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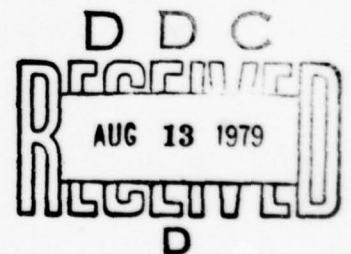
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STATUS OF UNIT TRAINING WITHIN USAREUR UNITS

Louise G. Yates

ARI FIELD UNIT IN USAREUR, GERMANY

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U. S. Army

Research Institute for the Behavioral and Social Sciences

April 1979

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Technical Director

WILLIAM L. HAUSER
Colonel, US Army
Commander

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Louise G. Yates

John F. Hayes, Team Chief

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Submitted by:
William W. Haythorn, Chief
ARI FIELD UNIT IN USAREUR, GERMANY

Approved By:

A. H. Birnbaum, Acting Director
ORGANIZATIONS AND SYSTEMS
RESEARCH LABORATORY

Joseph Zeidner
TECHNICAL DIRECTOR

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES
5001 Eisenhower Avenue, Alexandria, Virginia 22333

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Unit Training

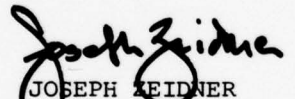
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FOREWORD

The Army Research Institute for the Behavioral and Social Sciences (ARI) maintains a field unit with the U.S. Army Europe (USAREUR) to conduct research to meet the special needs of USAREUR and to evaluate other research projects and products under front-line operational readiness requirements, with feedback leading to modification and refinements.

Recent USAREUR training policy has been directed toward maintaining sustained levels of critical combat-related skills, by continuous use of performance-oriented training methods and standards. This report presents data from a 1976 survey on the status of unit training in USAREUR, developed at the request of the 7th Army Training Command, USAREUR. Results have been the basis for developing programs and training policy in the Training Command. The results have also aided subsequent ARI research projects, by defining, for example, where additional research should be done. The survey was conducted under Army Project 2Q762722A764.


JOSEPH FEIDNER
Technical Director

STATUS OF UNIT TRAINING WITHIN USAREUR UNITS

BRIEF

Requirement:

To define the specific conditions that uniquely affect combat-arms unit training in the U.S. Army, Europe (USAREUR).

Procedure:

A questionnaire and interview survey during summer 1976 gathered information on training conditions from experienced company/battery commanders, battalion commanders, and S3s in 15 USAREUR infantry, armor, and field artillery battalions. Conditions investigated were: company/battery activities; training activity priorities, handicaps and constraints, resources, requirements, and methods and standards; and the commander's role in training and commander preparedness.

Findings:

Although more time was reported spent in combat-related company/battery training activities (75%) than commanders theoretically recommended (66%), commanders rated the amount of time available for combat-related training as inadequate to borderline. Quality of personnel and equipment were rated satisfactory to very satisfactory for most activities.

Training priorities varied widely; armor units gave first priority to gunnery training, other branches to the Army Training and Evaluation Program (ARTEP) and personnel programs. Many training handicaps were reported: command emphasis on nontraining programs; lack of personnel and crosstraining; constraints of limited training time, area, facilities, and funds; changing priorities; and nontraining missions. Most newly assigned enlisted and junior officer personnel needed additional training.

Training facilities seemed adequate. About a third of combat-related training can be done in garrison, and for half of that the garrison has most or all of the necessary features. Units spent an average 5.5 days a month at local training areas, which artillery commanders rated good for 70% of their training items, other branches for 51%. Units used major training areas about three times a year, rated the facilities good.

Two-thirds of the training materials listed had been used; materials were rated as adequate. Training literature was considered generally relevant, available, and adequate. Schools needed more flexibility in scheduling course quotas. Training ammunition supplies were rated as borderline.

Adequacy of training time was rated borderline, on the average; 73% of the commanders said they were able to schedule concurrent training. Most company/battery commanders reported initiating combat-relevant activities but few other activities. Schedule changes were a problem to 45% of the commanders. Most training (67%) was performance oriented, and 68% of the units used performance objectives standards. Field Manuals and Training Circulars were adequate.

The actual and idealized training roles corresponded well for company/battery commanders, not so well for battalion commanders. Commanders felt well prepared to use available weapons systems but expressed a need for more maneuver and field training with support systems and other branches, and for better unit training in maintenance of weapons systems.

Utilization of Findings:

The survey information was used by the 7th Army Training Command, USAREUR, for a variety of purposes, including the development of their programs and of training policy.

STATUS OF UNIT TRAINING WITHIN USAREUR UNITS

CONTENTS

	Page
INTRODUCTION	1
PURPOSE	1
METHOD	1
RESULTS	1
Company/Battery Activities	1
Training Activity Priorities	2
Training Handicaps and Constraints	2
Training Resources	3
Personnel	3
Facilities	3
Training Materials	4
Training Literature	4
Schools	4
Training Ammunition	4
Training Time	4
Training Requirements	5
Training Methods and Standards	5
Commander's Role in Training	6
Commander Preparedness	6
<u>TECHNICAL SUPPLEMENT</u>	7
INTRODUCTION	7
PURPOSE	7
METHOD	8
Subjects	8
Variables	9
Data Collection	10
RESULTS	10
Company/Battery Activities	10
Type of Activity, Combat Relevance, and Percentage of Duty Hours Involved	10
Quality of Training Personnel, Equipment, and Results . .	15

CONTENTS (Continued)

	Page
Training Activity Priorities	19
Training Handicaps and Constraints	23
Training Resources	25
Personnel	25
Facilities	37
Training Aids and Instruction	45
Training Literature	51
Schools	51
Training Ammunition	51
Training Time	57
Training Requirements	60
Initiators	60
Conflicts and Changes in Training Requirements	65
Training Methods and Standards	68
Performance-Oriented Training	72
ARTEP	77
Training Development Process	77
Commander's Role in Training	80
Battalion Commanders	80
Company/Battery Commanders	82
Commander Preparedness	86
APPENDIX A. PERCENTAGE OF NEWLY ASSIGNED E2 ENLISTED MEN WHO NEED ADDITIONAL TRAINING	89
B. COMBAT TRAINING CONDUCTED IN GARRISON	97
C. TRAINING CONDUCTED AT LTA	101
D. LTA AND MTA TRAINING LIMITATIONS	109
E. TRAINING AMMUNITION PROBLEMS	119
F. TRAINING SCHEDULE CHANGES AND ASSOCIATED PROBLEMS	123
G. COMMANDER SELF-PERCEIVED WEAKNESSES IN DEALING WITH THE MODERN BATTLEFIELD; SOLUTIONS	131
H. FREE RESPONSE COMMENTS OF BATTALION AND COMPANY COMMANDERS	137
DISTRIBUTION	153

CONTENTS (Continued)

	Page
LIST OF TABLES	
Table 1. Number of units in sample	8
2. Battalion commanders' time in current command	9
3. Company/battery commanders' experience levels	9
4. Infantry company activities for typical 60-day period	11
5. Armor company activities for typical 60-day period	12
6. Field artillery battery activities for typical 60-day period	13
7. Mean percentage of company/battery personnel duty time by combat relevance of activity	14
8. Percentage of company/battery time that should be devoted to combat-related training	15
9. Quality of training personnel, equipment, and results for infantry company activities	16
10. Quality of training personnel, equipment, and results for armor company activities	17
11. Quality of training personnel, equipment, and results for field artillery battery activities	18
12. Priorities for infantry activities as perceived by company commanders	20
13. Priorities for infantry activities as perceived by battalion commanders	20
14. Priorities for armor activities as perceived by company commanders	21
15. Priorities for armor activities as perceived by battalion commanders	21
16. Priorities for field artillery activities as perceived by battery commanders	22

CONTENTS (Continued)

	Page
Table 17. Priorities for field artillery activities as perceived by battalion commanders	22
18. Major handicaps to mission performance	24
19. USAREUR training constraints	24
20. Company/battery commander opinions on training problems	26
21. Average percentage of newly assigned enlisted men who need additional training	26
22. Percentage of personnel rotating during a 6-month period	28
23. Number of infantry company commanders reporting additional training needed for newly assigned enlisted men	29
24. Number of armor company commanders reporting additional training needed for newly assigned enlisted men	29
25. Number of field artillery battery commanders reporting additional training needed for newly assigned enlisted men	29
26. Titles for MOS listed in Tables 23-25	30
27. Percentage of newly assigned junior officers needing additional training	30
28. Major job skill areas in which junior officer performance needs to be improved--infantry units	31
29. Major job skill areas in which junior officer performance needs to be improved--armor units	32
30. Major job skill areas in which junior officer performance needs to be improved--field artillery units	33
31. Types of individual skill training given by infantry companies	34

CONTENTS (Continued)

	Page
Table 32. Types of individual skill training given by armor companies	35
33. Types of individual skill training given by field artillery batteries	36
34. Types of training infantry commanders received in past 6 months	38
35. Types of training armor company commanders received in past 6 months	38
36. Types of training field artillery battery commanders received in past 6 months	39
37. Percentage of personnel available for training on typical day in kaserne	39
38. Combat-related training--percentage that can be conducted in garrison facilities	40
39. Average number of days per month at LTA	40
40. Average number of times units trained at MTA during past 12 months	40
41. Adequacy ratings for garrison activities	42
42. Adequacy of garrison facilities for types of combat training	42
43. Adequacy ratings for LTA facilities	43
44. Adequacy of LTA facilities for types of infantry and armor training	43
45. Adequacy of LTA facilities for types of field artillery training	44
46. Summary of LTA training deficiencies	46
47. Difficulties in getting to an LTA	46
48. Adequacy of MTAs used in past 12 months	47
49. Use of training aids, devices, systems, job aids	48

CONTENTS (Continued)

	Page
Table 50. Frequency with which company/battery officers perform in TO&E roles in tactical collective training	50
51. Availability of relevant training literature	52
52. Percentage of relevant training literature to units by pin-point distribution	52
53. Control and distribution of training literature . . .	52
54. Adequacy of training literature	53
55. Adequacy of Vilseck quotas	53
56. Vilseck courses for which infantry quotas need to be increased	54
57. Vilseck courses for which armor quotas need to be increased	55
58. Vilseck courses for which field artillery quotas need to be increased	55
59. Adequacy of supply of live training ammunition . . .	56
60. Adequacy of pyrotechnic training ammunition	56
61. Adequacy of time available to conduct combat-related training	58
62. Major competitors (nontraining activities) for training time--infantry and armor units	58
63. Major competitors (nontraining activities) for training time--field artillery units	59
64. Adherence to 40-hour-week policy	59
65. Feasibility of 40-hour-week policy	59
66. Percentage of available tactical training time spent at various training levels--company/battery commanders	61

CONTENTS (Continued)

	Page
Table 67. Percentage of available collective gunnery/ equipment training/maintenance time spent at various training levels	61
68. Frequency of combined-arms training during past 6 months	61
69. Initiating agents for infantry company activities . .	62
70. Initiating agents for armor company activities . . .	63
71. Initiating agents for field artillery battery activities	64
72. Personnel setting up company/battery training schedule	66
73. Major sources of conflict among training directives	67
74. Average percentage of training directives in written form	67
75. Frequency of major changes in written training directives in past 6 months	69
76. Frequency of major changes in verbal training directives in past 6 months	69
77. Training schedule changes as cause of major training problems	70
78. Frequency of training schedule changes	70
79. Period of time covered by company/battery training schedules	71
80. Summary of causes of training schedule changes . . .	71
81. Regular users of FM-21-6	73
82. Personnel developing company performance objectives .	73
83. Adequacy of FM-21-6	74
84. Problems with application of methods of FM 21-6 . . .	74

CONTENTS (Continued)

	Page
Table 85. Problems with application of methods in FM-21-6 . . .	75
86. Adequacy of TC 21-5-1, "Training Management: An Overview"	76
87. Adequacy of TC 21-5-2, "Performance-Oriented Training"	76
88. Percentage of collective training in which ARTEP standards are used	78
89. Time of most frequent use of ARTEP standards	78
90. Adequacy of ARTEP evaluation standards	78
91. Company commander use of steps in training development process	79
92. Battalion commanders' self-perceived role in training	81
93. Levels at which major training activities should be conducted	81
94. Major activities in company/battery commander training role	83
95. Number of times company/battery commanders have personally conducted training in past 3 months	83
96. Unit trainers selected by company/battery commanders	84
97. Use of CABL systems by company/battery commanders . .	84
98. Results of installation of CABL system	85
99. Preparation of battalion commanders to deal with modern battlefield	87
100. Preparation of company/battery commanders to deal with modern battlefield	87
101. Percentage of company/battery commanders reporting problems with diversity and complexity of weapons systems	88

CONTENTS (Continued)

	Page
Table 102. Percentage of company/battery commanders reporting problems in training troops to handle new weapons systems	88
103. Percentage of company/battery commanders reporting problems with management of new weapons systems by company grade officers and NCOs	88
A-1. Percent of newly assigned E2 enlisted men who need additional training	89
A-2. Percent of newly assigned E3 enlisted men who need additional training	90
A-3. Percent of newly assigned E4 enlisted men who need additional training	91
A-4. Percent of newly assigned E5 enlisted men who need additional training	92
A-5. Percent of newly assigned E6 enlisted men who need additional training	93
A-6. Percent of newly assigned E7 enlisted men who need additional training	94
A-7. Percent of newly assigned E8 enlisted men who need additional training	95
B-1. Infantry combat training conducted in garrison--company commanders.	97
B-2. Armor combat training conducted in garrison--company commanders	99
B-3. Field artillery combat training conducted in garrison--battery commanders	100
C-1. Infantry training conducted at LTA--company commanders	101
C-2. Infantry training conducted at LTA--battalion commanders	103

CONTENTS (Continued)

	Page
Table C-3. Armor training conducted at LTA--company commanders	104
C-4. Armor training conducted at LTA--battalion commanders	105
C-5. Field artillery training conducted at LTA--battery commanders	106
C-6. Field artillery training conducted at LTA--battalion commanders	108
D-1. LTA limitations for infantry units	109
D-2. LTA limitations for armor units	110
D-3. ITA limitations for field artillery units	111
D-4. MTA limitations for infantry units	112
D-5. MTA limitations for armor units	115
D-6. MTA limitations for field artillery units	117
E-1. Major problems with requisition, allocation, and turnback of training ammunition--infantry units	119
E-2. Major problems with requisition, allocation, and turnback of training ammunition--armor units	120
E-3. Major problems with requisition, allocation, and turnback of training ammunition--field artillery units	121
F-1. Major causes of training schedule changes--infantry company commanders	123
F-2. Major causes of training schedule changes--armor company commanders	124
F-3. Major causes of training schedule changes--field artillery company commanders	125
F-4. Major causes of training schedule changes--infantry battalion commanders	126

CONTENTS (Continued)

	Page
Table F-5. Major causes of training schedule changes-- armor battalion commanders	126
F-6. Major causes of training schedule changes-- field artillery battalion commanders	126
F-7. Problems caused by training schedule changes-- infantry units	127
F-8. Problems caused by training schedule changes-- armor units	128
F-9. Problems caused by training schedule changes-- field artillery units	129
G-1. Infantry battalion commander self-perceived areas of weakness in dealing with the modern battlefield and suggested solutions	131
G-2. Armor battalion commanders self-perceived areas of weakness in dealing with the modern battlefield and commander suggested solutions	132
G-3. Field artillery battalion commanders self-perceived areas of weakness in dealing with the modern battlefield and commander suggested solutions	133
G-4. Infantry company commanders self-perceived areas of weakness in dealing with the modern battlefield and suggested solutions	134
G-5. Armor company commanders self-perceived areas of weakness in dealing with the modern battlefield and commander suggested solutions	135
G-6. Field artillery battery commanders self-perceived areas of weakness in dealing with the modern battlefield and commander suggested solutions	136

STATUS OF UNIT TRAINING WITHIN USAREUR UNITS

INTRODUCTION

This report describes the results of a survey of the employment, practices, and resources of unit training technology within U.S. Army, Europe (USAREUR), units. Certain environmental and operational training conditions in USAREUR are unique. Specifying those conditions will provide information of value in the design of training technology and in the development of management programs.

PURPOSE

The purpose of this survey was to define conditions that affect combat-arms training programs in USAREUR. Conditions surveyed were:

1. Company/Battery Activities
2. Training Activity Priorities
3. Training Handicaps and Constraints
4. Training Resources
5. Training Requirements
6. Training Methods and Standards
7. Commander's Role in Training
8. Commander Preparedness

METHOD

A representative sample of experienced combat-arms company/battery commanders, battalion commanders, and S3s from 15 USAREUR battalions were surveyed by questionnaire and interview.

RESULTS

Company/Battery Activities

Results of the survey show that both training and nontraining activities rated as fully relevant to combat mission involved an average of 75% of company/battery personnel duty time, whereas commanders recommended that 66% of duty time be devoted to combat-related activities. In spite of the correspondence between these two percentages, average ratings of the adequacy of time for combat-related activities ranged from inadequate to borderline.

Ratings of the quality of training personnel and equipment were satisfactory to very satisfactory for the majority of activities. Exceptions were MOS (Military Occupational Specialty) Upgrading, Garrison Activities, Defense Race Relations Institute, and certain mandatory subjects such as UCMJ (Uniform Code of Military Justice), Water Safety, etc., for training personnel and MOS Upgrading, MOS Qualification Training, Garrison Activities, IG (Inspector General) Inspection, and Mandatory Subjects for equipment.

The results of training activities were rated as satisfactory for the majority of infantry and armor activities, but field artillery units rated Individual Skill Training, Tactical Collective Training, Organizational Maintenance, General Educational Development (GED), Preparatory Educational Program (PREP), etc.; and MOS Upgrading, IG Inspection, and Garrison Activities as producing less than satisfactory results.

Substandard training personnel and equipment appear to be related to the unsatisfactory results from MOS Upgrading and Garrison Activities.

Training Activity Priorities

There was great variability among commander-reported priorities for unit activities. This variability may reflect different emphases in corps, division, brigade, and/or battalion, or it may reflect a system of unstable or poorly defined priorities providing commanders with no reliable means of determining priorities.

Certain trends were apparent when the data were averaged by branch and commander. Gunnery Training was reported as first priority by armor units. First- and second-priority items for other units were the Army Training and Evaluation Program (ARTEP), Personnel Programs, and Annual General Inspection/Operational Readiness Inspection (AGI/ORI). Tactical Training and Unit Administration were fifth or sixth priority.

Training Handicaps and Constraints

Commanders reported a large number of handicaps to training. Those reported by the largest number of commanders were command emphasis on nontactical programs, lack of personnel, lack of cross-training with other units, and constraints on training.

Constraints on training were reported by 50% of the commanders and were further defined. Constraints listed as a great hindrance were limited training time, limited training areas, irrelevant guard and support missions, changing priorities, lack of higher staff

coordination, conflicting priorities, limited funds, and limited training facilities. Several of the reported problems had not changed in the 2 years since a previous Army Research Institute (ARI) survey.

Training Resources

Personnel

Average percentages of newly assigned enlisted personnel who needed additional training decreased from 83% for E2 and 78% for E3 to 31% for E8. In a 6-month period, an average of 16% of enlisted personnel rotated, causing an influx of new people to be trained. MOS in which the majority of commanders reported a need for additional training were 63C (all branches); 11B, 11C, and 76Y for infantry units; 11E and 45N for armor; and 13B, 13E, 36K, and 63B for field artillery.

An average of 74% of combat arms and 54% of combat-support junior officers (01 and 02) needed additional training in many skills.

On a typical day in the kaserne, the percentage of personnel available for training varied from 35% to 85%, with an average for all units of 63%.

Facilities

Commanders reported that 38% of their combat-related training can be conducted in garrison, leaving 62% to be conducted at local training area (LTA) or major training area (MTA) facilities. Their units averaged 5.5 days per month at LTAs and conducted training an average of 3.1 times at an MTA during the preceding year. For 49% of the training conducted in garrison, the facilities were rated as having most or all of the features necessary for good training. For 44% of the items, garrison facilities had some of the features necessary.

Infantry/armor units rated LTA facilities as having most or all features necessary for good training for 51% of all training conducted there. Field artillery units gave this rating to 70% of their training items. LTA training deficiencies most frequently noted were space limitations, inappropriateness of terrain and vegetation, limitations in maneuver damage, in use of pyrotechnics, in number of vehicles, and in safety requirements. Major difficulties experienced in getting to an LTA were problems with availability of area, of time, and of personnel.

MTAs were given an average rating of "has most qualities necessary for my unit's training needs." Limitations cited were primarily in terms of space limitations, type of terrain, and area restrictions/controls.

Training Materials

Of the 23 items on a list of training materials obtainable from a USAREUR agency, 16 had been used by at least some units, and average adequacy ratings for the materials were satisfactory.

Training Literature

Commanders reported that relevant training literature was available most of the time, with an average of 75% of it coming by pinpoint distribution. Control and distribution of the literature was not a problem for most units, and the literature received was rated adequate.

Schools

Vilseck course quotas were found to be somewhat inadequate; commanders desired more flexibility in arranging times for filling the quotas.

Training Ammunition

Commanders rated adequacy of supply of live ammunition as borderline and supply of pyrotechnic ammunition as low borderline. The primary problems reported with regard to requisition, allocation, and turnback of ammunition were excessive leadtime in requisitioning, insufficient quantity allocated, misallocation, and administrative difficulties associated with turnback procedures.

Training Time

Average adequacy ratings for the amount of time available for combat-related training in the kaserne varied with the branches. Ratings ranged from inadequate according to field artillery (FA) commanders to borderline according to infantry (INF) commanders, to a low score in the adequate range from armor (AR) commanders. Average ratings for LTA and MTA were borderline. The majority of activities listed as competitors for training time were guard and support duties, inspections, personnel programs, ceremonies and holidays, and maintenance.

Only 20% of company/battery commanders reported that their units adhered to a 40-hour week, and 73% reported that they were able to schedule concurrent training effectively.

Training Requirements

The majority of company/battery commanders reported that they had an initiating role in activities relevant to their unit's combat mission. Few commanders reported an initiating role in other unit activities. These commanders viewed the initiating role for the majority of activities to be at battalion or company level, with little initiation coming from brigade, division or higher, or from the community.

Two sources of conflict and change in training requirements were reported by commanders. Forty-five percent of the commanders reported training schedule changes were a problem that occurred often. Considering that 90% of the training schedules of this group cover a short period--5 to 7 days--changes reported as "often" must reflect a real deficiency in ability to plan training in advance.

The scheduling changes were primarily caused by changes in tasks/commitments from higher headquarters, management problems, and changes in resource availability. Results of the scheduling changes were low morale and confusion among the soldiers, less time to prepare training, less adequate training, and disruption of the continuity of training.

Significant conflict between verbal and written directives and among various levels of written directives was reported by 23% of the commanders. Changes in directives occurred infrequently.

Training Methods and Standards

Commanders reported that performance-oriented training was used in an average 67% of training, and performance objectives were used in most or all training by 68% of the units. Three publications (FM 21-6, TC 21-5-1, and TC 21-5-2) on this type of training received average ratings of adequate, but 24% of company/battery commanders and 40% of battalion commanders reported that they and/or their men experienced difficulties with the use of FM 21-6. The majority of these problems involved difficulty understanding the concepts involved, instructors' resistance to the new technique, and lack of adequate planning time.

Ten steps in the training development process, ranging from analyzing the mission to conducting and evaluating training, were performed by the majority of commanders. Small to moderate percentages of commanders found certain steps--program and schedule training, determining current level of performance, and conducting training--difficult to accomplish at the company level.

Commander's Role in Training

Battalion commanders indicated quite a difference in role emphasis when listing their role activities. There was also a disparity between those activities listed in their actual role and those which battalion/company/battery commanders reported should be in the battalion commander's role. There was much more correspondence between the ideal and actual roles of company commanders.

Commander Preparedness

Both company/battery and battalion commanders reported that they were well prepared for integrated employment of available weapons systems and somewhat prepared for processing large data inputs. Most frequently mentioned weaknesses in dealing with the modern battlefield were insufficient training--the commanders expressed a need for more maneuver training, more field training, more battalion-level training, and more training with support elements and with combined arms.

Seventy-six percent of company/battery commanders reported a problem with maintenance of their diverse and complex new weapons systems, stating that personnel (officers and noncommissioned officers) were insufficiently trained for the amount and diversity of maintenance required.

TECHNICAL SUPPLEMENT

INTRODUCTION

In the past, training research in the U.S. Army has been conducted, by and large, in the context of an Army in the continental United States (CONUS). This has been productive in many respects for the Army as a whole. However, there is some evidence that lack of attention to the particular needs of segments of the Army located outside CONUS reduces the effectiveness of training programs in those areas. It has been suggested that the environmental and operational training conditions of Army areas outside CONUS need to be considered early in the design of training programs to be held there. Before that can be accomplished, environmental and operational conditions that affect training programs outside CONUS need to be defined.

This study deals with the largest U.S. Army area outside CONUS: the United States Army, Europe (USAREUR). The specific situation of USAREUR is unique in many respects: Units are widely dispersed; training areas are sometimes far from the units using them; it is necessary to operate with other nations' forces; being in a foreign culture produces certain operational constraints; and operational missions affect types of training utilized. The effect of these and other variables and constraints on USAREUR training programs needs to be specified for input to training and training management program development.

PURPOSE

The purpose of this study was to define conditions that affect combat arms training programs in USAREUR. Defining conditions will permit development of training programs for USAREUR combat-arms units that will improve training under USAREUR environmental and operational conditions. Specific conditions explored in the study are

1. Company/Battery Activities
2. Training Activity Priorities
3. Training Handicaps and Constraints
4. Training Resources
5. Training Requirements
6. Training Methods and Standards
7. Commander's Role in Training
8. Commander Preparedness.

METHOD

Subjects

A representative sample of 15 combat-arms battalions in USAREUR was used in the study. Sampling was done on a stratified basis to insure that each corps and division was represented (see Table 1).

Table 1

NUMBER OF UNITS IN SAMPLE

Type Battalion	V Corps		VII Corps		
	8th ID	3d AD	1st AD	1st ID	3d ID
INF	1	1	1	1	1
AR	1	1	1	1	1
FA	1	1	1	1	1

Brigades 75 and 76 and armored cavalry were not included in the sample population because their training conditions are beyond the scope of this study. Two samples were selected, the second for use as backup units in the event any of the initial sample battalion and company/battery commanders did not meet time-in-command specifications, or in case the units were not available during the time frame of the study. Accordingly, two substitutions were made.

To facilitate data collection, the field artillery battalions were chosen because they were near the selected armor and infantry battalions. There is no reason to suspect that they were not a representative sample of USAREUR field artillery units.

Subjects were battalion commanders, S3s, and two line-company commanders from each of the 15 battalions. Each commander had had sufficient command experience to respond to the questionnaire. All battalion commanders had been in present command at least 4 months, or the battalion S3 had been in office at least 6 months. Table 2 indicates that the average number of months in command was 8.9 for the battalion commanders. One infantry battalion commander had had a previous 9-month CONUS command.

Table 2

BATTALION COMMANDERS' TIME IN CURRENT COMMAND

	Range of Months	Average Number of Months
INF	7-15	10.4
AR	2-14	7.6
FA	2-15	8.8
Total	2-15	8.9

Table 3 shows that the company commanders in the sample were an experienced group, reflecting the overall increase in the level of experience among USAREUR company commanders. The overall average time in command was more than a year, and more than half (16) of the commanders averaged more than a year in one or more previous commands.

Table 3

COMPANY/BATTERY COMMANDERS' EXPERIENCE LEVELS

	Current Command		Number of Commanders with Previous Command	Average Number of Months in Previous Command
	Range of Months	Average Number of Months in Current Command		
INF	8-19	14.2	7	10.3
AR	4-21	11.8	6	14.5
FA	4-16	9.2	3	14.7
Total	4-21	13.4	16	12.8

Variables

Two questionnaires were designed to investigate the eight topics listed in the Purpose section of this report. One was for battalion commanders/S3s, and one was for company/battery commanders. Questionnaires were pretested and revised. Further data were collected by individual interviews with each commander.

Data Collection

Questionnaires were mailed to the respondents 2 weeks before the interviews and were collected from each commander at the start of his interview. In the majority of units, the S3 participated in the battalion commander's interview and had answered at least some of the battalion commander's questionnaire items. The interviews consisted of a review of and probing on questionnaire items and administration of additional questions more suited to interview format. Appendix H presents results of the interview questions.

RESULTS

The results of the survey are presented and discussed in sections corresponding with the eight topics examined. Unless otherwise specified, results are for the three branches (field artillery, armor, and infantry) combined and for the total number of commanders in the sample.

Company/Battery Activities

The following results deal with the type of activities of company/battery personnel, their relevance to combat mission, the percentage of personnel time spent in these activities, and the quality of training personnel, equipment, and results for the activities.

Type of Activity, Combat Relevance, and Percentage of Duty Hours Involved

The first 11 items listed in Tables 4 through 6 were given in the questionnaire, and the one "other" item in Table 5 was added by one armor company commander. Out of the 11 items comprising the original list of activities, only MOS Upgrading and IG Inspection were not indicated as activities by a majority of company/batteries.

Table 7 shows the percentage of personnel duty time spent on activities categorized by relevance to combat mission. Those activities rated as fully relevant to combat mission involve an average of 75% of personnel duty time.

Activities rated as moderately relevant to the combat mission involve an average of 7% of duty time. They were Physical Training (AR and FA), Motor Stables (AR), and MOS Upgrading (FA). (No infantry activity averages were in this category.)

Activity averages of little or no relevance were GED, PREP, etc.; Garrison Activities; and IG Inspection (INF, FA).

Table 4
 INFANTRY COMPANY ACTIVITIES FOR TYPICAL 60-DAY PERIOD

ACTIVITY	Percent of Total Duty Hours Per Unit		Avg. Relevance Ratings	Relevance to Combat Mission	Number of Respondents
	Range	Mean			
Individual Skill Training	2-20%	10%	4.0	9	9
Tactical Collective Training	5-37%	16%	4.0	9	9
Gunnery/Equipment Training	0-9%	5%	3.9	8	8
GED, PREP, etc.	0-7%	4%	2.1	9	9
Organizational Maintenance	7-30%	17%	3.9	9	9
Physical Training	4-10%	6%	3.9	9	9
MOS Qualification Training	0-43%	10%	3.6	7	7
MOS Upgrading	0-12%	3%	4.0	2	2
Garrison Activities (Guard, Etc.)	5-28%	16%	1.8	9	9
IG Inspection	0-18%	4%	2.0	2	2
Motor Stables	0-30%	9%	3.6	7	7

^a N=8
^b Rating Scale:
 4=Fully Relevant
 3=Moderately Relevant
 2=Little Relevant
 1=Not Relevant

Table 5
ARMOR COMPANY ACTIVITIES FOR TYPICAL 60-DAY PERIOD

ACTIVITY	Percent of Total Duty Hours Per Unit		Relevance to Combat Mission	Number of Respondents
	Range	Mean		
Individual Skill Training	6-40%	17%	4.0	9
Tactical Collective Training	4-28%	16%	4.0	9
Gunnery/Equipment Training	0-25%	11%	3.8	8
GED, PREP, etc.	0-6%	2%	2.4	9
Organizational Maintenance	18-29%	24%	4.0	9
Physical Training	1-9%	5%	3.4	9
MOS Qualification Training	0-9%	2%	3.5	8
MOS Upgrading	0-3%	1%	3.5	4
Garrison Activities (Guard, Etc.)	0-26%	11%	1.8	8
IG Inspection	0-18%	4%	2.7	3
Motor Stables	0-23%	6%	3.4	5
Other : ARTEP	0-6%	1%	4.0	1

^a N-8
^b Rating Scale:
4=Fully relevant
3=Moderately Relevant
2=Little Relevant
1=Not Relevant
^c Added to the original list of questionnaire items by one co cmdr.

Table 6

FIELD ARTILLERY BATTERY ACTIVITIES FOR TYPICAL 60-DAY PERIOD

ACTIVITY	Percent of Total Duty Time Per Unit		Mean ^a	Avg. Relevance ^b Rating	Relevance to Combat Mission	Number of Respondents
	Range					
Individual Skill Training	2-19%		10%	4.0		9
Tactical Collective Training	0-14%		7%	3.9		8
Gunnery/Equipment Training	1-24%		12%	4.0		9
GED, PREP., etc.	0-6%		1%	2.0		9
Organizational Maintenance	6-61%		29%	4.0		9
Physical Training	0-6%		3%	3.4		9
MOS Qualification Training	0-17%		6%	3.7		7
MOS Upgrading	0-14%		2%	3.4		5
Garrison Activities (Guard, etc.)	5-27%		14%	1.7		9
IG Inspection	0-17%		3%	2.0		1
Motor Stables	0-33%		13%	3.8		9

^aN=9

^bRating Scale:
 4=Fully Relevant
 3=Moderately Relevant
 2=Little Relevant
 1=Not Relevant

Table 7

MEAN PERCENTAGE OF COMPANY/BATTERY PERSONNEL DUTY TIME
BY COMBAT RELEVANCE OF ACTIVITY^a

Activity Relevance ^b	Mean			TOTAL
	INF	AR	FA	
Fully Relevant	76%	72%	77%	75%
Moderately Relevant	0%	15%	5%	7%
Little Relevant	24%	13%	18%	18%

^aThis table summarizes data from Tables 4, 5, and 6.

^bRelevance categories are: Fully Relevant = 3.5 - 4.0 average ratings

Moderately Relevant = 2.5 - 3.4 average ratings

Little Relevant = 1.0 - 2.4 average ratings

The highly relevant group of activities included all the combat-related training activities on the list. Therefore, average percentage of duty time--75%--spent on combat-related training can be compared with the percentage of company/battery time--66%--that commanders indicated should be devoted to that purpose (see Table 8). Although there were variations for individual units, for all units combined those averages indicate a close correspondence between the actual and recommended percentages. Nevertheless, commanders' ratings of the amount of time available for combat-related training ranged from inadequate to borderline. (See the Training Time section in this report.)

Table 8

PERCENTAGE OF COMPANY/BATTERY TIME THAT SHOULD BE DEVOTED TO COMBAT-RELATED TRAINING

Respondent	Range	Mean
Co/Btry Cdrs	20-100%	66%
Bn Cdrs	40-90%	66%

Quality of Training Personnel, Equipment, and Results

Tables 9 through 11 indicate the quality of training personnel, equipment, and results of training for company/battery activities. Company/battery commanders rated training personnel as satisfactory to very satisfactory for all activities except MOS Upgrading; Mandatory Subjects such as UCMJ, Reenlistment, Water Safety, etc.; Garrison Activities; and Defense Race Relations Institute.

The commanders rated training equipment as satisfactory to very satisfactory for all activities except MOS Upgrading, MOS Qualification Training, Garrison Activities, IG Inspection, and Mandatory Subjects.

The quality of the results of activities on the list was rated differently by the three branches. Infantry and armor company commanders rated the results of all but three activities as satisfactory, but field artillery commanders rated the results of six activities as borderline and one activity as unsatisfactory.

The field artillery activities with borderline results were Individual Skill Training; Tactical Collective Training; Organizational Maintenance; GED, PREP, etc.; MOS Upgrading; and IG Inspection. The first three of these activities were rated as highly relevant to combat mission. The field artillery activity rated as having unsatisfactory

Table 9

QUALITY OF TRAINING PERSONNEL, EQUIPMENT, AND RESULTS FOR INFANTRY COMPANY ACTIVITIES

Activity	Quality of					
	Training Personnel		Equipment		Results	
	Average Rating ^a	Number of Respondents	Average Rating ^a	Number of Respondents	Average Rating ^a	Number of Respondents
Individual Skill Training	4.0	9	3.7	9	3.7	9
Tactical Collective Training	4.1	9	4.1	9	3.9	9
Gunnery/Equipment Training	4.0	8	3.8	8	3.8	8
GED, PREP, etc.	4.1	8	-	-	4.1	9
Organizational Maintenance	4.0	9	4.0	8	3.9	8
Physical Training	4.5	9	3.8	9	3.2	9
MOS Qualification Training	4.1	8	3.8	8	3.6	8
MOS Upgrading	3.7	3	3.3	3	3.3	3
Garrison Activities (Guard etc.)	3.9	8	3.7	7	3.7	7
IG Inspection	4.0	2	-	-	4.0	2
Motor Stables	4.0	7	3.6	7	3.7	7
Other ^b : Mandatory Subjects; UCMJ, D/A, Reenlistment, Water Safety, Cold Weather, etc.	3.0	1	3.0	1	3.0	1
Headstart	5.0	1	-	0	4.0	1
Gateway	5.0	1	-	0	4.0	1
ED/HR	4.0	1	-	0	4.0	1

^aRating Scale: ^bAdded to the original list of questionnaire items by Co/Btry Commanders.

- 5 = Very Satisfactory
- 4 = Satisfactory
- 3 = Borderline
- 2 = Unsatisfactory
- 1 = Very Unsatisfactory

Table 10
 QUALITY OF TRAINING PERSONNEL, EQUIPMENT, AND RESULTS
 FOR ARMOR COMPANY ACTIVITIES

Activity	Training Personnel			Quality of Equipment			Results	
	Average Rating	Number of Respondents		Average Rating ^a	Number of Respondents		Average Rating	Number of Respondents
Individual Skill Training	4.3	9		4.0	6		4.2	9
Tactical Collective Training	4.3	9		4.0	7		4.2	10
Gunnery/Equipment Training	4.5	8		3.9	7		3.8	6
GED, PREP, etc.	4.1	7		-	-		3.6	7
Organizational Maintenance	4.2	9		4.1	7		4.3	8
Physical Training	4.0	8		4.0	4		4.1	8
MOS Qualification Training	3.9	8		3.3	6		3.4	7
MOS Upgrading	3.3	4		3.3	3		3.0	3
Garrison Activities (Guard etc.)	4.2	6		3.8	4		4.0	4
IG Inspection	4.5	2		-	-		3.0	3
Motor Stables	4.3	3		4.0	3		4.3	3
Other ^b : ARTEP	5.0	1		-	0		-	0

^aRating Scale:
 5 = Very Satisfactory
 4 = Satisfactory
 3 = Borderline
 2 = Unsatisfactory
 1 = Very Unsatisfactory

^bAdded to the original list of questionnaire items by co/btry commanders.

Table 11

QUALITY OF TRAINING PERSONNEL, EQUIPMENT, AND RESULTS
FOR FIELD ARTILLERY BATTERY ACTIVITIES

Activity	Training Personnel		Quality of Equipment		Results	
	Average Rating	Number of Respondents	Average Rating	Number of Respondents	Average Rating	Number of Respondents
Individual Skill Training	4.2	9	4.1	9	3.4	8
Tactical Collective Training	4.2	9	4.1	7	3.3	6
Gunnery/Equipment Training	4.2	9	4.2	9	3.8	8
GED, PREP, etc.	4.2	9	-	-	3.0	7
Organizational Maintenance	3.6	9	4.0	9	3.3	8
Physical Training	3.9	8	3.8	8	3.5	8
MOS Qualification Training	3.9	7	3.6	7	3.7	7
MOS Upgrading	3.4	5	3.8	5	3.4	5
Garrison Activities (Guard etc.)	2.5	6	3.4	5	2.0	6
I6 Inspection	3.5	2	-	-	3.0	2
Motor Stables	4.1	8	3.9	8	4.0	7
Other: Adventure Training	-	0	-	0	4.0	1
Defense Race Relations Institute	3.0	1	4.0	1	4.0	1
Nuclear Surety Inspections	5.0	1	4.0	1	4.0	1

^a Rating Scale:
5 = Very Satisfactory
4 = Satisfactory
3 = Borderline
2 = Unsatisfactory
1 = Very Unsatisfactory

^b Added to the original list of questionnaire items by co/btry commanders.

results was Garrison Activities, which also was rated as having borderline quality of training personnel and equipment.

Of the six field artillery activities rated as producing borderline results, MOS Upgrading also was listed as having borderline-quality training personnel. All other ratings of the quality of training personnel and equipment were satisfactory. The borderline quality of training results in these five areas must have causes other than the quality of training personnel and equipment.

Both infantry and armor commanders rated MOS Upgrading as having borderline training results. They also listed it as having borderline results for quality of training equipment and of training personnel. Thus, this area of training had a borderline quality of results for all three branches, and it appears that substandard personnel and equipment were contributing factors.

Other activities rated by armor and infantry units as having borderline results were Physical Training, Mandatory Subjects, MOS Qualification Training, and IG Inspection.

Training Activity Priorities

Company/battery and battalion commanders were asked to rank-order a list of six unit activities, based on where they felt the emphasis is currently being placed in USAREUR. Infantry and armor commanders ranked six activities; Tables 12 through 15 report the results.

Most field artillery commanders rated only five activities. Tables 16 and 17 present the results for those five items.

The most significant finding for all three branches is the great variability among commander rankings for the items. In only one group--armor company commanders--was there a significant relationship (coefficient of concordance, $W = .33$, $d = .01$) among individual commander ratings. This divergence of commander priority ratings may reflect differences in corps, division, brigade, and/or battalion emphasis, or it may reflect a system of unstable or poorly defined priorities, that gives commanders no reliable means of determining priorities. It is recognized that there is a conscious avoidance of prioritization in USAREUR, and these results reflect the operational perception of the commanders in terms of the various pressures and emphases they receive. Not assigning priorities means that not all matters will receive equal attention and results in widely diverse priorities as reflected in these results.

Individual armor commanders added three activities to the original six and ranked them with the original ones. The three additional activities are Maintenance (rank = 1), Race Relations and 2175 Report (rank = 1), and Discipline and Drug Abuse (rank = 5).

Table 12
 PRIORITIES FOR INFANTRY ACTIVITIES^a AS
 PERCEIVED BY COMPANY COMMANDERS

Activity	Average Rank Order	Range
Administration of Personnel Programs (e.g., CDAAC, PREP)	2.4	1-5
ARTEP Evaluation Results	2.9	1-5
AGI/ORI Results	3.4	2-6
Conduct of Tactical Training	3.9	1-6
Unit Administration	4.2	1-6
Conduct of Gunnery Training (e.g., Tank or TOW/Dragon)	4.3	2-6

^aThe six activities were rank-ordered with highest importance given a rank of 1 (one).

Table 13
 PRIORITIES FOR INFANTRY ACTIVITIES^a AS
 PERCEIVED BY BATTALION COMMANDERS

Activity	Average Rank Order	Range
Administration of Personnel Programs (e.g., CDAAC, PREP)	2.6	1-5
ARTEP Evaluation Results	2.6	1-5
Conduct of Gunnery Training (e.g., Tank or TOW/Dragon)	2.9	2-5
AGI/ORI Results	3.4	1-5
Conduct of Tactical Training	3.9	2-6
Unit Administration	5.6	4-6

^aThe six activities were rank-ordered with highest importance given a rank of 1 (one).

Table 14
 PRIORITIES FOR ARMOR ACTIVITIES^a AS
 PERCEIVED BY COMPANY COMMANDERS

Activity	Average Rank Order	Range
Conduct of Gunnery Training (e.g., tank or TOW/Dragon)	2.4	1-5.5
AGI/ORI Results	2.6	1-4
ARTEP Evaluation Results	3.1	2-5
Administration of Personnel Programs (e.g., CDAAC, PREP)	3.3	1-5.5
Unit Administration	4.8	2-6
Conduct of Tactical Training	4.9	2-6

^aThe six activities were rank-ordered with highest importance given a rank of 1 (one).

Table 15
 PRIORITIES FOR ARMOR ACTIVITIES^a AS
 PERCEIVED BY BATTALION COMMANDERS

Activity	Average Rank Number	Range
Conduct of Gunnery Training (e.g., Tank or TOW/Dragon)	2.8	1-6
AGI/ORI Results	3.3	2-4
ARTEP Evaluation Results	3.3	1-5
Conduct of Tactical Training	3.5	2-6
Administration of Personnel Programs (e.g., CDAAC, PREP)	3.8	2-5
Unit Administration	4.5	1-6

^aActivities were rank-ordered with highest importance given a rank of 1 (one).

Table 16

PRIORITIES FOR FIELD ARTILLERY ACTIVITIES^a AS
PERCEIVED BY BATTERY COMMANDERS

Activity	Average Rank Order	Range
Administration of Personnel Programs (e.g., CDAAC, PREP)	2.2	1-4
AGI/ORI Results	2.3	1-5
ARTEP Evaluation Results	2.9	1-5
Unit Administration	3.7	2-5
Conduct of Tactical Training	3.9	1-5

^aActivities were rank-ordered with highest importance given a rank of 1 (one).

Table 17

PRIORITIES FOR FIELD ARTILLERY ACTIVITIES^a AS
PERCEIVED BY BATTALION COMMANDERS

Activity	Average Rank Order	Range
AGI/ORI Results	2.2	1-3
ARTEP Evaluation Results	2.6	1-4
Administration of Personnel Programs (e.g., CDAAC, PREP)	3.0	2-4
Conduct of Tactical Training	3.2	1-5
Unit Administration	4.0	1-5

^aActivities were rank-ordered with highest importance given a rank of 1 (one).

Only five items were ranked by all field artillery battery and battalion commanders, because some commanders omitted Gunnery Training from their ratings. (This was probably an artifact of the questionnaire; the example listed tank and heavy antitank TOW gunnery but not artillery.) Battery commanders added two activities: Nuclear Surety Inspection (two ranks of 1) and Special Weapons (rank = 1). Battalion commanders added Nuclear Surety Inspection (ranks of 1, 1, and 2). Gunnery Training was rated by three battery and four battalion commanders with average ranks of 4.8 and 1.3, respectively.

Several trends were noted in the combined data based on branch averages. Again it should be noted that these averages were based on wide variability of response. Unit Administration was in fifth or sixth priority (fourth or fifth for field artillery) for all six commander groups (i.e., company/battery and battalion commanders of the three branches). Tactical Training was in fifth or sixth priority for four of the groups. In first and second priority were ARTEP (four groups), Personnel Programs (three groups), and AGI/ORI (four groups). Gunnery Training was in first place for the two armor groups.

Training Handicaps and Constraints

Company/battery and battalion commanders were given a list of six possible training handicaps. They were to indicate those that were major handicaps to their training, if any, and list other handicaps that they thought were important. Table 18 presents the results.

Four commanders indicated that there were no major handicaps to their units' training. All other commanders checked at least one handicap. Of the listed handicaps, Constraints on Training was checked by the largest percentage of respondents (57%). The next largest percentage of respondents, 50%, listed Command Emphasis on Nontactical Programs. The next grouping, checked by 25% of commanders, were Lack of Personnel and Lack of Cross-Training with Other Units. Lack or Poor Condition of TO&E (standard issue) Equipment was indicated by 16% of commanders as a handicap, and Lack of Definition of Mission was checked by one commander.

Table 19 further defines Constraints on Training. Commanders rated nine constraints according to how much they hindered effective training. Two constraints, Limited Training Time and Limited Training Areas, were rated in the great hindrance range. Four others had average ratings in the moderate hindrance range. Three of these were personnel constraints. The other was Limited Training Ammunition. All other constraints were in the little hindrance range.

Company/battery commanders were asked to indicate the extent of their agreement with six statements derived from comments of other company/battery commanders in previous research regarding training problems. Results indicated that training conditions had not changed

Table 18
MAJOR HANDICAPS TO MISSION PERFORMANCE

Handicap	Percent of Total Respondents ^a
Constraints on Training (see Table 19)	57%
Command Emphasis on Non-Tactical Programs	50%
Lack of Personnel	25%
Lack of Cross Training with Other Units	25%
Lack or Poor Condition of TO&E Equipment	16%
Lack of Definition of Mission	2%
None	9%

^aTotal number of respondents = 44

Table 19
USAREUR TRAINING CONSTRAINTS

Constraint	Average Hindrance Rating ^a	Number of Respondents
Limited Training Time	3.5	45
Limited Training Areas	3.5	45
Limited Personnel Availability	3.2	45
Loss of Key Personnel	2.9	45
Lack of Qualified NCOs	2.8	44
Limited Training Ammunition	2.9	45
Limited Training Aids	2.4	45
Absence or Counterproductivity of Training Policy	2.1	44
Limited Training Guidance	1.6	44

^aRating Scale:

3.5-4.0 = Great Hindrance
 2.5-3.4 = Moderate Hindrance
 1.5-2.4 = Little Hindrance
 1.0-1.4 = No Hindrance

appreciably in the 2 years since the previous study. From 52% to 69% of the commanders agreed or very much agreed with four of the statements, and 34% and 35% agreed with the other two statements (see Table 20). Those problems with highest agreement were personnel unavailability for training, training programs being set aside for "crash" programs, commander's workload being too heavy, and unit readiness level not being maintained.

Training Resources

This section deals with the adequacy of different types of training resources, all of them important in achieving and maintaining a high level of combat readiness. Types of resources covered are personnel, facilities, aids, literature, schools, ammunition, time, and guidance.

Personnel

This category includes adequacy of training of personnel newly assigned to units, adequacy of training offered to personnel while in their units, and adequacy of personnel availability for training. All results are from company/battery commander questionnaires.

Adequacy of Training of Newly Assigned Personnel. Commanders reported on the percentage of newly assigned enlisted personnel who needed additional training. In Appendix A, Tables A-1 through A-7 list the individual commander responses. With certain exceptions, there is wide variability of commander response for all grades and types of MOS when more than two respond. Either there is great variability in the adequacy of training of newly assigned personnel in the different units, or there is great variability in company/battery commanders' ability to estimate the percentage of newly assigned personnel who need additional training, or both. There was little variability of commander responses for E2 and E3 personnel in the infantry and field artillery units and for E6, E7, and E8 personnel in the armor units.

Table 21 gives average percentages for all grades as grouped by branch and type of MOS.

As Table 21 shows, there is some variability among branches, but within branches and for averages over all branches there is a definite trend for percentages to decrease as grade increases. This trend is apparent in both combat and support MOS. Overall averages, weighted by number of respondents, decrease from 83% for E2 and 78% for E3 to 31% for E8 enlisted men. Despite this decrease and the company differences in percentage reported, it is obvious that company/battery commanders must devote a considerable amount of time and resources

Table 20

COMPANY/BATTERY COMMANDER OPINIONS ON TRAINING PROBLEMS

Statement	Agree or Very Much Agree	Borderline	Disagree or Very Much Disagree
Personnel Unavailability Hampers Training	69%	28%	3%
Training Programs Are Set Aside for Crash Programs	65%	14%	21%
Company Commander Has Too Heavy A Work Load	55%	17%	28%
Unit Readiness Level Is Not Being Maintained	52%	17%	31%
Differing Policy Statements Are a Problem	35%	24%	41%
Company Commanders Have Little or No Control Over Planning Training	34%	45%	21%

Total number of respondents = 29

Table 21

AVERAGE PERCENTAGE OF NEWLY ASSIGNED ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Grade						
		E2	E3	E4	E5	E6	E7	E8
Combat	INF	89%	89%	66%	66%	59%	43%	18%
	AR	68%	64%	46%	47%	31%	25%	06%
	FA	99%	89%	68%	49%	32%	65%	62%
	Average	85%	80%	60%	54%	42%	43%	27%
Support	INF	77%	72%	58%	51%	55%	41%	37%
	AR	67%	64%	49%	52%	50%	25%	--- ^b
	FA	99%	94%	71%	52%	39%	90% ^a	90% ^a
	Average	80%	76%	59%	52%	48%	43%	50%

^aBased on response of only one commander.^bNo respondents

to training of newly assigned soldiers. Commanders report that in a 6-month period, an average of 16% of their enlisted personnel rotate, causing an influx of newly assigned people to be trained (see Table 22).

Tables 23 through 25 indicate MOS for which newly assigned enlisted personnel need additional training. Those MOS for which, over all grades, the largest number of commanders indicated a need for additional training varied with branch except for 63C, Track Vehicle Mechanic. Many commanders in all branches reported a need for additional training of track vehicle mechanics. Other MOS reported by most commanders as requiring additional initial training were 11B, 11C, and 76Y for infantry; 11E and 45N for armor; and 13B, 13E, 36K, and 63B for field artillery. Table 26 identifies titles of MOS listed in Tables 23 through 25.

When company/battery commanders reported on the percentage of newly assigned junior officers (01 and 02) who needed additional training, the overall average was 74% for combat-arms officers and 54% for combat-support officers (see Table 27). Differences among commanders' ratings was great, ranging from percentage categories of 0-10% to 91-100%.

Major job skill areas in which junior officer performance needed improvement are listed in Tables 28 through 30. Infantry commanders listed a total of 38 job skills that were classified into eight categories, and armor commanders listed a total of 29 skills. The majority of skills required for both infantry and armor were in tactics, maintenance, and personnel. Field artillery commanders listed a total of 21 skills. Their responses were more evenly distributed across delivery and adjustment of fire, general management, administration, personnel, and maintenance.

Training Offered to Personnel While in Their Units. Commanders reported here on types of individual skill training offered by the units and types of training that company/battery commanders receive. The types of skill training offered by the majority of infantry units (see Table 31) can be classified as individual soldiering skills, weapons, and maintenance. A total of 40 skills was listed.

Table 32 indicates that armor company commanders listed 29 skills, the majority of which were in weapons, individual MOS training, and nuclear, biological, and chemical (NBC) areas.

As Table 33 shows, the majority of the 55 skills for which training was offered by field artillery units were categorized as weapons/equipment, individual soldiering skills, general training, and nuclear, biological, and chemical (NBC).

Table 22
 PERCENTAGE OF PERSONNEL ROTATING DURING A 6-MONTH PERIOD

Rank	INF		AR		FA		Number of Company/Battery Commanders				Average Percent for Total Respondents
	Range	Mean	Range	Mean	Range	Mean	INF	AR	FA	TOTAL	
E2	0-50%	22%	1-10%	5%	0-20%	7%	6	3	7	16	12%
E3	2-50%	18%	0-25%	13%	1-20%	12%	8	7	8	23	14%
E4	6-50%	30%	5-30%	18%	10-40%	27%	8	8	8	24	25%
E5	5-30%	18%	5-40%	18%	0-50%	15%	9	7	8	24	18%
E6	0-30%	13%	2-15%	10%	0-50%	16%	9	7	10	26	13%
E7	0-25%	13%	0-5%	3%	0-100%	29%	9	3	7	19	17%
E8	0-20%	3%	0%	0%	0-100%	23%	7	2	5	13	11%
O1	0-33%	21%	1-50%	26%	0-50%	24%	7	2	5	14	23%
O2	0-25%	10%	0%	0%	1-100%	38%	6	1	4	10	21%

Table 23

NUMBER OF INFANTRY COMPANY COMMANDERS REPORTING ADDITIONAL
TRAINING NEEDED FOR NEWLY ASSIGNED ENLISTED MEN

Grade	MOS							
	11E	11C	31B	31G	63C	63F	76S	76Y
E2	10	8	1	0	6	1	1	5
E3	10	8	1	2	4	2	0	5
E4	10	8	1	0	4	0	1	5
E5	10	7	1	0	4	0	0	3
E6	9	4	1	0	2	0	0	3
E7	7	5	0	0	0	0	0	0
E8	4	0	0	0	0	0	0	0

Table 24

NUMBER OF ARMOR COMPANY COMMANDERS REPORTING ADDITIONAL
TRAINING NEEDED FOR NEWLY ASSIGNED ENLISTED MEN

Grade	MOS								
	11E	31B	45K	45N	63C	63F	76D	76S	76Y
E2	8	1	0	2	6	0	0	1	2
E3	7	1	1	2	7	0	0	1	1
E4	8	1	0	4	6	0	1	0	1
E5	8	0	0	1	5	1	1	0	0
E6	7	0	0	0	0	0	0	0	0
E7	4	0	0	0	1	0	0	0	0
E8	2	0	0	0	0	0	0	0	0

Table 25

NUMBER OF FIELD ARTILLERY BATTERY COMMANDERS^a REPORTING ADDITIONAL
TRAINING NEEDED FOR NEWLY ASSIGNED ENLISTED MEN

Grade	MOS										
	13B	13E	13Z	31G	52B	63B	63C	63K	76P	76Y	94B
E2	9	6	0	0	1	3	4	1	4	4	1
E3	8	6	0	0	1	4	5	1	2	2	2
E4	6	5	0	0	1	2	3	0	1	1	1
E5	7	5	0	1	0	2	1	0	2	2	0
E6	4	0	0	0	0	1	1	0	2	2	1
E7	3	0	0	0	0	0	0	0	0	0	0
E8	0	0	3	0	0	0	0	0	0	0	0

^aTotal number of respondents = 9.

Table 26

TITLES FOR MOS LISTED IN TABLES 23-25

11B	Infantryman
11C	Indirect Fire Infantryman
11E	Armor Crewman
13B	Field Artillery Crewman
13E	Field Artillery Cannon Operation/Fire Direction
13Z	Field Artillery Cannon Senior Sergeant
13B	Field Communications-Electronic Equipment Mechanic
31G	Tactical Communications Chief
36K	Tactical Wire Operations Specialist
45K	Tank Turret Repairman
45N	Tank Turret Mechanic
52B	Power Generation Equipment Operator/Mechanic
63B	Wheel Vehicle Mechanic
63C	Track Vehicle Mechanic
63F	Recovery Specialist
63K	QM Heavy Equipment Repairman
76D	Material Supplyman
76P	Stock Control Supplyman
76S	Vehicle Material Supply Specialist
76Y	Unit/Organization Supplyman
94B	Food Service Specialist

Table 27

PERCENTAGE OF NEWLY ASSIGNED JUNIOR OFFICERS
NEEDING ADDITIONAL TRAINING

Rank	Branch	Average Percent	Total Number Respondents
Combat MOS	INF	77%	9
	AR	54%	6
	FA	90%	6
	TOTAL	74%	21
Support MOS	INF	37%	7
	AR	49%	4
	FA	88%	4
	TOTAL	54%	15

Table 28

MAJOR JOB SKILL AREAS IN WHICH JUNIOR OFFICER
PERFORMANCE NEEDS TO BE IMPROVED--INFANTRY UNITS

Skill Area	Number of Co Cdr Responses	
	Category Total	Each Item
Tactics	16	
Mounted Land Navigation		6
Tactics		1
Platoon Tactics		1
Squad Tactics		1
Tactical Employment of Mechanized Infantry or Weapons Platoon		1
Control of Fire Power		1
Platoon Battle Position		1
Anti-Tank Warfare		1
Mechanized Mounted Operations		1
Emplacement of Vehicles and Crew Served Weapons		1
Employment of Infantry/Armor Weapons System		1
Maintenance	7	
Maintenance Management		3
Vehicle Maintenance		1
Maintenance Crew Served Weapons		1
50 Caliber Machine gun Maintenance		1
APC Automatic Maintenance		1
Personnel	6	
Leadership		1
Personnel Management Platoon Level		1
Authoritative Management		1
Counselling and Handling of NCOs		1
Relationships with NCOs, Working and Social Rudiments of NCO Management		1
General Management	3	
Decision Process		1
Supply Management		1
Training Management		1
Weapons	2	
Weapons Operation of 50 Caliber Machine Gun		1
Crew Served Weapons		1
NBC	2	
NBC Warfare		2
Administration	1	
Writing Ability		1
General	1	
Practical Troop Experience		1

Table 29

MAJOR JOB SKILL AREAS IN WHICH JUNIOR OFFICER PERFORMANCE
NEEDS TO BE IMPROVED--ARMOR UNITS

Skill Area	Number of Co Cdr Responses	
	Category Total	Each Item
Tactics	10	
Tactics		5
Land Navigation/Map Reading		4
Vehicle Commander		1
Maintenance	6	
Vehicle Maintenance		1
Maintenance of Equipment		1
Maintenance Records		1
Maintenance Management		3
Personnel	4	
Leadership and Counselling Techniques		3
Race Relations		1
Administration	3	
Budgeting Time		1
Administration		1
The Enlisted System		1
Gunnery	2	2
General Management	1	
Management of Resources		1

Table 30

MAJOR JOB SKILL AREAS IN WHICH JUNIOR OFFICER PERFORMANCE
NEEDS TO BE IMPROVED--FIELD ARTILLERY UNITS

Skill Area	Number of Btry Cdr Responses ^a	
	Category Total	Each Item
Delivery and Adjustment of Fire	5	
Fire Direction Procedures		2
Forward Observer Practical Experience		2
Fire Support Planning Practical Experience		1
General Management	4	
Training Management		1
Supply Management		3
Administration	4	
Military Correspondence		1
Effective Writing		1
Army Orientation		1
Physical Security		1
Personnel	4	
Counseling Techniques		1
Leadership Techniques		1
Supervision		1
Experience in Dealing with Troop Problems		1
Maintenance Management and Supervision	3	3
Communications	1	1

^aTotal number of respondents = 9

Table 31

TYPES OF INDIVIDUAL SKILL TRAINING GIVEN BY
INFANTRY COMPANIES

Type Training	Number of Company Responses ^a	
	Each Item	Category Total
Individual Soldiering Skills		15
MILSTAKES	1	
EIB Subjects	4	
Drivers' Training	1	
Map Reading	2	
Compass Course	1	
Battlefield Survival	1	
Rappelling	1	
Adventure Training	1	
First Aid	1	
Physical Training	2	
Weapons		10
Weapons Proficiency	2	
Weapons Firing	1	
Weapons Familiarity	1	
Weapons Assembly and Disassembly	1	
TOW Training	1	
DRAGON Training	1	
Grenade Training	1	
Mines and Demolitions	1	
M18A1 Mine Employment	1	
Maintenance		7
Maintenance	3	
TOW Maintenance	1	
LLC Mortar Maintenance	1	
Mechanics	1	
Armorer	1	
Tactics		3
Indirect Fire Crew Drill	1	
Light Weapons Drill with Live Fire	1	
Camouflage	1	
NBC		3
Supply		1
Intelligence		1

^aTotal number of respondents = 9

Table 32

TYPES OF INDIVIDUAL SKILL TRAINING
GIVEN BY ARMOR COMPANIES

Type Training	Number of Company Responses Each Item	Category Total
Weapons		11
Weapons Familiarization	3	
Weapons Qualification	3	
Weapons Firing	2	
Gunnery Crew Duties	3	
Individual MOS Training		7
NBC		4
Tactics		
Land Navigation/Map Reading	3	
Maintenance		2
Communication		1
Field Sanitation		1

Table 33

TYPES OF INDIVIDUAL SKILL TRAINING GIVEN BY
FIELD ARTILLERY BATTERIES

Type Training	Number of Company Responses	
	Each Item	Category Total
Weapons/Equipment		21
Weapons Qualification	1	
Crew Served Weapons	1	
Small Arms	1	
Individual Weapons	3	
Gunners	2	
M203, M16 Rifle Grenade Launcher	1	
M79, 40mm Grenade Launcher	1	
M60, Machine Gun	1	
M16, Rifle	1	
M1911A1, 45 Caliber Pistol	1	
M2, Compass	1	
13E, FA Cannon Operation/Fire Direction Assistant	1	
Cannoneer	3	
Fire Direction Controller	3	
Individual Soldiering Skills		16
Map Reading	3	
Camouflage	3	
Drivers Training	4	
First Aid	4	
13B, Field Artillery Crewman	1	
FA Specialist Testing	1	
General Training Areas		7
Augmentation Reserve Force	1	
Military Justice	1	
Code of Conduct	2	
Ammunition Handling	2	
Field Sanitation	1	
NBC		6
Tactics		2
Infantry Tactics	1	
Section Drill	1	
Intelligence		1
Communications		1
Field Wireman	1	
Maintenance		1

Types of training company/battery commanders had received during the 6 months preceding the survey covered topics that ranged from combat-type training to courses on division history. A large number of topics was reported--22 for infantry, 25 for armor, and 32 for field artillery--but the majority of topics were reported by only one, two, or three commanders. Exceptions to that pattern were tactics, maintenance, and, for field artillery, the company commander's course, and military justice. Tables 34 through 36 present the results.

Personnel Availability for Training. Commanders' estimates on the percentage of personnel available for training on a typical day in a kaserne varied from 35% to 85%, with an average for all respondents of 63% (see Table 37).

Facilities

This section presents survey results concerning garrison, LTA, and MTA facilities in USAREUR. It covers the type of combat training conducted in each facility, adequacy of the facilities for each type of training, LTA and MTA training deficiencies, and difficulties encountered in getting to LTAs. Adequacy of time devoted to combat-related training at the various facilities is presented in the section on "Training Time." Company/battery commanders reported that 38% of combat-related training can be conducted in garrison facilities (see Table 38), leaving 62% to be conducted at LTA and MTA facilities.

Company/battery commanders reported spending an average of 5.5 days per month at LTA facilities (see Table 39) and to have trained at an MTA an average of 3.1 times during the preceding year (see Table 40).

Garrison. In Appendix B, Tables B-1 through B-3 (for infantry, armor, and field artillery, respectively) indicate the types of individual combat training conducted in garrison, showing the average adequacy rating of garrison facilities for each skill and the number of companies/batteries that reported training for each skill.

Many of the topics listed, of course, could be covered only partially in a garrison setting. The low number of respondents for most items indicates the limited extent to which most of the topics are addressed in garrison. The associated adequacy ratings are based on the number of respondents and deal with the adequacy of facilities only for that portion of the topic addressed.

The only topics reported to have been addressed by more than three infantry company commanders in garrison were weapons crew training, NBC, and physical training (PT). For armor, more than three company commanders reported training on tactics, gunnery, NBC, and communications. In field artillery, fire direction center drills and communications training were reported by more than three battery commanders.

Table 34

TYPES OF TRAINING INFANTRY COMPANY COMMANDERS
RECEIVED IN PAST 6 MONTHS

Type of Training	Number of Respondents Receiving Training
Tactics	10
Intelligence	3
Personal Affairs	3
Maintenance	1
NBC	1
EOHR	1
Company Commander Course-Villseck	1
Administrative Programs	1
Division History	1
Total	22
None	1

Table 35'

TYPES OF TRAINING ARMOR COMPANY COMMANDERS
RECEIVED IN PAST 6 MONTHS

Type of Training	Number of Respondents Receiving Training ^a
Tactics	5
Maintenance	4
NBC	2
Company Commander Course	2
Briefing/Demonstrations	2
Officer/NCO Classes	2
Race Relations	2
Drug/Alcohol	2
Gunnery	1
Electronic Warfare	1
Helicopter	1
Property Accounting	1
Total	25

^aTotal number of respondents = 8

Table 36

TYPES OF TRAINING FIELD ARTILLERY BATTERY COMMANDERS
RECEIVED IN PAST 6 MONTHS

Type of Training	Number of Respondents Receiving Training
Company Commander Course	5
Military Justice	4
Battalion Officer/NCO Classes	3
Soviet Weapons	3
Special Weapons	2
Security	2
Maintenance	2
First Aid	2
Race Relations	2
Weapons Assembly	1
Intelligence	1
Drown Proofing	1
General Starry Tapes	1
Drug/Alcohol	1
Gateway	1
SIDPERS	1
Total	32

Table 37

PERCENTAGE OF PERSONNEL AVAILABLE FOR TRAINING ON
TYPICAL DAY IN KASERNE^a

Branch	Range	Mean	Number of Co/Btry Cdr Respondents
INF	35-70%	56%	10
AR	60-85%	73%	9
FA	40-82%	62%	10

^aEstimated by Co/Btry Commanders

Table 38

COMBAT-RELATED TRAINING--PERCENTAGE THAT CAN
BE CONDUCTED IN GARRISON FACILITIES^a

Branch	Range	Mean	Number of Respondents
INF	7-70%	43%	10
AR	25-65%	28%	9
FA	17-80%	41%	10

^aEstimated by Co/Btry Commanders

Table 39

AVERAGE NUMBER OF DAYS PER MONTH AT LTA^a

Branch	Range of Days	Average Number of Days
INF	2-20	7.5
AR	2-8	4.5
FA	2-12	4.4

^aEstimated by Co/Btry Commanders

Table 40

AVERAGE NUMBER OF TIMES UNITS TRAINED AT MTA
DURING PAST 12 MONTHS

	INF	AR	FA	TOTAL
Average Number of Times	3.7	2.9	2.8	3.1
Total Respondents	9	10	10	29

Table 41 shows the percent of items for each adequacy rating category for all branches combined. For 49% of the items, garrison facilities were rated as having most or all of the features necessary for good training. For 44% of the items, garrison facilities had some of the features necessary; for 7% of items, garrison facilities had none of the features for good training.

In spite of the wide diversity of the individual training subjects conducted in garrison, the subjects could be grouped into training categories such as tactics, weapons, and maintenance. Table 42 presents adequacy ratings for these categories. Ratings ranged from a low of 1.9 (some features necessary) for gunnery to 3.0 (most features necessary) with an average of 2.5, a rating at the low end of the has-most-features range.

Local Training Areas. In Appendix C, Tables C-1 through C-4 show for infantry and armor units the individual combat training skills conducted at LTAs, LTA adequacy ratings, and number of respondents--i.e., of company/battery and battalion commanders who reported conducting training for each skill. Results are discussed separately for field artillery units, because there was a significant difference between adequacy ratings for field artillery as compared with infantry/armor ratings. Table 43 gives percentages of items for each adequacy rating category for the two groups. There were no significant differences between company/battery and battalion commanders for any of the groups.

The infantry/armor units rated LTA facilities as having most or all features necessary for good training for 51% of the training conducted there. The average rating of LTA adequacy for all items was 2.5, a rating in the low most-features-necessary range (see Table 44). This is the same average rating given to garrison facilities by the three branches. When the individual training items were grouped by type of training, average ratings for the groups varied from the has-some-features range for tactics, NBC, and classroom training to the has-all-features-necessary range for intelligence training.

Field artillery units rated LTA facilities as having most or all features necessary for good training for 70% of their training items (see Table 43). Average ratings for training item groups are given in Table 45. Averages ranged from some to all features with four of the eight averages in the all features range. Those four were Special Weapons, Maintenance, Communications, and Individual Soldiering Skills. LTA facilities were rated as having most features necessary for all rating items combined. Appendix C, Tables C-5 and C-6, shows ratings given the facilities for individual training items by battery and battalion commanders.

Table 41

ADEQUACY RATINGS FOR GARRISON ACTIVITIES

Percent of Activities Adequacy Rating ^a				Total Number of Activities
4.0-3.5	3.4-2.5	2.4-1.5	1.4-1.0	
12%	37%	44%	7%	107

^aRating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

Table 42

ADEQUACY OF GARRISON FACILITIES FOR TYPES OF
COMBAT TRAINING

Type Training	Number of Items Included	Average Adequacy Rating ^a Co/Btry Cdr
Special Weapons ^b	2	3.0
Classroom Subjects ^d	2	3.0
Delivery and Adjustment of Fire ^b	10	2.9
Communications ^c	3	2.9
Intelligence	10	2.9
NBC	4	2.8
Tactics	34	2.5
Individual Soldiering Skills	20	2.4
Maintenance	5	2.4
Weapons/Gunnery	18	1.9
TOTAL	108	2.5

^aRating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

^bField Artillery Units Only^cArmor and Field Artillery Units^dArmor and Infantry Units

Table 43
ADEQUACY RATINGS FOR LTA FACILITIES

Branch ^b	Percent of Activities Adequacy Rating ^a			Total Number of Activities
	4.0-3.5	3.4-2.5	2.4-1.0	
INF/AR	14%	37%	49%	128
FA	34%	36%	30%	58

^aRating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

^bbetween branches, $\chi^2 = 13.2$, d.f. = 4, $.01 < \alpha < .02$

between INF/AR and FA, $\chi^2 = 10.7$, d.f. = 2, $.001 < \alpha < .01$

between INF and AR, $\chi^2 = 2.6$, d.f. = 2, $\alpha > .05$

Table 44
ADEQUACY OF LTA FACILITIES FOR TYPES OF
INFANTRY AND ARMOR TRAINING

Type Training	Number of Items	Average Adequacy Rating ^a Co/Bn Cdrs
Intelligence	2	3.5
Individual Soldiering Skills	17	2.8
Weapons/Gunnery	31	2.7
NBC	6	2.4
Tactics	71	2.3
Classroom Subjects ^b	1	2.0
Totals	128	2.5

^aRating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

^bArmor units only

Table 45

ADEQUACY OF LTA FACILITIES FOR TYPES OF
FIELD ARTILLERY TRAINING

Type Training	Number of Items	Average Adequacy Rating ^a Btry/Bn Cdrs
Special Weapons	1	4.0
Maintenance	2	4.0
Communications	4	3.6
Individual Soldiering Skills	5	3.6
Delivery and Adjustment of Fire	15	2.9
Tactics	17	2.8
NBC	2	2.8
Weapons (Other than Howitzer)	7	2.3
Totals	53	3.0

^aRating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

In Appendix D, Tables D-1 through D-3 give LTA training deficiencies noted by company/battery and battalion commanders. Percentages of respondents indicating each type of deficiency are given in Table 46. Space limitations, area characteristics, and area restrictions/controls account for 97% of the deficiencies noted by infantry commanders, 100% by armor commanders, and 98% by field artillery commanders. The most frequently cited deficiency under characteristics was the inappropriateness of the terrain and vegetation. Under restrictions were cited such factors as limitations permitted in maneuver damage, limitations in use of pyrotechnics and number of vehicles, and limitations resulting from safety requirements.

The two major difficulties experienced by company/battery and battalion commanders in getting to an LTA were area availability (60% of respondents) and time availability (44%). In addition, 20% of company/battery commanders reported personnel availability as another constraint. Seven percent of company/battery and 20% of battalion commanders reported no difficulty in getting to an LTA (see Table 47).

Major Training Areas. Company/battery and battalion commanders listed the MTAs they had used during the preceding 12 months and rated the adequacy of the MTAs for their units' training needs. Table 48 presents the results. The average rating for all three branches was 3.1, a score indicating that an MTA "has most qualities necessary for my unit's training needs." Averages for the individual MTAs ranged from 2.0 (some qualities necessary) to 3.7 (all qualities necessary). Average rating for only one MTA was in the "some qualities" range. That was the rating given to Stetten MTA by one infantry commander.

In spite of the good ratings given to the MTAs, commanders listed a number of limitations for each (see Appendix D, Tables D-4 through D-6). Limitations cited were primarily in terms of space (i.e., overcrowding); area characteristics, such as the type of terrain; and area restrictions/controls. Other limitations mentioned were time restrictions, safety hazards, and weather.

Training Aids and Instruction

Results in this section pertain to the past and future use, availability, and effectiveness of training aids, devices, systems, and job aids. Types of individual skill instruction and frequency with which company/battery officers perform in their TO&E roles are also presented.

Training Aids, Devices, Systems, Job Aids. Company/battery commanders were given a list of training materials obtainable from a USAREUR training aids agency. They were asked to rate the effectiveness and availability of the support materials and to indicate their plans for future use of the materials. Some commanders added additional items to the list. These are entered as "Other" training aids and devices in Table 49, where all results are presented.

Table 46
SUMMARY OF LTA TRAINING DEFICIENCIES

Type Deficiency ^a	Percent of Respondents		
	INF	AR	FA
Space Limitations	53%	69%	33%
Area Characteristics	16%	14%	26%
Area Restrictions/Controls	25%	14%	40%
Time Restrictions	0%	0%	2%
Weather	3%	0%	0%

^aOne commander listed "no deficiency." Another noted no LTA was available.

Table 47
DIFFICULTIES IN GETTING TO AN LTA

Difficulty	Percent Respondents		
	Co/Btry Cdr	Bn Cdr	Total
No Difficulty	7%	20%	11%
Area Availability	63%	53%	60%
Time Availability	53%	27%	44%
Vehicle Availability	0%	0%	0%
Other:			
Personnel Availability	20%	0%	13%
Traffic Restrictions	0%	7%	2%
Road Clearances	7%	13%	9%
Higher Headquarters, Not Clear on Requirements, Makes Planning Difficult	3%	0%	2%
Distance to LTA	3%	0%	2%
Commitments From Higher Headquarters	3%	0%	2%

Table 48

ADEQUACY OF MTAS USED IN PAST 12 MONTHS

MTA	Number of Company Commanders Adequacy Rating ^a				Average Rating	Number of Raters	Number of Battalion Commanders Adequacy Rating ^a				Average Rating	Number of Raters	Company & Bn Average of Raters	Total Number of Raters
	4	3	2	1			4	3	2	1				
Grafenwoehr	10	13	2	0	3.3	25	5	5	3	0	3.2	13	3.3	38
Hohenfels	8	10	4	0	3.2	22	2	7	4	0	2.8	13	3.1	35
Willflecken	1	5	3	0	2.8	9	0	3	2	0	2.6	5	2.7	14
Munsingen	2	1	0	0	3.7	3	0	1	0	0	3.0	1	3.5	4
Stetten	0	0	1	0	2.0	1	0	0	0	0	0	0	2.0	1
Baumholder	2	0	1	0	3.3	3	0	1	0	0	3.0	1	3.2	4
Hammelburg	1	1	0	0	3.5	2	1	0	0	0	4.0	1	3.7	3
Totals:	24	30	11	0	3.2	65	8	17	9	0	2.9	34	3.1	99

^aRating Scale:

- 4 = Has All Qualities Necessary for my Unit's Training Needs
- 3 = Has Most Qualities Necessary for my Unit's Training Needs
- 2 = Has Some Qualities Necessary for my Unit's Training Needs
- 1 = Has None of the Qualities Necessary for my Unit's Training Needs

TABLE 49

USE OF TRAINING AIDS, DEVICES, SYSTEMS, JOB AIDS

TRAINING AID	Number of Respondents Rating Effectiveness			Percent Respondents ^c	Average Effectiveness Ratings			Number of Respondents Listing Training Aids as Unavailable			Percent of Respondents ^c	Number of Respondents Planning Future Use of Training Aid			Percent Respondents ^c
	Rating Effectiveness				Ratings			Listing Training Aids as Unavailable				Planning Future Use of Training Aid			
	INF	AR	FA		INF	AR	FA	TOTAL	INF	AR		FA	INF	AR	
Training Aid:															
Cartridge Deflector for M16A1 Rifle	0	2	1	10%	b	4.5	4.0	4.3	4	0	2	1	0	0	3%
Television Trainer (TV)	9	6	3	70%	4.2	4.7	3.8	4.2	1	2	0	0	0	0	7%
Signature Interference Generator SG 8867/UR	6	1	3	3%	4.7	4.0	4.7	4.6	1	0	0	0	0	1	3%
Signature Interference Device Dynamit Nobel	1	3	0	0%	4.0	4.0	b	4.0	2	0	0	0	0	0	0%
Hoffman Device	0	9	0	90%	b	4.3	b	4.3	0	0	0	0	0	0	0%
M87 Moving Target Simulator (Redeye)	0	0	0	0%	b	b	b	b	1	0	0	0	0	0	0%
M87 Moving Target Simulator (Redeye)	0	0	0	0%	b	b	b	b	2	0	0	0	0	0	0%
Transmitting Set: AN/UJL-T2, DA DVC 11-7	0	0	0	0%	b	b	b	b	3	1	0	0	0	0	0%
Frangible 7.62mm Ammo	0	0	0	0%	b	b	b	b	3	1	0	0	0	0	15%
Other:															
Scopes Numbered Helms for REALTRAIN	1	0	0	5%	4.0	b	b	4.0	0	0	0	0	0	0	0%
Complete Training M16A1 (Claymore) Mine	0	0	0	0%	b	b	b	b	1	0	0	0	0	0	3%
Firing Device M1, M3, M5, M1A1	0	0	0	0%	b	b	b	b	1	0	0	0	0	0	3%
Practice AT (M15, M21, M19) and AP (M14, M16, M25, M18) Mines	0	0	0	0%	b	b	b	b	0	0	0	0	0	0	10%
Other:															
Training Device:															
M70 Training Set (TOW)	10	0	0	100%	4.5	b	b	4.5	1	0	0	0	0	1	20%
M32 Pneumatic Mortar Device, DA DVC 7-13	8	0	0	80%	4.3	b	b	4.3	2	0	0	0	0	1	10%
M190, Rocket Launcher (M73 LAW)	9	0	6	7%	4.8	b	4.7	4.8	2	0	0	0	0	0	10%
LAW Sight Trainer AE DVC 9-61	3	0	0	30%	4.3	b	b	4.3	1	0	0	0	0	1	5%
Training Extension Course (TEC)	10	6	8	9%	4.5	4.7	4.6	4.5	1	0	0	0	0	3	20%
Training Circulars	10	9	10	20%	4.5	3.0	3.0	4.5	2	0	0	0	0	1	7%
Combat Training Theater	4	1	0	20%	b	4.4	b	4.4	1	2	0	0	0	0	0%
M25 Laser Tank Gunnery Trainer DA DVC 17-56	0	10	0	100%	b	4.4	b	4.4	1	2	0	0	0	0	0%
Combat Training Theater	0	3	2	17%	b	4.3	3.0	3.8	3	0	0	0	0	0	0%
M310, DVC 7-17, M162, DA DVC 17-56	1	1	2	1%	4.0	4.0	4.0	4.0	2	0	0	0	0	0	0%
Ground Observer Aircraft Recognition (GOAR) Kit SL 44-1	0	0	0	0%	b	b	b	b	1	0	0	0	0	0	10%
XW76 Training Set (Redeye)	0	0	0	0%	b	b	b	b	1	0	0	0	0	0	3%
Redeye TV Trainer (Mounting Bracket)	0	0	0	0%	b	b	b	b	1	0	0	0	0	0	10%
Other:															
M31 Subcaliber Artillery Trainer	0	0	2	20%	b	b	4.0	4.0	0	0	0	0	0	1	10%
14.5mm Subcaliber Training Device	0	0	1	10%	b	b	4.0	4.0	0	0	0	0	0	0	0%
Training System:															
Battalion Staff Game	0	0	0	0%	b	b	b	b	1	0	0	0	0	0	0%
Tanker Game	0	0	0	0%	b	b	b	b	2	1	0	0	0	0	3%
Job-Aid:															
Weapons Range Reader DA GTA 71-1-1	2	6	0	40%	4.5	2.3	b	2.9	3	1	1	0	0	0	25%

^aRating Scale:
 4 - Very satisfactory
 3 - Satisfactory
 2 - Borderline
 1 - Unsatisfactory
 0 - Very unsatisfactory

^bNo respondents rating

^cPercentages were computed using number of respondents likely to use each item.

For purposes of this discussion, training materials were divided into four categories--aids, devices, systems, and job aids. Included under training aids is equipment used in training, such as in M16A1 rifle cartridge deflector; such aids enable a specific form of training to be conducted. By contrast, training devices--e.g., training extension courses--train the person using them. Training systems are self-contained training packages; job aids are items that can be used on the job to enhance job performance.

Five of the eight training aids listed had been used by the units. A majority of units had used two of the five aids--the Hoffman Device and the Television Trainer (TVT). Use of the other three aids varied from 10% to 33%. In addition, four aids were added to the list. Of these, one aid (REALTRAIN numbered helmets) was being used, and two (Claymore Mine Aid and Firing Device) were unavailable. Practice anti-tank (AT) and antipersonnel (AP) Mines were listed as planned for future use. Seven of the eight original items were listed by one or more respondents as unavailable for future use. The average effectiveness rating for the six aids that had been used was 4.2, indicating satisfactory effectiveness.

Commanders reported using 10 of the 12 training devices listed. The following 6 of those 10 had the highest percent of users: M70 Training Set (TOW), M55 Laser Tank Gunnery Trainer, Training Circulars, Training Extension Course (TEC), M32 Pneumatic Mortar Device, and M190 Rocket Launcher (M72 Law). Use of the other 4 devices varied from 13% to 20%. Two devices, the M31 Subcaliber Artillery Trainer and 14.5mm Subcaliber Training Device, were added to the list. Unit use was reported for both; future use was indicated for the M31 trainer.

Each of the 12 devices was reported unavailable by 3% to 20%. The average effectiveness rating for the 12 devices used was 4.3, a rating of satisfactory. Rating averages for all items were in the satisfactory range.

No use was reported of the two training systems listed. Three percent of the respondents said the Battalion Staff Game was unavailable, as did 15% for the Tanker Game. Use of the Weapons Range Reader was reported by 40% of respondents with an average effectiveness rating of 2.9, borderline effectiveness. Twenty-five percent of respondents reported it unavailable.

Instruction. For individual skill instruction, classroom instruction was reported used by 73% of companies/batteries, individual instruction by 53%, on-the-job training by 93%, and group training in the field (e.g., crew drill, practical exercises in field) by 37%. Based on average response over all units, commanders reported that company/battery officers perform in their TO&E roles during training most of the time. It should be noted that 6 (21%) of the 20 companies/batteries reported officers performing little of the time and five (17%) reported officers performing about half of the time (see Table 50).

Table 50

FREQUENCY WITH WHICH COMPANY/BATTERY OFFICERS PERFORM
IN TO&E ROLES IN TACTICAL COLLECTIVE TRAINING

Branch	Number of Companies Frequency Rating ^a					Average Frequency	Total Number of Companies
	5	4	3	2	1		
INF	1	3	3	3	0	3.2	10
AR	1	5	2	1	0	3.7	9
FA	4	4	0	2	0	4.0	10
TOTAL	6	12	5	6	0	3.6	29

^aRating Scale:

- 5 = All of the Time
- 4 = Most of the Time
- 3 = About Half of the Time
- 2 = Little of the Time
- 1 = None of the Time

Training Literature

Commanders reported that relevant training literature was available most of the time, with an average rating of 4.0 (see Table 51). There was a wide variability of response (10% to 100%) concerning the percentage of literature that comes by pinpoint distribution (see Table 52) with the average being 75%. Control and distribution of the literature does not present a problem for most of the units. Only an average of 18% of respondents reported a problem in this area; however, in infantry this figure included 60% of the battalion commanders (see Table 53). One S3 suggested that advance notice of forthcoming literature and more information on type of change being made in updated literature would greatly improve control and distribution by units.

Most commanders reported that the training literature they received was adequate. Only five (11%) commanders reported that it was of borderline adequacy, and two (4%) reported that it was inadequate (see Table 54).

Schools

An average rating of 2.3 indicated that commanders found Vilseck course quotas to be somewhat inadequate, with seven (17%) commanders responding that the quotas were very inadequate (see Table 55). Commanders reported that there was no mandatory requirement to fill the quotas until after commanders had requested and had been assigned a quota, but that the system needed even more flexibility so that commanders could make later changes based on intervening events.

Tables 56 through 58 list Vilseck courses for which commanders reported a need for increased quotas.

Training Ammunition

Commanders reported on the adequacy of supplies of live and pyrotechnic training ammunition and on problems with requisition, allocation, and turnback of the ammunition. The average supply adequacy rating for live ammunition was 3.1, a rating of borderline adequacy (see Table 59). Average rating for pyrotechnic ammunition (see Table 60) was 2.5, a low borderline rating.

With regard to acquisition, allocation, and turnback of ammunition, nine commanders (20%) reported that they had no major problems. The majority of the problems reported by the other commanders were excessive leadtime requisitioning, insufficient quantity allocated, misallocation, and administrative difficulties associated with turnback procedures. In Appendix E, Tables E-1 through E-3 present individual commander responses for these results.

Table 51

AVAILABILITY OF RELEVANT TRAINING LITERATURE

Branch	Respondents	Range of Availability Rating ^a	Average Availability Rating ^a
INF	Co Cdr	3-5	4.1
	Bn Cdr	4	4.0
AR	Co Cdr	4-5	4.1
	Bn Cdr	3-4	3.6
FA	Btry Cdr	4-5	4.1
	Bn Cdr	3-5	4.0
Totals		3-5	4.0

^aRating Scale:

- 5 = Always Available
- 4 = Available Most of the Time
- 3 = Available About Half the Time
- 2 = Available Little of the Time
- 1 = Never Available

Table 52

PERCENTAGE OF RELEVANT TRAINING LITERATURE TO UNITS BY PIN-POINT DISTRIBUTION

Respondents	INF		AR		FA		Total Mean
	Range	Mean	Range	Mean	Range	Mean	
Co/Btry Cdr	10-100%	70%	30-95%	75%	35-95%	73%	72%
Bn Cdr	50-95%	76%	50-90%	75%	40-95%	80%	77%

Table 53

CONTROL AND DISTRIBUTION OF TRAINING LITERATURE

Control and Distribution a Problem?	Percent of Respondents						
	INF		AR		FA		TOTAL
	Co Cdr	Bn Cdr	Co Cdr	Bn Cdr	Btry Cdr	Bn Cdr	Co/Btry/Bn Cdr
YES	10%	60%	20%	0%	20%	0%	18%

Table 54

ADEQUACY OF TRAINING LITERATURE

Branch	Respondents	Number of Respondents Availability Rating ^a					Average Adequacy Rating
		5	4	3	2	1	
INF	Co Cdr	3	4	3	0	0	4.0
	Bn Cdr	1	3	1	0	0	4.0
AR	Co Cdr	3	6	1	0	0	4.2
	Bn Cdr	2	3	0	0	0	4.4
FA	Btry Cdr	3	5	0	2	0	3.9
	Bn Cdr	2	3	0	0	0	4.4
Total		14	24	5	2	0	4.1

^aRating Scales:
 5 = Very Adequate
 4 = Adequate
 3 = Borderline
 2 = Inadequate
 1 = Very Inadequate

Table 55

ADEQUACY OF VILSECK QUOTAS

Branch	Respondents	Number of Respondents Availability Rating ^a					Average Adequacy Rating	Total Number of Respondents
		5	4	3	2	1		
INF	Co Cdr						2.3	10
	Bn Cdr						1.8	5
AR	Co Cdr						2.1	8
	Bn Cdr						2.8	5
FA	Btry Cdr						2.3	10
	Bn Cdr						1.8	5
Total		0	4	8	24	7	2.3	43

^aRating Scale:
 5 = Quotas Are Very Much More Than Adequate
 4 = Quotas Are Somewhat More Than Adequate
 3 = Quotas Are Adequate
 2 = Quotas Are Somewhat Inadequate
 1 = Quotas Are Very Indadequate

Table 56

VILSECK COURSES FOR WHICH INFANTRY QUOTAS NEED TO BE INCREASED

Courses	Number of Respondents
NBC 41-0, Nuclear, Biological, Chemical Defense Officer	8
NBC 42-E, NBC Defense NCO	8
SAM 31-E, Small Arms Organizational Maintenance	8
TVM 14-E, M113A1/M114A1, Organizational Tracked Vehicle Maintenance	7
WVM 25-E, Wheeled Vehicle Organizational Maintenance	7
LOG 84-OE, Mobile Training Team	2
LOG 87EC, Nondivisional Prescribed Load List (PLL) Supply Procedures	2
^a NBC	2
CA 21-OE, Explosives and Demolitions	1
CA 21A-OE, Basic Explosives and Demolitions	1
TVM 14B-E, M113 Series, Organizational Tracked Vehicle Maintenance	1
LOG 69-0, Officer Logistics Readiness	1
LOG 73-OEC, Unit/Organizational Supply Procedures	1
LC 100E, Legal Clerk	1
PRTS 1-E, Physical Readiness Training and Sports Department	1
Heater Maintenance (no course offered)	1
^a Mechanic	1
^a Communications	1
^a Supply	1
^a Demolition	1
^a NCOA	1
None	3

^aSpecific Vilseck course cannot be identified by description given.

Table 57

VILSECK COURSES FOR WHICH ARMOR QUOTAS
NEED TO BE INCREASED

Course	Number of Respondents
CA 2-OE, M60A1, M60A1 Tank Commander/Gunner	8
NBC 41-0 Nuclear Biological Chemical Defense Officer	4
NBC 42-E, NBC Defense NCO	4
TVM 13-E, M60 Series, M113 Series Organizational	2
WVM 25-E, Wheeled Vehicle Organizational Maintenance	2
^a NBC	2
CA 9-E, M60A1, M60A1 Organizational Turret Maintenance	1
SAM 31-E, Small Arms Organizational Maintenance	1
LOG 69-0, Officer Logistics Readiness	1
TM 201-OE, Training Management	1
FS 202-E, First Sergeant	1
CC 205-0, Company Commander	1
NCO-1, Seventh Army Noncommissioned Officer	1
^a LOG Course	1
^a Mechanics	1

^aSpecific Vilseck course can not be identified by description given.

Table 58

VILSECK COURSES FOR WHICH FIELD ARTILLERY QUOTAS
NEED TO BE INCREASED

Course	Number of Respondents
NBC 41-0, Nuclear Biological Chemical Defense Officer	6
NBC 41-E, NBC Defense NCO	4
^a NBC	4
SAM 31-E, Small Arms Organizational Maintenance	4
TVM 15-E, M109, M548, Organizational Tracked Vehicle Maintenance	2
^a Mechanics	2
WA 204-OE, A/S, 155m Projectile Prefire	1
OMS, 33-E, Organizational Maintenance Supervisor	1
LOG, 87-EC, Nondivisional Prescribed Load List	1
FS 202-E, First Sergeant	1
CC 205-0, Company Commander	1
NCO-1, Seventh Army Noncommissioned Officer	1
^a Stock Control and Accounting, 76P	1
None	2

^aSpecific Vilseck course can not be identified by description given.

Table 59

ADEQUACY OF SUPPLY OF LIVE TRAINING AMMUNITION

Branch	Respondents	Number of Respondents					Average Adequate Rating ^a	Total Number of Respondents
		Adequacy Rating ^a						
		5	4	3	2	1		
INF	Co Cdr						2.8	10
	Bn Cdr						3.0	5
AR	Co Cdr						3.3	8
	Bn Cdr						3.6	5
FA	Bty Cdr						3.0	10
	Bn Cdr						3.6	5
Total		2	19	8	11	4	3.1	43

^aRating Scale:

- 5 = Very Adequate
- 4 = Adequate
- 3 = Borderline
- 2 = Inadequate
- 1 = Very Inadequate

Table 60

ADEQUACY OF PYROTECHNIC TRAINING AMMUNITION

Branch	Respondents	Number of Respondents					Average Adequacy Rating ^a	Total Number of Respondents
		Adequacy Rating ^a						
		5	4	3	2	1		
INF	Co Cdr						1.7	10
	Bn Cdr						2.6	5
AR	Co Cdr						2.3	7
	Bn Cdr						3.2	5
FA	Btry Cdr						2.2	10
	Bn Cdr						4.0	5
Total		3	6	9	14	10	2.5	42

^aRating Scale:

- 5 = Very Adequate
- 4 = Adequate
- 3 = Borderline
- 2 = Inadequate
- 1 = Very Inadequate

Training Time

This section presents results on the adequacy of time for combat-related training, the nontraining activities that compete for training time, and the impact of two policies that affect training time--the 40-hour week and concurrent training. Results are also presented on the amount of time spent on various types of training by different training groups.

Table 61 presents data on the adequacy of time available to conduct combat-related training for kaserne, LTA, and MTA facilities. Average adequacy ratings for the kasernes varied with branch, from inadequate (FA) to borderline (INF) to a low score in the adequate range (AR). Average ratings for LTA and MTA were in the borderline range of scores, 2.9 and 3.4, respectively.

Many nontraining activities were listed as competitors for training time (see Tables 62 and 63). Activities listed by the largest numbers of respondents were guard and other support duties, inspections, personnel programs, and maintenance.

An average of 20% of company commanders stated that they were able to adhere to a 40-hour week. As Table 64 shows, battalion commanders perceived a consistently higher adherence to this policy than did company/battery commanders.

The same pattern shows up in Table 65--57% of the company/battery commanders reported that the 40-hour week policy was feasible, as compared with 79% of the battalion commanders.

Commanders offered several suggestions on how to accomplish their training mission under a 40-hour-week policy. The majority of the suggestions involved providing for compensatory time for weekend and late-hour training or reducing training at those times; reducing competing demands; having all personnel available for training when called; and, related to the latter, accomplishing inprocessing before soldiers came to the units. Since commanders indicated that there was too little time to train, the first of these suggestions would be undesirable; it would reduce training time further. The other suggestions, if implemented, would possibly increase training time enough to make the 40-hour week feasible for all commanders.

Seventy-three percent of company/battery commanders (50% INF, 80% AR, 90% FA) reported that they were able to schedule concurrent training so as to get maximum personnel participation. Commanders who stated that they were unable to do so listed unavailability of training and other personnel, lack of motivation of training personnel, lack of preparation time, and lack of training aids as reasons.

Table 61

ADEQUACY OF TIME AVAILABLE TO CONDUCT COMBAT-RELATED TRAINING

Training Facility	Branch	Average Adequacy Rating ^{a,b}
Kaserne	INF	2.7
	AR	3.5
	FA	2.1
	Total	2.8
LTA	Total	2.9
MTA	Total	3.4

^aRating Scale:
 5 = Very Adequate
 4 = Adequate
 3 = Borderline
 2 = Inadequate
 1 = Very Inadequate

^bRespondents were Co/Btry Cdrs for Kaserne and Co/Btry/Bn Cdrs for LTA and MTA.

Table 62

MAJOR COMPETITORS (NONTRAINING ACTIVITIES) FOR TRAINING TIME--INFANTRY AND ARMOR UNITS

Activity	Number of Respondents ^a
Inspections	12
Kaserne Guard and Support Duty	18
Other Guard Duty	14
Training Support	4
Maintenance	6
Discipline	1
Safety	1
On-Duty Education (HEADSTART, PREP, etc.)	13
CDAAC	2
EOHR	4
Personal Affairs	2
Alert Forces	1
Alpine Friendship	1
Ceremonies	4
German/American Relations	2
Court Martials and Board Actions	1
Training Holidays Declared by Higher Headquarters	1
National Holidays	1
Last Minute Classes and Activities Sponsored by Higher Headquarters	1
Visitors	1

^aTotal number of respondents: 19 Co Cdr
 9 Bn Cdr

Table 63

MAJOR COMPETITORS (NONTRAINING ACTIVITIES) FOR
TRAINING TIME--FIELD ARTILLERY UNITS

Activity	Number of Respondents ^a
Kaserne Guard and Support Duty	14
NATO Guard	3
Inspections	14
Company Details	2
Surety Training	3
On Duty Education	5
Race Relations	2
Community Requirements	3
Training Support	2
Sick Call	1
Diversions	1

Table 64

ADHERENCE TO 40-HOUR-WEEK POLICY

Adhere to Policy of 40-Hr-Week?	Percent of Respondents							
	INF		AR		FA		TOTAL	
	Co Cdr	Bn Cdr	Co Cdr	Bn Cdr	Btry Cdr	Bn Cdr	Co/Btry Cdr	Bn Cdr
YES	20%	80%	40%	60%	0%	20%	20%	53%

Table 65

FEASIBILITY OF 40-HOUR-WEEK POLICY

Unit Training Mission be Accomplished Under Policy?	Percent of Respondents							
	INF		AR		FA		TOTAL	
	Co Cdr	Bn Cdr	Co Cdr	Bn Cdr	Btry Cdr	Bn Cdr	Co/Btry Cdr	Bn Cdr
YES	60%	100%	70%	75%	40%	60%	57%	79%

Tables 66 and 67 indicate the percentage of tactical and collective gunnery/equipment time that commanders allotted to various size units from squad/section to battalion.

The range of commander responses was large for each type of unit, but mean scores for three of the units--squad/section, platoon/firing battery, and company/battery--had a small range for both types of training. They ranged from 28% of available collective gunnery/equipment time and 19% of tactical time.

Frequency of combined-arms training is shown in Table 68.

Seven percent (3) of the commanders reported no combined-arms training during the 6 months preceding the survey. Sixty-two percent (28) reported combined-arms training one to three times, and 31% (14) reported more than three times.

Training Requirements

This section presents information on the sources of training requirements and conflicts between and changes in the requirements.

Initiators

Tables 69 through 71 indicate initiating agencies for activities as designated by company/battery commanders. It is obvious that the commanders do not agree as to the sources of these activities, since the percentage of respondents varies with each initiating agency for the majority of the activities. This disagreement reflects differences in brigade/division/corps management policies to some extent and may also indicate a lack of knowledge on the part of company/battery commanders as to which agencies are initiating the various activities.

In spite of the disagreement, some trends are evident in the data for those activities to which more than one commander responded. In all but one activity, IG Inspection, more than one initiating agency was listed, and the initiating roles for the various agencies were the following. Brigade and community were designated as initiators of only one activity, Garrison Activities. Division or higher agencies, as indicated by at least 33% of commanders reporting, were initiating agencies for GED, PREP, etc.; IG Inspection; Physical Training, MOS Upgrading; and Garrison Activities. Field artillery commanders listed more activities (5) for which division or higher agencies had no initiating role than did either infantry (1) or armor (0).

Using the same criteria, with at least 33% of commanders reporting, battalion was designated as the initiating agency for 6 (INF), 8 (AR), and 7 (FA) of the 11 items.

Table 66

PERCENTAGE OF AVAILABLE TACTICAL TRAINING TIME SPENT AT VARIOUS
TRAINING LEVELS--COMPANY/BATTERY COMMANDERS

Training Level	Company/Battery Range	Commanders ^a Mean ^b
Squad Section	5-80%	32%
Platoon/Firing Battery	10-75%	29%
Company/Battery	10-75%	28%
Battalion	0-45%	19%

^aTotal number of commanders = 29.

^bPercents do not add to 100 due to averaging.

Table 67

PERCENTAGE OF AVAILABLE COLLECTIVE GUNNERY/EQUIPMENT TRAINING/
MAINTENANCE TIME SPENT AT VARIOUS TRAINING LEVELS

Training Level	Company/Battery Range	Commanders ^a Mean ^b
Squad/Section	0-80%	41%
Platoon/Firing Battery	0-70%	31%
Company/Battery	1-100%	36%
Battalion	0-25%	7%

^aTotal number of commanders = 29.

^bPercents do not add to 100 due to averaging.

Table 68

FREQUENCY OF COMBINED-ARMS TRAINING DURING PAST 6 MONTHS

Number of Times In Past 6 Months	Percent of Respondents
Zero Times	7%
One Time	13%
Two Times	29%
Three Times	20%
More Than Three Times	31%

Table 69
INITIATING AGENTS FOR INFANTRY COMPANY ACTIVITIES

ACTIVITY	Initiating Agency					No. of Respondents
	Division or Higher	Percent of Respondents ^a				
		Battalion	Company	Brigade	Other Community	
Individual Skill Training	22%	0%	78%	0%	0%	9
Tactical Collective Training	11%	44%	56%	0%	0%	9
Gunnery/Equipment Training	25%	38%	50%	0%	0%	8
GED, PREP, etc.	89%	11%	11%	0%	0%	9
Organizational Maintenance	0%	22%	78%	0%	0%	9
Physical Training	11%	22%	89%	0%	0%	9
MOS Qualification Training	13%	13%	88%	0%	0%	8
MOS Upgrading	33%	33%	33%	0%	0%	3
Garrison Activities (guard, etc.)	38%	63%	0%	13%	25%	8
IG Inspection	50%	50%	0%	0%	0%	2
Motor Stables	14%	43%	57%	0%	0%	7
Other: ^b						
Mandatory Subjects; UCMJ, D/A, Reenlistment, Water Safety, Cold Weather, etc.	100%	0%	100%	0%	0%	1
Headstart	100%	0%	0%	0%	0%	1
Gateway	100%	0%	0%	0%	0%	1
EO/HR	100%	0%	0%	0%	0%	1

^aSome respondents checked more than one category.

^bAdded to the original list of questionnaire items by Co/Btry Cdrs.

Table 70
INITIATING AGENTS FOR ARMOR COMPANY ACTIVITIES

ACTIVITY	Initiating Agency						Number of Respondents
	Division or Higher	Battalion	Company	Brigade	Other Community		
Individual Skill Training	25%	50%	50%	0%	0%	0%	8
Tactical Collective Training	25%	63%	38%	0%	0%	0%	8
Gunnery/Equipment Training	43%	43%	29%	0%	0%	0%	7
GED, PREP, etc.	86%	29%	0%	0%	0%	0%	7
Organizational Maintenance	14%	57%	29%	0%	0%	0%	7
Physical Training	50%	40%	13%	0%	0%	0%	8
MOS Qualification Training	17%	33%	50%	0%	0%	0%	6
MOS Upgrading	33%	0%	67%	0%	0%	0%	3
Carrison Activities (Guard etc.)	14%	86%	0%	0%	14%	0%	7
IG Inspection	100%	33%	0%	0%	0%	0%	3
Motor Stables	0%	67%	33%	0%	0%	0%	3

^aSome respondents checked more than one category.

Table 71
INITIATING AGENTS FOR FIELD ARTILLERY BATTERY ACTIVITIES

ACTIVITY	Initiating Agency					Number of Respondents
	Division or Higher	Battalion	Percent of Respondents ^a			
			Company	Brigade	Other Community	
Individual Skill Training	0%	38%	63%	0%	0%	8
Tactical Collective Training	0%	71%	29%	0%	0%	7
Gunnery/Equipment Training	0%	50%	63%	0%	0%	8
GED, PREP, etc.	88%	13%	13%	0%	0%	8
Organizational Maintenance	0%	50%	63%	0%	0%	8
Physical Training	50%	25%	38%	0%	0%	8
MOS Qualification Training	14%	29%	71%	0%	0%	7
MOS Upgrading	20%	40%	60%	0%	0%	5
Garrison Activities (Guard etc.)	13%	75%	0%	13%	25%	8
IG Inspection	100%	0%	0%	0%	0%	2
Motor Stables	17%	50%	83%	0%	0%	6
Other: ^b						
Adventure Training	0%	0%	100%	0%	0%	1
Defense Race Relations Institute	100%	0%	0%	0%	0%	1
Nuclear Surety Inspections	100%	0%	0%	0%	0%	1

^aSome respondents checked more than one category.

^bAdded to the original list of questionnaire items by Co/try Cdrs.

Company/battery commanders indicated that they played no role in initiating Garrison Activities, IG Inspection, and GED, PREP, etc. For those activities rated by company/battery commanders as fully relevant to combat mission, an average of 69% of infantry commanders, 41% of armor commanders, and 61% of field artillery commanders indicated that they had an initiating role. The average percentage of company/battery commanders who indicated that they had had an initiating role for the remaining items were 11% of infantry, 33% of armor, and 31% of field artillery commanders.

From the results reported above, it was evident that company/battery commanders perceived that the brigade and the local community had little role in initiating unit activities and that the initiating role increased from division or higher to battalion/company/battery. There was little difference in the number of activities initiated by battalion and company, according to at least 33% of commanders reporting.

The preceding data on initiation of unit activities indicated some decentralization of training with the primary role in initiating unit activities found at the battalion/company/battery levels and an average of 57% of company/battery commanders reporting initiation of mission-related combat activities. Decentralization at these levels appears far from universal, however.

Table 72, which shows the personnel setting up company/battery training schedules, presents evidence that decentralization seldom goes below the company/battery commander level. Although all 30 company/battery commanders and 12 out of 15 (80%) battalion commanders indicate that company/battery commanders have a role in setting up the training schedules, only 4 (40%) infantry and 2 (20%) armor company commanders and no battery commanders reported a role in this activity for officers or NCOs below the commander level.

Conflicts and Changes in Training Requirements

Twenty-eight percent of the company/battery/battalion commanders indicated that conflict among training directives was a significant problem. Table 73 shows the nature of such conflict, most of which was between verbal and written directives and among various levels of written directives. Little conflict between levels issuing verbal directives was reported.

As Table 74 shows, written directives comprise a large part of all directives received by most company/battery/battalion commanders except field artillery battery commanders. However, it should be noted that some commanders report that few of their directives come in written form. These results highlight the need for continued emphasis and attention on the problems of written directives.

Table 72

PERSONNEL SETTING UP COMPANY/BATTERY TRAINING SCHEDULE

Personnel	Percent of Respondents ^a									
	INF		AR		FA		TOTAL			
	Co Cdr	Bn Cdr	Co Cdr	Bn Cdr	Btry Cdr	Bn Cdr	Co/Btry Cdr	Bn Cdr		
Bn Cdr	50%	100%	30%	60%	30%	40%	37%	67%		
S-3	60%	80%	90%	80%	50%	60%	67%	73%		
Co Cdr	100%	80%	100%	100%	100%	60%	100%	80%		
Other:										
Platoon Leader	10%	0%	0%	0%	0%	0%	3%	0%		
Co Training Officer	20%	0%	20%	0%	0%	0%	13%	0%		
Co Training NCOs	10%	0%	0%	0%	0%	0%	0%	0%		
Total Number of Respondents	10	5	10	5	10	5	30	15		

^a Respondents could indicate more than one category.

Table 73

MAJOR SOURCES OF CONFLICT AMONG TRAINING DIRECTIVES

Source	Percent of Respondents ^a	Number of Respondents ^a
Between Verbal and Written Directives	67%	8
Between Various Levels (DA, USAREUR, Corps, etc.) of Written Directives	50%	6
Between Various Levels of Verbal Directives	25%	3

^aRespondents were those commanders who indicated conflict between training directives (28% of total). Some respondents checked more than one source of conflict.

Table 74

AVERAGE PERCENTAGE OF TRAINING DIRECTIVES IN WRITTEN FORM

Respondents	INF		AR		FA	
	Range	Mean	Range	Mean	Range	Mean
Company/Battery Commanders	25-99%	63%	20-90%	62%	10-90%	38%
Battalion Bn Commanders	20-90%	60%	80-100%	95%	20-90%	60%

Table 75 shows that changes in both written and verbal training directives occur infrequently.

For written directives, 57% of company/battery commanders and 66% of battalion commanders reported that changes had occurred from one to three times in the past 6 months. In addition, 20% of company/battery commanders and 27% of battalion commanders reported no changes during that time period. Table 76 gives similar results for verbal training directives.

As indicated in Table 77, training schedules comprised another area of unit management in which changes were disruptive for some commanders.

Forty-five percent of all commanders reported that training schedule changes were a problem. The frequency of such changes appears to be related to their disruptive effect. According to Table 78, average frequency of changes as rated by commanders was often.

Considering the fact that, as seen in Table 79, 90% of the training schedules of this group cover a short period of 5 to 7 days, changes reported to occur often must reflect a deficiency in ability to plan training in advance.

Table 80 summarizes the reported causes of training schedule changes. Seven causes are given there, with the majority of changes attributed to changes in tasks/commitments from higher headquarters. In addition, resource availability and management problems were designated as a major cause by 27% and 16% of commanders, respectively. Tables F-1 through F-6 in Appendix F present individual commanders' comments on causes of changes.

Major problems reported as resulting from training schedule changes were low morale and confusion among soldiers, less time to prepare training and therefore less adequate training, and disruption in the continuity of training. Individual commander's responses are shown in Appendix F, Tables F-7 through F-9.

Training Methods and Standards

Questionnaire results contained information on use, users, adequacy of problems with training methods and standards, and certain publications which contain information on methods. Also included were questions concerning company/battery commander use of various steps in the training development process. Methods and standards included were performance-oriented training, REALTRAIN, and ARTEP. Publications were FM 21-6, "How To Prepare and Conduct Military Training"; TC 21-5-1, "Training Management: An Overview"; and TC 21-5-2, "Performance Oriented Training."

Table 75

FREQUENCY OF MAJOR CHANGES IN WRITTEN TRAINING
DIRECTIVES IN PAST 6 MONTHS

Frequency	Percent of Total Respondents	
	Co/Btry Cdrs	Bn Cdrs
None	20%	27%
1-3 Times	57%	66%
More Than Three Times	23%	7%

Table 76

FREQUENCY OF MAJOR CHANGES IN VERBAL TRAINING
DIRECTIVES IN PAST 6 MONTHS

Frequency	Percent of Total Respondents	
	Co/Btry Cdrs	Bn Cdrs
None	21%	20%
1-3 Times	42%	73%
More Than Three Times	37%	7%
Total Respondents	29	15

Table 77

TRAINING SCHEDULE CHANGES AS CAUSE
OF MAJOR TRAINING PROBLEMS

Changes Cause Major Problems?	Percent of Respondents
Yes	45%
No	55%
Total Number of Respondents	44

Table 78

FREQUENCY OF TRAINING SCHEDULE CHANGES

Branch	Average Frequency Rating ^a	Total Number of Respondents
INF	2.5	14
AR	2.5	15
FA	3.1	15

^aRating Scale:

4.0 - 3.5 Very Often
 3.4 - 2.5 Often
 2.4 - 1.5 Not Very Often
 1.4 - 1.0 Never

Table 79

PERIOD OF TIME COVERED BY COMPANY/BATTERY TRAINING SCHEDULES

Number of Days	Number of Company/Battery Commanders			Percent of Total Respondents
	INF	AR	FA	
5-7	8	8	10	90%
21	1	1	0	7%
30	0	1	0	3%

Table 80

SUMMARY OF CAUSES OF TRAINING SCHEDULE CHANGES

Cause of Change	Percent of Respondents
Changes in Task/Commitments	84%
Resource Availability	27%
Management Problems	16%
Maintenance Requirements	9%
Scheduling Problems	9%
Inclement Weather	2%
Decision Vacillation	2%
Unclassified	4%

Performance-Oriented Training

When asked what percentage of their training was performance oriented, company/battery commander responses ranged from 20% to 97%, with averages of 77% for infantry, 56% for armor, and 73% for field artillery commanders. Battalion commander responses ranged from 40% to 80%, with an overall average of 65%.

The majority of respondents (68%) reported that performance objectives were used in most or all training. Thirty-two percent reported that they were used in half or some training. Table 81 reports that regular users of performance-oriented training (reflected by use of FM 21-6) were E5-E6, E7-E8, and O1-O3 rank personnel. Fifty-three percent of battalion commanders reported the O4-O5 rank group as regular users also. Fourteen percent of company/battery commanders reported that none of their personnel regularly used FM 21-6.

Company personnel developing performance objectives were primarily company/battery commanders and instructors, followed by platoon leaders and battalion level staff, as shown in Table 82. Platoon sergeants, brigade-level staff, executive officer, and chief of firing battery comprised the balance of development personnel.

The three sources of written information on performance-oriented training methods (FM 21-6, TC 21-5-1, TC 21-5-2) were evaluated. Table 83 indicates that average adequacy ratings of FM 21-6 for all units were in the adequate range.

However, 13% of the commanders reported FM 21-6 of borderline adequacy, and one commander reported it very inadequate. Table 84 shows that 24% of company/battery commanders and 40% of battalion commanders reported that their personnel had had problems using FM 21-6.

One commander who had been in command more than a year stated that FM 21-6 was used too seldom to comment. Difficulties experienced with the FM are listed in Table 85. The majority of the responses fall into categories of difficulty understanding concepts, instructor's resistance to the new technique, and lack of adequate planning time.

Tables 86 and 87 give the adequacy ratings for TC 21-5-1 and TC 21-5-2. Although scores by individual commanders ranged from very inadequate to very adequate, average ratings by all commanders were in the adequate range.

Table 81
REGULAR USERS OF FM-21-6

User	Percent of Total Respondents	
	Co/Btry Cdrs	Bn Cdrs
E1-E4	7%	0%
E5-E6	76%	33%
E7-E8	52%	41%
01-03	86%	100%
04-05	N/A ^a	53%
None	14%	0%

^aThis grade category was not included in the company/battery commander questionnaire.

Table 82
PERSONNEL DEVELOPING COMPANY PERFORMANCE OBJECTIVES

Personnel	Percent Total Respondents ^a
Company/Battery Commanders	90%
Instructors	41%
Platoon Leader	24%
Platoon Sergeant	14%
Other:	
Battalion Level	21%
Brigade Level	3%
XO and Chief of Firing Battery	3%

^aTotal number of company commander respondents:

INF = 9
AR = 10
FA = 10

Table 83
ADEQUACY OF FM-21-6

Branch	Respondent	Average Rating ^a
INF	Co Cdr	4.2
	Bn Cdr	4.0
AR	Co Cdr	4.0
	Bn Cdr	4.2
FA	Btry Cdr	4.3
	Bn Cdr	3.8
Total		4.1

^aRating Scale:
 5 = Very Adequate
 4 = Adequate
 3 = Borderline
 2 = Inadequate
 1 = Very Inadequate
 0 = Can't Evaluate

Table 84
PROBLEMS WITH APPLICATION OF METHODS OF FM-21-6

Have Problems	Percent of Total Respondents	
	Co/Btry Cdrs	Bn Cdrs
Yes	24%	40%
No	72%	60%
Used Too Seldom To Comment	3%	0%
Total Number of Respondents	29	15

Table 85

PROBLEMS WITH APPLICATION OF METHODS IN FM-21-6

Problem	Number of Respondents ^a	
	Co/Btry Cdr	Bn Cdr
Lack of Complete Understanding on the Part of Most NCOs and Junior Officers as to What Performance Oriented Training Entails	4	2
Need More Varied Examples of FM-21-6 Concepts	1	0
Training Manuals Should Specify Objectives, Standards, etc.	0	1
Instructors, Being Bred on Instructor Oriented Training, Show Resistance and Reluctance to Use a New Technique	2	1
Hard to Teach New Lesson Techniques, Requires Much Follow-up on Part of Key Leaders to Insure Subordinates Take the Time and Effort to Do it Well.	1	0
Time Available for Adequate Preparation of Training Is Severely Limited.	0	2
Lesson Plans Can Get Too Long and Too Detailed	0	1
Difficult to Read	1	0

^a Respondents were those commanders stating that their personnel had problems with FM-21-6, i.e., seven out of twenty-nine company/battery commanders and six out of fifteen battalion commanders.

Table 86

ADEQUACY OF TC 21-5-1, "TRAINING MANAGEMENT: AN OVERVIEW"

Branch	Respondent	Average Rating ^a	Number of Respondents ^b
INF	Co Cdr	4.1	8
	Bn Cdr	4.2	5
AR	Co Cdr	3.1	7
	Bn Cdr	3.8	5
FA	Btry Cdr	3.6	5
	Bn Cdr	3.5	2
Total		3.8	32

^a Rating Scale:

- 5 = Very Adequate
- 4 = Adequate
- 3 = Borderline
- 2 = Inadequate
- 1 = Very Inadequate
- 0 = Can't Evaluate

^b Does not include those who checked "Can't Evaluate"

Table 87

ADEQUACY OF TC 21-5-2, "PERFORMANCE-ORIENTED TRAINING"

Branch	Respondent	Average Rating ^a	Number of Respondents ^b
INF	Co Cdr	4.1	10
	Bn Cdr	4.2	5
AR	Co Cdr	4.0	8
	Bn Cdr	4.2	5
FA	Btry Cdr	4.2	6
	Bn Cdr	4.0	4
Total		4.1	38

^a Rating Scale:

- 5 = Very Adequate
- 4 = Adequate
- 3 = Borderline
- 2 = Inadequate
- 1 = Very Inadequate
- 0 = Can't Evaluate

^b Does not include those who checked "Can't Evaluate"

ARTEP

Information was collected on the use and evaluation of ARTEP¹ by sample units. Tables 88 through 90 show the results.

The percentage of collective training time during which company/battery commanders reported using ARTEP was 72% for infantry units, 65% for armor, and 93% for field artillery. Battalion commanders estimated its use at an average of 62%. Time of most frequent use, as reported by an average of 62% of the commanders, was throughout the year. Thirty-six percent of the commanders reported most frequent use as immediately before ARTEP exercises.

The average respondent-rated adequacy of ARTEP was 4.5, a low very adequate rating. One infantry company commander rated the exercises as inadequate, and two armor company commanders rated them as borderline.

Training Development Process

Company/battery commanders were asked about their units' use of 10 steps in the training development process. Table 91 lists the 10 steps and the data on their use. Seventy-five to 89% of the commanders reported regular use of the 10 steps. The 2 steps regularly used by the smallest percentage of units were Program and Schedule Training (75%) and Conduct Training (79%), reflecting that these steps were also performed at other than the company/battery level.

The percentage of respondents who identified individual steps as "most difficult for you to accomplish at company level" ranged from 0% for Identify Mission (7% stated that they never performed this task) to 36% for Program and Schedule Training (7% stated that they need more information to perform this task). Two of the remaining steps were listed as most difficult for 21% of commanders. They were Determine Current Level of Performance and Conduct Training. Four percent needed more information about the latter. Two other steps were listed as most difficult by 15% of commanders--Establish Performance Objectives and Identify Resources Available. For both of these steps, 4% of the commanders needed more information. The remaining steps had a smaller percentage of commanders listing them as difficult. They were Determine Training Needed (11%), Analyze Mission (7%), Specify Training to be Conducted (7%), and Evaluate Training (7%, with 4% needing more information). For each of five of the steps that were reported as most difficult, one commander reported that he never performed them.

¹A more detailed analysis of ARTEP usage is contained in T. G. Ryan, "Design of Training, Diagnostic and Feedback Techniques for ARTEP," Interim Report, ARI Field Unit, USAREUR, December 1976.

Table 88

PERCENTAGE OF COLLECTIVE TRAINING IN WHICH ARTEP STANDARDS ARE USED

RESPONDENT	INF		AR		FA		Number of Respondents		
	Range	Mean	Range	Mean	Range	Mean	INF	AR	FA
Co/Btry Cdrs	44-97%	72%	40-100%	65%	75-100%	93%	9	10	10
Bn Cdrs	40-80%	62%	30-100%	59%	40-80%	66%	5	5	5

Table 89

TIME OF MOST FREQUENT USE OF ARTEP STANDARDS

Time	Percent of Respondents
Throughout year	62%
Immediately before ARTEP Exercise	36%
Other: During Battalion Controlled/Evaluated Training	2%
Total Number of Respondents	44

Table 90

ADEQUACY OF ARTEP EVALUATION STANDARDS

Branch	Average Rating ^a
INF	4.3
AR	4.3
FA	4.9
Total	4.5

^aRating Scale:

- 5 = Very Adequate
- 4 = Adequate
- 3 = Borderline
- 2 = Inadequate
- 1 = Very Inadequate

Table 91
COMPANY COMMANDER USE OF STEPS IN TRAINING DEVELOPMENT PROCESS

Process Steps	Percent of Respondents-Company Commanders				Total Number Of Respondents ^e
	Regularly Performed ^a	Most Difficult ^b	Never Performed ^c	Need More Information ^d	
	% Total Resp.	% Total Resp.	% Total Resp.	% Total Resp.	
Identify Mission	89%	0%	7%	4%	28
Analyze Mission	89%	7%	4%	0%	28
Establish Performance Objectives	81%	15%	4%	4%	27
Determine Current Level of Performance	82%	21%	0%	0%	28
Determine Training Needed	86%	11%	0%	0%	28
Identify Resources Available	81%	15%	4%	4%	27
Specify Training to Be Conducted	89%	7%	4%	0%	28
Program and Schedule Training	75%	36%	0%	7%	28
Conduct Training	79%	21%	0%	4%	28
Evaluate Training	86%	7%	4%	4%	28

^a Regularly Performed in Company

^b Most Difficult to Accomplish at Company Level

^c Never Perform at Company Level

^d Need More Information in Order to Accomplish

^e Total number of responses for a branch at any step can be more than total number of respondents since respondents could give multiple answers for each step.

These results indicate that there was great variability among commanders as to the steps they designated most difficult, with a small to moderate percentage of total respondents having difficulty with at least one step. The reported difficulty in programing and scheduling training reflects a current, fundamental difficulty in USAREUR. Although training resources in general are improving in quantity and quality, the effective management of those resources presents a complex and continuing problem to commanders at many levels, but perhaps increasingly at the levels of battalion and below.

Commander's Role in Training

This section presents results on battalion and company/battery commanders' self-perceived roles, on activities they think are appropriate for their roles, and details on some of the company/battery commander role activities.

Battalion Commanders

Battalion commanders listed the major activities in their training roles. As Table 92 shows, 16 different activities were listed, some by only one commander each. Those activities listed by the largest percentage of commanders were provide guidance (47%), establish priorities (40%), specify objectives (33%), allocate resources (33%), coordinate training (33%), evaluate training (27%), and determine requirements (20%). The fact that 47% was the highest percentage of commanders reporting any one activity indicates quite a difference in role emphasis among the battalion commanders in spite of some overlap of the activity categories listed.

When battalion and company/battery commanders specified the levels at which various training activities should be performed (see Table 93), their responses indicated a difference between the actual activities and those that the commanders said should be in the battalion role. Eighty-four percent of battalion/company/battery commanders thought evaluating training should be in the battalion role versus 27% of battalion commanders who reported this activity actually in their role. Sixty-one percent of the total group reported that determining requirements should be in the battalion role, and only 20% of battalion commanders reported it as part of their role. Two activities, conducting training and scheduling training, were not listed by battalion commanders as being in their role, whereas 41% and 57% of battalion and company/battery commanders, respectively, said these activities need to be in the role. Perhaps these results indicate not so much a disparity in actual versus ideal roles, as that those activities not listed in the actual role were of less importance to battalion commanders than those that were listed.

Table 92

BATTALION COMMANDERS' SELF-PERCEIVED ROLE IN TRAINING

Activity	Number of Respondents ^a				Percent of Total
	INF	AR	FA	Total	
Provide Guidance	4	2	1	7	47%
Establish Priorities	1	2	3	6	40%
Specify Objectives	2	1	2	5	33%
Allocate Resources	2	2	1	5	33%
Coordinate Training	1	2	2	5	33%
Evaluate Training	0	2	2	4	27%
Determine Requirements	1	2	0	3	20%
Supervise Training	0	1	1	2	13%
General Management	1	1	0	2	13%
Insure Advance Planning	0	2	0	2	13%
Establish Performance Objectives	0	0	1	1	7%
Teach	1	0	0	1	7%
Educate (GED,PREP,College,MOS)	0	0	1	1	7%
Participate in Training on an Operational Basis	1	0	0	1	7%
Develop Positive & Professional Leadership Environment for Good Training	0	1	0	1	7%

Table 93

LEVELS AT WHICH MAJOR TRAINING ACTIVITIES SHOULD BE CONDUCTED

Activity	Percent of Respondents					Total Number of Respondents
	Squad	Platoon	Company	Battalion	Brigade	
Determine Training Requirements	18%	41%	82%	61%	25%	44
Conduct Training	43%	57%	86%	41%	9%	44
Evaluate Training	9%	25%	70%	84%	32%	44
Schedule Training	2%	7%	89%	57%	11%	44

Company/Battery Commanders

As Table 94 reports, company/battery commanders responded to a list of six activities by indicating those in their current role.

Ninety-seven percent indicated that they plan and schedule training. Ninety percent evaluate training, and 83% conduct company training. Lower percentages of commanders assign tasks to platoon leaders (76%), analyze requirements from battalion and higher levels (69%), and supervise platoon training (55%). The smaller percentages for the latter activities were due primarily to less frequent performance of these activities by field artillery commanders. Infantry and armor percentages for the three activities were 90%, 75%, and 70%, respectively.

As seen in Table 93, high percentages of company/battery/battalion commanders indicated that scheduling training, evaluating training, conducting training, and determining training requirements should be part of company/battery commander role activities. A smaller percentage of the commanders indicated that these activities should be conducted at squad, platoon, and brigade levels also.

Table 95 shows results obtained on several company/battery commander activities.

Sixty-three percent of commanders reported that they personally had conducted training 1 to 5 times during the preceding 3 months. Twenty-seven percent personally conducted training 10 to 12 times during that period. Table 96 shows that the majority of the commanders selected all or most of their unit trainers, with 17% indicating that they selected about half, while another 17% selected very few.

One or more Consolidation of Administration at Battalion Level (CABL) systems designed to reduce administrative requirements for company/battery commanders had been implemented in 72% of the units. Table 97 indicates that 69% of the units had the personnel system, 14% the supply system, and 7% the maintenance system.

Table 98 presents commanders' comments on results of the system. Comments indicated both positive and negative results. Forty-five percent of the commanders reported that CABL frees the commander and/or the first sergeant from many administrative tasks. Ten percent reported CABL improved uniformity and quality of administration, and 15% indicated it improved personnel actions. Twenty-five percent of the commanders reported negative results, and 10% reported that there had been no results. Another 10% reported that CABL had been installed too short a time for results to be apparent.

Table 94

MAJOR ACTIVITIES IN COMPANY/BATTERY COMMANDER TRAINING ROLE

Activity	Number of Respondents ^a	Percent of Respondents
Analyze Requirements from Battalion and Higher Levels	20	69%
Plan and Schedule Training	28	97%
Assign Tasks to Platoon Leaders	22	76%
Supervise Platoon Training	16	55%
Conduct Company Training	24	83%
Evaluate Training	26	90%

^aTotal number of respondents: 10 INF
10 AR
9 FA

Table 95

NUMBER OF TIMES COMPANY/BATTERY COMMANDERS HAVE PERSONALLY CONDUCTED TRAINING IN PAST 3 MONTHS

Number of Times	Number of Respondents	Percent of Total
1-5 Times	14	63%
10-12 Times	6	27%
14 Times	1	5%
30 Times	1	5%
Total Respondents	22	

Table 96

UNIT TRAINERS SELECTED BY COMPANY/BATTERY COMMANDERS

Ways	Number of Respondents	Percent of Total
I Select All of the Trainers	5	17%
I Select Most of the Trainers	14	49%
I Select About Half of the Trainers	5	17%
I Select Very Few of the Trainers	5	17%
I Select None of the Trainers	0	0%
Total Respondents:	29	100%

Table 97

USE OF CABL SYSTEMS BY COMPANY/BATTERY COMMANDERS

CABL SYSTEM	Number of Users ^a	Percent of Total
None	8	28%
Personnel	20	69%
Supply	4	14%
Maintenance	2	7%

^aTotal number of respondents = 29

Table 98

RESULTS OF INSTALLATION OF CABL SYSTEM

Result	Number of Co/Btry Cdr ^a			
	INF	AR	FA	Total
Frees Company Commander and/or First Sergeant of Many Administrative Tasks	2	2	5	9
Greater Uniformity and Quality Control of Administration	1	1	0	2
Increased SIDPERS Accuracy	0	0	1	1
Personnel Transactions Much Simpler	0	0	1	1
Fewer Pay Complaints/Late Pay	0	0	1	1
First Sergeant is Free; Company Commander Works More	1	0	0	1
Company Commander Doesn't Have as Much Grasp on People as Before	1	0	0	1
Company Commander Can't Set Own Priorities	1	0	0	1
Company Commander Spends More Time Long Hand Writing (for Typing) and Going to Battalion File to Get Material and Read Regulations	1	0	0	1
Mixed Results, Loss of Company Clerk to PAC Meant Loss of First Sergeants' Driver so Another 11E Was Required to Replace Him	0	1	0	1
None	1	1	0	1
Too Short Time to Tell	0	2	0	2

^aMaximum number of respondents: 8 Inf
7 AR
5 FA

Some commanders gave more than one response.

Commander Preparedness

When asked how well prepared they were to deal with two aspects of the modern battlefield, company/battery and battalion commanders reported being well prepared for integrated employment of available weapons systems and somewhat prepared for processing large data inputs (see Tables 99 and 100). Both commander groups listed their self-perceived areas of weakness in dealing with the modern battlefield and their solutions for the weaknesses (see Appendix G, Tables G-1 through G-6). Battalion commanders' most frequently mentioned comments concerned need for more maneuver training, more field training, more battalion-level training, and more training with support elements and with combined arms. Company/battery commanders also listed a need for more training of these types, but their comments were dispersed over a wide range of weaknesses and solutions.

When asked about their problems with the diversity and complexity of modern weapons systems, 21% of company/battery commanders reported a problem with administrative, 33% with technological, and 76% with maintenance aspects of the systems (see Table 101). Out of the 19 commanders reporting problems with maintenance, 7 reported that their personnel were not well trained in maintenance. Three reported that complexity of the weapons was not the problem, but rather the amount and diversity of the required maintenance. One commander cited parts availability as a problem, and another, understanding of manuals. Technological problems mentioned were fire control and waste of ammunition. Administrative problems involved not knowing the procedures for turning in weapons, and having difficulty obtaining publications with slow distribution.

When asked if there were major problems in training troops to handle the new weapons systems, 43% of company/battery commanders said yes, as Table 102 shows.

Five commanders cited inadequate training of troops as the problem. Two others reported that the M109A1 system is hard to master for both officers and enlisted men. One commander reported that too many outside diversions cause limited training for troops.

Table 103 gives the percentages of company/battery commanders reporting problems with management of new weapons systems by NCOs and company grade officers.

There were differences between branches--71% of infantry commanders, 20% of field artillery commanders, and 17% of armor commanders indicated that company grade officers have a problem with the systems. Sixty percent of field artillery, 57% of infantry, but no armor respondents reported NCOs having a problem. Comments made by commanders reporting problems in this area indicated that NCOs and officers were neither well trained nor experienced in managing the systems. In

addition, officers were said to have too many systems to control, and NCOs were considered unable to function as supervisors due to erosion of their responsibilities.

Table 99

PREPARATION OF BATTALION COMMANDERS TO DEAL WITH MODERN BATTLEFIELD

Type Activity	Average Rating	Total Number of Commanders
Integrated Employment of Available Weapons Systems	4.7	15
Processing of Large Data Inputs	3.7	15
Other: Work With Allies	4.0	1
Converting Intelligence to Useable Intelligence	4.0	1

^aRating Scale:

- 5 = Well Prepared
- 4 = Somewhat Prepared
- 3 = Borderline
- 2 = Somewhat Unprepared
- 1 = Very Updated

Table 100

PREPARATION OF COMPANY/BATTERY COMMANDERS TO DEAL WITH MODERN BATTLEFIELD

Type Activity	Average Rating	Total Number of Commanders
Integrated Employment of Available Weapons Systems	4.6	29
Processing of Large Data Inputs	3.8	28

^aRating Scale:

- 5 = Well Prepared
- 4 = Somewhat Prepared
- 3 = Borderline
- 2 = Somewhat Unprepared
- 1 = Very Unprepared

Table 101

PERCENTAGE OF COMPANY/BATTERY COMMANDERS
REPORTING PROBLEMS WITH DIVERSITY AND
COMPLEXITY OF WEAPONS SYSTEMS

Type of Problem	Percent of Respondents	Total Number of Respondents
Administrative	21%	24
Technological	33%	24
Maintenance	76%	25

Table 102

PERCENTAGE OF COMPANY/BATTERY COMMANDERS
REPORTING PROBLEMS IN TRAINING TROOPS
TO HANDLE NEW WEAPONS SYSTEMS

Percent Reporting a Problem ^a	Total Number of Respondents
43%	21%

Table 103

PERCENTAGE OF COMPANY/BATTERY COMMANDERS REPORTING
PROBLEMS WITH MANAGEMENT OF NEW WEAPONS SYSTEMS
BY COMPANY GRADE OFFICERS AND NCOs

Branch	Percent Reporting Co. Grade Officers Having Problems	Total Number of Respondents	Percent Reporting NCO Having Problems	Total Number of Respondents
INF	71%	7	57%	7
AR	17%	6	0%	6
FA	20%	10	60%	10

APPENDIX A. PERCENTAGE OF NEWLY ASSIGNED ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Table A-1

PERCENT OF NEWLY ASSIGNED E2 ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Number of Company Commanders Percent Reported										Average Percent	Total Number Respondents	
		0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%			
Combat	INF	0	0	1	0	0	0	0	1	1	1	6	89%	9
	AR	2	0	0	0	1	1	0	0	0	0	5	68%	9
	FA	0	0	0	0	0	0	0	0	0	0	9	79%	9
	TOTAL	2	0	1	0	1	1	0	1	1	1	20	85%	27
Support	INF	1	0	0	0	1	0	0	1	1	1	4	77%	8
	AR	1	1	1	0	0	1	0	0	0	0	5	67%	9
	FA	0	0	0	0	0	0	0	0	0	0	8	99%	8
	TOTAL	2	1	1	0	1	1	0	1	1	1	17	80%	25

Table A-2
 PERCENT OF NEWLY ASSIGNED E3 ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Number of Company Commanders Percent Reported										Average Percent	Total Number Respondents
		0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%		
Combat	INF	0	0	1	0	0	0	0	2	2	4	89%	9
	AR	2	0	0	0	2	0	0	1	1	3	64%	9
	FA	0	0	0	0	1	0	0	1	1	5	89%	8
	TOTAL	2	0	1	0	3	0	0	4	4	12	80%	26
Support	INF	1	0	0	0	2	0	0	1	0	4	72%	8
	AR	0	1	1	0	2	0	0	1	1	2	64%	8
	FA	0	0	0	0	0	0	0	1	2	4	94%	7
	TOTAL	1	1	1	0	4	0	0	3	3	10	76%	23

Table A-3
 PERCENT OF NEWLY ASSIGNED E4 ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Number of Company Commanders Percent Reported										Average Percent	Total Number Respondents	
		0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%			
Combat	INF	0	0	2	0	1	0	1	3	1	1	1	66%	9
	AR	1	2	1	0	2	1	0	1	0	1	1	46%	9
	FA	0	0	1	0	3	0	0	1	1	1	2	68%	8
	TOTAL	1	2	4	0	6	1	1	5	2	4	4	60%	26%
Support	INF	1	0	1	0	1	0	0	3	0	1	1	58%	7
	AR	1	0	3	0	1	0	0	2	0	1	1	49%	8
	FA	0	0	0	1	2	0	1	0	1	2	2	71%	7
	TOTAL	2	0	4	1	4	0	1	5	1	4	4	59%	22

Table A-4
 PERCENT OF NEWLY ASSIGNED E5 ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Number of Company Commanders Percent Reported										Average Percent	Total Number Respondents
		0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%		
Combat	INF	0	1	0	0	2	0	1	4	0	1	66%	9
	AR	1	1	1	0	3	1	0	1	0	1	47%	9
	FA	0	2	1	0	4	0	0	1	0	1	49%	9
	TOTAL	1	4	2	0	9	1	1	6	0	3	54%	27
Support	INF	1	1	0	0	2	1	0	1	0	1	51%	7
	AR	0	0	2	0	1	1	0	0	0	1	52%	5
	FA	1	1	0	0	3	0	0	0	1	1	53%	7
	TOTAL	2	2	2	0	6	2	0	1	1	3	52%	19

Table A-5
 PERCENT OF NEWLY ASSIGNED E6 ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Number of Company Commanders Percent Reported										Average Percent	Total Number Respondents	
		0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%			
Combat	INF	0	1	2	0	1	0	1	2	1	1	1	59%	9
	AR	2	1	4	0	0	0	0	0	0	1	1	31%	8
	FA	2	2	1	0	0	0	0	0	0	1	1	32%	6
	TOTAL	4	4	7	0	1	0	1	2	1	3	3	42%	23%
Support	INF	1	0	0	0	3	0	0	1	0	1	1	55%	6
	AR	1	0	0	1	1	0	0	0	0	1	1	50%	4
	FA	3	1	0	0	0	0	0	0	1	1	1	39%	6
	TOTAL	5	1	0	1	4	0	0	1	1	3	3	48%	16%

Table A-6
 PERCENT OF NEWLY ASSIGNED E7 ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Number of Company Commanders Percent Reported										Average Percent	Total Number Respondents	
		0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%			
Combat	INF	1	1	3	1	0	0	1	1	0	0	1	43%	9
	AR	3	0	1	0	0	0	0	0	1	0	0	25%	5
	FA	1	0	0	0	1	0	0	0	0	2	65%	4	
	TOTAL	5	1	4	1	1	0	1	1	1	3	43%	18	
Support	INF	2	1	0	0	0	0	0	1	0	1	41%	5	
	AR	1	0	0	0	1	0	0	0	0	0	25%	2	
	FA	0	0	0	0	0	0	0	0	1	0	90%	1	
	TOTAL	3	1	0	0	1	0	0	1	1	1	43%	8	

Table A-7

PERCENT OF NEWLY ASSIGNED E8 ENLISTED MEN WHO NEED ADDITIONAL TRAINING

Type MOS	Branch	Number of Company Commanders Percent Reported										Average Percent	Total Number Respondents		
		0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%				
Combat	INF	5	0	0	0	0	0	0	0	0	0	0	1	18%	6
	AR	6	0	0	0	0	0	0	0	0	0	0	0	6%	6
	FA	2	0	0	0	0	0	0	0	0	0	0	3	62%	5
	TOTAL	13	0	0	0	0	0	0	0	0	0	0	4	27%	17
Support	INF	2	0	0	0	0	0	0	0	0	0	0	1	37%	3
	AR	0	0	0	0	0	0	0	0	0	0	0	0	0%	0
	FA	0	0	0	0	0	0	0	0	0	0	1	0	90%	1
	TOTAL	2	0	0	0	0	0	0	0	0	0	1	1	50%	4

APPENDIX B. COMBAT TRAINING CONDUCTED IN GARRISON

Table B-1

INFANTRY COMBAT TRAINING CONDUCTED IN
GARRISON--COMPANY COMMANDERS

Type Training	Number of Respondents	Garrison Facility Adequacy Rating ^a
Tactics		
Crew Drill Weapons Platoon	1	4.0
Road March	1	4.0
Land Navigation (Dismounted)	1	4.0
Patrolling	1	4.0
Small Unit Tactics (Mounted)	1	3.0
Battle Drill (Dismounted)	1	3.0
Defensive Positions	1	3.0
Practical Exercise (Dismounted)	1	3.0
Combined Arms Tactics	1	2.0
Squad Tactics	1	2.0
Offensive Operation	1	2.0
Call for Fire	1	2.0
Practical Exercise (Mounted)	1	2.0
Land Navigation (Mounted)	1	2.0
Combat Operation (Lectures)	1	2.0
Weapons		
Burst Simulation Training (Mortar)	1	4.0
Weapons Proficiency	4	3.0
81mm Mortar Crew Drill	5	3.0
Adjustment of Individual Fire	1	3.0
TOW Crew Drill	4	2.8
Weapons Qualification	1	2.0
Weapons Familiarization	1	2.0
Mortar Subcaliber Training	1	2.0
Mines	1	2.0
TEC (LAW, Mortars, M16 Rifle, Grenades)	1	2.0
M70 TOW Tracking Device	1	2.0
Small Arms Firing	1	1.0
Bayonet Training	1	1.0
NBC		
NBC Chamber	3	3.3
Individual NBC	4	2.8

Table B-1 (cont)

INFANTRY COMBAT TRAINING CONDUCTED IN
GARRISON--COMPANY COMMANDERS

Type Training	Number of Respondents	Garrison Facility Adequacy Rating ^a
Individual Soldiering Skills		
Map Reading (Dismounted)	1	3.0
Confidence Course	1	3.0
Individual Soldiering Skills	1	3.0
PT	5	2.8
Obstacle Course	1	2.0
Survival Training	1	2.0
Compass	1	2.0
First Aid	1	2.0
Map Reading	1	1.0
Intelligence		
Soviet Equipment Orientation	1	4.0
SMSL Soviet Vehicles	1	4.0
IK Zone	1	4.0
Intelligence	2	2.5
COMSEC	1	2.0
Aircraft and Armor Identification	1	2.0
NOD, Night Observation Device, M-19, Individual	1	2.0
Maintenance		
Pre-Operations Maintenance- Tactical Vehicles	1	3.0
Operations Maintenance- Tactical Vehicles	1	2.0
Classroom		
Classroom Subjects	3	2.7

a

Rating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

Table B-2

ARMOR COMBAT TRAINING CONDUCTED IN GARRISON--
COMPANY COMMANDERS

Type Training	Number of Respondents	Garrison Facility Adequacy Rating ^a
Tactics		
Crew Battle Drill	2	3.0
Crew Procedures	1	3.0
Tactics	8	2.4
ARTEP	1	2.0
Defensive Techniques	1	2.0
Offensive Techniques	1	2.0
Night Training	2	2.0
Occupation of Assembly Area	1	2.0
Tactical Road Marches	1	2.0
Land Navigation	2	2.0
Target Acquisition	1	2.0
Adjustment of Artillery Fire	1	2.0
Maneuver Training	1	1.0
Combined Arms Training	2	1.0
Gunnery		
Tables I, II, and III	1	3.0
Gunnery Skills	12	2.5
NBC	4	2.5
Communications	4	3.0
Individual Soldiering Skills		
First Aid	1	3.0
Physical Training	1	3.0
Map Reading	1	2.0
Leadership Training	1	2.0
Intelligence		
Enemy Vehicle Aircraft Identification	1	3.0
COMSEC	1	2.0
Maintenance		
Vehicle Recovery	1	2.0
Maintenance	1	2.0
Classroom Subjects	3	3.3

^a

Rating scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

Table B-3

FIELD ARTILLERY COMBAT TRAINING CONDUCTED IN GARRISON--
BATTERY COMMANDERS

Type Training	Number of Respondents	Garrison Adequacy Rating ^a
Tactics		
Reconnaissance, Selection and Occupation of Position	1	4.0
Duties of Advance Party	1	3.0
Basic Infantry Squad Tactics (ARF)	1	2.0
Tactical Occupational Displacement	1	2.0
Delivery and Adjustment of Fire		
Combat Theatre	1	4.0
Gunnery Training	3	3.7
Fire Direction Center Drills	6	3.3
14.5 Subcaliber Training Device	2	3.0
Cannoneer	2	3.0
FA Adjustment of Fire	1	3.0
Crew/Section Drill	3	2.3
Forward Observer	1	2.0
Firing Battery Gunnery Technique	1	2.0
Basic FA Drill	1	1.0
Weapons (Other)		
Small Arms	1	3.0
Individual Weapons	1	2.0
Engagement of Aircraft with Small Arms	1	1.0
Special Weapons		
Surety Training	2	3.0
Special Weapons Guard	1	3.0
NBC		
Communication		
Communication	4	3.0
Field Wire System	1	2.0
Individual Soldiering Skills		
Leadership Reaction Course	1	4.0
General Military Knowledge	1	4.0
Drivers Training	3	2.7
Physical Training	2	2.5
FA Specialist Training	1	2.0
Individual MOS Training	1	2.0
Map Reading	1	1.0
Intelligence		
	1	3.0
Maintenance		
	3	3.0

^a

Rating scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

APPENDIX C. TRAINING CONDUCTED AT LTA

Table C-1

INFANTRY TRAINING CONDUCTED AT LTA--
COMPANY COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating ^a
Tactics		
Mounted Crew Drill (Mortars and TOW)	1	4.0
Platoon Tactics	4	3.3
Patrolling	2	3.0
Road Marches	2	3.0
Land Navigation	3	3.0
Small Unit Tactics (Mounted)	1	3.0
Anti-Armor Training	1	3.0
Night Attack	1	3.0
Fighting Positions	1	3.0
Patrolling (Dismounted)	1	3.0
Minefields	1	3.0
Camouflage and Concealment	1	3.0
Assembly Area Procedures	1	3.0
Squad Tactics	5	2.8
REALTRAIN (Scopes)	2	2.5
Movement to Contact	2	2.5
Company Level Tactics	3	2.3
Offensive Operations	2	2.0
Defense Operations	2	2.0
Delay	2	2.0
Company In Defense	1	2.0
Team Tactics	1	2.0
Crew Drill (Mounted)	1	2.0
Platoon Formations (Dismounted)	1	2.0
Land Navigation (Mounted)	1	2.0
Call For Fire	1	2.0
Airmobile	1	2.0
Terrain Appreciation	1	2.0
Battle Drill (Mounted)	1	1.0

Table C-1 (cont)

INFANTRY TRAINING CONDUCTED AT LTA--
COMPANY COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating ^a
Weapons		
TOW Target Acquisition	1	4.0
DRAGON Firing	1	4.0
Mortar Firing Points	1	4.0
Ranges, M16 Through 50 Caliber	1	4.0
TOW Firing	1	3.0
LAW Ranges	1	3.0
Weapon Familiarization/Qualification	1	3.0
Range Cards	1	3.0
Range Estimation	2	2.5
M70 TOW Tracking Device	1	2.0
NBC Training	1	3.0
Intelligence	1	3.0
Individual Soldering Skills		
Driver's Training	1	4.0
Map Reading	1	3.5
EIB	1	3.0
Compass	1	2.0
Survival Training	1	2.0
Map Reading (Mounted)	1	1.0

a

Rating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the features Necessary for Good Training

Table C-2

INFANTRY TRAINING CONDUCTED AT LTA--
BATTALION COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating ^a
Tactics		
Squad/Fire Team Training	1	3.0
Tactical Operations (Dismounted)	1	3.0
Company Level Training (Mounted)	1	3.0
Land Navigation (Dismounted)	1	3.0
Squad/Platoon Level Training (Mounted and Dismounted)	3	2.7
Tactical Maneuvers - Company Level	3	2.0
Battalion Level Training (Mounted)	1	2.0
Tactical Operations (Mounted)	1	2.0
Anti-Tank	1	2.0
REALTRAIN	1	2.0
Land Navigation (Mounted)	1	2.0
Land Navigation	1	2.0
Task Force/Battalion Level Training	1	1.0
Weapon		
Range Firing (Small Arms, Mortar)	1	3.0
M70 TOW Tracking Device	1	2.0
Weapon Proficiency	2	1.5
NBC		
CBR Exercises	2	1.5
Individual Soldiering Skill		
Driver's Blackout	1	4.0
Driver's Infra Red	1	4.0
Confidence Course	1	4.0
EIB	4	3.5
Driver's Training	3	2.3
Physical Training	1	2.0

a

Rating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

Table C-3

ARMOR TRAINING CONDUCTED AT LTA--
COMPANY COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating
Tactics		
Occupy and Establish Assembly Area	1	4.0
Land Navigation	1	4.0
REALTRAIN (Platoon Level)	1	3.0
Tactical Movement, Platoon	1	3.0
Establishing Defensive Position	1	3.0
Tactics	2	2.5
ARTEP	2	2.5
ARTEP Platoon Battle Drill	2	2.5
ARTEP Tactical Road March	1	2.0
ARTEP Occupation of Assembly Area	1	2.0
Platoon Level Maneuver	1	2.0
Platoon Tactical Training	2	2.0
Company Tactical Training	3	2.0
Target Acquisition	1	2.0
Offensive Techniques	1	2.0
ARTEP Platoon Defensive Positions	1	1.0
ARTEP Platoon Delay Operations	1	1.0
Company Level Maneuver	1	1.0
Night Movement of Tracks	1	1.0
Gunnery		
Tables I, II, and III	1	4.0
Rifle and Pistol Firing	1	3.0
Subcaliber Fire, Small Weapons	2	3.0
Small Arms Range	2	3.0
Tank Gunnery	6	2.2
Small Weapons Firing	1	2.0
Dry TCQC	3	1.7
Automatic Weapon Firing	1	1.0
NBC Training		
NBC	3	3.3
Gas Chamber	1	2.0
Individual Soldiering Skills		
Drivers Training	2	2.5
Map Reading	3	2.3
Classroom Subjects	1	2.0

^aRating scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

Table C-4

ARMOR TRAINING CONDUCTED AT LTA--
BATTALION COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating ^a
Tactics		
Platoon Battle Drill	1	4.0
Platoon Tactical Training	1	3.0
Platoon ARTEP	1	3.0
Platoon Maneuvers	1	3.0
Company/Team Maneuver	1	2.0
Company Tactical Training	1	2.0
CPX	1	2.0
Land Navigation	1	2.0
Tactical Training	2	1.5
Battalion Level Tactical Training	1	1.0
Gunnery		
Individual Weapons Proficiency	1	4.0
Small Arms Firing	1	3.0
Dry TCQC	1	3.0
M70 TOW Tracking Device	1	3.0
Gunnery Skills	3	2.0
Weapons Familiarization	1	2.0
Tank Subcaliber Firing	1	2.0
LAW Subcaliber Firing	1	2.0
TOW Training	1	2.0
Mortar Gunnery	1	2.0
NBC Training		
NBC	3	2.3
Gas Chamber Exercise	1	2.0
Intelligence		
Radar	1	4.0
Individual Soldiering Skills		
Map Reading	1	4.0
Driver Training	2	2.5
Physical Training	1	2.0

^a

Rating scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

Table C-5
 FIELD ARTILLERY TRAINING CONDUCTED AT LTA--
 BATTERY COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating ^a
Tactics		
Road March	1	4.0
Riot Control	1	3.0
Hasty Occupations	1	3.0
Reconnaissance, Selection, and Occupation of Position	7	2.9
Battery Defensive Position	2	2.5
Convoy Driving Techniques	2	2.5
Night Road March	3	2.3
Land Navigation	1	2.0
Terrain March	1	1.0
Delivery and Adjustment of Fire		
Cannoneer	1	4.0
Gunnery Techniques	1	4.0
Fire Direction Center Drill	3	3.7
Section Drill	3	3.3
Ammunition Resupply	1	3.0
Firing Battery	1	3.0
Live Fire	1	3.0
Dry Fire	1	2.0
14.5mm Subcaliber Training Device	1	2.0
Forward Observer Training	5	2.0
Weapons (Other)		
Small Arms Firing (45 caliber)	2	2.0
M-203, M-16 Rifle Grenade Launcher	1	2.0
M2-M60, Crew Served Weapons	1	2.0
M16A1 Rifle	1	1.0
Special Weapons	1	4.0

Table C-5 (cont)

FIELD ARTILLERY TRAINING CONDUCTED AT LTA--
BATTERY COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating ^a
NBC	2	2.5
Communications		
Wire Team Drill	1	4.0
Field Communications	2	3.5
Tactical Wire Laying	1	3.0
Maintenance		
Maintenance	1	4.0
Equipment Serviceability Criteria	1	4.0
Individual Soldiering Skills		
Mess Training	1	4.0
Driver's Training	5	3.4
Map/Compass Exercise	4	2.8

^a

Rating Scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

Table C-6

FIELD ARTILLERY TRAINING CONDUCTED AT LTA--
BATTALION COMMANDERS

Type Training	Number of Respondents	LTA Adequacy Rating ^a
Tactics		
Basic Squad Tactics (Security Forces)	1	4.0
Perimeter Defense	1	4.0
Reconnaissance/Map Reading	1	4.0
CPX	1	3.0
Convoy Training	1	3.0
Reconnaissance, Selection and Occupation of Position	4	2.0
Tactical Road March	1	2.0
Camouflage	1	2.0
Delivery and Adjustment of Fire		
Duties of FA Cannoneer	1	4.0
14.5mm Subcaliber Training Device	4	3.0
Crew/Section Drill	1	3.0
Firing Battery Operations	1	2.0
Live Firing	1	2.0
Weapons (Other than Howitzer)		
Weapons Familiarization and Qualification	1	4.0
Weapons Qualification	2	3.0
LAW Subcaliber Training	1	2.0
NBC	3	3.0
Communication		
Field Wire Communications	1	4.0
Individual Soldiering Skills		
Individual Training	1	4.0
Driver's Training	5	3.6

^a

Rating scale:

- 4 = Has All Features Necessary for Good Training
- 3 = Has Most Features Necessary for Good Training
- 2 = Has Some Features Necessary for Good Training
- 1 = Has None of the Features Necessary for Good Training

APPENDIX D. LTA AND MTA TRAINING LIMITATIONS

Table D-1

LTA LIMITATIONS FOR INFANTRY UNITS

Type Deficiency	Number of Responses		
	Category Total	Co Cdr	Bn Cdr
Space Limitations	17		
Area too Small		3	0
Limited Maneuver Area		5	3
Because of Size Restriction Used for Squad or Platoon REALTRAIN Exercises Only and for Subcaliber Firing		0	1
Lack of Available Areas When Tanks are Firing		1	0
Because of Size Terrain is too Well Known to Troops to Task Land Navigation Abilities		3	1
Area Characteristics	5		
Poor Ranges		1	0
No Move Out and Fire Ranges for Multiple Caliber Weapons Systems		1	0
Inadequate Live Fire Combined Arms Ranges		0	1
Limited Terrain for Tactical Operations		0	1
No Good Map and Compass Courses		1	0
Area Restrictions/Control	8		
No Pyrotechnic Usage		2	0
No Calling for Air Support		1	0
No Firing of Live Ammunition		1	0
No Digging In		1	0
No Mounted Training		1	0
Only Two Areas Where Vehicles Can Be Taken		1	0
Range Firing Is Counterproductive As Takes One Platoon to Man Barriers		0	1
Weather	1		
Poor Visibility Often Hampers Live Firing		1	0
No Deficiencies	1	1	0

Table D-2

LTA LIMITATIONS FOR ARMOR UNITS

Type Deficiency	Number of Responses		
	Category Total	Co Cdr	Bn Cdr
Space Limitations	20		
Area Too Small		4	0
Insufficient Maneuver Area		7	4
Open Space Limited		1	0
Because of Size Terrain Is Too Well Known to Troops to Task Land Navigation		1	0
Overcrowded		1	1
Effective Training Can Be Accomplished Only up to Tank Platoon Level		0	1
Area Characteristics	4		
Terrain Not Covered and Concealed		1	0
Limited in Effectiveness of Terrain		2	0
No Capability to Fire a 50 Caliber In-Boro Device in the Main Gun of the Tank		0	1
Area Restrictions/Control	4		
No Cutting of Foliage		1	0
No Digging		1	0
Restricted Vehicle Movement		1	0
No LTA Available	1	0	1

Table D-3

LTA LIMITATIONS FOR FIELD ARTILLERY UNITS

Type Deficiency	Number of Responses		
	Category Total	Co Cdr	Bn Cdr
Space Limitations	14		
Area too Small		6	2
Impact Area too Small		2	0
Insufficient Maneuver Room		0	1
Insufficient Space for Tactical Operations		0	1
Crowded Conditions		1	1
Time Restrictions	1		
Inadequate Time Periods on Range		0	1
Area Characteristics	11		
Lack of Tactical Position Areas		0	1
Inappropriate Terrain/Vegetation		4	2
Insufficient Firing Positions		1	0
Inability to Terrain March		1	1
Impact Area on Side of Steep Hill		1	0
Area Restrictions/Control	17		
Too Many Maneuver Damage Restrictions		2	0
Excessive Road Guard Requirements		2	0
Unrealistic Safety Requirements		1	0
Check in too Often with Range Control		1	0
Must Maintain Wire and Radio Communication to Range Control		2	0
Must Attend Daily Range Briefing		1	0
Daily Cease Fire 1530-1900		1	0
Excessive Barrier Restrictions		1	0
Civilian Road Constraints		1	0
Ambulance Requirements		1	0
No Live Firing		2	0
Can Operate Only One Firing Point at a Time		1	0
DIVARTY Controls too Strict		1	0

Table D-4

MTA LIMITATIONS FOR INFANTRY UNITS

Limitations	MTA	Number of Responses ^a		
		Category Total	Co Cdr	Bn Cdr
Grafenwoehr				
Space Limitations		7		
Limited Maneuver Space			2	1
Limited Maneuver Area for Battalion Level			0	1
Density of Artillery Units Preclude Scheduling of Infantry Units			0	1
Overcrowded			1	1
Area Characteristics		4		
Shortage of Mounted Maneuver Areas			1	0
Ranges Not Adequate for Tactical Firing Exercises			0	1
Lack of Adequate Combined Arms Live Fire Ranges			0	1
Limited Availability of Ranges and Ammunition Preclude "Trying Out" a Range before Sending Troops There for Actual Firing			1	0
Area Restrictions/Control		5		
Too Many Restrictions on Live Fire Move out Ranges			1	0
Range Rules Too Strict			1	0
Details Use Too Many People			2	0
Bivouac Areas/Showers Insufficient for Troop Density			1	0
Hohenfels				
Space Limitations		5		
Training Areas Too Crowded-Troop/Unit Concentration			4	0
Inadequate Maneuver Room Because of Overcrowding			0	1
Area Characteristic		2		

Table D-4 (cont)
MTA LIMITATIONS FOR INFANTRY UNITS

Limitations	MTA	Number of Responses ^a	
		Category Total	Co Cdr Bn Cdr
Numerous Tank Trails Not Marked on Map		0	1
Preclude Some Aspects of Navigation Training		0	1
Many Tank Trails Too Deeply Rutted for Wheeled Vehicles Making Realistic Movements Impossible		0	1
Area Restrictions/Control		6	
Details Use Too Many People		3	0
Safety Restrictions Excessive		0	1
Many Administrative Requirements		1	0
Poor Policing of Training Area		1	0
Time Restriction		2	
Training Periods Too Short		1	0
Periods of Time Allocated for Team Tests Too Short		0	1
Safety Hazard		1	
Safety Hazards-Bivouac Area-Due To Coal Heated Water		1	0
No Limitation		1	0
Wildflecken			
Space Limitation		3	
Lack of Space To Maneuver Mounted		0	1
Impact Area Too Large		0	1
Overcrowded		1	0
Area Characteristics		3	
Lack of Company Level Maneuver Area		1	0
Little Maneuver Area		1	0
Does Not Furnish Generators For Operation of 50 Caliber Targets		0	1

Table D-4 (cont)

MTA LIMITATIONS FOR INFANTRY UNITS

Limitations	MTA	Number of Responses ^a		
		Category Total	Co Cdr	Bn Cdr
Area Restrictions/Control		3		
Details Use Too many People			2	1
Billeting			1	0
Weather		1		
Visibility Often Hampers Life Fire			1	0
No Limitations		1	1	0
	Munsingen			
Space Limitation		1		
Inadequate Room for Number of Troops Using			0	1
Area Restrictions/Control		2		
Range Support Facilities Can't Use Tracks			1	0
			1	0
Time Restriction		1		
Insufficient Time at MTA			0	1
	Baumholder			
Area Characteristics		1		
No Live Fire Move Out Ranges			1	0
Area Restrictions		2		
No Digging In			1	0
No Mounted Training			1	0
	Hammelburg			
Area Restrictions		1		
Can't Use Tracks			1	0
	Wildflecken-Hohenfels-Grafenwoehr			
		2		
Do Not Have Standard SOP's			0	1
Do Not Have Range Packets for Safety Requirements, Organization of Range, and How to Conduct Firing for Particular Weapons			0	1

^aTotal number of respondents: 9 = company commander
4 = battalion commander

Table D-5

MTA LIMITATIONS FOR ARMOR UNITS

Limitation	MTA	Number of Responses ^a		
		Category Total	Co Cdr	Bn Cdr
Grafenwoehr				
Space Limitations		2		
Overcrowded			2	0
Area Characteristics		8		
Tank Range Poorly Designed for Realistic Training			2	0
Can't Maneuver and Fire at the Same Time			0	1
Very Poor for Maneuver			0	1
Little if any Opportunity to Do Tactical Training			0	1
Superior for Mortar Training			0	1
Limited Number of Hard Targets to Shoot			1	0
Inadequate Moving Targets on Tank Ranges			1	0
Area Restriction/Control		4		
Safety Restrictions too Stringent			1	0
Dry Weather Restrictions			1	0
Poor Range Support			0	1
Poor Service Support for Individual Soldiers			1	0
Weather (Fog)		1	1	0
No Limitations		1	0	1
Hohenfels				
Space Limitations		7		
Unit Density Prevents Adequate Maneuver Space			0	1
Overcrowded			2	2
Limited Maneuver Space for Battalion Sized Unit			0	2
Area Characteristics		4		
Limited Tank Range			1	0
Can't Maneuver and Fire at Same Time			0	1
Impossible to Fullfill ARTEP Standards			0	1
Superior for Maneuver Training			0	1

Table D-5 (cont)

MTA LIMITATIONS FOR ARMOR UNITS

Limitation	MTA	Number of Responses ^a		
		Category Total	Co Cdr	Bn Cdr
Area Restrictions/Control		4		
Dry Weather Restrictions			1	0
Pyrotechnics Use Restricted			1	0
No Live Tank Fire Authorized			1	0
Poor Service Support for Individual Soldier			1	0
Weather (Fog)		1	1	0
	Baumholder			
Space Limitations		1		
Inadequate Maneuver Space			0	1
Area Characteristics		1		
Can't Maneuver and Fire at the Same Time			0	1
Area Restriction/Control		4		
Maneuver Restrictions			1	0
Rigid Rules Hamper Activities			0	1
Can Use Fire Heat but Not Sable			0	1
Range Support is Great			0	1
	Wildflecken			
Area Characteristics		3		
Too Mountainous and Wooded			1	1
Inadequate Tank Firing Facilities			1	0

^aTotal number of respondents: 8 = Company Commander
5 = Battalion Commander

Table D-6

MTA LIMITATIONS FOR FIELD ARTILLERY UNITS

Limitation	MTA	Number of Responses		
		Category Total	Btry Cdr	Bn Cdr
	Grafenwoehr			
Space Limitations		4		
Overcrowded			2	2
Area Characteristics		5		
Impact Area Very Small for Tactical Training for Forward Observers			0	1
Terrain Not Suitable for Tactical Live Firing Due to Treeline Positions			0	2
Not All firing Points are Tactically Emplaced			2	0
Area Restrictions/Controls		13		
Most Times Can't Fire Smoke, WP or Illumination			0	1
Terrain March Restrictions			2	0
Safety Restrictions			3	0
Range Control Administration Requirements Restrict Realistic Training			1	0
Dry Weather Restrictions			1	0
Restricted Movement on Main and Secondary Tank Trails Limits Employment of New Tactics			0	1
Too Many Personnel Devoted to Detail			1	0
Many Activities Placed Off Limits for Soldier in Training			1	0
Restrictive and Repetitive in Being Tied to Same Firing Points which are Not in Tree Lines and on Reverse Slopes as Would be Placed in War			1	0
Limited Number of Firing Points			0	1
Weather		1		
(Seasonal)			1	0
No Limitations		2	1	1

Table D-6 (cont)

MTA LIMITATIONS FOR FIELD ARTILLERY UNITS

Limitations	MTA	Number of Responses		
		Category Total	Btry Cdr	Bn Cdr
	Wildflecken			
Space Limitation		7		
Too Crowded			1	0
Small Impact Areas			2	1
Small Position Areas			2	0
Insufficient Maneuver Area			1	0
Area Characteristics		11		
Motor Pool Too Far from Billets and Track Park			1	0
Number of Firing Points Limited			3	2
Position Area Not Suitable for Howitzer			1	0
No Direct Fire Range			1	1
Too Easy to Challenge Toward Observer			1	0
Small Arms Ranges Not Always Functional			0	1
Area Restrictions/Control		6		
Ranges Can't Be Used for TOW Helicopter Training			0	1
Most Times Can't Fire WP, Smoke or Illumination			0	1
No Support from Range Control			1	0
Many Check Tires for A/C, Engineer, Ash and Trash Details			1	0
Engineers Working While Firing			2	0
Weather		1		
Marginal Weather Conditions Good Part of Year (Fog)			0	1
	Munsingen			
No Limitation		1	1	1
	Hohenfels			
Only Three or Four Points for Approved		5		
Firing for Field Artillery			0	2
Impact Area Very Small			0	2
Most Times Can't Fire Smoke, WP or Illumination			0	1

APPENDIX E. TRAINING AMMUNITION PROBLEMS

Table E-1

MAJOR PROBLEMS WITH REQUISITION, ALLOCATION, AND
TURNBACK OF TRAINING AMMUNITION--
INFANTRY UNITS

Problem	Number of Respondents		Problem Area Totals	
	Co Cdr	Bn Cdr	Co Cdr	Bn Cdr
Requisition			5	2
Paper Work Drill Too Cumbersome	1	0		
Too Long Lead Time	4	2		
Allocation			6	3
Allocation Insufficient to Maintain Combat Readiness	0	2		
Allocation Insufficient for the Following:				
45 cal, 81mm	1	0		
Smoke, Flares, BBT's, Simulators	1	0		
45, 50 cal, Mortar, Tear Gas, Smoke, Hand Grenades	1	0		
50 cal, LAW, 90mm, M60	1	0		
Pyrotechnics	2	1		
Turnback			2	1
Difficult	1	0		
Waiting Time for Turnback is Too Long	0	1		
Paper Work Too Cumbersome	1	0		
Other			0	2
Sometimes When Get Range Can't Get Ammunition	0	1		
Can't Store Ammunition for Long Periods	0	1		

Table E-2

MAJOR PROBLEMS WITH REQUISITION, ALLOCATION, AND
TURNBACK OF TRAINING AMMUNITION--ARMOR UNITS

Problem	Number of Respondents		Problem Area Totals	
	Co Cdr	Bn Cdr	Co Cdr	Bn Cdr
Requisition			0	2
Lead Time is Excessive	0	1		
Problem in Coordinating Ranges/ Maneuver Areas & the Munitions Needed to Conduct the Training. Lead Time for Both Not Finalized Until 30 Days in Advance. Munition Must Be Requested 70 Days in Advance With No Adjustments for More or Additional Types - Causes Excess Ordering of Munitions. Ever Changing Programs (Tank Gunnery) Allow No Lead Time for Ordering Ammunition.	0	1		
Allocation			3	2
Insufficient Supply of:				
Pyrotechnics	1	0		
Blank Adapters for COAX, 50mm, etc.	1	0		
Ball Ammunition	1	0		
USAREUR Moratorium on Tank Main Gun Ammunition Has Seriously Affected Gunnery	0	1		
Unit Received Different Ammu- nition From That Requisitioned	0	1		
None			5	0

Table E-3

MAJOR PROBLEMS WITH REQUISITION, ALLOCATION, AND
TURNBACK OF TRAINING AMMUNITION--
FIELD ARTILLERY UNITS

Problem	Number of Respondents		Problem Area Totals	
	Co Cdr	Bn Cdr	Co Cdr	Bn Cdr
Requisition			7	2
Forecasting Must Be Done Too Far in Advance to Be Realistic	5	2		
Little Flexibility in Changing Dates	1	0		
Get a Gig for Misforecasting	1	0		
Allocation			7	1
Insufficient Quantity	4	0		
Unable to Get Ammunition for Direct Fire Training	1	0		
Unable to Get Types We Will Need for War: Smoke; ICM; VT Fuses; LAWS; White Phosphorus; Illumination Rounds	1	0		
Most 155mm Ammunition Is Reversed for Use at MTA in Preparation for ARTEPS	1	0		
Have Been Issued Unusable Ammunition in Several Cases and Lot Numbers in Some Boxes were Different	0	1		
Turnback			3	1
Difficult Turn-In Procedures Encourage Wastefulness	1	1		
Difficult to Turn-In; If Keep Have Guard and Danger Problems	1	0		
Ammunition Crews Must Spend 2-3 Days Waiting to Turn-In Unused Ammunition Because:				
Unbanded; Dirty; No Wrecker Available; Unsafe Vehicle for Ammunition Dump; Etc.	1	0		
Other				
Picking Up Takes Excessive Time	1	0	1	1
Movement of MTA Periods from One Quarter to Another Cause Availability Problems	0	1		
None			3	1

APPENDIX F. TRAINING SCHEDULE CHANGES AND ASSOCIATED PROBLEMS

Table F-1

MAJOR CAUSES OF TRAINING SCHEDULE CHANGES--
INFANTRY COMPANY COMMANDERS

Major Cause	Number of Responses ^a	
	Item Category Total	Individual Item
Change in Tasks, Commitments	7	
Last Minute Requirements by Higher Headquarters		5
Inspection Results Indicate A Topic Not Prepared For		1
Addition of Tasks and Commitments		1
Resource Availability	5	
Availability of Areas and Ranges		2
Extra Commitments, Duties Drain NCOs at Last Minute		2
Personnel Unavailable		1
Maintenance Requirements	2	
Inaccurate Estimates of Maintenance and Preparation Time for Major Activities		1
Substitution of Maintenance for Training Due To Changes In Company's Ability To Move and Communicate		1
Scheduling Problems	2	
Schedule Written Too Far In Advance		1
Higher Headquarters Schedule More Training Than Can Be Accomplished		1
Inclement Weather	1	

^aTotal number of respondents = 9

Table F-2

MAJOR CAUSES OF TRAINING SCHEDULE CHANGES--
ARMOR COMPANY COMMANDERS

Major Cause	Number of Responses	
	Item Category Total	Individual Item
Change in Tasks, Commitments	10	
Unexpected Requirements from Higher Headquarters		4
Unexpected Changes in Areas Not Within Battalion Responsibility		3
Commitment Changes		3
Resource Availability	2	
Non-availability/Loss of Training Facility		1
Classroom Availability		1
Unscheduled Maintenance	1	

Table F-3

MAJOR CAUSES OF TRAINING SCHEDULE CHANGES--
FIELD ARTILLERY COMPANY COMMANDERS

Major Cause	Number of Responses	
	Item Category Total	Individual Item
Changes in Tasks, Commitments	10	
Change in Mission Requirements		1
Unexpected Details		1
Unforeseen Change in Commitment		4
Unannounced Requirements from Higher Headquarters		2
Short Fused Projects/Requirements		2
Resource Availability	2	
Availability of Instructors/Aids		1
Availability of Training Area		1
Maintenance Requirements	1	
Scheduling Problems	1	
Incomplete Information When Published		1
Management Problems	7	
Lack of Foresight and Anticipation of Requirements by Battalion and Higher Staffs		1
Lack of Foresight in Battery		1
Lack of Set Priorities so That a Set Direction Can be Established		1
Failure to Have Established Continuing Programs on a Year Round Basis Causes a Resort to Crisis Management		1
Crisis Management		2
Improper Planning at Higher Levels		1

Table F-4

MAJOR CAUSES OF TRAINING SCHEDULE CHANGES--
INFANTRY BATTALION COMMANDERS

Major Cause	Number of Respondents
Short Fuse Unprogrammed Commitments from Higher Headquarters and Community	1
Vacillation on Decisions At All Levels	1
Changes in Training Areas	1
Changes Generated at Company Level	1
Commander's Prerogative	1

Table F-5

MAJOR CAUSES OF TRAINING SCHEDULE CHANGES--
ARMOR BATTALION COMMANDERS

Major Cause	Number of Respondents
<i>Unprogrammed Requirements from Higher Headquarters</i>	3
Changes/Cancellation of Training Facilities	2
Unannounced Guard and Detail Requirements	1

Table F-6

MAJOR CAUSES OF TRAINING SCHEDULE CHANGES--
FIELD ARTILLERY BATTALION COMMANDERS

Major Cause	Number of Respondents
Unexpected Commitments from Higher Headquarters	3
Unscheduled Inspections, Assistance Visits, Training Holidays, and Other Commitments	2

Table F-7

PROBLEMS CAUSED BY TRAINING SCHEDULE CHANGES--
INFANTRY UNITS

Problem	Number of Respondents ^a	
	Co Cdr	Bn Cdr
Changes Crash Into Other Programs Causing More Changes	0	1
Instructors Have Less Time To Prepare	2	2
Waste of Training Time	1	0
Lowering of Group Morale; They Don't Understand Reasons for Changes	0	1
Morale Problems With Troops Not Believing Training Schedule	1	0
Leads Individual Soldier to Believe His Superiors Are Incapable Of Planning Meaningful Training	1	0
Can Break Any Semblance of a Logical Progression in Training	1	0
Make the Effort To Lift Out of Crisis Management More Difficult	1	0

^aRespondents were those commanders stating that training schedule changes caused problems, i.e., four out of nine company commanders and two out of five battalion commanders.

Table F-8
 PROBLEMS CAUSED BY TRAINING SCHEDULE CHANGES--
 ARMOR UNITS

Problem	Number of Respondents ^a	
	Co Cdr	Bn Cdr
Confusion of the Individual Soldier Who Questions the Intelligence of the Chain of Command	2	0
Lack of Time to Adequately Prepare Training	2	0
Lowering of Quality of Training	2	1
Difficulty in Rescheduling Training	1	0
Rescheduling of Many Priority Classes so all Personnel Can Attend	1	0

^aRespondents were those commanders stating that training schedule changes caused problems, i.e. four out of ten company commanders and one out of five battalion commanders.

Table F-9

PROBLEMS CAUSED BY TRAINING SCHEDULE CHANGES--
FIELD ARTILLERY UNITS

Problem	Number of Respondents ^a	
	Btry Cdr	Bn Cdr
Confusion Among Soldiers	2	0
Personnel Dissatisfaction	1	0
Lowering of Troop Morale	1	0
Change in Number of People Available for Training	2	0
Resources May No Longer Be Available	1	0
Less Training Time	2	0
Delay of Training	1	1
Lack of Time to Adequately Prepare Training	2	1
Disruption of Continuity of Operations, Morale, and Work Efforts	1	0
Difficulties in Accountability of Personnel and Smooth Progress to Training Objectives	1	0

^aRespondents were those commanders stating that training schedule changes caused problems, i.e., seven out of ten battery commanders and 2 out of five battalion commanders.

APPENDIX G. COMMANDER SELF-PERCEIVED WEAKNESSES IN DEALING
WITH THE MODERN BATTLEFIELD; SOLUTIONS

Table G-1

INFANTRY BATTALION COMMANDER SELF-PERCEIVED AREAS OF WEAKNESS
IN DEALING WITH THE MODERN BATTLEFIELD AND
SUGGESTED SOLUTIONS

Area of Weakness ^a	Solution ^a
Need better trained, more experienced staff	Additional training and more senior officers
Lack of practical application of current doctrine	Increase MTA frequency for shorter periods
Infrequent employment of this battalion in the field as a unit	Increase number of CPXs and Jeep Xs
Practical application of FTX level exercises involving all support elements	Additional training of staff with combined arms (FTXs, CPXs)
<ol style="list-style-type: none"> 1. Support from logistic units, ammunition, etc. 2. NBC proficiency 	<ol style="list-style-type: none"> 1. All tactical training should be accompanied by logistical support

^aPresented by individual commanders.

Table G-2

ARMOR BATTALION COMMANDERS SELF-PERCEIVED AREAS OF WEAKNESS
IN DEALING WITH THE MODERN BATTLEFIELD AND COMMANDER
SUGGESTED SOLUTIONS

Area of Weakness ^a	Solution ^a
Lack of maneuver training areas and tank crew qualification course facilities for tank gunnery	Purchase of maneuver areas or schedule use of an adequate MTA more than annually
Insufficient tactical training	More MTA (maneuver space) time
Length of command tour	Two-three year tours
^b I have not had adequate time available to observe the battalion in a training environment and the battalion has not conducted any significant field training in the two months I have been in command.	Allow company commanders to take their units (with infantry) to the field for a minimum of one week followed by one week of battalion/task force training.
None	

^aPresented by individual commanders

^bRespondent had been in command only two months

Table G-3

FIELD ARTILLERY BATTALION COMMANDERS SELF-PERCEIVED AREAS
OF WEAKNESS IN DEALING WITH THE MODERN BATTLEFIELD
AND COMMANDER SUGGESTED SOLUTIONS

Area of Weakness ^a	Solution ^a
Communication capability and limited capability in operations section to process real-time intelligence information	TACFIRE; TOE revisions along with improved radio equipment
Maintenance; availability of major assemblies for tactical vehicles; and availability of spare parts on a continuing basis	Increased stocking of spare parts and assemblies
Inability to conduct meaningful training at LTAs	Change unrealistic requirements for training at LTA; schedule FA priority period at LTA; minimize unprogrammed requirements from higher headquarters
<ol style="list-style-type: none"> 1. Remaining abreast of current doctrine 2. Willingness to accept less than perfect in some areas (Time constraint) 	<ol style="list-style-type: none"> 1. Provide teams to the field to conduct short seminars for commanders 2. Better allocations of time and resources to keep all balls in the air at the same time
<ol style="list-style-type: none"> 3. Not enough training with supported brigade 	<ol style="list-style-type: none"> 3. Better coordination and integration of training; more interface
Redeye training	Better use of local training areas and devices

^aPresented by individual commanders

Table G-4

INFANTRY COMPANY COMMANDERS SELF-PERCEIVED AREAS
OF WEAKNESS IN DEALING WITH THE MODERN
BATTLEFIELD AND SUGGESTED SOLUTIONS

Area of Weakness ^a	Solution ^a
Control of incompetent attachments (armor, ADA, etc.)	More combined arms training
M113 personnel carrier is obsolete on today's battlefield	A new vehicle - quick, fast, with a weapon system like the Soviet BMP
1. Communication: ability to tie into various weapons systems and various data sources 2. Knowing and understanding Soviet organization and tactics	1. More FTXs where commanders see integrated employment of available weapons systems, and have a chance to process large data inputs 2. Get serious about the Soviet threat and teach commanders about it
Orchestration of dispersed units fire-power and movement	Increase communication capability for whole unit - Develop different means of communication
1. Communication 2. Fire Control 3. Insufficient ammunition 4. Lack of Support due to vehicle breakdown 5. Weak junior officers 6. CBR protective measures 7. Lack of concern over GDP at higher levels	Train for probable mission
Not enough time to spend with troops	Allow company commander a small administrative staff Reduce requirements that take company commander away from job
Not enough time available to apply troop leading procedures, develop best offense, defense, etc. I feel unit commanders will be asked to personally participate and do rather than direct weapons systems, apply techniques, etc.	Possibly less reliance on individual accomplishment of the mission and more emphasis on making the system work
1. Engineering expertise to take equipment to field and to replace equipment 2. Aerial TOW-COBRA employment	None given
NBC proficiency	More study/training

^aPresented by individual commanders

Table G-5

ARMOR COMPANY COMMANDERS SELF-PERCEIVED AREAS OF WEAKNESS
IN DEALING WITH THE MODERN BATTLEFIELD AND
COMMANDER SUGGESTED SOLUTIONS

Area of Weakness ^a	Solution ^a
Need continued emphasis on gunnery and tactical training	Sustainment training throughout the year
Consistent tactical employment	More field time
1. Too few communication assets	1. More equipment
2. Too few personnel assets to operate post	2. More people
Supply	Schooling
Fire control	Formal instruction with emphasis on practical application
Logistical support	None listed
Rotation of crew members	None listed
Attention to detail, training follow-up	Add an M113 or M577 vehicle to TOE as TOC; add E7 or E8 as operations sergeant/master gunner/training NCO

^aPresented by individual commanders

Table G-6

FIELD ARTILLERY BATTERY COMMANDERS SELF-PERCEIVED AREAS OF
WEAKNESS IN DEALING WITH THE MODERN BATTLEFIELD AND
COMMANDER SUGGESTED SOLUTIONS

Area of Weakness ^a	Solution ^a
Lack of experience in direct coordination with maneuver units for actual combat training	More unit level training; more integrated training
Coordination and movement tactically	More maneuver and combined arms training
Movement over unfamiliar terrain	More MAPEX
Lack of understanding of over-all scope of an operation; have only vague idea of operations at brigade, division, corps, etc.	Attendance at formal schools
Communication of all necessary data to battalion	Increased training time; Employ field artillery battalions with their maneuver brigade to MTA
Ability to sustain fire control equipment in combat	Have more parts available
Good knowledge of enemy capabilities and tactics	None given
Unit administration	School attendance prior to command
Lack of meaningful training	Reduce "Ash and Trash" Training procedures so meaningful training can be accomplished

^aPresented by individual commanders

APPENDIX H. FREE RESPONSE COMMENTS OF BATTALION AND
COMPANY COMMANDERS

This appendix presents comments of battalion and company/battery commanders on four topics in the report and one topic, Conduct of Training, not included. For all topics, some comments were spontaneous and others were in response to interview questions. Comments relative to report topics do not comprehensively cover all viewpoints for any topic. Therefore they should not be considered to modify results in the report but only to give examples and more details on certain commander viewpoints. The comments on conduct of training do cover commander interview responses. Topics covered in the appendix are:

- Training Initiators
- Training Resources
 - Personnel
 - Availability
 - Adequacy of Training
 - Time
 - LTA and MTA Facilities
 - Schools
 - Literature
- Conduct of Training
 - Objectives
 - Preparation
 - Materials
 - Tests
- Commander Satisfaction With Training
- Problems Caused by Complexity and Diversity of Modern Weapons Systems

Unless otherwise designated, comments are from company/battery commanders. When possible, comments were left as exact quotes from the commanders. However, since comments are presented out of context, some changes were necessary to aid understanding. In all cases, changes were minor and did not alter the meaning of the comment.

TRAINING INITIATORS

Company commander is in charge and I am responsible for training management. I give him guidance, put out monthly training schedule with classes and subjects that battalion level has laid out. The company commander then fills in what he needs - 90% left for company to put on training schedule after I have given guidance on what classes and subjects need to be trained. (bn cdr)

I get training needs input from company. I do not dictate other than from documents (AR 350-1) that must be followed. The unit commanders are perceptive. He has the freedom to pursue instruction in areas as he sees fit and uses techniques as he sees fit. (bn cdr)

I give the companies all the free time they want for originality, etc. I feel the guy least able to manage training in the company is the company commander. He is there to train the company and not to manage the training - that's my job. However, I do give the prerogative to adjust their time to meet requirements. I am the training manager. The TC, platoon sergeant, platoon leader and company commander give me input to the training schedule. (bn cdr)

Seventy-five percent is what I think we need (based on available resources). That's a problem, but can work around it. Does not detract from overall goal. Twenty-five percent - is guidance from brigade and division, but very general. (bn cdr)

First off, we don't deal with brigade from standpoint of command - they're not in my chain of command - the division artillery is in my chain of command. Receive directives from division, division artillery. Directives from division artillery are not usually modified by me before I pass on the company. They're fairly clear. Don't get much from Corps. Ft. Sill sends training circulars that pertain to FA (thru distribution). (bn cdr)

Training schedule is made at battalion level based on input from batteries. (bn cdr)

I make up training program with S-3. I input, and it sometimes survives battalion level. Have to make changes because of manpower, etc.

We get quarterly written training guidance from battalion. I plan for these first. I plan my own training and send to battalion commander for approval. The schedule is fairly stable and I'm satisfied.

Set up training schedule and go over training games at meeting (training officer and training NCO with S-3). The mandatory training is given from higher levels to S-3 who passes on to us. So we really just fill in the blanks. The training schedule is drafted, reviewed and approved at battalion. We generally get what we ask for. The unit commander usually knows what the battery is weak in. Once the training is established it's usually firm. The training guidance we get orally from battalion level, etc. and maybe some written follow up after oral is given. It's generally consistent.

I give the training schedule - and battalion produces the battalion training schedule.

Generally I have latitude in what training needs to be done - more a give and take situation.

We have a detailed training schedule 2 weeks in advance. The schedule is usually stable and we have ample time to prepare for instruction. (bn cdr)

It comes from the division and is continuously redefined and updated by the division based on changing situations and is further redefined by the brigade by division training notes. We're given guidance on type of training the division and brigade commander wants emphasized. We have division, brigade and battalion regulations too. Basic guidance comes from division and further defined by brigade commander to meet local situations and designate areas where he wants emphasis. Brigade further defines the division directives as well as assists in monitoring training. First Armor Division directives are basic directives and specify all mandatory training and types of performance oriented training they'd like you to do. Just establishes mandatory annual training requirements. (bn cdr)

Company commander gets directives from higher up. Brigade commander establishes monthly and quarterly objectives for battalion. I get training directives from S-3, and some will go down to company. (bn cdr)

I do receive guidance from division and 7th Army Training Command. (bn cdr)

Training schedule is a joint effort. Division publishes quarterly training circular. I meet monthly with division commander and he passes on his areas of interest. (bn cdr)

The last 8 months our training programs have been driven by division primarily because of training exercises. (bn cdr)

Division has STEP program which tells what we have to do for combat readiness. This is quarterly and a good management tool. (bn cdr)

I look at resources - time and training areas. Devote these to meet directives so company commander can concentrate throughout the year to sustain these levels. (bn cdr)

We initiate battalion field training exercises, training schedules, training programs for inspections, semi-annual training programs. (bn cdr)

We generate lots from battalion level. (bn cdr)

I decide, but battalion has requirements too.

I can decide what training I want, but am restricted. Training is getting more centralized.

We do have a voice thru the battalion commander, but more and more is taken away from company commander over the years.

Try to give platoon as much leeway as possible. They know more what they need than I do. They should input as much to me as I do to them.

Decentralized training concept: There are too many inexperienced people in key positions. They impose constraints that are not realistic. The unit commander needs more flexibility.

For classes: the company commander should look at classes and tell me what he plans to teach, the aids, etc. (bn cdr)

Battalion commander and S-3 map out major plans - broad training guidance. Leeway is good and is based on other constraints - guidance from above the battalion on mandatory training (from division maybe).

I think we have a reasonable amount of leeway. I think I have 50% leeway. We, the battalion, establish parameters. I give company commander leeway to train company in specified length of time - in whatever manner he chooses; however, give him leeway to determine those areas in which he believes his company requires emphasis. (bn cdr)

The priorities are based on command structure of USAREUR. The key is on command, but training doesn't follow through.

The training manager is the battalion commander to determine overall structure, but company commander has specific sections he addresses to his needs. (bn cdr)

We receive an initial annual training calendar from which we schedule our time. (bn cdr)

Crisis Management - I think this is a fact. Hope that I'd do it different. It happens all too many times that I begin to lose trust with battalion. Not all people at higher levels are competent. Priorities change too frequently

and this causes big morale problems. When you tell troops to go out and do something and 10 minutes later he's pulled off and told to go do something else - frustrating. They need to get their stuff together.

TRAINING RESOURCES

Personnel

Availability

The community should support but they send tasks instead. Menial things. We have a lack of personnel and have too few people doing too many jobs.

Diversion to the community--I have 37 people assigned to this unit, but work elsewhere. Most are combat arms and are almost all slotted for use in time of war. (bn cdr)

After all people have been assigned their duties - not many people left for training. (bn cdr)

Combat readiness is lacking from standpoint of not having enough people.

We have a shortage of officers and competent people, so we get behind on paperwork and maintenance.

Troops are pulled out of vital positions for supply, etc. They come back for alerts and in time of war, but it causes problems now. It's a vicious circle - take an E6 for supply and move E4 or E5 up to tank commander, etc.

Company is up to full strength on chart, but not in reality. Many troops (17) are on diversion because of community and battalion requirements.

There are no service areas here: finance, hospital, driver's testing, etc. are not in the immediate area. It takes a day to do many of these things because of our lack of facilities. (bn cdr)

My major competitor is education. (bn cdr)

Education requirements take people away, and this is damaging to readiness. Education is necessary in the long run though.

I think things like CDAAC, PREP, etc. have taken "a back seat."

I'm forced to have 25% of my people without high school enroll in GED, but I pay no attention to that - I put ones that need in as best I can. I do support the program though.

In company I have option of using people in more than one slot - don't have enough people to do so, though, because short of people and rotations.

I'm short lower EM - have too many chiefs and not enough indians. There's a constant turnover. (bn cdr)

One major problem is rotations - it is frustrating me to train personnel and get the company working as a team and then people rotate.

Rotation of personnel - detracts very much - proficiency drops - effectiveness goes down. There are replacement personnel for machine gun personnel because these are critical. There usually is no on the spot replacement for riflemen. (bn cdr)

A year ago I was unhappy with PREP, etc. and number of people we had in, but number of people have decreased in classes - maybe because requiring more high school graduates.

Adequacy of Training

Maintenance is always a problem because people do not come to us well trained.

People do come untrained. Troop are trainable and intelligent but need the time to train.

The dozen troops I got from other units are seriously lacking in training.

We do have personnel problems - it's hard to determine what he starts out as. Depends on the company and how over and under strength they are.

Eighty-five percent of my soldiers come from CONUS and many are untrained.

Troops need more hands on training. They need guidance and background by tank commander and platoon sergeant.

Soldier quality is better today, but they don't progress - there's not enough training. Their abilities are not used effectively.

Personally I don't see myself in the business of retraining. It is not my job to retrain troops and I don't do it. I get rid of the guy because there are more available people around.

MOS 36K is a major problem - these soldiers are less than marginal.

Majority troops need additional training. Ninety-nine percent of E2 need more. Supply, mechanics, communication - NCO's need more training.

Most of my troops are capable when they arrive - the technical skills are there.

People are more qualified today and better soldiers. (bn cdr)

Qualified NCOs - I'm disappointed. So many are unprofessional (mostly E5-E6) - not experienced enough, do not know their job. They have not been school trained and don't get school training reference their jobs. (bn cdr)

Don't think my NCOs are up on the utilization of the system. That's not to say that I know - I do know how things should go, and I keep up on events and understand the big picture. Try to pass this on as much as I can. People tend to stay in their sphere of influence and don't want to broaden any further. Most of my E6s don't understand the big picture. It's not engrained in them enough.

Platoon sergeant is not experienced enough (generally) to train.

A lot of training is needed at E6 and E7 and E8 level. Most are from other MOS and not familiar with present one. Many are from recruiting or served under secondary MOS.

My E6s are very good, but E5s cannot function as an NCO because of inexperience. Also because of the erosion of NCO responsibility and they're young. They have not been given any responsibility and can't function as NCOs.

There is not much squad level instruction because the squad leaders are not experienced. I rely on qualified people to instruct. The platoon leader may not be too knowledgeable on the subject, but he does have the ability to research for the class.

E5 is under-trained. The training before coming to unit was lacking. E6s are generally good, experienced and have a good level of training.

We need training for E5, E6, 2LT - there is too little training. We expect them to do the job, but they're not trained to do so. I don't have the time - too busy. They need to know how to prepare lesson plans, etc. I'd like to see mobile training teams come around to train.

Anti-tank warfare needs to be emphasized more. Platoon leaders are inexperienced.

Platoon leaders need experience in control of fire at MTA. It is critical to know how to employ all weapons.

The LTs have good MOS related skills. Most training they need is in additional duties like how to be motor, training or supply officer, etc., but primary training is good.

Officers have experience problem.

The present S-2 and S-3 are fairly inexperienced - have not been to advance course. Only 1/2 of CPTs here have been. (bn cdr)

Another problem that is killing us is sending lieutenants who have never had a day of troop duty to school back in CONUS. All this Mickey Mouse stuff. When he cannot relate that course to unit requirements - has no idea what unit requirements are. (bn cdr)

Training Time

Our time is critical; we need more time!

There are too many requirements from too many people and not enough time in one day to do it.

The company commander has a big job. He does not have enough time during the week to do his job - never seems to catch up. (bn cdr)

The company commander is not utilized effectively. I go to the field, but its only a paper drill. He (the commander) has no time to give training himself.

There is lack of tactical training for officers because of no time.

We are responsible for too many things besides teaching. There are too many outside things to do and not enough time to prepare for training.

The AGI studies are unrealistic too. We cannot keep up with them - not enough time in one day to do it.

IG studies are not realistic. These things need to be done all along by setting aside an hour here or there, but there is not time.

Education requirements do detract from tactical training time, but in the long run we're better off. It's best for the Army. (bn cdr)

Main problem is finding time - there is a problem of management because of lack of time and extra duties (people taken away for details, etc.).

So many mandatory things to do other than training. That's unfortunate because training should be priority. A commander is never relieved because of training, but for things like a poor race relations program, etc.

There is no prime time or either all time is prime time. This is a misconception. Safety, command information, race relations - if these are secondary then perhaps we should not be wasting our time. Can't schedule around these - brigade has tried. (bn cdr)

No really major competitors to training. It's not a competitor but - another form of training - (race relations, PREP, etc). S-3 short-stops some outside requirements.

I see no use for guard mission - significant time is lost over the year for mechanized infantry.

The only real outside interference is guard time, but I'm satisfied.
(bn cdr)

I spend lots of time on the road traveling to meetings, etc. - about 5 days a month. (bn cdr)

Unit training cannot be accomplished in 40 hours a week - realistically. There are too many outside things interfering like race relations, etc. to accomplish training effectively.

We have a 40 hour week which is okay for soldiers, but not for leaders. We must work longer to get work done. (bn cdr)

The average troop can stick fairly close to 40 hour work week.

No problem with 40 hour work week. (bn cdr)

LTA and MTA Facilities

The longer we're in Germany, it seems the more restricted we are to build LTAs. It does seriously affect our ability to train on a continuing basis. LTA are too small for FA use - need to improve for artillery units. Terrain not good for FA units. We share with the rest of the brigade. (bn cdr)

Vehicles can't operate realistically at LTAs. They are too small.

Our LTA is too small for company test.

We have the shaped week - spend 1 1/2 days at the LTA. We get to the LTA a lot, but it is too small for attack practice.

Large number of LTAs, some small, but choice ones go to larger units.

Go out usually as a company to LTA. Eight days a month is adequate, but we have a problem with getting areas prior to tank gunnery, prior to ARTEP. Rest of the time we can generally get the areas needed.

More time needs to be allotted for freedom of movement within the company. Need more opportunity to go to LTA for tactical training. Battalion does not have assets to send more than one company at a time.

I am 3 days a week at LTA, but this is not a routine thing. We need to get out there more often.

A week a month for LTA is sufficient.

We need more time to train - certain things can only be practiced at MTA. Need more time at MTA. Need breaks between firing, etc (at MTA). Troops get too little sleep, etc. - surprising that more people aren't hurt. Too much push makes too many people tired.

Grafenwoehr was developing ranges as we fired and not bad - interesting. The 4-day program at Grafenwoehr is not good. Some units do not have access to the facilities that we do. (bn cdr)

Like Grafenwoehr better because it's bigger than Wildflecken which is poorly designed.

Schools

NBC training for officers--would like to send all, but quotas are tight (20% now). Now we get 1 every 6 mos. - need 1 every 3 mos. (bn cdr)

I get approximately 60% of quotas I ask for, but the course does not always fit the need. I would like to cross train, but will not give us a quota. (bn cdr)

I need quotas for the tank commander course - not able to send anyone yet. In my 9 mos and 3 requests - have yet to get any quotas.

The schools are not as effective as practical training. I don't like classroom training - do my training outside or hands-on.

Vilseck quotas are inadequate. (bn cdr)

NCO course: A man must have one year left in the command to be eligible. This needs to be looked at - why hold him back because he does not have a year left? - especially since the courses are not filled. (bn cdr)

I feel there's not enough emphasis on CBR (NBC) school, but schooling is hard to get.

Need help from the schools - Vilseck for school allocations.

AIT gives good fundamentals.

Literature

Training literature is good - soldiers can sign out manuals from training room.

Training manuals come too late. The teaching manuals are 1 1/2 years behind the states - out of date.

The training literature distribution is received late at battery level. What I see at battalion - we don't get one copy until much later.

Only problem in distribution is having enough to distribute. (bn cdr)

My literature is no problem. Distribution is good.

Our literature distribution is okay.

No major problem in getting pertinent documents. (bn cdr)

Distribution is very good. (bn cdr)

Training circulars are coming out fast. It's hard to keep up, the material is excellent, but quantity is too much. (bn cdr)

CONDUCT OF TRAINING

Objectives

The objectives for most tactical classes are set by battalion.

I go through objectives with company commanders and see if they are accomplishing them all. I am interested in the management approach. I force them to give objectives and tell me how they would run training schedule in the company. (bn cdr)

Performance objectives are derived mostly from ARTEP which is good.

Use FM 21-6 (task, condition, standards) and soldier's manual which is good for specifying objectives.

Preparation

Platoon can train as they see fit.

Training: 4 weeks prior to class, the training officer will make the program and he and I will decide classes. Program should be in the S-3 3 weeks prior, but it's not always there. They send to battalion and it's published the next week.

The instructor is told to prepare for class 3-4 weeks before with the use of training aids, etc. He rehearses class before training officer if there is time. I like for instructor to rehearse.

Platoon leaders write out training schedule of what they want - get good results and fairly detailed. It may alter some because of company support, etc. When class is complete - try to be there some and question platoon leader or maybe soldiers.

The instructor schedule is discussed with training NCO or training

officer and agreed upon.

Training NCO comes to me with a pencil training schedule. We sit down and discuss how we'll approach the blocks that are vacant. Decide on guy to teach and he is told. They can come see me if they need help.

Instruction: the training NCO and I determine who is best for instructor. He's given 1 1/2 weeks to prepare. I try to review class with instructor, although too many times not enough time to go over the class.

I assign instructor and train trainer. Training NCO tells of instruction and tells to prepare lesson plans. The training schedule is gone over at weekly training meeting.

I don't plan but execute training. Plan class and rehearse. Checked by platoon leader or myself. The tasks, conditions are assigned by battalion.

We do have some centralized training. Section chief tells of weak areas and focuses on that. We do have classroom instruction, but want to end because we need hands-on most.

Training Steps: get guidance from battalion. Have a 6 month calendar and make training plan, then training schedule. I operate off the schedule. The training NCO makes schedule from my guidance. Instructor is notified and they must get reference material and develop lesson plans. The instruction mode depends on the subject. I insist on hands-on.

Once we've identified a need for a certain class I get instructor with most experience and knowledge in subject (often an officer).

My assignments are approved 3 weeks in advance. I pick instructors and notify them. It is his responsibility to get references, etc.

Training Schedule is prepared 2 weeks in advance. I select instructor with training officer. He is given a personal notice and told what to instruct. I might call him in and talk to him - but not in all cases.

Training: determine what training is needed and then plan classes -- try to leave Friday afternoon for the instructor to prepare and research for the class. Notify man of what the class is and what the objectives are. He goes to our MOS library to prepare. I select NCOs and officers for instructors. Lesson plans are kept.

Analyze and assign instructor and they begin working on classes to execute training.

We get guidance from battalion on the classes we teach. I get all section chiefs together and I brief and go over goals expected to accomplish - sometimes outlines are used and we have lesson plans on file for some things.

We do conduct training for officer and NCO apart from unit training. Instructor is notified on paper and told the subject expected to teach.

Materials

Most classes are prepared by instructor and depends on class whether outlines kept. Outlines not that good anyway. I give guidelines.

Writing outlines are a problem because they don't go into detail.

Mode of Instruction: try to do hands on if possible. We use films too for attention purposes. Try to use old lesson plans, but they aren't that good.

Most recurring classes have lesson plans already - so no problem. The quality of the class depends on the instructor - the instruction mode depends on the kind of class. The major problem is finding person to instruct who is knowledgeable.

Have most lesson plans on file, but they need to be refined, but no time to do it.

Use training circulars a lot and lesson plans for classroom, but don't use classroom much. Some new material is generated.

Use manuals for references. Generally no new lesson plans generated. There is no clear training program.

Use FMs and TCs. Sometimes have prepared materials and sometimes not. Try to save some of the materials to be used later.

He can go to training officer or S-3 for teaching materials. Most of the time it's taught out of his own knowledge. Usually match knowledge with subject matter.

A topic outline is prepared if no file is already on hand. I make periodic checks on what they should know.

Generally no new material generated.

No new materials generated - don't have capability.

Tests

I try to evaluate and keep records. Squad leader is responsible for keeping men up to standards.

Feedback: get some feedback from troops, but depends on class. The students don't usually tell the NCOs and squad leader and I don't have time to talk to them. I want them to use the chain of command.

Ask questions in the morning formations and during guard. Get some feedback.

We make an attempt at tests, either written, oral or performance. We need good instructors to develop good ones. I try to select ones based on experience.

Give some tests.

Try to do some tests, but majority don't have skills to do effectively.

Performance tests are spread throughout the area - not so much on platoon level though.

Sometimes give written or performance test.

Sometimes written or oral tests are given.

We don't get much feedback from students.

Generally get no feedback from students.

There is no testing on equipment other than performance tests at MTA.

We assume too much - we need to actually test. The troops are not graded individually - so no competition.

We need to do a better job on sustainment training. We need the ability to run checks at the crew level and maybe at company level on a continuous basis. In Europe we do this (Table 8) once a year. Need to run platoon through a testing program throughout the year because of people rotating, etc. (Like Table 10). Take them out and test the platoon on whether they need more training. (bn cdr)

COMMANDER SATISFACTION WITH TRAINING

We get some feedback and I'm satisfied with the training we do.

I'm more pleased with training than in past, but not satisfied with a quality of training overall.

I'm extremely satisfied with procedures, but not results. The implementation is difficult.

The training at platoon level is not individualized so men don't know how to use weapons which should be basic knowledge. I think this is the wrong approach.

The troops need hands-on and I think efficiency would improve it - we had this.

I'm not satisfied - think our training is unprofessional.

I'm not satisfied - there's lack of time for review and the ability of instructor to operate on his own.

Overall, I'm not satisfied. Have a problem with resources available - like availability of range, etc.

I am not satisfied with our training - too many outside details. I think it's obvious we don't have our stuff together for wartime use. There is too little time.

The quality of instructors is poor and probably falls on me.

A problem finding qualified instructors.

PROBLEMS CAUSED BY COMPLEXITY AND DIVERSITY OF MODERN WEAPONS SYSTEMS

Complexity of battlefield? I am pressed to keep current. The equipment is getting too advanced - it needs to be kept basic and simple so it can be repaired. Security measures are too complicated for weapons.

Have technical problems because some of my people are unorganized.

We have a few problems with maintenance of weapons - there is no training or maintenance other than taking weapons out. Some are sophisticated weapons and difficult to get spare parts, etc.

Lots of maintenance problems and either we aren't training or just not getting quality personnel required to keep system up. I see this time and time again.

There are too sophisticated weapons and not enough people to keep them working. Training the troops to handle equipment is no problem.

Administrative part of weapons systems is a problem because of publications distribution being slow. Have some maintenance problems. Some weapons are too specialized and we can't do tests on them. Have no technical problems. Have no problems in training troops for operating weapons.

Diversity and complexity of weapons system is a problem, especially in fire control where so many weapons can kill a tank. We waste ammunition.

Maintenance is a problem too. Weapons are more sophisticated now and have less qualified gunners.

Complexity of weapons is a problem with officer and NCO. Maintenance too.

Weapons Systems: technological problems. We need more training. Company Commander need more training in the management and maintenance of weapons. Air Force officers know their weapons systems better than Army. But we must get to training areas and learn systems.

I have no problem with weapon complexity or training troops.

We have no problem with weapon complexity.

Not generally any problems with weapon complexity.

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 1 DLI, SDA, Monterey
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 1 USA Armament Cmd, Rock Island, ATTN: AMSAR-TDC
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 1 USAEC, Ft Monmouth, ATTN: C-Fac Dev Br
 1 USA Materials Sys Anal Agcy, Aberdeen, ATTN: AMXSY-P
 1 Edgewood Arsenal, Aberdeen, ATTN: SAREA-BL-H
 1 USA Ord Ctr & Sch, Aberdeen, ATTN: ATSL-TEM-C
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 1 USA Infantry Bd, Ft Benning, ATTN: STEBC-TE-T
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 1 USA Combined Arms Cmbt Dev Act, Ft Leavenworth, ATTN: ATCACO-E
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 1 USA Topographic Lab, Ft Belvoir, ATTN: STINFO Center
 1 USA Topographic Lab, Ft Belvoir, ATTN: ETL-GSL
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 1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATS-CTD-MS
 1 USA Intelligence Ctr & Sch, Ft Huachuca, ATTN: ATSI-TE
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- 1 HQUSA Aviation Sys Cmd, St Louis, ATTN: AMSAV-ZDR
- 2 USA Aviation Sys Test Act., Edwards AFB, ATTN: SAVTE-T
- 1 USA Air Def Sch, Ft Bliss, ATTN: ATSA-TEM
- 1 USA Air Mobility Rsch & Dev Lab, Moffett Fld, ATTN: SAVDL-AS
- 1 USA Aviation Sch, Res Tng Mgt, Ft Rucker, ATTN: ATST-T-RTM
- 1 USA Aviation Sch, CO, Ft Rucker, ATTN: ATST-D-A
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- 1 US Military Academy, West Point, ATTN: Ofc of Milt Ldrshp
- 1 US Military Academy, West Point, ATTN: MAOR
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- 1 Ofc of Naval Rsch, Arlington, ATTN: Code 452
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- 1 AF Log Cmd, McClellan AFB, ATTN: ALC/DPCRB
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