

Standing Combined Arms for the Heavy Brigade

**A Monograph
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ABSTRACT

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The past ten years, in the absence of a peer threat, have focused on technology and capitalizing on efficiencies. The prospects for future operations as part of the War on Terrorism, the continued refinement of the Interim Brigade, and the decision to imbed combined arms at some level within the Objective Force present unique challenges and opportunities. Recent events suggest that the United States Army ought to explore ways to increase effectiveness by addressing substantive organizational change in its current heavy brigades. This monograph proposes such a look. It seeks to answer the question of whether the U.S. Army should restructure heavy brigades into standing combined arms organizations.

Investigation begins with a systems level approach that considers organization theory. It determines that a standing brigade combat team provides advantages in division of labor, coordination and decentralization that provide greater flexibility and adaptability. Specifically, the standing brigade is more versatile, agile and characteristic of a complex adaptive system than the current method of task organization.

In order to provide a more holistic treatment of the subject, this work also looks at the human element by considering cohesion. It determines that cohesion can be found at and developed in larger organizations such as the brigade. With this established, it determines that the standing brigade concept promotes those structural and situational factors that hold the promise of increasing cohesion to a greater extent than does the current task organized brigade.

This monograph concludes that the U.S. Army should restructure its heavy brigades into standing combined arms organizations. It recommends a heavy brigade organization that incorporates an artillery battalion, an engineer battalion, a forward support battalion and a military intelligence company as organic assets. It considers the implications of this for the division and suggests ways of mitigating some disadvantages and overcoming potential sources of resistance.

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CHAPTER 1

INTRODUCTION AND METHODOLOGY

Background and Significance

With the backdrop of the events of September 11th, heavy forces may be required to conduct ground combat or stability and support operations as part of a campaign within the larger war against terrorism. The likelihood of deployment, either in the near or long term, suggests that the U.S. Army ought to continue to explore ways to increase effectiveness, beyond increases in technology, by addressing substantive organizational change in its current heavy brigades.

Although the focus of the last ten years has been on maximizing *efficiencies*, in the absence of a peer threat and increases in technology, perhaps now is the moment to increase *effectiveness* through organizational change. FM 22-103, Leadership at Senior Levels, captures the essence and tension between the two concepts.

Effectiveness and efficiency may become adversarial concepts rather than supporting one another. Efficiency tends to address form. Effectiveness suggests substance or total outcome. Both are necessary to achieve success. Effectiveness directs attention to results such as achieving organizational goals and accomplishing the mission. Efficiency addresses how well the process was accomplished and is part of, but does not necessarily address, the outcome. When effectiveness and efficiency are confused or allowed to conflict with one another, they tear at the moral, operational, and administrative fabric of organizations.¹

The reorganization of heavy brigades into standing Brigade Combat Teams (BCTs) holds the promise of increasing effectiveness across the spectrum of operations. Further, there are ways to accomplish this that compensate for some of the efficiencies present in the current system of task

¹ Department of the Army, FM 22-103 *Leadership at Senior Levels* (Washington, D.C.: Government Printing Office, 1993), 42.

organization. This is important not only in light of recent events, but also because it may begin to bridge the gap between the current force and the interim and future objective forces.

The current method of tailoring brigades maximizes efficiencies and attempts to capitalize on flexibility while mitigating its inherent disadvantages in effectiveness. It does this primarily by developing habitual relationships between combat, combat support and combat service support units. The degree to which this method facilitates flexibility in reality is suspect because there are rarely major deviations in the way brigades are task organized for combat. Recent peacekeeping operations offer a sharp contrast; task organization has varied greatly from that normally seen in force on force operations at the Combat Training Centers. The extent to which recent peacekeeping experience is an endorsement for tailorable brigades is unclear. It is quite possible, if not probable, that future operations of this type will occur in a non-permissive environment or have the potential of becoming combat actions. The Army's capstone doctrinal manual, FM 3-0, acknowledges that units must be ready to operate across the full spectrum of operations stating that "Army forces may conduct stability and support operations as well as combat operations" within the future combat zone.²

The recent trend in combined arms organization suggests that forming self-contained combined arms brigades is not a foregone conclusion and will, in fact, be a daunting task. Today the United States Army is increasingly structured along functional or branch lines and then task organizes as needed. This trend is evident in the structure of the Limited Conversion Division (LCD) and the Force XXI Division.³ The implementation of LCD removed critical CSS assets from the maneuver battalions. The Force XXI Division proposes to maintain this initiative with the exception of adding the medical platoon back into the maneuver battalion and making a

² Department of the Army, FM 3-0 *Operations* (Washington, D.C.: Government Printing Office, 2001), 1-17.

³ See United States Army Command and General Staff College, ST 100-3 *Battle Book* (Fort Leavenworth, KS, U.S. Army Command and General Staff College, July 2000), 3-1 and 4-2.

combat engineer battalion organic to the brigade. These efforts indicate that there are mixed views on how to achieve combined arms effects.

A look at the development of the Interim Brigade Combat Team (IBCT) further illustrates the difficulty with organizing brigades as self-contained combined arms organizations. The Operation and Organization (O&O) Document for the IBCT outlined a brigade organized around light armor equipped infantry battalions and supplemented by a reconnaissance and surveillance squadron, a towed artillery battalion, and supported by a brigade support battalion.⁴ This organizational concept also embedded company sized elements of anti-armor, engineer, military intelligence, and signal assets within the brigade structure. This constituted a brigade structure incorporating inherent combined arms. Subsequent efforts to develop consensus over the IBCT's Table of Organization and Equipment (TO&E) demonstrate that the final product may defer to current methods of task organizing brigades under the new mantle of "modular" organizations. Concerns among some of the various branch proponents indicate that creating standing combined arms brigades is still a contentious one.

It is possible that a change in the existing, or "legacy," brigades might hold some promise for facilitating future change in how the Army organizes its brigades. In a culture that requires a certain degree of consensus to achieve organizational change, incremental change stands a better chance of success.⁵ In light of this, a modification to the heavy brigade's organization might establish the conditions for development of a more effective structure for the interim and objective force.

⁴ "The Interim Brigade Combat Team: Organizational and Operational Concept," Version 4.0 dated 30 June 2000 [online]; available at <http://www.lewis.army.mil/transformation/O&O%20brief/>, 19.

⁵ For a comprehensive look at the relationship between military culture and change see Williamson Murray's "Innovation: Past and Future," in *Military Innovation in the Interwar Period*, ed. Williamson Murray and Allan R. Millett (Cambridge: Cambridge University Press, 1996), 300-328.

The idea of a standing combined arms force is not new. However, various factors have prevented forming these capable teams in the past. Contemporary theorists and officers serving in the field have written at length on the subject in an effort to persuade the Army's leadership to form coherent fighting units that live, train and operate together on a routine basis.⁶ Understanding the advantages and disadvantages of standing BCTs, as well as the implications from this reorganization, might lead to recommendations that would facilitate effective implementation.

Research Question

This monograph endeavors to determine what is the appropriate mix of arms within the current heavy brigade. In order to do so it will answer the question – Should the U.S. Army restructure heavy brigades into standing combined arms organizations? The method of determining the answer, as well as the subordinate questions that must be answered in order to provide a logical determination, follow in the next section.

Methodology

This monograph takes a holistic approach in determining whether we should restructure the heavy brigade into a standing combined arms organization and, if so, to what degree. To achieve this, this study considers how systemic and psychosocial theories inform the subject. The theoretical starting points form the basis for analysis and assessment. A variety of unclassified primary and secondary sources provide the building blocks for this approach.

Investigation begins with a systems approach, based on organizational design. Starting with the premise that the heavy brigade operates in a complex environment, that places a

⁶ John D. Rosenberger, "Reaching Our Army's Full Combat Potential in the 21st Century," *Armor*

premium on flexibility and adaptation, it considers what organizational theory says about structuring and developing organizations for success. Central to this discussion is an appreciation for the concepts that flow from issues of division of labor, coordination and control. This part of the examination concludes with a systems level answer to the research question.

Next, this inquiry looks at psychosocial theories of cohesion in military organizations. Cohesion is critical to the effectiveness of fighting units and a comprehensive approach must investigate how organization of the brigade affects cohesion. To do this, it must define cohesion and address at what level soldiers identify with the unit. It must also identify the factors that affect cohesion. This portion concludes by assessing how organization of the brigade affects cohesion.

The conclusions developed answer the research question and, in the process, provide the basis of recommendations for change. These recommendations offer a brigade organizational structure that specifically outlines which units should be organic, which units should be attached on a habitual basis and the reasons behind each. There are implications that accompany any change and the monograph addresses those implications. It also identifies likely sources of resistance and suggests ways of overcoming this.

Any research must establish the parameters of investigation. The scope of this monograph is limited to looking at changes to the current heavy brigade. However, the conclusions and recommendations may have applicability to other brigades such as light, air assault and airborne infantry. This work begins from the premise that the IBCCT is refining the level of organic combined arms and that a decision to proceed with Objective Force design has been taken. In light of this, this effort has applicability for future change in these areas as well. Although it is focused at the brigade level, any proposed changes have implications at the

battalion and division level. Therefore, this study will address implications from restructuring for one level below and one level above within the context of the issues contained in this research. Certainly, there are other ramifications such as cost, force level or manning constraints, and possible base realignment requirements. These issues, stemming primarily from considerations for efficiency, are important and deserve additional future investigation.

Definitions and Terminology

An understanding of key definitions and terminology provides the base for the work presented and enables the reader to identify key aspects of inquiry. As defined in FM 101-5-1 *Operational Terms and Graphics*, **combined arms** is the “synchronized or simultaneous application of several arms, such as infantry, armor, artillery, engineers, air defense, and aviation, to achieve an effect on the enemy that is greater than if each arm was used against the enemy in sequence.”⁷ The organization of these arms is the topic of this investigation and includes other branch functions as well. Definitions for the two types of combined arms structures considered follows.

A **standing**, or self-contained, combined arms unit is one that has the preponderance of its battlefield function capabilities (represented by branch or branches) organic to the organization. It contains an inherent capacity to execute a majority of its wartime missions. The extent to which it embeds the various arms within the organization determines the level of subsequent task organization required to perform a specific mission.

A **task organized**, or modular, combined arms unit is a “temporary grouping of forces designed to accomplish a particular mission,” in other words tailorable.⁸ This type of

⁷ Department of the Army, FM 101-5-1 *Operational Terms and Graphics* (Washington, D.C.: Government Printing Office, 1997), 1-32.

⁸ Ibid., 1-153.

organization requires a significant level of task organization to execute the majority of its wartime missions. Like the standing organization, it can subsequently task organize for different missions.

In order to maintain consistency, this work uses standing and task organized to refer to the two types of brigade structures. Because the standing brigade can receive augmentation, provide forces on a temporary basis to other headquarters, and task organize within itself words like “permanent” and “fixed” are improper. Likewise, the task organized brigade usually has habitual relationships with elements that are not organic and words like “ad hoc” and “impromptu” are also badly chosen. Authors quoted may use different terminology, and the reader is advised to consider the context of the source.

Summary

This monograph explores the question of whether the heavy brigade should be structured as a standing combined arms organization, an often-discussed question, in the contemporary strategic environment. Implications from debate regarding the IBCT’s organizational design coupled with the decision to form inherent combined arms within the objective force and considerations for the effectiveness of our current heavy brigades demand it. The emergence of complexity theory and its impact on traditional, as well as new, organizational theory offers a distinctive backdrop for an examination of the question. A consideration of cohesion ensures that the human element is not lost in the examination of the issue.

The answer to the research question not only specifies what the standing heavy BCT should look like, but also how to best implement change. This study concludes that the U.S. Army should restructure its heavy brigades into standing organizations with inherent combined arms capabilities. This includes the assignment of an engineer battalion, an artillery battalion, a support battalion and a military intelligence company.

CHAPTER 2

ORGANIZATION THEORY

Introduction

This chapter explores the topic of brigade organization by looking at organizational theory. Organizational theory can be broken down into areas that include organizational behavior, organizational processes and organizational structure.⁹ The latter area is the focus of this chapter because it directly addresses the question of what organizational structure is superior for the heavy brigade.

Because organizations interact with their environments, this chapter begins by looking at the contemporary environment and the issue of complexity to establish a set of desired characteristics for the heavy brigade. It shows that effective organizations require agility, versatility, and the attributes of complex adaptive systems. Ultimately, these characteristics provide the benchmark for evaluating the standing and task organized brigade.

How to achieve those characteristics, and others, is the focus of organizational structure theory. This section surveys the key organizational concepts that emerge from looking at how organizations divide labor, accomplish coordination, and achieve control. With these concepts established, it is possible to apply them to the two methods of organizing the heavy brigade.

⁹ For a succinct but illustrative survey see Jay M. Shaffritz and Philip H. Whitbeck, eds., *Classics of Organizational Theory* (Oak Park, IL: Moore Publishing Company, INC, 1978). Recounting major works by seminal theorists, this history of organizational theory traces the development of organizational thought from early classical economist theorists, with their scientific approach, through neoclassical social and behavioral science writers and eventually to systems level theorists. A more comprehensive, but secondary, source is William G. Scott and Terence R. Mitchell's *Organization Theory: A Structural and Behavioral Analysis*, 3rd ed. (Homewood, IL: Richard D. Irwin, INC, 1976). For a contemporary volume see Garreth Morgan's *Images of Organization* (Thousand Oaks, CA: SAGE Publications, 1997).

Applying the concepts to the standing and task organized brigade makes them more concrete and provides the basis for comparison. The standing brigade proves to be a more organic organization; accomplishes coordination through more informal means, and at lower levels; and is more decentralized than the task organized brigade. These attributes make for a more agile, versatile and adaptive organization. Thus, this chapter concludes that organizational theory supports the concept of a standing BCT.

Environment and Characteristics

Organizations operate within specific environments and must be understood within the context of those environments. The United States Army today, as it will for the foreseeable future, operates in a complex environment characterized by an ever more complicated set of social, political, technological and other variables. In the broadest terms, this environment requires an organization that is both flexible and adaptive.¹⁰ A look at Army doctrine and complexity theory provides context and a set of organizational characteristics against which to measure the merits of the two types of brigade organization.¹¹

The U.S. Army's examination of the current and future environments determined a number of organizational characteristics critical to maintaining its decisive edge in a variety of theaters and against a full spectrum of possible threats. Two of these, in particular, expand on the concept of flexibility. Chief of Staff of the Army General Eric K. Shinseki emphasizes that the

¹⁰ Robert S. Frost argues that flexibility should be elevated to and included as a new principle of war. For more on this concept see "The Growing Imperative to Adopt 'Flexibility' as an American Principle of War" (Monograph, US Army War College, 1999).

¹¹ Of course, there are other factors to consider when discussing the structure of organizations. For instance, Henry Mintzberg notes that the "*age* and *size* of the organization; the *technical system* it uses in its operating core...and certain of its *power* relationships" are important design considerations as well as environmental concerns, *Structures in Fives: Designing Effective Organizations* (Englewood Cliffs, NJ: Prentice Hall, 1993), 121. This monograph considers the criticality of the contemporary environment as predominate and thus the benchmark against which to consider how or if we should change brigade organization.

Army must be the master of transitions. These transitions – such as the ability to rapidly shift from offensive to defensive operations, as well as changing from combat to stability operations – are “key to winning decisively.”¹² To do this, the United States Army must have “the versatility to change patterns of operation faster than the enemy can respond, and the agility to adjust to enemy changes of operation faster than he can exploit them.”¹³ Current doctrine defines versatility as “the ability of Army forces to meet the global, diverse mission requirements of full spectrum operations” and agility as the “ability to move and adjust quickly and easily.”¹⁴ For the Army, flexibility includes the characteristics of versatility and agility.

Likewise, complexity theorists provide a prescriptive set of characteristics that enhance adaptability in organizations. These characteristics enable organizations to cope with the modern environment as complex adaptive systems. The Santa Fe Institute notes that complex adaptive systems are “a network of many ‘agents’ acting in parallel” where control of the systems “tends to be highly dispersed.”¹⁵ Dispersed control indicates that these organizations should be decentralized. Adaptive systems act in parallel by anticipating the future based on similar assumptions and shared mental models. Complex adaptive systems also include “many levels of organization...serving as the building blocks for agents at a higher level” and consist of niche capabilities where these niches are “exploited by an agent adapted to fill that niche.”¹⁶ Summarizing the work of the Santa Fe Institute, the characteristics of adaptive organizations include decentralization; a common understanding of operations; and subsystems with niche capabilities.

¹² U.S. Army, “Concepts for the Objective Force,” White Paper dated November 2001 [online]; available at [http://www.army.mil/features/WhitePaper/Objective ForceWhitePaper](http://www.army.mil/features/WhitePaper/Objective%20ForceWhitePaper), 4.

¹³ *Ibid.*, iv.

¹⁴ FM 3-0 *Operations*, 4-16 and 4-17.

¹⁵ M. Mitchell Waldrop, *Complexity: The Emerging Science at the Edge of Order and Chaos* (New York: Simon and Schuster, 1992), 145.

¹⁶ *Ibid.*, 146-147.

Army doctrine and complexity theory expand on the notions of flexibility and adaptability. This examination yields a set of characteristics that will become the basis of comparison between the task organized and standing BCT. Those characteristics include versatility, agility, decentralization, shared understanding, and niche capabilities.

Concepts of Organizational Structure

Henry Mintzberg defines an organization’s structure as “the sum total of the ways in which its labor is divided into distinct tasks and then its coordination is achieved among these tasks.”¹⁷ This definition is the baseline from which it is possible to examine several key organizational concepts. For the sake of simplicity, this monograph groups these concepts into three categories: division of labor, means of coordination, and methods of control (see Figure 2-1 below).¹⁸ First, organizations may divide labor by grouping along functional or product lines. Second, coordination within an organization may come through a variety of means including direct supervision, mutual adjustment, and liaison devices. Finally, organizations may exercise control in either a centralized or decentralized manner.

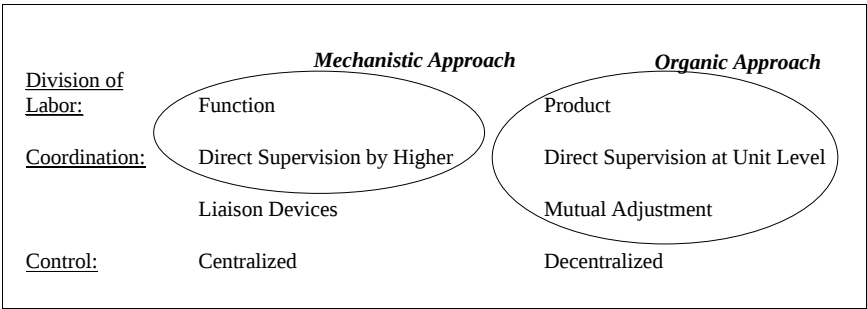


Figure 1. Concepts of Organizational Structure

¹⁷Mintzberg, 2.

¹⁸ This is not an oversimplification, but it is important to realize that there is a degree of overlap between the concepts. For instance, an organization that uses direct supervision by the next higher headquarters to accomplish coordination is also centralized.

These concepts form the basis for understanding the strengths and weaknesses of the task organized brigade and the standing BCT. A brief overview and synthesis of the development of organization theory provides the vehicle for examining these concepts in greater detail.

Classical organization theorists developed and codified theory based on the practice of the industrial and mechanical ages.¹⁹ These early writers saw organization as science and focused primarily on issues dealing with specialization and efficient management that are still relevant today. The heritage left by the classical theorists is work rich in its attention to division of labor issues while relatively silent on how to achieve coordination. Born of the mechanical age, it is not surprising that these early organization theorists saw the organization as a machine with its definitive component parts. This approach is often referred to as the mechanistic approach.

The classical theorists believed that specialization is the key to successful organizations because it can produce efficiencies of scale. Efficiency results from having people with “similar abilities and skills work together separately.”²⁰ Grouping these individuals along functional lines maximizes specialization. For instance, a company that consolidates all of its electrical workers into an electrical department groups along functional lines.

For those classical theorists, issues of coordination are simply a matter of control. With division of labor accomplished in the form of functional groups, coordination between them is the responsibility of and comes under the direct supervision of the next higher-level manager. The number of subordinate groups that a manager is responsible for constitutes his span of control. Most of these theorists believed that five or six was the upper limit of what a supervisor could effectively control. This belief has changed little, even as the ability to communicate has greatly

¹⁹ Classical Theory is embodied in the works of Frederick Winslow Taylor, Henri Fayol, James D. Mooney and others writing at the turn of the 20th century up through World War II. Again, see Shaffritz and Whitbeck's, *Classics of Organizational Theory*.

²⁰ George F. Wieland and Robert A. Ullrich, *Organizations: Behavior, Design, and Change*, (Homewood, IL: Richard D. Irwin, INC., 1976), 25.

increased. Organizations are considered tall, or vertical if they contain “small units and narrow spans of control” and wide, or horizontal if they have “large units and wide spans of control.”²¹

Building on the work of the classical theorists and others, organizational structure theorists seek to reconcile past theory with the practical aspects of technology, the environment, informal structure and the like.²² Although they identify the major alternative methods of structuring the disparate parts of the organization, there is more emphasis on how to achieve coordination or integration of the parts. These structural theorists observed that some organizations perform more effectively when they are organized by product and introduced the concept of the “organic” organization.

Recognizing that the growing complexity of tasks requires some level of specialization, structural theorists struggle with the tension between division of labor and coordination. Focused less on efficiency, they question whether to concentrate specialists in a given function under a common boss or to group the various functional specialists working on a single product under the same superior.²³ A company that places its electrical workers under its various factory managers groups along product lines. Walker and Lorsch argued that what should drive the design of the organization is the importance of specialization relative to integration.²⁴ Organizations that require a high degree of coordination or integration should form various teams under a common superior according to product, while those that do not ought to concentrate specialists together.

²¹ Mintzberg, 65.

²² It is important to note two other major groups of organization theorists – the neoclassical and systems theorists – whose work influences structural theorists. Writing after World War II, and influenced heavily by work in sociology, the neoclassical writers rejected the narrowly scientific view of the classical writers and sought to highlight the social context of organizations. To this group of authors, organization is more about behavior and closer to art than science. At about the same time, a systems approach in other disciplines made its way into organization theory. Systems theory focuses on framework and process and it draws heavily on notions of equilibrium and organism analogies. These groups are omitted. It is enough to acknowledge that many of their concepts are integrated into structural theory.

²³ Arthur H. Walker and Jay W. Lorsch, “Organizational Choice: Product vs. Function,” *Harvard Business Review* (November/December 1968) in Shaffritz and Whitbeck, 227.

²⁴ *Ibid.*, 236.

Structural theorists Tom Burns and G.M. Stalker noted that most organizations fall somewhere on a continuum from mechanistic to what they termed “organic”. The organic organization is characterized by a broadly shared commitment that is also more extensive; a “lateral rather than a vertical direction of communication” within the organization; and where although it is not hierarchic in the same sense as a mechanistic organization, it does “remain stratified.”²⁵ With less hierarchy, the organic organization achieves coordination primarily through two means. First, it can accomplish coordination through direct supervision at a lower level, instead of deferring to higher. This type of direct supervision is inherent within the organization; it does not have to be imposed from the next higher echelon. In order to differentiate between direct supervision imposed from above and direct supervision built into the system, the latter will be referred to as direct supervision at the unit level. Second, coordination can also come from what Mintzberg refers to as “mutual adjustment.”²⁶ Mintzberg offers the analogy of two rowers in a boat reacting to each other, to illustrate mutual adjustment.

In addition to concerns about division of labor and coordination, the third concept, centralization is essential to a fundamental understanding of organizations. Centralization and its converse, decentralization, are two terms prevalent in the work of organizational theorists and in discussing organizational structure in particular. As a result, writers have defined and applied it in various ways. Mintzberg states it simply, when “all the power for decision making rests at a single point in the organization – ultimately in the hands of one person – we shall call the structure centralized; to the extent that the power is dispersed among many people, we shall call the structure decentralized.”²⁷ The concept of centralization and span of control are so intertwined that descriptions overlap – vertical or tall, horizontal or wide. The premise is that

²⁵ Tom Burns and G.M. Stalker, “Mechanistic and Organic Systems,” from the *Management of Innovation* (London: Tavistock Publications, 1961) in Shaffritz and Whitbeck, 208. A stratified organization remains layered but control is more decentralized.

²⁶ Mintzberg, 4.

²⁷ Mintzberg, 95.

small spans of control encourage centralization, while greater spans of control force the manager to decentralize.

An organization that seeks to decentralize may do so in a number of ways (see Figure 2-2 below). First, authority dispersed down the chain of command is the essence of “vertical decentralization.”²⁸ Here, the power to make choices and authorize actions is pushed down to the next lower level. A common example is when the division commander authorizes his brigade commanders to employ certain Family of Scatterable Mines (FASCAM). Since vertical decentralization involves formal power, it is easier to observe.

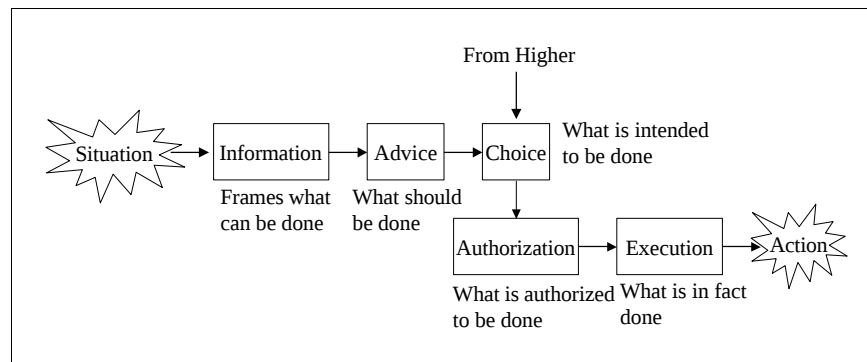


Figure 2. Control and the Decision Process²⁹

Another method is “horizontal decentralization” and involves distributing decision-making power, and thus control, outside the formal lines of authority to “nonmanagers.”³⁰ In the Army’s case, this would mean outside of command channels. For instance, the engineer on the ground has a certain degree of latitude in the final siting of an obstacle. The power to advise and execute, in the case of the obstacle, is not pushed down but spread out within the organization. This informal power inherent in horizontal decentralization makes it less distinguishable.

²⁸ Ibid., 99.

²⁹ Adapted from Mintzberg, 101.

³⁰ Ibid., 99.

It bears mentioning here that decentralization “is not an end in itself; there are certain functions performed in organizations that are better performed by centralized authority than on a distributed basis.”³¹ Centralized institutions achieve economies of scale more readily. Although vertically decentralized organizations may make timely decisions, horizontal decentralization can slow down the decision process. This is particularly important in a hostile environment. Mintzberg observes that “extreme hostility...drives any organization to centralize its structure temporarily” in order to deal with issues of survivability.³² There are two implications that follow from this observation. The first is that not all components of the organization need to be decentralized or decentralized to the same level. This is because at some point further decentralization produces diminishing returns that outweigh gains in effectiveness. Second, organizations that operate in hostile environments need the ability to centralize decision-making in order to deal with immediate issues that may threaten their existence.

In considering the concepts developed in this section, it is important to emphasize that most organizations do not take a purely mechanistic or organic approach. It is rare to find an organization that is structured along strict functional or product lines. Similarly, organizations accomplish coordination through a variety of means. The same applies when considering centralization and decentralization. However, because certain methods predominate in organizations so too do certain strengths and weaknesses.

Applying the Concepts

In order to evaluate the strengths and weaknesses of the task organized and standing BCTs in terms of the theoretical concepts discussed, it is necessary to apply those concepts. This section looks at how each of the brigade structures approach organization. It is helpful first to

³¹ Francis Fukuyama and Abram N. Shulsky, *The “Virtual Corporation” and Army Organization* (Santa Monica, CA: RAND, 1997), x.

consider those organizational aspects that are common to both and then to consider the salient differences.

The United States Army is a hierarchical structure. This is a product of necessity reinforced by organizational culture. In the near term, this is not likely to change and any consideration for structuring the heavy brigade must take this into account. Additionally, the intricacies of modern warfare require a high degree of specialization and departmentalization in the form of battlefield functions or branches. Given this, the question of how to organize these functions, the nature of coordination between them, and decentralization become critical to making an evaluation.

The task organized brigade reflects a blend of the mechanistic and organic approaches to structure. During peacetime and in garrison, units of the brigade are generally organized along functional lines. The brigade then temporarily organizes into a more product based grouping for combat operations. The product that the brigade organizes to generate is combined arms effects. Habitual associations ensure that the units of the brigade achieve a certain level of shared commitment and common operating procedure. Thus, the task organized brigade moves toward the organic end of the spectrum. However, paths of communication and control are mixed. Units, such as a field artillery battalion, that are in direct support (DS) of the brigade still come under the command authority of the parent or functional unit.³³ Further, the ability to sub-task organize and the requirement for combat service support also rests with the parent organization, in this case the Division Artillery. Meanwhile, the authority to establish missions, tasks and priorities rests with the brigade. Positioning authority is shared, as the unit must respond to both

³² Mintzberg, 141.

³³ For a list of brigade command and support relationships see U.S. Army, FM 71-3 *The Armored and Mechanized Infantry Brigade* (Washington, D.C.: Government Printing Office, 1996), 8-2.

the field artillery headquarters and the supported unit.³⁴ The dual lines of control complicate a more organic organization.

The standing brigade is a more organic organization. Although organic, in the way that organizational theorists use the term, is not the same as the military definition – the similar use of the term is not coincidental.³⁵ This brigade organizes along similar lines during peace and war as a self-contained combined arms organization. Despite the fact that a certain amount of hierarchy remains, the standing BCT reduces the dual lines of responsibility within the field artillery and engineer organizations of the division. There is a greater level of shared commitment and common understanding based on greater frequency of interaction between the units of the brigade. Paths of communication and control are less vertical because the brigade is the higher headquarters and not the division. These aspects show that the standing brigade moves farther towards the organic end of the spectrum than the task organized brigade (see Figure 2-3 below).

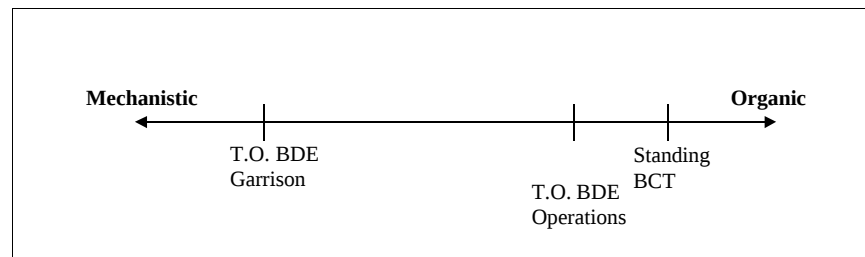


Figure 3. Brigade Organizations - Mechanistic vs. Organic

The blend of approaches evident in the task organized brigade requires different methods of coordination. Remember, the mechanistic organization relies primarily on direct supervision. The next higher echelon, in this instance the division, must resolve conflicts between the

³⁴ The tension that this produces has resulted in some alternative proposals that acknowledge the issue and try to remedy it within the current organizational framework. For one such proposal see Peter F. Haglin, "Direct Support (Plus)," Monograph, School of Advanced Military Studies (Fort Leavenworth, KS: U.S. Command and General Staff College, 1991).

³⁵ FM 101-5-1 *Operational Terms and Graphics*, 1-32. Organic is defined as "[a]ssigned to and forming an essential part of a military organization."

functional components of the brigade. The organic structure is able to accomplish coordination and integration through direct supervision at the unit level and mutual adjustment. To the extent that the task organized brigade has elements of both, it requires another mechanism; specifically, liaison measures to ensure coordination.³⁶ These take the form of either additional staff positions or additional responsibilities for leaders of the organization. Additional staff positions include the brigade chemical officer and various liaison officers (LNOs). The requirement for the DS artillery commander to serve as the fire support coordinator (FSCOORD) and the engineer battalion commander to become the brigade engineer demonstrates the addition of responsibilities. The hybrid nature of the task organized brigade means that direct supervision at the brigade level and mutual adjustment occur mainly among units normally assigned. With those units not normally assigned, and where direct supervision at the unit level is not possible or authorized, liaison devices help achieve coordination and mitigate the necessity to defer decisions to higher. Finally, a level of mutual adjustment is possible in direct correlation to the frequency of interaction among the members of the brigade (see Figure 2-4 below).

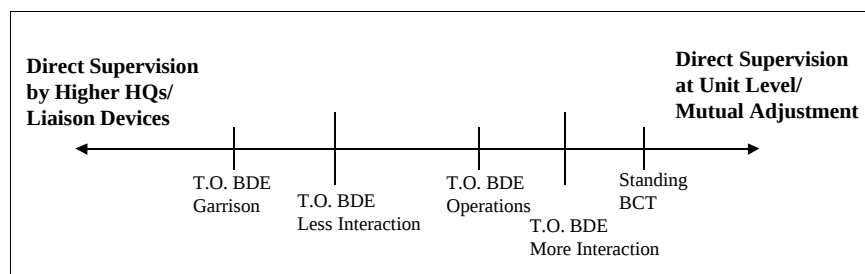


Figure 4. Brigade Organizations - Types of Coordination

The standing brigade achieves coordination primarily through direct supervision at the unit level and through mutual adjustment. With the majority of functional units inherent in the organization, “a system of common supervision” means that “direct supervision is built into the

³⁶ Mintzberg observes that liaison devices are “most often superimposed on functional groupings” to achieve some of the synergy of organic structures, 89. The more organic nature of the standing BCT will

structure.”³⁷ Mutual adjustment is possible to a greater degree because the “close physical proximity” of the various subordinate units ensures that greater opportunities exist, particularly in garrison, for “frequent informal contacts among them, which in turn encourages coordination by mutual adjustment.”³⁸ Of course, those units that are not assigned still require the use of liaison devices in order to assist in coordinating their employment within the brigade.

The greater level of coordination within the standing BCT does not come without potential costs. Coordination maximized within the unit may come at the expense of coordination between units.³⁹ For instance, the senior artilleryman or engineer within the division loses direct supervision over the battalions that are assigned to the brigade and the mutual adjustment between these “like” units is potentially affected. In other words, at the same time that this method of organization might increase the effectiveness of the close support role for the artillery, it might also negatively affect the artillery battalion’s ability to work with other artillery units in fulfilling its counterfire mission. However, if supporting the brigade is the focus for these battalions, then ways can be found to mitigate the negative effects to their secondary missions.

The task organized brigade transitions from vertical centralization to a greater degree of vertical decentralization when conducting operations. The task organized brigade is less decentralized because the division still retains certain decision making powers and control regarding the task organized units. The standing BCT, on the other hand, is more vertically decentralized because it maintains the control commensurate with its assigned units.⁴⁰ That is not

reduce some of these requirements but not do away with all of them.

³⁷ Ibid., 46.

³⁸ Ibid., 47.

³⁹ Mintzberg notes that a more organic grouping “encourages intragroup coordination at the expense of intergroup coordination,” 47. However, it also seems that some of the problems that might arise are mitigated through the standardization of skills and training not only within the various branches, but also across the service.

⁴⁰ Mintzberg captures this difference in offering two types of decentralization, selective and parallel. In selective decentralization power over all decisions might not be “dispersed to the same place...power over different kinds of decisions rests in different places in the organization”; whereas, in parallel

to say that the division does not have “override” capability. What it does mean is that it would exercise that ability by exception.

The issue of horizontal decentralization is more complex. It seems that the power over execution changes little between the two methods of structuring the brigade. Larger spans of control tend to increase the brigade commander’s reliance on the advice of his functional experts. However, this would appear to be the case in either instance. Further, the informal nature of horizontal decentralization indicates that it is more dependent on the personality of the commander and the abilities of the staff than on the method of structuring the organization.

In summary, the standing brigade is more vertically decentralized than the task organized brigade. Neither means of organizing the brigade directly affects horizontal decentralization. Therefore, vertical decentralization provides the most useful means of comparing control between the two methods of structuring the brigade (see Figure 2-5 below).

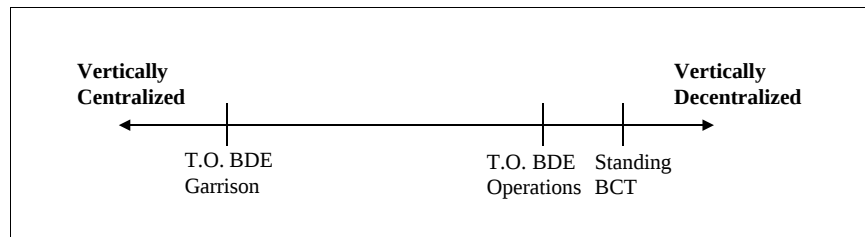


Figure 5. Brigade Organizations - Vertical decentralization

Evaluating the Brigade Structures

Applying organizational concepts allows for an evaluation of the alternate brigade structures. This assessment determines which brigade organization, the standing BCT or the task organized brigade, contains the characteristics central to success in a complex environment.

decentralization “the dispersal of power for many kinds of decisions [goes] to the same place,” 100. The

Recall that flexibility, more pressing in the near term, is embodied in the notions of versatility and agility. In the long term, adaptability becomes more crucial. A review of complex adaptive systems indicates that these organizations are decentralized, share a unifying set of values and orientations, and consist of subunits with niche capabilities. This section begins by evaluating the standing BCT and then looking at the differences in the task organized brigade.

The preceding section determined that the standing BCT is a more organic organization, accomplishes coordination by mutual adjustment and direct supervision at the unit level, and is more vertically decentralized. Each of these facilitates a greater level of agility and versatility within the standing BCT. Additionally, the standing BCT exhibits more characteristics of a complex adaptive system, as identified by the Santa Fe Institute. The basis for these determinations follows.

Burns and Stalker note that the organic structure is more “appropriate to changing conditions,” indicating greater agility.⁴¹ One reason for this is that there is a cost in time linked with transferring resources. With the majority of its units self-contained within the brigade, there is less need to task organize or re-task organize from outside of the brigade.⁴² Faced with uncertain or changing conditions, organizations rely to a greater extent on a less formal coordinating mechanism.⁴³ Thus, agility is dependent on how coordination takes place. The ability to coordinate through mutual adjustment allows the subordinate units within the standing brigade to anticipate and then to adjust their actions in relation to each other based on changes in the situation. Direct supervision at the unit level provides a mechanism for ensuring that the

task organized brigade exhibits selective decentralization while the standing brigade parallel.

⁴¹ Burns and Stalker, 208.

⁴² Prior to World War II, General McNair decided to pool certain limited assets and then task organize them as needed. Jonathan M. House notes the difficulty in moving these assets on the battlefield. This caused much “confusion and inefficiency” and most tactical commanders found it necessary to leave them attached “on an habitual basis that might last for months,” *Toward Combined Arms Warfare: A Survey of 20th-Century Tactics, Doctrine, and Organization* (Washington D.C.: U.S. Government Printing Office, 1984), 107.

commander has the appropriate control to successfully respond to circumstances that require immediate attention. Organizational theory also acknowledges that decentralization imparts a level of “operating responsiveness” or agility absent in the centralized design.⁴⁴

The diversity of operations requires versatile units. One key aspect of versatility mentioned earlier is the concept of transitions. The standing brigade is more vertically decentralized. It has the resources at its disposal to address the transition, as well as, the choice and authority about how to use those resources. Many in and out of the military observe that tactical “organizations that have not lived and trained together before they deploy cannot be transformed overnight on the basis of a single exercise into a fighting force that will stand up to future adversaries.”⁴⁵ This is the first, if not key, transition that faces units of the U.S. Army in future conflict as it has in the past. In summary, the organic nature of the standing brigade means that it is slightly less specialized, but it “can do more tasks and change tasks more easily” – this is the essence of versatility and agility.⁴⁶

The standing BCT is a more complex adaptive system. Like the task organized brigade, it is built on niche capabilities. These niche capabilities are established in the Army as branches, and branch organizations. The standing brigade is more decentralized and facilitates a common understanding among its components through greater and more frequent interaction. This is critical given the current environment because “a military seeking to adapt to a fast-changing and uncertain external environment needs a higher degree of decentralization in order to adapt adequately.”⁴⁷ One way in which units adapt is experimentation. Decentralization aids experimenting by encouraging groups to come up with “new ideas and try new methods” and

⁴³ Mintzberg, 138.

⁴⁴ Wieland and Ullrich, 38.

⁴⁵ Douglas A. MacGregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century*, (Westport, CT: Praeger Publishers, 1997), 230.

⁴⁶ Mintzberg, 61.

⁴⁷ Fukuyama and Shulsky, xi.

results in new “means of coping” with changed circumstances.⁴⁸ This alone is no guarantee that new techniques can be effectively implemented. New processes require the authority to put these solutions into practice. At the tactical level, the standing BCT has this authority. It does so by doing away with major “decision interdependencies” – in this case between the brigade and division level – which allows it to “function in a quasi-autonomous manner.”⁴⁹ In this way, the standing BCT approximates a more complex adaptive system than the task organized brigade.

The fact that the task organized brigade starts out very different from, but then moves toward the standing BCT in several areas has two implications. First, it indicates that the difference between the two brigade structures is one of degree and not of kind. The task organized brigade that is configured for operations approximates, even though it may not attain, all of the advantages inherent in the standing BCT. The second implication is that there are fundamental differences between the two methods of organizing the heavy brigade.

The task organized brigade starts out as a mechanistic organization divided along functional lines and this beginning leaves a mixed legacy to the unit. Although the functional arrangement can lead to higher levels of efficiency, it can also lead to differentiation where members “have different ideas and orientation about what is important in getting the job done.”⁵⁰ Understandably, this may complicate coordination between the members of the task organized brigade. Second, the task organized structure still retains some of its functional flavor when it is configured for operations. When conflicts arise, “the natural tendency is to let coordination problems rise to higher-level units in the hierarchy, until they arrive at a level where the different functions in question meet...[however] the level may be too far removed from the problem.”⁵¹

⁴⁸ Ibid., 21.

⁴⁹ Mintzberg, 102-103.

⁵⁰ Walker and Lorsch, 229.

⁵¹ Mintzberg, 59.

The impact of this is larger division staffs required to deal with coordination issues. Further, resolution of those issues will likely be slower.

The branch basis of organizing units in garrison has another more subtle but lasting effect on coordination. Fukuyama and Shulsky note that a “community of individuals who share common norms or values” will interact with each other on an informal basis and are “frequently critical” to the organization’s effectiveness.⁵² These informal networks impact organizations in positive and negative ways. They facilitate the flow of information because people in them “share information more readily” but can also “impede such flow beyond network boundaries.”⁵³ This raises concerns over whether trust networks, developed around mechanistic divisions in garrison, transfer readily to the task organized brigade conducting operations. This problem is likely greater for units of the brigade not located on the same installation.

Conclusion

Organizational theory, arrayed against a dynamic and complex environment, supports the idea of a standing BCT. This chapter began by asserting that the future brigade should be more agile, versatile and should possess those characteristics of complex adaptive systems. It then looked at organizational theory to determine how different organizations perform the three critical functions of dividing labor, accomplishing coordination and achieving control. The standing brigade proves to be a slightly less specialized, but more organic organization that accomplishes coordination through mutual adjustment or direct supervision at the unit level. Additionally, the standing BCT is more vertically decentralized. These differences, some subtle and others more

⁵² Fukuyama and Shulsky, 22-23. Based on observations, Fukuyama and Shulsky conclude that the U.S. Army “is permeated with informal trust networks of all sorts...each of the branches generates its own trust network; West Point graduates as a whole and each individual class at West Point constitute networks of varying importance; officers who have served in the same unit...later constitute a network when they have dispersed to new assignments,” 79-80.

⁵³ Ibid., 23-24.

pronounced, indicate the potential for greater agility, versatility and adaptability in the standing brigade. Thus, the tentative answer to the central question is that the United States Army should restructure the heavy brigade into a standing combined arms organization.

Military organizations are different from their civilian counterparts. Thus organization theory, heavily influenced by corporate examples and a concern for management principles, does not paint the whole picture. The next chapter considers a predominantly military phenomenon – the issue of cohesion.

CHAPTER 3

COHESION

Introduction

This chapter considers how cohesion shapes the issue of brigade organization. Just as organization theory provides a systems level approach to the research question, cohesion and the larger field of psychosocial theory offer greater insight into the human element. It is difficult to measure subjective variables like cohesion. Despite historical examples indicating cohesion's importance, and in some cases perhaps decisiveness, it is equally difficult to prove the extent of cohesion's impact on combat effectiveness. This chapter begins from the premise, accepted by most Army leaders and indicated by research, that cohesion is a highly desirable quality in a military organization and that it has a direct and significant impact on the unit's effectiveness, both in peacetime and in war.

The first section looks at the various ways in which cohesion is defined in order to provide a common understanding of the term and associated concepts. Next, it is essential to consider at what level soldiers identify with the "unit" in order to understand the potential limit of cohesion's application and to demonstrate its linkage to the question of brigade organization. Certain factors affect cohesion differently. These factors provide the basis for an assessment of how task organized brigades and standing brigades compare at promoting cohesion and, by extension, combat effectiveness. The chapter concludes that the standing BCT promotes those structural and situational factors that enhance cohesion better than the task organized brigade.

Cohesion Defined

A joint panel of officers at the Industrial College of the Armed Forces (ICAF) defined cohesion as “the bonding together of members of a unit or organization in such a way as to sustain their will and commitment to each other, their unit, and the mission.”⁵⁴ Alternatively, cohesion has also been defined as “the ability of a military unit to hold together, to sustain mission effectiveness despite combat stress.”⁵⁵ Both of these definitions emphasize the human bond that ensures unit integrity and the positive outcomes that result from this. Specifically, cohesion contributes to combat effectiveness and helps prevent disintegration. The mechanism for how this occurs is now thought to be cyclic and iterative, a reinforcing mechanism, where “[m]otivation may influence cohesion, which may influence performance, which may influence satisfaction and motivation, which may influence cohesion, and so on...ascending or descending spirals depending on whether the influence is positive or negative.”⁵⁶

Psychosocial theory and behavioral studies of the military abound with numerous related terms. Some of these include motivation, morale, cohesion and *esprit de corps*.⁵⁷ While a detailed treatment of the intricacies between these is beyond the scope of this investigation, several key points bear mentioning. First, motivation and morale generally relate to the individual, while cohesion and *esprit de corps* the group. Second, there is a mutual relationship between both sets of behavioral concepts where individual concerns impact group relations and vice versa. Because this monograph focuses on the brigade, this chapter deals exclusively with the group phenomena of cohesion. It is enough to highlight the linkage of these to the individual.

⁵⁴ John H. Johns and others, *Cohesion in the US Military*, Defense Management Study Group on Military Cohesion, Industrial College of the Armed Forces (Washington, D.C.: NDU Press, 1984), 4.

⁵⁵ William L. Hauser, “The Will to Fight,” in Sam C. Sarkesian, ed. *Combat Effectiveness: Cohesion, Stress, and the Volunteer Military* (Beverly Hills: Sage Publications, 1980), 204.

⁵⁶ Guy L. Siebold, “The Evolution of the Measurement of Cohesion,” *Military Psychology* 11, no. 1 (1999): 21.

⁵⁷ For a comparison of these terms and trends in research see Anthony Kellet’s *Combat Motivation: The Behavior of Soldiers in Battle* (Boston: Kluwer-Nijhoff Publishing, 1982).

Finally, there are two general views on the relationship between cohesion and *esprit de corps* that deal with whether or not they are distinct or synonymous concepts.⁵⁸

In the group theory of cohesion and *esprit de corps*, one approach treats the two as distinct but related phenomena. For Kellett, cohesion “denotes feelings of belonging and solidarity that occur mostly at the primary group level.” Whereas, *esprit* “denotes feelings of pride, unity of purpose and adherence to an ideal represented by the unit, and it generally applies to larger units with more formal boundaries than those of the primary group.”⁵⁹ The primary group here refers to the fire team, crew, squad and sometimes platoon. Even though the two are distinct, there is a relationship. Specifically, *esprit de corps* aids cohesion by supplementing it with a “commitment to a wider entity, be it a battalion or regiment or a country and its cause.”⁶⁰

The other view argues that cohesion and *esprit de corps* are synonymous. Cohesion is “the attitudes and commitment of individual soldiers to the integrity of the unit, the ‘will’ to fight, and the degree to which these are in accord with societal values and expectations...in the most simple terms, is *esprit de corps*.”⁶¹ Most considerations of cohesion do not draw a distinction between the two. Indeed, the definitions listed earlier referred only to the “unit.”

This chapter adopts the latter approach by exclusively using the term cohesion. It accepts ICAF’s definition of cohesion as the bonding together of members of a unit or organization in such a way as to sustain their will and commitment to each other, their unit, and the mission. The next section looks at the potential for cohesion at levels above the primary group.

⁵⁸ For a third see Siebold, 19. Some psychosocial theorists subdivide cohesion into horizontal, vertical and organizational cohesion where the first type deals with peer relationships; the second one with the leader’s ability to integrate primary groups with higher units; and the final pertains to pride and common values.

⁵⁹ Kellett, 46.

⁶⁰ Ibid., 321.

⁶¹ Sam C. Sarkesian, ed., *Combat Effectiveness: Cohesion, Stress, and the Volunteer Military* (Beverly Hills: Sage Publications, 1980), 11.

Cohesion and the Unit Level

This section looks at cohesion in units above the squad and platoon level. Central to this is looking at whether or not soldiers identify with larger organizations. Identifying with a particular unit is a prerequisite for developing a sense of belonging and commitment to that unit and, thus cohesion within it. This part of the investigation indicates that cohesion can be found and developed in larger organizations, including the brigade.

It is critical to determine if soldiers identify with larger units. Many believe that a soldier identifies strongly with the unit when the unit satisfies his “physical, security, and social needs.”⁶² Even those who focus on the primary group indicate that these needs are not satisfied completely at that level. For example, Henderson believes that a cohesive unit meets the physical needs by providing “food, water, medical support” and other essential supplies and weapons.⁶³ The unit also becomes a major source of esteem and recognition, offers the soldier influence and a stake in the unit’s success, and regulates the soldier’s relations outside the boundaries of the unit.⁶⁴ Logistical and medical support, the ability to confer formal and informal rewards, and the capability of the leader or commander to interact with and influence his subordinates are all functions that happen at the company and battalion levels. This suggests that identification with the unit and cohesion can occur above the company level.

The success of the British regimental system reinforces the idea of cohesion’s presence and importance at the higher levels of military organization. This example is often cited as a model for developing cohesion in military organizations.⁶⁵ In fact, the regiment is arguably the

⁶² Wm. Darryl Henderson, *Cohesion: The Human Element in Combat*, (Washington, D.C.: NDU Press, 1985), 13.

⁶³ *Ibid.*, 13.

⁶⁴ *Ibid.*, 14-15.

⁶⁵ For a succinct discussion of the need for cohesion, an analysis of endemic problems in the U.S. Army’s personnel system, and recommendations for reform in the direction of the British regimental system see

centerpiece of British organizational cohesion. Its success provided an example for the U.S. Army's adoption of regimental designations and alignment, even if a regimental system in name only. It is also cited as a major determinant in the United Kingdom's overwhelming victory during the Falklands/Malvinas Conflict.⁶⁶ Although the personnel policies surrounding implementation of a British type regimental system are beyond the boundaries of this work; it does serve to highlight that cohesion can be found at and, more importantly, developed in organizations at the battalion level and higher.

Some recent examples and popular topics of discussion point to the fact that soldiers identify with, develop loyalty to, and take pride in larger organizations. Consider the extent of resistance and emotion that accompanied recent and historic attempts to maintain symbols of organizations larger than a battalion. There are numerous examples that revolve around guarding official symbols such as badges, buttons and berets. The struggle to maintain unofficial icons such as distinctive boots, belt buckles, and the like are plentiful as well. If soldiers identify with larger units, then opportunities exist for the development of cohesion within them.

These examples show that cohesion is found "at the highest level of the military institution or at the primary group level" and at various levels in between.⁶⁷ This does not suggest that cohesion's strength is similar at all echelons. It would seem that the strength of cohesion might decline at higher levels. However, if cohesion is found at higher levels, it is possible to assess its strength in different organizational models. To do this requires a consideration of the factors that affect cohesion and its strength.

Jeremy J. J. Phipps, *Unit Cohesion: A Prerequisite for Combat Effectiveness*, (Washington, D.C.: NDU Press, 1982).

⁶⁶ See Nora Kinzer Stewart's "South Atlantic Conflict of 1982: A Case Study in Military Cohesion," Research Report 1469 (Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, April 1988).

⁶⁷ Johns, ix.

Factors that Affect Cohesion

If cohesion is essential to peacetime and wartime effectiveness, then a consideration of factors that affect cohesion is critical. The factors that affect cohesion do so similarly at the primary group level and at higher echelons. Here the focus is on these factors as they relate to larger organizations, specifically the battalion and brigade. These factors are grouped into two general categories; those that are inherent to the structure of the unit, and those that might be called situational.⁶⁸ The relationships between them are complex. Changes in one or more may produce cascading effects because of links with a number of others. This section also looks at technology as a separate issue because of its potential impact on some of the structural factors. Establishing the applicable factors that affect cohesion provides the basis for assessing cohesion within the task organized and standing BCT.

Structural factors that influence cohesion include the size of the unit, shared experience and unit boundaries. Larger units complicate cohesion so that there is an inverse relationship between size and cohesion. Shared experience fosters cohesion and consists both of the length of time spent together and the frequency of interaction. Shared experience comes from “having trained together, endured hardship together, played sports, and socialized together.”⁶⁹ Unit boundaries help maintain unit integrity and cohesion by establishing the borders that aid soldiers in identifying with the unit. The United States Army establishes unit boundaries in the form of echelons such as the company, battalion, brigade and division. These boundaries define the parameters of formal and, to a large extent, informal interaction. They also frame the “perception of a common and worthwhile purpose, and the structure of the group to achieve its purpose and to

⁶⁸ Similar to Johns, 32-33.

⁶⁹ Hauser, 190.

distinguish the unit from other organizations.”⁷⁰ While size has an inverse relationship, greater shared experience and more defined unit boundaries increase cohesion.

Situational factors that affect cohesion include tradition, recent experience and trials. Tradition establishes the baseline of historical success and a link to former members. Recent experience provides a tangible link to supplement the heritage of the unit and is also a powerful force in its own right. As often noted, success breeds success and recent accomplishment “builds expectation and thus becomes a self-fulfilling prophecy.”⁷¹ Challenging trials provide the opportunity for this achievement. These range from unit competitions to conflict where the presence of an “external threat” causes the unit to “pull together.”⁷² The threat might be arranged, such as a sports competition, or it may occur naturally. These situational factors are linked and can have a cumulative effect in enhancing cohesion within the unit.

With current advances in technology, it is appropriate to devote some attention to how technology may impact some of those factors that affect cohesion. Since technology has improved the U.S. Army’s ability to communicate, it enhances the frequency of interaction between the various functions and units on the modern battlefield. This is not the same as developing shared experience because it does not increase the duration of time spent together. Additionally, this interaction may be impersonal and even decrease person-to-person contact. Second, some observe that there is a tendency for members of high technology units “to be technicians interested in equipment; much time is required to maintain equipment and technical skills...and work units tend to be fragmented, making unit identification more difficult.”⁷³ Thus, technology can affect the structural factors negatively by masquerading increased interaction as shared experience and complicating unit boundaries.

⁷⁰ Henderson, 19.

⁷¹ Johns, 32.

⁷² Ibid., 33.

⁷³ Ibid., xiv.

This section grouped the various factors that affect cohesion into two categories. Structural factors include size, shared experience and unit boundaries. The situational factors contain tradition, recent experience and trials. Finally, technology can potentially hinder cohesion because of its potential negative effects on shared experience and unit boundaries.

Assessing Cohesion in the Brigade

Identifying the factors that affect cohesion allows for an assessment of how the task organized brigade and the standing BCT promote those factors that increase cohesion. This section uses the structural factors of size, shared experience and unit boundaries to assess the prospects for cohesion within the task organized and standing brigade. It also looks at the situational factors of tradition, recent experience and trials. The factors are considered in the order presented earlier. The standing brigade promotes those structural factors that affect cohesion and also offers the promise of capitalizing on the situational factors to a greater extent than does the task organized brigade.

Considering the issue of size, the task organized brigade would appear to have the advantage. As noted, larger units tend to be less cohesive than smaller ones. The task organized brigade, when it is in garrison, is smaller than the standing brigade. However, the task organized BCT swells to approximate the size of the standing BCT when it is configured for operations. This reorganization calls into question the appropriateness and durability of the cohesion developed by the task organized brigade in the first place. At a minimum, based on the factor of size, there appears to be no significant advantage between the two methods of structuring the brigade. This is not the case when considering the second structural factor – shared experience.

The standing brigade is superior at promoting shared experience. The task organized brigade that is configured for operations essentially becomes a new, albeit familiar, organization.

It is new in the sense that it adopts a different organizational structure from what it has on a day-to-day basis. It is familiar only to the level that it works at developing shared experience with its normal attachments. The point here is that the task organized brigade has to “work” at remedying the structural deficiency that limits the duration and frequency of interaction necessary for shared experience to develop. On the other hand, research shows that the more organizations work at approximating the structure of the standing BCT, the more successful they tend to be. For example, a study of unit performance at the National Training Center (NTC) indicates that early and more complete cross-attachment correlates with success. This study showed that the highest performing brigade cross attached companies and platoons between its battalions “four months before its rotation” and this cross-attachment “included garrison as well as field activities and extended to moving vehicles and platoon equipment to the appropriate motor pools.”⁷⁴ In effect, the brigade became a standing brigade for four months. This enhanced the shared experience of that brigade by increasing the time spent together and the frequency of interaction. The standing BCT possesses the inherent structure to develop greater shared experience in this way on a routine basis.

Closely related to the concept of shared experience is the notion of unit boundaries. The heavy division’s maneuver, engineer, artillery and support brigades currently have clearly defined boundaries that promote unit integrity within them. Again, the issue is how this translates when the maneuver brigade task organizes. A common observation made by observer-controllers at the NTC is that “in all rotations examined, units experienced obstacles that impeded integrated training with their slice elements.”⁷⁵ The standing BCT defines the brigade’s boundaries to

⁷⁴ Robert F. Holz, Francis O’Mara and Ward Keesling, “Determinants of Effective Unit Performance at the National Training Center: Project Overview,” in Robert F. Holz, Jack F. Hiller and Howard F. McFann, eds., *Determinants of Effective Unit Performance: Research on Measuring and Managing Unit Training Readiness* (Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1994), 92.

⁷⁵ Ward Keesling, Patrick Ford and Kent Harrison, “Application of the Principles of Training in Armor and Mechanized Infantry Units,” in Holz, Hiller and McFann, 148.

facilitate interaction and removes many of these impediments. As mentioned earlier, boundaries affect the ability of soldiers to identify with the unit. The defined boundaries of the standing BCT allow its soldiers to identify with it and enable them to see and develop confidence in how the organization is structured for the accomplishment of its wartime purpose. Therefore, the standing brigade promotes defined unit boundaries to a greater extent than does the task organized brigade.

Considering the structural factors, the standing brigade has a distinct advantage in two out of the three. Although it provides no benefit when looking at size, it does advance shared experience and unit boundaries. Situational factors are, by their very nature, more variable. In assessing these, this section will look at how each of the two organizations might offer the potential for gaining advantage from these factors.

Tradition seems similarly affected by both the current method of task organization and the standing BCT. The unit's leadership largely controls the power of tradition through its attention to and fostering of the historical tether. The standing brigade could capitalize on this to a greater extent than the task organized brigade by replacing the brigade designation with a regimental one. The experience of assimilating the various branches into the collective identity of the armored cavalry regiment holds some promise for this technique. However, there are consequences to this as it may impact the established Combined Arms Regimental System.

The standing brigade holds the promise of capitalizing on recent experience, specifically recent accomplishment, to a greater degree than task organization. There are several reasons for this. First, the task organized brigade has fewer opportunities to do this. Opportunities are basically limited to major field exercises and deployments. Second, recent experience only enhances cohesion in a positive manner if it results in success. As mentioned earlier, units that cross-attached early performed better at the NTC. The prospects for success in the standing brigade, organized for operations on a routine basis, seem to be greater.

Similarly, the standing brigade offers greater opportunity for triumph over trials. This goes beyond major field exercises and deployments discussed above. Units rise to challenge on a daily basis. The standing brigade, unlike the task organized brigade, develops confidence in its ability to confront and persevere in the face of these trials whether they are athletics, weapons qualification or similar events. Thus, the standing BCT provides greater prospects for brigade accomplishment in trials.

This assessment reveals that the standing BCT has the potential for increasing cohesion to a higher level than the task organized brigade. The standing brigade promotes those structural factors that promote cohesion better than the task organized brigade. Considering the size of both organizations, neither has a definitive benefit. However, the standing brigade promotes shared experience and defines unit boundaries to a greater extent than does the current method of task organization. Of note, these two factors – shared experience and unit boundaries – are the ones most adversely affected by technology. Given this, it seems that the standing brigade’s strengths in these two areas is even more imperative. The standing brigade also holds the advantage when looking at the situational factors. Whereas tradition seems similarly affected by both brigade structures, the standing brigade holds the promise of capitalizing on recent experience and trials to a greater extent than the task organized brigade.

Conclusion

Cohesion has been labeled the “glue” that holds units together. Hauser captures it best when he says that “[w]hat makes the product greater than the sum of its parts is cohesiveness, a concept like the nuclear physicist’s ‘binding energy’.”⁷⁶ This research demonstrated that cohesion is significant and that it exists at unit levels above the primary group. This chapter also outlined a set of structural and situational factors that affect cohesion.

The task organized brigade does not have a clear advantage in promoting any of these factors. Size, which at first appears to favor the task organized brigade, disappears as an advantage when the brigade is task organized for operations. Tradition seems similarly affected by both brigade organizations.

The standing brigade furthers the structural factors of shared experience and unit boundaries to a greater extent. Although the situational factors of recent experience and trials are more variable, the standing BCT offers better potential to capitalize on these. Based on investigation of the human element, this chapter concludes that the U.S. Army should restructure its heavy brigades as standing combined arms brigades.

⁷⁶ Hauser, 204.

CHAPTER 4

RECOMMENDATION, IMPLICATIONS AND RESISTANCE

Recommendation

This section recommends a standing combined arms brigade structure that outlines which units should be organic. It starts with the conclusion, developed in this monograph, that the United States Army should restructure its heavy brigades into standing combined arms organizations. If the standing brigade does not have all of its arms organic, then it is important to explain why. There are theoretical and practical reasons that support these exceptions.

The proposed standing brigade includes three maneuver battalions, two of one type and one of the other based on whether it is an armor or mechanized infantry heavy brigade. It adds an artillery battalion, an engineer battalion, the forward support battalion (FSB) and the military intelligence (MI) company (see Figure 5-1 below). Units routinely task organized to the brigade, but not incorporated, include the air defense artillery battery, the signal company and the military police platoon.⁷⁷ Additionally, it does not include other assets that may support the brigade such as chemical platoons, civil affairs and psychological operations elements, and field artillery target acquisition detachments. It is important to continue to develop habitual relationships with those units not assigned to the standing brigade.

⁷⁷ For a typical example of a task organized brigade see U.S. Army, FM 71-3 *The Armored and Mechanized Infantry Brigade* (Washington, D.C.: Government Printing Office, 1996), 1-3.

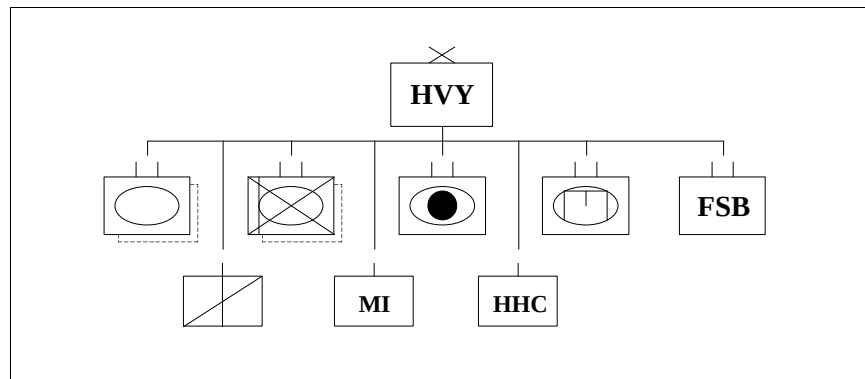


Figure 6. Proposed Standing Brigade

The recommendation to omit certain units from the standing brigade’s structure does not contradict the conclusions developed in considering organization theory or cohesion. Indeed, it comes from some of the same points mentioned earlier. Walker and Lorsch observed that the relative importance of specialization versus coordination should drive the extent to which an organization does or does not structure itself along functional, in this case branch, lines.⁷⁸ The more technical nature of the signal company’s mission, not to mention the requirement for greater coordination at the division level rather than the brigade, places greater weight on specialization. Similarly, the need for cohesion “is a function of, among other things, the amount of teamwork required to accomplish a mission and the amount of self-sacrifice required to conform to group norms.”⁷⁹ In other words, cohesion’s importance varies with the importance of integration among the various arms.

There are other reasons why the standing brigade should not include some of the smaller organizations that normally support the brigade. For instance, assigning the air defense artillery batteries or chemical platoons to the standing BCTs would remove their corresponding battalion and company headquarters. The elimination of such key echelons can create its own set of

⁷⁸ Walker and Lorsch, 236.

⁷⁹ Johns, 8.

problems. Fukuyama and Shulsky note that middle management “provides leadership to subordinates, performs various specialized functions, and serves as a training group for future leaders.”⁸⁰ In the Army, mid-level leaders provide professional development and mentoring, augment doctrine with experience, and bridge the perspectives between junior and senior levels. Although the company level provides these to a certain degree, the battalion is a more critical echelon in accomplishing all of these functions. This problem “is much more important for the Army than for a corporation since the latter can recruit outsiders into top leadership positions, whereas the Army ‘grows’ its own leaders.”⁸¹

Finally, some assets are so scarce that there are not enough of them in the active component to allow for their inclusion. The lack of civil affairs and psychological operations units is just one example of this. The next section looks at the implications that arise from the standing brigade’s structure recommended here.

Implications

There are implications associated with any change, even ones that might seem relatively minor. A failure to account for these can inhibit the prospects for realizing the change itself, or worse create more problems than it solves. Morgan notes that innovation usually rests in a process of “creative destruction” and offers two considerations for managing this paradox.⁸² The first step is to realize that there is merit to both the new and old, in this case the standing BCT and the task organized brigade. The second step is to figure out a way to retain the advantages of both while minimizing the negative aspects.

⁸⁰ Fukuyama and Shulsky, 63.

⁸¹ Ibid., 66.

⁸² Morgan, 293-294.

Realizing that there are advantages to both brigade structures, this section considers the consequences of adopting the recommended standing brigade. It focuses on two salient areas. The first is the possibility of eliminating certain brigade and battalion headquarters. The second involves the prospect of increasing the size of the division and the brigade. In addressing these issues, this portion also suggests ways to mitigate some of these potential disadvantages.

Reorganizing the heavy brigade impacts other organizations within the division. Assigning the current DS artillery battalion, the combat engineer battalion, and the FSB to the brigade calls into question the requirement for the Division Artillery Brigade (DIVARTY), Engineer Brigade, and Division Support Command (DISCOM) headquarters. The same applies to the MI battalion headquarters. This is a problem because these headquarters do other things. They perform many of the middle management tasks listed earlier. Additionally, these headquarters provide the commanders and staffs necessary to coordinate function-specific operations within the division's area of operation and integrate assets that come from echelons above division (EAD). There are a couple of possible solutions.

One possibility is to eliminate these headquarters as the Force XXI design did with the engineer brigade.⁸³ This would involve moving the personnel and roles of these headquarters to the division, and possibly increasing the size and responsibilities of the division staff. Additionally, it would leave some assets as separate units within the division. For instance, the DIVARTY's multiple launch rocket system (MLRS) battalion, or the DISCOM's main support battalion and possibly its aviation support battalion. It seems feasible to move the MI battalion's headquarters, headquarters and operations company to the division. However, the command and

⁸³ ST 100-3 *Battle Book*, 4-2.

control of the battalion's general support (GS) company and its quickfix platoon would still remain unresolved.⁸⁴

Another possibility is to retain these brigade and battalion headquarters with their remaining subordinates or assign EAD assets to them that routinely support the division (see Figure 5-2 below). The DISCOM and MI battalion stand with their remaining subordinates. The DIVARTY might consist of the MLRS battalion and an additional cannon battalion or two MLRS battalions. Likewise, the engineer brigade could command units that are normal EAD augmentation. A heavy combat engineer battalion would add vertical and horizontal construction capability back into the division.⁸⁵ In addition to this, a multi-functional engineer support battalion might include the combat support equipment company and a bridge company.⁸⁶

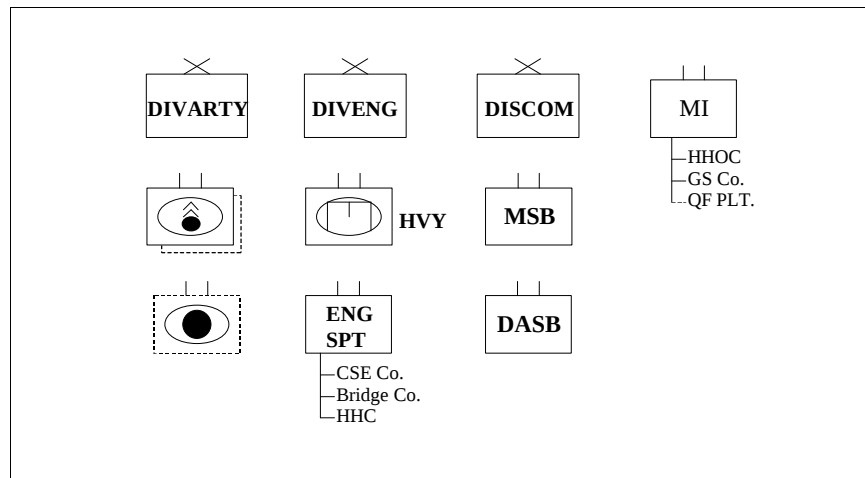


Figure 7. Potential Redesign of Other Select Headquarters

⁸⁴ The quickfix platoon, composed of four EH-60 aircraft, is normally commanded by the aviation brigade but controlled by the MI battalion.

⁸⁵ Vertical construction includes the construction of semi-permanent structures, and limited distribution systems for electricity and other utilities. Horizontal construction consists of building and improving roadways and other missions that require earthmoving. These capabilities are particularly important when conducting stability and support operations.

⁸⁶ This engineer support battalion concept is along the lines of that offered by Nicholas W. Katers in "Are Engineers Designed for Asymmetric Warfare," Monograph, School of Advanced Military Studies (Fort Leavenworth, KS, U.S. Army Command and General Staff College, May 2002).

This technique definitely increases the size of the division. However, it adds many critical capabilities to the division that it either once had or perhaps should have. Additionally, it may do away with other positions and echelons such as the engineer group at the corps level.⁸⁷ Increasing the end-strength of the division is only one part of the second major consequence of adopting the recommended brigade structure. Increasing the size of the brigade is the other.

It is doubtful that the brigade's size will increase much beyond the simple addition of units that it normally receives when task organized. The standing BCT likely requires a slight increase to the brigade staff for administration purposes. However, smaller staffs elsewhere – the DIVARTY and DISCOM for example – could offset this. The addition of a deputy brigade commander seems in order. This should be a lieutenant colonel position, but might come from the field artillery or engineer branches. It is questionable as to whether the FSB will have to increase beyond the augmentation it currently requires to support the task organized brigade.

Of course, these are not the only possible implications. They do, however, represent some of the more prominent issues. More importantly, this section outlines a process for dealing with the tension intrinsic in capitalizing on the advantages of change while attempting to minimize the disadvantages that might come from unintended consequences. Successful implementation requires this, but it also requires an appreciation for the potential of resistance.

Resistance

This section looks at four likely areas of resistance to the recommended standing BCT. First, there is a concern that the addition of combat support assets to the heavy brigade will result

⁸⁷ It might, instead, be possible to do away with the brigade headquarters at the corps level. David A Fastabend offers a technique he calls “skip-echelon design.” In this proposal he recommends forming combined arms brigades by moving all combat support and combat service support assets to the brigade or the corps level. He would consolidate these units at corps into groups. The division then focuses on

in the loss of technical proficiency within those units. Second, there is the belief that the formation of standing combined arms brigades includes serious span of control difficulties. Opposition from the various branches, whether based on simple parochialism or something more, presents another area of resistance. Finally, the requirement for testing and validating the new brigade organization raises some potential issues.

The concern over the potential for losing technical proficiency by assigning combat support units to maneuver organizations is a common one. Although the anxiety seems valid, the rationale appears lacking when considering the recommended structure of the standing BCT. Some believe that technical skills “tend to deteriorate when units become organic to headquarters that do not have a resident pool of expertise responsible for standards of pre-battle training.”⁸⁸ This justification is less than compelling when one considers the leadership and experience that the battalion level provides in the case of the artillery, engineer and support battalions. The addition of the MI company raises a notable exception. However, the standing brigade concept does not preclude units from conducting low-density training within the division. Training along these lines would mitigate, to a degree, any potential losses to specialization while placing more emphasis on increasing integration and the overall effectiveness of the brigade.

The historic rule of thumb states that a command should control no more than five to seven subordinate elements. The recommended standing BCT contains six battalions, or task force equivalents, and three separate companies. However, this is not fundamentally different than what the task organized brigade controls when tailored for combat operations today. Further, the brigade commander and his staff have the added benefit of dealing with this larger organization on a day-to-day basis. The addition of a deputy brigade commander aids in this regard as well. Napoleon, among others, demonstrated the ability to successfully control more

command and control of its maneuver brigades. See David A. Fastabend, “An Appraisal of ‘The Brigade-

than five subordinate organizations. Even though personal genius plays a major role in this capability, there are other factors that facilitate effective control.⁸⁹ One of these is the ability to see the battlefield. Current advances in digitization hold the promise of increasing this ability on the modern, dispersed battlefield. Therefore, concerns about the span of control of the standing BCT should produce no more apprehension than it does when considering the task organized brigade.

Concerns over the loss of branch prestige and resources are more challenging. Some acknowledge that military leaders find it difficult to break away from the feelings of “allegiance and nostalgia for the arms to which they have devoted their lives.”⁹⁰ When this becomes dysfunctional, it is commonly called parochialism. Parochialism certainly exists within the U.S. Army but its source is complex. James Wilson suggests that, in some cases, what might be termed parochialism is just a logical desire to have the required resources to fulfill responsibilities.

These and other examples of military turf wars are sometimes mistakenly described as cases of organizational imperialism – the drive to have more for the sake of more, motivated by the belief that bigger is better. That is a superficial understanding of the matter. What the armed forces are doing is attempting to match mission and jurisdiction. Having a strong sense of mission is important to any organization, but especially to a military organization in which a willingness to confront danger and perform selflessly often is the product of a shared commitment to the ethos or culture of the service. A strong sense of mission implies an organizational jurisdiction coterminous with the tasks that must be performed and the resources with which to perform them.⁹¹

Based New Army,” *Parameters: Journal of the US Army War College* 27, no. 3 (Autumn 1997): 73-81.

⁸⁸ Haglin, 37.

⁸⁹ Wieland and Ullrich believe that span of control success depends on “the complexity of the tasks performed by the subordinates, the amount of subordinate-superior interaction required by the task, the abilities of both the subordinates and their manager, and other factors,” 28.

⁹⁰ MacGregor, 32.

⁹¹ James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, Inc., Publishers, 1989), 187.

Accordingly, Wilson recommends that bureaucracies should attempt to match “the distribution of authority and the control over resources to the tasks” an organization performs.⁹² Emphasizing branch or functional tasks at the tactical level would suggest that the Army retain its current method of task-organization. However, if the heavy brigade’s key requirement is producing combined arms effects, this monograph concludes that the standing BCT provides a better structure for this purpose.

One trend, which stands out in examining the U.S. Army’s major organizational restructuring initiatives since World War II, is that reorganization requires testing and validation.⁹³ This requirement can demand a significant investment of resources. For instance, it may entail creating a totally new unit or call for downgrading the required readiness level of an existing organization to test the new concept. This is certainly the case when attempting major change. To the extent that the standing brigade requires testing and validation, this should prove much less difficult. First, it is possible to study and validate smaller organizational changes in other ways. In exploring the prospects for CSS redesign, eventually incorporated into the Limited Conversion Division, the Command and General Staff College’s annual Prairie Warrior Exercise proved valuable.⁹⁴ Second, the Army already has what amounts to two standing BCTs at Fort Riley and one at Fort Carson. The performance of these units at the National Training Center offers an intriguing avenue for further study of the topic.

Summary

⁹² James Wilson, 372.

⁹³ See the Combat Studies Institute’s “The ‘Initial Brigade’: Historical Trends Analysis,” (Fort Leavenworth, KS, U.S. Army Command and General Staff College, 1999) or “History of Transformation,” *Military Review* 80, no. 3 (May/June 2000): 17-29.

⁹⁴ See Gregory L. Gardner, “Should the Combat Arms Battalion Commander Own His Organizational Logistics Support?” Monograph, School of Advanced Military Studies (Fort Leavenworth, KS, U.S. Army Command and General Staff College, December 1995).

This chapter recommended a structure for the standing BCT that includes artillery, engineer, logistics, and military intelligence assets. Looking at the implications that arise from the recommendation, it also suggested ways of mitigating some potential disadvantages associated with this change. The final section surveyed some potential areas of resistance that would accompany implementation of the standing brigade structure and suggested ways of managing this resistance. Organization theory and a treatment of cohesion demonstrate that the United States Army should adopt the concept of a standing brigade. This chapter shows what the standing BCT should look like and highlights ways to effectively implement it.

CHAPTER 5

CONCLUSION

This monograph sought to answer the question of whether or not the United States Army should restructure its heavy brigades into standing combined arms organizations. The work opened with a look at the tension inherent between the drive for efficiency and the requirement for effectiveness. Thus, it seems appropriate to consider these two concepts while reviewing the conclusions developed in each of the preceding chapters.

In addressing the research question, Chapter Two utilized organization theory. It looked at the current environment to determine those characteristics that are vital for continued dominance in the future. In this environment, “[f]lexibility and capacities for creative action become more important than narrow efficiency.”⁹⁵ It explored organization theory to determine the various ways in which organizations divide labor, accomplish coordination and achieve control. Applying these concepts, it determined that the standing BCT is a more organic organization, accomplishes coordination by mutual adjustment and direct supervision at lower levels, and is more decentralized than the task organized brigade. These aspects of the standing brigade instill the potential for increased flexibility and adaptability. Therefore, the chapter concluded that organization theory supports the idea of a standing BCT.

Chapter Three focused on the military concept of cohesion. There are no shortcuts to cohesion and no guarantees, but cohesion is significant enough that enhancements to effectiveness should predominate over efficiencies. Because cohesion is a group concept, it showed that soldiers can identify with and cohesion can develop in larger units. This chapter illustrated a number of structural and situational factors that enhance the prospects for improved cohesion. In particular, it demonstrated that the standing BCT increases the opportunities for

shared experience and unit boundaries. It also noted that the standing brigade offers greater opportunity to capitalize on the situational factors of recent experience and trials. These factors can promote greater cohesion in the standing brigade. Thus, the chapter concluded that concerns for cohesion support a decision to form standing combined arms brigades.

Chapter Four recommended a standing BCT that includes artillery, engineer, logistics and military intelligence. It explained some possible implications from this change and offered ways of mitigating some of the consequences of reorganization. Since successful implementation also requires the management of resistance, this chapter looked at some potential areas of resistance. This recommendation is not a radical change, but it may establish the framework for further development of the interim and objective force. Some argue that “tinkering around the edges through incrementalism” does not produce the required level of improvement.⁹⁶ Others note, “in complex nonlinear systems small incremental changes can produce large quantum effects.”⁹⁷

This monograph purposely focused on issues of effectiveness in recommending a standing combined arms brigade. The Army certainly operates under the constraint of resources that makes efficiency desirable as well. However, the requirement to guarantee the security of the nation and the responsibility to conserve the nation’s most precious resources – her sons and daughters – mandates that considerations for effectiveness prevail.

⁹⁵ Garreth Morgan, *Images of Organization* (Thousand Oaks, CA: SAGE Publications, 1997), 28.

⁹⁶ MacGregor, 33.

⁹⁷ Morgan, 272.

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