

AD-A149 603

A SURVEY OF ARMY TEAM OPERATIONS

Robert J. Smillie, Jack B. Shelnuttt and James Bercos
Mellonics Systems Development Division
Litton Systems, Inc.

Dorothy L. Finley, Contracting Officer's Representative

Reproduced From
Best Available Copy

20000804107

Submitted by

Seward Smith, Chief
ARI FIELD UNIT AT FORT BENNING, GEORGIA

and

Harold F. O'Neil, Jr., Director
TRAINING RESEARCH LABORATORY

DTIC FILE COPY



U. S. Army

Research Institute for the Behavioral and Social Sciences

January 1985

Approved for public release; distribution unlimited.

This report, as submitted by the contractor, has been cleared for release to Defense Technical Information Center (DTIC) to comply with regulatory requirements. It has been given no primary distribution other than to DTIC and will be available only through DTIC or other reference services such as the National Technical Information Service (NTIS). The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

DTIC
ELECTE
JAN 28 1985
A

85 01 17 063

DISCLAIMER NOTICE

**THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DTIC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM															
1. REPORT NUMBER Research Note 85-2	2. GOVT ACCESSION NO. AD-A149 609	3. RECIPIENT'S CATALOG NUMBER															
4. TITLE (and Subtitle) A SURVEY OF ARMY TEAM OPERATIONS		5. TYPE OF REPORT & PERIOD COVERED Research Note															
		6. PERFORMING ORG. REPORT NUMBER															
7. AUTHOR(s) Robert J. Smillie Jack B. Shelnutt James Bercos		8. CONTRACT OR GRANT NUMBER(s) DAHC 19-77-C-0011															
9. PERFORMING ORGANIZATION NAME AND ADDRESS Mellonics Systems Development Division Litton Systems P.O. Box 2498, Fort Benning, GA 31905		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 2Q762722A765															
11. CONTROLLING OFFICE NAME AND ADDRESS U.S. Army Research Institute for the Behavioral and Social Sciences, 5001 Eisenhower Avenue Alexandria, VA 22333		12. REPORT DATE January 1985															
		13. NUMBER OF PAGES 80															
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) U.S. Army Research Institute for the Behavioral and Social Sciences - Fort Benning Field Unit P.O. Box 2086, Fort Benning, GA 31905		15. SECURITY CLASS. (of this report) UNCLASSIFIED															
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE															
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.																	
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)																	
18. SUPPLEMENTARY NOTES																	
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)																	
<table border="0"> <tr> <td>Army Team</td> <td>Sampling Plan</td> <td>Team MOS Distribution</td> </tr> <tr> <td>Emergent Teams</td> <td>Survey</td> <td>Team Rank Distribution</td> </tr> <tr> <td>Established Teams</td> <td>Team</td> <td>Team Size</td> </tr> <tr> <td>Questionnaire</td> <td>Team Activities</td> <td>Team Skill Level Distribution</td> </tr> <tr> <td></td> <td></td> <td>Team Variables</td> </tr> </table>			Army Team	Sampling Plan	Team MOS Distribution	Emergent Teams	Survey	Team Rank Distribution	Established Teams	Team	Team Size	Questionnaire	Team Activities	Team Skill Level Distribution			Team Variables
Army Team	Sampling Plan	Team MOS Distribution															
Emergent Teams	Survey	Team Rank Distribution															
Established Teams	Team	Team Size															
Questionnaire	Team Activities	Team Skill Level Distribution															
		Team Variables															
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)																	
Over the past several years, considerable progress has been made in improving the effectiveness of the soldier performing as an individual, but performance of soldiers as teams has not been systematically addressed. This report details the construction of demographic survey instruments that were used to identify what types of teams exist and how these teams are distributed within and across Army branches. The survey provides a catalogue of teams and identifies their characteristics. Essentially, thirteen Army subject areas, all combat and combat support services, were surveyed. The average Army team was found to																	

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

20. ABSTRACT (continued)

consist of 6.7 members who fill 4.3 positions, has 2.5 ranks represented with members categorized under 2.0 MOSSs. Each team has 0.5 members with skill level 40 or above, 0.6 with skill level 30, 1.9 with skill level 20, and 3.1 with skill level 10. The team uses 3.9 pieces of equipment while performing 4.9 activities of which 1.0 is performed by the team as a unit, 2.4 by individuals, and 1.6 by small groups other than the full team.

Accession For	
NTIS GRA&I	☒
DTIC TAB	☒
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Avail and/or	Special
Dist	

A1 23



Unclassified

FOREWORD

This report is one of a series on the research support provided by the Mellonics Systems Development Division of Litton Systems, Inc., to the Army Research Institute for the Behavioral and Social Sciences (ARI) under Contract Number DAHC 19-77-C-0011. This report is part of the final report of the total contractual effort and will be incorporated into that report by reference.

As set forth in the Contract Statement of Work, the Mellonics effort includes support to the human factors studies presently being conducted by ARI. One of these studies involves the investigation of Army teams. This report details the construction of demographic survey instruments for identifying Army team types, and presents an analysis of how these teams are distributed within and across Army branches.

ABSTRACT

Over the past several years, considerable progress has been made in improving the effectiveness of the soldier performing as an individual, but performance of soldiers as teams has not been systematically addressed. This report details the construction of demographic survey instruments that were used to identify what types of teams exist and how these teams are distributed within and across Army branches. The survey provides a catalogue of teams and identifies their characteristics. Essentially, thirteen Army subject areas, all combat and combat support services, were surveyed. The average Army team was found to consist of 6.7 members who fill 4.3 positions, has 2.5 ranks represented with members categorized under 2.0 MOSs. Each team has 0.5 members with skill level 40 or above, 0.6 with skill level 30, 1.9 with skill level 20, and 3.1 with skill level 10. The team uses 3.9 pieces of equipment while performing 4.9 activities of which 1.0 is performed by the team as a unit, 2.4 by individuals, and 1.6 by small groups other than the full team.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
Background	1
General	1
Purpose	2
Approach	2
Methodology	4
Phase I	4
Phase II	5
Data	9
Requirements	9
Collection	11
RESULTS AND DISCUSSION	14
Results	14
Service Subject Area	14
Battalion and Company TOEs	14
Size	14
Position Types	14
Rank Types	14
MOS Types	14
Secondary Leaders	18
Skill level	18

(continued)

TABLE OF CONTENTS (concluded)

	<u>Page</u>
Equipment Types	18
Activities	18
Established-Emergent	18
Distribution of Rank	18
MOS Distribution	18
Contingency Tables	18
Discussion	20
REFERENCES	22
APPENDICES	
Appendix A	Raw Data (Bound separately in seven volumes and was only issued with the original copy of the report.)
Appendix B	Worksheet and Questionnaire 24
Appendix C	School List and Instructions Sent to School 59
Appendix D	Exact Coding Scheme for Service School Data 77
Appendix E	SPSS Computer Runs (Bound separately in a single volume and was only issued with the original copy of the report.)

LIST OF TABLES

	<u>Page</u>
Table 1. Questions Used to Develop FORSCOM Questionnaire	6
2. Variables from Phase I of the Army Team Survey	7
3. Revised Sampling Plan of Phase II of the Army Team Survey	10
4. Missing Data	13
5. Descriptive Statistics for the Fourteen Ratio Scaled Variables	15
6. Team Frequencies by Service Subject Area	16
7. Team Frequencies by Size of Team	17
8. MOS Distribution	19
9. Contingency Tables - Combinations of Variables	21

A SURVEY OF ARMY TEAM OPERATIONS

INTRODUCTION

BACKGROUND

General. Over the past several years, the all volunteer military has resulted in a reduction in manpower that has been offset by an intensive effort within the Army to improve the training of the individual soldier. Considerable progress has been made in improving the effectiveness of the soldier performing as an individual through such innovations as Training Extension Course (TEC) lessons and Skill Qualification Tests (SQTs). But there is another personnel training, selection, and management problem that is also very critical to the effectiveness of combat and combat support units that has not been systematically addressed - performance of soldiers as teams.

Although Boguslaw and Porter (Reference 1) describe a team as "...a collection of human individuals who work together to achieve a common goal," an Army team is more than a simple collective of soldiers. In the Army, a team is a relationship among individual soldiers who employ specific procedures in order to interact with weapons, machines, and other Army personnel during the pursuit of the Army system objectives.

The Army Research Institute for the Behavioral and Social Sciences (ARI) is currently in the position of knowing that there are team problems, but of not knowing the nature and extent of these problems and not having a viable base in order to select the correct methods for resolving the problems. An Army-wide survey of teams is the necessary first step in addressing these information needs. Being able to select teams for research that have specific organizational, task, and system characteristics assures research on a desired set of variables with applicable results.

In order to identify the basic structure of Army teams, ARI has defined a programmatic research effort in the areas of team training requirements, team assessment, and team performance prediction. A problem arises, however, when researchers attempt to describe the unique element that distinguishes team-machine interaction from a single man-machine interaction (cf. Reference 2). Therefore, the initial step in this research effort was a demographic survey of Army teams. Litton Melionics, within the guidance from the Contracting Officer Technical Representative (COTR), defined an Army team after

reviewing various sources on team research as:

- A small group, usually 2 to 11 men, who normally perform their tasks in an interactive and interdependent manner. 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 antiarmor 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 construction of the demographic survey instruments and an initial analysis of the results, detailed in this report, are a part of the Mellonics research support to ARI.

Purpose. The purpose of the survey was to provide an estimate of the extent to which team performance, as distinct from individual performance, is a significant part of Army operations. In addition, the survey identifies what types of teams exist and how these teams are distributed within and across Army branches. The survey provides a catalogue of teams and identifies their characteristics. The catalogue can be used to select specific team types for future research.

APPROACH

As originally envisioned, the survey was to be designed to identify all team situations (team organizational structure, critical and non-critical tasks, team member relationships, and individual/team performance standards and criteria), their numbers, and distributions throughout the Army combat and combat support systems in both the active and reserve components. After the research team appraised the stated objective, however, the need for its delimitation to manageable proportions was apparent. The resultant objective was a survey of combat and combat support Army teams of active components that have service schools. One exception was necessary. Because of the classified nature of military intelligence, the Military Intelligence branch was excluded from the survey. Thus, the following 13 subject areas were surveyed:

- Air Defense Artillery
- Armor
- Aviation

- Engineer
- Field Artillery
- Health Sciences
- Infantry
- Military Police
- Missile and Munitions
- Ordnance
- Quartermaster
- Signal
- Transportation.

The survey was conducted in two phases. In phase one, a questionnaire was developed and distributed to the 13 service schools. Based on tables of organization and equipment (TOEs), a subject matter expert at each school identified formal and informal teams by battalion and/or company TOE numbers. The information supplied comprised the following:

- team name
- total number of soldiers on the team
- position title of each team member
- rank of each member
- MOS of each member
- major equipment items
- major activities
- a rating of how established or emergent the team was.

All the raw data were ordered and placed into seven loose-leaf binders, Appendix A of this report. In addition, raw data were analyzed to establish a data base and obtain general descriptions of Army teams.

The second phase of the survey required the development of a second questionnaire that was distributed to a sample of the U. S. Army Forces Command (FORSCOM), i.e., operational units in the Army. This questionnaire identified what types of team training are required as well as problems associated with that training. Reduction and analysis of these data are planned for a future ARI report.

METHODOLOGY

Phase I. The Litton Mellonics staff, with COTR approval, developed both a service school team identification worksheet and questionnaire and a FORSCOM questionnaire with input from ARI's Research and Development Coordinator, Major Alexander Nicolini, Infantry. The service school team identification worksheet was simply a blank sheet that was used to identify a particular TOE and the teams within that TOE. (See Appendix B for an example of the identification worksheet.) The service school questionnaire was a description of each team identified in the worksheet. (See Appendix B for an example of the service school questionnaire.)

In addition to the team demographics, one question was included with the service school questionnaire that required a subjective rating by the respondents. Mellonics, with COTR agreement, deemed it necessary to distinguish between two types of team job activities and situations, established and emergent. Established situations are routine and the job activities consist of completely specified procedures. On the other hand, emergent situations tend to present relatively unique problems and the team must decide what activities to perform and how to perform them in order to solve the problem.

For Army teams, the research team agreed that the definitions for established activities would be very proceduralized tasks such as loading, aiming, and firing a cannon. Emergent activities were defined to be those activities performed in response to changing knowledge of the enemy threat. For example, rifle squads continually modify their activities in response to enemy activity. The concepts of established and emergent represented extremes of a single continuum. Some activities and situations are established, some emergent, and some are somewhere in between the two extremes. The respondents were instructed to select a phrase that best describes the general nature of the majority of job activities performed by the team they were rating. Respondents were instructed to use one of the following phrases to rate each of them:

- established
- more established than emergent

- about equally established and emergent
- more emergent than established
- emergent.

The FORSCOM questionnaire was constructed according to the goals of the ARI research program in team training. These goals required information input by a comprehensive questionnaire structured to answer the questions in Table 1. (The final revised FORSCOM questionnaire also is given in Appendix B.)

The initial questionnaires, in particular the FORSCOM questionnaire, were then reviewed by, and discussed with the Design Division, Directorate of Training Development in the U. S. Army Infantry School. The questionnaire was subsequently revised and then reviewed further by the Organization Branch, Directorate of Combat Development in the U. S. Army Infantry School.

The next step in the process required mailing of the materials to the 13 schools. The FORSCOM questionnaire was included for review by each school.

Each school was required to identify all teams in TOEs for which the school is the proponent. Upon completion of the identification worksheets, the schools were required to complete a demographic questionnaire on each team listed on the worksheets. (A complete description of the materials sent to schools, as well as a list of those schools, is given in Appendix C.)

The completed information was reduced by employing Version 6.50 of the Statistical Package for the Social Sciences (SPSS). (See Appendix D for the exact way data were encoded for reduction.) Twenty-four variables, given in Table 2, were analyzed in terms of frequencies and their descriptive statistics. Additional analyses are anticipated in future ARI reports. To assist that effort, two-way contingency tables were computed for 18 combinations of 10 variables.

Phase II. Upon completion of Phase I which included the review of the FORSCOM questionnaire, final revisions to the questionnaire were made. It was then distributed to FORSCOM units.

Distribution required the establishment of a sampling plan. Information obtained at the Fort Benning Adjutant General's office provided an estimate of the FORSCOM units of interest. Approximately 310 different FOL units in the 13 areas of interest were identified. They comprise:

Table 1

QUESTIONS USED TO DEVELOP FORSCOM QUESTIONNAIRE

-
- Does the team perform as a single cohesive unit, as some combination of subteams and individuals, or as a collection of individuals?
 - To what extent is training to perform as an individual important?
 - To what extent is training to perform as a team important?
 - To what extent do changes in team composition modify team performance capability?
 - How frequently does team membership change?
 - How critical is the performance of this team (or team objective or task) to the success of battalion operations?
 - To what extent are the details of procedure standardized?
 - What makes this a team (or, team objective or task):
 - working together as a group?
 - interdependence with respect to inputs and outputs?
 - coordination requirements?
 - During evaluations, is performance of this team evaluated as a complete and separate unit?
 - During evaluations (e.g., ARTEP), if the team is evaluated as a unit, what criteria are used:
 - speed?
 - timeliness?
 - accuracy?
 - procedural errors?
 - coordination?
 - Is the nature of team tasks dictated by equipment or by personnel interactions?
-

Table 2

VARIABLES FROM PHASE I OF THE ARMY TEAM SURVEY

<u>Variable Name</u>	<u>Variable Description</u>
BRANCH	Subject Area of Team
BNTOE	Battalion TOE Number
COTOE	Company TOE Number
SIZE	Size of Team
POSNUM	Number of Position Types
LDRRANK	Rank of Leader
RNKNUM	Number of Different Ranks (excluding the leader's)
LOWRANK	Lowest Rank
HIGHRANK	Highest Rank (excluding the leader's)
LDRMOS	Military Occupational Specialty (MOS) of Leader
MOSNUM	Number of MOS Types
DOMOS	Dominant MOS
DOMOS2	Second Dominant MOS (if bimodal)
SCNDLDR	Number of Secondary Leaders (if any)
SKL40	Number of Members with Skill Level 40 or Above
SKL30	Number of Members with Skill Level 30
SKL10	Number of Members with Skill Level 10
EQUIP	Number of Equipment Types
ACTIV	Number of Total Job Activities Performed

(continued)

Table 2. (concluded)

<u>Variable Name</u>	<u>Variable Description</u>
TMACT	Number of Job Activities Performed by Team Acting as a Unit
INDACT	Number of Job Activities Performed by Individuals
GRPACT	Number of Job Activities Performed by Small Groups within the Team
EMERESTB	Indication of the Emergent or Established Nature of the Team

All variables are those data points collected on each team.

- o approximately 200 different company types in approximately 60 different battalion types,
- o approximately 100 different separate company types, and
- o approximately 10 different detachment types.

These types were represented by approximately 1420 units (approximately 580 battalions, 450 separate companies, and 390 detachments).

Based on the information obtained from the service schools, 204 TOEs were identified as active. From these, 109 were chosen as candidates for the present study. Excluded TOEs were those not in the selected subject areas, those currently being phased out, or command and control units. (Command and control units did not fit the goals of the ARI research effort.) A total of 798 battalions and separate companies was identified as active under the 204 TOEs and 480 of the total were covered by the 109 selected TOEs.

The final number of units that were selected for inclusion in the FORSCOM sample was 148 (68 battalions and 80 separate companies). The number of battalions and separate companies selected per TOE was determined on a proportionate basis that incorporated a 20% sample. The total number of units under each TOE was determined. Then, 20% of the total, rounded to the nearest unit, were chosen. Specific units were randomly selected with the restriction that only one unit per TOE was allowed for a given installation (e.g., the five infantry battalions under TOE 07-015H were drawn from separate installations instead of from the same division or installation). Table 3 gives the revised sampling plan and lists the installations that were contacted.

DATA

Requirements. As previously stated, Phase I was to produce a list of Army teams and demographic information on each team. Coordination with the U. S. Army Training and Doctrine Command (TRADOC) at Fort Monroe, Virginia established a point of contact at each of the 13 service schools. The point of contact had subject matter experts identify all teams in TOEs for which the school is the proponent. After that, each school was required to complete a questionnaire on each team that was identified. Mellonics compiled the data for computer reduction.

The word company is used to mean battery and troop, as well as, company. Battalion is used to represent both battalion and squadron.

Table 3

REVISED SAMPLING PLAN OF PHASE II OF
THE ARMY TEAM SURVEY

<u>Installation</u>	<u>Number of Battalions</u>	<u>Number of Separate Companies</u>	<u>Number of Total Units</u>
Fort Hood	8	7	15
Fort Bragg	10	12	22
Fort Ord	3	4	7
Fort Lewis	8	4	12
Fort Stewart/Hunter	2	1	3
Schofield Barracks	2	2	4
Fort Carson	4	3	7
Fort Riley	5	6	11
Fort Polk	4	2	6
Fort Campbell	10	7	17
Fort Bliss	4	3	7
Fort Benning	3	7	10
Fort Knox	2	4	6
Fort Richardson/ Wainwright	3	3	6
Fort Eustis	0	7	7
	—	—	—
TOTAL	68	72*	140

☆

Eight separate companies were dropped from the sample because of logistics, i.e., each one was at a different installation from those listed above and their inclusion would have exceeded the time available to conduct the present survey.

Phase II required coordination with FORSCOM at Fort McPherson, Georgia. For this phase points of contact were established at 15 major installations. Each point of contact was required to complete questionnaires on teams that exist within units at his installation covered by TOE numbers supplied by Mellonics and ARI.

Collection. The focus of this report is the collection and analysis of school questionnaire data.

Of the 13 schools, 11 supplied the requested information. One school, the Military Police School, stated that according to the definition used, they had no teams and thus, completed no service school questionnaires. The other school, the Academy of Health Sciences, prepared extensive team identification worksheets, but failed to complete descriptive questionnaires for each of the listed teams.

In order to provide for an unbiased survey, the research team agreed to allow each school to interpret the definition of team that was provided. Phone contacts were established with all schools for the purpose of insuring that each school had received all materials that had been sent it. The schools were permitted to ask questions for clarification purposes. In sum, each school handled the survey response in a slightly different manner.

Several schools only identified teams that were specific to the school's subject area. These were the following:

- Air Defense Artillery
- Aviation
- Missile and Munitions
- Ordnance
- Quartermaster
- Signal
- Transportation.

In particular, the Air Defense Artillery School said that most of their soldiers trained and performed as "sections" and not as teams. Apparently, the school felt that the organization of TOEs for which it is the proponent does not lend itself to a breakdown by teams, at least, according to the definition used in this study.

The Infantry School provided a unique interpretation in three areas - the rifle squad, the antitank section, and the scout section. For example, the rifle squad was used as a referent for one team. The school also said the rifle squad was composed of fire teams and machine gun teams. In other words, it was possible for one team member to belong to more than one team. The justification given was that sometimes the rifle squad is the team while at other times, it is the fire team or machine gun team that is the operational unit. This anomaly was not detected in any of the other service school teams.

Visual inspection of the data revealed that the team referent may have been too global for some teams. For example, Infantry described one "team" as the "Communication Teams". This single "team" of approximately 20 individuals appeared to be composed of several smaller teams. Without specific follow-up on these inconsistencies, it is impossible to know what the true team referent should have been. Time and resource constraints prevented follow-up clarifications. Thus, all responses were treated as final.

In addition to the Military Police School and the Academy of Health Sciences, one other school, the Signal School, did not provide complete information. All the teams identified on the team identification worksheets did not have corresponding team questionnaires. This was true for approximately half of the identified teams in the Signal School. This was noticed to a smaller extent in several other schools, i.e., one to five teams may not have had corresponding team questionnaires.

A final problem was missing data on several of the variables. Table 4 lists the variables and number of missing data cases.

Table 4
MISSING DATA

<u>Variable Description</u>	<u>Missing Cases</u>
Number of Equipment Types	52
Number of Total Job Activities	339
Number of Activities Performed by Team	339*
Number of Activities Performed by Individuals	339*
Number of Activities Performed by Group	339*
Indication of Team as Either Emergent or Established	299

* Data for these variables were available only when data for the Total Job Activity variable were available.

RESULTS AND DISCUSSION

RESULTS

Phase I produced team descriptions from 11 of the 13 schools that were contacted.

The service school questionnaires identified 1156 teams in 11 subject areas. These teams were then coded according to the 24 variables listed earlier and then summarized. Fourteen of the variables had ratio scales and are characterized by the descriptive statistics given in Table 5. (See Appendix E for the complete print-out of the 24 variables produced by the FREQUENCIES and CROSSTABS programs of SPSS.)

Service Subject Area. The four combat arms (Infantry, Armor, Air Defense Artillery, and Field Artillery) constituted 76% of the identified teams. The greatest number of teams was found in Field Artillery (374) while the least number was found in Missile and Munitions (12). Table 6 gives a summary of the service subject area data.

Battalion and Company TOEs. A total of 187 TOE numbers was delineated which was subsumed by 117 battalion or separate company TOE numbers. For both of these variables, the mode was an Armor TOE number. For the battalion TOE, two were found that had a total of 33 teams. In the company TOE, 17 teams were the greatest number found in any one of the identified TOEs.

Size. Including the one team with only one member, 85% of the teams were composed of 1-11 members. Table 7 presents a summary of the size variable. Teams were found to range in size from 1-61 members with the greatest number (253) being 3-man teams.

Position Types. Position types on teams ranged from 1-28, with 99% of the total number of teams having 15 or fewer position types. The most frequent (325 occurrences) was the 3-position team.

Rank Types. Rank types ranged from zero to seven when the leader was excluded. 393 teams were found to have two different ranks.

MOS Types. Over half of the teams, 59% (682), were homogeneous according to MOS type. In all, teams ranged in composition from all individuals having the same MOS to a maximum of 22 different MOS types.

Table 5

DESCRIPTIVE STATISTICS FOR THE FOURTEEN
RATIO SCALED VARIABLES

Variable	Mode*	Mean	Standard Deviation	Range
Size	3(253)	6.694	6.451	1-61
Position Types	3(325)	4.317	2.828	1-28
Rank Types	2(393)	2.526	1.229	0-7
MOS Types	1(682)	2.004	1.911	1-22
Secondary Leaders	0(781)	.477	.85	0-6
Number with Skill Level 40 or above	0(705)	.544	1.389	0-37
Number with Skill Level 30	0(651)	.614	1.011	0-15
Number with Skill Level 20	1(584)	1.902	2.522	0-22
Number with Skill Level 10	2(252)	3.177	4.083	0-40
Equipment Types**	1(302)	3.896	3.833	1-49
Job Activities (Total)**	1(393)	4.913	5.283	1-23
Job Activities (Team)**	1(445)	1.010	1.388	0-8
Job Activities (Individual)**	0(473)	2.416	4.696	0-50
Job Activities (Small Group)**	0(628)	1.565	3.588	0-18
Emergent-Established Scale**	1(424)	1.912	1.118	----

Number in parentheses is the number of teams with that mode.

Data contain missing values.

Table 6

TEAM FREQUENCIES BY SERVICE SUBJECT AREA

<u>Service Subject Area</u>	<u>Number</u>	<u>Relative Frequency</u>	<u>Cumulative Frequency</u>
Infantry	191	16.5%	16.5%
Armor	289	25.0%	41.5%
Air Defense Artillery	24	2.1%	43.6%
Field Artillery	374	32.4%	76.0%
Engineer	58	5.0%	81.0%
Quartermaster	25	2.2%	83.2%
Missile and Munitions	12	1.0%	84.2%
Aviation	19	1.6%	85.8%
Ordnance	30	2.6%	88.4%
Transportation	15	1.3%	89.7%
Signal	119	10.3%	100.0%
TOTAL	1156	100.0%	

Table 7

TEAM FREQUENCIES BY SIZE OF TEAM

<u>Number of Members</u>	<u>Absolute Frequency</u>	<u>Relative Frequency</u>	<u>Cumulative Frequency</u>
1	1	.1%	.1%
2	183	15.8%	15.9%
3	253	21.9%	37.8%
4	159	13.8%	51.6%
5	103	8.9%	60.5%
6	104	9.0%	69.5%
7	37	3.2%	72.7%
8	45	3.9%	76.6%
9	44	3.8%	80.4%
10	20	1.7%	82.1%
11	44	3.8%	85.9%
over 11	163	14.1%	100.0%
TOTAL	1156	100.0%	

Secondary Leaders. Sixty-seven percent (781) of the 1156 teams did not have any secondary leaders.

Skill Level. Over half of the teams, 61% (705), had no member with a skill level 40 or above. In fact, 31.4% (363) have only a single member with a skill level 40 or above.

It was found that 56.3% (651) of Army teams have no members with a skill level 30 and 34.8% (402) have only one member at a 30 skill level. For skill level 20, there are 167 (14.4%) teams that have no members with the skill. There are, however, 50.5% (584) that have only one member with the skill level. In contrast, there are 924 (79.9%) teams with four or fewer members with skill level 10.

Equipment Types. Major pieces of equipment appear to be small in number for teams since 1070 (96.9%) teams use 10 or fewer.

Activities. Of the total number of activities reported, 54.5% of the teams perform one activity as a team unit, 57.9% have no activities performed by individuals, and 77.5% have no activities performed by groups smaller than the team.

Established-Emergent. With 857 teams of the 1156 reported, 76.1% were either established or more established than emergent (49.5%, the mode, were rated as established). The mean was 1.912, i.e., Army teams are more established than emergent.

Distribution of Rank. The rank of the team leader varied from E3 to O4, with most teams (32.4%, 374) having an E5 as a leader. The lowest rank on the team varied from E3 to WO, but was an E3 for most teams (70.0%, 809). Excluding the leader, the highest rank varied from E3 to O3 with E4 being the highest rank after the leader (37.5%, 434).

MOS Distribution. Leader MOSs were widely distributed throughout the 1156 teams. One hundred ninety-nine different MOSs (including skill level designation) were identified. Table 8 presents the top five leader MOSs and the top five dominant MOSs of the team. There were only 45 teams that had two dominant MOSs, i.e., these teams had two MOSs with the same number of members possessing one or the other.

Contingency Tables. The study team concluded that future analyses would require guidance in determining which combinations of variables would offer the best understanding of team structure. Thus, the CROSSTABS program of SPSS was used to develop 18 two-way contingency

Table 8
MOS DISTRIBUTION

<u>Leader MOS</u>	<u>Absolute Frequency</u>	<u>Relative Frequency</u>
13A00	47	4.1%
63B30	44	3.8
94B40	41	3.5%
94B30	40	3.5%
13Y5M	38	3.3%

<u>Dominant MOS</u>	<u>Absolute Frequency</u>	<u>Relative Frequency</u>
94B	87	7.5%
63B	69	6.0%
11B	66	5.7%
76Y	58	5.0%
13E	50	4.3%

tables of 10 variables. Table 9 provides a list of the 10 tables that were generated. These tables, given in Appendix E, will provide ARI with a preliminary overview, from which to formulate more extensive and comprehensive analyses. Because of the preliminary nature of these data, however, no report or discussion of these tables is given.

DISCUSSION

The demography of Army teams, as described in the Results section, is evident. The data document what was intuitive for quite some time. The average Army team has 6.7 members who fill 4.3 positions, has 2.5 ranks represented with members categorized under 2.0 MOSs. Each team has 0.5 members with skill level 40 or above, 0.6 with skill level 30, 1.9 with skill level 20, and 3.1 with skill level 10. The team uses 3.9 pieces of equipment while performing 4.9 activities of which 10. is performed by the team as a unit, 2.4 by individuals, and 1.6 by small groups other than the full team. The team tends to be more established than emergent.

Typically, the rank of the team leader is E5, but more often, he or she possesses an officer MOS - 13A00. Rank representation on the team ranges from E3 to E4, excluding the leader. Team homogeneity is represented by a 948 MOS in most cases.

It is apparent from the plethora of information gathered from the service school survey effort, many more analyses of the data will be possible. First, however, it would be useful if data inconsistencies were eliminated by follow-up communication with the respondents. Then when this survey information is correlated with the FORSCOM survey, the potential for full documentation of the structure and activities of Army teams will be enhanced.

Table 9

CONTINGENCY TABLES - COMBINATIONS OF VARIABLES

SIZE by RNKNUM

SIZE by SCNDLDR

SIZE by EMERESTB

SIZE by SKL40

SIZE by SKL30

POSNUM by RNKNUM

POSNUM by SCNDLDR

POSNUM by EMERESTB

POSNUM by ACTIV

SKL40 by ACTIV

SKL40 by EMERESTB

SKL30 by ACTIV

SKL30 by EMERESTB

SKL20 by ACTIV

SKL20 by EMERESTB

SKL10 by EMERESTB

SCNDLDR by ACTIV

EMERESTB by ACTIV

REFERENCES

1. Boguslaw, R. & Porter, E. H. Team functions and training. In R. M. Gagne's (ed.) Psychological principles in system development, New York: Holt, Rinehart, and Winston, 1962.
2. Meister, D. Behavioral foundations of system development. New York: John Wiley & Sons, Inc., 1976.

APPENDIX A

RAW DATA

(Bound separately in seven volumes and was
only issued with the original copy of the report.)

APPENDIX B

WORKSHEET AND QUESTIONNAIRES

Exhibit B-1. Team Identification Worksheet distributed
to school personnel for purpose of
obtaining a listing of teams by TOE number.

Team Identification Worksheet

TOE number: _____

Platoon or Section
(enter platoon or sec
the team is found in)

Team Name(s)
(enter all names formal and informal)

Exhibit B-2. Team Questionnaire For School Personnel.
Service school personnel were instructed
to complete one questionnaire for each
item listed on the Team Identification
Worksheet.

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.

<u>Position</u>	<u>Authorized Rank</u>	<u>Authorized MOS</u>	<u>Major Equipment</u>
-----------------	------------------------	-----------------------	------------------------

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

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 activities 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 problems.

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 response 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 between two extremes.

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

- ☐ Established
- ☐ More established than emergent
- ☐ About equally established and emergent
- ☐ More emergent than established
- ☐ Emergent

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

Exhibit B-3. Army Team Operations Survey - Unit Questionnaire Package (Instruction Booklet). Each FORSCOM unit that was part of the sample was given one Instruction Booklet. There were four versions of pages three, one for each of the four types of organizational units in the Army. There were 13 versions of page four (a list of team types), one for each of the 13 service schools.

Instruction
Booklet

--	--	--	--	--

1-5

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

--	--	--	--	--	--

6-13

ARMY TEAM OPERATIONS SURVEY

UNIT QUESTIONNAIRE PACKAGE

This survey will provide the U.S. 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 or 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, 3rd Inf.)
- What is a home telephone number at which you can be
contacted if clarification of your answers is necessary? _____



Army Research Institute for the
Behavioral and Social Sciences
Fort Belvoir Field Unit



DATA REQUIRED BY THE PRIVACY ACT OF 1974

TITLE: Army Team Operations Survey

PRESCRIBING DIRECTIVE: AR 70-1

AUTHORITY: 10 USC Sec 4503

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 U.S. 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.

POINT OF
CONTACT FOR
THE ARMY RESEARCH
INSTITUTE:

If you have any questions about this survey (interpretation of questions, etc.), please call or write:

Ms. Dorothy L. Finley
Army Research Institute
P.O. Box 2086
Fort Benning, GA 31905
Autovon 835-5589/3617

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 questionnaire are enclosed with this instruction booklet. Fill in one questionnaire for each company found in the company in your battalion which is organized under the TOE number 100. In the upper right corner of the first page of this booklet. If there is more than one company of this type in your battalion (for example, rifle companies in an infantry battalion), select only one of them (the most representative) for use in this survey.

- How many companies in your battalion are organized under this TOE? ☐ 14
- What is the current assigned strength for the company which you selected for this survey? ☐ 15-17

INSTRUCTIONS FOR IDENTIFYING TEAMS

To help you specify teams within this unit, a list of teams is provided on the next page. This list was generated by personnel in the TRADOC school which has proponentcy 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 not interested in teams which mainly perform command and control and staff functions above platoon level.

Reproduced from
best available copy.

General copies of the team questionnaire are enclosed with this instruction booklet. Fill in one questionnaire for each team found in the battery in your battalion which is organized under the TOE number listed in the upper right corner of the first page of this booklet. If there is more than one battery of this type in your battalion (e.g., field artillery batteries in a field artillery battalion), select only one of them (the most representative) for use in this survey.

- How many batteries in your battalion are organized under this TOE? ☐ 14
- What is the current assigned strength for the battery which you selected for this survey? ☐ 15-17

INSTRUCTIONS FOR IDENTIFYING TEAMS

To help you specify teams within this unit, a list of teams is provided on the next page. This list was generated by personnel in the TRADOC school which has proponentcy 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 route") are not to be included in the present study.
- (c) We are also not interested in teams which mainly perform command and control functions above platoon level.

Reproduced from
best available copy.

Several copies of the team questionnaire are included with this instruction booklet. Fill in one questionnaire for each team found in the unit, in your squadron which is organized under the TOE number listed in the upper right corner of the instruction booklet. If there is more than one troop of this type in your squadron (e.g., mounted cavalry troops in an armored cavalry squadron) select only one of them (the most representative) for use in this survey.

- How many troops in your squadron are organized under this TOE? 14
- What is the current assigned strength for the troop which you selected for this survey? 15-17

INSTRUCTIONS FOR IDENTIFYING TEAMS

To help you specify teams within a unit, a list of teams is provided on the next page. This list was generated by personnel in the T-100 school which has proponentcy 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 area") cannot be included in the present study.
- (c) Do not include staff jobs which mainly perform administrative control and staff jobs at the platoon level.

Reproduced from
best available copy.

Overhead copies of the team list are to be distributed and enclosed with this instruction booklet. Fill in one questionnaire for each team found in your unit. Check the job 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.

☐ 14

• What is the current assigned strength for your unit? ☐☐☐ 15-17

INSTRUCTIONS FOR IDENTIFYING TEAMS

To help you specify teams within this unit, a list of teams is provided on the next page. This list was generated by personnel in the TCMDOC school which has propensity 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 not interested in teams which mainly perform command and control and staff functions above platoon level.

Reproduced from
best available copy.

AIR DEFENSE

ACQUISITION RADAR SECTION
FIRE DISTRIBUTION SECTION
FIRE DISTRIBUTION SUPPORT SECTION
POWER - AIR CONDITIONER SUPPORT SECTION
IMPROVED HAWK MECHANICAL SUPPORT SECTION
ELECTRONICS AND RADAR SUPPORT SECTION
SUPPORT PLATOON HQS.
SECURITY SECTION
ELECTRONICS SECTION
COMMAND - ACQUISITION SECTION
FIRING SECTION
ASSEMBLY SERVICE MAINTENANCE SECTION
MISSILE GROUND HANDLING SUPPORT SECTION
GROUND GUIDANCE EQUIPMENT SUPPORT SECTION
RADAR SECTION
PLATOON SUPPORT SECTION
FIRING SECTION - TOWED
FIRE CONTROL SECTION
SYSTEM MAINTENANCE SECTION
VULCAN SQUAD
CHAPARRAL SQUAD
MISSILE GROUND HANDLING EQUIPMENT SUPPORT SECTION
ENGINEER SECTION

ARMOR

AMBULANCE TEAM
MEDICAL AIDMAN TEAM
CLINICAL SP TEAM
RATT TEAM
TRACK VEHICLE MECH TEAM
FOOD SERVICE OR MESS TEAM
AMMO HANDLER TEAM
RECOVERY TEAM
TANK TURRET MECH TEAM
WELDER TEAM
TANK CREW (M551)
REDEYE TEAM
GROUND SURVEILLANCE RADAR CREW
SCOUT SQUAD
HEAVY MORTAR SQUAD
TANK CREW (M60A1)
COMMO TEAM
AVLB TEAM
FIELD C&E EQUIPMENT MECH TEAM
ATTACK HELICOPTER CREW
OBSERVATION CREW
AIRFRAME REPAIRMAN TEAM
AH HELICOPTER REPAIRMAN TEAM
AIRCRAFT TURB ENGINE REPAIRMAN TEAM
TRANSPORT CREW

UH-1 HELICOPTER REPAIRMAN TEAM
OH HELICOPTER REPAIRMAN TEAM
AEROSCOUT CREW
RECONNAISSANCE (AERORIFLE) SQUAD
AEROWEAPONS CREW
AVIONICS MECH TEAM
WHEELED VEHICLE MECH TEAM
AH-16 REPAIRMAN TEAM
AIRCRAFT ARMAMENT MECH TEAM
AIRCRAFT FUEL HANDLER'S TEAM
UH-1 HELICOPTER CREW
RADIO OPERATOR TEAM
RIFLE SQUAD
POWER GENERATOR OP/MECH TEAM
AH-1G MECH TEAM
UH-1 MECH TEAM
AIRCRAFT ROTOR REPAIRMAN TEAM
AIRMOBILE SCOUT SQUAD
ANTITANK (TOW) TEAM
RADAR OPS TEAM
SGL TURB ENGINE REPAIRMAN TEAM
AIRCRAFT FIRE CONTROL REPAIRMAN TEAM
RCN SQUAD
RADIO OP TEAM
POWER TRAIN REPAIRMAN TEAM

AVIATION

ATC TOWER

GCA

U-21 FLIGHT CREW

UH-1 CREW

AH-1G CREW

CH-47 CREW

CH-54 CREW

OV-1B CREW

OV-1C CREW

CONTROL TOWER

FIRE/CRASH RESCUE

FLIGHT OPERATIONS CENTER/FLIGHT
COORDINATION CENTER TEAM

ENGINEER

MAINTENANCE SECTION

MEDICAL SECTION

MESS SECTION

RADIO TELETYPE TEAM

ENGINEER SQUAD

MAINTENANCE TEAM

MESS TEAM

COMMO SECTION

PIPELINE CONSTRUCTION SQUAD

COMMO TEAM

BRIDGE SECTION

HAB CREW

DEV CREW

CONSTRUCTION SQUAD

HEAVY RAFT SECTION

AVLB CREW

FIRE FIGHTING TEAM

GEODETIC SURVEY TEAM

PIPELINE CUTTERHEAD TEAM

HOPPER OPERATION TEAM

FIELD ARTILLERY

HQ S SUPPORT SEC

MESS SEC

MAINTENANCE SEC

COMMUNICATIONS SEC

FORWARD OBSERVER SEC

FIRE DIRECTION CENTER

HOWITZER SEC

AMMUNITION SEC

COMMUNICATIONS-ELECTRONICS SEC

SURVEY SEC

FIRING SEC

ASSEMBLY-TRANSPORTATION SEC

BATTERY CONTROL CENTER SEC

SUPPORT PLATOON

WIRE SEC

RADIO SEC

SECURITY SEC

COUNTER MORTAR RADAR SEC

AIR DEFENSE SEC

BATTALION SUPPLY SEC

BATTALION MAINTENANCE SEC

BATTERY HQ'S SEC

MEDICAL SEC

OPERATIONS/FIRE DIRECTION SEC

SURVEILLANCE SEC

MET SEC

HQ'S/SVC BATTERY MESS SEC

FIRING BATTERY MESS TEAM

SURVEY INFORMATION SEC

COMMUNICATIONS CENTER SEC

MICROWAVE SEC

BATTALION SUPPLY & MAINTENANCE SEC

BATTALION AMMUNITION SEC

BATTERY HQ'S SUPPORT SEC

BATTERY MAINTENANCE SEC

ELECTRONICS-MECHANIC SEC

ELECTRONICS-CONTROL SEC

TECHNICAL SUPPLY SEC

SUPPORT EQUIPMENT MAINTENANCE SEC

COMMUNICATION MAINTENANCE SEC

AMMUNITION SECURITY SEC

AVIATION SEC

AIRCRAFT MAINTENANCE SEC

RADIO/TELETYPE SEC

FLIGHT OPERATIONS SEC

DIRECT SUPPORT AIRCRAFT MAINTENANCE SEC

DIRECT SUPPORT SEC

GENERAL SUPPORT SEC

HEALTH SCIENCES

SUPPLY	CONTROL TEAM
MAINTENANCE SECTION (AKA MOTOR	DISPENSARY TEAM
POOL SECTION)	MENTAL HYGIENE SECTION
AIR AMBULANCE CREW	CONVALESCENT CARE WARD(S)
FLIGHT OPERATIONS SECTION	INTENSIVE CARE WARD(S)
AIRCRAFT MAINTENANCE SECTION	INTERMEDIATE CARE WARD(S)
DINING SECTION (AKA FOOD SERVICE	MINIMAL CARE WARD(S)
SECTION)	WARDS (VARYING TYPES)
AMBULANCE CREW (TEAM)	REMOVABLE PROSTHETICS
OPERATING ROOM (OR) TEAM	FIXED PROSTHETICS
(AKA SURGICAL TEAM)	TEAM BB - MEDSON SPT
DENTAL TEAM	TEAM BC - MED SUP (LG)
LITTER (BEARER) TEAM	TEAM BD - INV CONTROL (SM)
EMERGENCY MEDICAL TEAM (EMT)	TEAM BE - MED INV CONTROL (LG)
(AKA EMERGENCY RECEIVING/	TEAM EA - MED EQUIP MAINT (SM)
DISPOSITION AREA, OUTPATIENT	TEAM EB - MED EQUIP MAINT (MED)
TREATMENT)	TEAM EC - MED EQUIP MAINT (LG)
WARD (TEAM)	TEAM GA - SPECTACLE FAB (SM)
COMMUNICATIONS SECTION	TEAM GP - SPECTACLE FAB (LG)
ADMINISTRATIVE AND DISPOSITION	TEAM PF - PATIENT REC/REP
(A&D) SECTION (AKA PATIENT	TEAM LB - ENVIRONMENTAL SANITATION
ADMINISTRATION DIVISION)	TEAM LC - ENVIRONMENTAL ENGR SVC
MEDICAL SUPPLY SECTION	TEAM LD - EPIDEMIOLOGY
CENTRAL MATERIEL SUPPLY (CMS)	TEAM LE - ENTOMOLOGY LAB
INTENSIVE CARE WARD (TEAM)	TEAM NA - BLOOD PROCESSING
INTERMEDIATE CARE WARD (TEAM)	TEAM NB - BLOOD COLLECTING
MINIMAL CARE WARD (TEAM)	TEAM QC - OUTPATIENT SVC
PHARMACY	TEAM SF - INTENSIVE CARE WARD
LABORATORY	TEAM SC - INTERMEDIATE CARE WARD
X-RAY	TEAM SH - MINIMAL CARE WARD
AIR TRAFFIC CONTROL	TEAM SI - CONVALESCENT CARE WARD
APPROACH CONTROL	TEAM SJ - CMS
AIRFIELD SERVICE SECTION	TEAM KA - SURG
MOTOR MAINTENANCE SECTION	TEAM KB - ORTHO
ORG ACFT MAINTENANCE SECTION	TEAM KC - SHOCK - INT CARE
IS ACFT MAINTENANCE SECTION	TEAM KD - MAXILLOFACIAL
AIRCRAFT MAINTENANCE SECTION	TEAM KE - NEURO SURG
STOCK CONTROL	TEAM KF - THORACIC
QUALITY CONTROL	TEAM KG - ANESTHESIOLOGY
RECEIVING/SHIPPING	TEAM KH - OPHTAL
STORAGE/ISSUE	TEAM KI - ENT
LOCATOR AND DOCUMENT CONTROL	TEAM LL - DERMATOLOGY
MEDICAL MAINTENANCE	TEAM LM - MED TREAT (CHEM AG)
OPTICAL FABRICATION DIVISION	TEAM LN - RENAL-ELEC MET
HOSPITAL LAUNDRY	TEAM HE - CENTRAL DENTAL LAB
RADIOLOGY	TEAM JA - VETERINARY SVC (SM)
UNIT SUPPLY SECTION	TEAM JB - VETERINARY SVC (LG)
ORAL SURGERY	TEAM JC - VETERINARY SMALL ANIMAL DISP
SURVEY TEAM	TEAM JD - VETERINARY SMALL ANIMAL HOSP

DEFENSE

RADIO TEAM

WIRE TEAM

MESSAGE CENTER

TRANSPORTATION SEC

SUPPLY SEC

MESS TEAM/SEC

BN MAINT PLAT

AID STAT SEC

EVAC SEC

SUPPLY/TRANS SEC

CONSOLIDATED MESS

AID STAT/EVAC SEC

COMMO SEC

BN FOOD SEC/SEC

MAINT SVC

RIFLE PLAT HQ

M60-MG TEAM

RIFLE SQUAD

81mm MORT SQUAD

81mm MORT SEC HQ

ANTIARMOR SQUAD (100)

DRAGON TEAM

RECON SEC

SNIPER TEAM

MAINT TEAM

SCOUT SQUAD

HVY MORT PLAT HQ

HVY MORT SQUAD

ANTIARMOR SQUAD

REDEYE TEAM

FLIGHT OPERATIONS SEC

AIR TRAFFIC CONTROL PIT HQ

FLIGHT COORDINATION CTR

AIRFIELD TERMINAL CONTROL SEC

PATHFINDER TEAM

AIRLIFT SEC

WEAPONS SEC

AIRCRAFT ORG MAINT SEC

AIRFIELD SVC SEC

AIRFIELD DS MAINT SEC

ARMED HELICOPTER SEC

AIRCRAFT ARMT REPAIR SEC

UTILITY SUPPORT SEC

LAISSON SEC

SURVEILLANCE SEC

SUPPORT SEC

MILITARY POLICE

M-0 MACHINEGUN

40mm RECOILESS RIFLE

.50 CAL. MACHINEGUN

MISSILE AND MUNITIONS

SECURITY SQUAD

TEAM FB - EOD TEAM - CONVENTIONAL AUG

TEAM FC - EOD TEAM - NUCLEAR AUG

TEAM FD - EOD TEAM - TOXIC CHEM AUG

TEAM FE - EOD TEAM - VIP SUPPORT AUG

TEAM BA - TECHNICAL SUPPLY TEAM

TEAM EB - MSL MAINT SHOP CONTROL TEAM

TEAM EC - LCSS TEST EQUIPMENT DS/GS TEAM

TEAM ED - TOW/DRAAGON MSL MAINT DS/GS TEAM

TEAM EE - SHILLELAGH MSL MAINT DS/GS TEAM

TEAM DF - REDEYE MSL MAINT DS/GS TEAM

TEAM EG - LANCE MSL MAINT DS/GS TEAM

TEAM EK - CHAPPARAL/VULCAN ELET/FAAR
MAINT DS/GS TEAM

GRADUATE

TEAM FA - DECONTAMINATION (BDE)
TEAM FB - DECONTAMINATION (DIV)
TEAM JA - CBR ELEMENT (ONE SHIFT)
TEAM JB - CBR ELEMENT (TWO SHIFTS)
TEAM KA - CBR SAMPLING AND ANALYSIS
TEAM LA - CBR RECONNAISSANCE
TEAM LB - CBR RECONNAISSANCE (SPECIAL)
TEAM NA - MECHANIZED FLAME (BN)
TEAM NB - MECHANIZED FLAME (DIV)
TEAM OA - CBR STAFF
TEAM PA - CHEMICAL COMBAT SUPPORT
MOBILE MAINTENANCE
TEAM BA - COMMUNICATIONS AND ELECTRONICS MAINTENANCE
TEAM DB - POWER GENERATION EQUIPMENT MAINTENANCE
TEAM DC - ENGINEER EQUIPMENT MAINTENANCE
TEAM DD - MATERIALS HANDLING EQUIPMENT MAINTENANCE
TEAM DE - MOTOR SERGEANT
TEAM DF - WHEEL VEHICLE MAINTENANCE
TEAM DG - TRACK VEHICLE MAINTENANCE
TEAM DH - WHEEL/TRACK VEHICLE MAINTENANCE
TEAM DI - AUTOMOTIVE MAINTENANCE (WHEEL)
TEAM DJ - AUTOMOTIVE MAINTENANCE (TRACK)
TEAM DK - AUTOMOTIVE MAINTENANCE (WHEEL)
TEAM DL - AUTOMOTIVE MAINTENANCE (TRACK)
TEAM DM - QM HEAVY EQUIPMENT MAINTENANCE
TEAM EA - FUEL/ELECTRICAL SYSTEMS REPAIR
TEAM EB - FIELD ARTILLERY REPAIR
TEAM EC - TURRET ARTILLERY REPAIR
TEAM ED - AUTOMOTIVE REPAIR TRACK/WHEEL
TEAM EE - FIRE CONTROL INSTRUMENT REPAIR
TEAM EF - MACHINE SHOP SUPPORT
TEAM EG - AUTOMOTIVE REPAIR
TEAM EH - TURRET ARTILLERY REPAIR (GS)
TEAM EI - FIELD ARTILLERY REPAIR (GS)
TEAM EJ - MAINTENANCE SUPPORT
TEAM EK - MAINTENANCE SUPPORT
TEAM EL - CONSTRUCTION EQUIPMENT REPAIR
TEAM EM - SMALL ARMS REPAIR
TEAM EN - CHEMICAL EQUIPMENT REPAIR
TEAM EO - POWER GENERATION REPAIR
TEAM EP - TIRE REPAIR
TEAM EQ - REFRIGERATION REPAIR - MOBILE
TEAM ER - MECHANICAL AND METAL REPAIR
TEAM ES - METAL BODY AND WELDING REPAIR
TEAM ET - AUTOMOTIVE REPAIR SUPERVISOR
TEAM EU - SMALL ARMS REPAIR
TEAM EV - AUTOMOTIVE REPAIR

QUARTERMASTER

FARE TEAM

FSSP TEAM

LAUNDRY TEAM

DECONTAMINATION TEAM

BAKERY TEAM

BATH TEAM

SIGNAL

C-E MAINTENANCE TEAM
ADLT TEAM
TEL COMMUNICATION CENTER TEAM
(AKA COMM CENTER TEAM)
MESSENGER TEAM
RADIO WIRE INTERGRATION (RWI) TEAM
RADIO TELETYPEWRITER (RTTW) TEAM
(AKA AM VOICE TEAM, AM SINGLE-SIDEBAND TEAM, HF TEAM)
MANUAL CENTRAL OFFICE TEAM
(AKA SWITCHBOARD TEAM)
WIRE TEAM
SWITCHBOARD TEAM
MESSAGE CENTER TEAM
TAL RELAY SECTION TEAM
MULTICHANNEL COMMUNICATIONS TEAM (AKA VHF TEAM)
RADIO RELAY TEAM, RADIO TERMINAL TEAM, RADIO REPEATER TEAM, LINE SITE TEAM, CABLE REPEATER TEAM, PCM TEAM, PCM TEAM, CARRIER TEAM, MULTILINKER (MUX) TEAM, TELEPHONE TERMINAL TEAM, VHF TEAM)
TACTICAL MICROWAVE TEAM
MULTIPLEX TERMINAL TEAM
TELEPHONE REPEATER TEAM (AKA CABLE ATTENDED REPEATER TEAM)
RADIO RELAY TEAM CHIEF
POLE LINE TEAM
CABLE SPLICING TEAM
TELEPHONE SWITCHBOARD TEAM
PHOTO TEAM
TACTICAL CIRCUIT CONTROL TEAM
MANUAL CENTRAL OFFICE TEAM
RADIO TEAM (AKA AM RADIO TEAM)
CIRCUIT CONTROL TEAM
PHOTOGRAPHIC LAB TEAM
VOICE TEAM
FM TEAM
SIGNAL MAINTENANCE TEAM
FIXED STATION HF RADIO TEAM
MICROWAVE RADIO TEAM
MULTIPLEXER TERMINAL TEAM
TELETYPEWRITER RELAY TEAM
TELETYPEWRITER SWITCHING TEAM
TROPOSPHERIC TEAM (AKA TROPO TEAM)
FIXED STATION TECHNICAL CONTROL TEAM
CARRIER REPEATER TEAM
MULTICHANNEL TERMINAL TEAM
CRYPTO REPAIR TEAM (AKA CRYPTO REPAIR TEAM)
CABLE REPAIR TEAM
COMMUNICATIONS CENTER TEAM
MULTICHANNEL TEAM
CABLE INSTALLATION TEAM
MICROCABLE TEAM
MULTICHANNEL EQUIPMENT TEAM
TEAM GA, FIELD TELEPHONE SWITCHBOARD OPERATION, 12 LINES

TEAM GB, MANUAL TELEPHONE CENTRAL OFFICE, 60 LINES
TEAM GC, MANUAL TELEPHONE CENTRAL OFFICE, 120 LINES
TEAM GD, MANUAL TELEPHONE CENTRAL OFFICE, 220 LINES
TEAM GE, MANUAL TELEPHONE CENTRAL OFFICE, 660 LINES
TEAM GF, TACTICAL CIRCUIT CONTROL FACILITY
TEAM GG, COMMUNICATIONS TECHNICAL CONTROL FACILITY
TEAM GH, VIDEO TECHNICAL CONTROL FACILITY
TEAM GI, FIELD WIRE AND FIELD CABLE INSTALLATION
TEAM GJ, FIELD CABLE INSTALLATION
TEAM GK, TELEPHONE INSTALLER
TEAM GL, CABLE SPLICING
TEAM GM, WIRE AND CABLE SUPERVISION
TEAM GN, CABLE SPLICING SUPERVISION
TEAM HA, TELETYPEWRITER TERMINAL FACILITY (2HDX)
TEAM HB, TELETYPEWRITER TERMINAL FACILITY (3HDX)
TEAM HC, TELETYPEWRITER TERMINAL FACILITY (6HDX)
TEAM HD, TELETYPEWRITER TERMINAL FACILITY (4FDX)
TEAM HE, TELETYPEWRITER TERMINAL FACILITY (8HDX)
TEAM HF, TELETYPEWRITER TERMINAL FACILITY (5FDX)
TEAM HG, TELETYPEWRITER TERMINAL FACILITY (8FDX)
TEAM HH, MESSAGE CENTER
TEAM HI, MOTOR MESSENGERS
TEAM HJ, MESSENGER DISPATCH
TEAM HK, CRYPTO MATERIEL CONTROL
TEAM HL, COMMUNICATION CENTER SPECIALIST
TEAM HM, COMMUNICATION CENTER SUPERVISOR
TEAM IA, MOBILE RADIO TELETYPEWRITER, FDX
TEAM IB, MOBILE RADIO TELETYPEWRITER, HDX
TEAM IC, HF RADIO RECEIVER
TEAM ID, HF RADIO TRANSMITTER
TEAM IE, RADIO COMMUNICATION CENTRAL, MDM PWR
TEAM IF, RADIO COMMUNICATION CENTRAL, L/MDM PWR
TEAM IG, RADIO TELETYPEWRITER OPERATIONS
TEAM IH, RADIO WIRE INTERGRATION, RWI
TEAM II, MULTICHANNEL RADIO TERMINAL, LOW CAP
TEAM IJ, MULTICHANNEL RADIO REPEATER, LOW CAP
TEAM IK, MULTICHANNEL MULTIPLEX TERMINAL, LOW CAP
TEAM IL, MULTICHANNEL RADIO TERMINAL, MDM CAP
TEAM IM, MULTICHANNEL RADIO REPEATER, MDM CAP
TEAM IN, MULTICHANNEL MULTIPLEX TERMINAL, MDM CAP
TEAM IO, RADIO TERMINAL, HIGH CAP
TEAM IP, RADIO RELAY, HIGH CAP
TEAM IQ, MULTIPLEX TERMINAL, HIGH CAP
TEAM IR, TROPO SCATTER TERMINAL, SINGLE RADIO
TEAM IS, TROPO SCATTER TERMINAL, DUAL RADIO
TEAM IT, MULTIPLEX TERMINAL STATION
MULTICHANNEL REPEATER TEAM
FM RADIO TEAM
FM VOICE RADIO TEAM
INSTALLATION TEAM

TRANSPORTATION

HATCH GANG

CONTAINER HATCH GANG

BOAT CREW

AMPHIBIAN CREW

DIVING TEAM

TEAM FB - PICKET BOAT (46 ft.)

TEAM FD - HARBOUR TUG (45 ft.)

TEAM FE - PAX/CGO/PICKET BOAT (65 ft.)

TEAM FG - HARBOUR TUG (70 ft.)

TEAM FJ - HARBOUR TUG (100 ft.)

TEAM FK - OCEAN GOING TUG (126 ft.)

TEAM FL - LIQ/DRY CARGO BARGE, SP

TEAM FN - LIGHTER AMPHIBIAN, LARC LX

TEAM FO - OCEAN GOING TUG (143 ft.)

TEAM IA - DIVER TEAM

Exhibit B-4. Army Team Operations Survey - Unit Questionnaire Package (Team Questionnaire). Each unit that was part of the FORSCOM sample was given from 1-40 Team Questionnaires. The exact number depended on the size of the unit. The unit was instructed to complete one questionnaire for each team type that exists under the TOE number supplied by the research group. The TOE numbers were identified from the service schools' Team Identification Worksheets.

TEAM QUESTIONNAIRE

(Fill in one questionnaire for each team)

☐ ☐

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

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

2. What percentage of these teams in your unit are not up to full authorized strength for this team? ☐ ☐ 29-30

3. How frequently are the following types of team 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. Part (tbl, co, pl, etc.) maneuvers, exercises, tests (EIX, ARTP, etc.).	☐	☐	☐	☐	☐	☐	☐	☐	☐	32
c. Field training exercises just for the team.	☐	☐	☐	☐	☐	☐	☐	☐	☐	33
d. Classroom lectures and demonstrations which emphasize team skills.	☐	☐	☐	☐	☐	☐	☐	☐	☐	34
e. Visual team training devices.	☐	☐	☐	☐	☐	☐	☐	☐	☐	35
f. Special schools or courses for the team as a whole (in the unit).	☐	☐	☐	☐	☐	☐	☐	☐	☐	

g. Other (tbl, rbl, and other equipment)

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 (FIX, ARTH, etc.).	☐	☐	☐	☐	☐	☐	☐	☐	☐	38
c. Field training exercises <u>just</u> 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

2. 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 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):						

3. 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

Other (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. Lack of kind of equipment that the team needs to perform.	☐	☐	☐	☐	☐	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, OREI, etc.) evaluations, is the performance of this team evaluated as a complete and separate element of the unit?

Yes No Sometime *

☐ ☐ ☐

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 times a week	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:	☐	☐	☐	☐	☐	☐
b. Internal evaluation:	☐	☐	☐	☐	☐	☐

79

80

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

APPENDIX C

SCHOOL LIST AND INSTRUCTIONS SENT TO SCHOOLS

Exhibit C-1. A list of the 13 service schools contacted
during Phase I of the Army team survey.

Superintendent
Academy of Health Sciences
ATTN: HSA-TDC (LTC Richard J. Berchin)
Fort Sam Houston, Texas 78234

Commandant
U. S. Army Air Defense School
ATTN: ATSA-TD-CTD (Mr. A. P. Hendley)
Fort Bliss, Texas 79916

Commandant
U. S. Army Armor School
Directorate of Training Development
Collective Training Division
ATTN: Mr. J. W. Neely
Fort Knox, Kentucky 40121

Commander
U. S. Army Aviation Center
ATTN: ATZQ-TD-TAD (Mr. Ruben Harris)
Fort Rucker, Alabama 36362

Commandant
U. S. Army Engineer School
ATTN: ATSE-TDC (CPT D. E. Gulakowski)
Fort Belvoir, Virginia 22060

Commandant
U. S. Army Field Artillery School
ATTN: ATSF-TD-CT (CPT Sprengle)
Fort Sill, Oklahoma 73503

Commandant
U. S. Army Infantry School
ATTN: ATSH-CD-OE (Mr. R. O'Neil)
Fort Benning, Georgia 31905

Commandant
U. S. Army Military Police School
ATTN: ATZN-TDP-C (CPT G. Horton)
Fort McClellan, Alabama 36205

Commandant
U. S. Army Missile and Munitions Center and School
ATTN: ATSK-CD-OD (Mr. W. Schmidt)
Redstone Arsenal, Alabama 35809

Commandant
U. S. Army Ordnance Center and School
ATTN: ATSL-TD-TA (CPT R. Rose)
Aberdeen Proving Ground, Maryland 21005

Commandant
U. S. Army Quartermaster School
ATTN: J R. Buettner
Fort Lee, Virginia 23801

Commandant
U. S. Army Signal School
ATTN: ATSN-TD-CT (CPT E. L. Quinn)
Fort Gordon, Georgia 30905

Commandant
U. S. Army Transportation School
ATTN: ATSP-CD-OR (MAJ Larkins)
Fort Eustis, Virginia 23604

Exhibit C-2. Complete package (excluding worksheets
and questionnaires) sent to the 13
service schools.



DEPARTMENT OF THE ARMY

U. S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES
FORT BENNING FIELD UNIT, P.O. BOX 2086
FORT BENNING, GEORGIA 31905

PERI-OB

27 June 1977

SUBJECT: ARI Team Operations Survey

THRU: H. C. Strasel, Chief

TO: (Address of Service School Typed Here)

1. Reference is made to the letter, dated 31 May 1977, ATTCG-TDD-PM, HQ, United States Army Training and Doctrine Command, subject as above.
2. The Army Research Institute (ARI), Fort Benning Field Unit, and our resident contractor, Litton Mellonics, have begun a systematic study of team performance and training requirements. The initial step in the study is to conduct a survey to determine the frequency and extent of team training, evaluation, and other problems in the Army. Reference 1 reviews the need for this study, documents TRADOC's support for the effort, and states a requirement for TRADOC school support. The support requested from TRADOC schools is of utmost importance to the study. If it is properly provided, it will insure that future team research will be of use to the Army.
3. Your assistance is required in the development of the Army Team Operations Survey (ATOS) questionnaire and in the development of FORSCOM unit sampling procedures. You are asked to:
 - a. Provide a list of formal teams in your branch:
 - b. Complete a short questionnaire on each of these teams as initial information on the composition and characteristics of each team:
 - c. Provide information that will assist in developing the FORSCOM sampling plan and procedures; and



PLPI-08

27 June 1977

SUBJECT: ARI Team Operations Survey

d. Evaluate the interpretability and meaningfulness of the items in the ALOS questionnaire.

4. A set of instructions for performing these tasks is attached as inclosures 1-4. If there is any difficulty in interpreting these instructions or any questions concerning how to respond, please contact Dr. Jack B. Shelnutt of Litton Mellonics at AV 835-5589/3617/1414. If any other questions arise regarding the conduct of the study, please contact Ms. Dorothy L. Finley of ARI at the same AV number.

5. To reiterate, your inputs are very important to the success of this study. We appreciate your support and look forward to working with you.


DOROTHY L. FINLEY
Research Psychologist

as described

ARI Army Team Operations Study: Instructions for School Personnel

Contents

Inclosure 1. A definition of "team" as it is to be used in this study.

2. Instructions for providing a list of teams.
3. Instructions for completing the team questionnaire for school personnel.
4. Instructions for reviewing the questions in the Team Survey which will be sent to FORSCOM units.

Appendix A. List of selected TOE

- B. Team Identification Worksheets
- C. Team Questionnaires for school personnel
- D. A draft copy of the Team Survey which will be sent to FORSCOM units.

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.

The above definition of a "team" is not inviolate. You are asked to attempt to 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.

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 proponentcy 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.

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 bn are similar to those found in rifle companies in airmobile bn). 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

a not occurring in the present unit on the worksheet.

The above procedures are difficult, but a very important 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.

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

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 question can be meaningfully answered. If a question can not 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:

Dr. Jack B. Shelnett
Litton Mellonics
P.O. 2403
Fort Benning, Georgia 31905

Appendix A

List of Selected TOE

Appendix B

Team Identification Worksheets

(One for each company covered in
Appendix A)

Appendix C

Team Questionnaires for school

personnel

(Fill in one for each team)

Appendix D

A draft copy of the Team Survey
which will be sent to FORSCOM units
(Review it to determine its interpretability and meaningfulness)

APPENDIX D

EXACT CODING SCHEME FOR SERVICE SCHOOL DATA

ATOS CODE BOOK

<u>Column</u>	<u>Variable Name</u>	<u>Variable Label</u>	<u>Type</u>	<u>Comments</u>
1-4	TEAM	TEAM ID NUMBER	N	Numeric identifier for team
5	CARD	CARD WITHIN A TEAM	N	Card sequence number within each team (<u>i.e.</u> , data case)
6-7	BRANCH	(SAME)	N	Numeric identifier for subject school area
8-12	RNTOE	BATTALION TOE	N	Battalion TOE number
13-17	COTOE	COMPANY TOE	N	Company TOE number
18-19	SIZE	SIZE OF TEAM	N	Actual count of team members
20-21	POSNUM	NO. OF DIFF. POSITIONS	N	Number of position types represented
22-23	LDRRANK	RANK OF LEADER	A	Rank of team leader
24	RNKNUM	NO. OF DIFF. RANKS (W-O LDR)	N	Number of rank types represented excluding the leader's
25-26	LOWRANK	LOWEST RANK	A	Lowest rank
27-28	HIGHRANK	HIGHEST RANK (W-O LDR)	A	Highest rank excluding the leader's
29-33	LDRMOS	MOS OF LEADER	A	MOS of leader (including skill level)

<u>Columns</u>	<u>Variable Name</u>	<u>Variable Label</u>	<u>Type</u>	<u>Comments</u>
34-37	MOSNUM	NO. OF DIFF. MOS	N	Number of MOS types represented
36-38	DOMOS	DOMINANT MOS	A	MOS appearing most often
39-41	DOMOS2	BIMODAL DOMINANT MOS	A	Used if DOMOS is bimodal
42	SCNDLDR	NO. OF SECONDARY LEADERS	N	Number of secondary leaders, if any
43-44	SKL40	NO. WITH SKILL LEVELS 40+	N	Number with skill levels 40 and above
45-46	SKL30	NO. WITH SKILL LEVEL 30	N	Number with skill level 30
47-48	SKL20	NO. WITH SKILL LEVEL 20	N	Number with skill level 20
49-50	SKL10	NO. WITH SKILL LEVEL 10	N	Number with skill level 10
51-52	EQUIP	NO. OF DIFF. EQUIPMENT TYPES	N	Number of pieces of equipment used by team
53-54	ACTIV	NO. OF JOB ACTIVITIES (TOTAL)	N	Number of total job activities performed
55-56	TMACT	NO. OF JOB ACTIVITIES PERFORMED BY TEAM	N	Number of job activities performed by team as a unit
57-58	INDACT	NO. OF JOB ACTIVITIES PERFORMED BY INDV.	N	Number of job activities performed by individuals alone
59	EMERESTB	EMERGENT-ESTABLISHED SCALE	N	1=Established; 2=More Established Than Emergent; 3>About Equally Established and Emergent; 4=More Emergent Than Established 5=Emergent

APPENDIX E

SPSS COMPUTER RUNS

(Bound separately in a single volume and was
only issued with the original copy of the report.)

END

FILMED

2-85

DTIC