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OPERATIONAL DEFINITIONS OF COMBAT UNIT
EFFECTIVENESS AND INTEGRITY

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20. > This report identifies and develops operational definitions of unit effectiveness and integrity. It is an interim, working report as part of a larger study designed to provide the U.S. Army with decision making tools for personnel management particularly in light of the development and implementation of the New Manning System (NMS).

The report discusses the shortcomings of the Standard Unit Status Report system (AR 220-1) as a measure particularly in that it does not address factors such as psychological readiness, cohesion and leadership. It provides a description of mission status (work structure) as an important first step in considering what to measure. The report then develops a model of unit, life cycle development. A composite model then is presented which combines life cycle and mission status as a way of highlighting the importance of measuring different criteria at different stages of development.

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The overall objective of this project is to develop a set of personnel management rules and tools which can be used by company-sized combat unit commanders to assist them in managing their units under the new unit rotational manning system. These management rules and tools will be targetted toward assisting the unit commander to develop and maintain combat ready units. The ultimate product of this endeavor will be a number of indicators of unit effectiveness which commanders can use to diagnose unit effectiveness and a set of rules or procedures which he should follow based on the information from these indicators.

The purpose of Task One is to identify and develop operational definitions of unit effectiveness and integrity. Task One includes three major components which have provided specific direction for the accomplishment of that purpose. These three components lead to a composite model of unit effectiveness presented at the conclusion of the report.

1. DESCRIPTION OF GENERAL DIMENSIONS USED TO MEASURE COMBAT EFFECTIVENESS

One of the primary purposes of this project is to develop concrete, operational indicators which unit commanders can use to monitor unit effectiveness. In Task One, we begin to accomplish this objective by identifying a set of general dimensions which can be used to measure unit effectiveness. The general dimensions identified in Task One will be used in the remainder of the project to guide the development of a set of concrete, operational indicators of unit effectiveness which the commanders of combat companies can use as tools for managing their companies. Our recommendations for these specific operational indicators will be presented in the final report for this project, although a preliminary list of candidate indicators is contained in Appendix A.

Chapter II of this report, "Review of Major Dimensions of Unit Effectiveness," provides a starting point for the development of these indicators by describing some of those which are currently used by the Army or which have been indicated by the Army or pertinent scholarly publications to be related to unit effectiveness. For purposes of this report, unit effectiveness is defined as the performance of those tasks and activities necessary to meet current mission requirements of the unit.

In identifying the dimensions of combat unit effectiveness, emphasis was placed on those which met the following two criteria. The first criterion is that the dimensions lend themselves to operationalization. In order to validate a dimension as a true

dimension of combat effectiveness, one must be able to measure that dimension in some fashion. Moreover, in order for the commander to make use of the dimension as a management tool, he must be able to measure his unit on that dimension.

A second criterion is that the dimension can be influenced by the commander through his own personnel management actions. The ultimate purpose of this effort is to develop personnel management rules and tools which are useful to a combat company commander. Therefore, the dimensions identified here must be dimensions which are useful to the company commander.

Despite the differences of opinion about the specific processes governing combat effectiveness, there is consensus on the major dimensions underlying combat effectiveness. The Army's own Unit Status Report (AR 220-1) identifies the three major dimensions which contribute to an effective combat unit. These are the following:

- . Personnel
- . Equipment
- . Training

Personnel and equipment represent the human and material resources, and training is the process by which the resources are transformed into an effective combat unit.

With regard to combat effectiveness, there are five salient elements of the personnel dimension which have been identified previously. These are the following:

- . Strength - Number of soldiers assigned to the unit.
- . Job Qualification - Physical and mental ability of soldiers in a unit to perform their duties.
- . Psychological Readiness - Mental preparedness of soldiers to fight.
- . Cohesion - Bonding together of members of a unit to accomplish unit missions.
- . Leadership - Performance of actions by group members such as those which aid in setting group goals, improving the quality of interactions among the members, building cohesiveness, and making resources available which help the group achieve its objectives.

These personnel dimensions of combat unit effectiveness do not exist in a vacuum. One purpose of this task is to provide a framework for identifying certain criteria which may vary in importance as

indicators throughout the stages of development of the combat company, and in relation to varying mission statuses. Much research has been performed in the attempt to identify organizational effectiveness indicators, with no consensus among researchers as to primary indicators (Campbell, 1977). Quinn & Cameron (1981) propose that indicators are not static; and that they do vary depending on the developmental stage of the organization. This theory, which is advanced and amplified in this report, has many implications for the way the Army evaluates combat readiness, and for the development of personnel management decision rules.

2. DEVELOPMENT OF A MODEL OF ANALYTICALLY DISTINCT MISSIONS WHICH COMBAT UNITS SERVE

One dimension along which criteria of unit effectiveness may vary is mission status. Different mission statuses define different work structures, different goals, and thus different ways of measuring performance. Chapter III of this report, "Mission Statuses in the Army," reviews mission cycle and then develops six major mission statuses which combat companies serve. These include:

- . IET
- . Total Support
- . Limited Support
- . Alert
- . Prime Time
- . Committed

Each of these is defined operationally in the chapter.

Having defined a set of mission statuses, Arthur Young & Company/Market Dynamics makes some preliminary assertions or propositions concerning these statuses in relation to overall combat effectiveness and in relation to one another. Because overall effectiveness is influenced by other factors such as life cycle development, the propositions presented in this chapter are necessarily general. More refined propositions are offered in Chapter Five in which the mission status and life-cycle dimensions are integrated into a composite model.

The propositions summarize the theory that criteria of effectiveness vary according to mission status; thus, future personnel management decision rules and tools should be based on this knowledge. For example, the statuses can be arranged in a hierarchy of relative contribution to overall combat readiness. The commander who understands the propositions regarding movement along this hierarchy will be better equipped to manage his troops.

3. DEVELOPMENT OF A THEORETICAL MODEL OF THE LIFE CYCLE OF A COMBAT COMPANY

Cohort combat units have the potential to develop into a cohesive group which follows a predictable pattern of growth. Quinn and Cameron (1981) have presented evidence that this "life cycle" development occurs in a consistent pattern over time. Moreover, the authors indicate that because the group behaves differently at different stages of development, the criteria used to evaluate success at one stage may vary from evaluation criteria at another stage.

Chapter IV, "The Impact of Life Cycle Theory on Unit Effectiveness In Cohort Companies," explores the relationship between life cycle development and dimensions of effectiveness. A literature review is presented in the first section of the chapter to provide the Army with an understanding of the life cycle concept of organizational birth, growth and decline.

In this chapter, the life cycle model is adapted to suit the Army environment. The model provides a conceptualization of how the cohort combat company will develop. This concept is operationalized through dimensions of effectiveness at each stage of development, which show how performance differs in each stage, with the expectation that effectiveness will vary depending on the developmental stage.

Based on the literature review, a life cycle model of organizational development applicable to a company-sized combat unit has been formulated. The four life cycle stages include:

- . Identification
- . Stabilization
- . Elaboration
- . Transformation

The following are brief descriptions of each of these stages.

(1) Identification: This stage begins with the formation of the unit (e.g. in IET) and it includes an early emphasis on marshalling resources and instilling a sense of ideology and mission. As the Identification stage progresses, it is marked by the emergence of individual identification with the group and the unit, a growing sense of collectivity, and development of informal communication structures.

(2) Stabilization: This stage is characterized primarily by increased institutionalization of procedures, emphasis on task efficiency and pattern maintenance, administrative activities, and formalization. This is not to say that a good deal of proceduralization is not present in an Army unit at its inception, but rather the meaning of this stage is in the more complete growth, learning, and realization of these activities as the unit develops. The focus is on task accomplishment as individuals

become more proficient individually, in their MOS, and as a group which is combat-ready.

(3) Elaboration: This stage is marked by factors such as an emphasis on adaptability, management by exception, team action, and self-discipline. Essentially, in this stage, as the unit develops, a balance and integration is achieved between the characteristics of the Identification stage and the Stabilization stage.

(4) Transformation: This stage is relatively brief in comparison to the preceding stages. The primary indicators of this stage are an awareness that major change is upcoming (i.e., replacement/rotation), the planning horizon is restricted, and there is the beginning of decline in individual commitment and group collectivity.

The next section of the chapter is devoted to propositions which demonstrate how the life cycle model would operate in relation to a combat company. These propositions are fully explained in Chapter IV. Each of them has implications for the development of new personnel policies and procedures. Personnel management decisions will be aided through the use of this logical model of combat company development.

4. DEVELOPMENT OF A COMPOSITE MODEL OF UNIT EFFECTIVENESS, INCLUDING THE MISSION STATUS AND LIFE CYCLE DIMENSION

In Chapter V, the Mission Status dimension (from Chapter III) and the Life Cycle dimension (from Chapter IV) are combined to form a composite model. The fundamental properties of this model and its relation to unit effectiveness, at least insofar as these can be proposed at the model's current state of development, are presented.

This report postulates that both a unit's primary mission status and its stage of organizational life cycle development impact on the unit's effectiveness. The impacts of these two dimensions are not completely independent. Furthermore, by constructing the proposed model from these two dimensions, it should not be concluded that these are the only two dimensions which can impact upon unit effectiveness. There may be other major dimensions, such as technological complexity, but the model proposed here is sufficiently generalizable and expandable so as to be able to include other dimensions as warranted.

The most reasonable and straightforward formulation of the model is in a simple matrix form. This matrix is contained as an exhibit in Chapter V. Each cell of the model essentially describes prototypical states in which stabilized units can and will exist. For the sake of comprehensiveness, it is proposed that all effectiveness dimensions exist to some degree in every cell of the model. The model points out how these effectiveness dimensions vary across the mission status and life cycle dimensions and as a joint function of both. This chapter also provides a visual summary of the variations in overall unit

effectiveness across life cycle stages as contained in a chapter exhibit. In Chapter V, several propositions about the composite model are advanced which could drive future personnel decisions in the Army.

5. UTILITY OF THE MODEL

This report focuses on the very complex task of developing indicators for the management of a combat unit. The task is complex because so many interdependent factors impact upon a unit's development:

- . Personnel resources themselves
- . Doctrine, i.e., Personnel Management System Doctrine
- . Mission assignments
- . Training and equipment resources, and
- . The life-cycle process of organizational growth.

Arthur Young & Company/Market Dynamics has developed a composite model of unit effectiveness which demonstrates that effectiveness varies as a function of mission status and life cycle development, and how relationships can be formulated between life cycle stages, mission statuses, and the eight personnel management functions of the Army (depicted as an exhibit in Chapter VI). In terms of operational utility, the model:

- . Permits users to recognize a mix of effectiveness indicators and, in doing so, encourages them to take predictably effective action in relation to those processes which can ultimately result in a combat ready unit at the right moment in time.
- . Will enable planning and problem diagnosis tools to be developed for use by company commanders. These tools should be readily generalizable to higher and lower levels of command as well.
- . May result in enough significant empirical evidence to require major revisions in the ways the Army assesses and evaluates the effectiveness/readiness of units.
- . Can provide theoretical inputs to the MTF supporting the manner in which the new manning system is implemented.

It is estimated that future field tests will provide a significant amount of empirical evidence that will substantiate not only the model, but many of the personnel management system propositions which will be developed during the next task. Should the tests do so, it will be a relatively easy task to develop a multivariate automated learning

system, or a prescriptive set of guidelines for commanders in the field. Such a system or set of prescriptive guidelines would enable the user to connect a situation's behavioral and organizational outcome variables with the most appropriate personnel management actions for a given situation. In effect, such a set of automated tools would enable a major portion of organizational effectiveness skills and knowledge to be placed in the hands of line commanders, where it most appropriately belongs.

CHAPTER I

INTRODUCTION

I. INTRODUCTION

1. BACKGROUND

For years the Army has managed its personnel assignments on an individual rotation basis, while being aware of the problems associated with the individual replacement system. A major by-product of the individual replacement system is turbulence. For the individual soldier this turbulence manifests itself as frequent directed moves and separation from family. According to Hauser (1980) this turbulence creates a psychological climate of transitoriness. This can lead to a loss of a sense of purpose and dissatisfaction with the Army.

For the unit, and particularly for its commander, turbulence results in an uncertainty as to the number and quality of troops available for training. According to Funk et. al. (1980) this produces less effective training, prohibits progressive training from one cycle to the next, and renders readiness reports obsolete soon after they are completed. Hauser (1980) notes that turbulence creates a superficiality in interpersonal relations among officers, NCOS, and soldiers resulting in reduced unit cohesion.

The Army has decided to institute a unit rotation system. Based on this unit rotation system, units will be constituted in IET and will remain together for an extended tour. While the specifics of the new system have not been completely worked out, twenty company size combat units based on a unit rotation system have been constituted as pilot units. These units will remain together for 36 months to include a 12 to 18 month OCONUS tour for eleven of the companies.

According to a memo to the Chairman, Project COHORT Assessment Advisory Group (Oct. 81), the unit replacement system is "designed to reduce turbulence, improve stability, and enhance the cohesion and readiness of units" (p. 2).

For individuals, the new manning system offers the potential for developing strong unit ties and a strong sense of purpose. This could result in higher satisfaction with Army life, increased motivation, and higher levels of individual performance.

The success of the new manning system will depend heavily on the unit commander. His leadership and management responsibilities will change to some extent from those under the individual replacement system. Since he will have the same troops for several years, he must be more attuned to their needs. For example, he will need to plan for training differently. Under the new system he will be able to build upon previous unit training rather than attempting to train individuals and groups with diverse needs generated by turbulence. Perhaps his biggest challenge will be managing a continually evolving group. Whereas the unit under the old manning system was typically a collection of individuals and subgroups, the unit under the new system

can become a single cohesive group with a strong sense of unit identification. With the influence of appropriate personnel management and leadership techniques, the group is likely to follow predictable patterns such as the formation of group norms, the development of a group identity, intragroup conflict and competition, and growth in task competence.

In order to manage his unit under the new manning system, the effective unit commander will understand the nature of group behavior, particularly the stages of growth in a group. In order to harness the potential for performance this growth offers, he will need a set of personnel management tools to monitor unit development, and personnel management decision rules to guide his leadership and decision making.

In summary, the new manning system offers tremendous potential for developing and maintaining combat units with performance capabilities which exceed those of units existing under the individual replacement systems. The unit commander will play a key role in developing this potential. However, since these new units will be different in certain ways from current units, the unit commander will require assistance so that he can effectively manage his unit to achieve that potential.

2. OVERALL PROJECT OBJECTIVES

The overall objective of this project is to develop a set of personnel management rules and tools which can be used by company-sized combat unit commanders to assist them in managing their units under the new unit rotational manning system. These management rules and tools will be targetted toward assisting the unit commander to develop and maintain combat ready units. The ultimate product of this endeavor will be a number of indicators of unit effectiveness which commanders can use to diagnose unit effectiveness and a set of rules or procedures which he should follow based on the information from these indicators.

The rules and tools will be developed in such a manner that they can be automated. One potential scenario is that a commander will be able to consult these rules and tools by means of a minicomputer in his unit or a computer terminal linked to a central processing unit outside his unit.

In addition to these rules and tools, the project also will provide a set of research procedures for validating the rules and tools.

The objectives of this project are being carried out through the implementation of the following five tasks:

- (1) Task 1 - Identify and Develop Operational Definitions of Effectiveness and Integrity

- (2) Task 2 - Specify Required Processes Under Personnel Management Functions
- (3) Task 3 - Identify Environmental and Internal Unit Pressures Operating Both For and Against Effective Performance
- (4) Task 4 - Develop Personnel Management System Rules and Tools so that Combat Companies Can Achieve Maximum Effectiveness
- (5) Task 5 - Design Experimental Field Tests to Refine and Validate Proposed Personnel Management Rules and Tools

The specific objectives of each task are described in "A Study of System Tools For the Army Personnel Management System," the Task Plan Submitted 6 Oct. 81.

The purpose of this report is to present the results for Task 1.

3. PURPOSE OF TASK 1

There are three major objectives of Task 1. These include the following:

- (1) Describe a set of general dimensions which can be used to monitor unit effectiveness.
- (2) Develop a model of analytically distinct missions which combat units serve, and
- (3) Develop a theoretical model of the life cycle of a combat unit.

The remainder of this section describes each of these objectives in more detail.

- (1) Describe a set of general dimensions which can be used to monitor unit effectiveness

One of the primary purposes of this project is to develop concrete, operational indicators which unit commanders can use to monitor unit effectiveness. In Task 1, we begin to accomplish this objective by identifying a set of general dimensions which can be used to measure unit effectiveness. The general dimensions identified in Task 1 will be used in the remainder of the project to guide the development of a set of concrete, operational indicators of unit effectiveness which the commanders of combat companies can use as tools for managing their companies. Our recommendations for these specific operational indicators will be presented in the final report for this project, although a

preliminary list of candidate measures is contained in Appendix A.

(2) Develop a model of analytically distinct missions which combat units serve

The primary mission of any combat unit is to be ready to assume its role in combat as it is specified in its TO&E mission statement. While pursuing this mission, combat units are frequently called on to serve other missions, many of which are related to helping other units achieve their mission or to assisting higher commands to meet their needs. In order to develop indicators of effectiveness for a combat unit, it is important to determine their specific missions. Moreover, it is clear that some of these missions (for instance, installation maintenance) actually can detract from the primary mission of combat readiness. Therefore, it is necessary to understand just how the different mission statuses impact on the primary mission of combat readiness.

A purpose of this report will be to describe a set of analytically distinct mission statuses which all combat companies have.

These mission statuses will provide a point of departure for developing measures of unit effectiveness. In describing these statuses, the report will discuss how each of these statuses facilitates or detracts from the primary TO&E mission of combat effectiveness.

(3) Develop a theoretical model of the life cycle of a combat unit

As noted at the outset, the cohort units have the potential to develop into a cohesive group which follows a predictable pattern of growth. Quinn and Cameron (1981) have presented evidence that this "life cycle" development occurs in a consistent pattern over time. Moreover, the authors indicate that because the group behaves differently at different stages of its development, the criteria used to evaluate success at one stage of development may vary from evaluation criteria at another stage of development.

A purpose of Task 1 will be to describe a theoretical life cycle model of group development which is applicable to company-sized combat units in the Army. A related purpose will be to describe how the life cycle development of a combat unit is related to the indicators of effectiveness which the company commander uses to monitor the unit.

4. OUTLINE OF THE REPORT

The remainder of the report is divided into five chapters. Chapter II, "Review of Major Dimensions of Unit Effectiveness" explores the major dimensions of effectiveness which are currently used by the Army or which have been hypothesized by the Army or pertinent scholarly publications as indicators of unit effectiveness.

Chapter III, "Mission Statuses in the Army," delineates an analytically distinct set of cohort company mission statuses. The chapter begins with a review of various combat unit missions. It then defines an analytically distinct set of mission statuses. The chapter compares the objectives of these mission statuses with the effectiveness indicators from Chapter II and describes the limitations of these effectiveness indicators in terms of monitoring the performance of all mission objectives. The chapter then posits the need for additional effectiveness indicators to supplement those currently used to monitor a unit.

Chapter IV, "The Impact of Life Cycle Theory on Unit Effectiveness in Cohort Combat Companies," explores the relationship between unit life cycle development and the effectiveness of combat units. The chapter begins with a review of previous literature of organizational life cycles. It then identifies a life cycle model which is suited to the Army environment and proposes several general propositions which relate the life cycle stages to the dimensions of unit effectiveness.

Chapter V, "A Composite Model of Unit Effectiveness," develops a model for monitoring unit effectiveness which combines the mission statuses with the life cycle stages. The chapter discusses how unit effectiveness can be expected to vary as a function of a unit's specific location on these two dimensions. Chapter VI, "Implications for Future Tasks" presents a general discussion as to how the remainder of the project will be carried out in light of the Task 1 findings.

CHAPTER II

REVIEW OF MAJOR DIMENSIONS OF UNIT

EFFECTIVENESS

II. REVIEW OF MAJOR DIMENSIONS OF UNIT EFFECTIVENESS

1. PURPOSE

To develop an effective combat unit, it is essential for a unit commander to have a set of indicators with which to monitor unit effectiveness. The purpose of this project is to develop such a set of indicators. The objective of this chapter is to begin the process of developing these indicators by describing some of those which are currently used by the Army or which have been indicated by the Army or pertinent scholarly publications to be related to unit effectiveness. For purposes of this report, unit effectiveness is defined as the performance of those tasks and activities necessary to meet current mission requirements of the unit.

The effectiveness dimensions to be described are general indicators of unit effectiveness. These general indicators will be used in the remainder of the project to guide the development of a set of concrete, operational indicators of unit effectiveness which company-sized combat unit commanders can use as tools for managing their unit under varying situations. The Arthur Young & Company/Market Dynamics recommendation for these specific concrete, operational indicators will be presented in the final report for this project. A preliminary list of candidate operational indicators which are used or has been prepared for use is in Appendix A.

The next part of this chapter describes the approach for identifying the dimensions of unit effectiveness; it is followed by a description of these dimensions.

2. APPROACH

The approach to this task has been a thorough review of relevant literature bearing on the dimensions of combat effectiveness. In identifying these dimensions, emphasis was placed on those which met the following two criteria. The first criterion is that the dimensions lend themselves to operationalization. In order to validate a dimension as a true dimension of combat effectiveness, one must be able to measure that dimension in some fashion. Moreover, in order for the commander to make use of the dimension as a management tool, he must be able to measure his unit on that dimension.

A second criterion is that the dimension can be influenced by the commander through his own personnel management actions. The ultimate purpose of this effort is to develop personnel management rules and tools which are useful to a combat company commander. Therefore, the dimensions identified here must be dimensions which are useful to the company commander.

3. GENERAL DIMENSIONS OF UNIT EFFECTIVENESS

The previous chapter pointed out that combat units really serve two general missions, combat readiness and the provision of assistance to higher commands to meet their needs. However, it appears that the Army pays little attention to monitoring effectiveness for missions other than combat readiness. For instance, the Army has three major indicators/diagnostic tools it uses to monitor effectiveness. These are the following:

- . Unit Status Report
- . Annual General Inspection
- . ARTEP

The unit status report is the Army's major mechanism for monitoring unit effectiveness. Most units are required to complete a unit status report every month. The unit status report concerns itself exclusively with monitoring indicators of combat readiness. According to AR 220-1 (Unit Status Reporting, 1 June 1981), "unit status reports provide selected indicators of unit combat readiness" (p. 1-1).

The Annual General Inspection (AGI) is a more comprehensive evaluation of unit effectiveness which units undergo annually. According to AR 20-3, these inspections "monitor the state of readiness, training, and mobilization throughout the Army" (p. 1-1). While the AGI touches somewhat on non-combat related indicators of effectiveness (e.g., implementation of the Army's Equal Opportunity Program within a unit; unit safety precautions) it is primarily designed to measure unit combat effectiveness.

The ARTEP is a diagnostic tool to monitor a unit's ability to perform its TO&E mission under simulated combat conditions. For combat companies, the ARTEP is a means for assessing unit combat effectiveness.

Not only does the Army emphasize combat effectiveness indicators to monitor unit effectiveness, but related military literature does also. For instance, the Army Research Institute held a conference titled "Performance Measurement Seminar" given 6-8 October 1981. One of the major purposes of the seminar was stated as follows:

"What are the deficiencies in the state-of-the-art for unit performance measurement and assessment?" (Army Research Institute, 1981: p. 1).

The seminar brought together 58 individuals from the services, industry, and government. The entire three-day seminar confined its discussion of performance to measuring unit performance during field exercises. A recent publication in the Sage Series of Military

Publications titled Combat Effectiveness (Sarkesian, 1980) dealt exclusively with unit combat effectiveness.

The predilection with combat effectiveness is not surprising given the primacy placed on combat readiness. However, it poses problems for unit commanders who often are expected to be combat ready even when their troops are temporarily assigned out of their immediate unit.

The stress on combat readiness is so strong in the Army that 57 percent of a sample of more than 1600 Army personnel questioned about their unit status report indicated that their unit changed its normal routine around the 20th of the month (the date unit status reports are completed) in order to appear maximally effective (U.S. Army War College, 1976). Unit commanders even exaggerate their readiness level in order to impress DA reviewers of the report. Many commanders do this because they feel their own Army careers are tied to the combat readiness of their units.

Given the stress on combat readiness, it is not surprising that the indicators of effectiveness available to unit commanders and those upon which he is evaluated are almost exclusively combat effectiveness indicators. However, the indicators which are available are not all validated measures, nor is there a guide for unit commanders which identifies the best indicators and how to use them properly.

Since the literature confines itself to combat effectiveness, the remainder of this section on unit effectiveness will really review the major dimensions of unit combat effectiveness.

There are thousands of specific tasks which must be accomplished to develop a combat ready unit; and there is quite a bit of disagreement as to how these tasks should be accomplished. Moreover, there are hundreds of concrete, operational indicators of combat unit effectiveness which have been proposed; and there is quite a bit of disagreement regarding the value of the different indicators.

Despite the differences of opinion about the specific processes governing combat effectiveness, there is consensus on the major dimensions underlying combat effectiveness. The Army's own Unit Status Report (AR 220-1) identifies the three major dimensions which contribute to an effective combat unit. These are the following:

- . Personnel
- . Equipment
- . Training

Personnel and equipment represent the human and material resources, and training is the process by which the resources are transformed into an effective combat unit.

While these dimensions are the major components of combat effectiveness, the personnel dimension is too broad to be truly meaningful in the context of this project. Moreover, there has been a wealth of research devoted to identifying the primary components of the personnel dimension as it relates to combat effectiveness. This section describes the personnel dimension in detail.

(1) The Elements of the Personnel Dimension

With regard to combat effectiveness, there are five salient elements of the personnel dimension which have been identified previously. These are the following:

- . Strength
- . Job Qualification
- . Psychological Readiness
- . Cohesion
- . Leadership

The remainder of this section amplifies each of these dimensions.

- . Strength - This element refers to the number of people in the unit. Units must provide this information in their Unit Status Report (AR 220-1). It frequently is measured as the ratio of assigned or available personnel to the total MTOE authorized personnel.
- . Job Qualification - This element refers to the physical and mental ability of soldiers in a unit to perform their MOS. This element must be reported on the Unit Status Report (AR 220-1). The job qualification of enlisted personnel is typically measured by their SQT scores. The qualification of officers is determined by the judgment of their superiors.
- . Psychological Readiness - This element refers to the mental preparedness of soldiers to fight. Clearly, no matter how well-trained a soldier is, if he is not mentally ready to fight, he may not fight. Hauser (1980) refers to this as the will to fight.

The Army recognizes the importance of the psychological element of the personnel dimensions. AR 350-1, "Army Training", states:

"The Army's only training goal is to develop a combat ready force which is physically and psychologically prepared to fight and win global war" (1-1).

There has been a good deal of literature which describes many of the components of psychological readiness. Eaton (1978) found motivation of tank crew members to be a primary determinant of tank crew performance. Bauer, Stout, and Holz (1976) found that quality of life factors such as satisfaction with living quarters and availability of recreation predict unit performance significantly. AR 350-1 points to psychological factors such as confidence, pride, and morale which influence psychological readiness. Hauser (1980) and Westbrook (1980) suggest that alienation toward society among soldiers, even prior to entering the Army, constitutes a primary detractor from psychological readiness.

Cohesion - This term refers to the bonding together of members of a unit to accomplish unit missions. The Army formally defines cohesion as "the result of forces acting on soldiers that attracts and binds them together producing commitment to other unit members and the unit as a whole to accomplish unit missions" (AR 20-3: 2-4).

According to Cartwright (1968), "the members of a highly cohesive group, in contrast to one with a low level of cohesiveness, are more concerned with their membership and are therefore more strongly motivated to the group's welfare, to advance its objectives, and to participate in its activities" (p. 91).

There are three important components of cohesion. These components are laid out in a memorandum to the Chairman of the Project Cohort Assessment Advisory Group (1981). The components are as follows:

- Horizontal integration or bonding among peers. According to the memo "the more horizontal integration, the better is the performance of activities which further goal-attainment" (p. 20).
- Vertical integration or the bonding between soldiers and their leaders. Vertical integration provides a basis for directing group activities toward mission accomplishment.
- Norm acceptance or the espousal by the unit members of the values and goals of the Army and their unit. This component is termed personal integration in the cited memorandum but is renamed here for conceptual clarity.

Horizontal and vertical integration are necessary for satisfactory goal attainment. Norm acceptance is necessary to insure that the goals which the group attains are isomorphic with those of the Army.

The seminal work on the importance of cohesiveness to the performance of units in combat is Shils and Janowitz (1948). More recently Bauer et al. (1976) found cohesion (which was termed esprit de corps) to be the best predictor of a combat unit's performance with performance measured by the unit's own evaluation of how well it performs selected tasks.

Leadership - Leadership is defined as "the performance of those acts which help the group achieve its preferred outcomes.... More specifically, leadership consists of such actions by group members as those which aid in setting group goals, improving the quality of the interactions among the members, building the cohesiveness of the group, and making resources available to the group." (Cartwright and Zander, 1968:304).

Of all the personnel elements reviewed, leadership is perhaps the most important element. After observing and evaluating the performance of 55 companies during three day ARTEPs, the observer evaluators (who were not members of the companies they rated) selected leadership as the major factor contributing to performance during the ARTEP. Moreover, the officers from the companies who took part in the ARTEPs also rated leadership as the major factor influencing performance. (U.S. Army Research Institute, 1977).

Although leadership is recognized as a critical factor in unit performance, it is perhaps one of the least well-understood concepts in the social sciences. What is understood about leadership is that it is a multidimensional phenomena.

Perhaps the most fundamental dimensions of leadership are those proposed by Bales (1950): the task leader and the socio-emotional leader. Task leaders are those who lead the group in the accomplishment of a specific goal or task. Socio-emotional leaders are those who lead the group in terms of increasing friendship and cohesion within the group. They tend to be people who make supportive, encouraging, conciliatory statements.

According to Bales, the qualities necessary for these two types of leadership are somewhat antithetical and that, for work groups, the different types of leadership are usually filled by different individuals. Therefore, within company units, we can expect to find different types of leadership exerted by different individuals.

Since the company commander has other leaders working for him (e.g., platoon leaders, squad leaders), he should be cognizant as to the type of leadership that they exhibit.

Within the general divisions of task and socio-emotional leadership, a number of sub-dimensions have been measured. These include the following:

- Leader's knowledge of his role
- Leader's abilities to communicate assignments
- Frequency with which the leader initiates
- Leader's insistence on high standards
- Loyalty to leader
- Leader's concern for his subordinates
- Leader's abilities to reward fairly
- General satisfaction with the leader

These dimensions are frequently measured by questionnaire responses of the subordinates in a unit.

4. DISCUSSION

This section has presented a critical review of major dimensions used to evaluate and monitor unit effectiveness. Exhibit II-1 provides a summary of these dimensions. While these dimensions constitute the primary factors upon which combat units are evaluated and should be evaluated, they do not constitute all of the dimensions. Since combat units have some missions unrelated to combat, it is important that indicators are available to monitor unit effectiveness in these areas. The next chapter presents the major mission statuses of combat units, both combat-related and combat-unrelated, and discusses indicators of unit effectiveness vis-a-vis these mission statuses.

Exhibit II-1

MAJOR DIMENSIONS OF COMBAT EFFECTIVENESS

1. Equipment
2. Training
3. Personnel
 - . Strength - Number of soldiers assigned to the unit.
 - . Qualification - physical and mental ability of soldiers in a unit to perform their duties.
 - . Psychological Readiness - Mental preparedness of soldiers to fight.
 - . Cohesion - Bonding together of members of a unit to accomplish unit missions.
 - . Leadership - Performance of actions by group members such as those which aid in setting group goals, improving the quality of interactions among the members, building cohesiveness, and making resources available which help the group achieve its objectives.

III. MISSION STATUSES IN THE ARMY

III. MISSION STATUSES IN THE ARMY

1. PURPOSE

As noted in the previous chapter on dimensions of unit effectiveness, combat units have two broad categories of mission: their primary TO&E combat mission, which is keyed to the readiness of the unit to assume its combat role, and, a variety of other roles, functions and statuses which describe to a large extent the actual work that goes on in the unit on a day-to-day basis. Taken together these diverse roles and functions make up the units' Mission Cycle - a cycle since it appears that these roles typically are assumed and performed on a cyclical or rotational basis. The specific elements within the cycle are referred to as Mission Status. An understanding of mission status is crucial to this study in at least two respects:

- Mission statuses help define the Army's combat unit work structure, which may have important implications on such factors as stability, morale, cohesion and, ultimately, performance.
- Mission statuses imply a variety of explicit as well as implicit indicators of unit effectiveness which may or may not coincide with the primary TO&E mission of combat readiness.

In this chapter we will develop the mission cycle dimension of our composite model of unit effectiveness in four stages. Specifically, we will:

- Describe a variety of mission statuses gleaned from various sources such as interviews with individuals who recently have returned from battalion command, and from a review of current training literature/regulations
- Define mission statuses for purposes of our model
- Arrange the various statuses in a hierarchy of presumed contribution to overall unit effectiveness (TO&E combat readiness)
- Develop a set of initial propositions concerning effects of changes in status and other variables on unit effectiveness.

2. CURRENT CLASSIFICATION OF ARMY MISSION STATUSES

The Army's principal peacetime mission is training "to develop a combat ready force which is physically and psychologically prepared to fight and win a global war." (AR 350-1, Army Training, 1 Sept. 81) As indicated in Chapter I, Introduction, a unit that develops and trains

together as a unit (e.g., COHORT) will be more combat effective than a unit subjected to the current individual replacement system.

While the Army's emphasis in peacetime is on training, there are a number of limiting factors such as availability of local resources and special missions that make it necessary to rotate units through various mission statuses. In some cases these factors make it necessary to remove a unit from training altogether and give it another mission. For example, some units in Korea are on alert status, or short standby for commitment to combat contingencies.

The cornerstone of Army training management is the Battalion Training Management System (BTMS). This system is used by commanders to make training selections/trade-offs and to plan and manage training within the realities of requirements and resources. Some of the major factors influencing a commander's training selection are:

- . The commander's assessment of which individual and unit competencies are in most need of development using available standard criteria such as ARTEP and SQT
- . Availability of resources such as time, money, ammunition, etc.
- . The local military situation (friendly/secure/potentially hostile)
- . Geography - proximity and availability of maneuver room and firing ranges. Also climate (weather) which can be a major factor, particularly in those areas affected by climate extremes which influence maneuverability, maintenance and exposure of personnel
- . Other factors such as post/installation/community duties/requirements, changes in Army emphasis and international conditions.

The following are general descriptions of mission statuses in three commands that incorporate these factors. These are broadly illustrative and serve as examples only. Considerable discretion is authorized and exercised at division level and below in actual practice.

(1) FORSCOM (CONUS)

- . Mission: The broad focus of the mission is around readiness to deploy and fight worldwide.
- . Characteristics: Brigades and their support rotate through three types of status (X, Y and Z) about five weeks at a time.

- X - Collective Training: Everybody in a unit trains. Emphasis is on unit and combined arms training (infantry, armor, fire support). Ideally, the company can expect to have virtually 100% of its troops present and engaged in training. The unit is away from garrison (in the field) for extended periods.
- Y - Limited Support: The unit is in garrison most of the time except for one or two day trips to the field. There is heavy emphasis on individual skill upgrading and equipment maintenance. A substantial number of troops may be unavailable for unit activity (20% or more) on a given day because of support details, personal business or individual training/education.
- Z - Total Support: In its extreme application, this status amounts to the entire unit being committed to local support details (guard duty, post maintenance, etc.). Unit level training at the company level and higher generally is not possible unless some special arrangement is made for support tradeoffs with other units.

- Geography: Local training areas are generally more available in FORSCOM (CONUS) than they are overseas in the sense that every installation with combat elements includes some maneuver and firing space. Also, the installation is surrounded by a familiar (vs. foreign) culture thus minimizing the attention that the unit must devote to extraordinary community relations in some overseas areas. This advantage is somewhat offset by a generally larger troop support commitment to installation housekeeping (borrowed military manpower). It may not be possible to contract this work out because of a relatively expensive local labor market.
- Resources: Training resources in FORSCOM (CONUS) vary from unit to unit and from one geographic area to another. For example, a unit at Ft. Lewis, Washington must carefully consider training artillery ammunition requirements 180 days in advance, whereas a unit at Ft. Sill, Oklahoma (the Artillery Center and School) may be able to meet these needs with shorter notice. The availability and size of ranges and maneuver areas vary from post to post as well. Generally, all resources have to be planned well in advance to be incorporated into the training cycle. This results in predictability on the one hand and inflexibility on the other.
- Other Factors: There are a wide variety of options exercised concerning the infusion of individual replacements. Soldiers are assigned to corps and divisions in a centralized

fashion, but from there, the soldier's introduction into his unit may vary from division to division. For example, some may be held in a replacement unit for some time performing support duties until the cycle of their unit of assignment is most advantageous for their acceptance.

An important consideration in FORSCOM is the deployability requirement. Battalions must be ready at any time to respond instantly to a no-notice Emergency Deployment Readiness Exercise (EDRE) to Europe with a Reforger unit in 72 hours as directed by the Joint Chiefs of Staff.

(2) U.S. ARMY, EUROPE (USAREUR)

- . Mission: The primary mission is more narrowly focused on combat in Europe. The unit's relative proximity to potential adversaries (Warsaw Pact Forces) seems to heighten a sense of seriousness about readiness in all respects.
- . Characteristics: Brigades and their support rotate between two statuses:
 - Mission Training at a Major Training Area: Like the X cycle in CONUS, this status amounts to prime time training. It is accomplished as a unit at one of three major training areas for three to six weeks at a time, usually twice each year. Everyone participates.
 - Local Area Training: The remainder of the yearly cycle is spent lodged in or near fairly constrained garrison areas called kasernes or barracks. During this time, units attend to those activities generally corresponding to the CONUS Y & Z cycles; individual training, some small unit training, maintenance, support and preparation for commitment to combat or another Major Training Area deployment.
- . Geography: Operations within a foreign environment pose special problems in relation to the mission cycle. Considerable effort must be expended in community development to sustain military dependent enclaves. Positive relations with the local populace must be maintained. Among other factors, local tolerance for maneuver damage typically is very low (i.e., a tank that rolls over a tree, etc.). Thus, anything approaching tactical cross country movement, except in the three training areas, is generally nonexistent.
- . Resources: As in CONUS, availability of training ammunition is an important planning factor. However, most significant is the requirement to share three major ranges with other combat units. Local training areas for combat maneuver and firing are virtually nonexistent.

- . Other Factors: Individual replacements are assigned to a replacement unit at HQ, USAREUR and distributed from there to units. There is less of a borrowed military manpower problem in Europe than in CONUS as noted earlier. But again, there is some troop drain associated with local installation/community support.

(3) KOREA (2d Infantry Division)

- . Mission: The primary mission is more narrowly focused, specifically along the demilitarized zone (DMZ). Units in that area are, for all practical purposes, committed combat units in a very-near-contact situation with an adversary.
- . Characteristics: In Korea, combat units rotate through three principal statuses:
 - DMZ Duty: All other aspects of the cycle revolve around this activity which involves one battalion of mechanized or light infantry with a battery of supporting artillery patrolling the demilitarized zone. The tour on the DMZ is for 10 to 11 weeks. This length of time is tied to the normal one year tour length of combat soldiers in Korea. Also there is a three to five week preparation period prior to a unit's assuming DMZ duty.
 - Alert Status: During this period selected units are required to be ready to deploy on contingency missions (ground or airmobile) on extremely short notice. Training during this period stresses individual skill upgrading and support activities associated with the unit's post (compound).
 - Team Spirit Exercise: For one month, units are at Rodriguez Range to undergo intensive unit training for both maneuver and firing elements. This is considered prime time unit training.
- . Geography: Planning and operations are affected by their presence in a foreign environment. Weather extremes are factors as well.
- . Resources: As in Europe, units are considerably constrained by maneuver and firing room in the surrounding countryside.

The preceding illustrations of mission statuses are just that -- illustrations. Three points must be emphasized:

- . As noted earlier, considerable flexibility and discretion are allowed and exercised from unit to unit within the constraints of local command discretion. These are only

descriptions of the likely work structure to be found in units.

- . Second, units do not move through these statuses in some sort of lock-step fashion such as "stop one and start the next." For example, commanders at all levels cannot wait for the beginning of a unit training status to get up to speed on unit training and maintenance. They are expected to be in a fairly high state of readiness for that status the instant it begins, not two days or a week later. Thus, there is considerable overlap in work activity from status to status.
- . Third, these descriptions do not include a detailed accounting of some important realities, such as:
 - CONUS FORSCOM readiness for deployment associated with Emergency Deployment Readiness Exercise (EDRE) requirements.
 - Special mixes of FORSCOM units with TRADOC support missions (service schools, Reserves) or TRADOC elements with FORSCOM missions
 - Special no-notice/short-notice readiness requirements of nuclear capable units.

3. DEFINITIONS OF SIX MAJOR MISSION STATUSES

For purposes of our study we have combined the above descriptions and incorporated them into the mission status definitions listed below. The definitions have been developed with the following factors in mind:

- . Mission statuses vary primarily according to unit mission, geographic area, resources and local command discretion.
- . Mission statuses, as defined, pass the following definitional test:
 - Taken together they are sufficiently comprehensive to include all current combat mission elements extended to all Army locations.
 - They are individually accurate.
 - They are discriminated from one another sufficiently so as to, in fact, be different.
 - It is likely that the indicators of unit effectiveness from one status to the next would differ substantially.

- Peacetime conditions are assumed.

The six mission statuses that will be used in our study are:

(1) IET (Initial Entry Training)

Units are being formed. Examples: Basic Training/Advanced Individual Training (BT/AIT) units; One Station Unit Training (OSUT) units. In this status the units are within the TRADOC system and emphasis is on the development of individual military skills along with military cultural socialization. A way of stating the mission of a unit in this status would be:

To undertake those training and development activities which will result in soldiers who possess the necessary basic and advanced knowledge, skill and motivation to perform as members of combat ready units to which assigned.

(2) Total Support

Entire units are stripped (or nearly so) out of the larger organization to perform installation/post/community details. Maximum effects of "borrowed military manpower" are felt. Examples: CONUS FORSCOM units in the Z cycle; Europe units in the Kaserne and units in Korean installations primarily engaged in post/community support details. This status is characterized by very limited opportunity for unit training and very little field time. Some opportunity is provided commanders and staffs to accomplish planning, but commanders must devote considerable attention to responding to demands of support customers. Maintenance activity is hampered in as much as equipment may be in use in a support role and also, the NCO supervisory structure is not available on any consistent basis. In this status, commanders are likely to employ a variety of creative approaches to make the most of the situation by combining special details and tasks and by accumulating and distributing resources targeted against overall readiness missions and future contingencies. Maximum use is made of unit NCOs in the planning, conduct and supervision of support activities, thus removing them from primary mission activities. A way of stating the mission of a unit under this status would be:

Manage unit resources in such a way so as to be maximally responsive, effective and efficient in accomplishing customer support requirements.

(3) Limited Support

Units are predominately in garrison although selected subunits may have short periods of field training. Examples: CONUS FORSCOM units in the Y cycle; USAREUR units in the Kaserne; uncommitted Korea units which are neither in prime time nor part

of an alert force. Activity in this status is characterized by increased emphasis on individual training (SQT) or small unit (squad) training. The expectation is that 20-30% of the unit's personnel may be "missing" for all or portions of a given training day for various and sundry outside activities (appointments, support details, education, etc.). CONUS units may have accessibility to live fire and other ranges. Overseas units may have less access to such resources. Because of the generally ambiguous nature of this status, commanders are likely to be concerned with control issues such as daily personnel accountability and utilization. A way of stating the mission of a unit under this status would be:

To maintain unit readiness to the extent feasible while responding to diverse individual demands for training, personnel support, maintenance and installation support customers.

(4) Alert

Units are on short standby (within 24 hours) for commitment to combat contingencies. Examples: selected maneuver units in Korea and Europe and their support; CONUS or OCONUS selected maneuver and support units of the 82nd Airborne Division. In this status the commander's principal concern is with total readiness and responsiveness. A way of stating the mission of a unit in this status would be:

To be fully ready to assume a committed status within 24 hours or less as specified in the alert status.

(5) Prime Time

Units are engaged in extended training exercises as a unit. Examples: CONUS FORSCOM units in the X cycle; USAREUR units at Grafenwohr; Korea units at Rodriguez Range. It is characterized by maximum opportunity for unit and combined arms training/exercises involving all command and troop elements (FTX vs. CPX). One would expect to see 90% of the unit's present for duty personnel available for unit training away from garrison and in the field for extended periods. In this status primary emphasis is on gaining maximum benefit from collective training. A way of stating the mission of a unit under this status would be:

To achieve maximum unit readiness through intense, realistic, collective training so as to develop a combat ready unit which is physically and psychologically prepared to fight and win.

(6) Committed

Units are in contact or near contact with a potentially hostile military force. Examples: DMZ duty in Korea; USAREUR cavalry units patrolling borders. In this status, commanders are primarily concerned with unit security and readiness to respond instantaneously to unforeseen contingencies. A way of stating the mission of a unit in this status would be:

To be able to respond instantaneously (or on very short notice) by conducting combat operations in a manner consistent with its TO&E mission, contingency plans and pertinent rules of engagement governing the application of combat power in the current situation.

4. INITIAL PROPOSITIONS CONCERNING THE MISSION STATUS DIMENSION

Having defined a set of mission statuses, we are prepared to make some preliminary assertions or propositions concerning these statuses in relation to overall combat effectiveness and in relation to one another. Because overall effectiveness is influenced by other factors such as group maturity (life-cycle development, Chapter IV), the propositions presented in this chapter are necessarily general. More refined propositions will be offered in Chapter V in which the mission status and life-cycle dimensions are integrated into a composite presentation.

(1) Proposition One

While each mission status makes some contribution to the units own combat effectiveness, the statuses can be arranged in a hierarchy of relative descending contribution to overall combat readiness as depicted in Exhibit III-1. The gradations of the hierarchy are influenced most by factors which relate to the availability of personnel to function in the unit in a collective sense, and by the relative focus or diversity of the mission status in question. (IET as depicted is an anomaly; units in this status are presumed to be affected materially by the cohesive, collective experience of entry training; see Chapter IV, Life-Cycle.)

(2) Proposition Two

There is a gap between expected and actual levels of unit readiness depending on mission status. This is particularly so in the case of limited and total support statuses when the gap is likely to be substantial. This gap is ill-defined because of inadequate definition/criteria of what actually constitutes indicators of unit effectiveness under limited and total support statuses. There is better agreement and understanding on what constitutes overall combat readiness which tends to be perceived as an unalterable baseline. This lack of definition tends to exacerbate the situation of commanders/units being expected to "do it all, all the time, and well."

(3) Proposition Three

As implied by Proposition Two, there are, or should be, indicators of unit effectiveness associated with each mission status beyond the standard criteria applied to the issue of overall combat readiness as outlined in the Unit Readiness Report, (Ref. AR 220-1). The Army devotes substantial resources to these statuses. For example in the Total Support status, the effort is substantial enough that the status can be articulated in terms of a discrete mission statement. That being the case, it should be possible to see a more or less consistent body of criteria against which such an effort is measured. At this point, there appears to be little evidence of the existence of such a body of criteria beyond the anecdotal reflections of former commanders who describe aversive consequences applied to those who failed in some aspect of Total Support requirements, for example, inadequate policing of an assigned area.

(4) Proposition Four

The absence of a well-defined body of effectiveness criteria which realistically considers the essential distinctions among the various mission statuses will continue to hamper efforts to influence personnel policies and procedures (instead of vice versa). The result is apt to be a continuing tendency to suboptimize management support systems such as PMS at the expense of the units they are intended to support; in the extreme, a triumph of management over mission.

For example, every work day "the computer" identifies 2.16 soldiers with birthdays in each 500 man battalion. Unless otherwise constrained "it" causes those individuals to interrupt their normal day's activity, regardless of mission status, to immediately serve the needs of the data base by reviewing the correctness of their personnel records. This is equivalent to one squad per week.

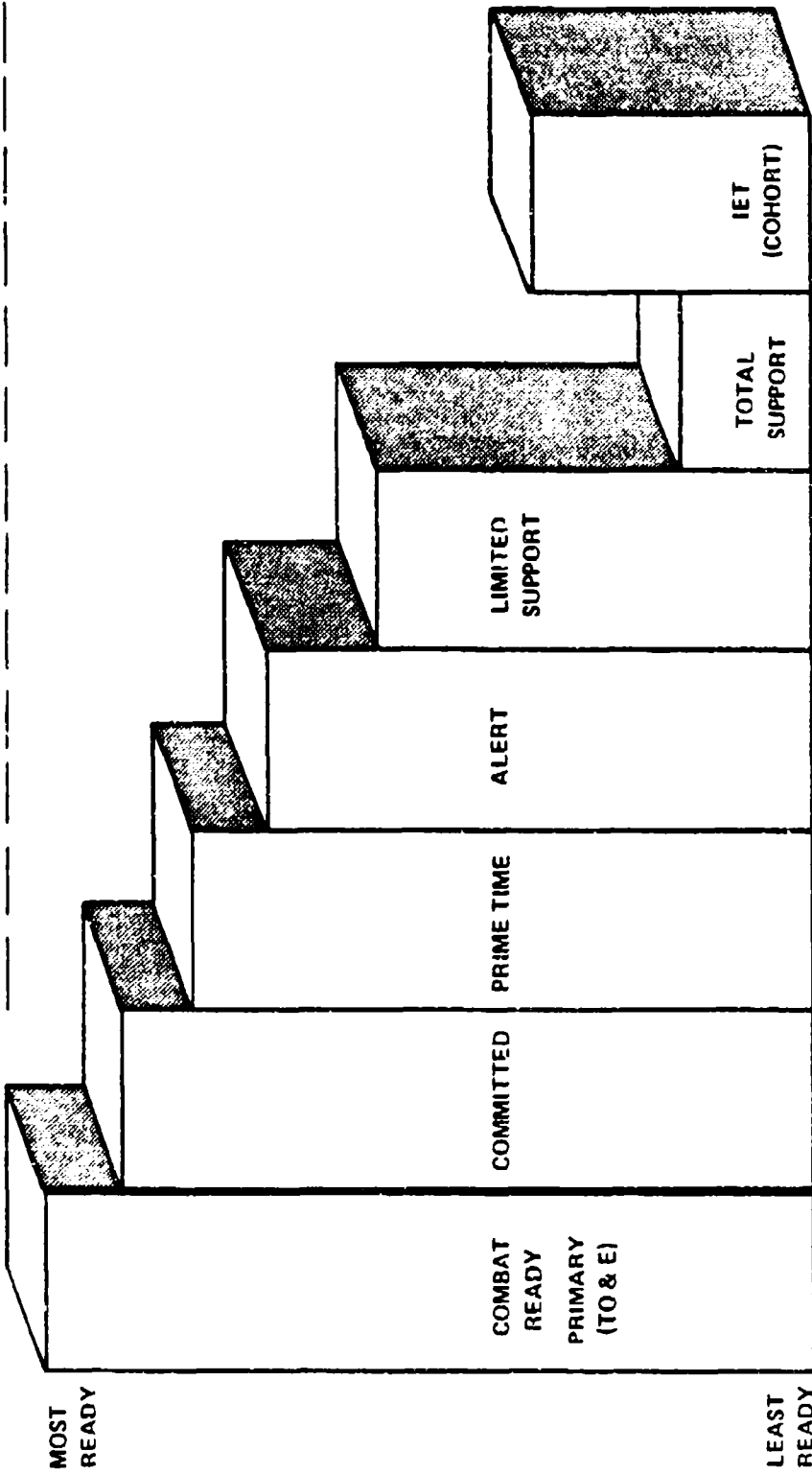
NOTE: In the absence of field research it is premature to outline specific recommended indicators of unit effectiveness for each status beyond those suggested by the mission statements presented earlier. However, their existence/non-existence is of major importance in relation to the objectives of this study.

(5) Proposition Five

There are likely to be differing consequences to the level of combat effectiveness based on the sequence as well as the duration of the various mission statuses. These considerations are outlined in the following sub-propositions:

Other Mission Statuses in Relation to Primary Combat Mission

IDEAL CONTRIBUTION TO COMBAT READINESS



- . Generally speaking, more extensive periods in the Limited Support and Total Support roles will indicate a likelihood of longer recovery periods when finally assuming Prime Time or Committed statuses. This is particularly true as it pertains to the effectiveness dimensions of training, psychological readiness, cohesion, and leadership. In the reverse sequence, (Committed/Prime Time to Limited or Total Support), the degradation along those effectiveness dimensions is likely to be swift or even precipitous.
- . There may be utility in avoiding direct entry into the Prime Time status from the Total Support status because of likely equipment readiness shortcomings brought about by the unavailability of equipment and equipment maintenance personnel.
- . IET units would be well advised to transition into a more active collective status immediately (Alert or Prime Time) as opposed to the relatively dispersed statuses of Limited Support or, worse yet, Total Support. This sequencing recognizes the IET unit's relative vulnerability to regression at a crucial time in its development along all effectiveness dimensions but especially in cohesion and leadership.

In this chapter we have developed and defined the components of the Mission Cycle dimension of our composite model of unit effectiveness. Also we have presented some preliminary propositions relating specifically to the Mission Cycle dimension. The next chapter develops and presents the Life Cycle dimension.

CHAPTER IV

THE IMPACT OF LIFE CYCLE THEORY ON UNIT EFFECTIVENESS
IN COHORT COMPANIES IN THE U.S. ARMY

IV. THE IMPACT OF LIFE CYCLE THEORY ON UNIT EFFECTIVENESS IN COHORT COMBAT COMPANIES IN THE U.S. ARMY

1. PURPOSE

The purpose of this section is to review and analyze a theoretical model which provides a framework for examining the development of the combat company in the U.S. Army. Recent research has begun to focus on the organization as a dynamic, growing entity, rather than examining an organization at one particular point in time (Kimberly and Miles, 1980). This research uses the life cycle metaphor as a starting point for examining the way an organization begins, grows, and declines; what key factors and conditions are present at each stage; and how an organization moves from one stage of development to another. Research that has examined organizations in life cycle terms indicates that a consistent pattern of development seems to occur over time. Because the organization behaves differently at different stages in its life-span, criteria used to evaluate success or effectiveness in one stage may vary from evaluative criteria at another stage of development (Quinn and Cameron, 1981).

These findings have implications for the effective management of the new cohort companies in the U.S. Army. The cohort companies have been organized with the purpose of reducing personnel turbulence and increasing stability for improving combat effectiveness through unit cohesion. Fixed assignment windows will limit the personnel movement in and out of the unit. The tour length has been increased to a three year period. The selection process is more rigorous in the initial period so that individuals who do not fit in the unit are weeded out. Efforts have been made to keep the unit as intact as possible throughout its life. As a result, a new type of organizational development will occur in these units. They will be unique entities in the Army. This type of unit should, then, be managed differently from the traditional unit.

The cohort companies have been formed to increase group cohesion. When the group behaves differently, leader behavior should also change. Under the cohort system, the group will have the opportunity to develop into a tightly-knit, well trained, competent unit. Individuals will come to understand capabilities and limits of others in the unit; this understanding should produce an increased ability of unit members to function together effectively. In units using the individual replacement system, this type of group development usually does not occur to the same extent. Thus, the new system will engender new behaviors and should be managed differently to ensure maximum effectiveness. The life cycle model provides a framework for examining the development of the combat company. The metaphor of birth, growth and transformation/decline provides a way of examining different behavior in the organization at various stages of its life. Of course,

the Army combat company is a unique organization, and the life cycle metaphor cannot and should not be used blindly. (For example, the combat company will experience a planned termination; after a tour, it may disband completely, or it may experience replacement of half of the troops. This type of ending is not accounted for in life cycle theory.)

In this report, the life cycle model is adapted to suit the Army environment. The model provides a conceptualization of how the cohort combat company will develop. This concept is operationalized through dimensions of effectiveness at each stage of development, which show how performance differs in each stage, with the expectation that effectiveness will vary depending on the developmental stage.

This section of the report includes:

- . A review of the literature on life cycle theory, to provide the Army with an understanding of the life cycle concept and research which has been performed to support hypotheses about organizational behavior.
- . A critique of the literature which separates those factors and conditions we believe are valid in a model adapted for use with the Army system, from those which apply only to other systems;
- . A definition of terms of the life cycle stages of our adapted model, including dimensions of effectiveness in each stage, and;
- . Related propositions regarding life cycle theory as it applies to unit effectiveness in different stages of development.

2. REVIEW OF THE LITERATURE ON LIFE CYCLE THEORY

Three sources were particularly useful in this endeavor. All of the sources are recent since life cycle theory is a relatively new way of looking at organizational structure and performance. The following brief reviews summarize the major points in each source.

(1) The Organizational Life Cycle (Kimberly and Miles, 1980) is a major recent series of articles on the creation, growth and decline of organizations. Several different viewpoints are presented within major stages of the life cycle. In the introduction to the series, Kimberly points out that most organizational research examines an organization at a particular point in time - a "snapshot" is taken. The snapshot view is a limited one. The life cycle model provides a more comprehensive, dynamic model with which to examine developmental processes. There are differences in a new organization and a steady-state organization which drive different responses to external/internal demands.

In Kimberly's view, the life cycle model should not be used without qualifications. Kimberly sees the model as a vehicle to ask new questions about organizations, and to examine the mechanisms which organizations may develop that set them on life courses from which it is difficult to deviate.

. Organizational Creation

The first series of articles examines the process of organizational creation, and the extent to which creation affects the future of the organization. Kimberly (1980) indicates that a strong leader will influence organizational outcomes to a great extent during this phase. Innovation and creativity of key individuals plays a large part in the success or failure of a budding organization. However, the very factors which account for early success must be muted in the next stage of development to produce long-run stability. The process of institutionalization must occur as the organization develops. This includes structural differentiation, in which more tasks are delegated to staff. The formalization process reduces equivocality and diminishes innovation. A less personalized, more bureaucratic system emerges.

Miles and Randolph (1980) focus on the importance of organizational learning as the key link between creation and maturity or failure. This source lists key conditions for organizational learning: (1) stress produced by negative performance feedback, (2) the quality of leadership, and (3) the amount of slack time for reflection. These authors draw distinctions between organizations which are new and different, and those which are new but are part of a familiar structure (e.g., the combat company). The authors conclude that the conventional type of organization needs to maintain some degree of "information-search processing", or valid feedback about its performance, yet the type of individuals attracted to the conventional setting may not be able or willing to engage in the process of self-examination.

Van de Ven (1980) concentrates on the role of planning during the initial period of creation and looks at outcomes in terms of effectiveness of initial planning efforts. Van de Ven examines the types of obstacles an organization may encounter as it moves from the planning stage (creation) to formalization and implementation: too rapid growth, lack of rules and policies from the start, lack of qualified personnel and early over-emphasis on efficiency.

. Organizational Growth and Development

The focus of the second section of the book is on the ways that organizations grow and mature. Once formed,

organizations may undergo rapid growth, may die quickly, or may prosper on a moderate scale for years. Tichy (1980) postulates that organizations do not follow predictable biosocial stages of development, and that changes can be explained by factors such as environmental threats and opportunities, size, and technology. Organizations experience three inter-related cycles based on ongoing dilemmas: technical design -- how output is produced; political -- how power is distributed; and cultural -- how values are determined. Lodahl and Mitchell (1980) concentrate on "organizational drift" -- the gap between the founders' ideals and the current organization; the authors argue that drift is inevitable unless the organization has built-in problem-solving processes to counteract the tendency toward stagnation. This is especially true in a bureaucratic environment.

Walton (1980) describes his study of four work settings over a period of ten years. Walton has developed a set of propositions about the growth of high performance work systems. Those most relevant to our study include the following: (1) the more instability in the organization, (including new personnel, turnover, new assignments) the slower it will be to mature, (2) planning for an initial work structure and planning for a steady state design must both occur, and (3) a human resources gap is evident early in the growth stage; trial and error learning causes a temporary decline in effectiveness.

Organizational Decline

In terms of organizational decline, Whetten (1980) discusses its occurrence at any stage of the life cycle. Decline is defined in terms of cutbacks in personnel and resources, and stagnation (general organizational climate). Whetten discusses sources of decline, to include atrophy or decrease in responsiveness, vulnerability (to external environment in infancy), and loss of legitimacy or need for the organization. He also discusses typical responses to decline. In a bureaucratic environment the response is typically defensive; form becomes more important than function and individuals concentrate on fulfilling administrative requirements rather than organization goals. In addition, Ouchi (1980) observes that private companies (market or clan-based organization) become bureaucratic in organization when performance cannot be measured unambiguously and when goal congruence between members of the organization is minimal. Ouchi hypothesizes that this type of bureaucratic organization is less effective than the organization which must respond to market demands to survive. He postulates that bureaucracies, while less effective, in general, than market based organizations, may

be more robust. In summary, The Organizational Life Cycle is a source which provides a base of research on the birth, growth and decline of organizations, and it allows for comparison/contrast of life cycle research with Army structure and practices.

(2) Quinn and Cameron (1981) provide a review of the literature on organizational life cycle models along with an original model which integrates facets of the others. Table 1 contains the summary of the models which they reviewed as well as their own integrated model. In addition, the research identifies major criteria of organizational effectiveness present at different stages of development. Quinn and Cameron have grouped measures of organizational effectiveness into four broad frameworks or models. Similar measures are contained in each of these groupings. The researchers hypothesize that a certain grouping of measures may predominate at a particular stage, even though other groups of measures may also be used at that stage.

The first stage of development in Quinn and Cameron's integrated model is termed the entrepreneurial stage. This stage is characterized by acquisition of resources, innovation and creativity. The hypothesized effectiveness criteria model at this stage is the open systems model-- criteria will include flexibility, growth, and resource acquisition. The second stage of development, the collectivity stage, is characterized by personalized leadership, and high commitment and cooperation among members. The concomitant effectiveness criteria model (what Quinn and Cameron term the human relations model) emphasizes training, morale, cohesion and adherence to group norms.

The next stage, the formalization stage, is characterized by formulating and following rules and procedures, developing efficiency in production of goods and services, and the continuation of stable groups with competent individuals performing required tasks. Effectiveness of the organization at this stage can be examined in terms of both the rational goal model and the internal process model. Elements of the rational goal model include measures of productivity and efficiency, goal setting, planning and goal accomplishment. The internal process model, which includes measures of stability and control, is also dominant at this stage. Finally, the fourth stage, structural elaboration and adaptation, is one in which the organization acts to renew itself or expand in new directions. All four effectiveness criteria models are active at this stage, but the open systems model which emphasizes growth, flexibility and resource acquisition, appears to be dominant.

In order to test the hypothesized stages of life cycle development and the corresponding effectiveness criteria models, the researchers examined a developing organization over time. Results indicated that the organization followed the predicted pattern of development through the various life cycle stages, and that changes in the predominant criteria of organizational effectiveness followed the predicted pattern.

(3) Cameron and Whetten's recent article (1981) examines changes in perceptions of organizational effectiveness at different points in the life cycle. Cameron and Whetten note the plethora of research in the area of organizational effectiveness measures, with no consensus among researchers on the definition or operationalization of the construct of effectiveness. Previously, research has relied on investigator-imposed definitions; however, recent studies (Pondy and Mitroff, 1978; Daft and Wiginton, 1979; Weick, 1979) suggest more reliance on the meaning that organizational members place on the concept. In addition, recent research on the life cycle (Kimberly and Miles, 1980) indicates that perceptions of effectiveness change at different stages of development.

Using these two trends, Cameron and Whetten use organizational simulations to track changes in ratings of effectiveness by organizational members as the organizations develop through life cycle stages. To do this, the authors organize criteria of effectiveness into meaningful categories. They test out Thompson's (1967) typology of domains of activity by linking them to the life cycle stages of Quinn and Cameron (1981). For example, the first stage of development, creativity and entrepreneurship, is related to the domain of input activities. The second stage, collectivity, is tied to Thompson's transformation processes. The third stage, formalization and control, is associated with the domain of output and production activities.

The methodology used to test out these hypotheses is a simulation called "The Organizational Game" developed by Miles and Randolph (1979). A simulation was utilized because it allows organizational effectiveness issues to be isolated and investigated directly; research also indicates that simulations are more appropriate for studying internal validity (conceptual development) than are surveys, in which external validity is of major importance. Since the objective of the study was a critique of the literature on organizational effectiveness, the authors chose a simulation.

The findings of the study support the general hypothesis that interpretations of organizational effectiveness made by organization members change across life cycle stages. In this simulation, the internal process model, focusing on stability and control, seems to be consistent through each developmental stage (less variation in ratings of importance for this dimension occurred over the various stages than in the ratings of input or output effectiveness). The other categories of effectiveness criteria predominate in various stages as hypothesized. In addition, the research indicates that the usefulness of any model of organizational effectiveness may depend on the environment, the level/unit in the organization, and the life cycle stage. Thus, choices of models of effectiveness should be examined in light of these factors.

How do these life cycle models apply to the Army environment? The next section provides a critique of the theory in relation to its usefulness as a framework for developmental stages of the combat company.

3. APPLICATION OF THE LIFE CYCLE MODEL TO THE COHORT COMBAT COMPANY

The life cycle model can be a useful reference point in a study of the Army's new manning system. However, it cannot and should not be used without qualification. It provides a way of looking at the development of an organization which may function as a unit for three years under the new manning system. Because the entire system is changing, new organizational models, or ways of looking at a unit's life cycle, are called for. The life cycle model, in general, and in broad terms, is valid from a conceptual viewpoint. However, certain parts of the model do not apply. Most of the research on life cycle theory was performed using private corporations as the model type of organization. This section of the chapter presents a comparison of the life cycle development of the combat company with the model presented in the literature to determine areas of congruence and areas of difference, so that the model can be adapted to fit the Army environment.

The early phase of development in life cycle theory is an entrepreneurial phase. Innovation and creativity of key individuals is important to the success of the new venture. However, unlike a private corporation, there is no real entrepreneurial stage in the development of the company. Guidelines already exist for it in the form of rules and regulations. A framework for task accomplishment is present; human resources must be developed to perform the task to an existing standard. Resources have been allocated for the accomplishment of the task, and growth in terms of organization size is not an objective. Performing the mission of the company to a set standard is the goal of the organization. The company exists in a bureaucracy. The focus is on meeting an existing standard, not on innovation. However, this new organization does share a few of the characteristics of the entrepreneurial organization. For example, even though resources have been allocated, the commander may be able to provide his troops with better equipment and materials than originally planned.

The company's life cycle does not wholly fit the life cycle model of organizations proposed by organizational theorists. The model does apply more closely in other stages of development. At this beginning point though, and throughout its development, the company's life cycle seems to follow the pattern of the development of a small group, as described in the literature. Thus, both frameworks will be used to examine the development of the company. Some of the problems of the new and different organization, as presented in life cycle theory, are different from those inherent in the Army system when a new company is being formed. The new and different organization experiences a lack of rules and procedures; it is vulnerable to changing external conditions, and it may experience periods of rapid growth or decline. The combat company experiences none of these conditions.

In the company, there is an initial forming, or orientation period, during which the collection of individuals begins to get acquainted.

A high degree of structure is imposed, as contrasted with the entrepreneurial stage of a new business, where flexibility is the order of the day. New trainees in the Army must be inducted into the pattern of life in their unit. Individuals will receive individual and unit training to become proficient in their mission. This stage is characterized by a high degree of structure; thus, a high task/low relationship orientation would be expected of the leader (Hersey and Blanchard, 1977). The leader imposes order and the trainees follow. Goals are given, not formulated. This stage of development occurs in the Army during Initial Entry Training.

In the latter part of this stage, identification with the group begins to take place. Individuals begin to know each other and subgroups form. This is a crucial stage in the development of the group. This is the point where cohesion begins to occur. Small group research indicates that if the task or mission depends on the group working together, the performance will be higher if the group is cohesive and works as a team. In few organizations is performance more dependent on the effectiveness of the team working well together than in the Army. At this point, the group is beginning to work together as a unit and has become familiar with operating rules and regulations. The leader can begin to use high task and high relationship behavior in relation to the group (Hersey and Blanchard, 1977). The high relationship behavior reinforces the fact that the leader does care about the welfare of the individuals.

In contrast, in the individual replacement system, just as the individuals are getting to know each other, soldiers may be called to various assignments, and turbulence begins to occur. Small group research indicates that groups frequently revert to earlier stages of development when there is high member turnover. The new manning system will engender less turnover; the Army is aiming for more stability and less turnover in its systems as set forth in AR 350-1, Army Training.

The next stage of development within the company is one of improving performance and stabilization. It does not exactly parallel the formalization stage described by the life cycle theorists, because formal policies are already in place and primary goal setting has been accomplished. Instead of a growth in administrative procedures, as there would be in a new and different organization, this is a time of task achievement, as individuals become more proficient in their MOS. In the new manning system, this should be a period of relative stability so that there is little interference with the mission of training to meet the combat-ready standard. In the current individual replacement system, there may be little stability because of extreme personnel turbulence. Research indicates that the more instability in the group due to turbulence, the slower the rate of development towards maximum effectiveness (Walton, 1980). Leader behavior during this stage depends on group behavior. If stability and consistent performance does occur as predicted under the new manning system, the leader can begin to delegate more discretionary authority for task planning and accomplishment.

The next stage of development, according to life cycle theorists, is one of structural elaboration and adaptation. This stage differs somewhat from the experience of the combat company. The company will not grow significantly in size necessitating a new structure, as would the corporate organization which is gaining new markets. Resource acquisition is somewhat standardized for the company, whereas for the private organization it must be carefully planned. This stage of development in the combat company is one of emphasis on task performance and the accomplishment of unit goals. Leader behavior in the combat company may at this point be high relationship and low task, since members have attained a certain amount of task maturity, and the group is fairly stable. The supervisory role begins to diminish in relation to the continued development of the group. Walton (1980) points out that the elements of a high commitment organization are minimal supervisory roles and reliance on peer pressure to control abuse of policies.

In terms of organizational decline, the company may or may not reach the rotation stage before performance starts to decline. Performance could start to decline for any number of reasons: the fact that the unit is reaching the point where it will disband; a new leader; external problems (lack of a significant pay raise, etc.). The common response to organizational decline in a bureaucracy is the defensive pattern, in which the organization concentrates more on fulfilling administrative requirements than on accomplishing the mission (Whetten, 1980). Administrative burdens grow so large that the mission/production orientation is crippled. Form becomes more important than function, and individuals take little initiative to correct the situation. In these instances, the leader may need to revert to previous high task orientation behavior to get the group on track. In addition, actions may be needed to ensure recognition and appropriate response to environmental pressures which upset the cohesion and teamwork of the group.

The combat company differs from the private organization in terms of decline. The private organization must continually adapt to changes in the external environment so that market demands are recognized and met. The combat company, during its lifespan, must also be able to renew itself to continue in a high performing way. If it does not, the problems noted above will occur. But the combat company will experience a certain demise. At the three year point (or at that point which is ultimately chosen) the company will disband. This known transformation will affect behavior for some period prior to its occurrence.

In this section we have compared and contrasted the life cycle stages as presented in the literature with the postulated stages of development of the cohort combat company. This comparison provides a base for adapting the life cycle stages as presented in the literature to fit the Army environment. An adapted life cycle model is presented in the next section of the chapter.

4. GENERAL DEFINITIONS OF LIFE CYCLE STAGES AS THEY RELATE TO COHORT COMBAT COMPANIES

The preceding paragraphs presented an overview of the applicability of life cycle models to the Army, in general, and to company-size combat units, in particular. Rather than accepting any single model as appropriate, the information in Exhibit IV-1 was reviewed to identify and develop the life cycle dimension for use in the current application. This analytical review proceeded through two steps: First, each indicator in Exhibit IV-1 was judged to be either applicable or not applicable to the current situation, regardless of the specific stage with which it was identified by its author(s). For the most part, this judgment resulted in the elimination of those indicators primarily reflective of free-market conditions and those which denoted the case of a truly (or predominantly) new organization.

The second step was to review the names and associated descriptions of each stage after the elimination of indicators from the first step. As noted in the preceding section, the various initial stages (e.g., Entrepreneurial, Birth, Fantasies, etc.) did not coincide well with the situation of interest in this study. Nevertheless, some of the indicators proposed for these initial stages did appear relevant for this situation. It also became clear at this point that none of the stages adequately dealt with the issue of large scale replacement as well as rotation which will be characteristic of units in the Army's new manning system. The net result of this review and analysis is a four-stage life cycle dimension for Army company-size combat units in the new manning system. The four stages of this dimension are:

- . Identification
- . Stabilization
- . Elaboration
- . Transformation

Following are brief descriptions of each of these stages.

(1) Identification: This stage is marked by appropriate indicators drawn from the first two general stages in Table 1. The Identification stage begins with the formation of the unit (e.g. in IET) and it includes an early emphasis on marshalling resources and instilling a sense of ideology and mission. As the Identification stage progresses, it is marked by the emergence of individual identification with the group and the unit, a growing sense of collectivity, and development of informal communication structures.

(2) Stabilization: This stage is characterized primarily by increased institutionalization of procedures, emphasis on task efficiency and pattern maintenance, administrative activities, and formalization. This is not to say that a good deal of proceduralization is not present in an Army unit at its inception, but rather the meaning of this stage is in the more complete

SUMMARY OF LIFE CYCLE MODELS

QUINN & CAMERON (1981)

1. Entrepreneurial Stage	2. Collectivity Stage	3. Formalization and Control Stage	4. Elaboration of Structure stage
- Marshalling of resources - Idea stage - Entrepreneurial activities - Little planning and coordination - Formulation of a "niche" "Pioneering" has power	- Informal communication and structure - Sense of collectivity - Long hours spent - Sense of mission - Innovation continues - High commitment	- Formalization of rules - Stable structure - Emphasis on efficiency and maintenance - Conservatism - Institutionalized procedures	- Elaboration of structure - Decentralization - Domain expansion - Adaptation

Downs (1967)

- Struggle for Autonomy Stage
- Legitimize the function to the external environment
- Obtain autonomy from parent or competing bureaus
- Stabilize resources
- Achieve survival threshold

- Rapid Growth Stages
- Innovators and Climbers have control
- Emphasis on innovation and expansion
- Occurrence of an "age lump" in membership

- Deceleration Stage
- Increased size complexity causes coordination problems
- Innovation is deemphasized
- Smoothness and predictability are emphasized
- "Conservers" have control
- Formalized and elaborate role systems
- Reduced flexibility

Lippitt & Schmidt (1967)

- Ruth
- One man rule
- Short range perspective
- Concerned with survival
- Confidence in personal abilities
- Personal control

Youth

- Emphasis on stability and service
- Team decision-making
- Efficiency emphasized
- Goal setting and planning occur
- Systematic control

Maturity

- Emphasis on adaptability
- Contribution to society is valued
- Opportunities are sought

(continued)

SUMMARY OF LIFE CYCLE MODELS (cont.)

Scott:

Stage 1

- One man rule
- Paternalistic reward system
- Subjective evaluation criteria
- No formal structure

Stage 2

- Functional specialization
- Institutionalized procedures
- Systematic reward system
- Impersonal evaluation
- Formalized structure

Stage 3

- Diversified product markets
- Search for new products and growth opportunities
- Semi-autonomous divisionalized structure

Greiner: (1972)

Creativity Stage

- Emphasis on producing a product
- Long hours of work with modest rewards
- Informal communication and structure

Direction Stage

- Functional structure established
- Accounting system set up
- Specialization of tasks
- Formalized rules and policies

Delegation Stage

- Decentralization of structure
- Decision making pushed lower in the hierarchy
- Management by exception

Coordination Stage

- New systems arise
- Product groups form
- Long term planning
- Profit sharing programs

(continued)

SUMMARY OF LIFE CYCLE MODELS (cont.)

Greenfield (1972) (cont.)

- Collaboration Stage
- Team action
 - Spontaneously in management
 - Confrontation of interpersonal problems
 - Self discipline
 - Multi-purpose systems set up

Turbert (1974)

- | | | | |
|---|---|--|---|
| <p><u>Fantasies Stage</u></p> <ul style="list-style-type: none"> • Individual visions and fantasies • Free-floating conversation • Diffused perceptions by members | <p><u>Investments Stage</u></p> <ul style="list-style-type: none"> • High investment by individual • No clear leadership style • Validity and depth of commitment examined <p><u>Determination Stage</u></p> <ul style="list-style-type: none"> • Group goals and structure set up • Group unity prevalent • Psychological contracts set up | <p><u>Experiments Stage</u></p> <ul style="list-style-type: none"> • Plans, schedules, roles, and governance established • Rational decision making <p><u>Predefined Productivity Stage</u></p> <ul style="list-style-type: none"> • Focus on task performance as defined by others • Fixed rules, structures and authority system | <p><u>Openly Chosen Structure Stage</u></p> <ul style="list-style-type: none"> • Collaboration among levels • Reflection about deeper issues • Creativity and innovative methods • Flexibility in procedures <p><u>Foundational Community Stage</u></p> <ul style="list-style-type: none"> • Shared spiritual, behavioral, and theoretical qualities among members • Organization becomes a spiritual community |
|---|---|--|---|

(continued)

SUMMARY OF LIFE CYCLE MODELS (cont.)

Torbert: (1974) (cont.)

Liberating Disciplines Stage
- Individuals and the organization are engaged in self renewal - Inclusive not exclusive boundaries - Organization seeks challenges

Lyden:

First Stage	Third Stage
Emphasis on adaptation to the external environment	Emphasis on goal attainment
Second Stage	Fourth Stage
Emphasis on resources acquisition	Emphasis on pattern maintenance and institutionalization

Katz and Kahn: (1978)

Primitive System Stage	Stable Organization Stage	Elaborative Supportive Structures Stage
Cooperative endeavors based on common needs and expectations of members	- Coordination and formalization - Authority systems arise - Informal structure arises - Rule enforcement - Maintenance systems arise	Adaptation systems are formed, i.e., procurement systems, disposal systems, institutional relations system

Adizes: (1979)

Countdown Stage	Infant Organization Stage	Adolescent Organization Stage
- Founders are dreaming up "what we might do" - Entrepreneurial activities	- Emphasis on production - Time pressures keenly felt - No tradition - Few meetings - Little planning	- Planning and coordination are important - Administrative activities increase at the expenses of entrepreneurial activities and production - Stability and conservatism - Formalized rules and policies

(continued)

SUMMARY OF LIFE CYCLE MODELS (cont.)

Adizes: (1979) (cont.)

<u>Co-Co Organization Stage</u>	<u>Prime Organization Stage</u>
• Rapid expansion • Personalized leadership • Some planning • Fast, frequent, intuitive decision making	• Emphasis of efficiency • Increasing loss of touch with the environment • Thick organization boundaries • Aspirations remain stable, no desire to grow or change • Stability and predictability are valued
<u>Maturity Stage</u>	
• Paternalistic, comfortable organizational climate • Low emphasis on production • Formalized relationships • Little innovation	

Kimberly: (1979)

<u>First Stage</u>	<u>Second Stage</u>	<u>Fourth Stage</u>
• Marshalling of resources • Creation of an ideology	• Obtaining support for the external environment • Choice of a "prime mover" • Staffing of the organization • Frequent, discrete decisions are made	• Formalized structure • Policies and rules set up • Internal organizational competition • Stabilized external relations • Conservative trend • High personal investment questioned
<u>Third Stage</u>		
• Formation of identity • Sense of collectivity of family • High member commitment and involvement in the organization • Pursuit of organizational mission • Postponing individual need fulfillment temporarily		

growth, learning, and realization of these activities as the unit develops.

(3) Elaboration: This stage is marked by factors such as an emphasis on adaptability, management by exception, team action, and self-discipline. Essentially what happens in this stage is that as the unit develops a balance and integration is achieved between the characteristics of the Identification stage and the Stabilization stage.

(4) Transformation: This stage is relatively brief in comparison to the preceding stages. The primary indicators of this stage are an awareness that major change is upcoming (i.e., replacement/ rotation), the planning horizon is restricted, and there is the beginning of decline in individual commitment and group collectivity.

Taken together, these life cycle stages form a dimension of growth and development. As noted in the introduction to this section, the creation of cohort-type units with their associated lack of turbulence will, itself, create the conditions for these life cycle stages to occur. In the current personnel replacement system, the continued turbulence occasioned by individual turnover of significant proportion precludes the possibility of forming and developing a unit from inception through termination.

5. DIMENSIONS OF EFFECTIVENESS IN EACH LIFE CYCLE STAGE IN A COHORT COMBAT COMPANY

With the development of a general definition of life cycle stages as adapted to the Army environment, more specific operational definitions can be developed. Each of the life cycle stages can be described in terms of the seven effectiveness dimensions presented in Chapter II. These seven effectiveness dimensions are:

- . Leadership
- . Cohesion
- . Psychological Readiness
- . Job Qualifications
- . Training
- . Equipment
- . Strength

In the following paragraphs, the expected nature of these effectiveness dimensions is described for each life cycle stage. The equipment variable is assumed to be constant; thus it is not treated here. Unit

strength is dependent on mission status. A unit which is in a particular mission status may have a percentage of its troops detailed to other areas. Thus, strength is not addressed here.

(1) Identification Stage

- . Leadership: The leadership dimension in the Identification stage is one of the most important dimensions. Leaders must focus a great deal of attention both on task-related matters as well as socio-emotional matters. The unit's leadership is confronted with a relatively inexperienced group of soldiers unaccustomed to the military and unskilled in their individual specialties. Therefore, a high degree of structure must be initiated. At the same time, this is the period during which the basic foundations of the unit as a cohesive entity are emerging, and leaders must actively foster and build the intended qualities of group identity and commitment.
- . Cohesion: This is a key dimension in the Identification stage. It is during this stage that group goals are formulated and accepted. This is also the stage during which the informal organization and communication structure develops. In short, this is the stage in which unit members make very critical decisions and commitments to the norms of the Army, the unit, and their primary work group.
- . Psychological Readiness: This dimension, defined broadly as the willingness and mental preparedness to fight, will be low during the Identification stage as compared with later stages of development. New enlistees are still experiencing a period of orientation to Army life. They are in the process of making group goals their own and developing a sense of identity with their unit and the Army in general. AR 350-1, Army Training, notes that psychological factors such as confidence, pride and morale, which are key to psychological readiness, are established through an effective training system. The soldiers are still in the initial stages of training. Levels of confidence, pride and morale are low relative to later stages.
- . Job Qualifications: At this stage, personnel are undergoing Initial Entry Training and Advanced Individual Training. They are being trained in their MOS; qualification to perform the job is still low compared with later stages.
- . Training: At this stage, individual training is the primary mission. Basic and advanced training takes place. The outcomes of the training include soldiers who pass basic, physical and mental training requirements. Trial and error learning occurs during this time period as soldiers are trained in their MOS.

(2) Stabilization Stage

- . Leadership: During this stage of increasingly stable, consistent performance, leadership emphasis is on goal attainment and task efficiency. An increased level of differentiation takes place as the leader places trust in key subordinates to carry out delegated duties. The leader works with the group and encourages them as they reach to meet or exceed performance standards. The leader uses positive reinforcement to shape behavior as performance comes closer to meeting existing standards, and uses disciplinary measures when needed. The leader at this point is functioning and communicating in a high task and high relationship mode. A leadership concern at this stage is the desire to continue working as a unit toward task accomplishment. The leader would also work to reduce borrowed military manpower requirements which splinter the group.
- . Cohesion: At this stage, group identity is forming and the group has an initial image of itself. Group members are formulating and accepting the norms of the group. Individuals are concerned with the welfare of the group and are motivated to achieve group goals. However, these group goals and norms can be quite variable depending upon the level of aggregation which is being examined. In other words, it is possible to focus on the entire company as the group or it is possible to focus on lower levels of aggregation (e.g. platoon, squad, informal clique). At these smaller aggregation levels, this stage can be marked by intergroup conflict and competition.
- . Psychological Readiness: This dimension increases during the Stabilization stage. Individuals and the group are working to achieve rewards, recognition and promotions. If the group is cohesive, there will be minimal alienation, which has been identified as a major detractor from psychological readiness (Hauser, 1979; Westbrook, 1980). Individuals who have committed themselves to the unit, who see the unit moving toward its goals, and who are concerned with the welfare of others, are developing a sense of pride and confidence in the unit. These developing concepts, in addition to a basic sense of job satisfaction and satisfaction with the quality of life (pay, personal freedom, adequate post facilities, advancement opportunities, etc.) will move the soldier to an increased state of psychological readiness.
- . Job Qualification: Task achievement is increasing in this stage. Individuals are becoming more proficient in their MOS and they work toward passing their SQTs. Thus, job qualifications are increasing, although this dimension probably has not reached its peak during this stage.

- . Training: Soldiers are training together in units to prepare the organization to accomplish its wartime and contingency missions. Units are in training to be able to perform to ARTEP standards. Units undergoing collective training will experience realistic field training exercises, EDRE exercises to improve deployment capabilities, combined arms live fire exercises, and command group training in tactical command and control proficiency.

(3) Elaboration Stage

- . Leadership: Leadership at this stage of unit development is characterized by increased delegation and increased interface with the chain of command to insure that the group has the necessary resources to perform the tasks, and to provide opportunities for recognition for work accomplished. Leadership in this stage becomes more coordinative and consultative because individuals and groups within the unit have developed to a point where they are more capable of managing their own and organizational affairs. It must be noted that we are not describing here what has been referred to as laissez-faire leadership.
- . Cohesion: At this stage the group is working together as a tightly knit unit. Vertical and horizontal integration have been achieved. Individuals work together toward group goals; "esprit de corps" is high.
- . Psychological Readiness: At this advanced stage, soldier morale, confidence and pride should be high. Soldiers should be psychologically ready to deploy and fight.
- . Job Qualification: Soldiers have been trained to meet and/or exceed the standards as set forth by the Soldier's Manual, ARTEP, and battle drills. Emphasis is on individual and unit performance measures.
- . Training: Training outcomes should include highly skilled and effective combat ready units. Units should be able to perform to ARTEP standards, to accomplish the mission and win.

(4) Transformation Stage

- . Leadership: Leadership behavior at this stage may revert to a higher task and lower relationship orientation at times, depending on group behavior. The leader may need to reset standards and expected level of effort, especially in the last few weeks that the group is together.
- . Cohesion: Group norms help hold the group together to a degree, but individuals are aware of the coming separation.

Vertical integration may be lower, because soldiers will soon no longer be accountable to the same leader; while horizontal integration may increase, as groups bond together to enjoy their last weeks.

- . Psychological Readiness: Willingness and mental preparedness to fight will decrease from the peak level in the elaboration stage. Soldiers know that the group will disband; performance of individual and collective tasks will show some tendency to deteriorate.
- . Job Qualifications: Soldiers are experienced veterans by this point. Individuals are able to perform their jobs efficiently and effectively. However, since psychological readiness is at a lower level, performance may not be at its peak as it was during the elaboration stage.
- . Training: Training outcomes may not be as high, individually or collectively, as during the elaboration stage. Soldiers know they will be leaving the company and training in this stage may be seen as simply another exercise.

6. GENERAL PROPOSITIONS - LIFE CYCLE THEORY AS IT RELATES TO COMBAT UNIT EFFECTIVENESS

In the paragraphs above, the theoretical and empirical evidence supporting the utility of the general life cycle dimension in the measurement of organizational effectiveness has been reviewed. The general applicability of life cycle theory to the situation of interest in this study (i.e. cohort-type combat companies) was also discussed. In addition, a four-stage life cycle dimension was described in terms of seven dimensions of effectiveness. In the following paragraphs several propositions are advanced which demonstrate how the life cycle dimension operates.

Fundamental properties of the life cycle dimension include:

(1) Proposition One

The longer a unit (e.g. a combat company) remains intact after formation, the more likely it is to pass through successively later life cycle stages.

This is a very straightforward statement of the likelihood that cohort-type units as currently envisioned in the new manning system will exhibit the properties of the various life cycle stages. This is not to say that the stages proposed here (i.e., Identification, Stabilization, Elaboration, Transformation) are definitely the only or the best stages for the Army's purposes. This dimension clearly is subject to empirical test. Furthermore, this dimension, as proposed, can accommodate either of the two major options which are under consideration with respect to how the new manning system will operate

(i.e. partial replacement or total replacement). Nevertheless, we do feel confident in asserting that a life cycle dimension will exist in cohort-type units in the Army and that the basic fact of longer stabilization will increase the likelihood that the unit will pass through successive life cycle stages.

As noted in the review, the life cycle dimension cannot be applied in a lockstep fashion. A very important property, however, is that each stage must be completed "successfully" before passing to a succeeding stage. Otherwise, the unit will carry along with "unfinished business" from a former stage which is inconsistent with the nature of its then nominal stage.

Therefore, the next proposition is:

(2) Proposition Two

A given stage of a unit's life cycle must be completed before the unit can proceed into the next succeeding stage.

Completion of a certain life cycle stage means that the various factors which denote that stage must be achieved successfully. For example, if a unit does not achieve a clear sense of mission and development of necessary norms in the Identification stage, it will not be able to undertake fully the needs of the Stabilization stage. In other words, the unit will be hampered in its attempts to realize task efficiency through formalization of procedures if it is still attempting to clarify its sense of mission or if group norms regarding task behavior are still evolving.

A point which has been implicit in the discussion to this point is that as a unit progresses through successively later life cycle stages, overall performance and unit effectiveness generally increase. This point cannot be interpreted too literally, but it is true that in virtually any organized task situation, performance is greater in units with greater experience. Therefore, the third proposition is:

(3) Proposition Three

In the ideal case, and from an overall effectiveness standpoint, the most preferred life cycle stage is Elaboration.

As described above, the Transformation stage, which follows the Elaboration stage, is marked by a tendency for performance to decline as the members of the unit come to grips with the change they will undergo (i.e. rotation/replacement). This decline will not be serious in most cases, but the notion of being "short" and its impact on performance is well-known throughout the Army. Naturally, there can be exceptions to Proposition 3 (i.e. units in life cycle stages prior to Elaboration can perform quite highly), but these exceptions usually deal with performance which can be characterized best as innovative.

The dimension as presented here has been formulated to account for the prototypical case in which units progress through these stages in a relatively natural fashion. However, the real world is not always so orderly. Thus, a substantial change in the unit's circumstances, which can be caused by events outside the unit (e.g. from higher organizational levels), can lead to confusion regarding the calibration of life stage. It has been proposed that in stabilized, cohort-type units there will be a natural progression toward successively more advanced life cycle stages. Yet, the life cycle dimension is not the only force which impacts upon the development and effectiveness of the unit. There are quite a number of other factors affecting the unit which, in turn, affect the unit's life cycle stage. Furthermore, the literature on organizational life cycle suggests that the dimension is not unidirectional. In other words, it is possible for a unit to "regress" in its life cycle to an earlier stage of development as a function of other factors impacting upon it. For instance, the previous chapter described the impacts of unit mission status, and these various statuses can impact upon life cycle development. Thus, the next proposition is:

(4) Proposition Four

Certain forces can affect the unit in such a way as to cause a "regression" or "resetting" to an earlier life cycle stage.

Given the complexity of the life cycle dimension, there almost certainly is no single method for measuring it. Yet, it is important both for research and operational purposes to be able to determine in which stage of its life cycle a certain unit exists. Clearly it is inappropriate to rely on a simple measure such as time. Different units will progress through the stages at different rates. Nevertheless, knowing the length of time the given unit has existed would allow a crude indication of its life cycle stage, and we do believe that some relative statements can be posited regarding the duration of these stages. Therefore, the final proposition relating to the life cycle dimension is:

(5) Proposition Five

The Elaboration stage is the longest stage. The Stabilization stage is the next to longest stage. The Identification stage is the next to briefest stage. The Transformation stage is the briefest stage.

Having made a crude approximation, however, it still will be necessary in most instances to determine the specific stage. The ideal method for doing this would be one which essentially could be self-administered by unit personnel (e.g. the company commander). Thus, very concise measures could be developed which conveniently could be given to a small and/or selected sample of unit members. A preferable procedure would be some form of checklist which a commander would use

to assess his own unit. In particular, the measures for this dimension must be constructed so as to tap the change in the factor(s) since this is the fundamental indicator of movement to a succeeding stage.

In summary, this chapter has presented a four-stage life cycle dimension portraying the development of combat companies in the Army's new manning system. The next chapter presents a composite model of unit effectiveness which draws together the evidence and dimensions described to this point.

CHAPTER V
COMPOSITE MODEL OF UNIT EFFECTIVENESS

V. COMPOSITE MODEL OF UNIT EFFECTIVENESS

1. INTRODUCTION

The purpose of this chapter of the report is to bring together the various lines of evidence, information, and concepts presented in the preceding chapters in order to formulate a composite model of unit effectiveness indicators. In this chapter, the Mission Status dimension (from Chapter III) and the Life Cycle dimension (from Chapter IV) are combined to form a composite model. The fundamental properties of this model and its relation to unit effectiveness, at least insofar as these can be proposed at the model's current state of development, are presented.

2. THE COMPOSITE MODEL

In previous chapters it has been proposed that both a unit's primary mission status and its stage of organizational life cycle development impact on the unit's effectiveness. The impacts of these two dimensions are not completely independent. Furthermore, by constructing the proposed model from these two dimensions, it should not be concluded that these are the only two dimensions which can impact upon unit effectiveness. There may be other major dimensions, such as technological complexity, but the model proposed here is sufficiently generalizable and expandable so as to be able to include other dimensions as warranted.

The most reasonable and straightforward formulation of the model is in a simple matrix form (see Exhibit V-1). Each cell of the model essentially describes prototypical states in which stabilized units can and will exist. More importantly, each of these cells has a very significant effect on the seven dimensions of effectiveness presented earlier. For the sake of comprehensiveness, it is proposed that all effectiveness dimensions exist to some degree in every cell of the model. (Further formal research conceivably could demonstrate that certain effectiveness dimensions are not appropriate indicators in selected cells of the model, but at this point it may be better to err on the side of inclusion rather than omission). The model points out how these effectiveness dimensions vary across the mission status and life cycle dimensions and as a joint function of both.

Chapters III and IV described the major variations in effectiveness dimensions across mission status and life cycle, respectively, and no attempt will be made to provide an equivalent description here for every cell of the composite model. However, as was done in previous chapters, several propositions about the composite model will be advanced, and the meaning, implications, and utility of the model will be illustrated through examples.

Composite Model of Unit Mission Status and Life Cycle

MISSION STATUS	COMMITTED				
	PRIME TIME				
	ALERT				
	LIMITED SUPPORT				
	TOTAL SUPPORT				
	IET				
		Identification	Stabilization	Elaboration	Transformation
LIFE CYCLE					

The first proposition deals with the relationship between the mission status and life cycle dimensions. It was noted above that they are not independent. Indeed, the mission status dimension is very likely precedent to the life cycle dimension. In other words, mission status "drives" life cycle development to a considerable extent. This is intuitively obvious since mission status is directed by higher levels of command; it is not within the control of the unit itself. On the other hand, life cycle development is inherent to the unit itself, at least for the most part. Thus, consideration of the meaning and utility of the model must begin always by knowing first the specific mission status, and then the life cycle stage. Therefore, the formal statement of this proposition is:

(1) Proposition One

The life cycle development of a unit is strongly influenced by the type and sequence of Mission Status assignments it receives.

This is a very important point in understanding the implications of the composite model. A complete specification of the implications of this proposition is not possible at this point in the model's development, but it does support further elaboration of the concepts underlying the model. In the paragraphs which follow, additional propositions are presented, many of which logically flow from this first proposition.

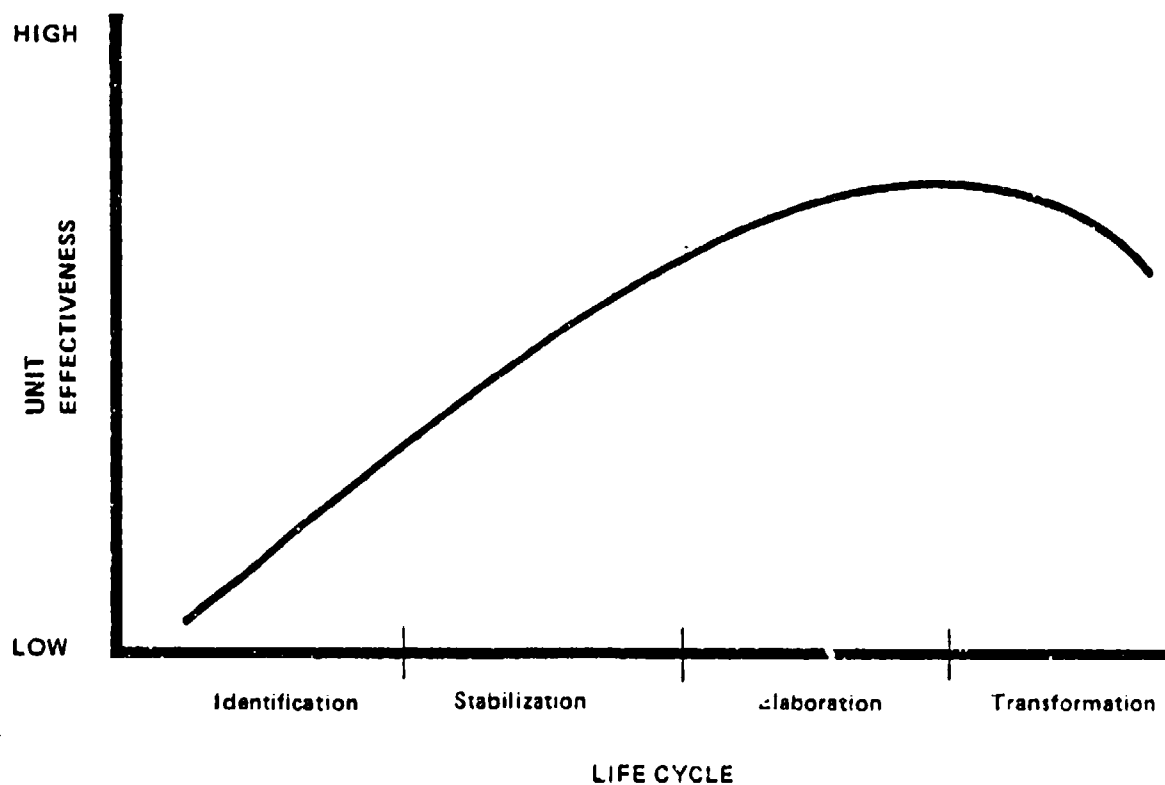
In Chapter III, it was noted that overall effectiveness generally is expected to increase from the "lower" mission statuses (e.g., Total Support) to the "higher" mission statuses (e.g., Committed). Also, Chapter IV noted that overall effectiveness generally increases from the Identification stage of life cycle development through the Elaboration stage. The joint effects of these two forces are such as to create a general upward trend in effectiveness as depicted in Exhibit V-2. Thus, the second proposition is:

(2) Proposition Two

Because of the impact of mission status standards on performance, and the properties inherent in the cycle development, in general, unit effectiveness increases as depicted in Exhibit V-2.

The effectiveness trend indicated in Exhibit V-2 cannot be interpreted too strictly. For instance, it was noted in the discussion of mission status and unit effectiveness in Chapter III that the IET status can be regarded as something of an anomaly, at least in terms of the model. Although it is true that unit effectiveness in IET may be relatively low (certainly as conventionally defined and in comparison to active units), nevertheless individual effectiveness is relatively high later

Overall Relationship Between Life Cycle Stage and Unit Effectiveness



in the IET period. It will be recalled from previous discussions that the Transformation stage is included in the life cycle dimension to account for the phenomena which will occur in advance of major programmed changes (e.g., replacement/rotation). Although there is little hard evidence available, there is much experienced opinion that individual performance trails off and sometimes even declines when an individual comes to regard himself as "short". With this thinking in mind, the general trend in unit effectiveness in the Transformation life cycle stage can be downward as a result of impending major change. Certainly if the trend is not downward, effectiveness will at least abate. Therefore, the trend line in Exhibit V-2 has been drawn only to include mission statuses above IET and life cycle stages through Elaboration, and the following proposition is advanced:

(3) Proposition Three

General unit effectiveness in the Transformation stage is likely to deteriorate rapidly because both dimensions (i.e., mission status and life cycle) cause a change in unit performance.

Since mission status is directed from above and, therefore, impacts on life cycle development, different types of changes in mission status will have different types of impacts in the general effectiveness trend also. For instance, a change in mission status from Prime Time to Total Support for a unit in the Stabilization life cycle stage will act so as to cause a reduction in general unit effectiveness. The reduction in general unit effectiveness would not be as marked with a change from Prime Time to Limited Support. This effect is captured in the following proposition:

(4) Proposition Four

Very erratic shifts in mission status (i.e., changes in mission statuses which are not adjacent in Exhibit V-2) can act in a manner to degrade life cycle development and, therefore, general unit effectiveness. For example, a unit which returns from an extended period of unit training in the field requiring high levels of cohesion and accomplishment (e.g., Prime Time at the National Training Center) and is placed on a Total Support status requiring virtually no activities directly related to the unit itself, can easily be expected to show a downward trend in general unit effectiveness.

Related to the erratic shifts which can occur in mission status is the frequency with which mission statuses can change. In other words, not only can very erratic movement in mission status affect the life cycle development and unit effectiveness but so also can the frequency with which these shifts are made. Thus, the following proposition is advanced:

(5) Proposition Five

Rapid changes in mission status can degrade life cycle development and, therefore, general unit effectiveness.

It must be recognized that Propositions four and five should not be interpreted as prescribing the ideal manner of cycling units through the various mission statuses. There are quite a number of contingencies which must be taken into account by those responsible for assigning mission statuses (e.g., availability of training areas, ammunition, allocations, past support requirements, etc.). The real world is seldom ideal. Nevertheless, Propositions four and five do provide insight to the effects which will occur in the Army's new manning system.

Up to this point the discussion has dealt with the negative impacts which change in mission status can have on the cycle development and general unit effectiveness. However, the reverse relationship also will prevail; i.e., general unit effectiveness can increase as a function of mission status changes. This notion is advanced through the following proposition:

(6) Proposition Six

Shifts in mission status can be sequenced and scheduled in a manner which reinforces life cycle development and, therefore, general unit effectiveness.

For example, moving from a Limited Support to Alert status, which normally includes keeping the unit intact and is marked by an increased focus on the unit's primary TO&E mission, will foster the further development of collective and collaborative task accomplishment. These factors (as well as others) reinforce life cycle development and establish the conditions for improved unit effectiveness. It has been noted in previous sections that increased cohesion within unit is a necessary (though not entirely sufficient) condition for improved combat readiness, and this is one of the primary purposes behind the Army's new manning system. The model in Exhibit V-2 clearly shows that a reasonably consistent movement through the various mission statuses necessarily will result in increased cohesion, life cycle development, and improved unit effectiveness (with the exception of the Transformation stage).

In the absence of empirical evidence it is not possible to formulate the exact nature of these effects on general unit effectiveness. In particular, it might be surmised that for units which have achieved a later life cycle stage (e.g., Elaboration), there would be more resistance to the proposed downward effects

of changes in mission status. That is to say that units which are more developed in life cycle terms and which have amassed a greater degree of experience as a function of being intact for a longer period of time might not exhibit as marked a decline in general unit effectiveness by changes in their mission status.

It can be seen that the composite model of unit effectiveness presented in Exhibit V-1 is dynamic in nature. By their complex characteristics, dynamic models sometimes can be difficult to comprehend and operationalize. However, two additional propositions can be advanced which provide further guidance regarding interpretation of the model and avoid the potential traps of an overly cumbersome model. A key proposition is as follows:

(7) Proposition Seven

The unit effectiveness level in each cell of the composite model is determined by the way in which the unit anticipates change, creates structure, and provides direction to effect the highest possible performance.

From the above, anticipating change means awareness of both programmed change (i.e., mission status shifts) and natural change (i.e., life cycle development). Creating structure and providing direction are functions of leadership which counter any potential "regression" in development and move the unit toward the highest possible level of effectiveness.

The discussion above clearly states that leadership is a very important factor in overall performance. Although the current project is not focused on an examination of leadership, per se, many of the personnel management tools which are to be developed in subsequent tasks of this project will be much related to leadership. Without going into a lengthy and detailed discussion about leadership, the following proposition nevertheless deductively follows from the presentation of the model:

(8) Proposition Eight

All other things being equal, the primary determinant of unit effectiveness is leadership behavior which is flexible and keyed to an understanding of the composite unit effectiveness model.

Flexibility in leadership behavior means that it must be responsive to shifts in mission status, supportive of unit life cycle development, and sensitive to other forces which impact upon overall unit functioning and performance.

3. SUMMARY EXAMPLES

Some brief examples will help illustrate the meaning of the composite model. For example, a new group of trainees going through IET is probably least ready and effective in the fullest sense as a unit. As the group develops and receives more training, it is also becoming a more stable and cohesive unit that can perform as a team. This group then is assigned to a FORSCOM unit which causes a natural tendency to revert to elements of the Identification life cycle stage. Also, it is unlikely that a newly assigned unit would be placed in a Prime Time mission status; Limited Support or Total Support are more likely. The unit thus begins the general developmental pattern again.

If the unit is fortunate enough to receive mission statuses which are supportive of its natural life cycle development, it will function in a manner to maintain a close approximation to the general unit effectiveness trend in Exhibit V-2. The real world is certainly not that orderly, however. Indeed, the timing and duration of the various mission statuses and life cycle stages are not entirely compatible. Mission status will change more frequently and rapidly than life cycle stage. A given unit very likely will go through at least one (and maybe more) iterations of the Total Support, Limited Support, and Prime Time mission statuses in each life cycle stage. For example, a unit in the Elaboration life cycle stage which has been engaged in Prime Time mission status and drops to a Limited Support or Total Support status is likely to experience a decrease in cohesion and psychological readiness. The task of the unit has changed from one requiring unity and teamwork to one in which the unit is splintered, and individuals are performing duties for others. Effects such as these would be even more marked for units which are still in the Stabilization life cycle stage.

Certain basic hypotheses are central to the use of the composite model. First, changes in mission status affect life cycle development. Specifically, a jump of more than one level downward in mission status while initial life cycle development is taking place (a new group moving from Identification to Stabilization to Elaboration) will cause regression in life cycle terms, and a longer period of time will be needed to move toward the most effective Elaboration stage. Next, as mission status moves upward from IET to Committed, there is corresponding movement, in life cycle terms, toward the Elaboration stage. Each move upward in mission status demands more teamwork and higher levels of individual skill. This in turn corresponds to the natural life cycle development of the group as it forms, develops group goals and norms, and achieves a sense of identity.

However, because of the Army structure, this natural progression of group effectiveness is hampered. As changes in mission status occur in a downward movement on the matrix, even after the group has stabilized, there will be a temporary decrease in effectiveness. In addition, during the last life cycle stage, Transformation, a decrease in effectiveness will probably occur as a downward movement in mission

status takes place. Individuals who have only a few weeks remaining in the company will normally not perform at the same level as in the Elaboration stage. If they are separated from the group of individuals they have worked with over a period of time (put on Total Support) they may have very little motivation to perform.

Finally, as stated previously in this section, unit effectiveness should be highest in the life cycle stage of Elaboration, and during a Committed mission status. Group and individual performance should be at a peak. Groups are highly trained, competent to engage in combat and accomplish the mission. All other cells in the model represent lesser stages of effectiveness.

Thus, the model's utility spans problem diagnosis, planning, decision-making and leadership functions. The model is presented to serve as a general management tool, to assess the stage and status of the unit, so that appropriate management decisions can be made. It must be recognized that group development in a cohort type company in the Army is complex. Most work groups do not undergo complete changes in task and function in a matter of weeks on a recurring basis. The model can serve as a useful planning tool for the leader. Let us hypothesize a situation in which the group has been in Prime Time training and is just beginning to enter the Stabilization stage of life cycle development, in which the group identity has just begun to emerge and individuals are developing a sense of commitment to and pride in the unit. If mission status drops to Total Support, changes in behavior and performance are likely to occur. Sense of commitment and belonging to the group drops. Individuals who were working together to accomplish a task are now separated and detailed to provide support to other areas. The commander whose troops may be in this situation can plan strategies to counteract this regression. He may request that as many of the group as possible be kept together during this period, or he may focus on recreational activities which keep the group functioning as a team. This type of situation demonstrates the utility of the model as a planning tool. It also illustrates the possible regression in performance and group development that can occur when shifts in mission status skip a level. This indicates that when and if possible, planned changes in mission status, at least through Prime Time, should be limited to a change from one level to the next, instead of "jumping" more than one level in status.

The model can serve as a useful problem diagnosis tool also. If unit performance has suddenly declined, or if morale is lower, the leader can examine the stage of development of the group in relation to its mission status and any recent changes to determine possible reasons for the change in behavior and performance. For example, a group who has been together for over two years and who has been functioning in the Elaboration stage (highly effective performance) suddenly experiences several Article 15's and misses training days because of faulty equipment. The status may have changed from Prime Time to Limited or Total Support. A change in leadership behavior is necessary at this point; the group may have reverted to an earlier

stage of development. Thus, the leader will also revert to a higher structure orientation.

The model thus provides a method of examining and predicting group behavior at various life cycle and mission status stages. Unit effectiveness will definitely vary depending on the life cycle stage and the mission status. The leader can influence behavior and performance of the group by planning for changes in mission status and corresponding behavior changes. The model provides a general framework from which to examine performance and overall effectiveness of the cohort type combat company in the U.S. Army.

CHAPTER VI
IMPLICATIONS FOR FUTURE RESEARCH AND
UTILITY OF THE COMPOSITE MODEL

VI. IMPLICATIONS FOR FUTURE RESEARCH AND UTILITY OF THE COMPOSITE MODEL

Throughout the previous five chapters we have discussed the very complex task of developing indicators for the management of a combat unit. As depicted in Exhibit VI-1 the task is complex because there are so many interdependent factors impacting upon a unit's development:

- . Personnel resources themselves
- . Doctrine, i.e., Personnel Management System Doctrine
- . Mission assignments
- . Training and equipment resources, and
- . The life-cycle process of organizational growth.

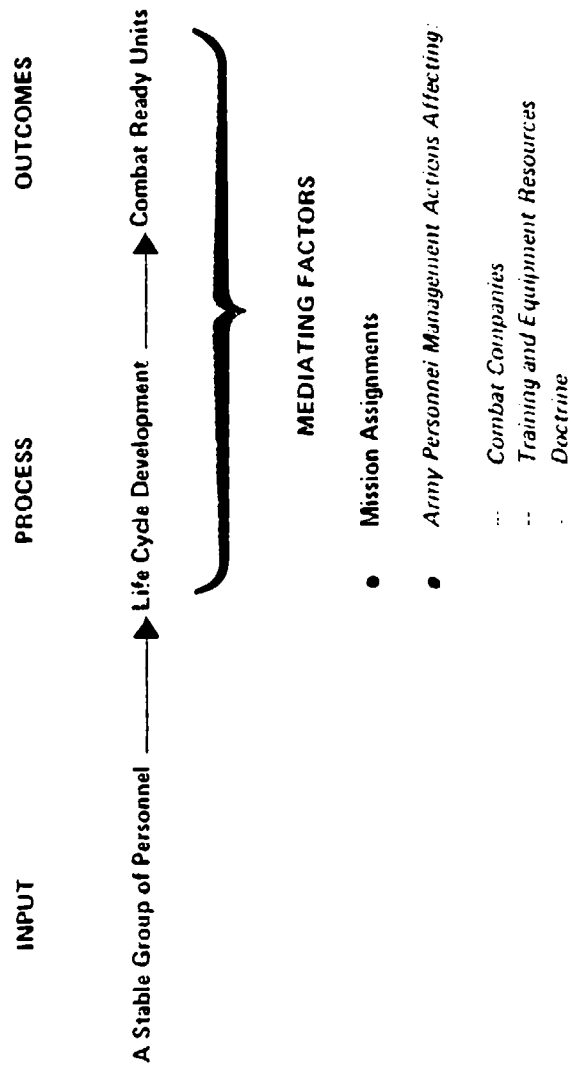
The new manning system will remove one of the most significant obstacles in creating a management system which can produce the predictable and high quality result of combat readiness - it will remove personnel turbulence at the combat company level.

Thus, the major input resource, a group of people in a combat company, can be developed in reasonably predictable ways as the group proceeds through its own life cycle to become a combat ready unit. If the dimensions of life cycle development and mission status are relatively accurate in the composite model set forth in this report, it will enable future work to concentrate on those personnel management actions which affect combat companies, training and equipment resources, and the doctrine which is most likely to produce combat ready units.

In Task 2 of this project, the most appropriate personnel management system functions will be analyzed in relation to the most salient portions of the composite model. At this juncture, an example of a logical set of relationships is depicted in Exhibit VI-2. This is a simplified composite model with committed prime time and alert statuses combined into one. As indicated, there are a minimum of about thirteen major relationships which can be seen. Given a particular personnel management function and the desired properties of a unit progressing through any point on the effectiveness curve, actions to be taken which possess the greatest likelihood of producing a combat ready unit can be predicted and result in:

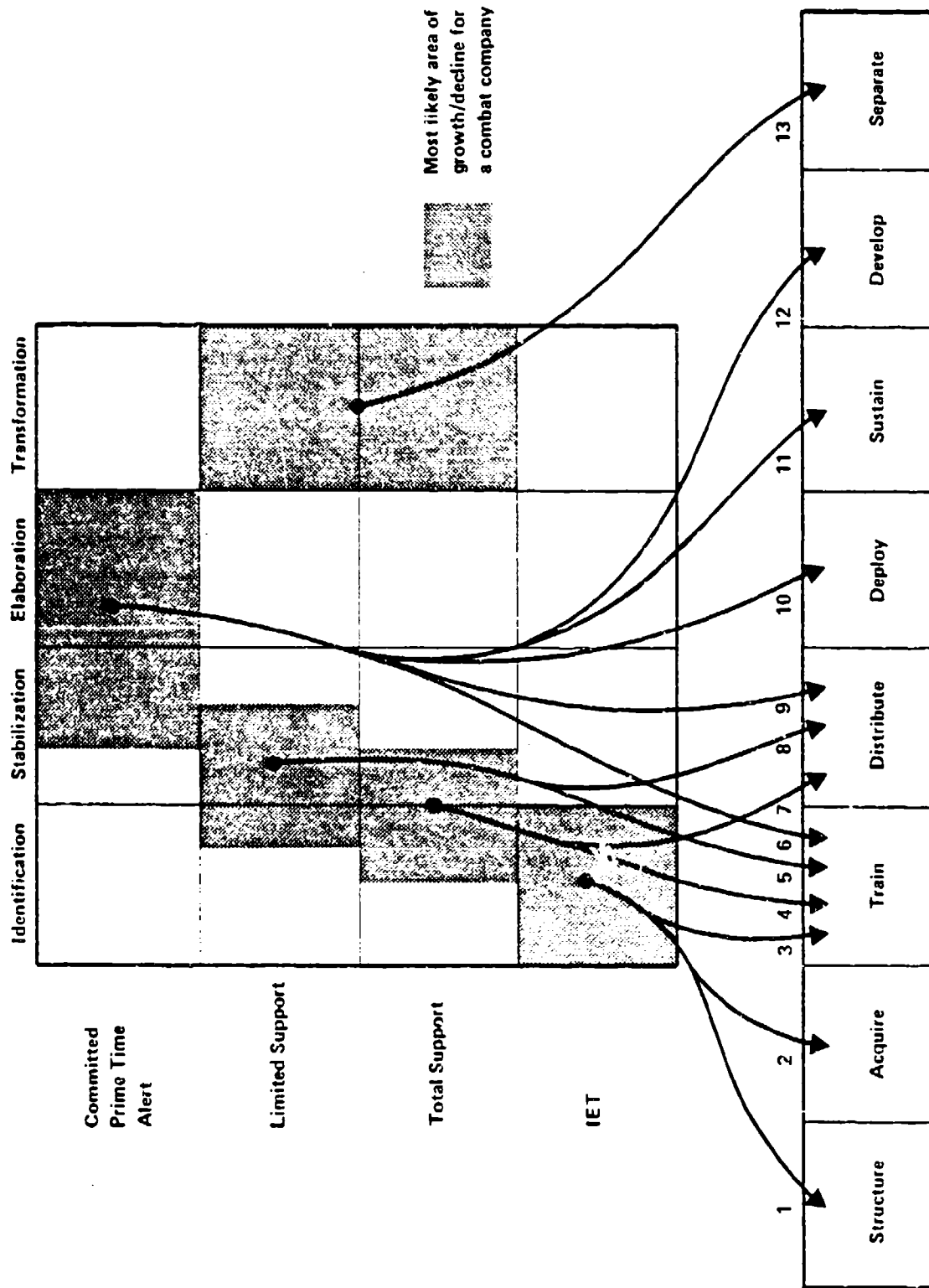
- . A list of propositions which affect internal unit decisions and require no resources or policy changes outside of company organizational boundaries

A Model of Unit Development



Relation of Composite Model with Personnel Management Functions

Exhibit VI-2



- . A list of propositions concerning both policy and resources outside of company boundaries which affect the readiness of the company and above.

With the addition of empirical data, both the composite model and resultant personnel management propositions can be refined further.

The primary benefit in using this methodology is to avoid the overly simplistic trap of employing a single static set of criteria for unit effectiveness in relation to the personnel management system. As a result, the methodology has great utility for future research because:

- . It clarifies some of the potential confusing factors which have existed regarding how to measure unit effectiveness.
- . As a more comprehensive (i.e., multivariate/multifactorial) model, it is a more realistic representation and will provide more substantial and useful findings than a static model based on sample techniques.
- . Hypotheses and research designs to test personnel management functions can be identified and verified through the model with greater confidence because a more realistic and dynamic set of indicators can be employed.
- . The model itself is sufficiently global, generalizeable and adaptable to be modified on the basis of empirical evidence.

In terms of operational utility, the model:

- . Permits users to recognize a mix of effectiveness indicators and, in doing so, encourages them to take predictably effective action in relation to those processes which can ultimately result in a combat ready unit at the right moment in time.
- . Will enable planning and problem diagnosis tools to be developed for use by company commanders. These tools should be readily generalizeable to higher and lower levels of command as well.
- . May result in enough significant empirical evidence to require major revisions in the ways the Army assesses and evaluates the effectiveness/readiness of units.
- . Can provide theoretical inputs to the MTF supporting the manner in which the new manning system is implemented.

The model appears to contain a high degree of face validity. It is estimated that future field tests will provide a significant amount of empirical evidence that will substantiate not only the model, but

many of the personnel management system propositions which will be developed during the next task. Should the tests do so, it will be a relatively easy task to develop a multivariate automated learning system, or a prescriptive set of guidelines for commanders in the field. Such a system or set of prescriptive guidelines would enable the user to connect a situation's behavioral and organizational outcome variables with the most appropriate personnel management actions for a given situation. In effect, such a set of automated tools would enable a major portion of organizational effectiveness skills and knowledge to be placed in the hands of line commanders, where it most appropriately belongs.

APPENDIX A

CANDIDATE INDICATORS OF UNIT EFFECTIVENESS

APPENDIX A
Candidate Indicators of Unit Effectiveness

1. INTRODUCTION

There has been a great deal of research surrounding many of the dimensions of unit effectiveness described here. There currently exist a number of Army sanctioned measures of effectiveness plus a host of other measures developed in previous and current research.

The purpose of this Appendix is to review some of these indicators. The indicators presented here and those discussed later in this effort will comprise the pool of indicators from which AYC/MD will make recommendations as to the most useful for the combat size company commander. In undertaking this task we realize the difficulty of such an endeavor. According to Sorley (1980), "assessment of combat readiness, both of one's own and those of potential adversaries, is a complex and somewhat speculative matter" (p. 57).

Moreover, as much as we would like to select only objective, validated, and easily obtainable indicators, we know that this is an unrealistic ambition. As Sarkesian (1980) has noted, "a realistic measure of combat effectiveness, therefore, must include a mix of objective and subjective measures, but perhaps more importantly, it must accept intuitive assessment and allow for imponderables" (p. 11).

The indicators to be presented here will be a mix of objective and subjective measures. Some of the indicators are currently used, readily available indicators such as percent unit fill. Others require the administration of questionnaires.

The approach for identifying these indicators has been first, a literature search. The sources consulted have been ARI documents, Army regulations, contractor reports, and the scientific literature. Additionally, the indicators were examined by the AYC/MD team for modification and supplementation. The remainder of this section will describe indicators for each of the major dimensions in the following order:

- . Equipment
- . Training
- . Strength/Job Qualification
- . Psychological Readiness
- . Cohesion

. Leadership.

The section will conclude with a discussion of general measures for evaluating combat effectiveness.

2. EQUIPMENT

AR 220-1, "Unit Status Reporting," contains the Army's prescribed policy for assessing the combat readiness of its units. With regard to equipment readiness, it requires data on the amount of mission-capable equipment available for the reporting month (Equipment Status) and the percentage of the authorized MTOE levels this equipment represents (Equipment Readiness).

3. TRAINING

AR 220-1 measures training by requiring the unit commander to estimate the number of weeks needed by the unit to attain fully trained status. However, in a study of more than 1,600 officers, warrant officers, and NCOs conducted by the Army War College (1976), 46 percent of the sample felt this measure was an inaccurate indicator of training readiness.

Additional candidate measures for measuring training include the following:

- . Total unit training days over the previous 15 weeks (the typical X, Y, Z cycle)
- . Total unit training days in the field over the previous 15 weeks.

These measures should be supplemented by a measure of what percent of the unit actually participated in the training. These are calculated as follows:

- . $\% \text{ participating in unit training} = \frac{\text{number of new participants in training each day}}{\text{number of training days X authorized unit fill}}$
- . $\% \text{ participating in field training} = \frac{\text{number of men in field each day}}{\text{number of field days X authorized unit fill}}$

Although we do not anticipate significant personnel turnover in cohort units, the commander should, nevertheless, note the personnel turnover rate over the six month period.

4. STRENGTH/JOB QUALIFICATION

While unit training is essential for developing combat effectiveness, it also is essential to have a full compliment of individually qualified soldiers. This section discusses indicators of unit strength and individual job qualifications.

(1) Strength - The strength of a unit is measured by dividing available strength of the unit by required MTOE strength. The War College Study on the Army Readiness Reporting System (1976) concluded that simply reporting unit strength is a misleading indicator since it includes personnel who are not deployable. Therefore, we recommend adding a measure of deployable strength which is calculated by dividing available deployable strength by required MTOE strength.

(2) Job Qualification - The job qualifications of enlisted personnel in a unit are measured by their SQT scores. We recommend identifying the slot an individual fills in the unit by the first four digits of his MOS code and determining if his SQT score for that slot is acceptable. For each officer in his unit, the commander must judge himself whether the officer is job qualified or not. Unit job qualification is then measured as available MOS qualified strength divided by required MTOE strength. Another measure the commander can use is MOS-mismatch, defined as a soldier working in an MOS other than his primary or secondary MOS. The higher the proportion of MOS-mismatch in a unit, the lower the job qualification of the unit.

5. PSYCHOLOGICAL READINESS

This section identifies indicators for a number of the psychological dimensions which have been linked in one fashion or another to psychological readiness to fight. The specific concepts treated here include:

- . Pride
- . Morale
- . Acceptance of Authority
- . Liking for the Army
- . Confidence/Trust
- . Adjustment to the Army
- . Quality of Life
- . Job Satisfaction
- . Motivation

In identifying these indicators, the decision was made to identify measures which have been used within the last 5 to 10 years. In the course of the review, two ongoing studies were identified which are particularly pertinent to this project. The one study referred to in the body of the text is the examination of the first twenty COHORT

companies. This examination has necessitated the development of a questionnaire to measure many of the psychological concepts previously identified.

A second effort involves the development of The Commander Unit Analysis Profile (CUAP). The CUAP questionnaire is a diagnostic tool for providing Army Commanders of company size units a knowledge of their enlisted soldiers' attitudes in areas related to mission readiness including unit cohesiveness, training, leadership, discipline, job satisfaction, and other areas.

AYC/MD was able to obtain a copy of the questionnaire being used in the COHORT study. The CUAP questionnaire, however, which was developed at ARI-Fort Hood, is still in a validation phase and consequently, not available to us. We were nonetheless provided with the dimensions the questionnaire examines, and approximate question wording for the questions used to measure each dimension.

(1) Pride

Exhibit A-1 presents a three item scale currently used in the examination of COHORT companies. Preliminary analysis indicates a reliability of .73.

(2) Morale

Both the COHORT study and the CUAP measures morale. Exhibit A-2 presents the three COHORT items measuring morale. The CUAP measures morale with two items which tap the following:

- . Soldier's Own Morale
- . Other's Morale.

(3) Acceptance of Authority

The COHORT study uses a two item scale to measure acceptance of authority. The scale has a preliminary reliability of .62. The items are contained in Exhibit A-3a

(4) Liking for the Army

The Cohort study measures liking to the Army with a three item scale which is presented in Exhibit A-3b.

(5) Confidence and Trust

The CUAP measures confidence in the unit using a four item scale. The content of these items is as follows.

- . Estimate of how well unit "gets job done."

- . Predicted unit performance in times of combat
- . Estimated overall quality of unit
- . Preference for present unit over others.

(6) Adjustment to the Army

The cohort study measures adjustment to the Army by the following item:

How well have you adjusted to Army life

1. Very well
2. Well
3. Borderline
4. Poorly
5. Very poorly

(7) Quality of Life

Holz and Gitter (1974) identified sixteen dimensions of Army life which enlisted soldiers "feel were important and what dimensions, if changed, would increase the likelihood of their reenlisting" (p. 2). The sixteen dimensions of quality of life are:

- . Being treated like an individual and not like another number
- . Having educational opportunities and post-discharge educational benefits
- . Getting equal treatment regardless of race
- . Having good quality, sufficient quantity, and proper services of food
- . Being able to do one's work without having to "hurry up and wait"
- . Being able to cut one's hair the way one wants to
- . Having decent housing and privacy in the barracks
- . Having officers and noncommissioned officers that know their jobs

- . Being provided with good medical and dental care facilities
- . Being able to advance without having to "know the right people "
- . Being paid a fair salary equal to what civilians make
- . Being able to do what one wants to do on one's own time
- . Having facilities available on the post that make life easier, e.g., laundry, bus services, PX, etc.
- . Getting rid of rules and regulations that don't help performance
- . Shortening the length of a tour and letting one choose the location
- . Making the work meaningful and worthwhile and eliminating the busy work.

To measure quality of life of these dimensions, respondents were given the following instruction.

"Please indicate your satisfaction or dissatisfaction with each of the following dimensions of Army life. Use any number between 0 and 100 with 0 representing complete dissatisfaction and 100 complete satisfaction."

(8) Job Satisfaction

Project cohort taps job satisfaction with the following item:

All in all, I am satisfied with my job.

1. Strongly Agree
2. Somewhat Agree
3. Neutral
4. Somewhat disagree
5. Strongly Disagree

The CUAP uses five items of the following type:

- . Usefulness of work
- . Degree to which work is interesting

- . Estimating other soldiers' liking for work
- . Liking for own work
- . Estimate of overall unit job satisfaction.

There are a number of other measures of job satisfaction which will be considered in the selection of a measure of job satisfaction.

(9) Motivation

Eaton (1972) identified the motivation to be recognized as a critical factor in influencing the job performance of tank crews. He measures motivation by having respondents evaluate the probability of an event occurring and how much they would like that event to occur. Exhibit A-4 presents Eaton's items for measuring recognition motivation.

6. COHESION

Both Project COHORT and CUAP offer questionnaire measures for cohesion. Project COHORT provides measures for Horizontal Integration, vertical integration, and acceptance of norms. These items are contained in Exhibits A-5a, A-5b, and A-5c.

The CUAP items for cohesion are as follows:

- . Degree to which soldiers work together well
- . Soldier respect for fellow workers
- . Mutual inspiration to perform well
- . Probability of "stick-togetherness" in times of combat
- . Desire in fellow workers to perform well
- . Estimated prevalence of "good" soldiers in unit
- . Estimated rarity of unacceptably poor soldiers in unit
- . Quality of fellow workers' performance.

7. LEADERSHIP

The cohort study examines leadership along several dimensions including the following:

- . Loyalty to Leaders

- . Leaders' knowledge of their roles
- . Leaders' insistence on high standards
- . Leaders' concern for their soldiers

Exhibit A-6 shows the items used to measure these dimensions.

The CUAP measures four dimensions of leadership. The following depicts the dimensions examined and the types of items used to measure each dimension.

- . Officer Leadership
 - Officer care for soldier needs.
 - Officer respect for soldiers.
 - Leadership quality: Commander.
 - Leadership quality: Other unit officers.
 - Soldier respect for unit officers.
- . NCO Leadership
 - NCO care for soldier needs.
 - Leadership quality: NCOs.
 - NCO respect for soldiers.
 - Soldier respect for unit NCOs.
- . Immediate Supervisor Leadership
 - Clarity of supervisor explanations.
 - Clarity of supervisor expectations.
 - Openness of supervisor to suggestions.
 - Quality of supervision.
 - Supervisor treatment of soldiers.
 - Soldier respect for supervisor.
- . Leadership Concern for Soldier Welfare.
 - Access to senior NCOs for discussion of problems.

- Treatment of soldiers by senior NCOs during discussion of problems.
- CO's "open door" policy: availability of CO.
- CO's "open door" policy: CO treatment of soldiers.

8. MEASURES TO EVALUATE OVERALL COMBAT EFFECTIVENESS

The measures provided in this appendix have been confined to measuring specific dimensions of combat effectiveness such as psychological readiness and cohesion. There are also three indicators which can be used to measure overall combat effectiveness. These are the Unit Status Report, the Annual General Inspection, and the ARTEP. All of these were described in the text and will be evaluated briefly in this section.

The three components of the Unit Status Report - equipment readiness, training, and personnel readiness - when combined, are supposed to provide an indication of a unit's combat readiness. However, the validity of this indicator has never been established in a scientific manner. Moreover, as noted in the body of the report, the reliability of the information provided by unit commanders on the Unit Status Report is, at times, inaccurate.

The Army Research Institute's Command Climate research evaluated a number of measures of combat effectiveness including the AGI and the ARTEP by asking unit commanders to estimate how accurate these measures were in assessing combat effectiveness. In an unpublished paper, O'Mara reports that the sample of unit commanders rated the AGI and ARTEP as accurate indicators of combat effectiveness.

Since AGI and ARTEP scores are available to unit commanders only once a year, they do not constitute a useful, day-to-day indicator of effectiveness which commanders can use. Nonetheless, they do represent powerful effectiveness measures which unit commanders can use during existence of a cohort unit. In addition, these measures provide useful criterion measures for validating other measures of effectiveness such as those presented in the previous sections of this Appendix.

Exhibit A-1
Pride (Alpha = .73)
(Source: Cohort Study)

How much pride do you take in being a member of the Army?

1. _____ a great deal
2. _____ a fair amount
3. _____ only a little
4. _____ none at all

How important is it to you personally to be able to feel that you are a good soldier?

1. _____ not important at all
2. _____ not so important
3. _____ fairly important
4. _____ very important

Being thought of as a "good soldier" by NCOs and officers is important to me.

1. _____ strongly agree
2. _____ moderately agree
3. _____ agree mildly
4. _____ disagree mildly
5. _____ moderately disagree
6. _____ strongly disagree.

Exhibit A-2
Morale (Alpha = .69)
Source: Cohort Study)

How is your Morale?

1. _____ very high
2. _____ high
3. _____ borderline
4. _____ low
5. _____ very low

How do you feel about your unit?

1. _____ like it a lot
2. _____ like it
3. _____ borderline
4. _____ dislike it
5. _____ dislike it a lot

Do you think your unit is concerned about you as an individual?

1. _____ very concerned
2. _____ concerned
3. _____ borderline
4. _____ unconcerned
5. _____ very unconcerned.

Exhibit A-3a
Acceptance of Authority (Alpha = .62)
(Source: Cohort Study)

Young people sometimes go against authority, but as they grow up, they ought to get over that and settle down.

1. _____ strongly agree
2. _____ moderately agree
3. _____ agree mildly
4. _____ disagree mildly
5. _____ moderately disagree
6. _____ strongly disagree

Obedying and respecting authority are important things for children to learn.

1. _____ strongly agree
2. _____ moderately agree
3. _____ agree mildly
4. _____ disagree mildly
5. _____ moderately disagree
6. _____ strongly disagree

Exhibit A-3b
Liking for the Army (Alpha = .75)
(Source: Cohort Study)

Overall, how do you feel about Army life?

1. _____ like it very much
2. _____ like it
3. _____ borderline
4. _____ dislike it
5. _____ dislike it very much

Would you recommend service in the Army to a friend or relative who has just completed high school?

1. _____ definitely yes
2. _____ probably yes
3. _____ probably no
4. _____ definitely no

Which of the following best describes your career intentions at the present time?

1. _____ I will stay in the Army until retirement
2. _____ I will reenlist upon completion of my present obligation but am undecided whether I will reenlist again
3. _____ I am undecided whether I will reenlist
4. _____ I will probably leave the Army upon completion of my present obligation
5. _____ I will definitely leave the Army upon completion of my present obligation.

EXHIBIT A-4

MOTIVATION
(SOURCE: EATON, 1978)

For each general question below please circle the odds (chances in 10) which best tells how certain you are that the statement is true. Choose any odds from the following:

	very very	very				fairly		very	very	perfect
no	little	little	little	some	50-50	good	good	good	good	100%
chance	chance	chance	chance	chance	chance	chance	chance	chance	chance	chance
0/10	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	10/10

Example: What are the odds that if you do very well on tank gunnery the Commanding General will shake your hand and congratulate you?

0/10 1/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10

If you feel there is very little chance that this would happen, circle 2/10.

YOUR ANSWERS WILL BE KEPT CONFIDENTIAL. PLEASE ANSWER CAREFULLY AND HONESTLY. THANK YOU.

What are the odds that if you do very well in tank gunnery you will receive praise from your superior for doing good work?

0/10 1/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10

If you do very well in tank gunnery what are the odds that you will receive a "Well done" from your platoon sergeant?

0/10 1/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10

If you do very well in tank gunnery what the the odds that you will receive recognition from the Company Commander for doing a good job?

0/10 1/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10

If you do very well in tank gunnery what are the odds that you will get an individual award for superior crew performance?

0/10 1/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10

How do you feel about it?

SECTION II

In this section we are asking how you feel about the happenings you saw in Section I. We would like to know how you would feel if it happened to you.

Dislike it extremely	Dislike it greatly	Dislike it a lot	Dislike it some	Dislike it a little	Don't care	Like it a little	Like it some	Like it a lot	Like it greatly	Like it extremely
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

Example: How would you feel about being congratulated by the Commanding General for doing very well in tank gunnery?

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
----	----	----	----	----	---	----	----	----	----	----

How would you feel about receiving praise from your superior?

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
----	----	----	----	----	---	----	----	----	----	----

How would you feel about receiving a "Well done" from your platoon sergeant?

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
----	----	----	----	----	---	----	----	----	----	----

How would you feel about getting an individual award for superior crew performance?

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
----	----	----	----	----	---	----	----	----	----	----

How would you feel about receiving recognition from the Company Commander for doing a good job?

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
----	----	----	----	----	---	----	----	----	----	----

EXHIBIT A-5a

COHESION: HORIZONTAL INTEGRATION
(SOURCE: PROJECT COHORT)

In general, how do you feel about the people you work with?

1. _____ I like them a lot
2. _____ I think they are OK
3. _____ I do not like them very much
4. _____ I do not like them at all

If you were given the choice of transferring to another company, what would you do?

1. _____ jump at the chance
2. _____ think about it and eventually take the transfer
3. _____ think about it and eventually turn down the transfer
4. _____ turn down the transfer immediately

If the people in your company were given the choice of transferring to another company, in general, what would they do?

1. _____ jump at the chance
2. _____ think about it and eventually take the transfer
3. _____ think about it and eventually turn down the transfer
4. _____ turn down the transfer immediately

How many of the soldiers in your unit really want to do well in training?

1. _____ all do
2. _____ most do
3. _____ some do
4. _____ very few do
5. _____ none do

How many soldiers in your unit do you think are good soldiers?

1. _____ all are

- 2. _____ most are
- 3. _____ some are
- 4. _____ very few are
- 5. _____ none are

How many soldiers in your unit perform so poorly that the unit might be better off without them?

- 1. _____ none
- 2. _____ very few
- 3. _____ some
- 4. _____ most
- 5. _____ all

I don't trust the other guys in my unit.

- 1. _____ agree
- 2. _____ not really sure
- 3. _____ disagree

How often do the members of your unit work hard to get things done?

- 1. _____ always
- 2. _____ most of the time
- 3. _____ sometimes
- 4. _____ seldom
- 5. _____ never

All in all, I am satisfied with my unit.

- 1. _____ strongly disagree
- 2. _____ somewhat disagree
- 3. _____ neutral
- 4. _____ somewhat agree
- 5. _____ strongly agree

On the whole, how is the morale in your unit?

- 1. _____ very high
- 2. _____ high
- 3. _____ neither high nor low
- 4. _____ low
- 5. _____ very low

The soldiers in my unit are proud to be members of the unit.

1. _____ strongly agree
2. _____ agree
3. _____ not sure
4. _____ disagree
5. _____ strongly disagree

EXHIBIT A-5b

COHESION: VERTICAL INTEGRATION
SOURCE: PROJECT COHORT

My NCO really understands the guys in the unit.

1. ☐ strongly agree
2. ☐ agree
3. ☐ neither agree nor disagree
4. ☐ disagree
5. ☐ strongly disagree

My NCO keeps himself informed about what is going on in my unit.

1. ☐ strong agree
2. ☐ agree
3. ☐ neither agree nor disagree
4. ☐ disagree
5. ☐ strongly disagree

My NCO is such a good soldier, he can show us how to best perform our tasks.

1. ☐ strongly disagree
2. ☐ somewhat disagree
3. ☐ neither agree nor disagree
4. ☐ somewhat agree
5. ☐ strongly agree

My NCO makes me feel like a "winner" when I do something well.

1. ☐ strongly disagree
2. ☐ somewhat disagree
3. ☐ neither agree nor disagree
4. ☐ somewhat agree
5. ☐ strongly agree

Overall, my NCO does a very good job.

1. ☐ strongly disagree
2. ☐ somewhat disagree
3. ☐ neither agree nor disagree
4. ☐ somewhat agree
5. ☐ strongly agree

My NCO doesn't cut anyone any "slack," unless there is a very good reason.

1. ☐ strongly disagree
2. ☐ somewhat disagree
3. ☐ neither agree nor disagree
4. ☐ somewhat agree
5. ☐ strongly agree

When I ask my NCO for help solving a problem, he helps out.

1. ☐ always
2. ☐ most of the time
3. ☐ sometimes
4. ☐ not very often
5. ☐ never

When I want to talk to my NCO, he makes himself available.

1. ☐ always
2. ☐ most of the time
3. ☐ sometimes
4. ☐ not very often
5. ☐ never

When I go to my NCO for help, he listens well and cares about what I say.

1. ☐ always
2. ☐ most of the time
3. ☐ sometimes
4. ☐ not very often
5. ☐ never

EXHIBIT A-5c

COHESION: ACCEPTANCE OF NORMS
(SOURCE: PROJECT COHORT)

A strong Army is necessary for the security of the United States.

1. ☐ agree strongly
2. ☐ agree
3. ☐ not sure
4. ☐ disagree
5. ☐ strongly disagree

Everyone should have to serve his or her country in some way.

1. ☐ strongly agree
2. ☐ agree
3. ☐ not sure
4. ☐ disagree
5. ☐ strongly disagree

I feel that I am serving my country well by being in the Army.

1. ☐ strongly disagree
2. ☐ somewhat disagree
3. ☐ neither agree nor disagree
4. ☐ somewhat agree
5. ☐ strongly agree

How willingly would you deploy to a combat zone with a good chance of actual contact with the enemy?

1. ☐ would do almost anything to avoid going
2. ☐ would make an effort to avoid going
3. ☐ would go if required
4. ☐ would make an effort to go
5. ☐ would do almost anything to go

Exhibit A-6
Measures of Leadership on Selected Dimensions
(Source: COHORT Study)
Loyalty to Leaders

To what extent do you personally feel loyalty and commitment to each of the following: (Circle the appropriate answer.)

	<u>To a Very Little Extent</u>	<u>To a</u>	<u>To Some Extent</u>	<u>To a Great Extent</u>	<u>To a Very Great Extent</u>
a. Your Company/Battery Commander	1		3	4	5
b. Your First Sergeant	1	2	3	4	5
c. Your Platoon Leader (Field Artillery - leave blank)	1	2	3	4	5
d. Your Platoon Sergeant/ Chief of Firing Battery	1	2	3	4	5
e. Your Squad Leader/ Section Chief	1	2	3	4	5
f. Your Team Leader	1	2	3	4	5

Exhibit A-6 (Cont'd)
Leaders' Knowledge of their Roles

To what extent do each of the following know his role in the unit?

	<u>To a Very Little Extent</u>	<u>To Little Extent</u>	<u>To Some Extent</u>	<u>To a Great Extent</u>	<u>To a Very Great Extent</u>
a. Your Team Leader	1	2	3	4	5
b. Your Squad Leader/Section Chief	1	2	3	4	5
c. Your Platoon Sergeant/ Chief of Firing Battery	1	2	3	4	5
d. Your First Sergeant	1	2	3	4	5
e. Your Platoon Leader (Field Artillery - leave blank)	1	2	3	4	5
f. Your Company/Battery Commander	1	2	3	4	5

Exhibit A-6 (Cont'd)
Leaders' Insistence on High Standards

In your unit, to what extent do each of the following insist on high standards of performance from their men? (Circle the appropriate answer.)

	<u>To Very Little Extent</u>	<u>To a Little Extent</u>	<u>To Some Extent</u>	<u>To a Great Extent</u>	<u>To a Very Great Extent</u>
a. Your Team Leader	1	2	3	4	5
b. Your Squad Leader/Section Chief	1	2	3	4	5
c. Your Platoon Sergeant/Chief of Firing Battery	1	2	3	4	5
d. Your First Sergeant	1	2	3	4	5
e. Your Platoon Leader (Field Artillery - leave blank)	1	2	3	4	5
f. Your Company/Battery Commander	1	2	3	4	5

Exhibit A-6 (Cont'd)
Leaders' Concern for their Men

In your unit, to what extent do each of the following show a real concern for their men? (Circle the appropriate answer.)

	To Very Little Extent	To a Little Extent	To Some Extent	To a Great Extent	To a Very Great Extent
a. Your Team Leader	1	2	3	4	5
b. Your Squad Leader/Section Chief	1	2	3	4	5
c. Your Platoon Sergeant/Chief of Firing Battery	1	2	3	4	5
d. Your first Sergeant	1	2	3	4	5
e. Your Platoon Leader (Field Artillery - leave blank)	1	2	3	4	5
f. Your Company/Battery Commander	1	2	3	4	5

REFERENCES

REFERENCES

- Adizes, I. Organizational passages: Diagnosing and treating life cycle problems in organizations. Organizational Dynamics, Summer 1979, 3-24.
- Bales, R.F. Interaction Process Analysis, Cambridge: Addison-Wesley, 1950.
- Bauer, G., Stout, R.L. and Holz, R.F., Developing a Conceptual and Predictive Model of Discipline in the U.S. Army. Research Problem Review 76-5, Alexandria, Virginia: U.S. Army Research Institute, 1976.
- Cameron, K.S. and Whetten, D.A. Perceptions of organization effectiveness across organizational life cycles. Administrative Science Quarterly, (Forthcoming, 1981).
- Campbell, J.P. On the nature of organizational effectiveness. In P.S. Goodman and J.M. Pennings, (Eds.), New perspectives on organizational effectiveness, San Francisco: Jossey-Bass, 1977, 13-55.
- Cartwright, D. The nature of group cohesiveness. p. 91-109 In D. Cartwright and A. Zander (Eds.), Group dynamics, New York: Harper & Row, 1968.
- Cartwright, D. and Zander, A. Group dynamics, New York: Harper & Row, 1968.
- Eaton, K. Performance motivation in armor training. Technical paper 291, Alexandria, Virginia: U.S. Army Research Institute, 1978.
- Funk, S.L., Johnson, C.A., Batzer, E., Gambell, T., Vandecavey, G. and Hiller, J. Training detractors in forscorn divisions and how they are handled. Research Report 1278, Alexandria, Virginia, U.S. Army Research Institute, 1980.
- Hersey, P. and Blanchard, K.H. Management of organizational behavior. N.J.: Prentice-Hall, 1977.
- Hauser, William The will to fight, pp. 186-211, In S. Sarkesian (ed.) Combat effectiveness, Beverly Hills: Sage Publications, 1980.
- Holz, R.F. and Gitter, A.G. Assessing the Quality of Life in the Army. Technical Paper 256, Alexandria, Virginia: U.S. Army Research Institute, 1974.
- Kimberly, J.R. and Miles, R.H. The organizational life cycle. San Francisco: Jossey-Bass, 1980.

- Lodahl, T.M. and Mitchell, S.M. Drift in the development of organizations. The organizational life cycle. San Francisco: Jossey-Bass, 1980.
- Miles, R.H. The role of organizational learning in the early creation and development of organizations. In J.R. Kimberly and R.H. Miles, The organizational life cycle: New perspectives for organizational theory and research. San Francisco: Jossey-Bass, 1980.
- Miles, R.H. and Randolph, W.A. Influence of organizational learning styles on early development. In The organizational life cycle. San Francisco: Jossey-Bass, 1980.
- Ouchi, W.G. A framework for understanding organizational failure. In The organizational life cycle. San Francisco: Jossey-Bass, 1980.
- Palmer, R.L. The commander's unit analysis profile, Ft. Hood, Texas: U.S. Army Research Institute, 1981.
- Quinn, R.E. and Cameron, K. Organizational life cycle and shifting criteria of effectiveness: Some preliminary evidence. Unpublished, May, 1981.
- Sarkesian, Sam (Ed.) Combat effectiveness Beverly Hills: Sage Publications, 1980.
- Shils, E.A. and Janowitz, M. Cohesion and disintegration in the Wehrmacht in World War II, Public Opinion Quarterly V.12, pp. 280-315, 1948.
- Sorley, L. Prevailing Criteria: A Critique, pp. 57-93, In S. Sarkesian (Ed.), Combat effectiveness Beverly Hills: Sage Publications, 1980.
- Tichy, N.M. Problem cycles in organizations and the management of change. In J.R. Kimberly and R.H. Miles, The organization life cycle: New perspectives for organizational theory and research. San Francisco: Jossey-Bass, 1980.
- U.S. Army Research Institute, Maxwal Forces Development Test, Alexandria, Virginia: U.S. Army Research Institute, 1977.
- "Unit Performance Seminar 6-8 October 1981 - Summary of Proceedings," Alexandria, Virginia: U.S. Army Research Institute, 1981.
- U.S. Department of the Army, Headquarters. U.S. Army Regulation 20-3, "Department of the Army Special Subjects for Inspection," Washington, D.C., 1980.
- U.S. Department of the Army, Headquarters. U.S. Army Regulation 220-1, "Unit Status Reporting," Washington, D.C., 1981.

U.S. Department of the Army, Headquarters. U.S. Army Regulation 350-2
"Army Training," Washington, D.C., 1981.

Van de Ven, A.H. Early planning, implementation and performance of new
organizations. In John R. Kimberly and Robert H. Miles (Eds.),
The organizational life cycle, San Francisco: Jossey-Bass, 1980.

Walton, R.E. Establishing and Maintaining High Commitment Work Systems.
In The organizational life cycle. San Francisco: Jossey-Bass,
1980.

Wesbrook, Steven Socio Political Alienation and Military Efficiency,
in Armed forces and society V.6, pp. 120-127, 1980.

Whetten, D.A. Sources, responses and effects of organizational decline.
The organizational life cycle. San Francisco: Jossey-Bass, 1980.