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THE STRUCTURAL, TRAINING, AND OPERATIONAL CHARACTERISTICS OF ARMY TEAMS

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Combat, combat support, and combat service support branches within the Army were surveyed to identify teams within each branch and to describe their structural characteristics according to official organizational tables of personnel and equipment. A total of 255 distinct teams were identified and described, with the Infantry, Field Artillery, and Armor branches containing the greatest number of teams. Results on such characteristics as team size, member rank, leader/rank, skill level of members, and equipment used (con't)

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20. ABSTRACT (continued)

are presented. Teams that perform non-routine tasks were located within the
Infantry, Armor, and Engineer branches.

Active Army units were also surveyed. These units rated their teams on
the amount of team training received and needed, leader satisfaction with
training, training constraints, team characteristics, operational problems, and
team evaluation procedures. The primary training problems and constraints
identified were the turn-over of team personnel, understrength teams, unquali-
fied personnel, insufficient time to train, and unrealistic training. Of team
characteristics surveyed, only one was rated as atypical of Army teams --
compensation by one member for inadequate performance by another member.

The results provide a data base for future team research within the Army.
An appendix contains a list of all teams identified in both phases of the study.

THE STRUCTURAL, TRAINING, AND OPERATIONAL CHARARACTERISTICS OF ARMY TEAMS

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iii

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FOREWORD

The research reported here is part of a broader program on training for combat effectiveness being conducted by the US Army Research Institute for the Behavioral and Social Sciences (ARI). A critical element in the combat effectiveness of a military unit at the company and battalion levels is the effectiveness of subordinate sub-units or teams.

The ARI Field Unit at Fort Benning, Georgia, has initiated a team research program whose long-term goal is to improve the training and evaluation procedures of military teams. The initial step in this program, identifying Army teams and describing their basic characteristics, is reported here.

ARI conducts research on Army operational problems through in-house efforts and the efforts of selected qualified contract groups. This research was performed primarily by Fort Benning Field Unit staff. This in-house effort was supplemented by personnel from the Litton-Mellonics System Development Division, who performed the actual survey under contract DAHC 19-77-C-0011. The research was funded as part of Army RDTE Projects 2Q762722A765 (FY 77), 2Q162722A765 (FY 78 and 79), and 2Q263743A794 (FY 80). The research is directly responsive to research requirements of the US Army Infantry School and the US Army Training and Doctrine Command.

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THE STRUCTURAL, TRAINING, AND OPERATIONAL CHARACTERISTICS OF ARMY TEAMS

BRIEF

Requirement:

The Defense Science Board report of 1976 pointed out the need for greater emphasis on the appropriate training for crews/groups/teams/units throughout the armed services. The report also highlighted the needs for extensive research into the nature of team performance and the requirements for better technology for defining training requirements and methods for team training. Army team training has been developed and conducted in a hit and miss fashion over the years, largely because there is little knowledge of what team performance really is, of how to develop appropriate training materials and methods, and of how to train teams to perform better. Specific research requirements are to identify: the population of Army teams and their characteristics, the current level of team skills and deficiencies, and procedures for determining team skill requirements and selecting appropriate training methods. This project was designed to satisfy the first requirement and to begin to address the second.

Procedure:

First, TRADOC (US Army Training and Doctrine Command) organizational experts identified teams within the official Tables of Organization and Equipment (TOE) for each of the branches surveyed. In addition, the experts described the composition of each team in terms of the position, rank, skill level, and MOS held by each member, the activities performed by the team, and whether or not most team activities could be accomplished by routine, pre-established procedures. Then questionnaires were sent to training personnel within FORSCOM units requesting them to rate each of the teams within their units on the amount of team training received and needed, leader satisfaction with training, training constraints, team characteristics, operational problems, and team evaluation procedures.

Findings:

A total of 255 distinct teams were identified and described in the first phase of the study. Of the twelve branches surveyed, the Infantry, Field Artillery, and Armor branches had the greatest number of teams. In terms of size, MOS, and leader and member rank four major categories of teams occurred: small (2-3 members), homogeneous (with respect to member rank and MOS) teams led by enlisted men; medium-sized (4-8 members), homogeneous teams led by enlisted men; medium-sized, heterogeneous teams led by senior enlisted men or officers; and large (more than 9 members), heterogeneous teams led by senior enlisted men or officers. Teams had more members at low skill levels than at

high skill levels. Some variation in the frequency distribution of these profiles were found among the combat branches. Almost all of the teams that performed nonroutine type tasks were located in either the Infantry, Armor or Engineer branches.

Teams within the FORSCOM units were rated high on such team characteristics as requiring member and leader coordination, and team spirit, but relatively low on the extent to which one member can compensate for inadequate performance by another member. Training problems and constraints focused on the turn-over of team personnel, understrength teams, unqualified personnel, insufficient time to train and unrealistic training. The perceived need for team training was generally greater than the amount received across all categories of training.

Overall, the teams identified very considerably in structure and in the forms of teamwork required for successful performance. A general caution should be made regarding the survey findings. Comparative analyses of the TRADOC and FORSCOM data indicate that the respondents did not apply the definition of a team in the same way. Also, although the lists of teams provided in both studies were taken at face value, in reality, some of the teams may require little teamwork.

Utilization of Findings:

The inventory of Army teams obtained and the descriptive information on these teams provide the data base needed to identify and select teams for future Army team research programs. Judicious selection of teams for research should yield generalizable findings relevant to such issues as the nature of team training requirements, identification of training requirements for a specific team, and how to best satisfy the training requirements. The report should also be useful to small group/team researchers in providing them with information regarding how military teams differ from many of the groups used in social science small group research.

THE STRUCTURAL, TRAINING, AND OPERATIONAL CHARACTERISTICS OF ARMY TEAMS

TABLE OF CONTENTS

x

LIST OF TABLES

BACKGROUND

PROBLEM

Some research evidence supports the commonly held belief that the effectiveness of larger military units (e.g., platoons, ships) is determined not only by individual performance levels but also by team performance levels (Chapman, Kennedy, Newell, & Biel, 1959; Finley, Rheinlander, Thompson, & Sullivan, 1971). That is, to the extent that a system is composed of small work groups that require member "interaction" and "coordination" in order to accomplish their missions, the effectiveness of the system will be affected by the team performance levels of these small work groups.

Research regarding what will modify or enhance the effectiveness/productivity of small work groups and teams (e.g., individual vs. team training) has, however, produced conflicting results (c.f., Collins, 1977; Hall & Rizzo, 1975; Nieva, Fleishman & Rieck, 1978; Wagner, Hibbits, Rosenblatt & Schulz, 1977). This suggests that the response of a team to some factors may be determined by the specifics of the situation. Some reviewers (e.g., Collins, 1977; Nieva et al., 1978; Wagner et al., 1977) have suggested that the basic reason for the conflicting and nonproductive results of team research has been a lack of attention to the issue of what actually constitutes team performance and team characteristics, and whether the teams studied are really teams. To state it more simply, in order to mount a program to assess the impact of and improve the performance level of teams, one must know, in specific detail, what differentiates a team from a collection of individuals.

Based on inhouse literature reviews and operational experience, the authors feel that there exist a number of critical team characteristics and performance dimensions that differentiate teams from collections of individuals, and that the specific training requirements of a particular team will depend on where that team falls on the continua associated with these dimensions. ARI has initiated a long range research program to explore these ideas and to translate findings into team training and evaluation technologies for the Army. The goals are to determine if and when team skills make a difference in the effectiveness of larger military units, to develop better methods for identifying team training requirements and for developing team training programs, and to develop better methods for evaluating team performance. Initial steps taken to launch the program include: (1) data collection to identify and describe the population of formally defined combat-involved teams within the Army, and (2) further definition of what constitutes the dimensions of team functional and task performance. This report describes the survey conducted to accomplish the first step. The work of Nieva et al. (1978) describes one effort related to the second step.

1

Considerable evidence of the felt need for team research was obtained from Army training developer personnel during the conduct of the study. The plaint was that too little was known regarding how to identify team training requirements and techniques to determine whether effective unit or collective training programs are being and have been developed.

PURPOSE

The present project was designed to identify Army teams and to obtain descriptive information on the structural and operational characteristics of these teams. The specific purposes were to: (1) obtain an estimate of the number of team types within the Army and a description of what constitutes typical Army teams; (2) determine the variety of teams within the population considered; (3) obtain a data base that could be used for selecting teams for research purposes; and (4) obtain a means for identifying teams likely to benefit from future research findings or new training methods. The primary focus of the project was on formally recognized teams directly involved in the conduct or support of combat within the formal organizational structure of Army units. The reasons for this focus were the Army's need to concentrate its limited training resources in the area of greatest payoff, and the need to perform research supportive of a dominant Army training developer activity: development of training programs for formally recognized individual positions and teams.

GENERAL APPROACH

The project was divided into two phases: (1) the TRADOC (US Army Training and Doctrine Command) phase and (2) the FORSCOM (US Army Forces Command) phase. The details of each phase are reported in subsequent sections. The objectives of the first (TRADOC) phase were to identify the types of small groups recognized as "teams" within the formal organizational structure of Army units, i.e., by Tables of Organization and Equipment (TOE), and to describe the formal structure of these teams. Such structural characteristics as size, leader rank, rank of members, number of different positions held by team members, and military occupational specialty (MOS) of members were examined. The objective of the second phase was to obtain data on teams functioning in active Army units within FORSCOM. Four major sets of variables were surveyed in the FORSCOM phase: team training received and needed, factors preventing the conduct of more effective team training, factors that characterized team activities, and sources that created critical or frequent performance problems for the team. The survey data were collected by Litton-Mellonics under contract to ARI, and preliminary results of the first phase were presented by Smillie, Shelnutt, and Bercos (1977).

The composite definition of team used for conducting the TRADOC and FORSCOM surveys was a small group of usually 2 to 11 persons whose positions or member task assignments within the group are formally defined and who normally perform their tasks in an interactive and interdependent manner. Ad hoc, informal or temporary teams were excluded (see Appendix B for specific definitions). This working definition of teams is generally consistent with Glaser, Klaus and Egerman's (1962, p. 6) distinction between teams and small groups in that teams are "relatively rigid in structure, organization, and communication pattern; the task of each team member is well defined; and the functioning of the team depends upon the coordinated participation of all or several individuals," whereas small groups generally "have an indefinite or loose structure, organization and communication patterns; have assignments which are assumed in the course of group interaction rather than designated beforehand; and the group product can be a function of one or more of the group members involved depending upon the quality and quantity of their participation."

TARGET POPULATION

The target population for both surveys included teams in eleven of the fourteen basic branches of the Army as defined in Army Regulation (AR) 10-6: Infantry, Corps of Engineers, Quartermaster Corps, Air Defense Artillery, Field Artillery, Armor, Ordnance Corps, Signal Corps, Chemical Corps, Military Police Corps, and Transportation Corps. The Adjutant General's Corps, Finance Corps, and Military Intelligence branches were excluded from the target population. Missile and Munitions teams were examined separately from other Ordnance teams because of the distinct types of Missile and Munitions teams reported in the surveys. In addition, the special branch of Medical Services Corps was included in the population, and Aviation units that are generally assigned to Corps rather than Divisional units were treated as a unique subgroup (identified by 01 prefix in Department of the Army Pamphlet 310-3). The target population excluded teams that performed mainly command and control and staff functions above the platoon level. The primary focus was on combat, combat support, and combat service support teams formed at the company/battery and platoon/section levels.

TRADOC SURVEY:
STRUCTURAL CHARACTERISTICS OF ARMY TEAMS

METHODOLOGY

SAMPLE

The purpose of the TRADOC survey was to compile both a listing and a description of all types of teams in each of the target population subgroups. However, it was not possible during this stage to obtain complete information from two of these groups - Military Police and Medical Services. Descriptive data were obtained on the following branches: Air Defense Artillery, Armor, Aviation, Chemical, Engineers, Field Artillery, Infantry, Missile and Munitions, Ordnance, Quartermaster, Signal, and Transportation. The service schools responsible for training personnel in these branches were identified, and subject matter experts at the schools provided the data. The subject matter experts were identified by coordination with Headquarters, TRADOC, Fort Monroe, VA. The TOE designations included in the TRADOC survey are cited in Appendix A. A total of 114 units were surveyed.

INSTRUMENTS

Two instruments were used: one to identify teams (referred to as team identification worksheets) and the other to describe the structural characteristics of teams (referred to as team questionnaires). Refer to Appendix B for details on these instruments. Both instruments were completed by the TRADOC subject matter experts.

The team identification worksheets were completed first. One worksheet was completed for each type of operational unit (of company size or smaller) for which a service school had training responsibility. The information requested on these worksheets included the TOE designation for each unit, type of unit as designated on the TOE, the alternative names of each type of team in the unit, and the platoon or section of the unit in which each team is found.

The team questionaire requested the subject matter experts to describe the structure of each team that had been identified on the worksheets. The structural characteristics described included the total number of personnel on the team; rank, military occupational specialty (MOS), and major items of equipment for each position; major activities performed by team members when engaged in a defensive mission; and the positions of the members typically executing these activities (refer to Table 1 for definitions of all characteristics). In addition, ratings on a five-point scale of the extent to which the team's overall activities are "emergent" or "established" were obtained. Established and emergent activities were defined as:

Table 1

STRUCTURAL CHARACTERISTICS OBTAINED ON EACH TEAM IN TRADOC SURVEY

VARIABLE	DEFINITION
Size	Number of members on team
Position Types	Number of different positions in team
Leader Rank	Rank of position holder identified as team leader
Rank Types	Number of different rank types on team excluding team leader's rank
Low Rank	Lowest rank on team
High Rank	Highest rank on team excluding team leader's rank
Leader MOS	Military Occupational Specialty (MOS) of team leader including skill level
MOS Types	Number of different MOS types on team
Number of Secondary Leaders[a]	Number of secondary leaders on team
Skill Level 4	Number of team members with Skill Level 4 or above
Skill Level 3	Number of team members with Skill Level 3
Skill Level 2	Number of team members with Skill Level 2
Skill Level 1	Number of team members with Skill Level 1
Equipment Types	Number of different pieces of equipment used by team members
Activities[a]	Total number of job activities performed by the team and its members
Team Activities[a]	Number of job activities performed by the team as a unit
Individual Activities[a]	Number of job activities performed by team members as individuals
Emergent-Established	Rated nature of overall team activities as emergent or established

[a]These characteristics are not reported due to missing data.

<u>Established</u> - The situation is routine; the job activities of team personnel consist of completely specified procedures.

<u>Emergent</u> - The situation tends to present a relatively unique problem; the team must decide what activities to perform and how to perform them in order to solve the problem.

The distinction between established and emergent activities was originally made by Boguslaw (1961), was elaborated upon by Boguslaw and Porter (1962), and was treated as the major way to classify task situations by Wagner et al. (1977) in their review of team training in the military.

RESULTS

SAMPLE

The number of teams identified and described within each branch on the team questionnaires is presented in Table 2. A total of 1,248 teams were identified, but descriptive data were obtained on only 1,156 teams. However, in many instances, the "same" team was described more than once since it occurred in more than one TOE (e.g., UH-1 flight crew, aidman team, rifle squad, tank crew, demolitions team), and teams given different names were often almost identical to each other in terms of the positions of team members and team functions (e.g., different howitzer crews, multi-channel Signal teams).

Table 2 also summarizes, by branch, the number of distinct team types that were identified, and the number and percent of these teams for which descriptive data were available (i.e., at least one team questionnaire was returned). If a particular team was identified and/or described under more than one TOE, it was counted only once. Although a total of 1,156 teams were described on all the team questionnaires, these represented only 255 "distinct" or "different" teams. The findings presented in this report are based on these distinct teams. A listing of these distinct teams is in Appendix C.

In order to determine the number of distinct team types, both the team identification worksheets and team questionnaires were examined. All teams with the same or synonymous names and with similar structural attributes (e.g., size, number of positions, similar types of equipment) were treated as one team type. Three factors reduced the reliability of this effort. First, descriptive data were not obtained for all team types. Consequently, only the names listed on the team identification worksheets were available for identification of some team types. Second, the level of detail of the descriptive data did not permit unequivocal judgments as to whether teams with slightly differing structural characteristics (e.g., different types of equipment) actually represented groups with differing behavioral requirements. Third, the

6

Table 2

NUMBER OF TEAMS IN TRADOC SURVEY

BRANCH	ALL TEAMS			DISTINCT TEAMS		
	Identified #	Identified & Described #	%	Identified #	Identified & Described #	%
Air Defense Artillery	40	24	2.1	23	7	2.7
Armor	298	289	25.0	46	37	14.5
Aviation	20	19	1.6	12	11	4.3
Chemical	12	11	0.9	9	8	3.1
Engineers	65	58	5.0	24	17	6.7
Field Artillery	375	374	32.4	46	45	17.6
Infantry	191	191	16.5	63	63	24.7
Missile & Munitions	13	12	1.0	13	12	4.7
Ordnance	41	19	1.6	41	19	7.4
Quartermaster	25	25	2.2	6	6	2.4
Signal	152	119	10.3	48	15	5.9
Transportation	16	15	1.3	16	15	5.9
Total	1248	1156	99.9%	347	255	99.9%

level of group identified as a team varied with the branch. Several
branches provided data on teams which are subgroups (e.g., rifle team)
of other groups (e.g., rifle squad) also identified as teams. When such
hierarchical groups occurred, military experts were consulted and the
group judged to operate most frequently as a team was retained.

In general, most (73%) of the teams that were identified were also
described, although this percentage varied considerably with individual
branches from (30% to 100%, Table 2). The completeness of the data
varied in two other aspects. First, four schools defined all teams
within pertinent TOE units to include teams for which the school does
not have training proponency. Descriptions returned by other schools
were limited to teams for which the schools have a training responsi-
bility. Finally, data on three variables were not completely reported:
items of equipment used, job activities, and established-emergent
rating. Due to the sizeable amount of missing information on job acti-
vities, no analyses were performed on this variable.

TEAM DESCRIPTION

Information on the structural characteristics of Army teams is
summarized for the total sample (all branches) and for each of the
combat arms (Air Defense Artillery, Armor, Engineers, Field Artillery,
and Infantry). Because of the small number of team types within Air
Defense Artillery and Engineers, all the results for these two branches
are not always discussed. In addition, results on the major structural
characteristics are cited for the noncombat branches. Frequency distri-
butions on each variable for each branch are presented in Appendix D.

Size

For all the 255 types of teams described, the size of the teams
ranged from 2 to 61 members. However, most of the team types (64%) were
composed of two to eight members, an additional 22% had between 9 and 16
members, and the remaining teams had more than 16 members (see Table 3).
The most frequent team size was three.

The size of the teams varied with combat arm (Table 3). The differ-
ent types of Armor teams were the smallest with almost 80% of these
teams composed of two or three members. About 60% of the Engineer teams
were composed of two to four members. Team sizes within Infantry and
Field Artillery were the largest and the most variable of the five
branches. About 20% of these teams were composed of four or fewer mem-
bers, while about 63% of the teams had 5 to 16 members. Of the other
branches studied (refer to Table D-1, Appendix D), Ordnance and Trans-
portation also had some large teams (i.e., 40 to 63% had 12 or more mem-
bers). On the other hand, Quartermaster, Aviation, Signal, and Missile
and Munitions generally had smaller teams (i.e., over 80% were composed

Table 3

TEAM SIZE
(Percentages in table based on column totals)

SIZE	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
2	-	43.2	23.5	2.2	4.8	13.7
3	14.3	35.1	5.9	13.3	9.5	17.3
4	14.3	13.5	29.5	4.4	6.3	10.6
5-9	28.6	8.1	41.1	31.1	33.3	25.9
10-14	28.6	-	-	22.2	26.9	14.1
15-19	14.3	-	-	13.3	9.5	7.8
20-24	-	-	-	8.9	7.9	4.7
≥ 25	-	-	-	4.4	1.6	5.9
n	7	37	17	45	63	255
Mode	Sizes 3,4, 5,7,11,14, 15 each occurred once	2	4	3,8	3,6,7,13	3
Median	7.0	2.7	4.2	9.3	8.9	6.0
Mean	8.4	2.9	4.4	11.2	10.3	9.3
St Dev	4.9	1.0	1.9	7.4	6.8	9.5
Range	3-15	2-6	2-8	2-37	2-42	2-61

9

of 2 to 8 members). Within Chemical, 63% of the teams had 2 to 8 members.

Number of Positions

The number of different positions within each team ranged from 1 to 28 with 78% of the teams composed of six or fewer positions (Table 4). The most frequent numbers of positions were two, three, and four.

Since the size of a team limits the possible number of positions available within a team, there is a mathematical dependency between these two team characteristics. The statistical association between these variables was strong (r = .73; gamma = .74). In about 40% of all teams, the team size and the number of positions were identical. Since the combat branches differed in team size, they also differed in number of positions. Members were concentrated in few positions in Armor and distributed across many positions in Field Artillery and Infantry (Table 4). In fact, in 95% of the Armor teams and in 88% of the Engineer teams the number of team members corresponded to the number of positions on the team. The corresponding percentages in Field Artilley, Air Defense Artillery and Infantry were lower. However, for small teams within Field Artillery and Infantry (i.e., six or fewer members), the number of positions frequently equaled the number of team members (55% of 20 Infantry teams and 77% of 13 Field Artillery teams).

Ranks of Team Members

Leader Rank. For all service areas the rank of the team leader ranged from E3 to O4, with E5 and E6 being the most frequent ranks (Table 5). However, the distribution of leader ranks varied with combat arm. Team leaders in Air Defense Artillery, Armor, and Engineer branches were concentrated in two or three grades: ADA leaders were primarily E6s; about 85% of the Armor leaders were E5s or E6s; and about 82% of the Engineer leaders were E5s, E6s, or E7s. On the other hand, only 47% of the Field Artillery leaders and the Infantry leaders were either E5s, E6s, or E7s. Within the other branches studied, enlisted personnel were team leaders in most of the Quartermaster, Missile and Munitions, Ordnance, Transportation, and Signal teams. All chemical leaders were officers; half the Aviation team leaders were either WOs or O1s-O3s.

For all branches combined there was a tendency for an increase in team size to be associated with an increase in leader rank (Cramer's V = .54, Table 6). Two and three member teams were usually led by E3s-E5s. Teams with 4 to 8 members were led by E6s-E8s. Teams with nine or more members were usually led by E6s-E8s, O1s-O4s, or WOs. This positive relationship between team size and leader rank characterized teams in each of the combat arms also.

Table 4

NUMBER OF DIFFERENT TEAM POSITIONS
(Percentages in table based on column totals)

NUMBER OF POSITIONS	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
1	–	2.7	–	–	–	2.7
2	–	43.2	23.5	4.4	7.9	20.4
3	14.3	37.8	5.9	22.2	15.9	20.4
4	28.6	10.8	35.3	11.1	28.6	17.3
5	28.6	2.7	11.8	8.9	7.9	8.2
6	–	2.7	5.9	22.2	12.7	9.4
7	28.6	–	11.8	4.4	9.5	5.9
8	–	–	5.9	4.4	4.8	3.5
≥ 9	–	–	–	22.2	12.7	12.1
n	7	37	17	45	63	255
Mode	4,5,7	2	4	3,6	4	2,3
Median	4.7	2.6	4.1	5.7	4.4	3.8
Mean	5.0	2.7	4.3	6.2	5.5	5.1
St Dev	1.5	1.0	1.9	3.6	3.0	3.9
Range	3-7	1-6	2-8	2-20	2-17	1-28

Association between size and number of positions

	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
% teams where size = No. of positions	28.6	94.6	88.2	26.7	20.6	37.6
Max size for above percentage	4	6	8	11	13	13
Product moment r	.96	.83	.98	.64	.61	.73
Gamma	1.00	.85	1.00	.55	.69	.74

Table 5

RANK OF TEAM LEADER
(Percentages in table based on column totals)

LEADER RANK	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
E3	-	-	-	-	-	0.4
E4	-	2.7	-	-	4.8	3.5
E5	-	54.1	29.4	11.1	11.1	22.7
E6	85.7	29.7	35.3	31.1	25.4	29.0
E7	-	2.7	17.6	4.4	11.1	7.5
E8	-	-	-	6.7	-	1.2
O1	-	2.7	-	13.3	22.2	12.2
O2	-	-	11.8	-	-	0.8
O3	14.3	5.4	-	8.9	12.7	8.2
O4	-	-	-	-	1.6	0.8
WO	-	2.7	5.9	24.4	11.1	13.7
n	7	37	17	45	63	255

Table 6

RELATIONSHIP BETWEEN TEAM SIZE AND LEADER RANK
(Percentages in table based on totals within each size category)

TEAM SIZE/ LEADER RANK	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Size 2-3						
E3 - E5	-	65.5	60.0	57.1	55.6	59.5
E6 - E8	100.0	24.1	20.0	14.3	33.3	21.5
01 - 04	-	6.9	-	28.6	16.7	8.9
WO	-	3.4	20.0	-	16.7	10.1
n	1	29	5	7	9	79
Size 4-8						
E3 - E5	-	25.0	8.3	7.1	23.5	21.1
E6 - E8	100.0	62.5	66.7	71.4	47.1	52.9
01 - 04	-	12.5	16.7	7.1	23.5	18.8
WO	-	-	8.3	14.3	5.9	7.1
n	3	8	12	14	17	85
Size $\geq$ 9						
E3 - E5	-	-	-	-	2.7	3.3
E6 - E8	66.7	-	-	33.3	35.1	37.4
01 - 04	33.3	-	-	29.2	48.6	36.3
WO	-	-	-	37.5	13.5	23.1
n	3	0	0	24	37	91

For all branches, almost all teams composed of members with the same MOS were more likely to be led by enlisted personnel (96%) than by officers (Table 7). When officers were team leaders, they were leaders of teams composed of members with more than one MOS. Yet even in these teams, enlisted personnel were likely to be the team leaders (40% for enlisted personnel, 37% for officers, 23% for warrant officers).

Member Rank. The number of different ranks within a team, excluding the rank of the team leader, ranged from 1 to 6 (Table 8). Seventy-one percent of the teams were composed of one to three ranks, and an additional 19% were composed of four ranks. Differences among the combat arm branches in member rank reflected to some extent the differences among the branches in team size and leader rank, since both factors limited the variability in ranks. Air Defense Artillery, Armor, and Engineer teams were more homogeneous in member rank than Field Artillery and Infantry teams.

The highest ranking member of a team, excluding the leader, was typically an E4 or an E5 (Table 9). In Air Defense Artillery, Armor, and Engineers 70 to 87% of the highest ranking team members were at these two levels. However, in Field Artillery and Infantry only 37 to 47% were at the same levels, reflecting in part the greater diversity in team size and number of positions within these two combat arms.

The lowest ranking team member was likely to be either an E3 or E4 within Air Defense Artillery, Armor, and Engineers. In Field Artillery and Infantry, the lowest ranking individual was most likely to be an E3.

MOS Category

For the total sample 80% of all teams had members with three or fewer MOS categories (Table 10). However, within Ordnance and Transportation the corresponding percentage was approximately 55% (Table D-7, Appendix D). Forty-three percent of all teams had members with the same MOS qualifications. This homogeneity was most pronounced within Armor where 87% of the teams were composed of members with the same MOS.

In general, a positive association occurred between team size and the number of MOS categories on a team (r = .70, Table 11). This positive relationship occurred in each of the combat arms except for Armor. (The lack of association within Armor was the result of the restricted variability in team MOS categories within this branch). The size of homogeneous teams (one MOS) varied with the combat branch (Table 11). In Armor these teams were of two or three members; in Field Artillery and Infantry such teams often had four or more members. The size of heterogeneous teams (more than one MOS) also varied with combat arm. In Field Artillery, Air Defense Artillery, and Infantry these teams were likely to have at least nine members, while in Armor and Engineers these teams had fewer than nine members. The sizes of these heterogeneous

Table 7

RELATIONSHIP BETWEEN LEADER RANK AND NUMBER OF MOS CATEGORIES
(Percentages in table based on totals within each MOS category)

MOS/RANK	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
One MOS						
E3-E5	-	62.5	50.0	28.6	52.9	55.0
E6-E8	100.0	34.4	50.0	71.4	41.2	41.3
O1-O4	-	3.1	-	-	5.9	1.8
WO	-	-	-	-	-	1.8
n	3	32	6	14	17	109
Two or More MOS						
E3-E5	-	20.0	18.2	3.2	2.2	5.5
E6-E8	75.0	20.0	54.5	29.0	34.8	34.9
O1-O4	25.0	40.0	18.2	32.2	47.8	36.9
WO	-	20.0	9.1	35.5	15.2	22.6
n	4	5	11	31	46	146

15

Table 8

NUMBER OF RANKS HELD BY TEAM MEMBERS
(Percentages in table based on column totals)

NUMBER OF DIFFERENT RANKS EXCLUDING LEADER RANK	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
1	–	43.2	23.5	4.4	6.3	18.0
2	42.9	43.2	23.5	22.2	25.4	27.5
3	42.9	10.8	41.2	31.1	23.8	25.1
4	14.3	2.7	11.8	20.0	34.9	19.2
5	–	–	–	20.0	6.3	7.5
6	–	–	–	2.2	3.2	2.4
n	7	37	17	45	63	255
Mode	2,3	1,2	1,2	3	4	2
Median	2.7	1.7	2.6	3.3	3.3	2.7
Mean	2.7	1.7	2.4	3.4	3.2	2.8
St Dev	0.7	0.8	1.0	1.2	1.2	1.3
Range	2-4	1-4	1-4	1-6	1-6	1-6

Table 9

HIGHEST AND LOWEST RANKS

(Percentages in table are based on column totals)

HIGHEST RANK EXCLUDING LEADER	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
E3	-	8.1	-	-	3.2	3.5
E4	-	56.8	29.4	17.8	14.3	27.5
E5	71.4	29.7	52.9	28.9	22.2	28.2
E6	14.3	2.7	11.8	22.2	20.6	16.9
E7	-	-	-	20.0	9.5	10.2
E8	-	-	-	2.2	3.2	1.6
01	14.3	2.7	-	6.7	3.2	3.1
03	-	-	-	-	1.6	0.4
WO	-	-	5.9	2.2	22.2	8.6
LOWEST RANK						
E3	42.9	48.6	52.9	77.8	77.8	66.7
E4	57.1	40.5	41.2	20.0	11.1	25.9
E5	-	10.8	5.9	2.2	11.1	5.9
E6, E7, WO	-	-	-	-	-	1.6
n (for highest & lowest rank)	7	37	17	45	63	215

17

Table 10

NUMBER OF MOS CATEGORIES
(Percentages in table based on column totals)

NUMBER OF MOS CATEGORIES	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
1	42.9	86.5	35.3	31.1	27.0	42.7
2	28.6	10.8	23.5	24.4	7.9	16.5
3	28.6	-	11.8	13.3	41.3	20.0
4	-	2.7	17.6	8.9	9.5	6.7
5 - 8	-	-	11.8	15.6	11.1	9.4
9 - 22	-	-	-	6.7	3.2	4.7
n	7	37	17	45	63	255
Mode	1	1	1	1	3	1
Median	1.7	1.1	2.1	2.3	2.9	1.9
Mean	1.8	1.2	2.5	3.3	3.0	2.8
St Dev	0.9	0.6	1.6	2.9	2.0	2.9
Range	1-3	1-4	1-6	1-13	1-11	1-22

18

Table 11

RELATIONSHIP BETWEEN NUMBER OF MOS CATEGORIES AND TEAM SIZE

RELATIONSHIP		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Teams with Members in Same MOS Category	Maximum Team Size	5	6	6	21	10	26
	Percent of Teams by Team Size: 2-3	33.3	78.1	50.0	28.6	41.1	56.0
	4-8	66.7	21.9	50.0	28.6	35.3	30.3
	≥ 9	-	-	-	42.8	23.6	13.7
	n	3	32	6	14	17	109
Teams with Members in More Than One MOS Category	Percent of Teams by Team Size: 2-3	-	80.0	18.2	9.7	5.4	12.3
	4-8	25.0	20.0	81.8	32.2	40.5	35.6
	≥ 9	75.0	-	-	58.1	54.1	52.1
	n	4	5	11	31	37	146
Indices of Association Between Size and MOS Categories	Product-moment r	.70	.18[a]	.67	.50	.55	.70
	Gamma	.75	-.16[a]	.56	.33	.64	.60

[a]Few Armor teams had members with different MOS categories.

19

teams are primarily accounted for by the variation in team size that occurred among the combat arms.

Skill Levels

For all teams the percentage of individuals who had skill levels of 1 or 2 was substantially higher than those who had skill levels of 3 or 4. A comparison of the two extreme levels shows that 80% of all teams had at least one individual with a skill level of 1, while only 40% of all teams had at least one individual with a skill level of 4 (Table 12). In addition, teams were more likely to have several members at the 1 level than at the 4 level.

The general pattern of the proportion of team members with low skill levels being higher than the proportion of members with high skill levels was also characteristic of each of the combat arms. Within this pattern, Armor teams differed somewhat from the other combat arms teams by having relatively fewer members qualified at skill levels 3 to 4. Field Artillery and Engineer teams differed slightly from the general pattern in that level 2, not 1, was the most frequent skill qualification level.

Profile Analysis: Size, Leader Rank, Number of Ranks, MOS

The variables of team size, leader rank, number of different ranks (excluding leader), and number of MOS categories were selected to provide a "summary" profile of "typical" Army teams. The joint distribution of teams on these four variables was determined for the entire sample. Only in the Infantry, Armor, and Field Artillery branches was the sample size large enough for the same profile analysis. For each variable, categories containing equal numbers of teams were established. The variable of size was reduced to three categories (2-3, 4-8, and 9-61 members); leader rank was reduced to four categories (E3-E5, E6-E8, 01-04, and WO); the number of different member ranks to two levels (1-2 and 3-6 ranks); and the number of MOS categories to two levels (1 and 2 or more). Thus a total of 48 combinations was possible. Variable combinations that individually accounted for at least 5% of the teams in all branches or for at least 5% of the teams in Infantry, Armor, or Field Artillery are presented in Table 13. Together these combinations accounted for 30% of the teams.

Five variable combinations accounted for 50% of the team types in the total sample. Only one of these combinations was common to Infantry, Armor and Field Artillery branches as well. This combination reflected small, homogeneous teams with enlisted leaders (size 2-3, 1-2 ranks, 1 MOS category, E3-E5 leader). This combination accounted for 17% of the teams in the entire sample, 49% of the Armor teams, 9% of the Field Artillery teams, and 8% of the Infantry teams.

Table 12

SKILL LEVEL OF TEAM MEMBERS
(Percentages on table based on column totals)

SKILL LEVEL	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
% Members – Level 4						
No Members	57.1	91.9	52.9	53.3	58.7	62.4
One Member	28.6	8.1	41.2	37.8	20.6	26.7
Two or More Members	14.3	–	5.9	8.9	20.7	10.9
% Members – Level 3						
No Members	57.1	70.3	47.1	31.1	54.0	51.4
One Member	42.9	24.3	47.1	55.6	31.7	34.9
Two or More Members	–	5.4	5.9	13.3	14.3	13.7
% Members – Level 2						
No Members	14.3	21.6	–	4.4	23.8	16.9
One Member	42.9	70.3	41.2	48.9	31.9	38.8
Two or Three Members	14.3	8.1	53.0	13.3	25.4	23.9
Four or More Members	28.6	–	5.9	33.3	18.9	20.4
% Members – Level 1						
No Members	–	13.5	23.5	11.1	17.5	20.8
One Member	14.3	37.8	52.9	13.3	9.5	17.3
Two or Three Members	71.5	43.2	23.6	15.6	22.3	24.7
Four or More Members	14.3	5.4	–	60.0	50.7	37.3
Average No. Members						
Level 4	0.6	0.1	0.5	0.6	1.5	0.7
Level 3	0.4	0.4	0.6	1.0	0.7	0.8
Level 2	3.8	0.9	1.8	3.2	2.4	2.6
Level 1	2.4	1.5	1.1	5.1	4.0	4.1
n for Each Skill Level	7	37	17	45	63	255

Table 13

FREQUENT COMBINATIONS OF SIZE, LEADER RANK, NUMBER OF RANKS, AND
NUMBER OF MOS CATEGORIES FOR ALL BRANCHES, ARMOR,
FIELD ARTILLERY, AND INFANTRY
(Percentages are based on total number of teams within each column)

SIZE	# OF RANKS	# OF MOS	LEADER RANK	ALL BRANCHES n(%)	ARMOR n(%)	FIELD ARTILLERY n(%)	INFANTRY n(%)
Small, homogeneous teams, enlisted leaders							
2-3	1-2	1	E3-E5	42 (16.5)	18(48.6)	4(8.9)	5(7.9)
2-3	1-2	1	E6-E8	15 (5.9)	6(16.2)	-	2(3.2)
Medium, homogeneous teams, enlisted leaders							
4-8	1-2	1	E3-E5	13 (5.1)	1(2.7)	-	3(4.8)
4-8	3-6	1	E6-E8	13 (5.1)	3(8.2)	4(8.9)	1(1.6)
Medium, heterogeneous teams, senior enlisted & officer leaders							
4-8	3-6	≥ 2	E6-E8	21 (8.2)	-	4(8.9)	6(9.5)
4-8	3-6	≥ 2	01-04	15 (5.9)	1(2.7)	1(2.2)	6(9.5)
Large, heterogeneous teams, senior enlisted & officer leaders							
9-61	3-6	≥ 2	01-04	28 (11.0)	-	7(15.5)	11(17.5)
9-61	3-6	≥ 2	WO	21 (8.2)	-	9(20.0)	4(6.3)
9-61	3-6	≥ 2	E6-E8	20 (7.8)	-	2(4.4)	8(12.7)
9-61	3-6	1	E6-E8	9 (3.5)	-	4(8.9)	-
9-61	1-2	≥ 2	01-04	4 (1.6)	-	-	4(6.3)
Cumulative n(%)				201 (78.8)	29(78.4)	35(77.8)	50(79.4)
Total number of teams				255	37	45	63
Number of Combinations Required to Account for Approximately 50% of Teams				5	1	4	4

Note. Combinations that described at least 5% of teams across all branches or within
a branch are cited. The number and percentage of teams within each of these
combinations for the total sample and the three combat arms are presented in
the table, even though in some cases the percentage is less than 5%. Note
for example, that the last combination in the table(9-61 members, 1-2 ranks,
more than 2 MOS, and 01-04 leaders) accounted for 6% of the Infantry teams and
was therefore included in the table, although it only accounted for 2% of all
teams.

The combinations that accounted for most of the teams in all the branches could be grouped into four categories. The first category was small, homogeneous teams led by enlisted men (2-3 members, 1-2 ranks, 1 MOS category, E3-E8 leaders). The second category was medium-sized, homogeneous teams with enlisted men as leaders (4-8 members, 1 MOS category, E3-E8 leaders). The third category was medium sized, heterogeneous teams led by senior enlisted men or by officers (4-8 members, 3-6 ranks, more than two MOS categories, E6-E8 or 01-04 leaders). The last category was large, heterogeneous teams led by senior enlisted men or by officers (more than 9 members, 3-6 ranks, more than two MOS categories, E6-E8 or 01-04 or WO leaders). The frequency of each of these team categories varied with combat arm. Armor teams were small, homogeneous, and led by enlisted men. Infantry was characterized by both medium and large heterogeneous teams led by senior enlisted men or officers. Field Artillery was also characterized by large, heterogeneous teams led by officers. The remaining Field Artillery teams were about equally distributed across the three other team categories. Thus on the structural variables examined, Field Artillery teams were the most variable; Armor teams the least variable.

The data in Table 13 show that Army teams are diversified on the variables examined, due to the relatively low percentage of teams described by each combination and the relatively small overlap among the combat branches. Of course, if larger variable groupings had been used (e.g., only two sizes), then this picture would change somewhat.

Different Types of Equipment

Most teams (75%) used from one to five types of equipment (Table 14). Typically, Armor, Air Defense Artillery, and Engineer teams used one type of equipment, while Field Artillery and Infantry teams used a greater variety of equipment (75-85% of these teams used from two to seven types of equipment). These numbers reflect quite different types of equipment both within and across branches, ranging from total systems such as tanks, helicopters, and bridges to individual pieces of equipment such as rifles, plotting boards, radios, and welding torches. In addition, the data varied in level of detail and completeness across the branches surveyed.

Established-Emergent Rating

Of the 255 teams described, only 33 (17%) were rated by the TRADOC subject matter experts as performing emergent, as opposed to established, tasks (Table 15). All except one of these teams were in one of the combat arms. This exception was diving teams within the Transportation branch. None of the Field Artillery teams was rated as performing emergent tasks. The percentage of emergent teams in the other combat arms ranged from 30 to 40%. However, the percentage of

Table 14

NUMBER OF DIFFERENT TYPES OF EQUIPMENT
(Percentages in table based on column totals)

# TYPES OF EQUIPMENT	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
1	42.9	50.0	41.7	2.2	6.3	30.6
2	28.6	22.2	16.7	8.9	21.0	15.7
3	14.3	8.3	16.7	13.3	14.5	10.3
4	14.3	5.6	8.3	24.4	14.5	10.7
5	-	5.6	8.3	11.1	17.7	8.3
6	-	-	-	8.9	9.7	6.6
7	-	8.3	8.3	6.7	9.7	6.2
$\geq$ 8	-	-	-	24.4	6.4	11.6
n	7	36	12	45	62	242
Mode	1	1	1	4	2	1
Median	1.7	1.5	2.0	4.6	4.0	2.9
Mean	2.0	2.3	2.6	5.8	4.4	4.5
St Dev	1.1	1.8	1.9	3.3	2.8	6.3
Range	1-4	1-7	1-7	8-14	1-19	1-49
Missing n	0	1	5	0	1	13

24

Table 15

PERCENTAGE OF RESPONSES TO THE ESTABLISHED-EMERGENT RATINGS
(Percentage based on column totals)

RATING	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Established	-	56.8	5.9	67.4	19.4	47.4
More Established than Emergent	57.1	2.7	47.1	32.6	25.0	24.0
Equally Established & Emergent	-	8.1	17.6	-	22.2	11.7
More Emergent than Established	42.9	32.4	17.6	-	33.3	15.8
Emergent	-	-	11.8	-	-	1.0
n	7	37	17	43	36	196
Mode	2	1	2	1	4	1
Median	2.7	1.4	2.4	1.2	2.8	1.6
Mean	2.8	2.2	2.8	1.3	2.7	2.0
St Dev	1.1	1.4	1.2	0.5	1.1	1.1
Missing n	0	0	0	2	27	59

Note. Five point scale with "established" coded 1 and "emergent" coded 5.

such teams within Infantry may be misleading, due to the sizeable number of missing ratings.

The names of the emergent teams are as follows: Infantry – aidman team, aid station/evacuation station, M60 machine gun team, rifle squad, antitank (TOW) squad, scout squad, Redeye team, antitank (Dragon) team, armed helicopter section, utility support section (Aviation elements), and command and control section (Aviation elements); Armor – aidman team, antitank (TOW) team, tank crews (M551 and M60A1/A2), scout squad, heavy mortar squad, armored vehicular launched bridge (AVLB) crew, observation crew (Aviation elements), rifle squad, aeroscout crew, aeroweapons crew, and reconnaissance squad or aerorifle crew; Engineers – firefighting team, medical section, construction squad, engineer squad and demolition team; and Air Defense Artillery – radar section, vulcan squad, and chaparral squad. A careful examination of the names of these teams indicates some redundancy as well as some consistency in the emergent ratings among the branches, i.e., medical teams were cited by Armor, Infantry and Engineers; rifle squads and anti-tank teams were cited by both Armor and Infantry. Thus the number of distinct emergent teams may in fact be lower than that reported here.

FORSCOM SURVEY:
TRAINING AND OPERATIONAL CHARACTERISTICS
OF ARMY TEAMS

METHODOLOGY

SAMPLING DESIGN

The target population consisted of teams in active Army units
within FORSCOM. These teams were selected from active TOE units for
which the following centers and schools have proponency: Air Defense
Artillery, Armor, Aviation, Chemical, Engineers, Field Artillery, In-
fantry, Medical Services, Military Police, Missile and Munitions,
Quartermaster, Signal, and Transportation. These active units were
located with information obtained in the TRADOC team survey and from the
Adjutant General's Office. All battalion-size units or separate com-
panies organized under the same TOE number were treated as a single type
of unit. Units concerned with command and control functions and units
being phased out were excluded from the target population. The target
population represented 109 different TOEs. The exact size and nature of
the target population are classified information, making the sampling
ratio classified as well. However, the sampling plan was designed to
obtain a sufficient proportion of the units from the target population.

From the target population, 140 units (68 battalions and 72
separate companies) were selected for the sample. The selection
procedure was as follows:

1.   Fifteen installations were selected to assure reasonable geo-
graphic and size representation.

2.   Only one unit with a particular TOE was sampled from a single
installation (e.g., five Infantry Battalions with a designated TOE
number were drawn from five separate installations rather than from the
same installation).

3.   At least one active unit per TOE number was sampled. When
multiple units were selected, they were primarily from the Armor, In-
fantry, Medical, and Missile-Munitions branches.

4.   The individual point of contact at an installation selected
the actual unit from which data were obtained if more than one unit with
a particular TOE designation was located at that installation.

PROCEDURE

Team questionnaires were sent to each of the 140 units selected for
the sample. Points of contact at each installation were obtained
through coordination with HQ, FORSCOM. The points of contact were in-

structed that all questionnaires for a specific unit should be completed
by one or more individuals who were knowledgeable of the structure of
the unit, the teams within it, and the training of teams. In most in-
stances, this individual was the training officer for the unit (or
personnel within his office).

Respondents within each unit were instructed to complete one
questionnaire for each type of team in the unit. A list of teams appro-
priate for that unit's branch was included with the questionnaire to
assist in the identification of teams. These lists were based on the
results of the TRADOC survey. Thus, the list provided to a particular
unit (e.g., Airborne Infantry Battalion) included teams that were likely
to be found in other types of units (e.g., Ranger Battalion) within that
particular branch (e.g., Infantry). The definition of team was also
included to assist respondents in identifying any teams not on the list.

TEAM QUESTIONNAIRE

The team questionnaire was designed to obtain information that
would describe some of the operational characteristics of existing Army
teams and provide basic data on the nature of team training within the
Army. The subject matter experts in the TRADOC phase critiqued the
questionnaire before it was sent to FORSCOM units. The final question-
naire is presented in its entirety in Appendix B. Six areas were
examined.

Structural Characteristics

The number of teams of a particular type within a unit and the size
of these teams were recorded.

Operational Characteristics

Nine characteristics that reflected how each team operated or
functioned were examined. These characteristics and their variable
labels are presented in Table 16. Respondents were requested to indi-
cate the scale: "no extent" (coded 0), "to a little extent," "to a
moderate extent," "to quite an extent," or "to a great extent" (coded
4). These characteristics were selected on the basis of small group re-
search and Army team/crew research (see reviews by Collins, 1977; Hare,
1976). For example, researchers have examined the nature of group
member interaction and cooperation (reflected in the survey variables of
leader coordination, member coordination, performance compensation, and
task interdependence), and how such interaction affects group
productivity. Group cohesion and motivation (reflected in the survey
variables of team spirit and personal knowledge) have also been
identified as important characteristics of small groups.

Table 16

OPERATIONAL CHARACTERISTIC ITEMS IN FORSCOM SURVEY

To what extent do each cf the following characteristics apply to this team?

a. Except for transfers, team members on a given team are usually the same individuals from hour to hour and from day to day. (Continuity)

b. The team's tasks are mainly composed of the activities needed to operate one or more items of equipment. (Equipment Tasks)

c. Successful task/mission performance requires team members to obtain information about the work situation and to pass it on to other team members. (Information Transfer)

d. Successful task/mission performance is dependent on a leader to closely coordinate the activities of all team members. (Leader Coordination)

e. Successful task/mission performance requires team members to coordinate their activities directly with each other. (Member Coordination)

f. The tasks are such that if one member cannot perform adequately (e.g., fast enough), another member can "make up for" that performance. (Performance Compensation)

g. The team members need to express a "team spirit" in their work activities. (Team Spirit)

h. Task performance by team members is dependent on timing, quality, and/or completeness of the performance of other team members. (Task Interdependence)

i. A team member needs to know his mates and know how they will react in certain situations. (Personal Knowledge)

Extent of Team Training

Both the amount of team training received and the amount of team training needed were determined. Six forms of team training were examined: on-the-job training, unit maneuvers or exercises, field training, classroom lectures and demonstrations, use of team training devices, and training at special schools. For each type of training, respondents indicated whether the team received this training daily (coded 8), several times a week, once a week, several times a month, once a month, several times a year, once a year, less than once a year, or never (coded 0). Respondents used the same categories to indicate the amount of each type of training that was needed. In addition, the degree of leader satisfaction with the amount of team training received was obtained on the same five-point scale that was used for operational characteristics ("no extent" to "a great extent").

Training Constraints

Eight factors that could prevent units from conducting additional or better team training were examined: lack of instructional programs, lack of realistic training, lack of trainers, limited time for training, limited facilities and support equipment, lack of team training devices, difficulties in keeping the team together for training, and whether individual training was more important than team training. Respondents indicated whether each of these factors characterized each team on the five-point "no extent" to "a great extent" scale.

Operational Problems

Sixteen factors that could cause frequent or critical problems in the performance of teams were examined. These factors and their variable labels are presented in Table 17. Respondents were again requested to indicate the degree to which each factor characterized each team on the same scale used for training constraints and operational characteristics ("no extent" to "a great extent").

Evaluation

The frequency and adequacy of external Army Training and Evaluation Programs (ARTEP), Operational Readiness Training Tests (ORTT) and internal evaluations were examined. The adequacy of such evaluations was rated on the extent to which they provided satisfactory estimates of the team's ability to perform its wartime mission.

TEAM DEFINITION

Each questionnaire was screened to insure that key items had been completed and that the data described a team as opposed to other groupings of individuals. Questionnaires were excluded from further

Table 17

OPERATIONAL PROBLEM ITEMS IN FORSCOM SURVEY

To what extent do the factors listed below cause frequent or critical problems in the performance of this team?

a. Frequent turnover in team personnel. (Turbulence)

b. Some team members are not qualified for their positions. (Unqualified Personnel)

c. Inadequate amount of team training. (Insufficient training)

d. Team training is not meaningful or realistic. (Unrealistic Training)

e. Team is not given the opportunity to train with other units. (No Unit Training)

f. Lack of team spirit. (Lack Spirit)

g. Social problems (e.g., hostility between members). (Social Problems)

h. Lack of technically and tactically proficient leadership. (Leadership)

i. Lack of discipline. (Discipline)

j. Poor design of equipment that the team needs to operate. (Equipment Design)

k. Lack of equipment that the team would normally use. (Lack Equipment)

l. Team is employed using inappropriate tactics. (Inappropriate Tactics)

m. Team is employed beyond its capabilities. (Overextended)

n. Lack of communication and coordination. (Communication/Coordination)

o. The current configuration of the team is inadequate (e.g., more or fewer members are needed or different types of personnel are needed). (Inappropriate Configuration)

p. Teams are frequently understrength and thus lack the manpower to effectively perform team missions. (Understrength)

analysis if one of the following applied: (a) responses described a position occupied by a single individual rather than a team, (b) responses described a team with positions that were completely unfilled at the time of the survey, (c) groups were composed of a relatively large number of members functioning as something other than a team (such determinations were based on conversations with the respondents themselves), (d) the team's primary function was the command and control of a company-size or larger unit, and (e) data for a team were unintelligible. When more than one questionnaire for a particular type of team within a unit was returned, the responses from these "duplicate" questionnaires were averaged and this average was used in the analysis.

Although one of the original purposes of the FORSCOM survey was to use the sample data to estimate characteristics of the population of Army teams by weighting team responses for each type of team in each unit by the number of teams of that particular type within the unit, incomplete data and the sampling procedures made such estimation inappropriate. In some cases certain companies within a battalion were not described, and in other cases not all types of teams within a company were described. Therefore, the data were treated in a manner similar to that in the TRADOC survey. Distinct teams within each branch were identified. When there was more than one FORSCOM questionnaire from different units within the same branch for a particular type of team, the responses from these multiple questionnaires were averaged and the average was used in the data analysis. Such multiple questionnaires were very common (e.g., rifle squads, tank crews, howitzer crews, mess teams, RATT teams, Redeye teams).

RESULTS

SAMPLE RETURN

Approximately 81% (114; 54 battalions and 60 separate companies) of the units returned the team questionnaires (Table 18). The breakout in Table 18 indicates that this return rate varied with the branch, but was fairly similar for each of the combat arms (Engineers, Field Artillery, and Armor - 75%, Infantry and Air Defense Artillery - 84%). The 114 units in the sample also represented 82 distinct TOE battalion/company designations. A list of the TOE units in the sample is given in Appendix A.

A total of 1188 questionnaires was returned, representing a total of 284 distinct teams. Ninety-three questionnaires were excluded from analysis for one of the reasons mentioned earlier. Information from the remaining questionnaires was reduced further by the two averaging processes described previously: 279 questionnaires covered the same team within the same unit more than once and 532 questionnaires "duplicated" teams within the same branch. The number of distinct teams per branch is given in Table 19. Most (73%) of the teams were in the Armor, Field

32

Table 18

PERCENTAGE OF ARMY UNITS IN SAMPLE THAT PROVIDED RESPONSES
TO FORSCOM QUESTIONNAIRE

BRANCH	NO. OF UNITS IN SAMPLE	NO. OF UNITS PROVIDING RETURNS	RETURN PERCENTAGE
Air Defense Artillery	6	5	83.3
Armor	16	12	75.0
Aviation	3	3	100.0
Engineers	15	11	73.3
Field Artillery	19	15	78.9
Infantry	21	18	85.7
Medical Services	23	19	82.6
Military Police	10	8	80.0
Missile & Munitions	8	6	75.0
Quartermaster[a]	5	5	100.0
Signal	6	5	83.3
Transportation	8	7	87.5
Total	140	114	81.4
# Battalions	68	54	79.4
# Separate Companies	72	60	83.3

Note. Numbers reflect sampling of more than one FORSCOM unit for selected
       TOE designations.

[a] From Composite Units.

33

Table 19

SUMMARY OF NUMBERS OF TEAMS: TRADOC AND FORSCOM SURVEYS

| BRANCH | TOTAL # DISTINCT TEAMS IDENTIFIED IN BOTH SURVEYS | TRADOC | | FORSCOM | # TEAMS COMMON TO BOTH SURVEYS | # TEAMS WITH DESCRIP- TIVE DATA IN BOTH SURVEYS |
		# Identi- fied	# with Descrip- tive Data	# Identi- fied & w/ Descrip- tive Data		
Air Defense Artillery	27	23	7	13	9	5
Armor	55	46	37	46	37	30
Aviation	16	12	11	13	9	8
Chemical	9	9	8	a	-	-
Engineers	35	24	17	25	14	11
Field Artillery	58	46	45	37	25	25
Infantry	84	63	63	63	42	42
Medical	37	b	-	37	-	-
Military Police	9	b	-	9	-	-
Missile & Munitions	13	13	12	3	3	3
Ordnance	41	41	19	a	-	-
Quartermaster	13	6	6	13	6	6
Signal	48	48	15	16	16	8
Transportation	20	16	15	9	5	5
Total	465	347	255	284	166	143
Total for 10 Branches in Both Surveys	369	297	228	238	166	143

[a] No data collected in FORSCOM Phase
[b] No data collected in TRADOC Phase

Artillery, Infantry, Engineer, and Medical branches. The FORSCOM analysis was conducted on these 284 teams. A list of these teams is in Appendix C.

COMPARISON WITH TRADOC SURVEY

The correspondence between the teams in the TRADOC and FORSCOM surveys is shown in Table 19. A total of 465 distinct teams were identified in both surveys. The five combat branches accounted for 56% of these teams. Complete TRADOC and FORSCOM descriptive data were available on 143 or 31% of all teams. However, this index of data overlap between the two surveys is slightly misleading for two reasons. One, only ten of the fourteen branches were included in both surveys. Two, for some branches a sizeable proportion of teams was identified by name only in the TRADOC survey. When only those teams that were described as well as identified in the TRADOC survey, and only those branches that were included in both surveys were examined, the total team count was 228. Complete descriptive information was available on 63% (143) of these teams.

Four factors interacted to produce discrepancies between the types of teams identified in the two surveys. First, not all types of TOE units were included in the FORSCOM study. Second, review of the FORSCOM returns suggested that data on teams in all elements of a TOE unit (e.g., all companies in a battalion) were not always recorded. Third, the TRADOC data identified teams that are formally recognized in the organizational structure of Army units. The structures of actual units tend to deviate from these formal structures. Finally, the project was not designed to permit association of the data collected in both surveys. That is, only three types of data were available for judging the match between teams described in both surveys: the unit in which a team was located, the names of the teams, and the team size. Due to variations in nomenclature, differences in actual and formal team sizes, and discrepancies in organizational structures, it was often impossible to determine with certainty whether a team described in the FORSCOM survey had also been identified in the TRADOC survey. As a result, the extent to which teams of the same type were covered in both phases of the study is probably underestimated.

OPERATIONAL CHARACTERISTICS OF TEAMS

Except for the question on continuity of team membership, the operational characteristic items requested the respondents to indicate whether each characteristic was required or needed in team activities rather than whether a characteristic was typical of actual team operations. For example, the member coordination item asked whether member coordination is required rather than if it occurs in normal team operation. Responses to the questionnaire items indicated that each of the characteristics, except for performance compensation, was rated as very

35

typical of Army teams (Table 20). In general, about 60% of the ratings fell in the "to quite an extent" and the "to a great extent" categories (see Appendix E). On the other hand, only 36% of the ratings fell in these two categories for the performance compensation item; 40% of the ratings were in the "to a moderate extent" category. Despite this concentration of responses within each branch, all five points on the rating scale were used, indicating variation among the teams on the characteristics examined.

In all branches, performance compensation was given the lowest rating. Air Defense Artillery teams also gave equipment tasks a low rating. The remaining characteristics were all rated as being rather typical of teams within each of the combat arms.

No significant differencs on any of the team characteristic items existed among the combat arms. This homogeneity may result, in part, from the fact that there are similar types of teams (teams performing similar functions) within several of the combat arms, e.g., mortar platoons are similar to howitzer sections, medical aidman teams and mess teams exist in all branches, aviation-related teams exist in both Armor and Infantry.

The homogeneity may also be measurement-related, in that the questionnaire items were not sensitive to differences in team characteristics. For example, most Army teams use several pieces of equpiment, although teams differ in the extent to which that equipment influences the nature of team activity. For example, the activities of an Engineer ribbon bridge section are greatly influenced by the bridge itself, whereas the activities of a rifle squad are not as dependent upon the M16 rifle. However, the equipment characteristic item only asked respondents to indicate the extent to which team tasks needed one or more items of equipment.

On the other hand, the homogeneity may have resulted from the averaging of different characteristics associated with different types of teams within some of the combat branches. To test this hypothesis, Infantry teams were divided into four major categories: combat teams (e.g., rifle squad, TOW team, mortar squad), medical teams (e.g., aidman team, evacuation section), aviation teams (e.g., flight operations, airlift section, aircraft maintenance section), and support teams (e.g., commo platoon, wire team, liaison, supply section, mess team). Teams placed in each of these categories are indicated in Appendix C. Two significant differences did occur among these types of teams (Table 21). Leader coordination was rated as more important in combat and support teams than in aviation and medical teams. Team spirit was rated as less important in medical teams than in the other types of teams. Although no other significant differences occurred, it is interesting to note that the respondents rated personal knowledge of other team member's re-

Table 20

TEAM CHARACTERISTICS: MEANS (STANDARD DEVIATIONS)

ITEM	AIR DEFENSE ARTILLERY	ARMOR	ENGINEER	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Continuity	2.7 (1.2)	2.7 (0.7)	3.1 (1.2)	2.4 (1.3)	2.9 (1.0)	2.8 (1.1)
Leader Coordination	2.8 (1.2)	2.9 (0.8)	2.5 (1.1)	2.6 (1.1)	2.7 (1.0)	2.7 (1.0)
Member Coordination	3.0 (0.9)	2.7 (0.9)	2.6 (0.9)	2.4 (1.1)	2.5 (1.0)	2.7 (0.9)
Personal Knowledge	3.1 (0.7)	2.7 (0.9)	3.0 (0.7)	2.5 (1.1)	2.7 (1.0)	2.7 (1.0)
Information Transfer	2.8 (1.1)	2.5 (0.9)	2.6 (1.0)	2.6 (1.1)	2.6 (1.0)	2.6 (1.0)
Task Interdependence	2.6 (0.8)	2.6 (0.9)	2.9 (0.6)	2.3 (1.2)	2.7 (1.0)	2.6 (1.0)
Equipment Tasks	2.1 (1.4)	2.6 (0.9)	2.9 (1.1)	2.4 (1.1)	2.5 (1.1)	2.5 (1.1)
Team Spirit	2.8 (1.0)	2.5 (1.0)	2.9 (0.9)	2.3 (1.3)	2.5 (1.0)	2.5 (1.0)
Performance Compensation	2.3 (1.0)	1.9 (0.7)	2.2 (0.9)	1.9 (1.0)	2.2 (1.0)	2.1 (1.0)

Note. Five-point scale with 0 representing "to no extent" and 4 representing "to a great extent."

Table 21

TEAM CHARACTERISTICS FOR DIFFERENT CATEGORIES OF
INFANTRY TEAMS: MEANS (STANDARD DEVIATIONS)

ITEM	COMBAT	SUPPORT	AVIATION	MEDICAL
Continuity	2.7 (0.9)	3.0 (0.7)	2.8 (1.2)	2.9 (1.5)
Leader Coordination[a]	3.0 (1.0)	3.0 (0.7)	2.4 (1.0)	1.9 (1.2)
Member Coordination	2.5 (0.9)	2.7 (0.8)	2.3 (1.1)	2.2 (1.2)
Personal Knowledge	3.2 (1.0)	2.7 (0.6)	2.5 (1.2)	2.5 (0.7)
Information Transfer	2.7 (0.9)	2.8 (0.8)	2.6 (1.1)	2.2 (1.2)
Task Interdependence	3.0 (1.0)	2.5 (0.8)	2.6 (1.1)	2.5 (1.1)
Equipment Tasks	2.5 (1.9)	2.8 (0.8)	2.5 (1.4)	1.6 (1.2)
Team Spirit[b]	3.0 (1.1)	2.8 (0.6)	2.1 (1.0)	1.9 (1.2)
Performance Compensation	2.1 (1.1)	2.4 (0.7)	2.1 (1.2)	2.1 (0.8)
n	15	21	21	6

Note. Five-point scale with 0 representing "to no extent" and 4 representing
"to a great extent."
[a]$F=3.36$, $df=3/59$, $p=.0247$

[b]$F=3.55$, $df=3/59$, $p=.0197$

38

actions and dependency among tasks performed by other team members as more characteristic of combat teams than the other types of teams.

TEAM TRAINING RECEIVED AND NEEDED

Several factors could have influenced the responses to the training questions. The respondents may have defined team training to include training that not only involved an emphasis upon teamwork (e.g., the quality and speed of team member coordination), but also training that stressed the repetition of tasks by individual team members within a team context. In the latter situation, the quality of each individual's performance would be emphasized more than teamwork per se. Therefore, the estimates of the amount of team training may be high. In addition, the six types of training examined were not mutually exclusive. For example, use of training devices can occur in field training and in classroom instruction. On-the-job training might have been interpreted to mean field training exercises for some teams. Thus respondents may have included the same training in more than one of the six training categories, which would inflate the estimates of the level of team training that actually occurred.

Team Training Received

For all the branches surveyed, the frequency of team training varied with the type of training (Table 22). The most common form of training was on-the-job, with teams receiving such training, on the average, from several times a month to once a week. Unit training, lectures/demonstrations, and use of training devices were the next most likely forms of training received and were generally encountered several times a year to once a month. Field training was received about once a year. Training at special schools was received very infrequently, i.e., less than once a year or never.

Within each of the combat arms, the rank ordering of the different types of training was similar to that obtained for all branches. The one exception to this pattern was that unit training was more ocmmon than the use of training devices and lectures/demonstrations for Air Defense Artillery teams. This high agreement among the combat arms regarding the relative amount of time devoted to each form of training was reflected in a coefficient of concordance value of .91.

Some significant differences did occur among the combat arms in terms of the absolute frequency with which the different forms of training occurred (Table 22). On the average, Field Artillery teams received more unit training than did Engineer teams (once a month versus several times a year). Field Artillery and Armor teams received more lectures/demonstrations than Air Defense Artillery teams (monthly versus once a year). Field Artillery teams made more use of training devices (monthly) than did Air Defense Artillery teams (several times a year).

Table 22

TYPES OF TRAINING RECEIVED AND NEEDED: MEANS (STANDARD DEVIATIONS)

TRAINING RECEIVED	AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Special Schools	0.4 (0.5)	1.2 (1.0)	0.8 (1.2)	0.9 (1.1)	1.2 (1.3)	1.1 (1.1)
Field	1.8 (1.4)	2.4 (1.4)	1.8 (1.3)	2.2 (1.7)	1.7 (1.3)	1.9 (1.5)
Unit[a]	3.4 (0.5)	3.2 (1.2)	2.9 (0.3)	3.9 (1.1)	3.2 (1.2)	3.2 (1.0)
Lectures/ Demo[b]	2.1 (2.5)	3.8 (1.4)	2.9 (1.8)	3.9 (2.0)	3.1 (1.9)	3.2 (1.8)
Training Devices [c]	2.6 (2.8)	3.4 (1.7)	3.9 (1.8)	4.4 (2.4)	4.2 (2.2)	3.7 (2.1)
On-The-Job	6.0 (1.7)	5.8 (1.7)	6.1 (1.7)	6.2 (1.8)	5.9 (1.9)	5.7 (1.9)
TRAINING NEEDED						
Special Schools[d]	1.6 (1.5)	2.6 (0.9)	2.3 (1.0)	3.2 (1.4)	2.6 (1.2)	2.6 (1.2)
Field	2.7 (1.9)	3.4 (1.2)	2.6 (1.5)	3.2 (1.6)	2.7 (1.4)	2.8 (1.5)
Unit[e]	3.3 (0.6)	3.6 (1.0)	3.2 (0.7)	4.0 (1.1)	3.5 (1.2)	3.4 (0.9)
Lectures/ Demo[f]	4.4 (1.7)	4.9 (1.2)	4.1 (1.2)	5.0 (1.3)	4.1 (1.5)	4.4 (1.4)
Training Devices	4.6 (2.3)	5.1 (1.3)	5.1 (1.4)	5.3 (1.8)	5.1 (1.8)	4.8 (1.7)
On-The-Job	6.4 (1.8)	6.5 (1.0)	6.9 (1.3)	6.6 (1.2)	6.4 (1.5)	6.3 (1.5)

Note. The nine response categories were coded as follows: 8-Daily; 7-Several
Times a Week; 6-Once a Week; 5-Several times a Month; 4-Once a Month;
3-Several Times a Year; 2-Once a Year; 1-Less Than Once a Year; 0-Never

Significant differences among the Combat Arms

[a] $F=3.85$, df=4/179, p=.005   [c] $F=2.69$, df=4/179, p=.03   [e] $F=2.98$, df=4/179, p=.02

[b] $F=3.43$, df=4/179, p=.01   [d] $F=5.42$, df=4/179, p=.0004   [f] $F=3.93$, df=4/178, p=.0044

Team Training Needed

For each form of training, the amount needed was higher than the amount received (Table 22). Yet the rank orderings on the amounts of training received and needed were identical. On the average, on-the-job training was needed the most, from one to two times a week. Lectures/demonstrations and training devices were needed from once a month to several times a month. Unit training was needed several times a year to once a month. Instruction in special schools and field training just for the team were needed several times a year.

As with the amount of training received, the rank orderings on the amount of training needed within each of the combat arms corresponded to that obtained for all branches combined and the agreement among the combat arms was high (coefficient of concordance was 1.0). Some significant differences did occur among the combat arms, however, in terms of the absolute amount of training needed. On the average, the need for both special school instruction and unit training was higher for Field Artillery teams than for Air Defense Artillery teams (several times a year as opposed to once a year or less for special schools; once a month as opposed to several times a year for unit training). The need for lectures/demonstrations was rated higher for Armor and Field Artillery than for Engineer and Infantry teams (several times a month as opposed to once a month).

Table 23 summarizes the frequency of training needed and received for each of the types of training. The increase in the amount judged as needed compared to that received is clearly indicated in the table, as well as the large variations in the frequency with which certain types of training were received. A more detailed breakout of the frequency distributions for each type of training is given in Appendix E.

Infantry Teams

Infantry teams were again divided into the four major categories of combat, medical, aviation and support teams in order to determine if the training received by these teams differed (Table 24). Significant differences occurred on three types of training. On-the-job training was more frequent for aviation teams. They received on-the-job training almost daily; the other teams received it several times a month. On the other hand, unit training was more likely to occur for combat and medical teams than other teams (monthly vs. several times a year). In addition, field training just for the team was more common for combat teams than for the other teams (several times a year vs. once a year or less). It should also be noted that aviation teams used training devices more frequently than the other teams although this difference was not significant. For all categories of teams, instruction at special

41

Table 23

SUMMARY OF TRAINING RECEIVED AND NEEDED
FOR ALL BRANCHES

FREQUENCY	SPECIAL SCHOOLS		FIELD		UNIT		LECTURES/ DEMONSTRATIONS		TRAINING DEVICES		ON-THE JOB	
	R	N	R	N	R	N	R	N	R	N	R	N
Never	X		X									
Less than once a year	X											
Once a year		X	X	X			X		X			
Several per year		X	X	X	X	X	X	X (		X			
Once a month				X		X	X	X	X	X		
Several per month							X	X	X	X	X	
Once a week										X	X	X
Several per week											X	X
Daily											X	X
% of teams	77.4	68.3	72.9	67.9	61.5	72.9	70.6	75.5	68.2	67.6	71.0	67.2

Note. "R" stands for amount of training received; "N" for amount of training needed. The Xs in each column reflect those training categories which collectively accounted for at least 60% of the responses.

Table 24

TRAINING RECEIVED AND NEEDED
FOR DIFFERENT INFANTRY TEAMS:
MEANS (STANDARD DEVIATIONS)

TRAINING RECEIVED	COMBAT	SUPPORT	AVIATION	MEDICAL
Special Schools	1.5 (0.9)	1.1 (1.3)	1.2 (1.6)	0.5 (0.6)
Field[a]	2.7 (1.1)	1.7 (1.1)	1.2 (1.3)	1.1 (1.3)
Unit[b]	4.0 (1.3)	3.2 (0.9)	2.4 (1.0)	3.7 (1.2)
Lectures/ Demonstrations	3.9 (1.2)	3.0 (1.9)	2.8 (2.4)	2.5 (1.3)
Training Devices	3.8 (1.4)	3.8 (1.9)	5.1 (2.8)	2.9 (1.8)
On-The-Job[c]	5.1 (1.5)	5.6 (1.7)	7.3 (1.2)	4.5 (3.1)
TRAINING NEEDED				
Special Schools	3.0 (0.8)	2.2 (0.9)	2.8 (1.5)	1.9 (1.3)
Field[d]	3.8 (1.1)	2.7 (1.1)	2.0 (1.6)	2.4 (1.4)
Unit	4.0 (0.8)	3.4 (0.8)	3.1 (1.6)	3.6 (0.7)
Lectures/ Demonstrations	5.0 (1.5)	4.0 (1.1)	3.7 (1.8)	4.0 (1.5)
Training Devices	5.4 (1.3)	4.7 (1.2)	5.3 (2.5)	5.0 (1.6)
On-The-Job[e]	5.9 (1.2)	6.0 (1.6)	7.3 (1.0)	5.5 (1.8)
n	15	21	21	6

Note. Response Codes: 8-Daily; 7-Several Times a Week; 6-Once a Week;
5-Several Times a month; 4-Once a Month; 3-Several Times a Year;
2-Once a Year; 1-Less Than Once a Year; 0-Never

[a] $F=4.90$, df=3/59, p=.0041   [c] $F=7.86$, df=3/59, p=.0002   [e] $F=5.16$, df=3/59, p=.0031

[b] $F=7.21$, df=3/59, p=.0003   [d] $F=5.93$, df=3/59, p=.0013

43

schools was the least common form of training and on-the-job training
was the most common.

In terms of training needed, on-the-job training was again rated
high for aviation teams (Table 24) and field training was again rated
high for combat teams. No other significant differences occurred.

LEADER SATISFACTION WITH TRAINING

In general, leaders were moderately satisfied with the present
level of team training (Table 25). There were no significant
differences among the combat branches in leader satisfaction.

TRAINING CONSTRAINTS

Lack of time to conduct training was rated as the most important
training constraint (Table 25). Scheduling or being unable to keep team
members together for a sustained training program was the next most
important training constraint. Lack of training facilities, lack of
realism, an emphasis upon individual training, lack of programs of in-
struction, and lack of training devices were rated next. Lack of
trainers was the factor that least inhibited training.

The training constraint responses were not viewed as severe prob-
lems for the teams, but rather as "moderate" constraints upon training
adequacy. However, it may be that trainers learned how to adapt to such
constraints and, therefore, did not really perceive them as serious
problems.

In general, the combat branches ranked the training constraints in
a manner similar to that obtained for all branches combined (coefficient
of concordance among the combat branches was .75). Inconsistency among
combat branches occurred primarily on programs of instruction, realistic
training, and emphasis upon individual training. Lack of programs of
instruction was ranked as the second most important constraint for
Engineers but was ranked seventh for Armor teams. Training realism was
rated as the third most important constraint for Armor teams, but the
least important constraint for Air Defense Artillery teams. Emphasis
upon individual training was rated as the third most important con-
straint for Air Defense Artillery teams and the sixth most important
constraint for Armor teams. The only significant difference among the
combat arms on the constraint items was on lack of realism, where Armor
teams rated lack of realism as more of a training constraint than did
the other branches.

OPERATIONAL PROBLEMS

Responses to the sixteen operational problem areas indicated three
groups of problems (Table 26). The areas that were rated as most severe

Table 25

LEADER SATISFACTION WITH TRAINING AND TRAINING CONSTRAINTS:
MEANS (STANDARD DEVIATIONS)

ITEM	AIR DEFENSE ARTILLERY	ARMOR	ENGINEER	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Leader Satisfaction	1.9 (0.9)	2.4 (0.7)	2.3 (0.6)	2.1 (1.0)	2.3 (0.8)	2.3 (0.8)
TRAINING CONSTRAINTS						
Lack Trainers	1.3 (0.8)	1.4 (0.9)	1.4 (1.0)	1.2 (1.1)	1.3 (0.8)	1.3 (0.9)
Lack Training Devices	1.7 (1.0)	1.8 (1.1)	1.3 (0.8)	1.4 (1.1)	1.5 (1.1)	1.5 (1.0)
Lack POI	1.5 (1.0)	1.5 (0.9)	1.9 (0.9)	1.4 (1.1)	1.6 (1.1)	1.6 (1.0)
Lack Realism[a]	1.3 (0.9)	2.0 (0.9)	1.6 (1.1)	1.3 (0.9)	1.5 (1.1)	1.6 (1.2)
Individual Training Emphasis	2.2 (1.3)	1.7 (1.0)	1.6 (1.1)	1.3 (0.9)	1.6 (1.0)	1.6 (1.1)
Lack Facilities	1.8 (1.1)	1.8 (1.0)	1.6 (0.9)	1.6 (1.0)	1.6 (1.0)	1.7 (1.0)
Scheduling	2.5 (1.0)	2.1 (1.1)	1.8 (1.2)	1.9 (1.1)	2.0 (1.0)	2.1 (1.1)
Lack Time	2.7 (1.2)	2.5 (0.9)	2.6 (1.2)	2.1 (1.0)	2.2 (1.0)	2.4 (1.1)

[a] $F = 2.75$, $df = 4/173$, $p < .03$

45

Table 26

OPERATIONAL PROBLEMS: MEANS (STANDARD DEVIATIONS)

ITEM	AIR DEFENSE ARTILLERY	ARMOR	ENGINEER	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Insufficient Training	2.2 (1.3)	2.1 (1.0)	1.8 (1.0)	1.6 (1.0)	1.6 (0.9)	1.8 (1.0)
Turbulence	1.6 (0.9)	1.6 (0.8)	2.0 (1.0)	1.7 (1.0)	1.5 (0.9)	1.7 (0.9)
Unqualified Personnel	1.8 (1.2)	1.6 (0.8)	1.7 (0.8)	1.5 (1.1)	1.5 (0.9)	1.6 (0.9)
Understrength[a]	1.9 (1.2)	1.6 (1.0)	2.2 (1.2)	1.8 (1.1)	1.4 (1.1)	1.6 (1.1)
Unrealistic Training[b]	2.0 (1.1)	1.6 (0.9)	2.0 (1.0)	1.4 (1.0)	1.3 (0.9)	1.5 (1.0)
Lack Equipment	1.6 (0.8)	1.5 (1.0)	1.3 (0.9)	1.6 (1.3)	1.4 (1.1)	1.4 (1.1)
No Unit Training	1.8 (1.4)	1.6 (0.8)	1.4 (1.0)	1.3 (1.1)	1.1 (0.8)	1.3 (1.0)
Poor Equipment Design[c]	1.8 (1.2)	1.2 (0.8)	1.7 (1.0)	1.3 (1.1)	1.1 (0.9)	1.3 (1.0)
Communication/ Coordination	1.9 (1.2)	1.2 (0.8)	1.2 (1.2)	1.3 (1.0)	1.1 (0.8)	1.3 (0.9)
Inappropriate Configuration	1.9 (0.9)	1.3 (0.9)	1.4 (1.3)	1.5 (1.1)	1.2 (1.0)	1.3 (1.0)
Lack Spirit	1.4 (0.9)	1.1 (0.9)	1.1 (0.5)	1.3 (1.2)	1.0 (0.8)	1.1 (0.9)
Leadership	1.4 (0.8)	1.1 (0.9)	1.3 (1.2)	1.1 (1.1)	1.0 (0.8)	1.1 (0.9)
Inappropriate Tactics	1.5 (1.0)	1.0 (0.7)	1.1 (1.0)	1.1 (0.9)	1.1 (0.9)	1.1 (0.9)
Overextended	1.3 (0.9)	0.9 (0.6)	1.2 (1.0)	0.9 (1.1)	1.0 (0.7)	1.1 (1.0)
Social Problems	0.8 (0.6)	0.7 (0.6)	1.0 (0.8)	1.0 (0.9)	0.8 (0.7)	0.9 (0.8)
Discipline	1.3 (1.0)	0.9 (0.8)	1.1 (1.0)	0.9 (0.9)	0.8 (0.8)	0.9 (0.9)

[a] $F=2.67$, $df=4/178$, $p=.03$

[b] $F=3.4$, $df=4/178$, $p=.01$

[c] $F=2.87$, $df=4/178$, $p=.02$

46

(i.e., "moderate problems") were insufficient training, turbulence, unqualified personnel, understrength teams, and unrealistic training. The areas that received the lowest ratings ("to some extent" response) were lack of team spirit, poor leadership, inappropriate tactics, over-extended teams, social problems, and discipline. The remaining five areas received ratings between these two extremes: lack of equipment, poor equipment design, communication/coordination problems, lack of unit training, and inappropriate team configuration. Thus, in general, no specific area was rated as being a severe problem. This tendency to in-dicate few operational problems may reflect a need to give socially desirable responses by the respondents. Such a response bias may have been strongest for the Infantry respondents since the study was conducted by the ARI Field Unit located at the US Army Infantry Center and School.

Significant differences did occur among the combat branches on three operational problems: understrength teams, unrealistic training, and poor equipment design. In each case Air Defense Artillery and Engineer personnel rated these problems as more severe than Infantry personnel. In addition, Field Artillery gave low problem ratings to unrealistic training, and both Field Artillery and Armor gave low ratings to poorly designed equipment.

Although similar rankings were given to the sixteen problem areas by the combat branches (coefficient of concordance was .84), there were some discrepancies of interest. Insufficient training was ranked as the first and most important problem for Armor, Infantry, and Air Defense Artillery teams, yet it was clearly distinguished in severity from the other problem areas for Armor teams only. Engineer ratings indicated that three operational problems were of more concern than others: understrength teams, turbulence, and lack of equipment. In addition, poorly designed equipment received a higher problem ranking for Engineer teams than was the case for the other branches. For Air Defense Artillery teams problems with communication/coordination and inappropri-ate configuration were rated as more severe and turbulence as less severe than was the case for the other branches.

EVALUATION

The data on performance evaluations are not reported due to the inconsistency of responses across items, and therefore an apparent lack of validity. For example, responses to item 10 on the questionnaire (Appendix B) indicatd that 63 teams were not evaluated as part of ARTEPs, ORTTs, or other forms of evaluation external to those made by unit leaders. However, responses to item 12a indicated that only 8 teams never had external evaluations. Similar inconsistencies occurred on the internal evaluation questions.

DISCUSSION AND CONCLUSIONS

TEAM DEFINITION

Several recent reviews of team training in the military (Collins, 1977; Hall & Rizzo, 1975; Wagner et al., 1977) have stressed that there is no consensus on the definition of a team. Although respondents in the TRADOC and FORSCOM studies were given the same definition of team, the lists of teams from the two studies were not identical even though the TOEs represented in the two studies were essentially the same.

The problem of team definition within the military does not seem to stem from identifying groups of persons who are formally assigned specific responsibilities and tasks to perform, but rather from two other areas: determining the size boundaries of a team and determining when a group is actually involved in teamwork. The first problem results from the hierarchical nature of Army units which makes it difficult to determine team boundaries. For example, within the Infantry, which of the following groups functions as a team -- the fire team, the rifle squad, or the rifle platoon? It is also difficult to determine when sufficient teamwork has occurred to justify the label of "team." The definition of team used in the study stated that such groups of individuals should "normally perform their tasks in an interactive and interdependent manner." However, field observations conducted after completion of the survey indicate that at least a few of the reported teams require little, if any, coordination among team members. This is true, for example, of some Signal teams, where some teamwork is involved in establishing a communications center or site, but the actual communication activity consists of a single individual operating one piece of equipment. In addition, some individuals within a designated team may work at individual tasks, while the remaining members function in an interactive manner. The degree of teamwork required of a particular group may also vary with the military mission. Resolution of these two definitional issues of team boundaries and teamwork would greatly assist future team research.

FORMAL STRUCTURE OF TEAMS

The results on the structural characteristics of teams indicate that Army teams are quite diverse and that it is misleading to refer to a "typical" Army team. When all teams were examined on the characteristics of size, member rank and MOS, and leader rank, four major types of teams emerged: small, homogeneous (with respect to member rank and MOS) teams led by enlisted men; medium-sized, homogeneous teams led by enlisted men; medium-sized, heterogeneous teams led by senior enlisted men or officers; and large, heterogeneous teams led by senior enlisted men or officers. Small teams were characteristic of Armor, while medium and large heterogeneous teams were more characteristic of Infantry and Field Artillery. In general, all teams were more likely to have more

members at the lower skill levels (1 and 2) than at the higher skill levels (3 and 4). Armor teams were distinct in that a greater proportion had no members at either of the higher skill levels than was the case for the other combat branches.

The TRADOC structural profiles may not necessarily correspond to the present FORSCOM "reality." FORSCOM teams are understrength, forcing some individuals to perform the functions of two or more individuals or forcing some teams to operate without certain positions, thereby reducing the team's overall capability. In addition, the ranks of the team leader and subteam leaders may be lower than those indicated in the TRADOC data due to shortages of personnel. FORSCOM battalion commanders can modify their designated TOE to better meet local needs. Thus special teams may be created or the composition of teams may be changed. Despite these precautionary statements, it is probably safe to assume that the structural profiles obtained from the TRADOC data provide a usable estimate of team structure within FORSCOM units.

EMERGENT AND ESTABLISHED TEAMS

The teams identified as peforming mainly emergent tasks can be placed in one of two categories. The largest category consists of teams that must face and adapt to a constantly changing threat situation (e.g., rifle squad, anti-tank squad, tank crew, armed helicopter crew, aeroscout crew, chaparral squad). The remaining emergent teams do not come in direct contact with the enemy, but must perform a variety of tasks/missions where it cannot be predicted when or which specific tasks/missions should be performed (e.g., aidman team, engineer squad, construction squad, diving team).

Field observations of selected teams classified as emergent and established suggest that more forms of teamwork (e.g., team orientation, organization, cooperation, Nieva et al., 1978) may be required in emergent as opposed to established tasks, and that the required amount of each of these forms may be higher in emergent than established teams. In fact, these characteristics probably apply to any team performing emergent tasks.

Development of training programs and of evaluation procedures may be more difficult for emergent than established activities. With more established tasks, team input is relatively constant, a.lowing training programs to repeatedly focus on the same or similar skills until the desired performance is achieved. On the other hand, when the input is unexpected and constantly changing, as is the case with emergent activities, team training must accommodate to a variety of situations, and teams must master a variety of skills as well as decide which skills/behavior are appropriate in each situation. In the evaluation of emergent tasks, more than one approach may be appropriate for a specific task, and a variety of tasks should probably be presented in order to

adequately evaluate team performance. In evaluating established tasks, team procedures are fairly well standardized across tasks and a limited number of tasks should provide an adequate sample for evaluation purposes.

TEAM TRAINING

Respondents indicated that on-the-job training was the most frequent form of team training, followed by training devices, lectures and demonstrations, training with other units, field exercises for the team, and finally special schools. When respondents were asked to indicate the amount of training actually needed, the different types of training were ordered similarly, but respondents indicated that more of each type of training was needed. The study did not examine which forms of training and what amounts of training are best for different types of teams. However, the analysis of different categories of Infantry teams (combat, aviation, medical, and support) indicated substantial variations in the training actually received. Future training research should focus on the issue of the optimal match between various forms of training and different types of teams.

Although the ratings of training constraints and performance problems were obtained approximately three years prior to publication of this report, many of the ratings are valid today (e.g., Funk and others, 1980). Lack of time to conduct training and turbulence within units still place major constraints upon training quality. Insufficient time to train, turbulence, unqualified personnel, understrength teams, and unrealistic training also continue to create team performance problems.

TEAM CHARACTERISTICS

Leader and member coordination, knowledge of team members, transfer of information, task dependency, dependency upon equipment, and the need for team spirit were each rated as characteristic of teams in all branches. Yet it would be inappropriate to conclude that all Army teams are alike. All teams did not receive identical ratings on the characteristics examined. Field observations also indicate that Army teams differ greatly on these characteristics.

Only one team dimension was rated as uncharacteristic of most teams -- the ability of team members to compensate for inadequate performance of other team members. There could be several reasons for the low rating on compensatory performance. One, compensatory behavior may, in fact, be low due to the structure and sequence of individual tasks within some teams. Given the division of mission responsibility among team members, the equipment used by the team, and the chain-like sequencing of tasks in some Army teams, members may not have the time to attend to another individual's behavior and/or are not in a physical position to correct or make up for another's behavior even if it is observed. Two,

50

team members and leader may view the completion of individual tasks with precision and skill as so important that they overlook situations where compensatory behavior may be crucial to overall team success (and may in fact, be taking place). Three, compensatory behavior may be viewed as undesirable. If a team member must adapt or adjust his actions to those of another team member, then the latter member may be perceived as not doing his job. An illustration of these last two points was reported in Boguslaw and Porter (1962). The exceptional ability and motivation of an individual in an Air Defense Crew actually hindered the performance of the team as a whole, since other team members could not maintain the same pace. This individual was in fact creating an overload situation for other members and needed to adjust his behavior.

TEAM DATA BANK

The list of teams obtained from the TRADOC survey, their structure, and their activities provide a useful data base for selecting Army teams for future research. The authors are unaware of prior studies that have obtained such an inventory of Army teams. In addition, such descriptive information cannot be deduced from TOEs without military assistance and is not easily derived from Department of the Army field, soldier, and training manuals. The FORSCOM data provide supplementary information on the "dynamic" characteristics of teams that may also be useful in selecting teams for future research.

NEED FOR ADDITIONAL RESEARCH ON MILITARY TEAMS

The results of the surveys reinforce previous literature reviews (Glaser et al., 1962; Hall & Rizzo, 1975; Wagner et al., 1977) that distinguished military teams from the groups typically created in social science small group research (Hare, 1976). Such research generally focuses on impromptu groups whose internal member organization is often unspecified, in contrast to military teams that are embedded in organizations over time and whose internal organizations are specified. In addition, the tasks assigned to such impromptu groups are often problem-solving tasks that require little if any prior training, rather than tasks that usually combine problem-solving with psychomotor skills requiring special training. Such discrepancies make it difficult to apply small group research findings and theories to military team training problems.

Much of the experimental research conducted during the 1950s and 1960s (Briggs & Johnson, 1965; Horrocks, Krug & Heermann, 1960; Klaus & Glaser, 1968) which attempted to simulate military team activity within the laboratory failed to approximate military reality. In order to achieve high internal validity, external validity was lowered. There were, however, some notable exceptions that studied military teams in the field (e.g., Havron, Gorham, Nordlie & Bradford, 1955; Havron & McGrath, 1961). In addition, research during these decades focused on a

51

limited variety of teams from the three branches of service (e.g., air traffic control teams within the Navy, bomber crews within the Air Force, Infantry squads within the Army), with little effort to determine common elements of team interaction, structure, functioning, and training that could be generalized to other teams.

Given the limitations in previous research on small groups and military teams, many basic questions regarding team structure, dynamics, training, and the interaction among team structure, team characteristics, and training requirements remain unanswered. The surveys described in this report simply provide prerequisite background information for future research directed at these unanswered questions within the population of Army teams. It is hoped that small group researchers will find these survey data useful in extending their efforts to groups whose characteristics are more similar to those of military teams.

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53

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APPENDIX A

TOE UNITS IN TRADOC AND FORSCOM SURVEYS

When listing teams, the TRADOC subject matter experts divided the battalions and squadrons into their component companies/batteries/troops. The list of TRADOC TOE units in this appendix corresponds to this breakout. On the other hand, team questionnaires from the FORSCOM units were designated only at the battalion/squadron TOE level and are indicated as such in this appendix. However, in some cases it was clear from the type of FORSCOM teams reported that not all companies/batteries/troops within a battalion had been surveyed.

56

Table A-1

SUMMARY OF NUMBER OF BATTALIONS AND SEPARATE COMPANIES
IN TRADOC AND FORSCOM SURVEYS

| BRANCH | DISTINCT TOE DESIGNATIONS | | TOTAL NUMBER OF FORSCOM UNITS[2] |
	TRADOC[1]	FORSCOM	
Air Defense Artillery	8	3	5
Armor	14	9	12
Aviation	4	3	3
Chemical	1	0	0
Engineer	21	10	11
Field Artillery	21	13	15
Infantry	11	10	18
Medical	NS	13	19
Military Police	NS	5	8
Missile & Munitions	3	1	6
Ordnance	6	NS	NS
Quartermaster	9	5	5
Signal	7	4	5
Transportation	9	7	7
Total	114	83	114

Note - NS stands for "Not Surveyed."
[1]Includes units not in FORSCOM.
[2]Numbers reflect responses from more than one unit for selected TOE designations.

57

Table A-2

DISTRIBUTION OF FORSCOM UNITS RETURNING QUESTIONNAIRES
BY BRANCH AND LOCATION

BRANCH	LOCATION														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Air Defense Artillery	1	2		1			1		1						
Armor	1	1	2	1	1		3			1	1		1		
Aviation			2									1			
Engineer	3		3		1					1		1	1		
Field Artillery	1		2	4			2		1			1	2	1	1
Infantry	1		1	2			1		6	1		1	2	2	1
Medical	3	1	2	2			2	2	1	1	2		1	1	1
Military Police	1		1	1			1	1	1	1	1		3		
Missile & Munitions			1				1	1	1	1			1		
Quartermaster			2	1				1				1			
Signal			2				1			1	1				
Transportation						7									
# Units Providing Returns	10	4	18	12	2	7	12	4	11	6	5	5	11	4	3
# Units in Sample	10	7	22	17	7	7	15	6	12	7	6	6	11	4	3
Return %	100	57	82	71	28	100	80	67	92	86	83	83	100	100	100

58

AIR DEFENSE ARTILLERY

TOE #	TITLE	# UNITS IN FORSCOM SURVEY

(All units listed below were in TRADOC Survey)

44-235H	Air Defense Artillery Battalion, Hawk	0
44-236H	Headquarters and Headquarters Battery	
44-237H	Air Defense Artillery Battery	

44-245H	Air Defense Artillery Battalion, Improved Hawk	1
44-246H	Headquarters and Headquarters Battery	
44-247H	Air Defense Artillery Battery	

44-255H	Air Defense Artillery Battalion, Hawk Self-Propelled	0
44-256H	Headquarters and Headquarters Battery	
44-257H	Air Defense Artillery Battery	

44-265H	Air Defense Artillery Battalion, Improved Hawk, Triad	0
44-266H	Headquarters and Headquarters Battery	
44-267H	Air Defense Artillery Battery	

44-325H	Air Defense Artillery Battalion, Chaparral/Vulcan Self-Propelled from Armored Division, Infantry Division, or Infantry Division (Mechanized)	3
44-326H	Headquarters and Headquarters Battery	
44-327H	Air Defense Artillery Battery, Vulcan, Self-Propelled	
44-328H	Air Defense Artillery Battery, Chaparral, Self-Propelled	

44-425H	Air Defense Artillery Battalion, Vulcan Towed, Airborne Division	0
44-426H	Headquarters and Headquarters Battery	
44-427H	Air Defense Artillery Battery, Vulcan, Towed	

44-435H	Air Defense Artillery Battalion, Vulcan, Towed, Airmobile Division	1
44-436H	Headquarters and Headquarters Battery	
44-437H	Air Defense Artillery Battery, Vulcan, Towed	

44-725H   Air Defense Artillery Battalion, Chaparral
          (Self-Propelled)/Vulcan(Towed)   0

     44-726H   Headquarters and Headquarters Battery
     44-727H   Air Defense Artillery Battery, Vulcan (Towed)

                                 ARMOR

TOE #   TITLE   # UNITS IN
                                                               FORSCOM SURVEY

               (All units listed below were in TRADOC Survey)

17-15H   Separate Armor Battalion (Light)   0

     17-16H   Headquarters and Headquarters Company
     17-18H   Armor Company (Light)
     17-19H   Combat Support Company

17-35H   Tank Battalion from Armored Division, Infantry
          Division, Infantry Division (Mechanized),
          Separate Armored Brigade, Separate Infantry
          Brigade or Separate Infantry Brigade (Mechanized)   4

     17-36H   Headquarters and Headquarters Company
     17-37H   Tank Company
     17-39H   Combat Support Company

17-51H   Armored Cavalry Regiment   0

     17-52H   Headquarters and Headquarters Troop

17-55H   Armored Cavalry Squadron from
          Armored Cavalry Regiment   0

     17-56H   Headquarters and Headquarters Troop
     17-57H   Armored Cavalry Troop
     17-58H   Air Cavalry Troop   1

17-95H   Air Cavalry Squadron, Airmobile Division   1

     17-96H   Headquarters and Headquarters Troop
     17-98H   Air Cavalry Troop
     17-99H   Cavalry Troop

                                   60

17-105H   Armored Cavalry Squadron from Armored Division,
           Infantry Division or Infantry Division (Mechanized)   1

    17-106H   Headquarters and Headquarters Troop
    17-107H   Armored Cavalry Troop

17-111H   (No Title Located)   1

17-157H   Armored Cavalry Troop, Armored Cavalry Squadron,
           Armored Cavalry Regiment   0

17-200H   Air Cavalry Combat Brigade   0

17-205H   Air Cavalry Squadron, Infantry Division   0

    17-206H   Headquarters and Headquarters Troop
    17-207H   Armored Cavalry Troop
    17-208H   Air Cavalry Troop

17-215H   Armor Battalion (Airborne) from Airborne Division
           or Separate Airborne Brigade   1

    17-216H   Headquarters and Headquarters Company
    17-218H   Armor Company

17-235H   Tank Battalion, 152mm from Armored Division,
           Infantry Division, Infantry Division (Mechanized),
           Separate Armored Brigade, Separate Infantry Brigade,
           or Separate Infantry Brigade (Mechanized)   1

    17-236H   Headquarters and Headquarters Company
    17-237H   Tank Company
    17-239H   Combat Support Company

17-275H   Air Cavalry Squadron, Airborne Division   1

    17-276H   Headquarters and Headquarters Troop
    17-277H   Cavalry Troop
    17-278H   Air Cavalry Troop

17-307H   Armored Cavalry Troop from Armored Cavalry Squadron,
           Armored Division or Air Cavalry Squadron, Infantry
           Division or Armored Cavalry Squadron, Infantry
           Division (Mechanized) or Separate Armored Brigade
           or Separate Infantry Brigade or Separate Infantry
           Brigade (Mechanized)   0

17-385H   Attack Helicopter Battalion   1

   17-386H   Headquarters and Headquarters Company
   17-387H   Attack Helicopter Company

AVIATION

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
(All units except 1-256H were in TRADOC Survey)		
1-127H	Corps Aviation Company	1
1-207H	Aviation Air Traffic Control Unit, Army	0
1-256H	Headquarters and Headquarters Company, Combat Aviation Battalion	1
1-500H	Aviation Operating Teams	1

CHEMICAL

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
(Units were only included in TRADOC Survey)		
3-500H	Chemical Service Organization	0

ENGINEER

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
(All units listed below except 5-54H, 5-77H, and 5-78H were in TRADOC Survey)		
5-25H	Engineer Battalion, Airborne Division	1

   5-26H   Headquarters and Headquarters Company
   5-27H   Engineer Company

5-54H	Engineer Light Equipment Company, Airborne	1
5-57H	Engineer Atomic Demolition Munitions Company (Corps)	0

5-64H	Engineer Assault Brigade Company, (Mobile)	0
5-77H	Engineer Panel Bridge Company	1
5-78H	Engineer Float Bridge Company	1
5-107H	Engineer Company, Separate Infantry Brigade	1
5-114H	Engineer Construction Support Company	0
5-115H	Engineer Construction Battalion	2

     5-116H   Headquarters and Headquarters Company
     5-117H   Engineer Equipment and Maintenance Company
     5-118H   Engineer Construction Company

5-127H	Engineer Company, Separate Armored Brigade or Separate Infantry Brigade (Mechanized)	0
5-145H	Engineer Battalion, Armored Division or Infantry Division (Mechanized)	1

     5-146H   Headquarters and Headquarters Company
     5-147H   Combat Engineer Company
     5-148H   Bridge Company

5-155H	Engineer Battalion, Infantry Division	1

     5-156H   Headquarters and Headquarters Company
     5-157H   Engineer Company

5-177H	Engineer Pipeline Construction Support Company	0
5-201H	Headquarters and Headquarters Company, Engineer Command	0
5-203H	Engineer Facilities Engineering Group	0
5-204H	Engineer Facilities Engineering Company	0
5-207H	Engineer Company, Separate Light Infantry Brigade	1
5-215H	Engineer Battalion, Airmobile Division	0

     5-216H   Headquarters and Headquarters Company
     5-217H   Combat Engineer Company

5-510H	Engineer Firefighting Teams	0

| 5-540H | Engineer Topographic and Intelligence Teams | 1 |
| 5-550H | Engineer Dredge Teams | 0 |

FIELD ARTILLERY

(All units listed below were in TRADOC Survey)

| 6-37H | Field Artillery Battalion, 155mm, Self-Propelled, Armored Cavalry Squadron, Armored Cavalry Regiment | 0 |
| 6-115H | Field Artillery Battalion, 105mm, Towed, Separate Light Infantry Brigade | 1 |

    6-116H   Headquarters, Headquarters and Service Battery
    6-117H   Field Artillery battery

| 6-155H | Field Artillery Battalion, 105mm, Towed, Infantry Division | 2 |

    6-156H   Headquarters and Headquarters Battery
    6-157H   Field Artillery Battery
    6-159H   Service Battery

| 6-165H | Field Artillery Battalion, 155mm Towed, 203mm, Self-Propelled, Infantry Division | 1 |

    6-166H   Headquarters and Headquarters Battery
    6-167H   Field Artillery Battery
    6-169H   Service Battery

| 6-185H | Field Artillery Battalion, 105mm, Towed, Separate Infantry Brigade | |

    6-186H   Headquarters and Headquarters Battery   1

| 6-200H | Airborne Division Artillery | |

    6-201H   Headquarters and Headquarters Battery   1

| 6-205H | Field Artillery Battalion, 105mm, Towed from Airborne Division or Separate Airborne Brigade | 1 |

    6-206H   Headquarters, Headquarters and Service Battery
    6-207H   Field Artillery Battery

6-300H   Armored Division Artillery or Infantry Division
         (Mechanized) Artillery

   6-302H   Headquarters and Headquarters Battery   1

6-365H   Field Artillery Battalion, 155mm, Self-Propelled
         from Armored Division or Infantry Division
         (Mechanized)   2

   6-366H   Headquarters and Headquarters Battery
   6-367H   Field Artillery Battery
   6-369H   Service Battery

6-375H   Field Artillery Battalion, 155mm, Self-Propelled
         from Armored Brigade or Separate Infantry Brigade
         (Mechanized)   0

   6-376H   Headquarters and Headquarters Battery

6-395H   Field Artillery Battalion, 203mm, Self-Propelled
         from Armored Division or Infantry Division
         (Mechanized)   0

   6-396H   Headquarters and Headquarters Battery
   6-397H   Field Artillery Battery
   6-399H   Service Battery

6-405H   Field Artillery Battalion, 105mm, Towed   0

   6-406H   Headquarters and Headquarters Battery
   6-407H   Field Artillery Battery
   6-409H   Service Battery

6-425H   Field Artillery Battalion, 155m, Towed   1

   6-426H   Headquarters and Headquarters Battery
   6-427H   Field Artillery Battery
   6-429H   Service Battery
6-435H   Field Artillery Battalion, 175mm, Self-Propelled   0

   6-436H   Headquarters and Headquarters Battery
   6-437H   Field Artillery Battery
   6-439H   Service Battery

6-445H   Field Artillery Battalion, 8-inch, Self-Propelled   0

     6-446H   Headquarters and Headquarters Battery
     6-447H   Field Artillery Battery
     6-449H   Service Battery

6-455H   Field Artillery Battalion, 155mm, Self-Propelled   1

     6-456H   Headquarters and Headquarters Battery
     6-457H   Field Artillery Battery
     6-459H   Service Battery

6-595H   Field Artillery Battalion, Lance   0

     6-596H   Headquarters and Headquarters Battery
     6-597H   Field Artillery Battery
     6-599H   Service Battery

6-615H   Field Artillery Battalion, Pershing   0

     6-616H   Headquarters and Headquarters Battery
     6-617H   Field Artillery Battery
     6-619H   Service Battery

6-700H   Airmobile Division Artillery

     6-701H   Headquarters and Headquarters Battery   1
     6-702H   Aviation Battery   1

6-705H   Field Artillery Battalion, 105mm, Towed,
           Airmobile Division   1

     6-706H   Headquarters, Headquarters and Service Battery
     6-707H   Field Artillery Battery

6-715H   Field Artillery Battalion, 155mm, Towed,
           Airmobile Division   0

     6-716H   Headquarters and Headquarters Battery
     6-717H   Field Artillery Battery
     6-719H   Service Battery

INFANTRY

(All units listed below were in TRADOC Survey)

07-015H   Infantry Battalion from Infantry Division or
           Separate Infantry Brigade   5

    07-016H   Headquarters and Headquarters Company
    07-018H   Rifle Company
    07-028H   Combat Support Company

07-035H   Infantry Battalion (Airborne) from Airborne
           Division or from Separate Airborne Brigade   1

    07-036H   Headquarters and Headquarters Company
    07-037H   Rifle Company
    07-038H   Combat Support Company

07-045H   Infantry Battalion (Mechanized) from Armored Division,
           Infantry Division, Infantry Division (Mechanized),
           Separate Armored Brigade, or Separate Infantry
           Brigade (Mechanized)   3

    07-046H   Headquarters and Headquarters Company
    07-047H   Rifle Company
    07-048H   Combat Support Company

07-055H   Infantry Battalion from Airmobile Division   2

    07-056H   Headquarters and Headquarters Company
    07-057H   Rifle Company
    07-058H   Combat Support Company

07-085H   Ranger Infantry Battalion   1

    07-086H   Headquarters and Headquarters Company
    07-087H   Ranger Company

07-107H   Antiarmor Company (Separate)   0

07-175H   Infantry Battalion (Light Infantry) from
           Separate Light Infantry Brigade   1

    07-176H   Headquarters and Headquarters Company
    07-177H   Rifle Company
    07-178H   Combat Support Company

07-200H   Aviation Group Airmobile Division   1

    07-201H   Headquarters and Headquarters Company
    07-202H   General Support Aviation Company

07-357H   Assault Helicopter Company, Separate   2

37-087H   Division Aviation Company from Infantry Division
           (Mechanized)   1

57-055H   Combat Aviation Battalion from Airborne Division
           or Infantry Division   1

    57-056H   Headquarters and Headquarters Company
    57-057H   Assault Helicopter Company
    57-058H   Aviation General Support Company

MEDICAL

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
	(All units listed below were only in the FORSCOM Survey)	
8-25H	Medical Battalion, Airmobile Division	1
8-35H	Medical Battalion from Armored Division, Infantry Division, or Infantry Division (Mechanized)	2
8-65H	Medical Battalion, Airborne Division	1
8-123H	Combat Support Hospital	3
8-126H	Headquarters and Headquarters Detachment, Medical Battalion	1
8-127H	Medical Ambulance Company	1
8-128H	Medical Clearing Company	2
8-137H	Medical Air Ambulance Company	1
8-147H	Medical Company from Separate Armored Brigade, Separate Infantry Brigade (Mechanized) or Armored Cavalry Regiment	1

8-510H	Field Hospital	1
8-581G	Evacuation Hospital	1
8-620H	Medical Department Organization Area and Unit, Medical Support Teams	1
8-660H	Medical Department Organization, Medical Evacuation Teams	3

MILITARY POLICE

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
	(All units listed below were only in the FORSCOM Survey)	
19-27H	Military Police Company from Armored Division, Infantry Division, or Infantry Division (Mechanized)	2
19-67H	Military Police Company, Airborne Division	1
19-76H	Headquarters and Headquarters Detachment from Military Police Battalion	1
19-77H	Military Police Company, Airmobile Division	3
19-87H	Military Police Company, Airmobile Division	1

MISSILE AND MUNITIONS

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
	(All units listed below were in TRADOC Survey)	
9-47H	Ordnance Special Ammunition Direct Support Company	0
9-520H	Explosive Ordnance Disposal Teams	6
9-550H	Ordnance Rocket and Missile Support Teams	0

ORDNANCE

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
	(Units were only included in TRADOC Survey)	
29-15H	Maintenance Battalion, Infantry Division	0
29-18H	Heavy Maintenance Company	
29-25H	Maintenance Battalion, Infantry Division (Mechanized)	0
29-28H	Heavy Maintenance Company	
29-35H	Maintenance Battalion, Armored Division	0
29-38H	Heavy Maintenance Company	
29-600H	Organizational Maintenance Teams	0
29-610H	Mechanical Direct Support/General Support Maintenance Teams	0
29-620H	Collection and Classification Teams	0 ·

QUARTERMASTER

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
	(All units listed below were in the TRADOC Survey except 29-197H)	
10-7H	Supply and Service Company, Supply and Transport Battalion from Armored Division, Infantry Division, or Infantry Division (Mechanized)	0
10-227H	Petroleum Supply Company	0
10-437H	Laundry and Renovation Company, General Support	0
29-45H	Supply and Service Battalion, Airborne Division	1
29-47H	Main Supply and Service Company	
29-48H	Forward Supply and Service Detachment	1

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
29-75H	Support Battalion, Separate Armored Brigade or Separate Infantry Brigade (Mechanized)	1
29-77H	Supply and Transport Company	
29-95H	Supply and Service Battalion, Airmobile Division	1
29-97H	Main Supply and Service Company	
29-98H	Forward Supply and Service Detachment	
29-114H	Field Service Company, General Support, Forward	0
29-147H	Supply and Service Company, Direct Support	0
29-155H	Support Battalion, Air Cavalry Combat Brigade	0
29-157H	Supply and Transport Company	
29-197H	(No title located)	1

SIGNAL

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
	(All units listed below were in the TRADOC Survey except 11-415H)	
11-35H	Signal Battalion from Armored Division, Infantry Division, or Infantry Division (Mechanized)	2
11-37H	Command Operations Company	
11-38H	Forward Communications Company	
11-39H	Signal Support Operations Company	
11-85H	Army Area Signal Battalion	0
11-86H	Headquarters and Headquarters Company	
11-87H	Army Area Signal Company	
11-175H	Air Defense Artillery Signal Operations Battalion	0
11-177H	Signal Operations Company (Air Defense Artillery Brigade)	
11-178H	Signal Operations Company (Air Defense Artillery Group)	

71

11-205H	Signal Battalion, Airmobile Division	0
11-207H	Command Communications Company	
11-208H	Forward Communications Company	
11-215H	Signal Battalion, Airborne Division	1
11-217H	Signal Command Operations Company	
11-218H	Signal Support Operations Company	
11-225H	Airborne Corps Signal Battalion	1
11-227H	Command Signal Operations Company	
11-228H	Base and Support Signal Operations Company	
11-415H	Corps Area Signal Battalion .	1

TRANSPORTATION

TOE #	TITLE	# UNITS IN FORSCOM SURVEY
	(All units listed below were in the TRADOC Survey except 55-118H)	
55-117H	Transportation Terminal Service Company	1
55-118H	Transportation Terminal Transfer Company	1
55-119T	(No title located)	0
55-128H	Transportation Medium Boat Company	1
55-129H	Transportation Heavy Boat Company	1
55-139H	Transportation Medium Amphibian Company	C
55-157H	Transportation Floating Craft General Support Maintenance Company	1
55-530H	Transportation Watercraft Teams	1
55-550H	Transportation Watercraft Maintenance Teams	1

APPENDIX B

TRADOC AND FORSCOM SURVEYS: SURVEY INSTRUMENTS AND INSTRUCTIONS

TRADOC SURVEY: INSTRUCTIONS FOR TEAM IDENTIFICATION WORKSHEETS AND TEAM
                QUESTIONNAIRE

Contents

Inclosure 1.   Definition of a "team."

Since the term "team" is used in many different ways in various
branches of the Army, it is necessary to first define "team" so that the
use of the term will be consistent across branches. For the purpose of
the present study, the definition of "team" needs to be limited to the
following:

a.   A "team" is a small group of usually 2 to 11 men who
     normally perform their tasks in an interactive and
     interdependent manner.

b.   Position or member assignments within a "team" must be
     formally defined. The team members may be dedicated
     (e.g., tank crews) or designated (e.g., a tank killer or
     anti-armor squad). This means that ad hoc or informal,
     temporary teams (e.g., "take four men and scout that
     ridge") are not to be included in the present study.

The scope of the present study is also limited to certain types of
teams. At present, we are interested in the combat, combat support,
combat service support and other types of teams which are formed at
company and platoon level. We are not interested in teams which mainly
perform command and control and staff functions above the platoon level.

74

The above definition of a "team" is not inviolate. You are asked to attempt the use this definition and inform Litton and ARI personnel of any need for revision or extension of the definition to make it usable for your branch.

Inclosure 2.   Instructions for providing a list of teams.

One of the primary objectives of this study is to identify the various teams that exist in different branches of the Army. The following procedures have been developed to help identify teams and to structure the identification process so that it will be done systematically and consistently across the different branches.

The following materials have also been provided to help you. Appendix A contains a list of selected TOE numbers and titles for companies and smaller units within your branch. If your school has proponency for other TOE (units of company size or smaller), please add these TOE to the list.

Appendix B contains several copies of a Team Identification Worksheet which provides a place for you to write your list of teams.

The steps for filling in the Team Identification Worksheets using information in the TOE are as follows:

a.   Obtain copies of the TOE listed in Appendix A.

b.   Select the first TOE unit from the list.

c.   Enter the TOE number of the unit in the upper right corner of a Team Identification Worksheet (Appendix B).

d.   Using the organizational chart for that TOE unit, identify all of the teams in each platoon or section.

e.   Enter the name of each team in the right column of the Team Identification Worksheet.

f.   In the left column of the same worksheet, enter the platoon or section in which the teams are found.

g.   After you have identified every team in every platoon or section in the company, select the next unit from the TOE list in Appendix A and enter its number on the next Team Identification Worksheet. List all of the teams within the platoons or sections in this unit. Follow this procedure until all TOE units are covered.

. 75

To reduce the amount of work that you will need to perform, this procedure can be modified to eliminate redundant listing of teams by listing only additional or different teams for successive units. Each time you select a new unit (after the first unit), determine if it is similar to a unit previously covered (for example, teams found in rifle companies in airborne battalions are similar to those found in rifle companies in airmobile battalions). If so, simply enter the phrase "similar to TOE number (enter TOE number of the previous unit) except for the following "teams" and then describe the following differences between the units:

a. Determine if there are any additional teams which can be found in platoons or sections in the unit which are not found in the previous units you have covered. If so, enter the team(s) and its section/platoon on the Team Identification Worksheet.

b. Determine also if there are any similar teams, found in the present unit and in the preceding unit, which have sufficiently different composition and training requirements to warrant their study as separate teams. If so, enter these teams on the worksheet.

c. Finally, determine if there are teams occurring in the previous unit and not in the present unit. If so, identify these teams as not occurring in the present unit on the worksheet.

The above procedures are difficult, but a very importe·t part of this study. The success of this project depends on your sincere efforts to carry them out. If you have any difficulty interpreting these instructions or any questions, please call the ARI/Litton POC.

After all the teams have been identified, please call the Litton/ARI POC and give us the list of teams that you have identified. Then proceed to the next section of work.

Inclosure 3. Instructions for completing the Team Questionnaire for school personnel.

Once teams have been identified (and the ARI/Litton POC has been given the list of teams), it is necessary to obtain some basic information about each team. Appendix C contains several copies of a Team Questionnaire which you will need to complete (one for each team that you have identified).

Use the Team Identification Worksheets to insure that all teams that you have identified are included as subjects for the questionnaires. Enter a team name on each questionnaire and supply the informa-

76

tion requested for each team. If you have any questions, please call ARI/Litton POC.

Inclosure 4.   Instructions for reviewing the questions in the team survey which will be sent to FORSCOM units:

Appendix D contains a draft copy of the Team Survey which will be sent to FORSCOM units. At present, personnel in the S3/G3 shops are expected to be the respondents for this survey. They will fill out one survey form for each team that you have identified.

The draft needs to be reviewed to determine the interpretability and meaningfulness of the questions. We want to know if the questions are clearly worded and unambiguous. We also want to know if the questions can be meaningfully answered. If a question cannot be meaningfully answered, we need to know why (for example, it may be impossible to give a brief, simple answer, it is improbable that anyone will know the real answer, or there is too much variability within a certain type of team to use just one description to apply to all teams).

To review the survey, pick a team from the list of teams that you generated. Answer the questions in the survey with respect to this team. Write your comments concerning the interpretability of the questions and meaningfulness of possible answers in the margin of the draft copy or on the back of the survey forms.

If you have any questions, please call the ARI/Litton POC. When you are finished with the questionnaires and survey, please return them to:

TRADOC SURVEY: TEAM IDENTIFICATION WORKSHEET

TOE NUMBER _____

Platoon or Section   Team Name(s)_____
(enter plat or sec   (enter all names formal and informal)
the team is found in)

78

TRADOC SURVEY: TEAM QUESTIONNAIRE

TOE Number: _____

TEAM QUESTIONNAIRE FOR SCHOOL PERSONNEL
(fill in one questionnaire for each team)

TEAM NAME: _____

1.   List each team member by position (title or function) and provide
the information requested for each member.

Position	Authorized Rank	Authorized MOS	Major Equipment

Page 2 of Questionnaire

2.   Given the battalion is engaged in a defensive mission (for example,
the defense mission in ARTEP 7-15), describe the major job activities
performed by the team to accomplish the team's part of the battalion
mission.   Identify, for each of these job activities, the team members
(e.g., individual members or subteams) who usually perform the activity
by entering their position(s) in the column on the right.   If the entire
team usually performs the task, enter "team" in this column.

JOB ACTIVITIES   WHO PERFORMS THE ACTIVITY

Page 3 of Questionnaire

3.   Investigators involved in team research have found it useful to
distinguish between two types of team job activities and situations:

   a.   established: the situations are routine and the job activi-
        ties consist of completely specified procedures.

   b.   emergent: each situation tends to present a relatively unique
        problem; the team must decide what activities to perform and
        how to perform them in order to solve the problem.

For Army teams, established activities consist of very proceduralized
tasks like loading, aiming and firing a cannon.   Emergent activities are
performed usually in response to changing knowledge of the enemy threat.
For example, rifle squads continually modify their activities in re-
sponse to enemy activity.   The concepts of established and emergent
actually represent extremes of a single continuum.   Some activities and
situations are established, some emergent, and some are somewhere in be-
tween two extremes.

Select the phrase listed below which best describes the general
nature of the majority of job activities performed by <u>this</u> team.

_____ Established

_____ More established than emergent

_____ About equally established and emergent

_____ More emergent than established

_____ Emergent

Page 4 of Questionnaire

4.   Please list any source documents, field manuals, TMs, ARTEPs,
studies or other publications which can be used to obtain information
about this team.

FORSCOM SURVEY: INSTRUCTIONS FOR TEAM QUESTIONNAIRE

The cover letter for the questionnaire asked the point of contact at each installation to provide the following forms of support:

a.   Identification of specific units to be surveyed: Inclosure 2 is a list of TO&E units at your installation which include teams of interest to our survey. We require your assistance in selecting one specific unit at the installation to represent each of the TO&Es listed.

b.   Identification of unit personnel to complete the survey: Inclosure 3 is a sample copy of our survey instrument. This is to be completed for each identified team within each TO&E unit. We also require your assistance in working with the units selected (para a, above) to determine the best individual(s) to complete the instrument for each team.

c.   Assist in survey completion and return: Finally, your assistance is required in distribution of the surveys to the identified personnel, in monitoring progress of the survey, in insuring that survey materials are completed promptly, and in returning all completed survey forms to us.

INSTRUCTION BOOKLET

This package is for teams
in units organized under
the following TOE:

(TOE # inserted before mailing to units)

A R M Y   T E A M   O P E R A T I O N S   S U R V E Y

UNIT QUESTIONNAIRE PACKAGE

This survey will provide the US Army with information defining the characteristics, training/evaluation requirements, and problems of operational teams (crews, groups, squads, elements, etc.) in the basic branches.

This information will be used to develop methods of better meeting team training and evaluation requirements and resolving team problems to improve operational effectiveness.

Please answer the following questions about yourself. This information will be used for administrative and statistical control purposes.

NAME: _____

                           (Last, First, Middle)

What is your current position? _____

What is your rank? _____

What is your unit? _____

                              (Full designation, e.g.,
                              Co A, 1st Bn, 3d Inf)

What is an Autovon telephone number at which you can be
contacted if clarification of your answers is necessary?

_____

TITLE: Army Team Operations Survey

PRESCRIBING DIRECTIVE: AR 70-1

AUTHORITY: 10 USC Sec 45003

PURPOSE(S): The data collected with the attached forms are to be used for research purposes only:

This is a survey instrument developed by the US Army Research Institute for the Behavioral and Social Sciences pursuant to its research mission as prescribed in AR 70-1.

Your participation in this research is voluntary and you are encouraged to provide complete and accurate information. Several of these questionnaire response items require judgments. Please make these judgments to the best of your ability.

POINTS OF
CONTACT FOR
THE ARMY RESEARCH
INSTITUTE: If you have any questions about this survey (interpretation of questions, etc.), please call or write:

WHEN YOU ARE FINISHED WITH THESE QUESTIONNAIRES, RETURN THE ENTIRE PACKAGE TO THE INSTALLATION, DIVISION, OR OTHER LOCAL POINT OF CONTACT FOR THIS SURVEY.

Several copies of the team questionnaires are enclosed with this instruction booklet. Fill in one questionnaire for each team found in your unit. Check the TOE number which is listed in the upper right corner of the first page of this booklet to insure that you have the survey which was designed for your unit.

(Question for Separate Companies)

What is the current assigned strength for your unit?   _____

(Questions for Battalion/Company)

How many companies in your battalion are organized
under this TOE?   _____

What is the current assigned strength for the
company which you selected for this survey?   _____

(Questions for Battalion/Battery)

How many batteries in your battalion are organized
under this TOE?   _____
What is the current assigned strength for the
battery which you selected for this survey?   _____

(Questions for Squadron/Troop)

How many troops in your squadron are organized
under this TOE?   _____
What is the current assigned strength for the
troop which you selected for this survey?   _____

INSTRUCTIONS FOR IDENTIFYING TEAMS

To help you specify teams within this unit, a list of teams is pro-
vided on the next page. This list was generated by personnel in the
TRADOC school which has proponency for the TOE under which the unit is
organized. The list includes all the teams which they identified, on a
preliminary basis, for selected units in your branch.

Select the teams from the list which can be found in the unit and
fill in one of the attached questionnaires for each team. Be sure to
list each team's name in the space provided in the upper right corner of
each questionnaire. Answer the questions in terms of your experience
with the teams in your unit.

After you have finished with the teams on the list, identify any
additional teams in the unit which were not on the preliminary list and
fill out a separate questionnaire for each of these teams. Again, be
sure to insert the name of each team in the upper right corner. Since
the term "team" is used in many different ways in various branches of
the Army, it is necessary to define "team" so that the use of the term
will be consistent across branches:

    a.   A "team" is a small group of individuals (smaller than
        platoon size) who interactively perform coordinated job
        activities.

    b.   Position or member assignments within a "team" must be
        formally defined on a relatively permanent basis. This
        means that ad hoc or informal, temporary teams (e.g.,
        "take four men and scout that ridge") are not to be
        included in the present study.

c.   We are also <u>not interested</u> in teams which mainly perform command and control and staff functions above platoon level.

(A list of teams within the appropriate branch of the Army was then enclosed. These teams had been identified in the TRADOC survey.)

PT 5165B

TEAM QUESTIONNAIRE

(Fill in one questionnaire for each team).

☐☐ 22-23

1. How many of these teams are in your unit at present? ☐☐☐ 24-26

2. What is the average number of members on this team in
your unit at present? . . . . ☐☐ 27-28

3. What percentage of these teams in your unit are <u>not</u> up
to full authorized strength for this team? . . . . . ☐☐ % 29-30

4. How frequently are the following types of <u>team</u> training used to train this team
in your unit?
Team training, as opposed to individual training, focuses on the development of team skills
(such as coordination and communication) and the ability of the team to perform together
as an effective unit.

	Daily	Several times a week	Once a week	Several times a month	Once a month	Several times a year	Once a year	Less than once a year	Never
a. On-the-job team training.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 31
b. Unit (bn, co, plt, <u>etc.</u>) maneuvers, exercises, tests (FTX, ARTEP, <u>etc.</u>).	☐	☐	☐	☐	☐	☐	☐	☐	☐ 32
c. Field training exercises <u>just for the team</u>.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 33
d. Classroom lectures and demonstrations which emphasize team skills.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 34
e. Use of <u>team</u> training devices.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 35
f. Special schools or courses for the team as a whole (outside the unit).	☐	☐	☐	☐	☐	☐	☐	☐	☐ 36

g. Others (describe and
give frequency):

_____

_____

_____

_____

5. How frequently **should** the following types of team training be used for this team?

	Daily	Several times a week	Once a week	Several times a month	Once a month	Several times a year	Once a year	Less than once a year	Never
a. On-the-job team training.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 37
b. Unit (bn, co, plt, etc.) maneuvers, exercises, tests (FTX, ARTEP, etc.).	☐	☐	☐	☐	☐	☐	☐	☐	☐ 38
c. Field training exercises just for the team.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 39
d. Classroom lectures and demonstrations which emphasize team skills.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 40
e. Use of team training devices.	☐	☐	☐	☐	☐	☐	☐	☐	☐ 41
f. Special schools or courses for the team as a whole (outside the unit).	☐	☐	☐	☐	☐	☐	☐	☐	☐ 42

g. Others (describe and give frequency):

_____

_____

6. To what extent are the leaders in your unit satisfied with the present level of **team** training (even if there is none) for this team?

To no extent (completely dissatisfied)	To a little extent	To a moderate extent	To quite an extent	To a great extent (completely satisfied)*
☐	☐	☐	☐	☐ 43

* If the leaders are completely satisfied skip to question number 8.

87

7. To what extent do the factors listed below prevent your unit from conducting additional or better team training?

	To no extent	To a little extent	To a moderate extent	To quite an extent	To a great extent
a. Lack of programs of instruction for team training.	☐	☐	☐	☐	☐ 44
b. Lack of realistic training for the team.	☐	☐	☐	☐	☐ 45
c. Lack of trainers to conduct team training.	☐	☐	☐	☐	☐ 46
d. Lack of time to conduct team training (team has to perform other peacetime duties).	☐	☐	☐	☐	☐ 47
e. Lack of facilities and support equipment.	☐	☐	☐	☐	☐ 48
f. Lack of team training devices, team training aids, etc.	☐	☐	☐	☐	☐ 49
g. Difficulty of keeping the team together for a sustained training program.	☐	☐	☐	☐	☐ 50
h. Individual training is more important.	☐	☐	☐	☐	☐ 51

i. Others (describe and indicate extent):

_____

_____

_____

8. To what extent do each of the following characteristics apply to this team?

	To no extent	To a little extent	To a moderate extent	To quite an extent	To a great extent
a. Except for transfers, team members on a given team are usually the same individuals from hour to hour and from day to day.	☐	☐	☐	☐	☐ 52
b. The team's tasks are mainly composed of the activities needed to operate one or more items of equipment.	☐	☐	☐	☐	☐ 53
c. Successful task/mission performance requires team members to obtain information about the work situation and to pass it on to other team members.	☐	☐	☐	☐	☐ 54
d. Successful task/mission performance is dependent on a leader to closely coordinate the activities of all team members.	☐	☐	☐	☐	☐ 55
e. Successful task/mission performance requires team members to coordinate their activities directly with each other.	☐	☐	☐	☐	☐ 56
f. The tasks are such that if one member cannot perform adequately (e.g., fast enough), another member can "make up for" that performance.	☐	☐	☐	☐	☐ 57
g. The team members need to express a "team spirit" in their work activities.	☐	☐	☐	☐	☐ 58
h. Task performance by team members is dependent on timing, quality, and/or completeness of the performance of other team members.	☐	☐	☐	☐	☐ 59
i. A team member needs to know his mates and know how they will react in certain situations.	☐	☐	☐	☐	☐ 60

j. Others (describe and indicate extent):

_____

_____

_____

_____

9. To what extent do the factors listed below cause frequent or critical problems in the performance of this team?

	To no extent	To a little extent	To a moderate extent	To quite an extent	To a great extent	
a. Frequent turnover in team personnel (turbulence).	☐	☐	☐	☐	☐	61
b. Some team members are not qualified for their positions.	☐	☐	☐	☐	☐	62
c. Inadequate amount of team training.	☐	☐	☐	☐	☐	63
d. Team training is not meaningful or realistic.	☐	☐	☐	☐	☐	64
e. Team is not given the opportunity to train with other units.	☐	☐	☐	☐	☐	65
f. Lack of team spirit.	☐	☐	☐	☐	☐	66
g. Social problems (e.g., hostility between members).	☐	☐	☐	☐	☐	67
h. Lack of technically and tactically proficient leadership.	☐	☐	☐	☐	☐	68
i. Lack of discipline.	☐	☐	☐	☐	☐	69
j. Poor design of equipment that the team needs to operate.	☐	☐	☐	☐	☐	70
k. Lack of equipment that the team would normally use.	☐	☐	☐	☐	☐	71
l. Team is employed using inappropriate tactics.	☐	☐	☐	☐	☐	72
m. Team is employed beyond its capabilities.	☐	☐	☐	☐	☐	73
n. Lack of communication and coordination.	☐	☐	☐	☐	☐	74
o. The current configuration of the team is inadequate (e.g., more or fewer members are needed or different types of personnel are needed).	☐	☐	☐	☐	☐	75
p. Teams are frequently understrength and thus lack the manpower to effectively perform team missions.	☐	☐	☐	☐	☐	76

q. Others (describe and indicate extent):

_____

_____

_____

_____

10. During _external_ (ARTEP, ORTT, etc.) evaluations, is the performance of this team evaluated as a complete and separate element of the unit?

	Yes	No	Sometimes*
	☐	☐	☐	77

* Explain:_____

_____

_____

11. a. How frequently is the performance of this team (as a separate element of the unit) _internally_ evaluated _within_ your unit (i.e., separate from platoon evaluations or independent evaluations of individual members)?

Daily	Several times a week	Once a week	Several times a month	Once a month	Several times a year	Once a year	Less than once a year	Never
☐	☐	☐	☐	☐	☐	☐	☐	☐ 78

b. If the team is _internally_ evaluated by unit leaders, describe the methods you use to test the teams. These methods might include procedures (e.g., does the team follow the correct procedures), quantitative standards checklists (e.g., number of hits, time it takes to perform a task), and overall ratings of mission accomplishment.

_____

_____

_____

12. If this team is presently evaluated, to what extent are these evaluations a satisfactory estimate of the team's ability to perform its wartime missions.

	Team is not evaluated	To no extent	To a little extent	To a moderate extent	To quite an extent	To a great extent
a. External evaluation.	☐	☐	☐	☐	☐	☐ 79
b. Internal evaluation.	☐	☐	☐	☐	☐	☐ 80

13. Please list any source documents, field manuals, TMs, ARTEPs, Training Circulars, studies or publicaitions which can be used to obtain information about this team.

_____

_____

_____

_____

APPENDIX C

TRADOC AND FORSCOM SURVEYS: TYPES OF TEAMS IDENTIFIED AND DESCRIBED

The teams in this appendix are listed by branch and include teams identified in the TRADOC survey for which descriptive data were obtained as well as teams identified in the TRADOC survey for which no descriptive data were obtained. The existence of FORSCOM data for each of these teams is indicated. Teams identified in the FORSCOM survey and not in the TRADOC survey are listed as well. A summary of the number of teams identified/described in both surveys and the correspondence between the teams in the two surveys follows the list of teams. Teams classified in the TRADOC survey as performing mainly emergent activities are also identified. The classification of Infantry teams as combat, medical, aviation, or support is presented in the Infantry section.

Table C-1

SUMMARY OF NUMBERS OF TEAMS: TRADOC AND FORSCOM SURVEYS

| BRANCH | TOTAL # TEAMS IDENTIFIED | TRADOC | | FORSCOM | # IDENTIFIED IN BOTH PHASES | # WITH DATA IN BOTH PHASES |
		# IDENTIFIED	# WITH DESCR DATA	# IDENTIFIED & WITH DESCR DATA		
Air Defense Artillery	27	23	7	13	9	5
Armor	55	46	37	46	37	30
Aviation	16	12	11	13	9	8
Chemical	9	9	8	a	–	–
Engineers	35	24	17	25	14	11
Field Artillery	59	46	45	37	24	24
Infantry	84	63	63	63	42	42
Medical	37	b	–	37	–	–
Military Police	9	b	–	9	–	–
Missile & Munitions	13	13	12	3	3	3
Ordnance	41	41	19	a	–	–
Quartermaster	13	6	6	13	6	6
Signal	48	48	15	16	16	8
Transportation	20	16	15	9	5	5
Total	465	347	255	284	166	143

[a] No data collected in FORSCOM Phase
[b] No data collected in TRADOC Phase

93

AIR DEFENSE ARTILLERY

TEAMS IDENTIFIED IN TRADOC SURVEY   FORSCOM DATA

Descriptive Data - TRADOC

    Acquisition Radar Section
    Forward Area Alerting Radar (FAAR) Section   X
    Command-Acquisition Section   X
    Fire Distribution Section
    Firing Section (Hawk)   X
    Vulcan Squad   X
    Chaparral Squad   X

Descriptive Data Not Obtained - TRADOC

    Electronics and Radar Support Section
    Fire Control Section
    Fire Distribution Support Section
    Fire Section-Towed
    Fire Platoon Support Section
    Support Platoon Headquarters   X
    Electronics Section
    Security Section   X
    Engineer Section   X
    Improved Hawk Mechanical Support Section   X
    Assembly Service Maintenance Section
    Missile Ground Handling Support Section
    System Maintenance Section
    Power Air-Conditioning Support Section
    Missile Ground Handling Equipment Support Section
    Ground Guidance Equipment Support Section

ADDITIONAL TEAMS IDENTIFIED IN FORSCOM PHASE

    Battery Headquarters
    Vulcan System Maintenance Chief
    Redeye
    Transport Crew

SUMMARY

Total Number of Teams: 27

Number of Teams Identified - TRADOC: 23
    Descriptive Data Obtained: 7

Number of Teams Identified - FORSCOM: 13

Number of Teams Common to TRADOC and FORSCOM: 9
    Number of Teams with TRADOC and FORSCOM Descriptive Data: 5

Emergent Teams

    Forward Area Alerting Radar (FAAR) Section
    Vulcan Squad
    Chaparral Squad

ARMOR

TEAMS IDENTIFIED IN TRADOC SURVEY   FORSCOM DATA

    Descriptive Data - TRADOC

	FORSCOM DATA
Ambulance Team	
Aidman Team	X
Clinical Specialist Team	X
Radio Teletype Team (RATT)	X
Field Communications-Electronic (C-E) Equipment Mech Team	X
Radio Operator Team	X
Ground Surveillance Radar (GSR) Crew	X
Tank Crew (M551)	X
Tank Crew (M60A1-M60A2)	X
Track Vehicle Mechanic Team	X
Tank Turret Mechanic Team	X
Sheridan Turret Mechanic Team	
Wheeled Vehicle Mechanic Team	X
Recovery Team	X
Welder Team	X
Scout Squad	X
Antitank (TOW) Team	X
Redeye Team	X
AVLB (Armored Vehicle Launched Bridge) Team/Crew	X
Power Generator Equipment Operator/Mechanic Team	X
Food Service or Mess Team	X
Heavy Mortar (4.2in) Squad	X
Rifle Squad	X
Attack Helicopter (AH) Repairman Crew	X

95

Utility Helicopter (UH-1) Repairman Team	X
Observation Crew	X
Observation Helicopter (OH) Repairman Team	X
Airframe Repairman Crew	
Aircraft Turbine Engine Repairman Crew	
Aircraft Armament Mechanic Team	X
Rotor Repairman Team	
Aircraft Fire Control Repairman Team	
Aeroscout Crew .	X
Reconnaissance Squad or Aerorifle Crew	X
Aeroweapons Crew	X
Aircraft Fuel Handling Team	X
Aircraft Ammunition Handlers Team	

No Descriptive Data - TRADOC

Communications Team	X
Radar Operators Team	X
Ammunition Handling/Handler Team	X
Transport Crew	X
Power Train Repairman Team	
Attack Helicopter (AH) Crew	X
Utility Helicopter (UH) Crew	X
Avionics Mechanic Team	X
Airmobile Scout Squad	

ADDITIONAL TEAMS IDENTIFIED IN FORSCOM PHASE

Wire Team
Supply
Rifle Platoon Headquarters
M60-MG Team
Antitank (DRAGON) Team
81mm Mortar Headquarters
Heavy Mortar (4.2in) Platoon Headquarters
Reconnaissance Squad
Flight Operations Team

Summary

Total Number of Teams: 55

Number of Teams Identified - TRADOC: 46
    Descriptive Data Obtained: 37

Number of Teams Identified - FORSCOM: 46

Number of Teams Common to TRADOC and FORSCOM: 37
    Number of Teams with TRADOC and FORSCOM Descriptive Data: 30

Emergent Teams:

        Aidman Team
        Tank Crew (M551)
        Tank Crew (M60A1 or M60A2)
        Scout Squad
        Antitank (TOW) Team
        Heavy Mortar (4.2inch) Squad
        AVLB Crew
        Rifle Squad
        Observation Crew
        Aeroscout Crew
        Reconnaissance Squad or Aerorifle Crew
        Aeroweapons Crew

                            AVIATION

TEAMS IDENTIFIED IN TRADOC SURVEY   FORSCOM DATA

        Descriptive Data – TRADOC

            Air Traffic Control (ATC) Section (Tower)   X
            Ground Control Approach (GCA) Section   X
            Flight Operations Center/Flight Coordination Center
              Team   X
            U-21 Flight Crew (TM-FB, Airplane Command or Utility)   X
            UH-1 Crew (TM-FE, Helicopter Utility)   X
            Attack Helicopter (AH-1G) Crew (TM-FC, Weapons
              System Ship)   X
            CH-47 Crew (TM-FF, Troop/Cargo Transport)   X
            CH-54 Crew (TM-FG, Transport Heavy)
            Aerial Radar OV-1B Crew (TM-FH)
            Aerial Infrared OV-1C Crew (TM-FI)
            Aviation Fire/Crash Rescue Team (TM-FP)   X

        Descriptive Data Not Obtained – TRADOC

            Control Tower   X

        Additional Teams Identified in FORSCOM Phase

            Operations, S2/S3 Section
            OV-ID Crew (TM-FH, Aerial Survival)
            C-12 Crew
            UH-1H Crew (TM-FE, Troop Transport)

                              97

Summary

Total Number of Teams: 16

Number of Teams Identified - TRADOC: 12
     Descriptive Data Obtained: 11

Number of Teams Identified - FORSCOM: 13

Number of Teams Common to TRADOC and FORSCOM: 9
     Number of Teams with TRADOC and FORSCOM Descriptive Data: 8

No Emergent Teams

CHEMICAL

TEAMS IDENTIFIED IN TRADOC SURVEY

Descriptive Data - TRADOC

Decontamination Team
CBR Element Team
CBR Agent Sampling and Analysis, Team KA
CBR Reconnaissance, Team LA
CBR Reconnaissance, Team LB (Special)
Team OA, CBR Staff (Special Forces)
Team PA, Chemical Combat Support
Mechanized Flame Thrower Team

Descriptive Data Not Obtained - TRADOC

Team EN, Chemical Equipment Repair

No FORSCOM data obtained on Chemical TOE Units

SUMMARY

Total Number of Teams: 9

Number of Teams Identified - TRADOC: 9
     Descriptive Data Obtained: 8

No Emergent Teams

98

ENGINEER

TEAMS IDENTIFIED IN TRADOC SURVEY	FORSCOM DATA
Descriptive Data - TRADOC	
Mess Team	X
Administrative Firing Squad	
Pipeline Construction Squad	
Construction Squad	X
Engineer Squad	X
CEV (Combat Engineer Vehicle Crew)	X
MAB (Mobile Assault Bridge) Crew	
AVLB (Armored Vehicle Launched Bridge) Crew	X
Survey Team	X
Demolitions Team	X
Firefighting Team	
Heavy Raft Section	
Communication Team (Engineer Co)	X
Communication Team or Section (HHQ Co)	X
Radio Teletype Team (RATT)	X
Medical Section	X
Aviation Section	
No Descriptive Data Obtained - TRADOC	
Geodetic Survey Team	
Dredge Team	
Equipment Maintenance Section	X
Equipment Maintenance Team	X
Bridge Section	X
Pipeline Cutterhead Team	
Hopper Operation Team	

ADDITIONAL TEAMS IDENTIFIED IN FORSCOM PHASE

Engineer Horizontal Construction Platoon
Engineer Vertical Construction Platoon
LTR Team
Diving Team
Float Bridge Section
Supply Section
Water Purification Section
Operations Section
Battalion Operations
Mess Section
DS (Direct Support) Maintenance

SUMMARY

Total Number of Teams: 35

Number of Teams Identified - TRADOC: 24
    Descriptive Data Obtained: 17

Number of Teams Identified - FORSCOM: 25

Number of Teams Common to TRADOC and FORSCOM: 14
    Number of Teams with TRADOC and FORSCOM Descriptive Data: 11

Emergent Teams:

    Firefighting Team
    Medical Section
    Construction Squad
    Engineer Squad
    Demolitions Team

FIELD ARTILLERY

TEAMS IDENTIFIED IN TRADOC SURVEY	FORSCOM	DATA
Descriptive Data - TRADOC		
Headquarters Support Section		
Battery Headquarters Section	X	
Battalion Headquarters Section		
Mess Section	X	
Battery Maintenance Section	X	
Battalion Maintenance Section	X	
Forward Observer Section	X	
Fire Direction Center	X	
Fire Direction Section	X	
Howitzer Section (105mm towed, 155mm towed, 155mm self-propelled, 8in self-propelled, 175mm self-propelled)	X	
Ammunition Section	X	
Survey Section	X	
Survey Information Section	X	
Counter Mortar Radar Section	X	
Surveillance Radar Section	X	
Air Defense Section	X	
Battalion Supply Section	X	
Communication Section	X	
Wire Section	X	
Radio Section	X	
Radio-Teletype (RATT) Section	X	

100

Radio/Telephone (RTT) Section	X
Medical Section	X
MET Section (METRO)	X
Microwave Section	
Aviation Section	X
Flight Operations Section	X
Aircraft Maintenance Section	X
Organizational Maintenance Section	
Direct Support Aviation Section	
General Support Aviation Section	
Firing Section (Lance)	
Assembly and Transport Section (Lance)	
Communications and Electronics Section (Lance)	
Ammunition Security Section (Pershing)	
Firing Section (Pershing)	
Battery Control Center Section (Pershing)	
Electronics Control Section (Pershing)	
Support Platoon (Pershing)	
Security Section (Pershing)	
Technical Supply Section (Pershing)	
Electronics-Mechanic Section (Pershing)	
Support Equipment Maintenance Section (Pershing)	
Communication Maintenance Section (Pershing)	
Communication Center Section (Pershing)	

No Descriptive Data Obtained - TRADOC

Direct Support Aircraft Maintenance

ADDITIONAL TEAMS IDENTIFIED IN FORSCOM PHASE

FIST (Fire Support Team)
Redeye Section
Gun Sections
Operations/Intelligence
Technical Supply Section (AMBL Div Arty)
Communication Maintenance Section (AMBL Div Arty)
Liaison
SAC (Survey Administration Center)
MAC (MET Administration Center)
PAC (Personnel Administration Center)
Battalion Fire Support Section
CBR (Chemical, Biological, and Radiological) Team

SUMMARY

Total Number of Teams Identified: 58

Number of Teams Identified - TRADOC: 46
    Descriptive Data Obtained: 45

Number of Teams Identified - FORSCOM: 37

Number of Teams Common to TRADOC and FORSCOM: 25
    Number of Teams with TRADOC and FORSCOM Descriptive Data: 25

No Emergent Teams

INFANTRY

TEAMS IDENTIFIED IN TRADOC SURVEY	FORSCOM DATA
Descriptive Data - TRADOC	
Commo Platoon	X
Commo Section (Ranger)	X
Transportation Section	X
Supply & Transportation Section	X
Supply Section	X
Mess Team	X
Battalion Food Service Section (Ranger)	X
Battalion Maintenance Platoon	X
Maintenance Section	X
Aid Station Section	X
Aidman Section	X
Evacuation Section	X
Aid Station/Evacuation Section	X
Medical Section (Ranger)	X
Medical Section*	X
Rifle Platoon Headquarters	X
M60 Machine Gun Team	X
Rifle Squad	
Antitank (DRAGON) Team (Ranger)	X
81mm Mortar Section Headquarters	X
81mm Mortar Squad	
60mm Mortar Section Headquarters (Ranger)	
60mm Mortar Squad (Ranger)	X
Heavy Mortar (4.2in) Platoon Headquarters	X
Heavy Mortar (4.2in) Squad	X
Antitank (TOW) Squad	X
Scout Squad	X
Redeye Team	X
Sniper Team	

```
                    RATT (Radio Teletype) Section*
                    Commo Section/Wire Section*
                    Commo Section*                                      X
                    Aircraft Organic Maintenance Section*               X
                    Aircraft Direct Support Maintenance Section*        X
                    Aircraft Maintenance Section* (Div Aviation Co)     X
                    Aircraft Maintenance Section* (Avn GS Co)
                    Maintenance/Supply Section*
                    Motor Maintenance Section*
                    Pathfinder Team*                                    X
                    Army Aviation Element*
                    Air Traffic Control (ATC) Platoon Headquarters*     X
                    Flight Coordination Center*                         X
                    Air Field Control Team, VFR*
                    Air Field Control Team, IFR*
                    Air Field TML Control Section*
                    Surveillance Section*
                    Command and Control Section*
                    Utility Support Section*                            X
                    Support Section*
                    Utility Section*
                    Service Platoon Headquarters*                       X
                    Flight Operations Platoon*                          X
                    Flight Operations Section (Aslt Hel Co Separate)*   X
                    Flight Operations Section*                          X
                    Division Operations Section*
                    Air Field Service Section*                          X
                    Airlift Section*                                    X
                    Armed Helicopter Section*
                    Weapons Section (Aslt Hel co)*
                    UH-1 Aircraft Crew*
                    AH-1 Aircraft Crew*
                    Aircraft Armament Repair Section*
                    Liaison Section*                                    X

ADDITIONAL TEAMS IDENTIFIED IN FORSCOM PHASE

        Personnel Administration Center (PAC)
        Radio Repair Team
        Radio Team
        Wire Team
        Message Center or Comm Center
        Anti-tank Squad other than TOW or DRAGON
        Scout Platoon HQ
        Antitank Platoon HQ
        Ground Surveillance Radar Section
        Demolition Team
        NBC (Nuclear, Biological, and Chemical) Detector Team
        Chemical Detector Team
```

Decontamination Team
Supply Team (GS Aviation Co)*
Support Platoon*
Avionics*
DS/GS Maintenance
Organizational Maintenance*
Aircraft Phase Team*
Airfield DS Maintenance Section*
Crash Rescue Team*

*Aviation Battalion/Company/Group

SUMMARY

Total Number of Teams: 84

Number of Teams Identified - TRADOC: 63
     Descriptive Data Obtained: 63

Number of Teams Identified - FORSCOM: 63

Number of Teams Common to TRADOC and FORSCOM: 42
     Number of Teams with TRADOC and FORSCOM Descriptive Data: 42

Emergent Teams:

     Aid Station/Evacuation Section
     Aidman Section
     Redeye Team
     Rifle Platoon Headquarters
     M60 Machine Gun Team
     Rifle Squad
     Antitank (DRAGON) Team (Ranger)
     Antitank (TOW) Squad
     Scout Squad
     Command and Control Section (Aviation elements)
     Utility Support Section (Aviation elements)
     Armed Helicopter Section

CATEGORIES OF INFANTRY TEAMS - FORSCOM SURVEY

Combat

     M60 Machine Gun Team
     Rifle Platoon Headquarters
     Rifle Squad
     Anti-tank (TOW) Squad
     Anti-tank Platoon Headquarters
     Anti-tank Squad (other than TOW or DRAGON)

81mm Mortar Squad
81mm Mortar Section (Platoon) Headquarters
4.2in Mortar Squad
4.2in Mortar Platoon Headquarters
60mm Mortar Squad
Scout Squad
Scout Platoon Headquarters
Sniper Team
Redeye Team

Medical

Aid Station Section
Evacuation Section
Aid Station/Evacuation Section
Aidman Section
Battalion Medical Section
Battalion Medical Section (Aviation)

Aviation

Supply Team
Flight Operations Section
Flight Operations Section (Aslt Hel Co., Separate)
Flight Operations Platoon
Air Traffic Control Platoon Headquarters
Flight Coordination Center
Pathfinder Team
Airlift Section
Aircraft Organizational Maintenance Section
Aircraft Direct Support Maintenance Section
Utility Support Section
Support Platoon
Avionics
Service Platoon Headquarters
Aircraft Phase Team
Aircraft Direct Support Maintenance Section
Crash Rescue Team
Direct Support/General Support Maintenance
Organizational Maintenance
Airfield Service Section
Aircraft Maintenance

Support

Liaison
Radio Repair Team
Radio Team
Wire Team

Message Center or COMM Center
Commo Section
Commo Section (Aviation)
COMM Platoon
Transportation Section
Supply Section
Supply and Transportation Section
Mess Team   .
Battalion Food Service Section
Maintenance Section
Battalion Maintenance Platoon
Personnel Administration Center (PAC)
Demolition Team
Ground Surveillance Radar (GSR) Section
Decontamination Team
NBC (Nuclear, Biological and Chemical) Detector Team
Chemical Detector Team

MEDICAL SERVICES

TEAMS IDENTIFIED IN FORSCOM SURVEY

Ambulance Crew
Air Ambulance Crew
Operating Room (OR) Team (Surgical Team)
Intensive Care Unit
Emergency Medical Team (EMT)
Intensive Care Ward
Intermediate Care Ward
Ward, Surgical
Ward
Post Op
Pre OP
Team LD - Epidemiology
Clinical Specialist Team
Dental Team
Litter Bearer Team
X-Ray
Holding
Mental Hygiene Section
Flight Operations Section
Organic Aircraft Maintenance Section
Direct Support (DS) Aircraft Maintenance Section
Aircraft Maintenance Section
Motor Maintenance Section (Motor Pool)
Food Service Section (Dining, Mess)
Communications Section
Administrative and Disposition (A&D) Section
      (Patient Administration)

Center Materiel Supply (CMS)
Unit Supply Section
Medical Supply Section
Medical Maintenance
Pharmacy
Laboratory
Dispensary
CBR (Chemical, Biological, Radiological) Decontamination
Hospital Laundry
Personnel Administration Center (PAC)
Registrar

SUMMARY

No data were collected on Medical teams in the TRADOC phase.

Total Number of Teams Identified - FORSCOM: 37

MILITARY POLICE

TEAMS IDENTIFIED IN FORSCOM SURVEY

M60 Machine Gun Crew
90mm Recoiless Rifle Teams
CBR Team (Survey & Monitoring)
CBT Team (Decontamination)
CBR Team (Type-Undesignated)
Motor Pool
Supply Section
Military Police Squad
NBC Control Party

SUMMARY

No Data were collected on Military Police in the TRADOC phase.

Number of Teams Identified - FORSCOM: 9

MISSILE AND MUNITIONS

TEAMS IDENTIFIED IN TRADOC SURVEY   FORSCOM DATA

Descriptive Data - TRADOC

Security Squad
Team FA - Explosive Ordnance Disposal (EOD) Team,
    Conventional Augmentation   X
Team FC - EOD Team, Nuclear Augmentation   X
Team FD - EOD Team, Toxic Chemical   X

Team FE – EOD Team, VIP Support
                    Team BA – Technical Supply Team
                    Team EC – LCSS Test Equipment DS/GS Team
                    Team ED – TOW/Dragon Missile Maintenance DS/GS Team
                    Team EE – Shillelagh Missile Maintenance DS/GS Team
                    Team EF – Redeye Missile Maintenance DS/GS Team
                    Team EG – Lance Missile Maintenance DS/GS Team
                    Team ED – Chaparral/Vulcan/FAAR Maintenance DS/GS Team

No Descriptive Data Obtained – TRADOC

      Team EB – Missile Maintenance Shop Control Team

SUMMARY

Total Number of Teams: 13

Number of Teams Identified – TRADOC: 13
      Descriptive Data Obtained: 12

Number of Teams Identified – FORSCOM: 3

Number of Teams Common to TRADOC and FORSCOM: 3
      Number of Teams with TRADOC and FORSCOM Descriptive Data: 3

                                ORDNANCE

TEAMS IDENTIFIED IN TRADOC SUREY

      Descriptive Data – TRADOC

                    Team ED, Automotive Repair (Track/Wheel)
                    Team EG, Automotive Repair
                    Team DI, Automotive Maintenance (Wheel)
                    Team DJ, Automotive Maintenance (Track)
                    Team DR, Automotive Maintenance (Wheel)
                    Team DL, Automotive Maintenance (Track)
                    Team EJ, Mechanical Maintenance
                    Team EK, Maintenance Support
                    Team EM, Small Arms Repair
                    Team EP, Tire Repair
                    Team ER, Mechanical-Metal Repair
                    Team ES, Metal Body and Welding Repair
                    Mobile Maintenance Team (30 members)
                       (Hvy Maint Co, Inf Div)
                    Mobile Maintenance Team (40 members)
                       (Hvy Maint Co., Inf Div Mech)
                    Mobile Maintenance Team (50 members)
                       (Hvy Maint Co., Armored Div)

Team FA, Collection and Classification
  Team (Comm-EL)
Team FB, Collection and Classification
  Team (General Purpose)
Team FC, Collection and Classification
  Team (Track-Automotive)
Team FD, Collection and Classification
  Team (Composite)

No Descriptive Data Obtained - TRADOC

Team DA, Communications and Electronics Maintenance
Team DB, Power Generation Equipment Maintenance
Team DC, Engineer Equipment Maintenance
Team DD, Material Handling Equipment Maintenance
Team DE, Motor Sergeant
Team DF, Wheel Vehicle Maintenance
Team DG, Track Vehicle Maintenance
Team DH, Wheel/Track Vehicle Maintenance
Team DM, QM Heavy Equipment Maintenance
Team EA, Fuel/Electrical Systems Repair
Team EB, Field Artillery Repair
Team EC, Turret Artillery Repair
Team EE, Field Control Instrument Repair
Team EF, Machine Shop Support
Team EH, Turret Artillery Repair (GS)
Team EI, Field Artillery Repair (GS)
Team EL, Construction Equipment Repair
Team EO, Power Generation Repair
Team EQ, Refrigeration Repair
Team ET, Automotive Repair (Supervisor)
Team EU, Small Arms Repair
Team EV, Automotive Repair

No FORSCOM data obtained on Ordnance TOE Units

SUMMARY

Total Number of Teams: 41

Number of Teams Identified - TRADOC: 41
    Descriptive Data Obtained: 19

No Emergent Teams

109

QUARTERMASTER

TEAMS IDENTIFIED IN TRADOC SURVEY   FORSCOM DATA

    Descriptive Data - TRADOC

        Forward Area Refueling Equipment (FARE) System   X
        Fuel System Supply Point (FSSP)   X
        Laundry Team   X
        Decontamination Team   X
        Bakery Team   X
        Clothing Exchange and Bath Team   X

ADDITIONAL TEAMS IDENTIFIED IN FORSCOM PHASE

        Trans Team
        Class I, II, IV Team
        Class V Team (Ammunition)
        Cargo Handling Section
        POL Storage Team
        Graves Registration
        Renovation Section

SUMMARY

Total Number of Teams: 13

Number of Teams Identified - TRADOC: 6
    Descriptive Data Obtained: 6

Number of Teams Identified - FORSCOM: 13

Number of Teams Common to TRADOC and FORSCOM: 6
    Number of Teams with TRADOC and FORSCOM Descriptive Data: 6

No Emergent Teams

SIGNAL

The limited information provided on the Signal teams and the
variety of synonyms used for some of the teams made it difficult to
classify the teams. Therefore, similarities may exist among teams that
have been listed separately and differences may exist among teams that
have been grouped together.

Descriptive Data - TRADOC

Switchboard Team (AN/MTC-10)
Switchboard Team (SB-22/PT or SB-86/P)
Switchboard Team (AN/TTC-29, AN/TTC-23, including
  Manual Central Office Teams of various sizes)   X
Switchboard Team (AN/MTC-1)
Telecommunications Center (COMMCEN) Teams (with
  varying equipment and of varying sizes)   X
Patch Panel Team (SB-675 or AN/TSC-76)   X
Radio Teletypewriter (RATT) Team (also called
  AM Voice, AM Single-sideband or HF teams)   X
Microwave Team
Messenger Team
Radio Team (AM and FM)
AM Radio Team
FM Radio Team   X
Multichannel Teams (also called VHF, UHF, Radio
  Relay, Radio Terminal, Radio Repeater, Line of
  Site, Cable Repeater, FDM, PCM, Carrier, Multi-
  plexer, MUX, Telephone Terminal, or Radio Relay
  Repeater Teams)   X
Cable or Wire Teams (also called Cable
  Installation Teams)   X
Radio Wire Integration (RWI) Team   X

No Descriptive Data Obtained - TRADOC

Pole Line Team
Cable Splicing Team
Telephone Installer
Power Team
Circuit Control Team   X
Tactical Circuit Control Team   X
Technical Control Teams (including Fixed Station
  Technical Control, Communications Technical
  Control, and Video Technical Control)
Trophispheric (Tropo) Team
Weather Support Team
Field Telephone Switchboard Operations
Multiplex Terminal Teams (also called FDM, PCM,
  Carrier, Multiplexer, MUX or Telephone Terminal
  Teams)   X
Multiplex Equipment Teams (also called FDM, PCM,
  Carrier, Multiplexer, MUX or Telephone Terminal
  Teams)
Multiple Terminal Station

Teletypewriter Tape Relay Facility
Mobile Radio Teletypewriter
Multichannel Equipment Team (maintenance)   X
Telephone Repeater Team (or Cable Attended
  Repeater Team)
Fixed Station HF radio team (low or high power)
HF Radio Receiver
HF Radio Transmitter
Radio Repeater Team
Carrier Repeater Team
Radio Communication Central (low to medium power)
Microwave Radio Teams
Tactical Microwave Teams   X
Message Center   X
Motor Messages
Communications-Electronics (or Signal)
  Maintenance Team   X
Communications-Security (COMSEC) Repair
  (CRYPTO) Teams   X
Crypto Materiel Control
Pictorial Team
Photo Team
Photographic Lab Team

No Additional FORSCOM Teams

SUMMARY

Total Number of Teams: 48

Number of Teams Identified - TRADOC: 48
     Descriptive Data Obtained: 15

Number of Teams Identified - FORSCOM: 16

Number of Teams Common to TRADOC and FORSCOM: 16
     Number of Teams with TRADOC and FORSCOM Descriptive Data: 8

No Emergent Teams

TRANSPORTATION

TEAMS IDENTIFIED IN TRADOC SURVEY   FORSCOM DATA

    Descriptive Data - TRADOC

        Hatch Gang   X
        Container Hatch Gang
        Boat Crew (LCM8)   X

112

Boat Crew (LCU)   X
Amphibian Crew   X
Diving Team   X
Transportation Watercraft Team FB (Picket Boat)
Transportation Watercraft Team FD (Harbor Tug 45 ft)
Transportation Watercraft Team FE (Pax/CGO/Picket
   Boat)
Transportation Watercraft Team FB (Harbor Tug
   70 ft)
Transportation Watercraft Team FJ (Harbor Tug
   100 ft)
Transportation Watercraft Team FK (Ocean
   Going Tug 126 ft)
Transportation Watercraft Team FL (Liquid/Dry
   Cargo Vessel)
Transportation Watercraft Team FN (Lighter
   Amphibian, Larc LX)
Transportation Watercraft Team FO (Ocean Going
   Tug 143 ft)

No Descriptive Data obtained - TRADOC

Water Maintenance Team - Diver Team IA

ADDITIONAL TEAMS IDENTIFIED IN FORSCOM PHASE

Boat Crew (FMS-788)
Lighterage Maintenance Team (Direct Supply)
Blocking and Bracing
CBR Teams (Radiological, Chemical Detection or
   Decontamination/Survey/Monitoring)

SUMMARY

Total Number of Teams: 20

Number of Teams Identified - TRADOOC: 16
     Descriptive Data Obtained: 15

Number of Teams Identified - FORSCOM: 9

Number of Teams Common to TRADOC and FORSCOM: 5
     Number of Teams with TRADOC and FORSCOM Descriptive Data: 5

Emergent Teams:
     Diving Team

APPENDIX D

TRADOC SURVEY: RESULTS ON ALL BRANCHES

Table D-1

SIZE OF TEAMS

SIZE	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
2	3	16	–	1	4	1	4	3	–	–	2	1	35
3	6	13	1	6	1	2	2	3	2	1	6	1	44
4	4	5	1	2	5	3	2	1	–	–	3	1	27
5-8	17	3	2	12	7	–	2	2	3	6	2	2	58
9-10	6	–	–	4	–	–	1	1	–	–	–	–	12
11	3	–	1	3	–	–	–	1	2	2	–	1	13
12-16	15	–	2	9	–	–	1	–	3	2	–	–	32
17-25	8	–	–	7	–	–	–	–	2	2	1	1	21
26-61	1	–	–	1	–	–	–	–	7	2	1	1	13
Total n	63	37	7	45	17	6	12	11	19	15	15	8	255

115

Table D-2

NUMBER OF POSITIONS HELD BY TEAM MEMBERS

NUMBER OF POSITIONS	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
1	-	1	-	-	-	1	1	3	-	-	1	-	7
2	5	16	-	2	4	3	4	5	5	-	7	1	52
3	10	14	1	10	1	2	2	-	2	2	7	1	52
4	18	4	2	5	6	-	1	-	2	3	-	3	44
5	5	1	2	4	2	-	2	2	1	2	-	-	21
6	8	1	-	10	1	-	-	1	2	1	-	-	24
7	6	1	2	2	2	-	-	-	-	1	-	2	15
8	3	-	-	2	1	-	1	-	1	1	-	-	9
9-13	7	-	-	8	-	-	-	-	2	2	-	-	19
14-28	1	-	-	2	-	-	1	-	4	3	-	1	12
Total n	63	37	7	45	17	6	12	11	19	15	15	8	255

Table D-3

RANK OF LEADER

LEADER RANK	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
E3	–	–	–	–	–	–	–	–	–	–	1	–	1
E4	3	1	–	–	–	3	–	–	1	–	1	–	9
E5	7	20	–	5	5	3	2	1	1	2	12	–	58
E6	16	11	6	14	6	–	5	2	8	5	1	–	74
E7	7	1	–	2	3	–	–	1	4	1	–	–	19
E8	–	–	–	3	–	–	–	–	–	–	–	–	3
O1	14	1	–	6	–	–	2	1	3	1	–	3	21
O2	–	–	–	–	2	–	–	–	–	–	–	–	2
O3	8	2	1	4	–	–	1	1	–	–	–	4	21
O4	1	–	–	–	–	–	–	–	–	–	–	1	2
WO	7	1	–	11	1	–	2	5	2	6	–	–	35
Total n	63	37	7	45	17	6	12	11	19	15	15	8	255

Table D-4

NUMBER OF DIFFERENT RANKS WITHIN THE TEAM
(excluding the leader)

NUMBER OF RANKS (wo leader)	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
1	4	16	–	2	4	1	4	6	1	–	7	1	46
2	16	16	3	10	4	5	2	1	3	2	7	1	70
3	15	4	3	14	7	–	3	3	7	6	–	2	64
4	22	1	1	9	2	–	1	1	5	4	–	3	49
5	4	–	–	9	–	–	1	–	3	2	–	–	19
6	2	–	–	1	–	–	1	–	–	1	–	1	6
Total n	63	37	7	45	17	6	12	11	19	15	14	8	255

118

Table D-5

HIGHEST RANK WITHIN TEAM
(excluding the leader)

HIGHEST RANK (wo leader)	INFANTRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTILLERY	ENGINEERS	QUARTERMASTER	MISSILE & MUNITIONS	AVIATION	ORDNANCE	TRANSPORTATION	SIGNAL	CHEMICAL	TOTAL
E3	2	3	–	–	–	1	–	–	–	–	3	–	9
E4	9	21	–	8	5	5	3	3	4	2	10	–	70
E5	14	11	5	13	9	–	4	2	7	5	2	–	72
E6	13	1	1	10	2	–	3	2	4	5	–	2	43
E7	6	–	–	9	–	–	–	–	4	2	–	5	26
E8	2	–	–	1	–	–	1	–	–	–	–	1	4
01	2	1	1	3	–	–	–	–	–	–	–	1	8
03	1	–	–	–	–	–	–	–	–	–	–	–	1
WO	14	–	–	1	–	–	1	4	–	1	–	–	22
Total n	63	37	7	45	17	6	12	11	19	15	15	8	255

119

Table D-6

LOWEST RANK WITHIN TEAM

LEADER RANK	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	ORD-NANCE	AVIA-TION	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
E3	49	18	3	35	9	6	3	3	18	14	8	4	170
E4	7	15	4	9	7	-	8	4	1	1	7	3	66
E5	7	4	-	1	1	-	1	1	-	-	-	-	15
E6	-	-	-	-	-	-	-	1	-	-	-	-	1
E7	-	-	-	-	-	-	-	-	-	-	-	1	1
WO	-	-	-	-	-	-	-	2	-	-	-	-	2
Total n	63	37	7	45	17	6	12	11	19	15	15	8	255

Table D-7

NUMBER OF MOS CATEGORIES

NUMBER OF MOS CATE-GORIES	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
1	17	32	3	14	6	5	7	5	4	2	14	–	109
2	5	4	2	11	4	–	2	4	2	5	1	2	42
3	26	–	2	6	2	1	1	2	4	2	–	5	51
4	6	1	–	4	3	–	1	–	–	2	–	–	17
5-8	7	–	–	7	2	–	–	–	4	3	–	1	24
9-22	2	–	–	3	–	–	1	–	5	1	–	–	12
Total n	63	37	7	45	17	6	12	11	19	15	15	8	255

Table D-8

SKILL LEVELS OF TEAM MEMBERS

SKILL LEVEL	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
40 No Members	37	34	4	24	9	6	8	9	11	11	4	2	159
One Member	13	3	2	17	7	-	2	1	6	2	9	6	68
Two or more Members	13	-	1	4	1	-	2	1	2	2	2	-	28
30 No Members	34	26	4	14	8	6	6	7	7	2	15	2	131
One Member	20	9	3	25	8	-	4	4	5	7	-	4	89
Two or more Members	9	2	-	6	1	-	2	-	7	6	-	2	35
20 No Members	15	8	1	2	-	3	-	5	1	1	3	4	43
One Member	20	26	3	22	7	3	5	3	2	5	1	2	99
Two or three Members	16	3	1	6	9	-	6	3	6	3	6	2	61
Four or more Members	12	-	2	15	1	-	1	-	10	6	5	-	52
10 No Members	11	5	-	5	4	-	6	5	-	1	13	3	53
One Member	6	14	1	6	9	-	3	3	-	1	-	1	44
Two or three Members	14	16	5	7	4	4	3	1	3	3	2	1	63
Four or more Members	32	2	1	27	2	2	-	2	16	10	-	3	95
Total n for each Skill Level	63	37	7	45	17	6	12	11	19	15	15	8	255

122

Table D-9

NUMBER OF TYPES OF EQUIPMENT USED BY TEAM

NUMBER TYPES OF EQUIPMENT	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
1	4	18	3	1	5	5	3	11	1	15	8	-	74
2	13	8	2	4	2	-	2	-	4	-	3	-	38
3	9	3	1	6	2	-	-	-	1	-	2	1	25
4	9	2	1	11	1	-	1	-	-	-	-	1	26
5	11	2	-	5	1	1	-	-	-	-	-	-	20
6	5	-	-	4	-	-	-	-	1	-	2	3	16
7	6	3	-	3	1	-	-	-	2	-	-	-	15
8-49	4	-	-	11	-	-	-	-	10	-	-	3	28
Total n	62	36	7	45	12	6	6	11	19	15	15	8	242
Missing n	1	1	0	0	5	0	6	0	0	0	0	0	13

123

Table D-10

EMERGENT-ESTABLISHED TEAM RATING

RATING	INFAN-TRY	ARMOR	AIR DEFENSE ARTILLERY	FIELD ARTIL-LERY	ENGI-NEERS	QUARTER-MASTER	MISSILE & MUNI-TIONS	AVIA-TION	ORD-NANCE	TRANS-PORTA-TION	SIG-NAL	CHEM-ICAL	TOTAL
Estab-lished	7	21	-	29	1	-	7	-	19	1	-	8	93
More Estab-lished than Emergent	9	1	4	14	8	-	5	5	-	1	-	-	47
Equally Established & Emergent	8	3	-	-	3	-	-	6	-	3	-	-	23
More Emer-gent than Established	12	12	3	-	3	-	-	-	-	1	-	-	31
Emergent	-	-	-	-	2	-	-	-	-	-	-	-	2
Total n	36	37	7	43	17	0	12	11	19	6	0	8	196
Missing n	27	0	0	2	0	6	0	0	0	9	15	0	59

124

APPENDIX E

FORSCOM SURVEY: DISTRIBUTION OF QUESTIONNAIRE

RESPONSES FOR COMBAT BRANCHES

Table E-1

TEAM CHARACTERISTICS

Continuity (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	-	-	10.8	4.8	3.9
Little Extent	.50-.99	-	-	-	-	-	0.4
	1.0-1.49	7.7	6.7	8.3	8.1	1.6	7.0
Moderate Extent	1.5-1.99	-	-	-	10.8	3.2	3.9
	2.0-2.49	23.1	22.2	29.2	16.2	22.2	20.3
Quite Extent	2.5-2.99	7.7	24.4	8.3	13.5	11.1	12.0
	3.0-3.49	23.1	26.7	12.5	16.2	25.4	21.3
Great Extent	3.5-4.0	30.8	20.0	41.7	24.3	31.7	31.2
n		12	45	24	37	63	282

Equipment Tasks (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	2.2	4.0	8.1	6.3	4.6
Little Extent	.50-.99	-	2.2	-	2.7	-	0.7
	1.0-1.49	15.4	8.9	8.0	5.4	9.5	9.9
Moderate Extent	1.5-1.99	7.7	4.4	-	8.1	3.2	5.7
	2.0-2.49	7.7	20.0	16.0	27.0	25.4	20.9
Quite Extent	2.5-2.99	15.4	15.6	8.0	13.5	9.5	12.1
	3.0-3.49	23.1	33.3	32.0	16.2	23.8	24.8
Great Extent	3.5-4.0	15.4	13.3	32.0	18.9	22.2	21.3
n		13	45	25	37	63	282

Table E-1 (continued)

Information Transfer (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	–	2.2	4.0	10.8	4.8	3.9
Little Extent	.50-.99	–	–	–	–	–	0.4
	1.0-1.49	15.4	4.4	4.0	–	3.2	5.0
Moderate Extent	1.5-1.99	–	8.9	4.0	2.7	4.8	4.2
	2.0-2.49	23.1	33.3	36.0	24.3	19.4	26.0
Quite Extent	2.5-2.99	7.7	17.8	8.0	8.1	21.0	13.5
	3.0-3.49	23.1	17.8	20.0	40.5	29.0	26.0
Great Extent	3.5-4.0	30.8	15.6	24.0	13.5	17.7	21.0
n		13	45	25	37	62	281

Leader Coordination (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	2.3	–	8.1	6.3	3.9
Little Extent	.50-.99	–	–	4.0	–	–	0.7
	1.0-1.49	7.7	–	16.0	5.4	3.2	5.0
Moderate Extent	1.5-1.99	–	11.4	–	2.7	1.6	3.6
	2.0-2.49	7.7	9.1	28.0	18.9	17.5	17.0
Quite Extent	2.5-2.99	–	15.9	12.0	5.4	17.5	12.5
	3.0-3.49	53.8	31.8	20.0	37.8	33.3	33.8
Great Extent	3.5-4.0	23.1	29.5	20.0	21.6	20.6	23.5
n		13	44	25	37	63	281

127

Table E-1 (continued)

Member Coordination (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	-	2.2	-	10.8	6.3	3.5
Little Extent	.50-.99	-	-	4.0	-	-	0.4
	1.0-1.49	7.7	8.9	4.0	2.7	4.8	4.3
Moderate Extent	1.5-1.99	-	2.2	-	5.4	4.8	2.9
	2.0-2.49	15.4	24.4	44.0	27.0	22.2	24.8
Quite Extent	2.5-2.99	15.4	15.6	8.0	16.2	19.0	12.8
	3.0-3.49	30.8	26.7	20.0	21.6	30.2	31.2
Great Extent	3.5-4.0	30.8	20.0	20.0	16.2	12.7	15.6
n		13	45	25	37	63	282

Performance Compensation (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	-	4.0	10.8	6.3	5.7
Little Extent	.50-.99	-	6.7	4.0	-	-	1.9
	1.0-1.49	-	20.0	8.0	16.2	12.7	14.9
Moderate Extent	1.5-1.99	7.7	17.8	8.0	10.8	7.9	10.0
	2.0-2.49	38.5	37.8	36.0	27.0	34.9	31.7
Quite Extent	2.5-2.99	15.4	13.3	4.0	16.2	15.9	11.7
	3.0-3.49	15.4	2.2	28.0	13.5	12.7	16.0
Great Extent	3.5-4.0	15.4	2.2	8.0	5.4	9.5	8.2
n		13	45	25	37	63	281

Team Spirit (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	4.4	–	10.8	6.3	5.3
Little Extent	.50-.99	–	2.2	–	–	–	0.4
	1.0-1.49	–	8.9	8.0	13.5	4.8	8.5
Moderate Extent	1.5-1.99	–	4.4	–	8.1	1.6	2.8
	2.0-2.49	15.4	24.4	24.0	18.9	28.6	25.2
Quite Extent	2.5-2.99	7.7	17.8	12.0	5.4	19.0	14.5
	3.0-3.49	46.2	24.4	24.0	21.6	23.8	22.4
Great Extent	3.5-4.0	23.1	13.3	32.0	21.6	15.9	20.9
n		13	45	25	37	63	282

Task Interdependence (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	–	2.2	–	13.5	3.2	3.9
Little Extent	.50-.99	–	–	–	–	–	–
	1.0-1.49	7.7	11.1	–	5.4	6.3	7.8
Moderate Extent	1.5-1.99	7.7	6.7	–	2.7	4.8	3.6
	2.0-2.49	23.1	24.4	28.0	29.7	27.0	23.8
Quite Extent	2.5-2.99	–	13.3	12.0	8.1	9.5	9.3
	3.0-3.49	53.8	20.0	36.0	21.6	25.4	29.2
Great Extent	3.5-4.0	7.7	22.2	24.0	18.9	23.8	22.4
n		13	45	25	37	63	281

129

Table E-1 (continued)

Personal Knowledge (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	–	2.2	–	8.1	4.8	3.6
Little Extent	.50-.99	–	–	–	–	–	–
	1.0-1.49	–	4.4	–	5.4	1.6	3.9
Moderate Extent	1.5-1.99	–	15.6	–	5.4	6.5	6.4
	2.0-2.49	16.7	17.8	24.0	29.7	19.4	20.7
Quite Extent	2.5-2.99	–	15.6	8.0	5.4	16.1	11.5
	3.0-3.49	58.3	15.6	44.0	18.9	30.6	27.1
Great Extent	3.5-4.0	25.0	28.9	8.0	27.0	21.0	26.8
n		12	45	25	37	62	280

Table E-2

TRAINING RECEIVED AND NEEDED

On the Job Training Received (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	–	2.2	–	5.4	1.6	2.1
Less than once yr	1-1.99	–	–	–	–	–	0.0
Once yr	2-2.99	–	2.2	4.0	–	4.8	4.2
Several times yr	3-3.99	15.4	8.9	8.0	–	6.3	12.4
Once mo	4-4.99	–	13.3	8.0	5.4	14.3	10.2
Several times mo	5-5.99	30.8	17.8	12.0	21.6	19.0	16.9
Once wk	6-6.99	15.4	22.2	20.0	18.9	12.7	15.9
Several times wk	7-7.99	23.1	24.4	28.0	32.4	12.7	19.1
Daily	8.00	15.4	8.9	20.0	16.2	28.6	19.1
n		13	45	25	37	63	283

Unit Training Received (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	–	2.2	–	–	3.2	1.8
Less than once yr	1-1.99	–	2.2	–	2.7	3.2	1.4
Once yr	2-2.99	–	32.6	12.0	5.4	12.7	15.9
Several times yr	3-3.99	69.2	43.5	88.0	40.5	63.5	61.5
Once mo	4-4.99	30.8	8.7	–	29.7	9.5	12.0
Several times mo	5-5.99	–	6.5	–	10.8	3.2	4.2
Once wk	6-6.99	–	2.2	–	10.8	3.2	2.5
Several times wk	7-7.99	–	2.2	–	–	–	0.7
Daily	8.00	–	–	–	–	1.6	0.3
n		13	46	25	37	63	283

Table E-2 (continued)

Field Training Received (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	30.8	17.4	24.0	27.0	33.3	29.2
Less than one yr	1-1.99	7.7	13.0	32.0	13.5	11.1	17.9
Once yr	2-2.99	23.1	28.3	12.0	16.2	25.4	20.1
Several times yr	3-3.99	38.5	23.9	24.0	29.7	27.0	23.6
Once mo	4-4.99	–	10.9	8.0	10.8	3.2	6.7
Several times mo	5-5.99	–	6.5	–	–	–	1.4
Once wk	6-6.99	–	–	–	–	–	0.3
Several times wk	7-7.99	–	–	–	2.7	–	0.3
Daily	8.00	–	–	–	–	–	0.3
n		13	46	25	37	63	284

Classroom Lectures Received (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	46.2	2.2	16.0	8.1	14.3	11.3
Less than once yr	1-1.99	7.7	6.5	16.0	5.4	9.5	9.5
Once yr	2-2.99	7.7	13.0	8.0	10.8	15.9	15.5
Several times yr	3-3.99	7.7	32.6	24.0	21.6	20.6	24.7
Once mo	4-4.99	7.7	17.4	20.0	18.9	20.6	16.3
Several times mo	5-5.99	7.7	21.7	12.0	16.2	11.1	14.1
Once wk	6-6.99	15.4	4.3	4.0	8.1	4.8	5.3
Several times wk	7-7.99	–	2.2	–	10.8	–	2.1
Daily	8.00	–	–	–	–	3.2	1.1
n		13	46	25	37	63	283

Instruction Received with Training Devices (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	38.5	10.9	8.0	13.5	11.1	11.3
Less than once yr	1-1.99	15.4	8.7	-	5.4	3.2	7.4
Once yr	2-2.99	-	10.9	12.0	2.7	6.3	11.7
Several times yr	3-3.99	7.7	17.4	28.0	8.1	19.0	19.4
Once mo	4-4.99	7.7	32.6	12.0	16.2	25.4	20.5
Several times mo	5-5.99	7.7	15.2	24.0	29.7	14.3	16.6
Once wk	6-6.99	15.4	4.3	8.0	8.1	6.3	4.9
Several times wk	7-7.99	7.7	-	8.0	8.1	1.6	2.8
Daily	8.00	-	-	-	8.1	12.7	5.3
n		13	46	25	37	63	283

Special Schools Attended (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	69.2	39.1	60.0	56.8	46.8	48.8
Less than once yr	1-1.99	30.8	37.0	28.0	27.0	27.4	28.6
Once yr	2-2.99	-	10.9	4.0	13.5	11.3	11.7
Several times yr	3-3.99	-	10.9	4.0	-	8.1	8.1
Once mo	4-4.99	-	2.2	-	-	3.2	1.4
Several times mo	5-5.99	-	-	4.0	-	3.2	1.1
Once wk	6-6.99	-	-	-	2.7	-	0.3
Several times wk	7-7.99	-	-	-	-	-	-
Daily	8.00	-	-	-	-	-	-
n		13	46	25	37	62	283

On the Job Training Needed (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	-	-	-	-	-	0.3
Less than once yr	1-1.99	-	-	-	-	-	-
Once yr	2-2.99	-	-	-	-	1.6	1.1
Several times yr	3-3.99	7.7	-	-	2.7	4.8	5.3
Once mo	4-4.99	15.4	6.5	8.0	8.1	6.3	9.5
Several times mo	5-5.99	7.7	19.6	12.0	8.1	20.6	16.5
Once wk	6-6.99	15.4	28.3	16.0	32.4	19.0	21.5
Several times wk	7-7.99	15.4	41.3	28.0	24.3	22.2	24.6
Daily	8.00	38.5	4.3	36.0	24.3	25.4	21.1
n		13	46	25	37	63	284

Unit Training Needed (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	-	-	-	-	1.6	0.3
Less than once yr	1-1.99	-	2.2	-	-	4.8	1.8
Once yr	2-2.99	7.7	10.9	16.0	8.1	7.9	15.8
Several times yr	3-3.99	61.5	56.5	68.0	32.4	54.0	54.6
Once mo	4-4.99	30.8	21.7	8.0	35.1	20.6	18.3
Several times mo	5-5.99	-	4.3	8.0	16.2	6.3	6.3
Once wk	6-6.99	-	-	-	8.1	3.2	1.8
Several times wk	7-7.99	-	4.3	-	-	1.6	1.1
Daily	8.00	-	-	-	-	-	-
n		13	46	25	37	63	284

Table E-2 (continued)

Field Training Needed (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	23.1	4.3	8.0	5.4	11.1	11.3
Less than once yr	1-1.99	7.7	8.7	16.0	13.5	14.3	12.7
Once yr	2-2.99	7.7	17.4	28.0	16.2	17.5	17.9
Several times yr	3-3.99	23.1	28.3	24.0	24.3	34.9	29.9
Once mo	4-4.99	23.1	28.3	16.0	27.0	14.3	20.1
Several times mo	5-5.99	15.4	13.0	4.0	8.1	7.9	6.7
Once wk	6-6.99	-	-	4.0	5.4	-	1.4
Several times wk	7-7.99	-	-	-	-	-	-
Daily	8.00	-	-	-	-	-	-
n		13	46	25	37	63	284

Classroom Lectures Needed (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	7.7	-	-	-	4.8	2.1
Less than once yr	1-1.99	-	-	8.0	-	1.6	1.8
Once yr	2-2.99	7.7	4.3	-	2.7	6.5	4.9
Several times yr	3-3.99	-	10.9	16.0	10.8	19.4	16.9
Once mo	4-4.99	30.8	30.4	44.0	32.4	30.6	34.6
Several times mo	5-5.99	38.5	30.4	28.0	24.3	22.6	24.0
Once wk	6-6.99	15.4	19.6	4.0	18.9	11.3	12.4
Several times wk	7-7.99	-	4.3	-	8.1	3.2	2.8
Daily	8.00	-	-	-	2.7	-	0.3
n		13	46	25	37	63	283

Instruction Needed with Training Devices (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	7.7	2.2	-	5.4	3.2	3.2
Less than once yr	1-1.99	7.7	-	-	-	-	1.7
Once yr	2-2.99	7.7	2.2	-	2.7	4.8	3.2
Several times yr	3-3.99	-	6.5	16.0	8.1	11.1	12.7
Once mo	4-4.99	15.4	23.9	24.0	10.8	19.0	21.8
Several times mo	5-5.99	23.1	41.3	28.0	24.3	27.0	27.8
Once wk	6-6.99	15.4	15.2	20.0	32.4	20.6	18.0
Several times wk	7-7.99	23.1	8.7	8.0	13.5	3.2	7.0
Daily	8.00	-	-	4.0	2.7	11.1	4.6
n		13	46	25	37	63	284

Special Schools Needed (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
Never	0-.99	38.5	2.2	8.0	2.7	7.9	7.0
Less than once yr	1-1.99	7.7	15.2	12.0	5.4	12.7	13.1
Once yr	2-2.99	15.4	37.0	44.0	24.3	33.3	34.5
Several times yr	3-3.99	38.5	39.1	32.0	40.5	31.7	33.8
Once mo	4-4.99	-	4.3	-	18.9	11.1	7.7
Several times mo	5-5.99	-	2.2	4.0	2.7	1.6	2.1
Once wk	6-6.99	-	-	-	-	-	0.7
Several times wk	7-7.99	-	-	-	2.7	1.6	0.7
Daily	8.00	-	-	-	2.7	-	0.3
n		13	46	25	37	63	284

Table E-3

LEADER SATISFACTION (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	-	-	-	8.1	1.6	1.8
Little Extent	.50-.99	-	-	-	-	-	-
	1.0-1.49	30.8	4.5	4.2	10.8	7.9	8.2
Moderate Extent	1.5-1.99	-	15.9	8.3	2.7	19.0	9.6
	2.0-2.49	53.8	40.9	54.2	40.5	30.2	41.1
Quite Extent	2.5-2.99	-	11.4	12.5	13.5	6.3	8.9
	3.0-3.49	7.7	18.2	16.7	16.2	31.7	22.9
Great Extent	3.5-4.0	7.7	9.1	4.2	8.1	3.2	7.5
n		13	44	24	37	63	280

137

Table E-4

TRAINING CONSTRAINTS

Lack Programs of Instruction (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	8.3	8.9	4.2	13.9	12.7	12.9
Little Extent	.50-.99	-	6.7	-	13.9	9.5	7.7
	1.0-1.49	33.3	33.3	25.0	22.2	25.4	25.4
Moderate Extent	1.5-1.99	25.0	17.8	-	16.7	14.3	13.2
	2.0-2.49	25.0	17.8	50.0	19.4	17.5	23.5
Quite Extent	2.5-2.99	-	8.9	4.2	2.8	4.8	4.4
	3.0-3.49	-	4.4	8.3	5.6	4.8	6.3
Great Extent	3.5-4.0	8.3	2.2	8.3	5.6	11.1	6.6
n		12	45	24	36	63	272

Lack Realism (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	25.0	6.7	17.4	16.7	21.0	16.5
Little Extent	.50-.99	-	-	-	5.6	4.8	3.7
	1.0-1.49	16.7	22.2	30.4	33.3	21.0	22.8
Moderate Extent	1.5-1.99	8.3	15.6	8.7	22.2	17.7	13.3
	2.0-2.49	9.7	26.7	17.4	11.1	22.6	22.7
Quite Extent	2.5-2.99	-	15.6	8.7	-	1.6	5.5
	3.0-3.49	-	6.7	13.0	8.3	4.8	10.3
Great Extent	3.5-4.0	-	6.7	4.3	2.8	6.5	4.8
n		12	45	23	36	62	272

Table E-4 (continued)

Lack of Trainers (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	8.3	20.5	21.7	30.6	15.0	20.4
Little Extent	.50-.99	-	4.5	4.3	8.3	3.3	4.9
	1.0-1.49	58.3	22.7	26.1	19.4	41.7	32.7
Moderate Extent	1.5-1.99	8.3	15.9	13.0	13.9	15.0	11.9
	2.0-2.49	16.7	20.5	26.1	19.4	16.7	18.2
Quite Extent	2.5-2.99	-	6.8	-	-	3.3	3.0
	3.0-3.49	8.3	9.1	4.3	2.8	3.3	7.0
Great Extent	3.5-4.0	-	-	4.3	5.6	1.7	1.9
n		12	44	23	36	60	269

Lack of Time (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	8.3	4.4	4.2	8.3	4.8	6.6
Little Extent	.50-.99	-	-	-	-	1.6	0.4
	1.0-1.49	-	8.9	16.7	11.1	14.5	9.1
Moderate Extent	1.5-1.99	8.3	6.7	4.2	16.7	4.8	7.7
	2.0-2.49	16.7	24.4	16.7	27.8	32.3	25.3
Quite Extent	2.5-2.99	-	17.8	8.3	11.1	22.6	12.8
	3.0-3.49	41.7	26.7	16.7	16.7	8.1	19.4
Great Extent	3.5-4.0	25.0	11.1	33.3	8.3	11.3	18.7
n		12	45	24	36	62	273

139

Lack of Facilities (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	8.3	8.9	8.3	13.9	14.5	11.4
Little Extent	.50-.99	-	4.4	-	8.3	4.8	4.0
	1.0-1.49	25.0	24.4	41.7	16.7	24.2	24.5
Moderate Extent	1.5-1.99	8.3	15.6	4.2	16.7	14.5	12.8
	2.0-2.49	41.7	17.8	29.2	30.6	25.8	26.4
Quite Extent	2.5-2.99	-	17.8	4.2	-	6.5	5.1
	3.0-3.49	8.3	4.4	8.3	5.6	4.8	8.5
Great Extent	3.5-4.0	8.3	6.7	4.2	8.3	4.8	7.3
n		12	45	24	36	62	273

Lack of Training Devices (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	8.3	13.3	20.8	13.9	13.1	13.6
Little Extent	.50-.99	-	6.7	4.2	11.1	8.2	8.4
	1.0-1.49	25.0	17.8	25.0	36.1	29.5	27.1
Moderate Extent	1.5-1.99	16.7	15.6	20.8	5.6	14.8	13.2
	2.0-2.49	33.3	22.2	25.0	19.4	23.0	22.1
Quite Extent	2.5-2.99	8.3	8.9	-	-	4.9	4.0
	3.0-3.49	-	6.7	4.2	8.3	4.9	6.6
Great Extent	3.5-4.0	8.3	8.9	-	5.6	1.6	4.8
n		12	45	24	36	61	272

Scheduling (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	8.3	11.1	8.3	11.1	8.1	7.7
Little Extent	.50-.99	-	11.1	12.5	5.6	-	3.3
	1.0-1.49	-	6.7	25.0	8.3	19.4	16.5
Moderate Extent	1.5-1.99	-	11.1	8.3	13.9	14.5	9.9
	2.0-2.49	25.0	31.1	12.5	60.6	24.2	24.1
Quite Extent	2.5-2.99	16.7	15.6	8.3	8.3	9.7	9.9
	3.0-3.49	41.7	8.9	12.5	13.9	19.4	16.1
Great Extent	3.5-4.0	8.3	13.3	12.5	8.3	4.8	12.5
n		12	45	24	36	62	273

Individual Training Emphasis (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	8.3	6.7	12.5	13.9	14.5	13.6
Little Extent	.50-.99	-	13.3	-	13.9	1.6	5.9
	1.0-1.49	16.7	20.0	41.7	30.6	25.8	24.3
Moderate Extent	1.5-1.99	16.7	17.8	4.2	13.9	17.7	13.9
	2.0-2.49	16.7	22.2	20.8	19.4	22.6	23.2
Quite Extent	2.5-2.99	8.3	4.4	4.2	-	4.8	4.0
	3.0-3.49	8.3	8.9	8.3	5.6	6.5	7.7
Great Extent	3.5-4.0	25.0	6.7	8.3	2.8	6.5	7.0
n		12	45	24	36	62	272

141

Table E-5

OPERATIONAL PROBLEMS

Turbulence (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	6.7	4.0	5.4	7.9	6.7
Little Extent	.50-.99	-	4.4	4.0	10.8	4.8	3.9
	1.0-1.49	30.8	28.9	28.0	27.0	36.5	29.0
Moderate Extent	1.5-1.99	23.1	15.6	4.0	13.5	17.5	13.4
	2.0-2.49	15.4	33.3	32.0	27.0	23.8	29.0
Quite Extent	2.5-2.99	7.7	8.9	4.0	-	3.2	5.3
	3.0-3.49	15.4	-	12.0	5.4	1.6	6.7
Great Extent	3.5-4.0	-	2.2	12.0	10.8	4.8	6.0
n		13	45	25	37	63	283

Unqualified Personnel (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	4.4	4.0	21.6	9.5	11.3
Little Extent	.50-.99	7.7	8.9	8.0	8.1	4.8	5.3
	1.0-1.49	15.4	26.7	32.0	10.8	33.3	24.0
Moderate Extent	1.5-1.99	7.7	22.2	-	18.9	20.6	14.8
	2.0-2.49	23.1	26.7	40.0	27.0	15.9	27.9
Quite Extent	2.5-2.99	7.7	8.9	4.0	2.7	4.8	4.6
	3.0-3.49	15.4	-	12.0	5.4	7.9	8.8
Great Extent	3.5-4.0	7.7	2.2	-	5.4	3.2	3.2
n		13	45	25	37	63	283

Insufficient Training (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	4.4	4.0	10.8	6.3	7.1
Little Extent	.50-.99	-	6.7	12.0	8.1	6.3	5.6
	1.0-1.49	15.4	15.6	24.0	29.7	33.3	25.5
Moderate Extent	1.5-1.99	-	11.1	4.0	10.8	9.5	9.1
	2.0-2.49	15.4	20.0	32.0	29.7	22.2	25.5
Quite Extent	2.5-2.99	23.1	20.0	4.0	-	7.9	9.2
	3.0-3.49	7.7	15.6	12.0	-	12.7	11.3
Great Extent	3.5-4.0	23.1	6.7	8.0	10.8	1.6	6.7
n		13	45	25	37	63	283

Unrealistic Training (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	6.7	-	13.5	12.7	11.0
Little Extent	.50-.99	-	8.9	4.0	8.1	12.7	8.1
	1.0-1.49	30.8	22.2	32.0	37.8	34.9	31.4
Moderate Extent	1.5-1.99	-	22.2	8.0	2.7	11.1	13.1
	2.0-2.49	15.4	22.2	20.0	29.7	17.5	19.4
Quite Extent	2.5-2.99	23.1	6.7	4.0	-	1.6	3.9
	3.0-3.49	15.4	8.9	24.0	2.7	6.3	9.2
Great Extent	3.5-4.0	7.7	2.2	8.0	5.4	3.2	3.9
n		13	45	25	37	63	283

No Unit Training (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	23.1	6.7	16.0	21.6	19.0	18.4
Little Extent	.50-.99	-	11.1	4.0	8.1	15.9	10.9
	1.0-1.49	23.1	26.7	40.0	37.8	31.7	27.9
Moderate Extent	1.5-1.99	7.7	13.3	-	5.4	11.1	9.6
	2.0-2.49	7.7	28.9	28.0	16.2	17.5	21.6
Quite Extent	2.5-2.99	7.7	8.9	4.0	-	1.6	3.5
	3.0-3.49	15.4	4.4	4.0	-	1.6	3.5
Great Extent	3.5-4.0	15.4	-	4.0	10.8	1.6	4.6
n		13	45	25	37	63	283

Lack Spirit

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	24.4	8.0	24.3	20.6	23.0
Little Extent	.50-.99	-	15.6	4.0	16.2	17.5	11.6
	1.0-1.49	38.5	28.9	68.0	16.2	42.9	34.7
Moderate Extent	1.5-1.99	15.4	13.3	12.0	5.4	6.3	9.5
	2.0-2.49	15.4	8.9	4.0	24.3	9.5	12.7
Quite Extent	2.5-2.99	7.7	2.2	4.0	-	-	1.1
	3.0-3.49	7.7	6.7	-	5.4	1.6	4.9
Great Extent	3.5-4.0	-	-	-	8.1	1.6	2.5
n		13	45	25	37	63	283

Table E-5 (continued)

Social Problems (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	30.8	40.0	32.0	29.7	33.3	31.2
Little Extent	.50-.99	-	22.2	4.0	16.2	17.5	17.0
	1.0-1.49	53.8	28.9	24.0	29.7	33.3	33.0
Moderate Extent	1.5-1.99	15.4	4.4	16.0	5.4	6.3	6.7
	2.0-2.49	-	4.4	24.0	16.2	7.9	9.6
Quite Extent	2.5-2.99	-	-	-	-	1.6	0.4
	3.0-3.49	-	-	-	-	-	1.1
Great Extent	3.5-4.0	-	-	-	2.7	-	1.1
n		13	45	25	37	63	282

Leadership (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	26.7	28.0	24.3	27.0	25.4
Little Extent	.50-.99	-	20.0	8.0	27.0	14.3	13.5
	1.0-1.49	30.8	20.0	20.0	16.2	34.9	30.7
Moderate Extent	1.5-1.99	7.7	15.6	12.0	2.7	7.9	8.8
	2.0-2.49	38.5	8.9	12.0	18.9	9.5	13.1
Quite Extent	2.5-2.99	7.7	4.4	4.0	-	1.6	1.8
	3.0-3.49	-	2.2	12.0	5.4	3.2	3.9
Great Extent	3.5-4.0	-	2.2	4.0	5.4	1.6	2.8
n		13	45	25	37	63	283

145

Discipline (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	23.1	31.1	24.0	29.7	34.9	31.6
Little Extent	.50-.99	-	20.0	8.0	21.6	17.5	14.1
	1.0-1.49	38.5	28.9	48.0	27.0	31.7	34.4
Moderate Extent	1.5-1.99	-	4.4	4.0	8.1	1.6	4.7
	2.0-2.49	23.1	11.1	4.0	8.1	11.1	9.2
Quite Extent	2.5-2.99	7.7	-	4.0	2.7	1.6	1.4
	3.0-3.49	7.7	4.4	4.0	-	1.6	2.8
Great Extent	3.5-4.0	-	-	4.0	2.7	-	1.8
n		13	45	25	37	63	282

Poor Equipment Design (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	20.0	12.0	18.9	25.4	21.6
Little Extent	.50-.99	-	8.9	8.0	10.8	14.3	9.8
	1.0-1.49	30.8	35.6	24.0	35.1	28.6	31.9
Moderate Extent	1.5-1.99	-	20.0	-	10.8	9.5	8.1
	2.0-2.49	23.1	6.7	32.0	10.8	15.9	15.9
Quite Extent	2.5-2.99	7.7	4.4	8.0	-	3.2	2.8
	3.0-3.49	15.4	4.4	12.0	5.4	1.6	5.3
Great Extent	3.5-4.0	7.7	-	4.0	8.1	1.6	4.6
n		13	45	25	37	63	283

Lack Equipment (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	17.8	16.0	18.9	17.5	18.7
Little Extent	.50-.99	-	4.4	4.0	10.8	12.7	7.4
	1.0-1.49	38.5	26.7	40.0	32.4	33.3	32.2
Moderate Extent	1.5-1.99	15.4	22.2	8.0	2.7	7.9	10.3
	2.0-2.49	23.1	13.3	28.0	10.8	12.7	16.2
Quite Extent	2.5-2.99	-	6.7	-	2.7	4.8	2.8
	3.0-3.49	15.4	4.4	-	8.1	4.8	5.3
Great Extent	3.5-4.0	-	4.4	4.0	13.5	6.3	7.1
n		13	45	25	37	63	283

Inappropriate Tactics (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	24.4	24.0	24.3	23.8	25.8
Little Extent	.50-.99	7.7	11.1	12.0	18.9	23.8	16.6
	1.0-1.49	15.4	40.0	36.0	29.7	20.6	31.1
Moderate Extent	1.5-1.99	15.4	15.6	-	2.7	6.3	5.7
	2.0-2.49	30.8	6.7	20.0	16.2	19.0	13.0
Quite Extent	2.5-2.99	-	-	-	2.7	-	0.7
	3.0-3.49	15.4	2.2	4.0	2.7	4.8	5.0
Great Extent	3.5-4.0	-	-	4.0	2.7	1.6	2.1
n		13	45	25	37	63	283

147

Table E-5 (continued)

Overextended (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	7.7	24.4	24.0	40.5	19.0	23.7
Little Extent	.50-.99	7.7	26.7	-	18.9	19.0	15.9
	1.0-1.49	8.8	28.9	48.0	18.9	39.7	32.1
Moderate Extent	1.5-1.99	-	8.9	8.0	8.1	4.8	6.7
	2.0-2.49	7.7	11.1	8.0	2.7	14.3	12.8
Quite Extent	2.5-2.99	-	-	-	2.7	-	0.3
	3.0-3.49	15.4	-	8.0	-	3.2	4.2
Great Extent	3.5-4.0	-	-	4.0	8.1	-	4.2
n		13	45	25	37	63	283

Communication/Coordination (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	23.1	17.8	28.0	16.2	21.0	18.9
Little Extent	.50-.99	-	13.3	4.0	13.5	16.1	10.6
	1.0-1.49	-	33.3	36.0	32.4	24.2	31.4
Moderate Extent	1.5-1.99	7.7	15.6	12.0	8.1	16.1	12.1
	2.0-2.49	23.1	8.9	4.0	21.6	17.7	16.3
Quite Extent	2.5-2.99	15.4	4.4	-	-	3.2	2.5
	3.0-3.49	30.8	6.7	8.0	2.7	1.6	4.6
Great Extent	3.5-4.0	-	-	8.0	5.4	-	3.6
n		13	45	25	37	62	281

148

Inappropriate Configuration (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	-	11.1	28.0	13.5	20.6	19.1
Little Extent	.50-.99	7.7	15.6	8.0	10.8	12.7	11.8
	1.0-1.49	30.8	33.3	16.0	27.0	36.5	29.7
Moderate Extent	1.5-1.99	-	11.1	16.0	10.8	9.5	10.7
	2.0-2.49	30.8	17.8	12.0	27.0	9.5	15.2
Quite Extent	2.5-2.99	7.7	6.7	-	-	1.6	2.9
	3.0-3.49	23.1	2.2	8.0	2.7	4.8	5.3
Great Extent	3.5-4.0	-	2.2	12.0	8.1	4.8	5.3
n		13	45	25	37	63	282

Understrength (%)

CATEGORY/AVERAGE		AIR DEFENSE ARTILLERY	ARMOR	ENGINEERS	FIELD ARTILLERY	INFANTRY	ALL BRANCHES
No Extent	0-.49	15.4	15.6	8.0	13.5	20.6	18.1
Little Extent	.50-.99	-	2.2	4.0	8.1	11.1	6.7
	1.0-1.49	15.4	24.4	12.0	13.5	28.6	22.4
Moderate Extent	1.5-1.99	7.7	17.8	8.0	13.5	7.9	11.0
	2.0-2.49	30.8	17.8	40.0	27.0	19.0	21.2
Quite Extent	2.5-2.99	-	13.3	-	2.7	1.6	5.0
	3.0-3.49	23.1	4.4	8.0	13.5	3.2	6.4
Great Extent	3.5-4.0	7.7	4.4	20.0	8.1	7.9	9.2
n		13	45	25	37	63	282

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152

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3 CANADIAN DEFENCE LIAISON STAFF   ATTN: COUNSELLOR, SCIENCE R AND D
1 ROYAL NETHERLANDS EMBASSY   MILITARY ATTACHE
1 CANADIAN FORCES BASE CORNWALLIS   ATTN: PERSONNEL SELECTION
2 CANADIAN FORCES PERSONNEL APPL RSCH UNIT
1 ARMY PERSONNEL RESEARCH ESTABLISHMENT
6 LIBRARY OF CONGRESS   EXCHANGE AND GIFT DIV
1 DEFENSE TECHNICAL INFORMATION CEN   ATTN: DTIC-DDA-2
140 LIBRARY OF CONGRESS   UNIT DOCUMENTS EXPEDITING PROJECT
1 US GOVERNMENT PRINTING OFC   LIBRARY, PUBLIC DOCUMENTS DEPARTMENT
1 US GOVERNMENT PRINTING OFC   LIBRARY AND STATUTORY, LIB DIV (SLL)
1 THE ARMY LIBRARY   ATTN: ARMY STUDIES SEC
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