Unit Readiness Reporting.

3. APPLICABILITY.

a. This circular applies to all readiness reporting units of the Active Component and is general training policy guidance for the Reserve Components.

b. The training events and standards outlined by this circular provide a guide for the evaluation and management of mission related training. Monitoring these events will enable the commander to evaluate the efficiency and effectiveness of past training and to assess future training needs.

4. BACKGROUND.

a. Over the years, changes in the training environment have acted to make the training of units more difficult (e.g., higher costs, greater maintenance requirements, and increased personnel turnover), and there has been an expanding need for unit commanders to consider different factors in arriving at their evaluation of training readiness.

b. Nonuniformity of subjectivity in training data reported to this and higher headquarters has caused an inconsistency in the ability to assess a unit's capability to accomplish its wartime mission. This circular is designed to establish measurement criteria which will assist unit commanders in making their assessments and to contribute in some measure to a consistency of evaluations.

5. DEFINITIONS.

a. Operating Strength. The assigned personnel strength of units, except those personnel "in transit." The term "assigned strength" is synonymous with operating strength for readiness reporting purposes.

b. Qualified. For training indicators that address individual crew qualifications, qualified is defined as meeting the standards of proficiency outlined in AR 350-4, soldier manuals, field manuals, and ARTEP.

c. Authorized/Designated Crews. For indicators that address crew weapons qualification/familiarization, the term designated crews applies when the TOE/MTOE does not identify specific crew members. In those instances, crews will be designated by the unit commander. An authorized crew is one identified by TOE/MTOE.

*This circular supersedes Draft FORSCOM Cir 350-8, 6 Oct 76.

d. Mission Essential. For indicators that address mission essential items of equipment, mission essential is defined as equipment, which when missing or inoperable, prevents mission accomplishment. Determination of mission essentiality is to be made by the unit commander.

6. DIVISION AND SEPARATE BRIGADE TRAINING CONSIDERATIONS.

a. Appendix A identifies mission related training readiness indicators and suggests the minimum frequency with which these events will be accomplished and the standards of qualification to be maintained routinely.

b. These indicators have been validated through field testing and will assist commanders in achieving a more objective/realistic evaluation of unit training status.

c. Training readiness indicators within Appendix A apply to all battalions of divisions, separate brigades, and armored cavalry regiments (ACR). The inclosures to Appendix A identify mission related training readiness indicators by type unit.

7. SEPARATE BATTALIONS. Appendix B (to be published).

8. COMMANDER'S TRAINING READINESS CONSIDERATIONS. See Appendix C.

9. ADMINISTRATIVE PROCEDURES. Commanders may use this circular to assist in determining their training REDCON. There is no requirement to forward the details of these judgments to HQ FORSCOM.

(AFOP-TAT)

APPENDIX A

TRAINING READINESS INDICATORS
ALL UNITS

TRAINING EVENT	MINIMUM MAINTENANCE REQUIREMENT	FREQUENCY
1. Individual Training Considerations		
a. Individual weapons qual/fam	90% of operating strength	Annually
b. NBC proficiency testing	90% of operating strength	Semiannually
c. Successful completion of the PCPT	90% of operating strength	Annually
2. Crew/Section Training Considerations		
a. 7.62mm machine gun qual/fam	80% of authorized/designated crews (gunner and asst gunner)	Semiannually
b. .50 cal machine gun qual/fam	80% of authorized/designated crews (gunner and asst gunner)	Semiannually
c. PM service performed	10% or less overdue	IAW Prescribed publication (time/ miles/hour)
d. Percent of time assigned maintenance personnel have spent performing MOS related duties.	Above 60% of maintenance personnel performing MOS related duties.	Routine
3. Unit Training Considerations		
a. FTX participation	80% of operating strength	Quarterly
b. EDRE participation	80% of operating strength	Annually

NOTE 1: To be considered fully combat ready, units must accomplish the training events outlined above within the frequencies indicated.

NOTE 2: Minimum requirement is to be interpreted as the percent of operating strength on any given day which has accomplished the training event specified. Thus today, 90% of the men assigned must have qualified with their individual weapon within the past year.

NOTE 3: Minimum requirements for unit training pertains to minimum percentages of participating assigned personnel.

TRAINING READINESS INDICATORS
INFANTRY UNITS

TRAINING EVENT	MINIMUM REQUIREMENT	FREQUENCY
1. Crew/Section Training Considerations.		
a. 81mm mortar qualification (live fire exercise or gunner's test and pneumatic trainer/SABOT subcaliber device).	All crews - Live fire exercise - Gunner's test and pneumatic trainer/SABOT subcaliber device	Semiannually Each quarter in which live fire is not conducted
b. 4.2" mortar qualification (live fire exercise or gunner's test and pneumatic trainer/SABOT subcaliber device).	All crews - Live fire exercise - Gunners test and pneumatic trainer/SABOT subcaliber device	Semiannually Each quarter in which live fire is not conducted
c. 90mm recoilless rifle/DRAGON qualification/familiarization (live fire exercises or subcaliber device/LET).	All crews - Live fire exercise - Subcaliber device/LET	Semiannually Each quarter in which live fire is not conducted
d. 106mm recoilless rifle/TOW qualification/familiarization (live fire exercise or subcaliber device/M70 trainer).	All crews - Live fire exercises - Subcaliber device/M-70 trainer	Semiannually Each quarter in which live fire is not conducted
e. Mechanized/scout vehicle crews (M113/M114/M151). Participated in a .50 cal/M60 machine gun live fire exercise IAW ARTEP training and evaluation standards.	All crews - Driver and gunner minimum	Semiannually
f. REDEYE Section.		
(1) REDEYE qualification (M-76 tracking head trainer).	All teams	Each quarter in which live fire is not conducted
(2) Provide air defense support IAW ARTEP training and evaluation standards.	All teams	Semiannually
g. Ground surveillance Radar Section. Provide ground surveillance support IAW ARTEP training and evaluation standards.	All teams	Semiannually
2. Platoon Training Considerations.		
a. Communications Platoon. Support tactical operations IAW ARTEP training and evaluation standards.	At 80% operating strength	Quarterly
b. Rifle Platoons.		
(1) Conduct movement to contact/ hasty attack IAW ARTEP training and evaluation standards.	All platoons at 80% operating strength	Semiannually
(2) Conduct active defense IAW ARTEP training and evaluation standards.	All platoons at 80% operating strength	Semiannually
(3) Conduct deliberate attack IAW ARTEP training and evaluation standards.	All platoons at 80% operating strength	Semiannually

TRAINING EVENT	MINIMUM REQUIREMENT	FREQUENCY
c. Scout Platoon.		
(1) Conduct a night reconnaissance patrol IAW ARTEP training and evaluation standards.	At 80% operating strength	Semiannually
(2) Conduct a screening mission IAW ARTEP training and evaluation standards.	At 80% operating strength	Semiannually
(3) Conduct a route and area reconnaissance mission IAW ARTEP training and evaluation standards.	At 80% operating strength	Semiannually
(4) Conduct a rear area security mission IAW ARTEP training and evaluation standards.	At 80% operating strength	Semiannually
d. Heavy Mortar (4.2") Platoon. Provide indirect fire support IAW ARTEP training and evaluation standards.	At 80% operating strength	Semiannually
e. 81mm Mortar Platoon. Provide indirect fire support IAW ARTEP training and evaluation standards.	At 80% operating strength	Semiannually
f. Antitank Platoon. Provide antitank fire support (REALTRAIN) IAW ARTEP training and evaluation standards.	At 80% operating strength	Semiannually

NOTE 1: This inclosure is applicable to infantry and mechanized infantry units. Training events will be accomplished in accordance with Level 1, ARTEP training and evaluation standards in ARTEP 7-15, 7-45, and 71-2 for AC units and appropriate level for RC units.

NOTE 2: Live fire events for TOW, DRAGON, and REDEYE systems are required only subject to missile availability. Crews/teams not able to conduct a live fire due to missile shortages will qualify/familiarize on the appropriate simulator/trainer at the frequency specified.

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY FORCES COMMAND
FORT MCPHERSON, GEORGIA 30330

AFOP-TA 16 May 1978

SUBJECT: Training Guidelines

Commanders, CONUSA
State Adjutants General
Commanders, FORSCOM Installations
Commanders, FORSCOM Units on
Non-FORSCOM Installations
Commanders, TRADOC Installations

1. These guidelines are applicable for all units for which FORSCOM has training responsibility. In order to ensure broad understanding and a common philosophical approach to our training mission this letter will be distributed to company level.

2. In general, FORSCOM units today are better trained than in any previous peacetime Army, but they are not good enough. There remain large gaps between current capabilities and the full potential of our units. A substantial surge in effectiveness cannot be accomplished by simply working harder -- most commanders, instructors, leaders, etc., are already working at capacity. What is required is that all leaders, from the new corporal to the generals, do each of their jobs better.

3. FORSCOM's primary task is to improve substantially the capability of units to conduct and support sustained and continuous land combat operations. A sharp jump in capabilities will occur if unit training programs focus on these four basic goals:

a. Accelerate the development and use of junior leaders.

b. Ensure the productive use of the full training day of each soldier.

c. Improve individual proficiency in the tasks set forth in the relevant soldier's manuals.

d. Improve unit proficiency in the tasks set forth in the relevant unit ARTEP.

AFOP-TA 16 May 1978
SUBJECT: Training Guidelines

4. Certain fundamental principles of training management must be applied to improve training effectiveness. These are:

a. Commanders at every level focus unit activities by designating specific training objectives to be achieved during training cycles or major periods, and tasks to be accomplished during every training period, whether it be one month, one week, or one day.

b. Training objectives at the company and battalion level are expressed in terms of proficiency in individual training tasks from the soldier's manual and unit training tasks from the ARTEP.

c. Company commanders specify individual training objectives which are related to proficiency in the unit training objectives of the same period or cycle.

d. Subordinates are given maximum flexibility in determining how to train and how to achieve the proficiency specified by their training objectives.

e. Individual training is integrated in all phases of unit activity and undertaken at the lowest level whenever chance opportunities arise.

f. Superiors measure or sample results to ensure that stated training objectives are achieved. External ARTEP evaluations and SQTs are helpful, but must be supplemented by periodic internal evaluations to determine if the commanders' objectives are being achieved.

g. Time and other resources are provided for corrective training as the need arises.

5. Underlying effective training management is the intelligent decentralization of training responsibilities. Graduates of the primary and basic non-commissioned officers' courses must be permitted and encouraged to use their newly developed leadership and training skills. Recently reclassified NCOs may require special help -- TEC lessons are particularly useful. As NCOs assume the full scope of their responsibilities, officers can direct more attention to planning, programing and evaluating training for both individuals and units. The basic training management model for commanders is:

AFOP-TA 16 May 1978
SUBJECT: Training Guidelines

SET OBJECTIVES

PROVIDE RESOURCES

COACH SUBORDINATES

MEASURE RESULTS

6. TRADOC is producing training tools which are designed to help unit leaders do what needs to be done. It is important that busy commanders distinguish the few key manuals from the many supportive references which abound.

a. Every commander (CSMs and 1st SGTs, too) must be intimately familiar with and have on their personal bookshelves the following:

(1) The Soldiers Manual Series (for the high density MOS' in the unit).

(2) The unit ARTEP.

(3) Manuals for each major weapon system and/or vehicle in the unit.

b. TC 21-5-7 (December 1977) is the best reference on training management. This outstanding work, when read and heeded by company and higher level commanders, becomes the bible for staff officers concerned with training management.

c. Commanders, CSMs and 1st SGTs need an up-to-date index of available TEC lessons which are applicable to their units. Tests show consistently that TEC is the most powerful tool available for teaching individual skills. The use and management of TEC components must be a top priority item on every commander's training plan.

7. Because of the link of SQT scores with career progression (EPMS), considerable confusion has arisen as to the place of the SQT in unit training programs. It is critically important for the long range health of the Army that training programs focus on the goals set forth in paragraph 3, above, and repeated below for emphasis:

- Accelerate the development and use of junior leaders.

- Ensure the productive use of the full training day of each soldier.

AFOP-TA 16 May 1978
SUBJECT: Training Guidelines

- Improve individual proficiency in the tasks set forth in the relevant soldier's manuals.

- Improve unit proficiency in the tasks set forth in the relevant unit ARTEP.

It is clear that if unit commanders develop training programs which work logically toward the attainment of these goals they will be doing also the things which will lead to the best possible preparation of their soldiers to score well on the SQT. Indeed, it can be argued that centralized "brute force" methods of preparation for SQT will not be possible as the numbers of MOS' for which SQTs are administered increase sharply in the years ahead. On the other hand, if commanders train solely toward optimization of short range goals such as: "Attaining the best possible average SQT scores" they are very likely to use centralized training methods which are counterproductive to the long term needs of the unit. Common sense, balance, and good training estimates will lead to good training programs. Improved individual training on a year round basis will do more than anything else to make our units healthier. It may sometimes be useful to give special emphasis to individual training in the week(s) just prior to the taking of SQT by high density MOS' in the unit but such an emphasis cannot substitute for a year round program working toward the long range goals set forth above.

8. Much else could be said about matters of great importance to unit training programs. Such subjects as marksmanship, NBC, use of smoke, deployment training, and sustained operations in excess of 72 hours all require much emphasis and increased proficiency. But I expect that commanders will develop specific additional objectives tailored to the needs of their units. The FORSCOM 350-series of regulations contains comprehensive training guidance on many key subjects. FORSCOM units must be able to mobilize, deploy and win while engaging in the toughest kind of sustained and continuous combat. Sound training during peacetime which satisfies the needs of unit members and develops unit leaders will prepare us to win in wartime.

FREDERICK J. KROESEN
General, U.S. Army
Commanding

Copies furnished:
HQDA (DALO)
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Commander in Chief, USAREUR & Seventh Army
Commander in Chief, USSOUTHCOM
Commander, TRADOC

Ft Ord Suppl 1 to AR 335-15

DEPARTMENT OF THE ARMY
HEADQUARTERS
7th INFANTRY DIVISION AND FORT ORD
Fort Ord, California 93941

Ft Ord Supplement 1
to AR 335-15*

9 September 1977

Management Information Control
MANAGEMENT INFORMATION CONTROL SYSTEM

This supplement may not be further supplemented by activities or units of this command.

AR 335-15, 26 October 1976, as supplemented by FORSCOM Suppl 1, 26 April 1977, is further supplemented as follows:

Page 1-3, paragraph 1-4c, Scope. Add the following: Within this command reports will be controlled between/among the following agencies: the command group, general staff sections; directorates, separate staff activities; Deputy Post Commanders of Fort MacArthur, Fort Hunter Liggett, and the Presidio of Monterey; brigade sized units and separate battalion sized units.

Page 2-1 paragraph 2-1b(2), Staff and technical supervision. Add the following: The Comptroller is responsible for staff and technical supervision of the Management Information Control System within this command, to include the 7th Infantry Division. The Management Information Control Officer (MICO), Comptroller Directorate, is responsible for administering the System and for overall management information control jurisdiction in this command.

Page 2-1, paragraph 2-1b(3), Staff and technical supervision. Add the following: General staff sections, directorates, separate staff activities, brigade sized units, and separate battalion sized units will designate a Management Information Control Liaison Officer (MICLO) who has a comprehensive knowledge of the organization, mission, policies and procedures of his agency. The name and telephone number of the designated MICLO, and subsequent changes thereto, will be provided to the MICO, Comptroller Directorate, extension 7181/6173. The MICLO will be responsible for all management information control matters of his agency and will:

(a) Assist members of his organization in preparing and fully justifying applications for approval of management information requirements.

(b) Maintain a record of all controlled recurring management information requirements required of and by his agency.

*This supplement supersedes Ft Ord Supplement 1 to AR 335-15, 18 Sep 75.

(c) Participate in the periodic review of recurring controlled information requirements required by this and higher headquarters.

(d) Periodically review internal management information requirements within his agency with a view toward reducing the workload.

(e) Advise the Comptroller Directorate, ATTN: MICO, when a controlled recurring information requirement is initiated or deleted, or a request for an unauthorized information requirement is received from another agency.

Page 2-2, paragraph 2-3. Responsibilities of the management information control officer. Add subparagraph x after subparagraph w.

x. Special instructions for management information requirements reviews within this command are as follows:

(1) The MICO will review each local management information requirement six months after its initiation and at least once a year thereafter.

(2) Preparing agencies will complete DA Form 1086-R in accordance with instructions included with the Comptroller's request for a management information requirement review.

(3) The MICO will conduct an on-site discussion with the initiating agency to determine if the requirement can be eliminated, reduced or improved.

(4) Management Information Requirements required by higher headquarters will be reviewed in accordance with a schedule issued by Headquarters FORSCOM.

Page 3-3. Add paragraph 3-21 after paragraph 3-20.

3-21. Authority for Requirement. The assignment of a Requirement Control Symbol (RCS), or specific exemption, represents the sole authority of the initiating agency to require, and for the preparing agency to prepare, the management information requirement. No action will be taken on an uncontrolled management information requirement until management control clearance is provided.

Page 5-1, paragraph 5-1c, Initiating or revising controlled management information requirements. Add the following: The initiating agency MICLO will submit two copies of completed DA Form 335-R, 1 Oct 76, Application for Approval of Management Information Requirement, to the Comptroller, ATTN: MICO, together with a copy of the proposed directive and requirement form and related papers previously described. If the use of automatic data processing equipment (ADPE) is anticipated, see paragraph 8-1.

Page 6-1, paragraph 6-2j, Initiating agency. Add the following: The initiating agency will notify the Comptroller, ATTN: MICO, immediately when a management information requirement is no longer required.

Page 6-2, paragraph 6-5, Publishing or communications agency. Add subparagraph c after subparagraph b.

c. Local responsibilities will be as follows:

(1) The Adjutant General will:

(a) Insure that each directive published which requires preparation of a management information requirement by one agency for another agency contains either a Requirement Control Symbol or an exemption citation furnished by the Comptroller.

(b) Furnish the Comptroller, ATTN: MICO, one copy of each information requirement directive which initiates, amends, revises, supersedes or rescinds an information requirement or information requirement form issued by this command or received from higher headquarters.

(c) Insure that each proposed form has management information control clearance prior to its approval.

(2) The Telecommunications Center, DC-E, will furnish the Comptroller one copy of each electrically transmitted or mailed message which initiates, amends, revises, supersedes or rescinds a management information requirement or management information requirement form received from higher headquarters.

Page 8-2. Add paragraph 8-9 after paragraph 8-8.

8-9. Procedures and responsibilities for control of ADPE products within this command.

a. Requests for new ADPE products or changes to existing ones will be submitted in accordance with Ft Ord Reg 18-1. Requests will be processed in accordance with Appendix E.

b. In paragraphs to follow:

(1) The terms controlled products or controllable products refer to those ADPE products which the MICO, Comptroller Directorate, has determined are subject to management information control and require requirement control symbols.

(2) The term exempt product refers to an ADPE product which the MICO, Comptroller Directorate, has determined to be exempt from management information

control under a specific exemption contained in paragraph 7-2 or paragraph 8-2.

c. The Comptroller will:

(1) Have final approval/disapproval authority for controllable products.

(2) Recommend approval/disapproval of exempt products.

(3) Review requests for essentiality, duplication or overlap of existing manual information requirements, and determine if the products are controllable or exempt.

(4) Assign requirements control symbols to approved, controllable products.

(5) Cite a specific exemption for each exempt product.

(6) Maintain case files on controlled products.

(7) With assistance of the Management Information Systems Office (MISO) and the 7th Infantry Division Data Center (DDC), perform periodic reviews (paragraph 8-6) for each controlled product.

(d) Within their respective areas of responsibility MISO and 7th Infantry Division Data Center (DDC) will:

(1) Have final approval/disapproval authority for exempt products.

(2) Recommend approval/disapproval of controllable products.

(3) Review requests for feasibility and duplication of existing products.

(4) Determine the hours required and costs for both personnel and equipment.

(5) With assistance from the Comptroller, determine if the value and cost benefits justify the proposed product.

(6) Assign product control numbers to all approved products.

(7) Maintain ADP final product files (paragraph 8-7).

(8) Maintain a current ADP final product register (paragraph 8-8).

(9) Perform periodic review (paragraph 8-6) of all exempt products.

(10) Assist the MICO in performing review of controlled products.

The proponent of this supplement is the Comptroller Directorate. Users are invited to send comments and suggested improvements to the Cdr, 7th Infantry Division and Fort Ord, ATTN: AFZW-CM, Fort Ord, California 93941

FOR THE COMMANDER:

HEADQUARTERS 7th INF DIV AND FORT ORD, CALIF. OFFICIAL

OFFICIAL:

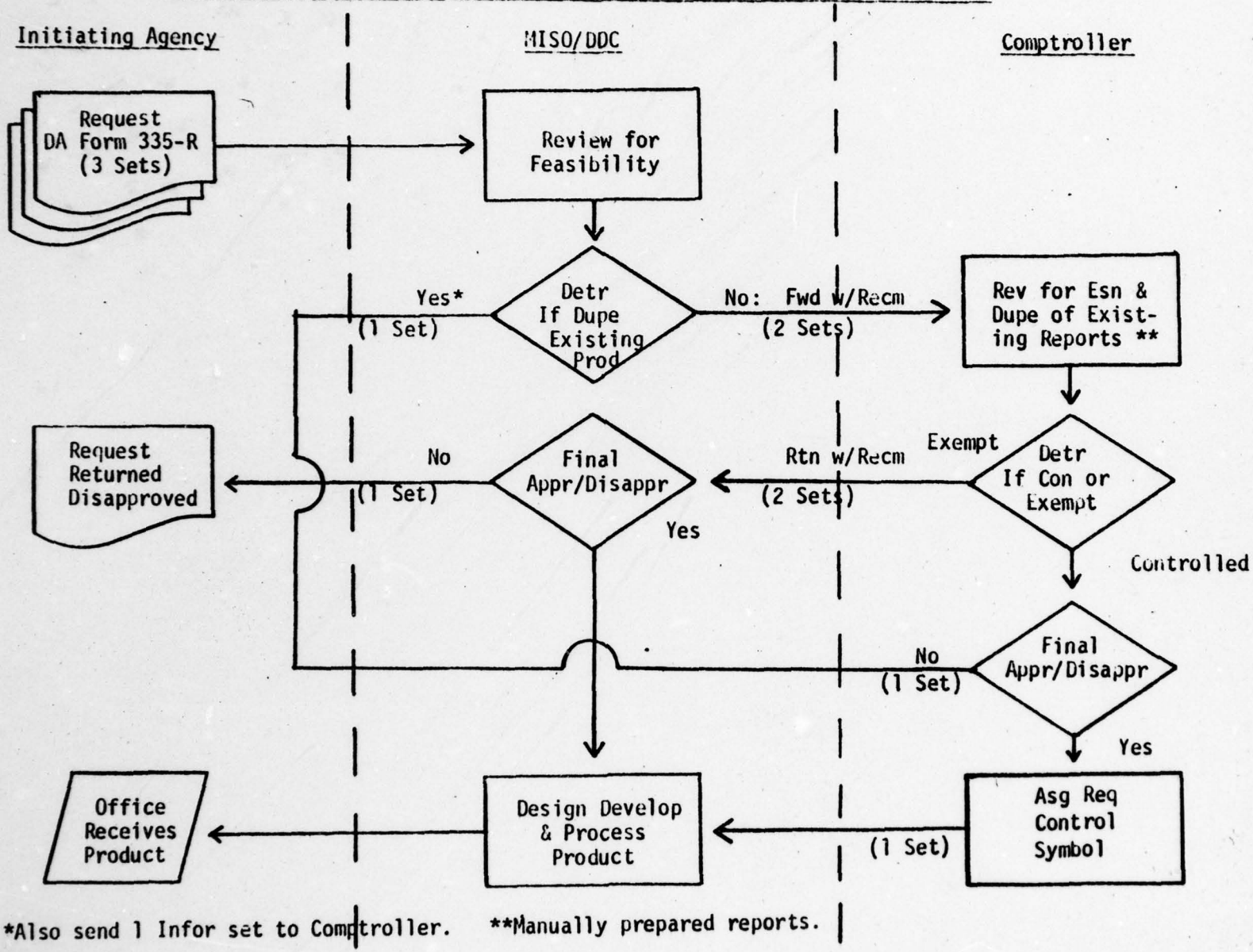
JOHN A. HEMPHILL
Colonel, GS
Chief of Staff

THOMAS F. SIKORA
LTC, AGC
Adjutant General

APPENDIX E - Processing Requests for ADPE Outputs

DISTRIBUTION:
B plus AFZW-CM (20)
Cdr, FORSCOM, ATTN: AFCO-M (2)

PROCESSING REQUESTS FOR ADPE OUTPUTS, 7TH INFANTRY DIVISION & FORT ORD



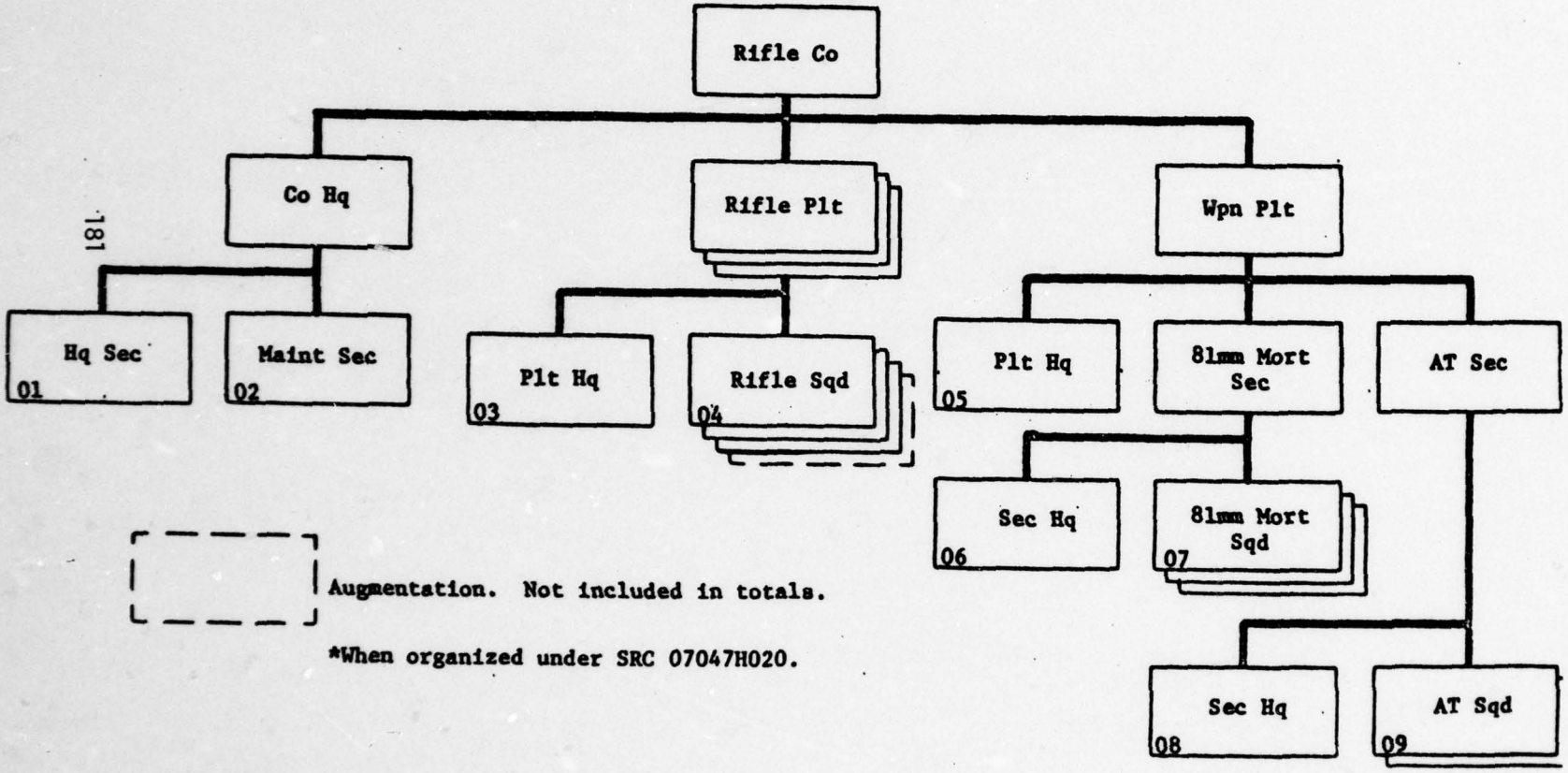
*Also send 1 Infor set to Comptroller. **Manually prepared reports.

ANNEX F

Table of Organization and Equipment (TOE)

1. This annex lists the wire diagram, manning level and equipment items authorized for a rifle company of a mechanized infantry battalion as per TOE 7-47HO.

RIFLE COMPANY, INFANTRY BATTALION (MECHANIZED) ARMORED DIVISION
OR
RIFLE COMPANY, INFANTRY BATTALION (MECHANIZED) INFANTRY DIVISION
OR
RIFLE COMPANY, INFANTRY BATTALION (MECHANIZED), INFANTRY DIVISION (MECHANIZED)
OR
RIFLE COMPANY, INFANTRY BATTALION (MECHANIZED), SEPARATE ARMORED BRIGADE
OR
RIFLE COMPANY, INFANTRY BATTALION (MECHANIZED), SEPARATE INFANTRY BRIGADE (MECHANIZED)



Augmentation. Not included in totals.

*When organized under SRC 07047H020.

TOE MANNING

SECTION	NUMBER OF MEN
Headquarters	10
Maintenance	11
Rifle Platoons (3)	114
Weapons Platoon	23
Anti-Tank Section	8
TOTAL	166

TOE EQUIPMENT

EQUIPMENT	NUMBER OF ITEMS
Armored Personnel Carrier M113	14
Armored Personnel Carrier M106	4
1/4 Ton Trucks	5
2 1/2 Ton Trucks	3
81MM Mortars	3
TOW Anti-Tank Missile Systems	2
Grenade Launchers M203	21
Machinegun M-60	15
Machinegun .50 Cal	21
.45 Cal Pistol	13
.45 Cal Sub-Machinegun	2
Rifles M-16	153

ANNEX G

Computer Printouts

1. This annex contains the computer printouts of the TMCS software/ hardware test.

2. Page one of the printouts lists resource limits used, field event names and field event priorities. No garrison events are shown.

3. Page two of the printouts shows that all field training events fall within resource limits, including time and that it is feasible to conduct this mix of training.

4. The subsequent printout pages are copies of the worksheet data entered, by event, into the TMCS Program. Note that numerous garrison type training events were entered into the program but do not appear on printout pages one and two.

RESOURCE LIMITS	MAX	
AVSPARES $	0.00	
AVGAS $	0.00	
MOGAS $	1000.00	
SPARES $	12000.00	
DIESEL $	6000.00	
OTH COST $	700.00	
FLY-HRS	0.00	
BFTD	20.00	÷ 5 = 4 Company Field Training Days
ACRE DAYS	75000.00	

EVENT NAMES	STATUS	BFTD'S
NBC	OPTIONAL	.01
M16 Z/QUAL	OPTIONAL	.01
COMP L FIRE	REQUIRED	.01
FLD DRIVING	OPTIONAL	.50
TOW QUAL	OPTIONAL	.01
VEH RECOVER	OPTIONAL	.01
CIV DEF TNG	OPTIONAL	.01
CBT BUA	OPTIONAL	.01
SQD ARTEP T	OPTIONAL	.01
PLT ARTEP T	OPTIONAL	.01
ANTI ARMOR	OPTIONAL	.01
FTX	REQUIRED	1.00

COMMANDER'S PRIORITIES FOR EVENTS

NBC	=	5.10
M16 Z/QUAL	=	8.00
COMP L FIRE	=	8.10
FLD DRIVING	=	5.50
TOW QUAL	=	7.70
VEH RECOVER	=	5.60
CIV DEF TNG	=	6.00
CBT BUA	=	6.10
SQD ARTEP T	=	7.60
PLT ARTEP T	=	7.40
ANTI ARMOR	=	7.70
FTX	=	8.90

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UNIT NAME -----1/1 INF

TRAINING THAT CAN BE CONDUCTED:

	AVSPARES $	AVGAS $	MOGAS $	SPARES $	DIESEL $	OTH COST $	TOTAL $	FLY-HRS	BFTD	ACRE DAY	%-CONT.
NBC	0.00	0.00	0.00	4.77	1.66	0.00	6.43	0.00	.01	247.00	6.09
M16 Z/QUAL	0.00	0.00	0.00	4.77	1.66	0.00	6.43	0.00	.01	988.00	9.56
COMP L FIRE	0.00	0.00	1.19	467.93	41.83	0.00	510.95	0.00	.01	3952.00	9.68
FLD DRIVING	0.00	0.00	2.06	979.00	80.46	0.00	1061.52	0.00	.50	2223.00	6.57
TOW QUAL	0.00	0.00	0.00	26.80	25.15	0.00	51.95	0.00	.01	247.00	9.28
VEH RECOVER	0.00	0.00	.52	244.75	20.11	0.00	265.38	0.00	.01	3952.00	6.69
CIV DEF TNG	0.00	0.00	0.00	133.92	12.81	0.00	146.73	0.00	.01	247.00	7.17
CBT BUA	0.00	0.00	0.00	148.32	23.62	0.00	171.94	0.00	.01	247.00	7.29
SQD ARTEP T	0.00	0.00	0.00	961.00	103.47	0.00	1064.47	0.00	.01	6175.00	9.68
PLT ARTEP T	0.00	0.00	0.00	961.00	103.47	0.00	1064.47	0.00	.01	6175.00	8.84
ANTI ARMOR	0.00	0.00	0.00	1780.20	147.72	400.00	2327.92	0.00	.01	24700.00	9.28
FTX	0.00	0.00	39.42	3406.52	358.32	0.00	3804.26	0.00	1.00	24700.00	10.63
USED	0.00	0.00	43.20	9118.98	920.28	400.00	10482.46	0.00	1.60	73853.00	100.00
LIMIT	0.00	0.00	1000.00	12000.00	6000.00	700.00	19700.00	0.00	20.00	75000.00	
UNUSED	0.00	0.00	956.80	2881.02	5079.72	300.00	9217.54	0.00	18.40	1147.00	

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UNIT NAME -----1/1 INF

TRAINING THAT CANNOT BE CONDUCTED:

	AVSPARES $	AVGAS $	MOGAS $	SPARES $	DIESEL $	OTH COST $	PRIORITY	FLY-HRS	BFTD	ACRE DAY	%-CONT.
											0.00

1/1 INF

TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 1

EVENT=NBC | NO PERS= 166 PART | EVENT= 5.10 PRIORITY | DATE=8351 FROM | DATE=8351 THRU | NO= 1 UNITS | RANGE= 1 X 1 K REQ(OPTM) | RANGE= 1 X 1 K AVAIL

DURATION= 4 HOURS | ACRES= 247 | ACRES= 247

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
TRK,AMB,5/4 TON	1	3
TRK,CGO,2 1/2T	1	3
TRK,CGO,2 1/2T W	1	3
TRK,CGO,5 TON	1	3

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=RANGE TNG | LOCATION= RG 1

EVENT=M16 Z/QUAL | NO PERS= 153 PART | EVENT= 8.00 PRIORITY | DATE=8351 FROM | DATE=8352 THRU | NO= 1 UNITS | DURATION= 12 HOURS | RANGE= 2 X 2 K REQ(OPTM) ACRES= 988 | RANGE= 2 X 2 K AVAIL ACRES= 988

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
TRK,AMB,5/4 TON	1	3
TRK,CGO,2 1/2T	1	3
TRK,CGO,2 1/2T W	1	3
TRK,CGO,5 TON	1	3

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
RIFLE,M16	153	200	0

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OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 1 CODE | TYPE=RANGE TNG | LOCATION= RG 2

EVENT=COMP L FIRE | NO PERS= 147 PART | EVENT= 8.10 PRIORITY | DATE=8253 FROM | DATE=8253 THRU | NO= 1 UNITS | RANGE= 4 X 4 K REQ(OPTM) | RANGE= 4 X 4 K AVAIL

DURATION= 12 HOURS | ACRES= 3952 | ACRES= 3952

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M577	1	7
CARRIER,M113	14	10
TRK,AMB,5/4 TON	1	7
TRK,CGO,2 1/2T	1	20
TRK,UTIL,1/4 T	1	20

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR.M125,81MM	3	20	7
CARR.TOW	2	0	7
LAUNCH.GREN	10	20	0
LAUNCH.ROC.	2	0	7
MG,VEH,MTD	17	500	10
MG,LT,M60	8	500	0
RIFLE,M16	143	400	0

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OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

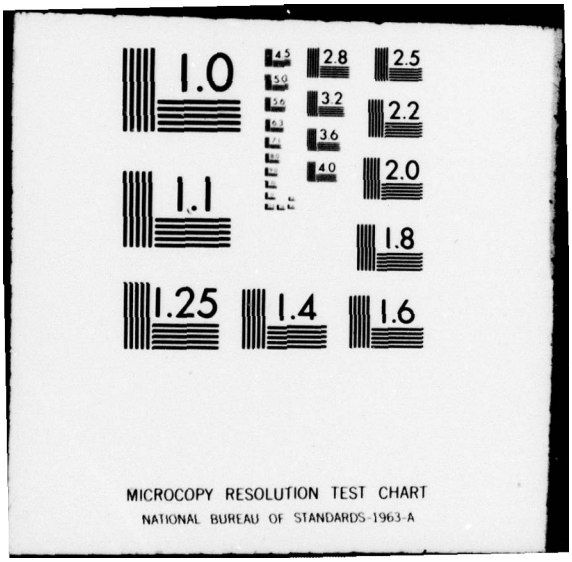
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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=GARRISON TNG | LOCATION= PT 1

EVENT=PCPT | NO PERS= 166 PART | EVENT= 5.30 PRIORITY | DATE=8254 FROM | DATE=8254 THRU | NO= 1 UNITS | RANGE= 1 X 1 K REQ(OPTM) | RANGE= 1 X 1 K AVAIL

DURATION= 4 HOURS | ACRES= 247 | ACRES= 247

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
TRK,AMB,5/4 TON	1	3

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 1 CODE | TYPE=GARRISON TNG | LOCATION= MP

EVENT=MOTOR STABL | NO PERS= 147 PART | EVENT= 7.50 PRIORITY | DATE=8254 FROM | DATE=8274 THRU | DURATION= 16 HOURS | NO= 1 UNITS | RANGE= 2 X 2 K REQ(OPTM) ACRES= 988 | RANGE= 2 X 2 K AVAIL ACRES= 988

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.50 BATALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 3

EVENT=FLD DRIVING | NO PERS= 134 PART | EVENT= 5.50 PRIORITY | DATE=8257 FROM | DATE=8257 THRU | DURATION= 16 HOURS | NO= 1 UNITS | RANGE= 3 X 3 K REQ(OPTM) ACRES= 2223 | RANGE= 3 X 3 K AVAIL ACRES= 2223

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	14	20
RECOV.VEH,M578	1	20
TRK,AMB,5/4 TON	1	20
TRK,CGO,5/4 TON	1	20
TRK,CGO,2 1/2T	1	20
TRK,CGO,2 1/2T W	1	20
TRK,CGO,5 TON	1	20
WRECKER,5 TON	1	20

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.50 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 1 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=RANGE TNG | LOCATION= RG 8

EVENT=TOW QUAL | NO PERS= 13 PART | EVENT= 7.70 PRIORITY | DATE=8252 FROM | DATE=8257 THRU | NO= 2 UNITS | RANGE= 1 X 1 K REQ(OPTM) | RANGE= 1 X 1 K AVAIL

DURATION= 8 HOURS | ACRES= 247 | ACRES= 247

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
TRK,AMB,5/4 TON	1	10
TRK,CGO,2 1/2T	1	20

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR.TOW	4	0	20

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

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19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 4

EVENT=VEH RECOVER | NO PERS= 147 PART | EVENT= 5.60 PRIORITY | DATE=8258 FROM | DATE=8258 THRU | NO= 1 UNITS | RANGE= 4 X 4 K REQ(OPTM) | RANGE= 4 X 4 K AVAIL

DURATION= 12 HOURS | ACRES= 3952 | ACRES= 3952

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	14	5
RECOV.VEH,M578	1	5
TRK,AMB,5/4 TON	1	5
TRK,CGO,5/4 TON	1	5
TRK,CGO,2 1/2T	1	5
TRK,CGO,2 1/2T W	1	5
TRK,CGO,5 TON	1	5
WRECKER,5 TON	1	5

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 1 CODE | TYPE=GARRISON TNG | LOCATION= COMP AREA

EVENT=REQ TNG | NO PERS= 166 PART | EVENT= 7.20 PRIORITY | DATE=8259 FROM | DATE=8259 THRU | DURATION= 7 HOURS | NO= 1 UNITS | RANGE= X K REQ(OPTM) ACRES= 2.47 | RANGE= X K AVAIL ACRES= 2.47

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 1 CODE | TYPE=GARRISON TNG | LOCATION= SQT 1

EVENT=SQT | NO PERS= 166 PART | EVENT= 7.30 PRIORITY | DATE=8260 FROM | DATE=8261 THRU | NO= 1 UNITS | RANGE= 1 X 1 K REQ(OPTM) | RANGE= 1 X 1 K AVAIL

DURATION= 16 HOURS | ACRES= 247 | ACRES= 247

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
TRK,CGO,2 1/2T	1	5
TRK,CGO,2 1/2T W	1	5
TRK,CGO,5 TON	1	5

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.50 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 3 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 6

EVENT=CIV DEF TNG | NO PERS= 166 PART | EVENT= 6.00 PRIORITY | DATE=8264 FROM | DATE=8264 THRU | NO= 1 UNITS | RANGE= 1 X 1 K REQ(OPTM) | RANGE= 1 X 1 K AVAIL

DURATION= 7 HOURS | ACRES= 247 | ACRES= 247

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	5	8
TRK,AMB,5/4 TON	1	8
TRK,CGO,2 1/2T	1	8
TRK,CGO,2 1/2T W	1	8
TRK,CGO,5 TON	1	8

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

1/1 INF

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 6

EVENT=CBT BUA | NO PERS= 147 PART | EVENT= 6.10 PRIORITY | DATE=8265 FROM | DATE=8265 THRU | NO= 1 UNITS | RANGE= 1 X 1 K REQ(OPTM) ACRES= 247 | RANGE= 1 X 1 K AVAIL ACRES= 247

DURATION= 12 HOURS

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	4	8
TRK,AMB,5/4 TON	1	8
TRK,CGO,2 1/2T	1	8

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR,M125,81MM	4	0	8
CARR,M106,107MM	4	0	8

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 73

UNIT= 1 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 7

EVENT=SQD ARTEP T | NO PERS= 147 PART | EVENT= 7.60 PRIORITY | DATE=8266 FROM | DATE=8266 THRU | NO= 14 UNITS | RANGE= 5 X 5 K REQ(OPTM) ACRES= 6175 | RANGE= 5 X 5 K AVAIL ACRES= 6175

DURATION= 16 HOURS

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	14	20
RECOV.VEH,M578	1	10
TRK,AMB,5/4 TON	1	10
TRK,CGO,2 1/2T	1	10
TRK,CGO,2 1/2T W	1	10

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR.M125,81MM	4	0	30
CARR.TOW	2	0	30

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OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

TRAINING PROGRAM

1/1 INF

19 SEPT 78

UNIT= 2 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 7

EVENT=PLT ARTEP T | NO PERS= 147 PART | EVENT= 7.40 PRIORITY | DATE=8267 FROM | DATE=8267 THRU | NO= 4 UNITS | RANGE= 5 X 5 K REQ(OPTM) ACRES= 6175 | RANGE= 5 X 5 K AVAIL ACRES= 6175

DURATION= 16 HOURS

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	14	20
RECOV.VEH,M578	1	10
TRK,AMB,5/4 TON	1	10
TRK,CGO,2 1/2T	1	10
TRK,CGO,2 1/2T W	1	10

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR.M125,81MM	4	0	30
CARR.TOW	2	0	30

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OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

1/1 INF

TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=FIELD TNG | LOCATION= TA 8

EVENT=ANTI ARMOR | NO PERS= 147 PART | EVENT= 7.70 PRIORITY | DATE=8270 FROM | DATE=8270 THRU | NO= 1 UNITS | DURATION= 8 HOURS | RANGE=10 X 10 K REQ(OPTM) ACRES= 24700 | RANGE=10 X 10 K AVAIL ACRES= 24700

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	14	40
RECOV VEH,M578	1	10
TRK,AMB,5/4 TON	1	10

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR.M125,81MM	4	0	20
CARR.TOW	4	0	10

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS
PYRO TECHS	400

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 1 CODE | TYPE=GARRISON TNG | LOCATION= COMP AREA

EVENT=EDRE PRAC | NO PERS= 166 PART | EVENT= 9.00 PRIORITY | DATE=8271 FROM | DATE=8271 THRU | NO= 1 UNITS | RANGE= X K REQ(OPTM) ACRES= 2.47 | RANGE= X K AVAIL ACRES= 2.47

DURATION= 8 HOURS

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	14	10
RECOV.VEH,M578	1	10
TRK,AMB,5/4 TON	1	10
TRK,CGO,2 1/2T	1	10
TRK,CGO,2 1/2T W	1	10
TRK,CGO,5 TON	1	10

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR.M125,81MM	4	0	10
CARR.TOW	4	0	10

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OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

TRAINING PROGRAM

1/1 INF

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 1 CODE | TYPE=FIELD TNG | LOCATION= TA 10

EVENT=FTX | NO PERS= 166 PART | EVENT= 8.90 PRIORITY | DATE=8272 FROM | DATE=8274 THRU | NO= 1 UNITS | RANGE=10 X 10 K REQ(OPTM) | RANGE=10 X 10 K AVAIL

DURATION= 64 HOURS | ACRES= 24700 | ACRES= 24700

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VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH
CARRIER,M113	14	70
RECOV.VEH,M578	1	40
TRK,AMB,5/4 TON	1	15
TRK,CGO,2 1/2T	1	0
TRK,CGO,2 1/2T W	1	40
TRK,CGO,5 TON	1	40

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN
CARR.M125,81MM	4	0	70
CARR.TOW	4	0	70

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.
GEN,>5KW,60HZ	1	44

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

1.00 BATTALION FIELD TRAINING DAYS

TRAINING PROGRAM

1/1 INF

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 1 CODE | TYPE=GARRISON TNG | LOCATION= MOTOR POOL

EVENT=ESC | NO PERS= 147 PART | EVENT= 8.80 PRIORITY | DATE=8268 FROM | DATE=8268 THRU | DURATION= 4 HOURS | NO= 1 UNITS | RANGE= X K REQ(OPTM) ACRES= 2.47 | RANGE= X K AVAIL ACRES= 2.47

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE ARTEP= 1 LEVEL OPT/REQ= 0 CODE TYPE=GARRISON TNG LOCATION= N/A

EVENT=PAYDAY ACT NO PERS= 166 PART EVENT= 5.20 PRIORITY DATE=8268 FROM DATE=8268 THRU NO= 1 UNITS RANGE= X K REQ(OPTM) RANGE= X K AVAIL

DURATION= 0 HOURS ACRES= 2.47 ACRES= 2.47

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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1/1 INF

TRAINING PROGRAM

19 SEPT 78

UNIT= 3 SIZE | ARTEP= 1 LEVEL | OPT/REQ= 0 CODE | TYPE=GARRISON TNG | LOCATION= COMP AREA

EVENT=PT | NO PERS= 166 PART | EVENT= 5.70 PRIORITY | DATE=8259 FROM | DATE=8265 THRU | NO= 1 UNITS | RANGE= 1 X 1 K REQ(OPTM) | RANGE= 1 X 1 K AVAIL

DURATION= 1 HOURS | ACRES= 247 | ACRES= 247

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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TRAINING PROGRAM

1/1 INF 19 SEPT 78

UNIT= 3 SIZE ARTEP= 1 LEVEL OPT/REQ= 1 CODE TYPE=GARRISON TNG LOCATION= N/A

EVENT=HOLIDAY NO PERS= 166 PART EVENT= 5.80 PRIORITY DATE=8250 FROM DATE=8250 THRU NO= 1 UNITS RANGE= X K REQ(OPTM) ACRES= 2.47 RANGE= X K AVAIL ACRES= 2.47

DURATION= 12 HOURS

VEHICLES

NOMENCLATURE	NO PART	AVG MI /VEH

WEAPONS

NOMENCLATURE	NO.	AVG RD /WPN	AVG MI. /WPN

OTHER EQUIPMENT

NOMENCLATURE	NO.	AVG MI/HR.

OTHER COSTS

NOMENCLATURE	COSTS

REMARKS

.01 BATTALION FIELD TRAINING DAYS

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GLOSSARY

ARTEP	-	Army Training and Evaluation Program
BFTD	-	Battalion Field Training Day
COBE	-	Command Operating Budget Estimate
EDRE	-	Emergency Deployment Readiness Exercise
FTX	-	Field Training Exercise
FORSCOM	-	US Army Forces Command
MACOM	-	Major Command
MOGAS	-	Motor Gas (Gasoline)
MVT	-	Movement
OMA	-	Organization Maintenance and Administration
PE	-	Practical Exercise
SOP	-	Standard Operating Procedure
SUE	-	Small Unit Evaluation
TMCS	-	Training Management Control System
TNG	-	Training
TOE	-	Table of Organization and Equipment
TOW	-	Tube launched, optically tracked, wire command-link guided missile system
TRADOC	-	US Army Training and Doctrine Command
ZBB	-	Zero Based Budgeting

FOOTNOTES

1. Raymond E. Miles, Theories of Management: Implications for Organizational Behavior and Development, McGraw-Hill Book Company, 1975, p. 8-29.

2. Lecture by General D. Starrey, CDR TRADOC, on 03 August 1978 at the Naval Postgraduate School, Monterey, California.

3. US Congress, House of Representatives, Committee on Appropriations, Subcommittee on Department of Defense Appropriations, Hearings, 88th Congress, 1st Session, 1963, p. 31.

4. Army Almanac, US Army Printing Office, Washington, DC, 1950, p. 114-143.

5. Table of Organization and Equipment, TOE 07047-H020, US Army Printing Office, Washington, DC, 19 , p. I-02-I-09.

6. Ibid.

7. Roland N. McKean, The Economics of Defense in the Nuclear Age, *Rand Corporation*, 1975, p. 45.

8. Joseph A. Pechman, Editor, Setting National Priorities, The 1978 Budget, Brookings Institute, Washington, DC, 1977, p. 29-48.

9. V. Thomas Dock, Editor, MIS A Managerial Perspective, "On the Nature of Mangement Information," Science Research Associates, Chicago, 1977, p. 73-78.

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11. Common Phrase which was used by numerous, *7th Division Training* Personnel during interviews conducted May-October 1978.

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15. HQ, US Army Training and Doctrine Command, DCSOPS, Management Information Systems Economic Analysis for TMCS, 15 November 1977, p. 2.

16. HQ, US Army Training and Doctrine Command, DCSOPS, Cost of Training Implementing Instructions for Qualification of Training Requirements and OMA Program 2 (Mission) Dollars, Letter of Instruction dated 26 April 1977, Inclosure 1.

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18. Users Manual, LOC. CIT., p. 2-3.

19. IBID., p. 1-1.

20. IBID., p. 2-1.

21. IBID., p. 2-1, 3-15, 3-18.

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