US ARMY DOCTRINE: FAR-SIGHTED VISION OR TRANSIENT FAD?

by

Lieutenant Colonel John A. Mills

U.S. Army

Advanced Operational Studies Fellowship
School of Advanced Military Studies
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas

4 May 1987

Approved for public release; distribution is unlimited

APPROVED FOR PUBLIC RELEASE:
DISTRIBUTION UNLIMITED.

87-3076
This monograph examines the value of doctrine and compares various approaches to doctrinal development. The paper is based on the premise that US Army doctrine changes so rapidly that there is no common understanding of our basic doctrine. The thesis of the paper is that through an examination of current and historical cases, the common factors of successful development and use of doctrine can be identified. The objective of the paper is to identify "success factors" that can be used in subsequent modifications of the US Army system for doctrinal development that balances between adjustments too frequent to be absorbed and too slow to meet the changes in the environment.

A brief introductory section examines the origin of military doctrine, compares historical and contemporary definitions of doctrine and reviews the value of a commonly understood lexicon within an armed force.

Next, the monograph examines two approaches to doctrine as well as periods when doctrine was tested (periods of combat) in the Soviet and German Armed Forces. The following
BLOCK 19: ABSTRACT (CONTINUED)

research questions are raised in each case:

1. Was/is the doctrine compatible with the civilian society the armed forces were designed to defend?

2. At what pace was the doctrine developed (evolutionary or revolutionary)?

3. How long did it take to implement the changed doctrine?

4. Did/does the doctrine provide a common lexicon?

5. Did the doctrine survive the transition to war?

6. Did the doctrinal development system provide for rapid assimilation of lessons learned in combat?

The conclusions present eight historically supported doctrinal development success factors. These factors are recommended as the starting point for discussions on improvements to the current U.S. doctrinal development system.
SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

Name of Fellow: Lieutenant Colonel John A. Mills

Title of Monograph: U.S. ARMY DOCTRINE: FAR-SIGHTED VISION OR TRANSIENT FAD?

Approved by:

Harold R. Winton, Ph.D., Monograph Director
(Lieutenant Colonel Harold R. Winton, Ph.D.)

Richard Hart Sinnreich, MA, Director, School of Advanced Military Studies
(Colonel Richard Hart Sinnreich, MA)

Gordon R. Sullivan, MS, Deputy Commandant, Command and General Staff College
(Major General Gordon R. Sullivan, MS)

Accepted this ______ day of ______ 1987.

APPROVED FOR PUBLIC RELEASE. DISTRIBUTION UNLIMITED.
ABSTRACT

US ARMY DOCTRINE ---- FAR-SIGHTED VISION OR TRANSIENT FAD?
by Lieutenant Colonel John A Mills, USA, 53 pages.

This monograph examines the value of doctrine and compares various approaches to doctrinal development. The paper is based on the premise that US Army doctrine changes so rapidly that there is no common understanding of our basic doctrine. The thesis of the paper is that through an examination of current and historical cases, the common factors of successful development and use of doctrine can be identified. The objective of the paper is to identify "success factors" that can be used in subsequent modification of the US Army system for doctrinal development that balances between adjustments too frequent to be absorbed and too slow to meet the demands of the changes in the environment.

A brief introductory section examines the origin of military doctrine, compares historical and contemporary definitions of doctrine and reviews the value of a commonly understood lexicon within an armed force.

Next, the monograph examines two approaches to doctrine as well as periods when doctrine was tested (periods of combat) in the Soviet and German Armed Forces. The following research questions are raised in each case:

1. Was/is the doctrine compatible with the civilian society the armed forces were designed to defend?

2. At what pace was the doctrine developed (evolutionary or revolutionary)?

3. How long did it take to implement the changed doctrine?

4. Did/does the doctrine provide a common lexicon?
5. Did the doctrine survive the transition to war?

6. Did the doctrinal development system provide for rapid assimilation of lessons learned in combat?

The conclusions present eight historically supported doctrinal development success factors. These factors are recommended as the starting point for discussions on improvements to the current U.S. doctrinal development system.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>The Value of Doctrine</td>
<td>9</td>
</tr>
<tr>
<td>German Doctrine</td>
<td>20</td>
</tr>
<tr>
<td>Soviet Doctrine</td>
<td>27</td>
</tr>
<tr>
<td>Conclusions</td>
<td>34</td>
</tr>
<tr>
<td>Implications</td>
<td>40</td>
</tr>
<tr>
<td>End Notes</td>
<td>42</td>
</tr>
<tr>
<td>Bibliography</td>
<td>48</td>
</tr>
</tbody>
</table>
INTRODUCTION

"If you want peace, understand war."¹

The opening statement would appear to be obvious. But the understanding of war, to include how a nation should conduct war, has confounded the best minds throughout history. Attempts to forecast successful methods of waging war and provide a common basis for training have fueled the evolution of military doctrine. Although Clausewitz did not use the term doctrine, he did see the need for routine at the lower levels as a means of reducing natural friction; easing the workings of the machine; and producing more brisk, precise and reliable leadership.²

Doctrine is defined in the 1986 US Army Field Manual 100-5 as "an army's condensed expression of its approach to fighting campaigns, major operations, battles, and engagements". It has become vital to the efficient prosecution of modern warfare. The absence of a common lexicon and an understanding of "what is officially believed and thought about the way to conduct military operations"³ would exacerbate the natural fog and friction of war.

In search of ideal doctrine, the militarily successful nations are historically faced with a dilemma. Should an army merely update the doctrine that proved successful, or should it seek futuristic doctrine based on projected environmental and technological changes?
The unsuccessful army does not have the same sentimental attachment to its doctrine. But equally distressing is the fact that military failure also may lead to selection of the wrong doctrine. The French reformists in the 1890's got their way as a result of their major defeat in the Franco-Prussian War. This wholesale change from a defensive to an offensive doctrine was also politically popular. Nevertheless, the revolutionary change produced a near-fatal doctrine for the French in their next encounter.

There is yet another group that believes it is immaterial how often you update or change doctrine. As Michael Howard put it:

I am tempted indeed to declare dogmatically that whatever doctrine the Armed Forces are working on now, they have got it wrong. I am also tempted to declare that it does not matter that they have got it wrong. What does matter is their capacity to get it right quickly when the moment arrives.... Still it is the task of the military science in a age of peace to prevent the doctrines from being too badly wrong.

It's this school of thought that fuels the fire with continuous minor adjustments that can result in constant doctrinal change without the benefit of debate and testing before implementation. The end product is potentially an army that does not have a common language (lexicon) and understanding of its doctrine ... the US Army today.

The US Army has traditionally used Field Manual (FM) 100-5 as the capstone manual for doctrine. However, since 1939 there have been 16 editions of FM 100-5, changing an average of every three years. The
relatively frequent adjustment of the terms of reference and the more recent major (revolutionary) changes in the basic philosophy of the doctrine have eroded its cornerstone characteristics. Over time FM 100-5 has assumed more of a role as the reference for the latest/most fashionable terms. Efforts to reorient the views of the Army can frequently be seen in articles such as "Training to Fight" in the May, 1986 MILITARY REVIEW. In this article, BG Wayne Downing makes the statement "FM 100-5 is not just a lexicon of Army jargon". He then explains how the Army must get serious about training in accordance with current doctrine in order to be capable of implementing it.

Even more stark examples of the diverse and problematic interpretations of current US Army doctrine can be seen when field grade officers at several different headquarters worldwide are asked to give a working definition of some of the more common doctrinal terms. When eight lieutenant colonels converged on Fort Leavenworth from battalion command to attend the Advanced Operational Studies Fellowship, there was no common understanding of the doctrine that we "practice". Initially, the sample size may have been too small to be of concern. But in numerous exercises with the 47 majors in the School of Advanced Military Studies, and when the author attended several TRADOC Commanders Warfighting Seminars and visited 16 headquarters worldwide at echelons above Corps, the initial premise that our doctrine is not commonly understood was verified. Even the simplest elements of our lexicon are used differently throughout the Army. Differences in the working definitions of terms such as "defend" or
"intent" and the variation in the basic control measures employed would cause major interoperability problems for a task force from Fort Lewis operating next to a task force from Fort Hood in combat in the Southwest Asian Theater.

Throughout recorded history the lack of balance between dogma and transient doctrine has caused problems at all levels. As early as Roman times, changing doctrine was a problem. An anonymous soldier in the Roman Army commented on the problems of continuous change:

We trained hard ... but it seemed that everytime we were beginning to form up new teams, we would be reorganized. I was to learn later in life that we tend to meet any new situation by reorganizing; and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency and demoralization.6

Other sectors complain that the American military losses during the last forty years can be attributed to the Army's inability to change. Luttwak and the military reform movement argue "the armed forces have failed us ... but (the) institutions still unchanged-looms large and unforgivable."7

While the "nay sayers" are forecasting gloom and doom, the idealist (the author) is seeking the "balanced system". The challenge for an ordered system for doctrinal development is provided by the recognition that the conduct of war is an art and the acceptance that the friction and chance of war will preclude a purely scientific approach. The idealist would posit there is an approach that can produce doctrine with the following ideal characteristics:
- Evolutionary rather than revolutionary based. This requires sufficient vision to forecast the environmental changes affecting basic doctrine 20 to 30 years in advance. Minor course corrections can then be made in the doctrinal literature every 8 to 10 years.\(^a\)

- Responsive to breakthroughs. When an enemy or friendly breakthrough in technology demands a major change in doctrine the system must be capable of rapid assimilation as an anomaly.

- Historically based. Doctrine should be linked to history to avoid making the same mistakes that have been made in the past. But as Arthur Schlesinger succinctly put it, "historical generalizations (can not be) wrenched illegitimately out of the past and imposed mechanically on the future." Liddell Hart reminds us that history:

\[
\text{is universal experience—infinitely longer, wider, and more varied than any individual experience. How often do we hear people claim knowledge because they are sixty or seventy years old?----There is no excuse for any literate person if he is less than three thousand years of mind.}\]

This, in conjunction with the following Mark Twain caution, compels us to judge carefully to avoid giving too much weight to the past:

We should be careful to get out of an experience only the wisdom that is in it... and stop there; lest we be like the cat that sits down on a hot stove lid. She will never sit down on a hot stove lid again.... and that is well; but also she will never sit down on a cold one.\(^b\)

- Compatible with the civilian sector. The system should produce doctrine that is understood by and acceptable to our civilian constituents, both the political leadership and the American public.\(^c\)

In democratic societies the will of the people is quickly felt in all segments of the government, especially in the armed forces. George E. Clemenceau, a French politician in the early 1900's, warned that \"war
is too important to be left to the generals. But the French in WW I also demonstrated that war can neither be left entirely to the generals nor delayed by the bureaucracy of politics. This same failure to produce and articulate a doctrine, balanced between acceptable to the public and implementable with forces and equipment available, has been a contributing factor in the United States' inability decisively to win a conventional war in the last forty years. The Army's senior leaders need to start devoting more time and effort to developing long-term, publicly acceptable doctrine that can be related to "battlefield systems". The "battlefield systems" should be submitted to Congress as complete sets (force structure, equipment, training, and sustainment) that will support current and future doctrine. Failing to use this approach will destine the senior leaders to spend all of their time trying to justify the spending of five dollars more than last year's budget. The result would be a continuation of the current problems: absence of a commonly understood doctrine, which is essential to winning the next war; and piecemeal equipment purchases, thus never fielding a balanced system. Until the senior civil and military leaders spend more time discussing how the Army will fight and not so much time on why, where, the cost, and the capabilities of each weapon system, the vital elements of the war winning system of doctrine and force structure will not be present. 

-Capable of providing optimum combat power in the joint and combined arena. The doctrine, forces, and hardware of the four services must be coordinated to optimize the joint capability. Also, training and planning with allied forces must maximize the combined
- Flexible and executable with the given resources. In order to be able to protect the national security interests, the U.S. armed forces must have doctrine and forces that are credible in all spectra of war. The continuous debate in the U.S. and allied professional defense circles on the credibility of U.S. and allied defense doctrines reduces the deterrent value of the U.S. forces and erodes training efforts.

Many would contend that we have arrived at the ideal with AirLand Battle (ALB). But considerable evidence can be offered that attests that ALB is, at best, a starting point. Two additional thoughts should be considered in making this judgment:

- ALB is a valiant, single service attempt to force the integration of Army and Air Force capabilities; however, two other vital services also need to be integrated.
- ALB is a visionary doctrine that can provide long-term goals for development and procurement of force structure and equipment. The only two qualifiers are:
  - Is it "the right doctrine?"--the debate continues.
  - Can the civilian support be sustained to fund it?

Others would argue that we are in the throes of a kaleidoscopic revolution. Many reasons are given for this need for frequent changes but the two reasons that will receive the most scrutiny in this paper are:

- The Army is in the midst of technological revolution so
rapid that long-term goals are too unclear to be meaningful.

- Objectives are frequently poorly defined and are changed every 1-2 years as the senior military and political leadership change.¹⁶

The basic premise of this paper is that U.S. Army doctrine is changed so frequently that no common cultural bias can exist without major modification to the Concepts Based Requirements System (C3RS) and a radical deceleration of doctrinal change. The thesis presented herein is that there must be a more effective way of developing doctrine. The paper will examine the historical evolution of military doctrine and compare the current U.S. definition and use of doctrine with those of two other nations. In analyzing the relative success of these nations, the changes made during the prosecution of their wars will also be examined.

While this paper will, out of necessity, restrict its focus to the armies of the countries studied, the implications apply to many elements in the joint and combined arenas.

The two qualifiers below should be considered prior to judging the discussions, comparisons, conclusions, and implications:

- Those who can remember the past are condemned to repeat it.¹⁷

- Just because the decision-maker happened to experience the last war is no reason that it, rather than earlier wars, should provide guidance for the contemporary situation.¹⁸
THE VALUE OF DOCTRINE

Indeed, the evolution of tactical doctrine illustrates that the great value of doctrine is less the final answers it provides than the impetus it creates toward developing innovative and creative solutions for tactical problems of future battlefields.19

Throughout the centuries, many armies won victories without a hint that doctrine existed, but the concept of doctrine was present. The elements of doctrine appear in many ancient military documents. Sun Tzu was one of the few to use a term that translates to doctrine. When Griffith translated Sun Tzu's works, he listed doctrine as one of the five fundamentals of war:

moral influence, weather, terrain, command, and doctrine.20

The Romans had techniques, prescribed training, and specified organizations. But the Romans did not call their tactical recipes that made these elements successful, "doctrine". Napoleon stated his doctrine in the form of 115 "comforts".21 While not formally doctrine, the 115 maxims provided the type of guidance that doctrine today attempts to address.

The 19th century saw doctrine being associated with professional military schooling. The Prussian general staff was quick to see the value of this approach. This led to the Prussian theoretical studies and attempts to apply lessons from history, setting the pace for the other armies.22
From its earliest origins there have been a variety of descriptions and definitions associated with doctrine. One of the many factors that complicate arriving at a concise definition is the dichotomy offered by the question: What is the value of a fixed doctrinal basis for the execution of the fluid art of war? Review of a collection of definitions provides a sensing of the groping that has occurred and continues to occur in attempts to define and describe doctrine:

-the logic of professional behavior.
-a common philosophy, language, or purpose.
-a governing idea to which every situation may be referred and from which there may be derived a sound course of action.
-an authoritative rule, a precept, giving the approved way to do a job.
-the opinion of the senior officer present.
-what is officially believed and taught about the best way to conduct military affairs.
-codified common sense.

"Doctrine is indispensable to an Army.... doctrine provides a military organization with a common philosophy, a common language, a common purpose and a unity of effort." (Former Army Chief of Staff, General George H. Decker.)

Commodore Dudley W. Knox wrote in 1915: "The object of military doctrine is to furnish a basis for prompt and harmonious conduct by the subordinate commanders of a large military force, in accordance with the intentions of the commander-in-chief, but without
the necessity for referring each decision to superior authority before action is taken." 35

- a common way of objectively approaching and handling a subject. 33

- a profession-unique lexicon of war. 36

- doctrine eliminates the need for extensive coordination, directives, and communications. 35

- doctrine reflects the principles of war, the assessment of the enemy's capabilities, an examination of our own strengths and weaknesses, an analysis of weapon deployment, our foreign goals and interests, and idiosyncratic national characteristics. It is important to realize that military doctrine is a mirror of attitudes about war that are conditioned by our historical experience. Since Americans tend to hold the incompatible beliefs of optimism about our aptitude for warfare and an ambivalence towards those who specialize in the use of force, military leaders are precariously placed between hero and scapegoat. 36

The list above is by no means exhaustive. In fact, 15 more definitions could be taken from the Glossary of Terms prepared by students of the Advanced Military Studies Program. Although definitions abound, the inherent value of doctrine is in the "common" understanding, teaching, and employment. Doctrine will simply not be effective if a common understanding of the fundamental principles upon which it is based is lacking. 37
It was not until recently that military doctrine returned to the US military lexicon. The term was not in either the WW I or WW II (joint or combined forces) dictionaries. But it is often used in different terms in the Field Service Regulations and Manuals of those eras. The 1950 edition of the Dictionary of United States Army Terms recorded the first official definition:

"...compilation of principles and policies, applicable to a subject, which have been developed through experience or by theory, that represent the best available thought, and indicate and guide but do not bind in practice. Essentially doctrine is that which is taught...a truth, a fact, or a theory that can be defined by reason...which should be taught or accepted as basic truths."

The current definition of the word doctrine comes in two official varieties. While the variation between the Department of Defense and the North Atlantic Treaty Organization (NATO) version is minimal, the fact that there is indeed a difference, is indicative of larger challenges. One major challenge is that this interdependence on our Allies and the necessity to fight in a joint arena tends to dilute the specificity and timeliness of our doctrine:

**DOD definition:** Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application.

**NATO definition:** Fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgement in application.
The ultimate key to developing doctrine lies in the ability to forecast the demands of future wars. Assuming the forecast can be done with reasonable accuracy, the demands can be combined with lessons from history to develop the doctrine. Once drafted, the doctrine can be articulated to the public to test its compatibility and to obtain popular, philosophical, and monetary support. After ratification and public acceptance, the doctrine can be practiced and tested in peacetime. Peacetime practice results in a two-fold benefit: Practice demonstrates acceptance by the military leadership and increases the credibility that will help deter war. In war time, should deterrence fail, the doctrine will reduce the fog and friction of war, thus reducing friendly casualties and increasing the potential for winning the war. This is a continuous cycle of evolution and can be represented by the following model.

**INPUT**
- Technology
- Demography
- Economics
- Social
- Political
- Cultural
- Threat
- History

**OUTPUT**
- Doctrine
- Force Structure
- Equipment
- Successful Battles
- Successful Campaigns
- Successful Wars

U.S. Army doctrine has changed considerably between 1946 and 1987.
The factors acting as catalysts have been varied: improved weapons and mobility, nuclear weapon proliferation, the personalities of different senior military and civilian leaders, parochial clashes between branches and services, and changing national security policy. Virtual revolutions in Doctrine occurred in the late 1950's, early 1960's, mid 1970's and the early 1980's. The focus of doctrine shifted from conventional, to nuclear, to counterinsurgency, to conventional "active defense", and to conventional "AirLand Battle". The results of these combined changes have produced the most complex Army doctrine in American history. Unfortunately the doctrine often was a direct reflection of the the doctrinal views of the current senior military leaders.

While the Concept Based Requirements System (CBRS) was introduced in the early 1980's to develop longer range doctrinal development and equipment purchase, the "Light Division Initiative" is a current example of senior leaders solving personal irritants rather than waiting for the CBRS to adjust the force structure.

One of the purposes of doctrine is to ensure common thinking, but the rapidity of change can make the common thinking become an obstacle to essential change. Normally the radical changes have been the result of decisions outside the military, decisions on where the future battle might be fought. As the doctrine was changed one of the most difficult tasks has traditionally been "changing of the Army officers' and soldiers' thinking". When the natural resistance-to-change of the military is combined with the Congressional automatic challenge to radical change it is amazing that any progress is made.
The difficulty with Congress is further compounded by the belief of some Congressmen that the doctrine and force structure should be equally employable across the entire spectrum of conflict, regardless of theater. This lack of understanding and resulting poor Congressional support is a fault of senior military leaders failing to educate the vast majority of Congressmen at the "vision and strategies level" using the model offered by a Congressman. The Congressman, a well read military historian, is of the opinion that the Army is incapable of devoting sufficient energy to solve the AirLand Battle and the Low Intensity Conflict challenges concurrently. The analogy he used is quoted below:

If you cannot say something clearly, you most likely cannot think it clearly.

While the debate continues on which definition of doctrine is most descriptive, several models have been offered to clarify the levels of doctrine. The model offered by Lieutenant Colonel Dennis Drew in his 1982 article in the AIR UNIVERSITY REVIEW makes eminent sense. The three categories of doctrine that Drew presents have been slightly modified in this paper: Fundamental, Environmental, and Organizational. Levels of doctrine are graphically represented in the doctrine tree (figure 1).
Figure 1. The Doctrine Tree
Fundamental doctrine is the trunk or base of the tree of doctrine. The roots of the doctrine are firmly planted in the fertile soil of history. The roots must carefully filter out only the lessons that can legitimately be learned from history and applied to the future. The fundamental doctrine applies to all operating levels of the nation and requires the full understanding and support of the nation. The elements of the fundamental doctrine are the theory and principles of war, the purpose of the military, and association with other national agencies. Fundamental doctrine is timeless in significance and application; therefore, it rarely requires revision.

Environmental doctrine is represented by the strong internal limbs of the doctrine tree. The operating systems—land, sea, air, and space doctrine—and the employment methods are defined within the anticipated combat environments at this level. Even though it defines operations in a certain medium, it still maintains international application. The environmental doctrine is narrower in scope than the fundamental doctrine and, therefore, changes more frequently. However a most important feature is the planned ability to anticipate future developments in technology to minimize the frequency of change. It is at this level that General Omar Bradley complimented the status of U.S. Army staff training in his book, A SOLDIERS STORY.

While mobility was the 'secret' US weapon that defeated (Field Marshal Karl) von Rundstedt in the Ardennes (in December 1944), it owed its effectiveness to the success of the US Army staff training. With divisions, corps and Army staffs schooled in the same language, practices and techniques, we could resort to sketchy oral orders with an assurance to perfect understanding between US commands.** [Insets in the source, emphasis added]
Organizational doctrine forms the leaves and smaller branches that provide the body of the tree. The organizational doctrine provides the details on how the individual, joint, and combined military organizations expect to accomplish their mission. This level of doctrine is very dependent on current technology and politics.

Each level of doctrine is built on the lower level and requires healthy conditions to survive and support the next level. Colonel Drew's analogy is very suggestive: leaves survive only a short time on a severed branch or on a tree with decayed roots.\[0.05\]

Communicating the new doctrine to the affected audiences and gaining the support of the civilian sector is, traditionally, the most difficult element in democratic societies. The U.S. "Gallup polls, from 1950 to the 1980's, make it quite clear that the public ranks national security as 'the most important problem' facing the nation".\[0.05\] The absence of common debate and discussion in the public media is somewhat contradictory. An interesting comparison evolves when a non-democratic nation, such as the Soviet Union, does not need to seek public support of their military doctrine; yet, it encourages and conducts more debate than a free nation. The benefits and costs of this approach will be discussed after looking at the German and Soviet systems.

To some, doctrine is the answer to all problems. Doctrine is a
powerful tool in the defense of a nation. But, it alone is not an
all-powerful sword. As reminders, the two perspectives below should
be kept in mind:

Reiterations of doctrine cannot transform human nature
or change cockroaches into butterflies.3

A book [of doctrine] is like a mirror: when a monkey looks
in, no apostle [or Patton] can look out.4

The paper will proceed based on the premise that the CBRS fix to
the U.S. Army doctrinal development system is not the final answer to
balanced doctrine and that the value of having a common understanding
of the doctrine is worth a concerted effort by all affected. To begin
the analysis of history, in search of the "success factors" in the
development of doctrine, the focus of the paper will now shift to a
review of German doctrinal development.
GERMAN DOCTRINE

The 1860's marked a major turning point in doctrinal matters around the world. This study will not research German history during that period, but a quote from a writer of that time seems to have captured the German approach to doctrine that still exists today:

Our present peace leisure .... must be taken advantage of to provide our ... tactics with a firm foundation based upon the experience gained in war; to establish a system more adapted to our present requirements ... so as to be able without prejudice to act in the field of battle as we have been accustom to do on the drill-ground, and to be less dependent upon the personal inspiration of subordinate officers ... (thus providing) an army with the cement necessary for enabling it to withstand the enormous friction of the battlefield.5

World Wars I and II made lasting impressions on the nature of warfare, but no nation seems to have learned as much as Germany. The adjustments for lessons learned and the fact that the Germans entered WW II employing the basic doctrine that they had inherited from Frederick the Great, von Moltke and Schleiffen combine to form an interesting dicotomy. They were able to adapt their dogma "of battles of annihilation and mobile warfare" to the terrain and equipment only to be given false credit for developing a "new doctrine of Blitzkrieg".5

The German successes should be attributed more to having a methodology of inculcating a common cultural bias than to any particular doctrinal genius. No doctrinal concept remained in isolation from the theory. Once a doctrinal approach was adopted, no
change was made for the sake of change. No change in doctrine was made without full consideration of the enemy capabilities, equipment, and the training that would be required to ensure that the armed forces could implement the new doctrine. They were able to maintain this approach while making numerous changes from lessons learned throughout the majority of both world wars. A comparison of the Germans' traditional ability to learn the lessons of war is expressed by Timothy Lupfer:

"...the British are still remembered as the great sufferers at the Somme, but it was the Germans who were the better learners from the experience."

The post-war periods also saw a concerted effort collectively, or in a corporate fashion, to transform lessons learned into doctrine. The atmosphere was one of genuine interest in subordinate unit input, shared discovery, and development. The atmosphere for doctrine development was not one with the feeling that "doctrine is invented by some higher headquarters out of touch with the field and then arbitrarily imposed".

In the period leading up the invasion of Poland in 1939, Guderian convinced Hitler of the power of concentrated tank formations and had six Panzer Divisions ready for employment. This appears to be one of the few times that German system of debate and test prior to implementing change was overcome by political maneuvering. However, the German commanders did not trust the deep exploitation theories for this new, nearly tank pure force and did not use them as Guderian had
intended. This could be argued as an example of instinctive resistance to undebated change. A result of the lessons learned in Poland was the beginning of the slow evolution of the Panzer Division structure towards a more balanced, thus more capable, combined arms force. The efforts to field a more balanced panzer force and the correction of many of the administrative and logistic problems encountered in Poland proved to be very valuable lessons learned.

The use of combined arms formations with concentrated Panzers, the correction of the errors made in Poland, and a cooperating enemy (untrained in combined arms procedures) turned the "Blitzkreig" into a miracle tactic overnight. The coordination of the paratroopers, air attacks, and the out-gunned, out-numbered German armored vehicles quickly overwhelmed the French and British. Regardless of initial successes, the German maneuver doctrine evolved considerably during WW II from lessons learned. However, the allied interpretations at the time, and even today, often were incorrect. "Blitzkreig" was not at the outset a doctrinal maneuver nor was it to become one. The term could better be used to describe the results of the standard German mobile warfare. A more accurate statement of their approach is represented by the analysis of paragraph 1 of TRUPPENFUHRUNG (The German Army's pocket-sized combined arms manual) in the passage below:

The most remarkable aspect of the Prussian-German system was that, by current standards, no "system" actually existed. Improvisation was the key to the Prussian-German approach which regarded the conduct of war as an art—a free, creative activity with scientific foundations.
The TRUPPENFUHRUNG gave doctrinal missions to the various elements of the combined arms team, but it did not give specific tactical instructions. For example, the "mobile force", armored or otherwise, was to create favorable conditions for the battle of annihilation by destruction or forced dislocation of the enemy artillery. It is from this mission statement that the confusion seemed to abound. Most tended to ignore the more restrictive objective of this mobile force and to attach a much grander scale of "deep penetrations to paralyze the enemy's command and control system and to produce a collapse of the enemy morale". It has been offered that the grander scale interpretations by American authors is a poor attempt to justify U.S. Army doctrinal proposals.

Interviews with Generals Balck and Von Mellenthin indicated the strong belief that the characteristics of the German people gave them a decided advantage. The ability of the individual soldier to use initiative in dealing with the unknown situations was credited with providing numerous successes, particularly against the Soviets. It is this use of initiative at the higher levels, combined with a common understanding of the doctrine, that translated into operational successes. Paraphrasing the interviews, had the Germans developed stronger alliances, demonstrated the same operational brilliance, and demonstrated some strategic competence, the German doctrine would have succeeded. While it could be argued that this doctrine required the use of a form of initiative possibly unique to the German character, the fact that training in the German Army had to work diligently to
foster initiative would discount that possibility. The need for initiative in addition to an understanding of the doctrine is very similar to current U.S. and Soviet thoughts on doctrine. German and Soviet history demonstrate that good doctrine requires the use of initiative to adjust for unforeseen developments, but that initiative without a good understanding of the doctrine and the commander's intent is a formula for disaster. The Germans were able to combine these ingredients on a regular basis and are recognized for their operational brilliance.

The paraphrased interview of Balck and Von Mellenthin provides an interesting hypothesis. This proposition identifies another factor that needs to be considered as it applies to future wars. Throughout the war, the Germans were faced with the improving capability of the Allies to deal with the "Blitzkreig". The Allies were also trying to improve on their own combined arms operations. Efforts by the Germans to compensate for the increased allied capabilities backfired on the Germans. Producing better armed and armored panzers robbed the infantry, artillery, and support elements of the production required to provide protection to them as they attempted to maneuver with the panzers. Regardless of the other strengths of the German war machine and the innovativeness of the soldier, the German combined arms team broke down. Not dissimilar cases occur in the competition for funds among and even within the U.S. military services.
A review of German doctrinal development leads to the following conclusions. The doctrine employed was a product of the German character, historical experience and critical analysis at all levels. German doctrine from 1930 to 1945 underwent no radical changes. The minor adaptations to accommodate new weapon systems were done in an evolutionary manner. Yet Germany's initial victories in 1939-41 using "Blitzkreig tactics" formed the standard for mechanized combined arms warfare. Few contemporary writers comment on some of the key elements of the initial German successes. The poor status of training of the French, British and Soviets as opposed to intense pre-war education and training programs by the Germans is a key one. The German apolitical, corporative approach to doctrinal development worked concurrently with education and training to develop a common cultural bias and lexicon is another. Numerous victories by the Germans at the beginning of the war can be attributed to the doctrine being clearly understood at all levels and German leaders having the confidence to implement it. The Allies required a considerable train up period to attain a similar level of expertise (a luxury that most likely will not be available in future conflicts). The annihilation and mobile warfare doctrine survived the transition to war. This broad doctrine was very adaptable to the lessons learned that were deemed worthy of adoption. The evolution of the Panzer forces from a nearly tank pure to a more balanced and capable force attests to the ability to adjust the tactics and force structure in the midst of a war, provided the army has a common understanding of the basic doctrine.
The German approach to doctrine was generally apolitical, approached war as an art and was based on a solid foundation of military history. Their system was managed by a collective group of military experts, the German General Staff. While many similarities will be evident during the review of the Soviet doctrinal development system, two notable differences will be obvious: the political factors and the scientific nature in the Soviet system.
We have gotten into the fashion of talking of cavalry tactics, artillery tactics, and infantry tactics. This distinction is nothing but a mere abstraction. There is but one art, and that is the tactics of combined arms. The tactics of a body of mounted troops composed of the three arms is subject to the same established principle as is that of a mixed force in which foot soldiers bulk largely. The only difference is one of mobility.

-Major Gerald Gilbert, British Army, 1907

This British perspective is a succinct summary of the Soviet doctrinal philosophy. In fact, the words above provide better insight to the intended Soviet approach than the official definition below:

VOYENNAYA DOKTRINA (MILITARY DOCTRINE) - A nation's officially accepted system of scientifically founded views on the nature of modern wars and the use of armed forces in them, and also on the requirements arising from these views regarding the country and its armed forces being made ready for war.

Military doctrine has two aspects: political and military-technical. The basic tenets of a military doctrine are determined by a nation's political and military leadership according to the socio-political order, the country's level of economic, scientific and technological development, and the armed forces combat material, with due regard to the conclusions of the military science and the views of the probable enemy. (emphasis added)

In researching the Soviet doctrinal system, it became obvious very quickly that working with secondary and tertiary material would be the only way to avoid becoming bogged down in political rhetoric. Although there is some danger in selecting translations that are inaccurate, there has been a conscious effort to avoid using single source thoughts. The expert opinions and articles of those who have studied Soviet methods throughout the years have also provided a broad database.
The direct translation of the definition of Soviet Military Doctrine does offer some insights, including some of the political rhetoric. To the unindoctrinated, it seems interesting that the scientific and political influences on the development of doctrine are of almost equal importance. A considerable amount has been written on the Soviet's scientific approach to war. In contrast, the Western countries' tendency to approach it more as an art. There are also numerous Western articles on the influence of politics on Soviet doctrine. However, there is not very much open source material available that deals with the actual interworkings of the primary influences on the formulation of Soviet doctrine. The majority of the material addresses the higher level doctrinal work. Study of this higher level provides valuable insight to the emphasis placed on joint and combined warfare. An overview of the total system below also provides many of the answers to the research questions.
The chart depicts the Politburo and the Soviet Communist Party making the final determinations on the military doctrine. This is an accurate representation of where the decisions are made. But several key points are not depicted. The following comments and comparisons...
are offered for consideration:

-Soviet doctrine is said to be "practical"; it is based on capabilities that are either on hand or about to emerge. Doctrine is also dynamic. It must be altered when a changing global environment and rapidly advancing military technologies demand. The doctrine is modified on a five year cycle coincident with the Five Year Plan. Thus, the force structure, the equipment, and the money for the succeeding five years are provided at the same time as the doctrine that is to be implemented during that period, thus producing an integrated approach.

-Soviet doctrine is debated in open forum, unclassified publications, as a question of military science prior to the final recommendation going up to the decision makers. When it appears there has been insufficient debate on portions of the doctrine, debate will then be directed. The Politburo and Communist Party receive input from all five services in developing the doctrine. Once the Five Year Plan and doctrine have been decided, the debate on "current doctrine" will cease and the attention will be shifted to debate of doctrine being considered for the next Five Year Plan.

-The Soviets led the way prior to 1937 in the doctrine of mechanized warfare, but the purges of 1937, combined with a last-minute decision to form mechanized corps, resulted in a force unprepared to handle the "German Blitzkrieg" in 1941-42. This led to extensive adjustments in the Soviet doctrine throughout the war.

- Post war doctrine was firmly tied to the "lessons learned from World War II", but it underwent a major overhaul in the late 1950's
and early 1960's. Stalin's death in 1953 marked the end of an era of
of the Communist Party leader personally dominating the formulation of
military doctrine.\footnote{Since that time, each Five Year Plan has had
"major doctrinal innovation."} In 1960, more than 1.2 million men
were replaced by the "any war = full scale nuclear war" approach. 1966
saw attention shift to the navy anti-carrier warfare and long range
airborne airlift to support the "local war option". 1971 witnessed the
"Intrawar Deterrence" option emerge with counterforce strikes planned
while the general-purpose forces were destined to protect the
countervalue strike capability. 1976 faced the serious possibility
that the use of nuclear weapons might be limited to only theater
nuclear war; this resulted in the importance of general-purpose forces
increasing significantly. The 1980's are experiencing a further shift
in the direction of a long conventional war capability above and beyond
the Soviets' impressive, rebuilt ground force structure. In addition,
their ground forces are supported by credible theater and strategic
nuclear assets.\footnote{Every opportunity to update future doctrine from lessons learned
from Soviet, surrogate, or others' combat experience is actively
pursued. Lessons learned from the Middle East Wars and Afghanistan are
only two examples of the conflicts being discussed in open sources.}
Consistent in each doctrinal period is an absolute involvement
of joint and combined arms to optimize national capability. This
improved capability is calculated, not in competition with the
anticipated foe, but against the weaknesses of the anticipated foe.
Thus, the greatest deterrence and potential war-winning capability is
obtained with the least cost and disruption to the socio-economic programs.76

-Since 1953 the "major doctrinal innovations" have provided a significant challenge to military leadership in attempting to train to a capability to implement the new five year doctrines.77 Considerable discussion continues among all levels of leadership, but underneath all of the changes lies a thread of continuity:

From the Russian Civil War of 1918-21 to the present the Soviets have been remarkably consistent in their (tactical) doctrine. This doctrine envisioned a "deep battle" fought by combined arms mechanized formations that could rupture conventional enemy defenses with artillery, paratroops, air strikes, and the maneuver of mechanized "mobile groups".78

-The significance of the Soviet view of doctrine cannot be over emphasized. Military science is held to be a "unified body of knowledge". As such, its truths and laws are perceived as being discoverable and verifiable.79

In summary, the basic research questions will again be used to provide a framework. The doctrine is compatible with the civilian society by virtue of it being developed "in tune" with the Marxist-Leninist ideological basis of the nation by the political members of the government. This is in contrast to the German apolitical approach. The Five Year Program cycle, in conjunction with the "independent" doctrinal approaches, have been major innovations, nearly revolutionary, causing considerable difficulty for the military leadership. It is difficult to assess the time required to implement
the doctrinal changes during peacetime. The unclassified sources merely refer to difficulties in shifting the educational focus of the large training system. It appears that the doctrinal changes have not had a totally destructive effect on the development of a common lexicon. The opportunity to debate doctrine as a science based on firmly rooted Russian/Soviet experience and Marxist-Leninist social-internal dialectics has formed the common thread for their tactical doctrine. The informed analysis of proposed change is a common trait shared with the Germans and seems to be vital to the success of the Soviet Five Year doctrine anomaly. In neither WW II nor Afghanistan did the tactical doctrine survive the transition to war. But the existence of higher level doctrine ensured the gradual assimilation of the lessons learned in combat.

The Soviet "scientific analysis" of their version of history offers a distinct contrast to the German and western "artistic" approach to doctrine. The Marxist-Leninist basis and the political involvement still result in a similar version of the German model of collective effort to debate-consensus build prior to implementing changes to the doctrine.
CONCLUSIONS

Clausewitz developed the philosophy of the grand battle from his studies and experience in the Napoleonic Wars. His conclusion was that Napoleon's success was the direct result of great bloody battles. Napoleon would attack the enemy in a fashion that would force the commitment of all of the enemy's reserves. Bonaparte would then attack with every fresh and unengaged soldier in one crushing blow. During WW I, the beligerents used these tactics for four years on the Western Front. Each report of high casualties in this battle of attrition was offered by Clausewitz's followers as "proof" that the doctrine was working. 30

It should be amazing that this example of wrong doctrine being justified with inaccurate theoretical interpretations could occur in modern times when history has other examples of the wrong doctrine for the times. "Knowing why, when, and how to change is key to maintaining an Army's effectiveness." 31 Yet history is replete with examples of senior military and civilian leaders failing to visualize the essential changes in doctrine as technology changed. In 1863, the increased range and accuracy of fire arms demonstrated that the blind faith in the Napoleonic battle was misplaced. 32 If the American Civil War was not sufficient evidence, the Prussian victories over the Austrians should have been:

As conditions of warfare change, the methods and techniques of our doctrine must evolve with them. 33 (emphasis added)
If some debate on the value and the preferred approach to doctrinal development remains, it would seem self-evident that codifying the definition of doctrine and developing an evolutionary approach will have the best potential of success. The model presented by LTC Drew, the Doctrinal Tree, provides a very graphic representation that could be used to educate the military and civilian leaders.

This study does not portend to have identified even the majority of the issues. However, it does offer proposals that can provide a healthier environment for the growth of sound doctrine. The following nutrients for the Doctrinal Tree are considered essential:

- Remove the perception that U.S. doctrine is interim or transient. German and Soviet history adequately demonstrate the value of developing a common lexicon and understanding of the basic doctrine. Eliminating this perception of having transient doctrine is still the largest challenge faced by U.S. senior leadership. While the challenge is easily stated, it has enormous implications. Dropping the 'Army parochialism' and earnestly leading the way in developing true joint and combined doctrine is just one of the major steps. The Chairman of the Joint Chiefs of Staff and the Secretary of Defense need to take charge and demonstrate to the National Security Council and Congress a team effort. The team effort in place of the "obvious tug-a-war for preeminence" that currently exists between the armed services would produce much better deterrence. This would also allow the policy makers to concentrate on setting longer term and more explicit national security guidance.
-Insist that lessons from history are properly used rather than abused. The tendency of many is to use history to prove a preconceived notion, ignoring those portions of history that do not support it. History used with the proper rigor will offer objective insights and lessons learned for development of new doctrine, rather than to confirm existing doctrine.

-Debate all proposed changes thoroughly prior to implementation. Use a composite of the German and Soviet models of doctrinal debate to analyze thoroughly any proposed changes. The Soviet system of doctrine and force development maximizes the total system. The German system obtains the full support of the military leadership through seminars and debates at all levels prior to implementation. The current US system appears to optimize subsystems and dictate new doctrine that is debated openly after it is put into effect. The debate normally continues during its entire life span. Thus, the nation is left to depend on the technical edge to ensure victory, giving a false sense of technical security and damaging the credibility of our senior leadership.

-Remove any military decision-makers found to be operating on "their own agenda". The German and Soviet systems dampen this potential by requiring that all proposed changes be justified in the debate arena. All too frequently in the U.S. Army it appears that the true impetus for change is to further one's own career or fix only a very small part of the problem. The perception is the pieces that are fixed are those that have been a personal irritant. This "I fixed it" mode of operating is recognized as the American way, but it merely
adds to the turbulence when dealing with military doctrine. The American system also breeds contempt for patience. Jokingly, patience is referred to as a virtue by those that demonstrate its absence. The "quick food and convenience" orientation of our society and business sectors must be avoided when developing the doctrine for defense of our nation.  

-Teach the doctrine uniformly and strictly enforce common control measures and language but demand individual initiative in implementing the doctrine.

-Reduce the duplication of published material in field manuals. The German system should be studied as a potential model. Concurrently insist that FM 100-5 is the basis of all other doctrinal assertion on conventional land warfare.

-Use the Center for Army Lessons Learned in peacetime to develop the capability for rapid doctrinal change to accommodate those changes that are not made before the outbreak of hostilities. The critical analysis of lessons learned during peace and war proved critical to German and Soviet successes.

-Dampen radical changes. The challenges that we face are not short term. The cost of war-fighting systems and the time to train on new doctrine can not be squandered on neat ideas that are short term fixes. Quick fixes have shorter and shorter half-lives as the complexity of war and the time required to prepare for war increases. Analysis of the German and Soviet systems of doctrine development would indicate that a critical element of success is the ability to develop a vision of the future. A reasonably accurate vision of the future will
allow the development of doctrine that can be evolved over a relatively long period. Success is then not guaranteed to the military organization that develops a new weapon and new doctrine. It is the military that develops ways of using the new weapon to support the evolving doctrine that will be successful in future wars.

A recent article by ADM Crowe, Chairman of the Joint Chiefs of Staff, on officer education offers an appropriate summary of the current challenge:

When the American civil-military partnership has been united, with each element conscious of its utter dependence on the other, it has been unbeatable. But when its bonds have weakened, the nation's defenses have withered, and our course on a troubled globe has wavered dangerously. All Americans have a vital interest in the nurturing of the cooperative venture—the civil-military team—that keeps this nation strong and effective on the world scene.

If these conclusions had not already been drafted before ADM Crowe's article was published, this paper might have appeared to be a poor copy. But ADM Crowe's article is much broader in scope and only the similarities will be addressed. Several of the challenges made by ADM Crowe affect Army doctrine and are paraphrased below:

- Education must bridge the gap between the services and between military and civilian counterparts.
- Everyone involved in national defense must work to achieve an optimum balance between national security and the resources controlled by Congress.
- A consensual formula must be devised to stabilize our investment "over the long haul"—get away from the peaks and valleys that wreak...
havoc with the system.

- Articulate to our civilian constituents the U.S. defense needs and true capabilities. The American public quickly loses sight of the need for a strong military.

ADM Crowe's challenge focuses more on the issues that affect our ability to develop joint doctrine, but many similar parochial roadblocks exist within the Army. It is exactly this parochial view of developing doctrine that all the armed services struggle with on a daily basis.
IMPLICATIONS

Doctrine is only one of the four variables—technology, environment, doctrine and politics—that the U.S. Army must be prepared to adjust to in peacetime. During war the number of variables cannot be estimated. Regardless of peace or war, the Army will change over time, for better or worse. As the rate of technological change increases, the rate of doctrinal change accelerates proportionately if unchecked. Throughout history, change has been critical to the success or failure of nations. The only difference today is that technological changes are at an all-time high and will steadily accelerate for the foreseeable future, leading us into new environments. The United States Army is at a critical crossroad. It has a wealth of history to provide insights, and at no time in recent history has it devoted the amount of effort currently being expended to develop professional depth within its ranks. It has high quality soldiers and unprecedented equipment modernization programs. If the Army can unify to eliminate the "branch parochialism", the true maximum potential will be realized.

CBRS was introduced as the solution to the "doctrine and force structure gap", and it is very possible that it can be adjusted to provide that link. This subject requires additional study. But whatever system is selected, it must be capable of directing the changes rather than reacting to them and thus losing the initiative. The approach must also be consensus building to minimize the debate of current doctrine and maintain a vision of the future.

The United States Army is at a critical crossroad. It has a wealth of history to provide insights, and at no time in recent history has it devoted the amount of effort currently being expended to develop professional depth within its ranks. It has high quality soldiers and unprecedented equipment modernization programs. If the Army can unify to eliminate the "branch parochialism", the true maximum potential will be realized.

40
start to emerge. If this can be accomplished in conjunction with a careful screening of the bits and pieces of history to identify those that are still relevant and sociologically acceptable, major strides will have been taken.

AirLand Battle Doctrine is a major step towards producing a far-sighted and unified doctrine. But it will also be scrapped as a political expedient if it is not fully supported within the Army and civilian circles. The final test for ALB is if it can be further integrated as joint doctrine. Until the military and political leadership is willing to risk the long-term view and build the doctrine in an evolutionary and consensus building manner, there will never be a uniformly accepted doctrine. The absence of a uniformly accepted doctrine makes the United States a prime candidate for becoming another statistic in the commonplace history of nations that required a crushing defeat before it could face the reforms required to remain a vital nation.
ENDNOTES


8. GEN Carl Vouno's briefing ARCHITECTURE FOR THE FUTURE ARMY, Jan 1987 at the TRADOC Commanders Conference.


11. Samuel P Huntington, OP.CIT., pp. 76-82.


17. David A. Petraeus, OP.CIT., P.45.

18. IBID., p. 44.


23. IBID., pp. 56-60.

24. IBID., pp. 56-60.

25. IBID., pp. 56-60.

26. Excerpt from a compilation of terms by the students of the School of Advanced Military Studies, CGSC, Fort Leavenworth, Ks., Class 86-87.


32. MAJ Robert A. Fitton, "A Perspective on Doctrine: Dispelling the Mystery", MILITARY REVIEW, (Fort Leavenworth, Ks.: U.S. Army CGSC, Feb, 1985), p. 64.


34. IBID., p. 65.

35. IBID., p. 64.


37. IBID., p. 65.


39. IBID., p. 56.


43. IBID., pp. 87-95.

44. IBID., p. 47.

45. Guest discussant at a presentation to the School of Advanced Military Studies on 1 May 1987.

46. IBID.

47. LTC Charles D. Friedenstein, OP.CIT., p. 13.


51. Jay Luvaas, OP.CIT., p. 60.

52. Jay Luvaas, OP.CIT., p. 60.


56. Timothy T. Lupfer, OP.CIT., p. 57.

57. HEERESDIENSTVORSCHRIFT (HDv)300/1, TRUPPENFUHRUNG, the single doctrinal statement of the German approach to large formations, published in 1936.

58. Daniel J. Hughes, OP.CIT., p. 73.

59. IBID., p. 69.

60. IBID., p. 69.


64. MAJ(P) John Nelson in discussions of the doctrine of the era at the School of Advanced Military Studies. MAJ Nelson has conducted lengthy primary source research of German military history.
65. CPT Johnathan M. House, OP.CIT., p. 184.

66. DICTIONARY OF BASIC MILITARY TERMS, A SOVIET VIEW, translated by the DGIS Multilingual Section, Dept of State, Ottawa, Canada, under the auspices of the U.S. Air Force.


68. IBID., p. 10.

69. THE DEVELOPMENT OF SOVIET DOCTRINAL OPTIONS, a speech before Congress in 1982.


73. MAJ Kenneth M. Currie, OP.CIT., p. 16.

74. THE DEVELOPMENT OF SOVIET DOCTRINAL OPTIONS, OP.CIT., p. 3.

75. Dr Jonathan R. Adelman, OP.CIT., pp. 24-34.


77. MAJ Wendell D. Cot, CHANGES IN SOVIET TACTICAL DOCTRINE, (Maxwell AFB, Al: Air Command and Staff College, Apr, 1978), pp. 50-64.

78. CPT Jonathan M. House, OP.CIT., p. 184.

79. MAJ Kenneth M. Currie, OP.CIT., p. 10.

80. MAJ Charles D. McFetridge, OP.CIT., p. 74.

81. COL Huba Wass de Czege, OP.CIT., p. 33.

82. Jay Luvaas, OP.CIT., p. 57.

83. COL Huba Wass de Czege, OP.CIT., p. 33.


86. Jay Luvaas, "Military History...., p. 16.

87. LTC Patrick M. Hughes, THINKPIECE, an unpublished paper prepared as an Advanced Operational Studies Fellow at Fort Leavenworth, Ks, 1986.


89. Herbert Stein, OP.CIT., p. 179.

90. LTC Douglas Craft, a study conducted for the Deputy Commandant, CGSC, on the methods and quality of tactics instruction throughout the Army, dated 10 Jun 1986.

91. LTC Patrick M. Hughes, THINKPIECE, OP.CIT.


93. COL Huba Wass de Czege, OP.CIT., p. 33.

94. IBID. p.48.

BIBLIOGRAPHY

BOOKS


GOVERNMENT PUBLICATIONS


NDU Monograph, JOINT AND COMBINED OPERATIONS AT THE OPERATIONAL LEVEL


ARTICLES AND PERIODICALS


Boles, CPT John K., SOVIET ARMORED DOCTRINE, Monterey Foreign Institute of studies, June, 1978.


Hughes, P. I. J., "Abuses of German Military History", MILITARY


Kot, MAJ Wendell D., CHANGES IN SOVIET TACTICAL DOCTRINE, Air Command and Staff College, Aor, 1978.


McFetridge, MAJ(P) Charles D., "Is War Too Important For Generals?", MILITARY REVIEW, Sep, 1986.


Morelock, MAJ(P) Jerry D., "The Legacy of Liddle Hart", MILITARY
Petraeus, David A., "Lessons of History and Lessons of Vietnam", 
PARAMETERS, Autumn, 1986.

Schneider, James J., THEORY, a draft chapter of a unpublished book on 
the Operational Level of War, School of Advanced Military Studies, 
Fort Leavenworth, Ks., 1987.

Scott Hariett F., SOVIET MILITARY DOCTRINE: ITS CONTINUITY 1960-1970, 

Stein, Herbert, "Why Defense is Mismanaged, Political Pressure 
and Hidden Agendas Keep Getting in the Way of the Strength 

Wass de Czege, COL Huba, "How to Change an Army", MILITARY REVIEW, Nov. 
1984.

Winton, Harold R., "Epilogue and Conclusions", of manuscript, GENERAL 
SIR JOHN BURNETT-STUART AND BRITISH ARMORED DOCTRINE, 1927-1938, to be 